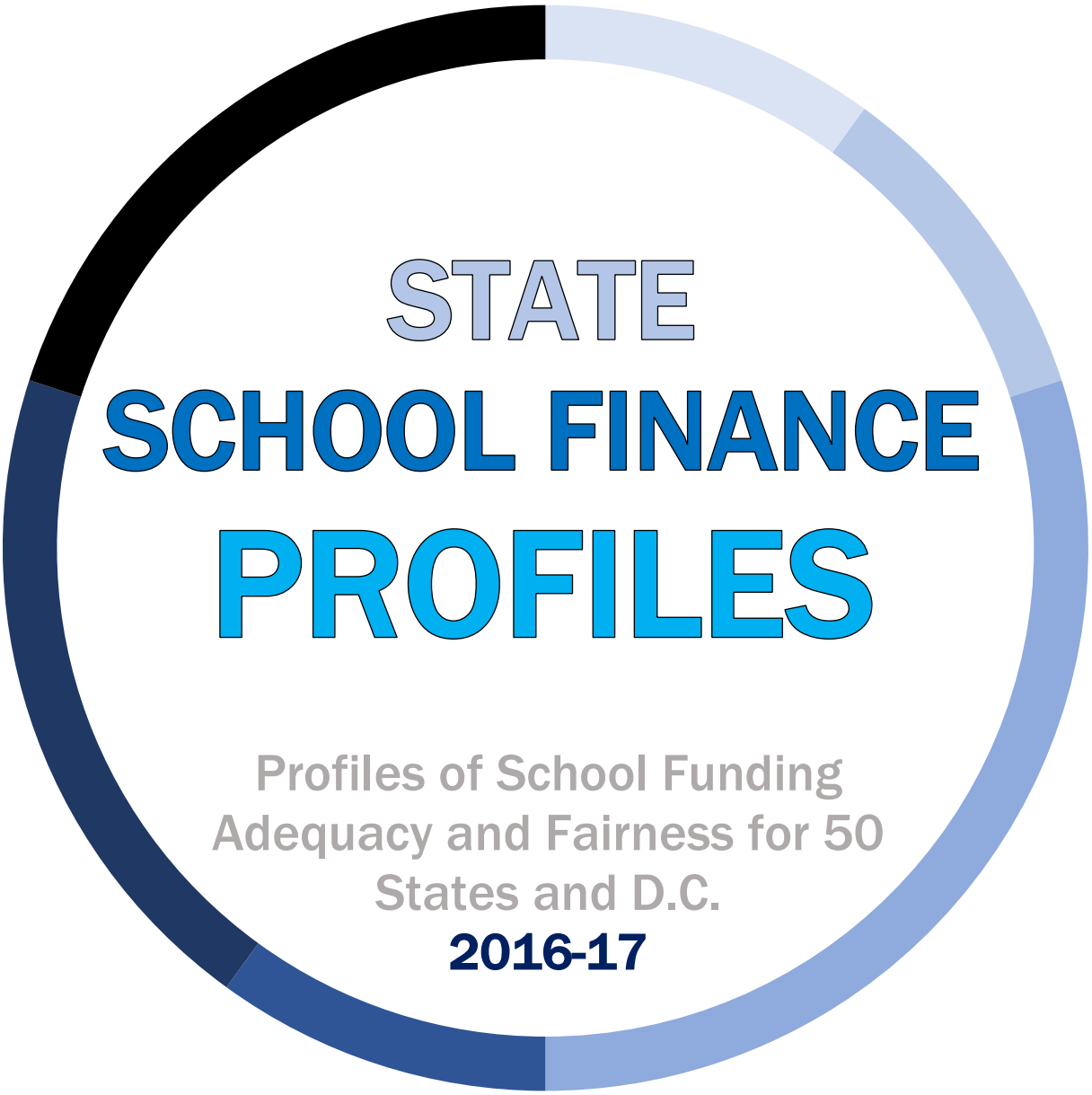


STATE SCHOOL FINANCE PROFILES

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

2016-17

Bruce D. Baker
Matthew Di Carlo
Lauren Schneider
Mark Weber

ALBERT SHANKER INSTITUTE

RUTGERS Graduate School of Education

October 2020

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 completing a master's 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 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, often leading to 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 is based on sophisticated and widely accepted methods, but is also designed to be easy for non-researchers to understand and use. The data, as well as user-friendly documentation, online data visualizations, and other resources are freely available to the public at the SFID website: schoolfinancedata.org.

Despite the emphasis on accessibility, the fact remains that downloading and analyzing datasets, as well as compiling and contextualizing results from a variety of different measures, can be difficult and time-consuming. The 51 one-page state profiles that follow 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.

It is important to note that the latest year of data presented in the state profiles is 2016-17, which means the data **predate the coronavirus pandemic and accompanying economic recession** by a few years. It will be some time before we are able to publish the SFID data for a time period that reflects the impact of this crisis. In the meantime, it is important for policymakers and the public to examine and understand their school finance systems, even as they were prior to the pandemic. The features and performance of each state's system will undoubtedly determine the severity and duration of the current recession'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 130 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 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.

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

ALABAMA

Description: This 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.

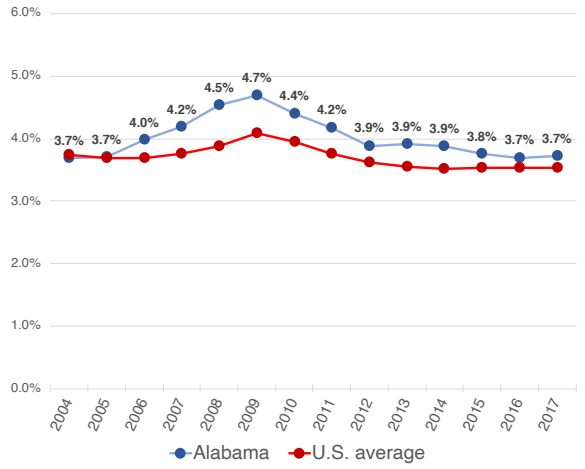
CONTEXTUAL STATS	AL	U.S.
Child (5-17yo) poverty rate (%)	22.8	17.3
Public school coverage (%)	88.0	87.8
Pct. revenue from state sources	55.0	47.1
Total enrollment (U.S. rank)	744,930 (24)	

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	3.72 %
U.S. average	3.53 %

- In FY 2017, Alabama spent 3.72% of its economic capacity directly on K-12 education.
- This was 0.19 percentage points higher than the unweighted national average of 3.53%.
- Alabama's effort level ranks #18 in the nation (out of 50).



Effort trends, 2004-17

- Effort in AL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.68% in 2004 to 4.69% in 2009.

Net change by period (% pts.)

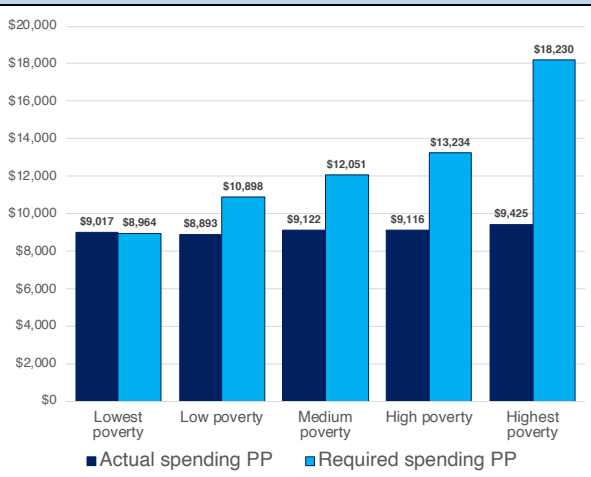
Period	AL	U.S.
2004-2009	1.00	0.35
2009-2017	-0.96	-0.56
2004-2017	0.04	-0.21

- This was followed by a decrease of 0.96 percentage points between 2009 and 2017.
- AL's effort was 0.04 percentage points higher in 2017 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 $8,804 PP lower than the estimated adequate level ($18,230), a difference of -48.3%.
- Districts in Alabama's second highest poverty quintile receive 31.1% less than the estimated adequate level.



Adequacy: AL vs. US average

Percent above / below adequate

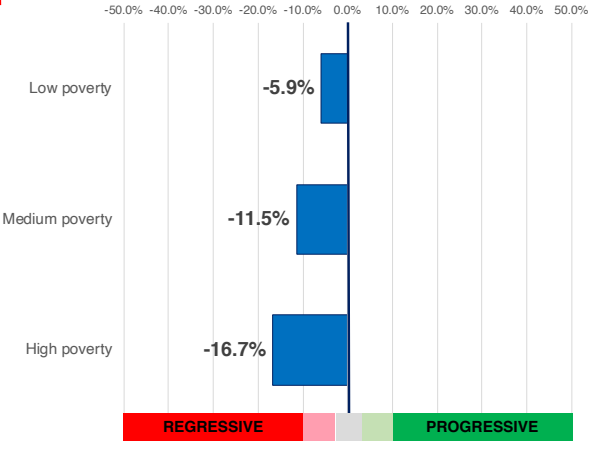
Poverty quintile	AL	U.S.
Lowest poverty	0.6	23.2
Low poverty	-18.4	6.2
Medium poverty	-24.3	-6.3
High poverty	-31.1	-22.1
Highest poverty	-48.3	-28.2

- In its highest poverty districts, Alabama's spending is 48.3% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Alabama's highest poverty districts ranks #45 in the nation (out of 50).

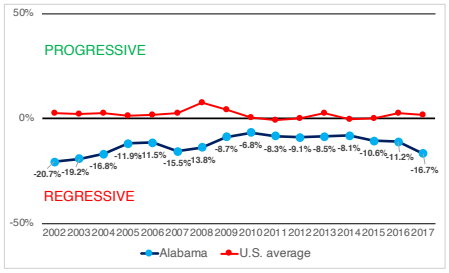
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Alabama is regressive.
- High poverty districts receive 16.7% less revenue than zero poverty districts (this level of progressivity ranks #44 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- AL's funding was less regressive in 2017 (-16.7%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

ALASKA

Description: This 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.

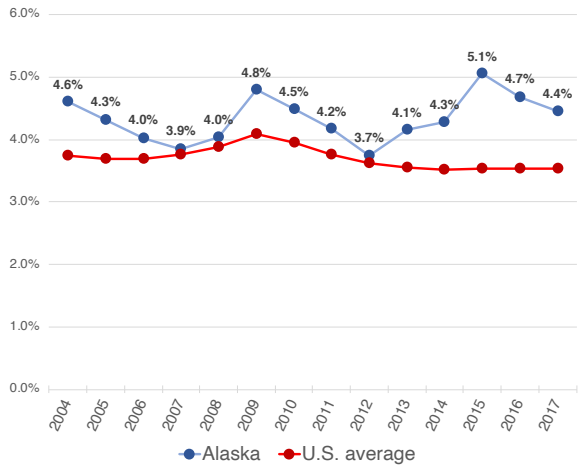
CONTEXTUAL STATS	AK	U.S.
Child (5-17yo) poverty rate (%)	13.3	17.3
Public school coverage (%)	88.4	87.8
Pct. revenue from state sources	63.9	47.1
Total enrollment (U.S. rank)	132,737 (47)	

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	4.45 %
U.S. average	3.53 %

- In FY 2017, Alaska spent 4.45% of its economic capacity directly on K-12 education.
- This was 0.91 percentage points higher than the unweighted national average of 3.53%.
- Alaska's effort level ranks #5 in the nation (out of 50).



Effort trends, 2004-17

- Effort in AK increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.60% in 2004 to 4.79% in 2009.

Net change by period (% pts.)

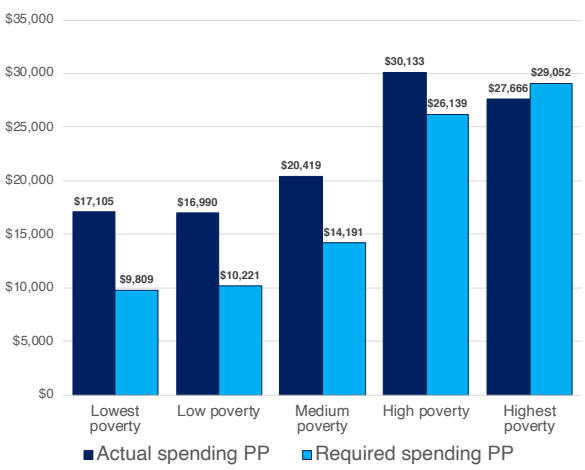
Period	AK	U.S.
2004-2009	0.19	0.35
2009-2017	-0.35	-0.56
2004-2017	-0.16	-0.21

- This was followed by a decrease of 0.35 percentage points between 2009 and 2017.
- AK's effort was 0.16 percentage points lower in 2017 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 $1,386 PP lower than the estimated adequate level ($29,052), a difference of -4.8%.
- Districts in Alaska's second highest poverty quintile receive 15.3% more than the estimated adequate level.



Adequacy: AK vs. US average

Percent above / below adequate

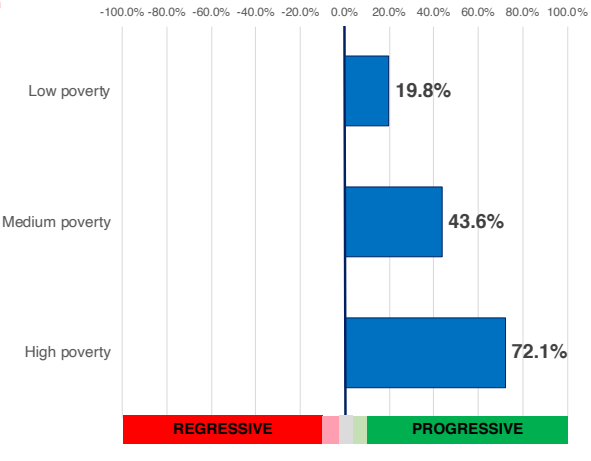
Poverty quintile	AK	U.S.
Lowest poverty	74.4	23.2
Low poverty	66.2	6.2
Medium poverty	43.9	-6.3
High poverty	15.3	-22.1
Highest poverty	-4.8	-28.2

- In its highest poverty districts, Alaska's spending is 4.8% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Alaska's highest poverty districts ranks #9 in the nation (out of 50).

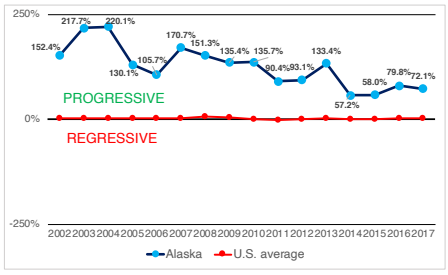
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Alaska is progressive.
- High poverty districts receive 72.1% more revenue than zero poverty districts (this level of progressivity ranks #2 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- AK's funding was more regressive in 2017 (72.1%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

ARIZONA

Description: This 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.

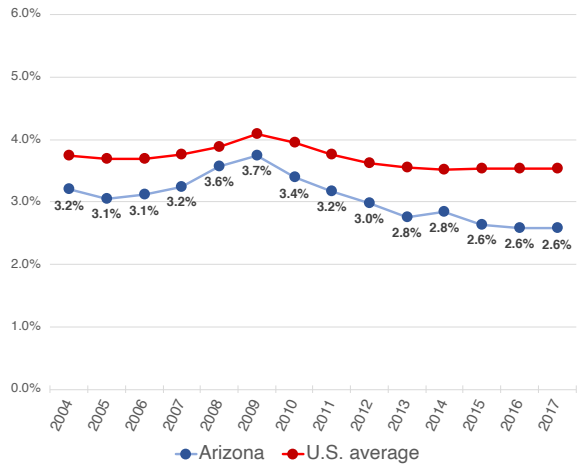
CONTEXTUAL STATS	AZ	U.S.
Child (5-17yo) poverty rate (%)	19.7	17.3
Public school coverage (%)	90.2	87.8
Pct. revenue from state sources	40.1	47.1
Total enrollment (U.S. rank)	1,123,137	(13)

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	2.58 %
U.S. average	3.53 %

- In FY 2017, Arizona spent 2.58% of its economic capacity directly on K-12 education.
- This was 0.96 percentage points lower than the unweighted national average of 3.53%.
- Arizona's effort level ranks #49 in the nation (out of 50).



Effort trends, 2004-17

- Effort in AZ increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.20% in 2004 to 3.75% in 2009.

Net change by period (% pts.)

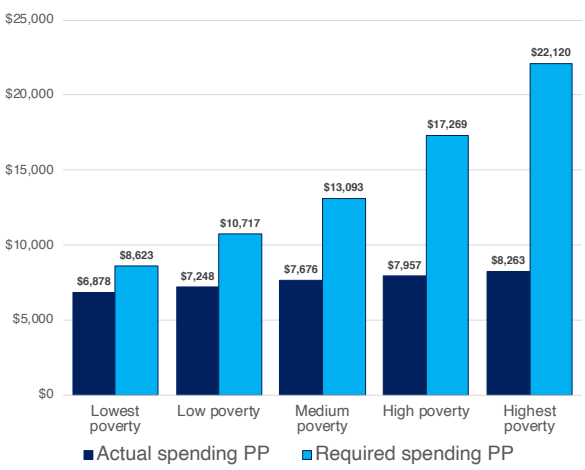
Period	AZ	U.S.
2004-2009	0.55	0.35
2009-2017	-1.17	-0.56
2004-2017	-0.62	-0.21

- This was followed by a decrease of 1.17 percentage points between 2009 and 2017.
- AZ's effort was 0.62 percentage points lower in 2017 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 $13,857 PP lower than the estimated adequate level ($22,120), a difference of -62.6%.
- Districts in Arizona's second highest poverty quintile receive 53.9% less than the estimated adequate level.



Adequacy: AZ vs. US average

Percent above / below adequate

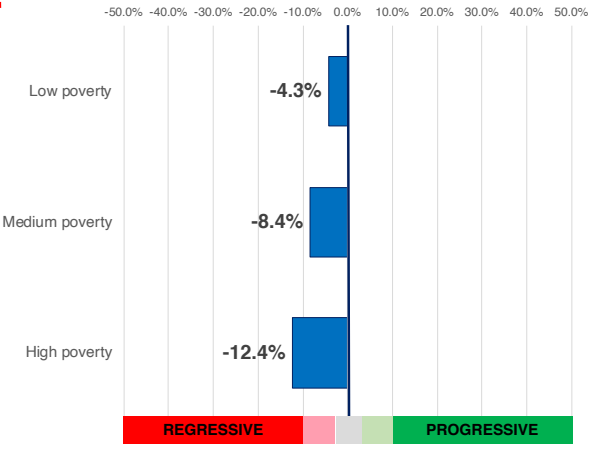
Poverty quintile	AZ	U.S.
Lowest poverty	-20.2	23.2
Low poverty	-32.4	6.2
Medium poverty	-41.4	-6.3
High poverty	-53.9	-22.1
Highest poverty	-62.6	-28.2

- In its highest poverty districts, Arizona's spending is 62.6% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Arizona's highest poverty districts ranks #50 in the nation (out of 50).

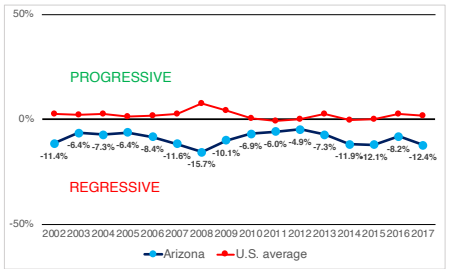
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Arizona is regressive.
- High 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), 2002-17



- AZ's funding was more regressive in 2017 (-12.4%) vs. 2002 (-11.4%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

ARKANSAS

Description: This 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.

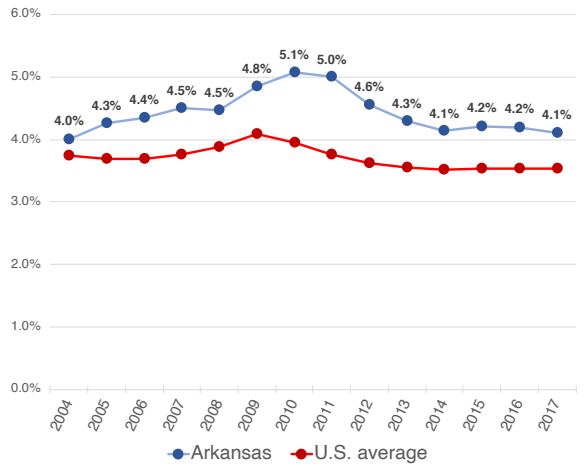
CONTEXTUAL STATS	AR	U.S.
Child (5-17yo) poverty rate (%)	21.2	17.3
Public school coverage (%)	90.8	87.8
Pct. revenue from state sources	75.8	47.1
Total enrollment (U.S. rank)	493,447 (33)	

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	4.11 %
U.S. average	3.53 %

- In FY 2017, Arkansas spent 4.11% of its economic capacity directly on K-12 education.
- This was 0.57 percentage points higher than the unweighted national average of 3.53%.
- Arkansas's effort level ranks #10 in the nation (out of 50).



Effort trends, 2004-17

- Effort in AR increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.01% in 2004 to 4.84% in 2009.

Net change by period (% pts.)

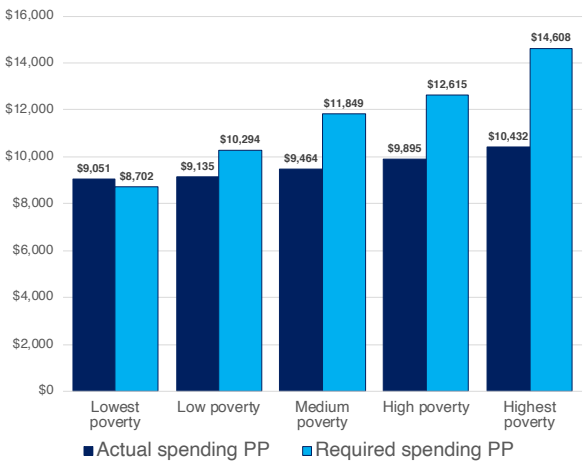
Period	AR	U.S.
2004-2009	0.83	0.35
2009-2017	-0.73	-0.56
2004-2017	0.10	-0.21

- This was followed by a decrease of 0.73 percentage points between 2009 and 2017.
- AR's effort was 0.10 percentage points higher in 2017 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 $4,177 PP lower than the estimated adequate level ($14,608), a difference of -28.6%.
- Districts in Arkansas's second highest poverty quintile receive 21.6% less than the estimated adequate level.



Adequacy: AR vs. US average

Percent above / below adequate

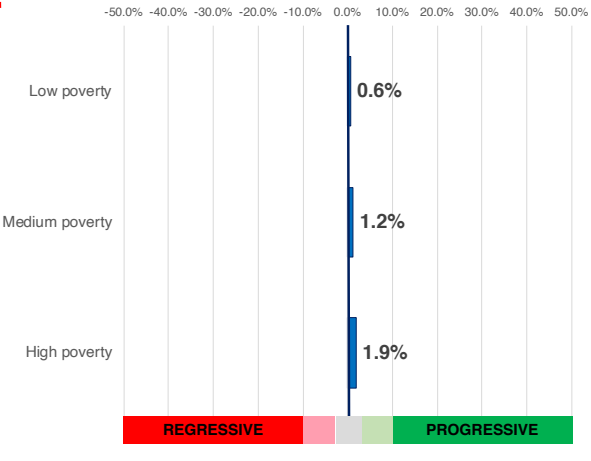
Poverty quintile	AR	U.S.
Lowest poverty	4.0	23.2
Low poverty	-11.3	6.2
Medium poverty	-20.1	-6.3
High poverty	-21.6	-22.1
Highest poverty	-28.6	-28.2

- In its highest poverty districts, Arkansas's spending is 28.6% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Arkansas's highest poverty districts ranks #27 in the nation (out of 50).

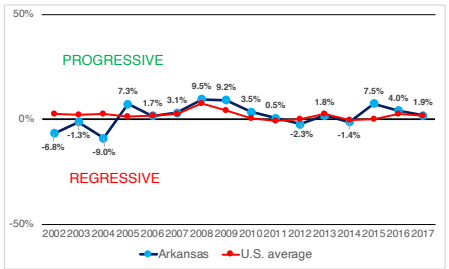
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Arkansas is neither progressive nor regressive.
- High poverty districts receive 1.9% more revenue than zero poverty districts (this level of progressivity ranks #19 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- AR's funding was more progressive in 2017 (1.9%) vs. 2002 (-6.8%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

CALIFORNIA

Description: This 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.

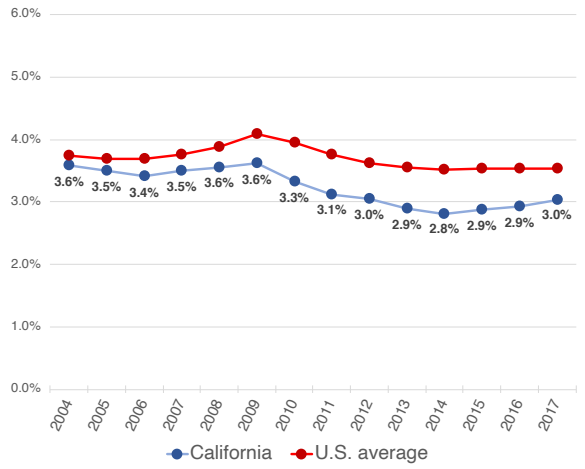
CONTEXTUAL STATS	CA	U.S.
Child (5-17yo) poverty rate (%)	17.4	17.3
Public school coverage (%)	89.7	87.8
Pct. revenue from state sources	57.3	47.1
Total enrollment (U.S. rank)	6,309,138 (1)	

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	3.04 %
U.S. average	3.53 %

- In FY 2017, California spent 3.04% of its economic capacity directly on K-12 education.
- This was 0.50 percentage points lower than the unweighted national average of 3.53%.
- California's effort level ranks #40 in the nation (out of 50).



Effort trends, 2004-17

- Effort in CA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.58% in 2004 to 3.62% in 2009.

Net change by period (% pts.)

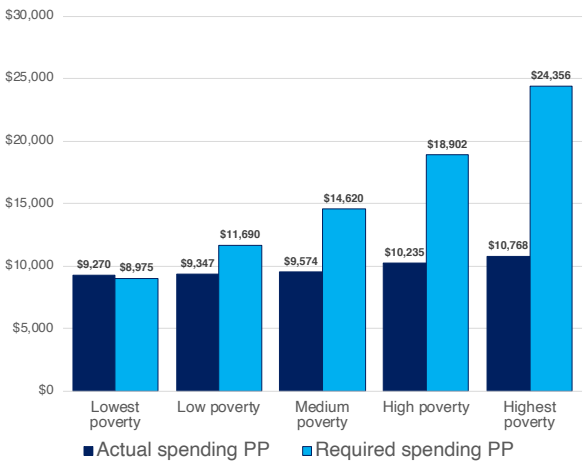
Period	CA	U.S.
2004-2009	0.04	0.35
2009-2017	-0.59	-0.56
2004-2017	-0.55	-0.21

- This was followed by a decrease of 0.59 percentage points between 2009 and 2017.
- CA's effort was 0.55 percentage points lower in 2017 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 $13,588 PP lower than the estimated adequate level ($24,356), a difference of -55.8%.
- Districts in California's second highest poverty quintile receive 45.9% less than the estimated adequate level.



Adequacy: CA vs. US average

Percent above / below adequate

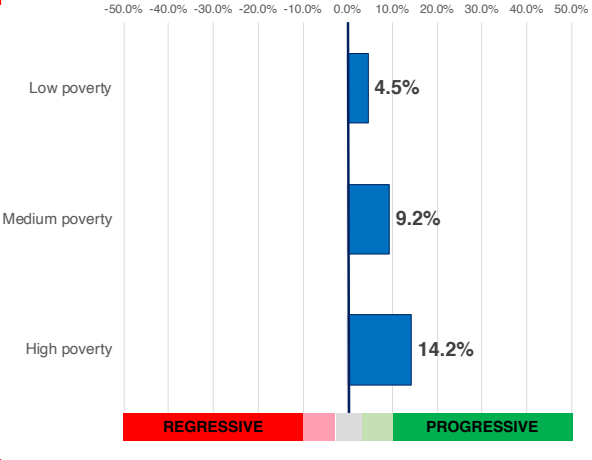
Poverty quintile	CA	U.S.
Lowest poverty	3.3	23.2
Low poverty	-20.0	6.2
Medium poverty	-34.5	-6.3
High poverty	-45.9	-22.1
Highest poverty	-55.8	-28.2

- In its highest poverty districts, California's spending is 55.8% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in California's highest poverty districts ranks #48 in the nation (out of 50).

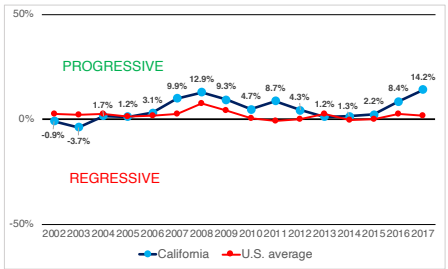
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in California is progressive.
- High poverty districts receive 14.2% more revenue than zero poverty districts (this level of progressivity ranks #7 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- CA's funding was more progressive in 2017 (14.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

COLORADO

Description: This 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.

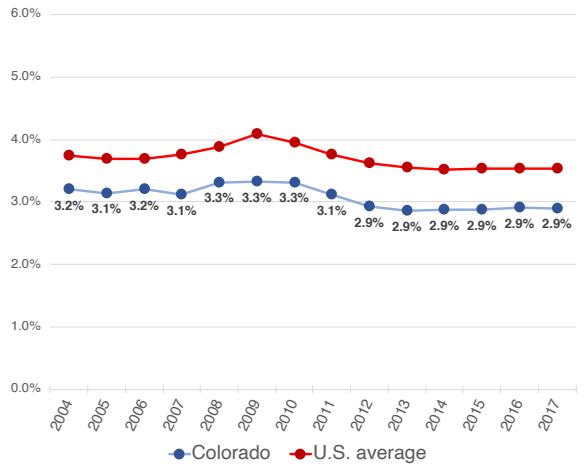
CONTEXTUAL STATS	CO	U.S.
Child (5-17yo) poverty rate (%)	11.4	17.3
Public school coverage (%)	91.0	87.8
Pct. revenue from state sources	43.1	47.1
Total enrollment (U.S. rank)	905,019 (19)	

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	2.90 %
U.S. average	3.53 %

- In FY 2017, Colorado spent 2.90% of its economic capacity directly on K-12 education.
- This was 0.63 percentage points lower than the unweighted national average of 3.53%.
- Colorado's effort level ranks #44 in the nation (out of 50).



Effort trends, 2004-17

- 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 3.32% in 2009.

Net change by period (% pts.)

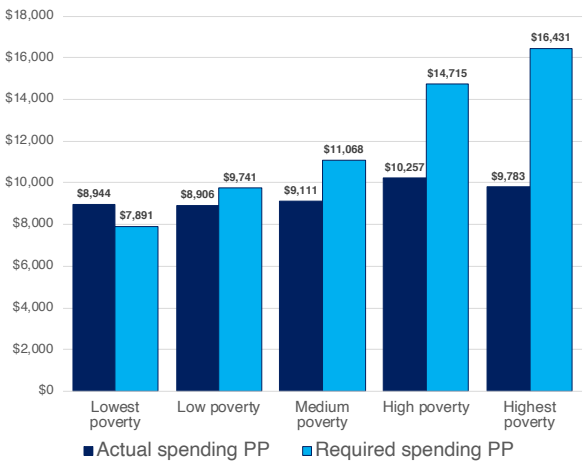
Period	CO	U.S.
2004-2009	0.12	0.35
2009-2017	-0.42	-0.56
2004-2017	-0.30	-0.21

- This was followed by a decrease of 0.42 percentage points between 2009 and 2017.
- CO's effort was 0.30 percentage points lower in 2017 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 $6,648 PP lower than the estimated adequate level ($16,431), a difference of -40.5%.
- Districts in Colorado's second highest poverty quintile receive 30.3% less than the estimated adequate level.



Adequacy: CO vs. US average

Percent above / below adequate

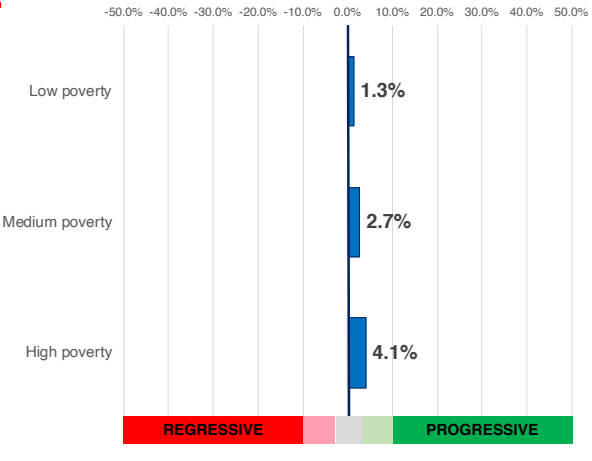
Poverty quintile	CO	U.S.
Lowest poverty	13.3	23.2
Low poverty	-8.6	6.2
Medium poverty	-17.7	-6.3
High poverty	-30.3	-22.1
Highest poverty	-40.5	-28.2

- In its highest poverty districts, Colorado's spending is 40.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Colorado's highest poverty districts ranks #39 in the nation (out of 50).

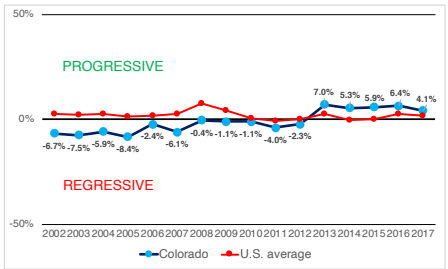
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Colorado is moderately progressive.
- High poverty districts receive 4.1% more revenue than zero poverty districts (this level of progressivity ranks #14 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- CO's funding was more progressive in 2017 (4.1%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

CONNECTICUT

Description: This 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.

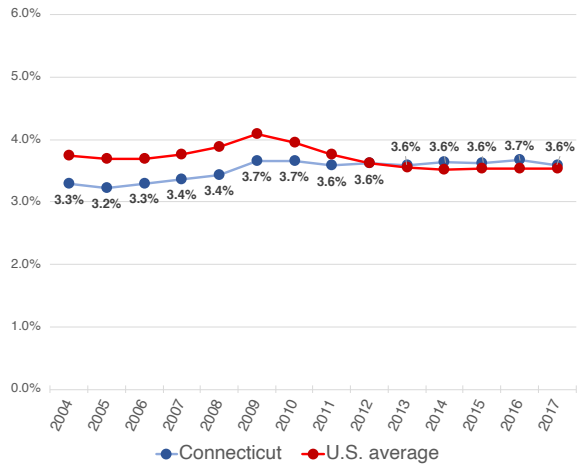
CONTEXTUAL STATS	CT	U.S.
Child (5-17yo) poverty rate (%)	12.3	17.3
Public school coverage (%)	88.1	87.8
Pct. revenue from state sources	38.0	47.1
Total enrollment (U.S. rank)	535,118 (30)	

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	3.59 %
U.S. average	3.53 %

- In FY 2017, Connecticut spent 3.59% of its economic capacity directly on K-12 education.
- This was 0.05 percentage points higher than the unweighted national average of 3.53%.
- Connecticut's effort level ranks #22 in the nation (out of 50).



Effort trends, 2004-17

- Effort in CT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.29% in 2004 to 3.66% in 2009.

Net change by period (% pts.)

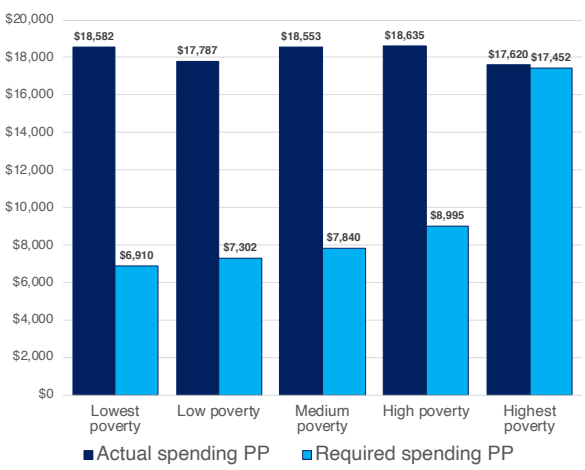
Period	CT	U.S.
2004-2009	0.38	0.35
2009-2017	-0.08	-0.56
2004-2017	0.30	-0.21

- This was followed by a decrease of 0.08 percentage points between 2009 and 2017.
- CT's effort was 0.30 percentage points higher in 2017 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 $167 PP higher than the estimated adequate level ($17,452), a difference of 1.0%.
- Districts in Connecticut's second highest poverty quintile receive 107.2% more than the estimated adequate level.



Adequacy: CT vs. US average

Percent above / below adequate

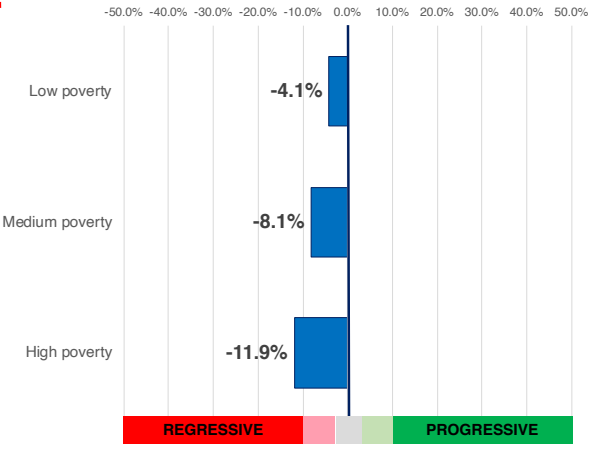
Poverty quintile	CT	U.S.
Lowest poverty	168.9	23.2
Low poverty	143.6	6.2
Medium poverty	136.7	-6.3
High poverty	107.2	-22.1
Highest poverty	1.0	-28.2

- In its highest poverty districts, Connecticut's spending is 1.0% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Connecticut's highest poverty districts ranks #5 in the nation (out of 50).

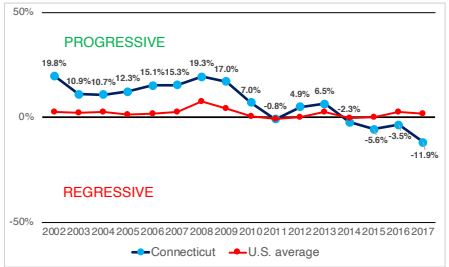
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Connecticut is regressive.
- High poverty districts receive 11.9% less revenue than zero poverty districts (this level of progressivity ranks #41 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- CT's funding was more regressive in 2017 (-11.9%) vs. 2002 (19.8%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

DISTRICT OF COLUMBIA

Description: This 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 (%)	26.0	17.3
Public school coverage (%)	79.3	87.8
Pct. revenue from state sources	n/a	47.1
Total enrollment (U.S. rank)	85,850 (51)	

FISCAL EFFORT

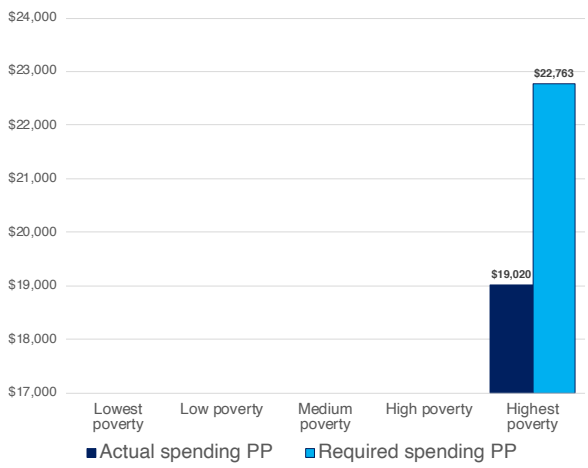
Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Fiscal effort is not calculated for the District of Columbia, as the state-level "economic capacity" denominators (e.g., GSP) are not available.

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 D.C.'s highest poverty districts is $3,743 PP lower than the estimated adequate level ($22,763), a difference of -16.4%.
- ⊕ **Note**: *Due to the structure of D.C.'s school system, adequacy estimates are available only for the highest poverty quintile.*



Adequacy: DC vs. US average

Percent above / below adequate

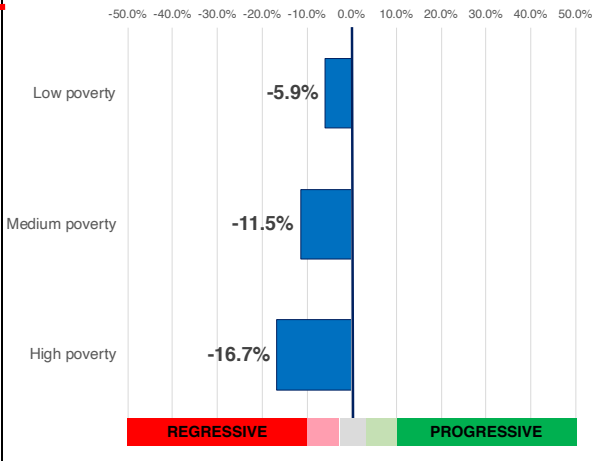
Poverty quintile	DC	U.S.
Lowest poverty	n/a	23.2
Low poverty	n/a	6.2
Medium poverty	n/a	-6.3
High poverty	n/a	-22.1
Highest poverty	-16.4	-28.2

- ⊕ In its highest poverty districts, D.C.'s spending is 16.4% below the adequate level, compared with a -28.2% U.S. average.
- ⊕ Adequacy in D.C.'s highest poverty districts ranks #17 in the nation (out of 50).

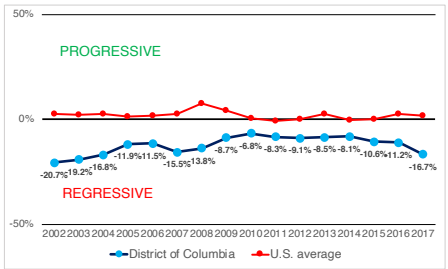
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- ⊕ School funding in D.C. is regressive.
- ⊕ High poverty districts receive 16.7% less revenue than zero poverty districts (this level of progressivity ranks #45 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ⊕ D.C.'s funding was less regressive in 2017 (-16.7%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

DELAWARE

Description: This 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.

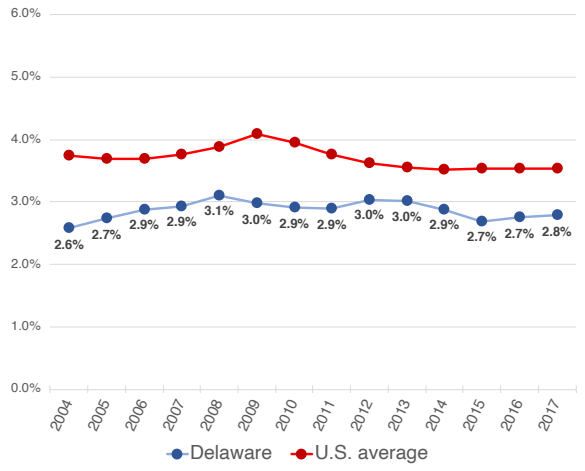
CONTEXTUAL STATS	DE	U.S.
Child (5-17yo) poverty rate (%)	16.0	17.3
Public school coverage (%)	86.8	87.8
Pct. revenue from state sources	59.2	47.1
Total enrollment (U.S. rank)	136,264 (46)	

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	2.79 %
U.S. average	3.53 %

- In FY 2017, Delaware spent 2.79% of its economic capacity directly on K-12 education.
- This was 0.74 percentage points lower than the unweighted national average of 3.53%.
- Delaware's effort level ranks #47 in the nation (out of 50).



Effort trends, 2004-17

- Effort in DE increased in the years before the "Great Recession's" main impact on K-12 funding, going from 2.58% in 2004 to 2.98% in 2009.

Net change by period (% pts.)

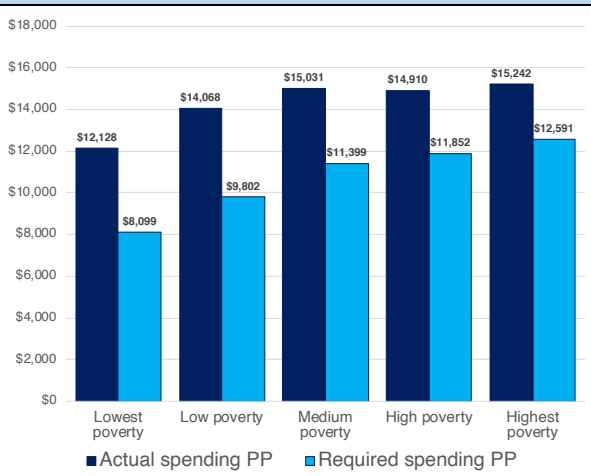
Period	DE	U.S.
2004-2009	0.41	0.35
2009-2017	-0.19	-0.56
2004-2017	0.22	-0.21

- This was followed by a decrease of 0.19 percentage points between 2009 and 2017.
- DE's effort was 0.22 percentage points higher in 2017 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 $2,651 PP higher than the estimated adequate level ($12,591), a difference of 21.1%.
- Districts in Delaware's second highest poverty quintile receive 25.8% more than the estimated adequate level.



Adequacy: DE vs. US average

Percent above / below adequate

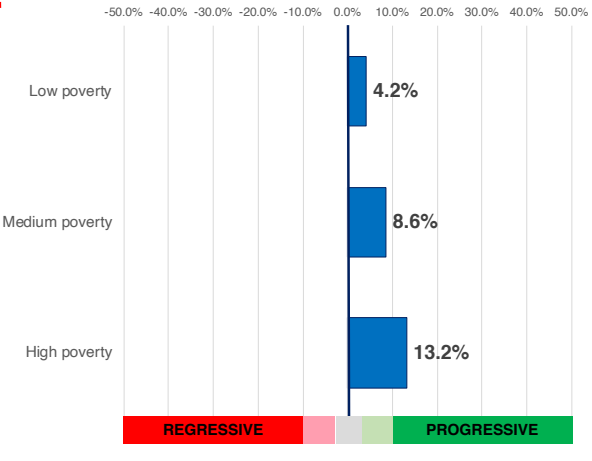
Poverty quintile	DE	U.S.
Lowest poverty	49.7	23.2
Low poverty	43.5	6.2
Medium poverty	31.9	-6.3
High poverty	25.8	-22.1
Highest poverty	21.1	-28.2

- In its highest poverty districts, Delaware's spending is 21.1% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Delaware's highest poverty districts ranks #2 in the nation (out of 50).

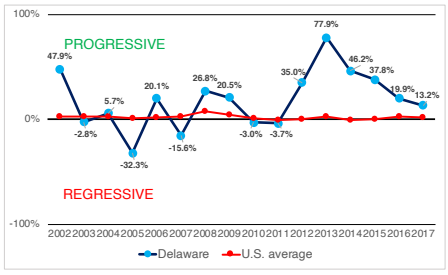
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Delaware is progressive.
- High poverty districts receive 13.2% more revenue than zero poverty districts (this level of progressivity ranks #8 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- DE's funding was more regressive in 2017 (13.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

FLORIDA

Description: This 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.

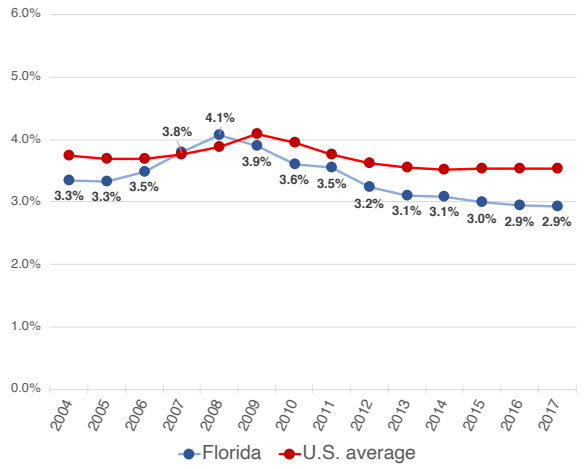
CONTEXTUAL STATS	FL	U.S.
Child (5-17yo) poverty rate (%)	19.6	17.3
Public school coverage (%)	84.9	87.8
Pct. revenue from state sources	39.1	47.1
Total enrollment (U.S. rank)	2,816,791	(3)

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	2.93 %
U.S. average	3.53 %

- In FY 2017, Florida spent 2.93% of its economic capacity directly on K-12 education.
- This was 0.60 percentage points lower than the unweighted national average of 3.53%.
- Florida's effort level ranks #43 in the nation (out of 50).



Effort trends, 2004-17

- Effort in FL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.35% in 2004 to 3.89% in 2009.

Net change by period (% pts.)

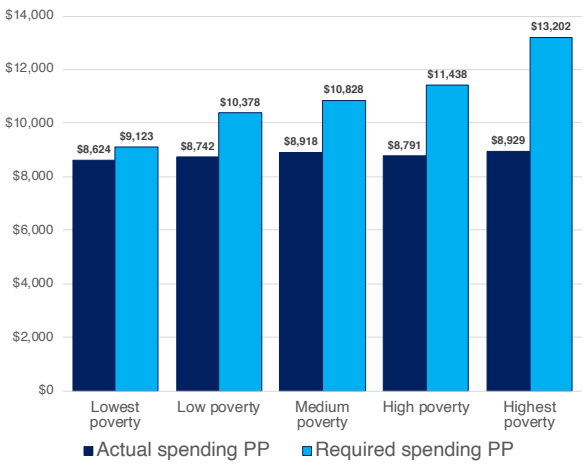
Period	FL	U.S.
2004-2009	0.55	0.35
2009-2017	-0.96	-0.56
2004-2017	-0.42	-0.21

- This was followed by a decrease of 0.96 percentage points between 2009 and 2017.
- FL's effort was 0.42 percentage points lower in 2017 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 $4,273 PP lower than the estimated adequate level ($13,202), a difference of -32.4%.
- Districts in Florida's second highest poverty quintile receive 23.1% less than the estimated adequate level.



Adequacy: FL vs. US average

Percent above / below adequate

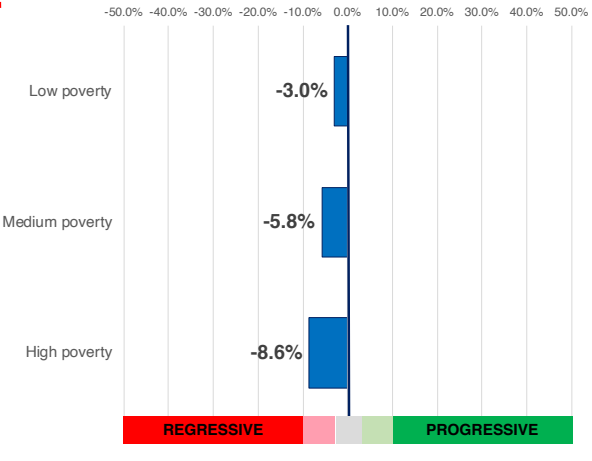
Poverty quintile	FL	U.S.
Lowest poverty	-5.5	23.2
Low poverty	-15.8	6.2
Medium poverty	-17.6	-6.3
High poverty	-23.1	-22.1
Highest poverty	-32.4	-28.2

- In its highest poverty districts, Florida's spending is 32.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Florida's highest poverty districts ranks #31 in the nation (out of 50).

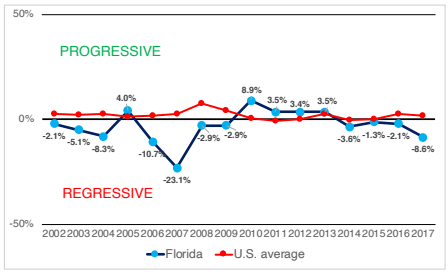
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Florida is moderately regressive.
- High poverty districts receive 8.6% less revenue than zero poverty districts (this level of progressivity ranks #37 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- FL's funding was more regressive in 2017 (-8.6%) vs. 2002 (-2.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

GEORGIA

Description: This 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.

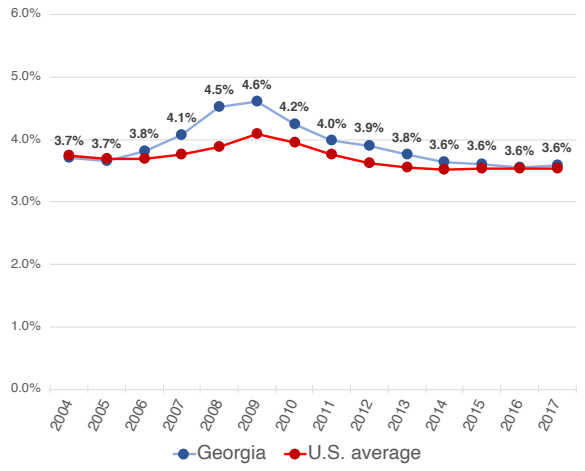
CONTEXTUAL STATS	GA	U.S.
Child (5-17yo) poverty rate (%)	20.3	17.3
Public school coverage (%)	89.3	87.8
Pct. revenue from state sources	45.2	47.1
Total enrollment (U.S. rank)	1,764,346 (6)	

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	3.58 %
U.S. average	3.53 %

- In FY 2017, Georgia spent 3.58% of its economic capacity directly on K-12 education.
- This was 0.05 percentage points higher than the unweighted national average of 3.53%.
- Georgia's effort level ranks #23 in the nation (out of 50).



Effort trends, 2004-17

- 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 4.60% in 2009.

Net change by period (% pts.)

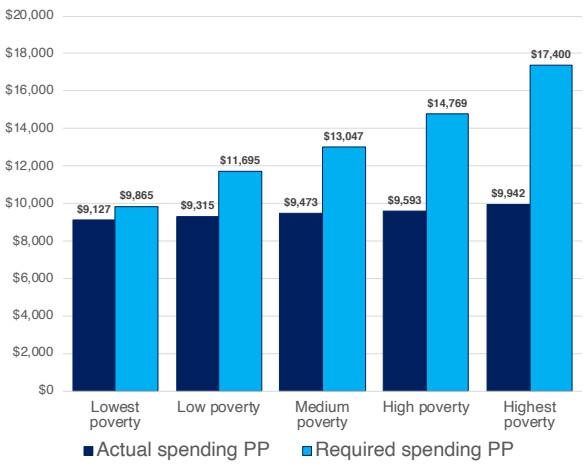
Period	GA	U.S.
2004-2009	0.90	0.35
2009-2017	-1.02	-0.56
2004-2017	-0.12	-0.21

- This was followed by a decrease of 1.02 percentage points between 2009 and 2017.
- GA's effort was 0.12 percentage points lower in 2017 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 $7,458 PP lower than the estimated adequate level ($17,400), a difference of -42.9%.
- Districts in Georgia's second highest poverty quintile receive 35.0% less than the estimated adequate level.



Adequacy: GA vs. US average

Percent above / below adequate

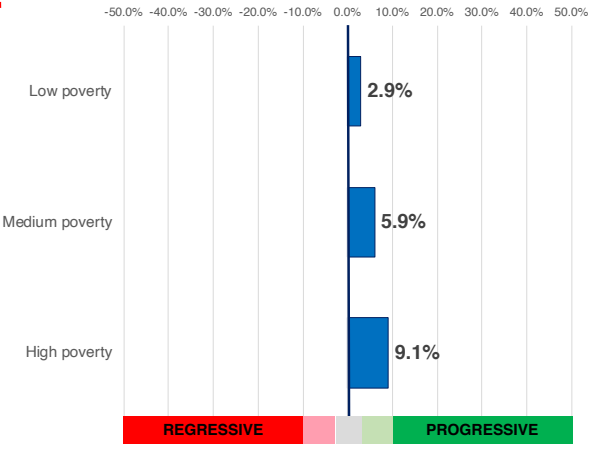
Poverty quintile	GA	U.S.
Lowest poverty	-7.5	23.2
Low poverty	-20.4	6.2
Medium poverty	-27.4	-6.3
High poverty	-35.0	-22.1
Highest poverty	-42.9	-28.2

- In its highest poverty districts, Georgia's spending is 42.9% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Georgia's highest poverty districts ranks #43 in the nation (out of 50).

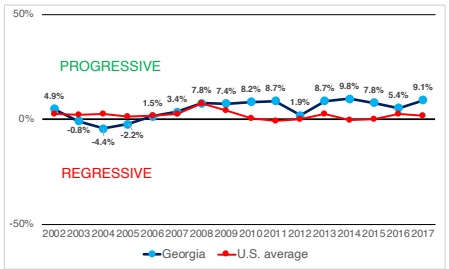
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Georgia is moderately progressive.
- High poverty districts receive 9.1% more revenue than zero poverty districts (this level of progressivity ranks #11 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- GA's funding was more progressive in 2017 (9.1%) vs. 2002 (4.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

HAWAII

Description: This 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.

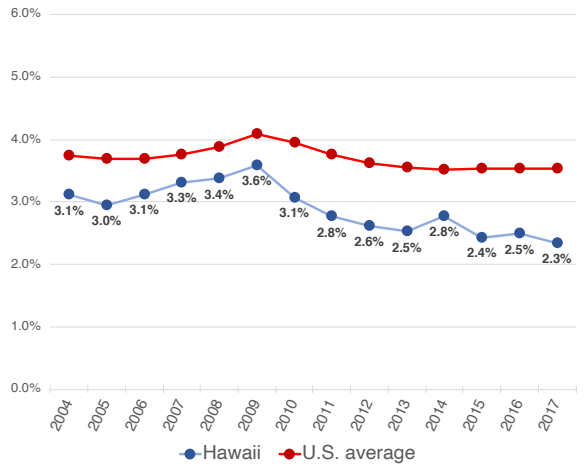
CONTEXTUAL STATS	HI	U.S.
Child (5-17yo) poverty rate (%)	10.7	17.3
Public school coverage (%)	81.8	87.8
Pct. revenue from state sources	89.1	47.1
Total enrollment (U.S. rank)	181,550 (40)	

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	2.35 %
U.S. average	3.53 %

- ⊕ In FY 2017, Hawaii spent 2.35% of its economic capacity directly on K-12 education.
- ⊕ This was 1.19 percentage points lower than the unweighted national average of 3.53%.
- ⊕ Hawaii's effort level ranks #50 in the nation (out of 50).



Effort trends, 2004-17

- ⊕ 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 3.59% in 2009.

Net change by period (% pts.)

Period	HI	U.S.
2004-2009	0.48	0.35
2009-2017	-1.25	-0.56
2004-2017	-0.77	-0.21

- ⊕ This was followed by a decrease of 1.25 percentage points between 2009 and 2017.
- ⊕ HI's effort was 0.77 percentage points lower in 2017 than in 2004.

ADEQUACY

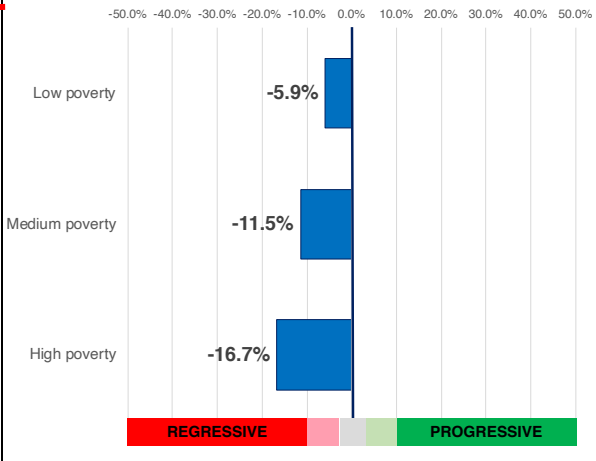
Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores.

Adequacy cannot be calculated for Hawaii, as the state consists of a single school district.

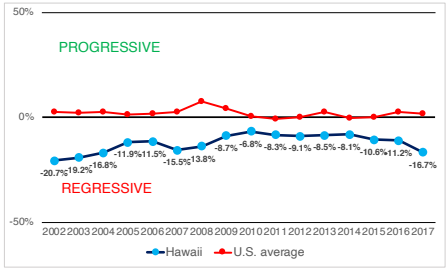
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- ⊕ School funding in Hawaii is regressive.
- ⊕ High poverty districts receive 16.7% less revenue than zero poverty districts (this level of progressivity ranks #46 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ⊕ HI's funding was less regressive in 2017 (-16.7%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

IDAHO

Description: This 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.

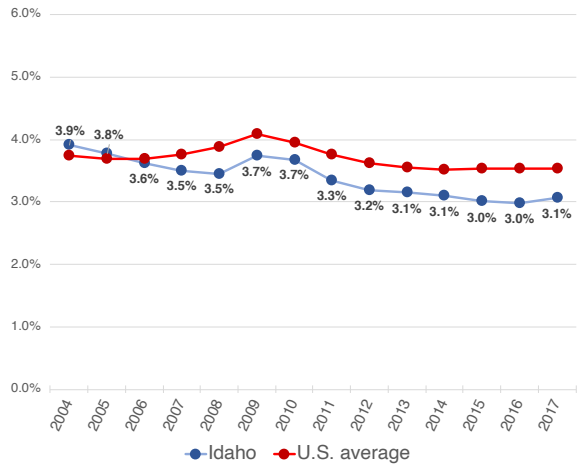
CONTEXTUAL STATS	ID	U.S.
Child (5-17yo) poverty rate (%)	13.3	17.3
Public school coverage (%)	89.8	87.8
Pct. revenue from state sources	65.0	47.1
Total enrollment (U.S. rank)	297,200 (38)	

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	3.07 %
U.S. average	3.53 %

- In FY 2017, Idaho spent 3.07% of its economic capacity directly on K-12 education.
- This was 0.47 percentage points lower than the unweighted national average of 3.53%.
- Idaho's effort level ranks #38 in the nation (out of 50).



Effort trends, 2004-17

- Effort in ID decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.91% in 2004 to 3.74% in 2009.

Net change by period (% pts.)

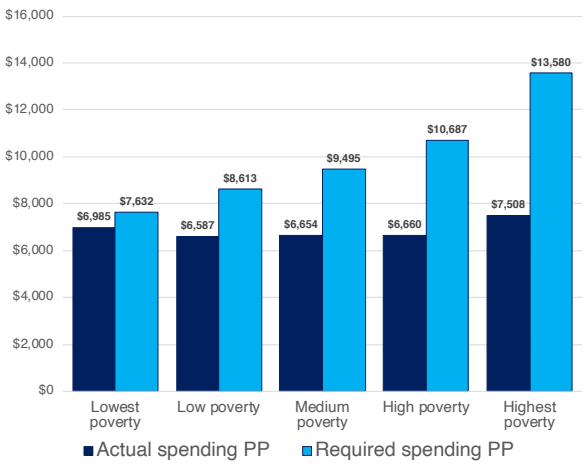
Period	ID	U.S.
2004-2009	-0.17	0.35
2009-2017	-0.67	-0.56
2004-2017	-0.84	-0.21

- This was followed by a decrease of 0.67 percentage points between 2009 and 2017.
- ID's effort was 0.84 percentage points lower in 2017 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 $6,072 PP lower than the estimated adequate level ($13,580), a difference of -44.7%.
- Districts in Idaho's second highest poverty quintile receive 37.7% less than the estimated adequate level.



Adequacy: ID vs. US average

Percent above / below adequate

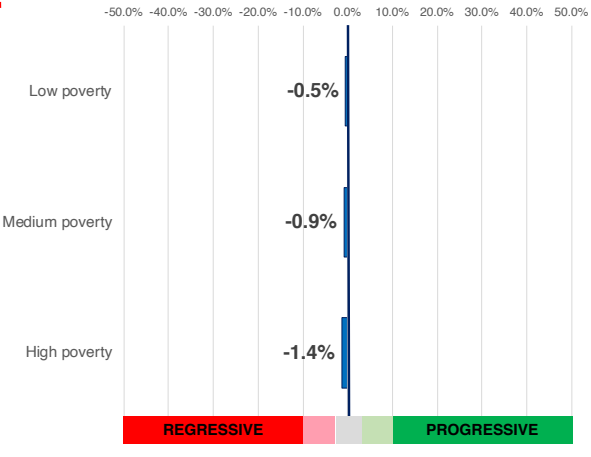
Poverty quintile	ID	U.S.
Lowest poverty	-8.5	23.2
Low poverty	-23.5	6.2
Medium poverty	-29.9	-6.3
High poverty	-37.7	-22.1
Highest poverty	-44.7	-28.2

- In its highest poverty districts, Idaho's spending is 44.7% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Idaho's highest poverty districts ranks #44 in the nation (out of 50).

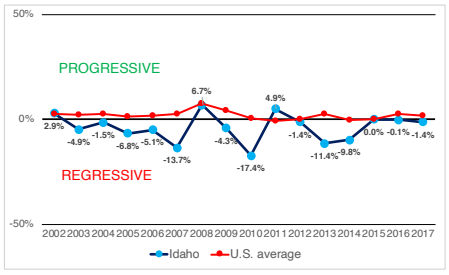
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Idaho is neither progressive nor regressive.
- High poverty districts receive 1.4% less revenue than zero poverty districts (this level of progressivity ranks #26 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ID's funding was more regressive in 2017 (-1.4%) vs. 2002 (2.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

ILLINOIS

Description: This 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.

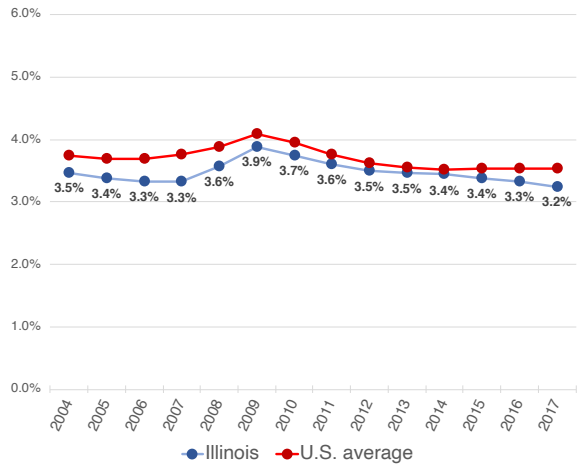
CONTEXTUAL STATS	IL	U.S.
Child (5-17yo) poverty rate (%)	16.0	17.3
Public school coverage (%)	88.0	87.8
Pct. revenue from state sources	41.0	47.1
Total enrollment (U.S. rank)	2,026,718 (5)	

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	3.24 %
U.S. average	3.53 %

- In FY 2017, Illinois spent 3.24% of its economic capacity directly on K-12 education.
- This was 0.29 percentage points lower than the unweighted national average of 3.53%.
- Illinois's effort level ranks #33 in the nation (out of 50).



Effort trends, 2004-17

- Effort in IL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.47% in 2004 to 3.89% in 2009.

Net change by period (% pts.)

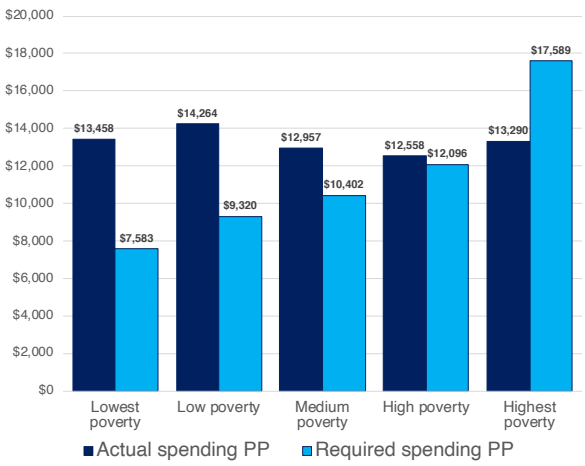
Period	IL	U.S.
2004-2009	0.41	0.35
2009-2017	-0.64	-0.56
2004-2017	-0.23	-0.21

- This was followed by a decrease of 0.64 percentage points between 2009 and 2017.
- IL's effort was 0.23 percentage points lower in 2017 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 $4,299 PP lower than the estimated adequate level ($17,589), a difference of -24.4%.
- Districts in Illinois's second highest poverty quintile receive 3.8% more than the estimated adequate level.



Adequacy: IL vs. US average

Percent above / below adequate

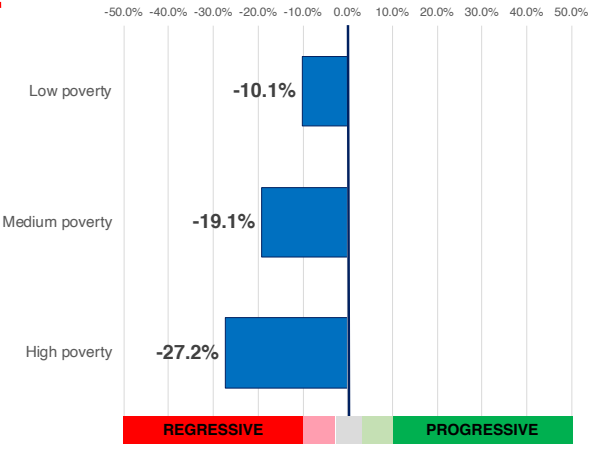
Poverty quintile	IL	U.S.
Lowest poverty	77.5	23.2
Low poverty	53.0	6.2
Medium poverty	24.6	-6.3
High poverty	3.8	-22.1
Highest poverty	-24.4	-28.2

- In its highest poverty districts, Illinois's spending is 24.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Illinois's highest poverty districts ranks #21 in the nation (out of 50).

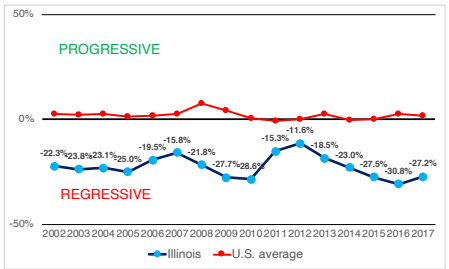
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Illinois is regressive.
- High poverty districts receive 27.2% less revenue than zero poverty districts (this level of progressivity ranks #50 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- IL's funding was more regressive in 2017 (-27.2%) vs. 2002 (-22.3%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

INDIANA

Description: This 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.

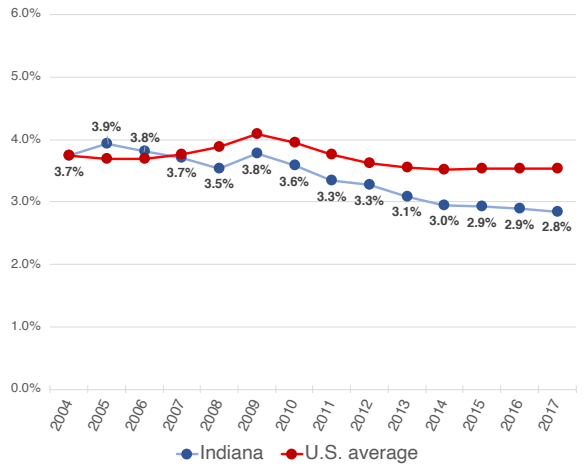
CONTEXTUAL STATS	IN	U.S.
Child (5-17yo) poverty rate (%)	16.3	17.3
Public school coverage (%)	84.7	87.8
Pct. revenue from state sources	62.6	47.1
Total enrollment (U.S. rank)	1,049,547 (15)	

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	2.85 %
U.S. average	3.53 %

- In FY 2017, Indiana spent 2.85% of its economic capacity directly on K-12 education.
- This was 0.69 percentage points lower than the unweighted national average of 3.53%.
- Indiana's effort level ranks #45 in the nation (out of 50).



Effort trends, 2004-17

- Effort in IN increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.74% in 2004 to 3.77% in 2009.

Net change by period (% pts.)

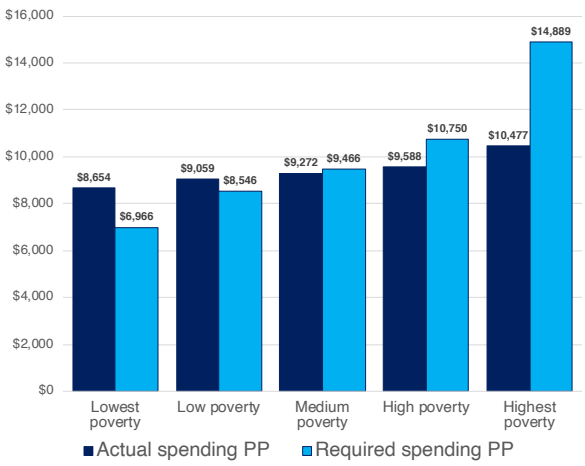
Period	IN	U.S.
2004-2009	0.04	0.35
2009-2017	-0.93	-0.56
2004-2017	-0.89	-0.21

- This was followed by a decrease of 0.93 percentage points between 2009 and 2017.
- IN's effort was 0.89 percentage points lower in 2017 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 $4,412 PP lower than the estimated adequate level ($14,889), a difference of -29.6%.
- Districts in Indiana's second highest poverty quintile receive 10.8% less than the estimated adequate level.



Adequacy: IN vs. US average

Percent above / below adequate

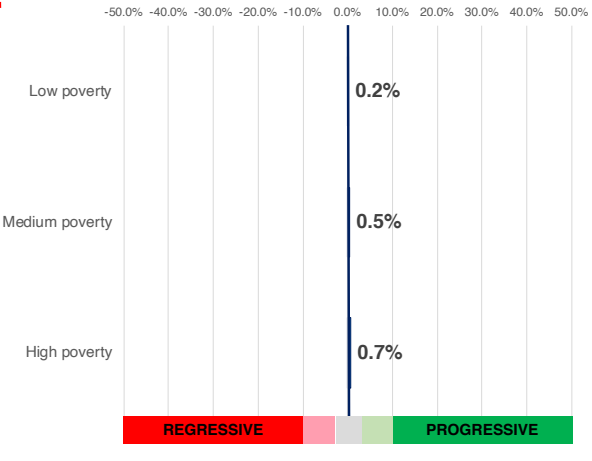
Poverty quintile	IN	U.S.
Lowest poverty	24.2	23.2
Low poverty	6.0	6.2
Medium poverty	-2.0	-6.3
High poverty	-10.8	-22.1
Highest poverty	-29.6	-28.2

- In its highest poverty districts, Indiana's spending is 29.6% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Indiana's highest poverty districts ranks #29 in the nation (out of 50).

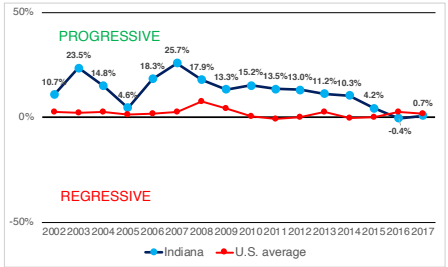
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Indiana is neither progressive nor regressive.
- High poverty districts receive 0.7% more revenue than zero poverty districts (this level of progressivity ranks #22 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- IN's funding was more regressive in 2017 (0.7%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

IOWA

Description: This 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.

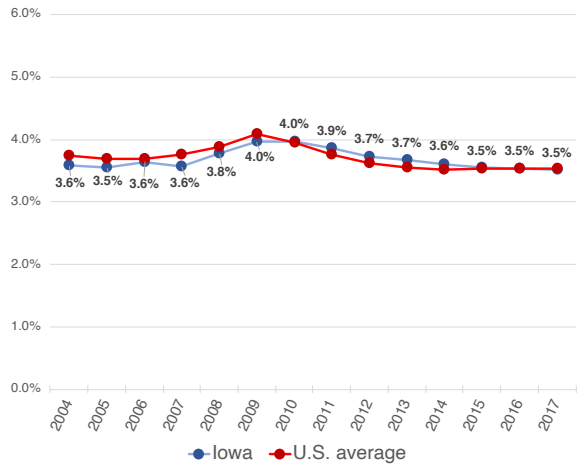
CONTEXTUAL STATS	IA	U.S.
Child (5-17yo) poverty rate (%)	10.9	17.3
Public school coverage (%)	88.6	87.8
Pct. revenue from state sources	54.1	47.1
Total enrollment (U.S. rank)	509,831 (31)	

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	3.51 %
U.S. average	3.53 %

- In FY 2017, Iowa spent 3.51% of its economic capacity directly on K-12 education.
- This was 0.02 percentage points lower than the unweighted national average of 3.53%.
- Iowa's effort level ranks #24 in the nation (out of 50).



Effort trends, 2004-17

- Effort in IA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.58% in 2004 to 3.96% in 2009.

Net change by period (% pts.)

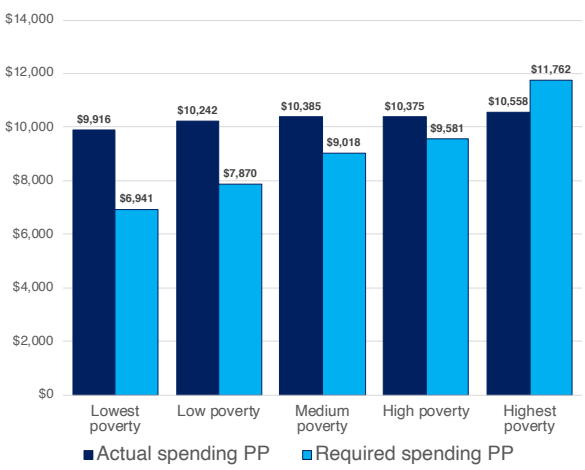
Period	IA	U.S.
2004-2009	0.38	0.35
2009-2017	-0.45	-0.56
2004-2017	-0.07	-0.21

- This was followed by a decrease of 0.45 percentage points between 2009 and 2017.
- IA's effort was 0.07 percentage points lower in 2017 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 $1,204 PP lower than the estimated adequate level ($11,762), a difference of -10.2%.
- Districts in Iowa's second highest poverty quintile receive 8.3% more than the estimated adequate level.



Adequacy: IA vs. US average

Percent above / below adequate

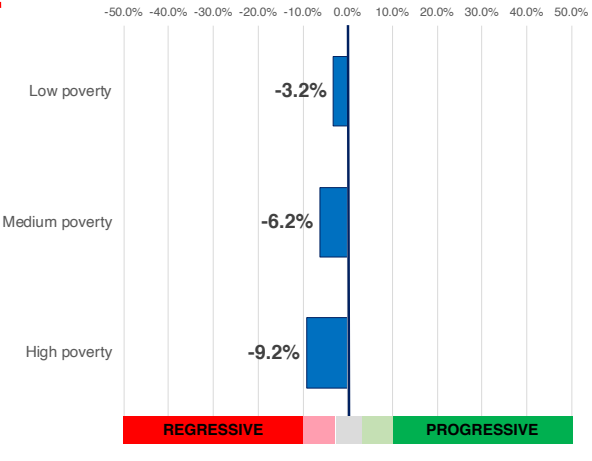
Poverty quintile	IA	U.S.
Lowest poverty	42.9	23.2
Low poverty	30.1	6.2
Medium poverty	15.1	-6.3
High poverty	8.3	-22.1
Highest poverty	-10.2	-28.2

- In its highest poverty districts, Iowa's spending is 10.2% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Iowa's highest poverty districts ranks #11 in the nation (out of 50).

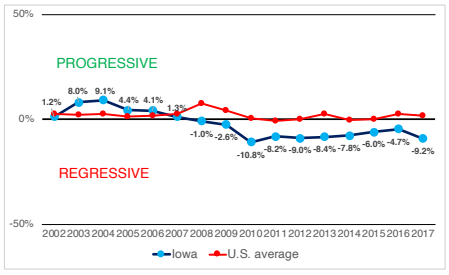
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Iowa is moderately regressive.
- High poverty districts receive 9.2% less revenue than zero poverty districts (this level of progressivity ranks #38 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- IA's funding was more regressive in 2017 (-9.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

KANSAS

Description: This 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.

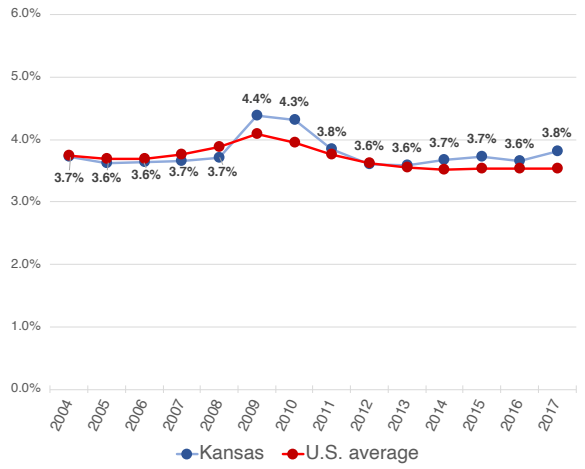
CONTEXTUAL STATS	KS	U.S.
Child (5-17yo) poverty rate (%)	13.4	17.3
Public school coverage (%)	88.0	87.8
Pct. revenue from state sources	64.0	47.1
Total enrollment (U.S. rank)	494,347 (32)	

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	3.82 %
U.S. average	3.53 %

- In FY 2017, Kansas spent 3.82% of its economic capacity directly on K-12 education.
- This was 0.28 percentage points higher than the unweighted national average of 3.53%.
- Kansas's effort level ranks #16 in the nation (out of 50).



Effort trends, 2004-17

- Effort in KS increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.72% in 2004 to 4.38% in 2009.

Net change by period (% pts.)

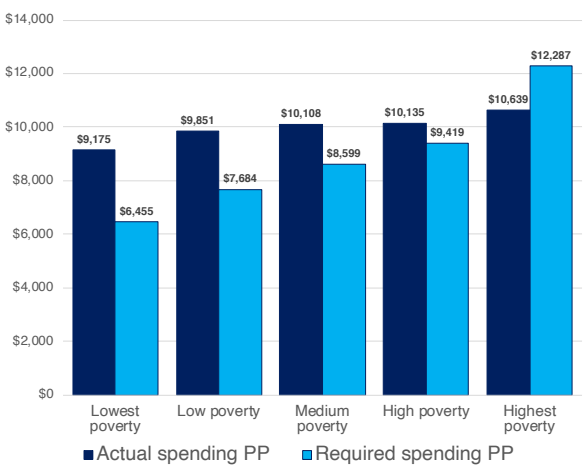
Period	KS	U.S.
2004-2009	0.66	0.35
2009-2017	-0.56	-0.56
2004-2017	0.10	-0.21

- This was followed by a decrease of 0.56 percentage points between 2009 and 2017.
- KS's effort was 0.10 percentage points higher in 2017 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 $1,649 PP lower than the estimated adequate level ($12,287), a difference of -13.4%.
- Districts in Kansas's second highest poverty quintile receive 7.6% more than the estimated adequate level.



Adequacy: KS vs. US average

Percent above / below adequate

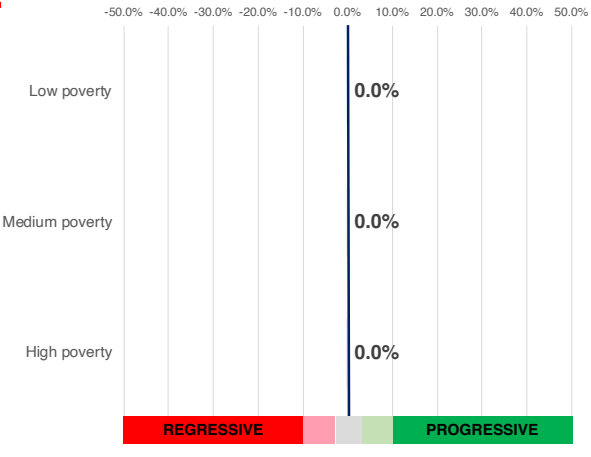
Poverty quintile	KS	U.S.
Lowest poverty	42.1	23.2
Low poverty	28.2	6.2
Medium poverty	17.5	-6.3
High poverty	7.6	-22.1
Highest poverty	-13.4	-28.2

- In its highest poverty districts, Kansas's spending is 13.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Kansas's highest poverty districts ranks #15 in the nation (out of 50).

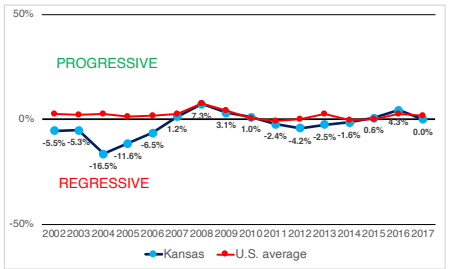
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Kansas is neither progressive nor regressive.
- High poverty districts receive 0.0% more revenue than zero poverty districts (this level of progressivity ranks #23 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- KS's funding was less regressive in 2017 (0.0%) vs. 2002 (-5.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

KENTUCKY

Description: This 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.

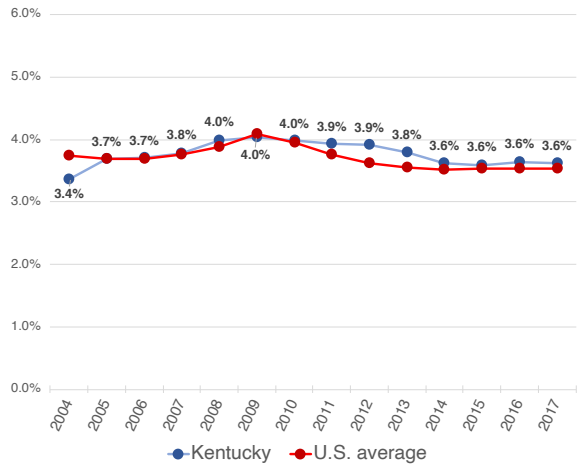
CONTEXTUAL STATS	KY	U.S.
Child (5-17yo) poverty rate (%)	20.6	17.3
Public school coverage (%)	84.9	87.8
Pct. revenue from state sources	54.7	47.1
Total enrollment (U.S. rank)	684,017 (27)	

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	3.62 %
U.S. average	3.53 %

- In FY 2017, Kentucky spent 3.62% of its economic capacity directly on K-12 education.
- This was 0.08 percentage points higher than the unweighted national average of 3.53%.
- Kentucky's effort level ranks #21 in the nation (out of 50).



Effort trends, 2004-17

- Effort in KY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.36% in 2004 to 4.03% in 2009.

Net change by period (% pts.)

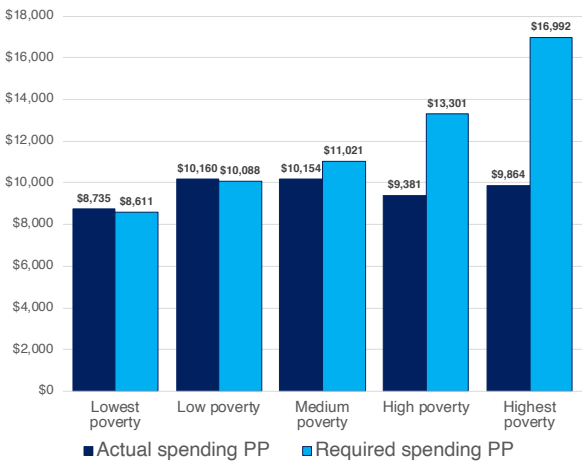
Period	KY	U.S.
2004-2009	0.67	0.35
2009-2017	-0.42	-0.56
2004-2017	0.25	-0.21

- This was followed by a decrease of 0.42 percentage points between 2009 and 2017.
- KY's effort was 0.25 percentage points higher in 2017 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 $7,128 PP lower than the estimated adequate level ($16,992), a difference of -41.9%.
- Districts in Kentucky's second highest poverty quintile receive 29.5% less than the estimated adequate level.



Adequacy: KY vs. US average

Percent above / below adequate

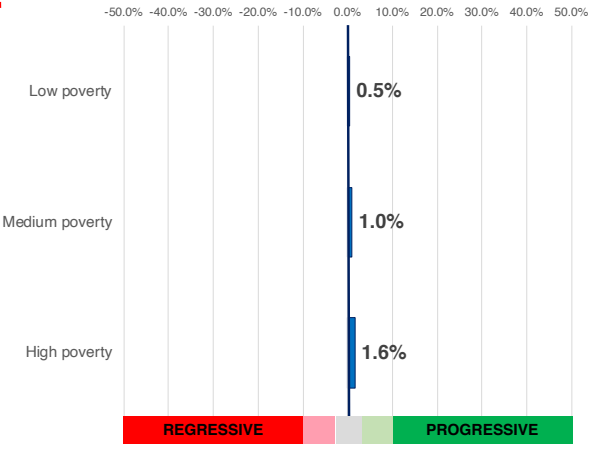
Poverty quintile	KY	U.S.
Lowest poverty	1.4	23.2
Low poverty	0.7	6.2
Medium poverty	-7.9	-6.3
High poverty	-29.5	-22.1
Highest poverty	-41.9	-28.2

- In its highest poverty districts, Kentucky's spending is 41.9% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Kentucky's highest poverty districts ranks #41 in the nation (out of 50).

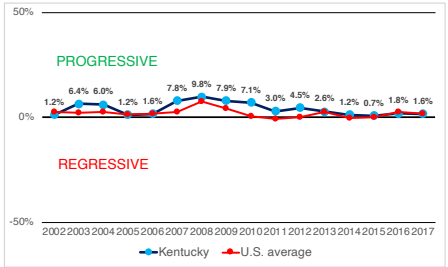
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Kentucky is neither progressive nor regressive.
- High poverty districts receive 1.6% more revenue than zero poverty districts (this level of progressivity ranks #20 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- KY's funding was more progressive in 2017 (1.6%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

LOUISIANA

Description: This 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.

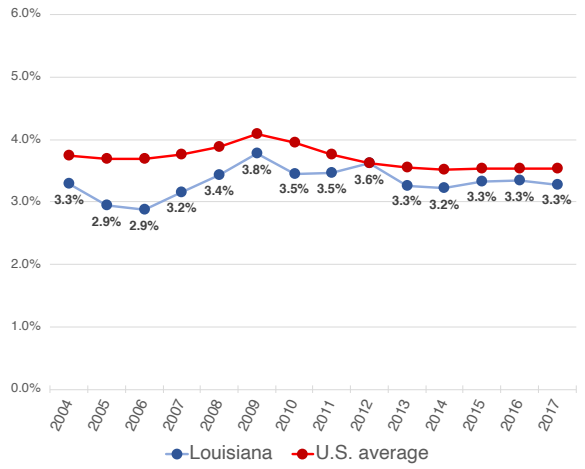
CONTEXTUAL STATS	LA	U.S.
Child (5-17yo) poverty rate (%)	26.0	17.3
Public school coverage (%)	79.0	87.8
Pct. revenue from state sources	41.4	47.1
Total enrollment (U.S. rank)	716,293 (25)	

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	3.28 %
U.S. average	3.53 %

- In FY 2017, Louisiana spent 3.28% of its economic capacity directly on K-12 education.
- This was 0.25 percentage points lower than the unweighted national average of 3.53%.
- Louisiana's effort level ranks #31 in the nation (out of 50).



Effort trends, 2004-17

- Effort in LA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.29% in 2004 to 3.77% in 2009.

Net change by period (% pts.)

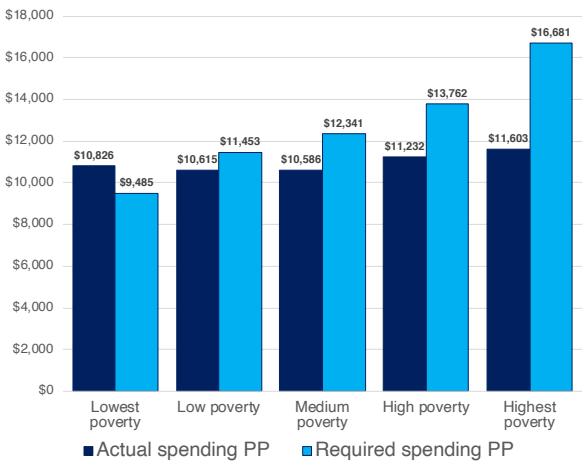
Period	LA	U.S.
2004-2009	0.49	0.35
2009-2017	-0.49	-0.56
2004-2017	-0.01	-0.21

- This was followed by a decrease of 0.49 percentage points between 2009 and 2017.
- LA's effort was 0.01 percentage points lower in 2017 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 $5,079 PP lower than the estimated adequate level ($16,681), a difference of -30.4%.
- Districts in Louisiana's second highest poverty quintile receive 18.4% less than the estimated adequate level.



Adequacy: LA vs. US average

Percent above / below adequate

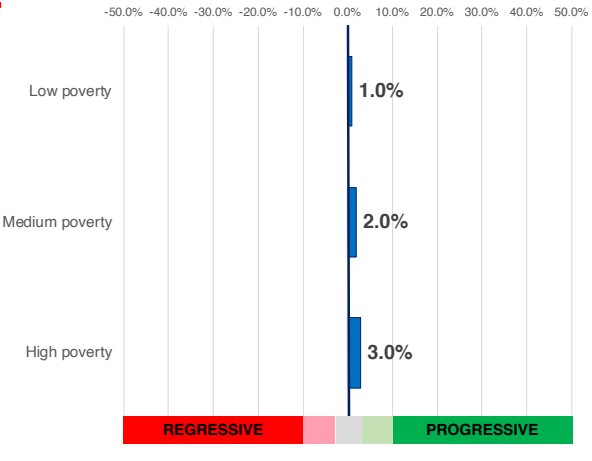
Poverty quintile	LA	U.S.
Lowest poverty	14.1	23.2
Low poverty	-7.3	6.2
Medium poverty	-14.2	-6.3
High poverty	-18.4	-22.1
Highest poverty	-30.4	-28.2

- In its highest poverty districts, Louisiana's spending is 30.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Louisiana's highest poverty districts ranks #30 in the nation (out of 50).

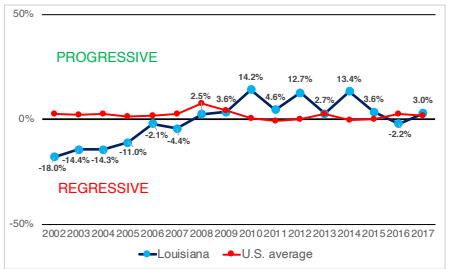
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Louisiana is neither progressive nor regressive.
- High poverty districts receive 3.0% more revenue than zero poverty districts (this level of progressivity ranks #16 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- LA's funding was more progressive in 2017 (3.0%) vs. 2002 (-18.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

MAINE

Description: This 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.

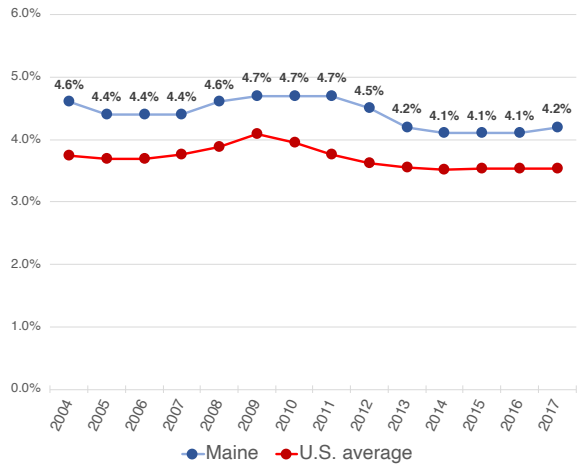
CONTEXTUAL STATS	ME	U.S.
Child (5-17yo) poverty rate (%)	13.1	17.3
Public school coverage (%)	89.1	87.8
Pct. revenue from state sources	38.3	47.1
Total enrollment (U.S. rank)	180,512 (42)	

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).

Maine effort	4.17 %
U.S. average	3.53 %

- In FY 2017, Maine spent 4.17% of its economic capacity directly on K-12 education.
- This was 0.64 percentage points higher than the unweighted national average of 3.53%.
- Maine's effort level ranks #8 in the nation (out of 50).



Effort trends, 2004-17

- Effort in ME increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.63% in 2004 to 4.67% in 2009.

Net change by period (% pts.)

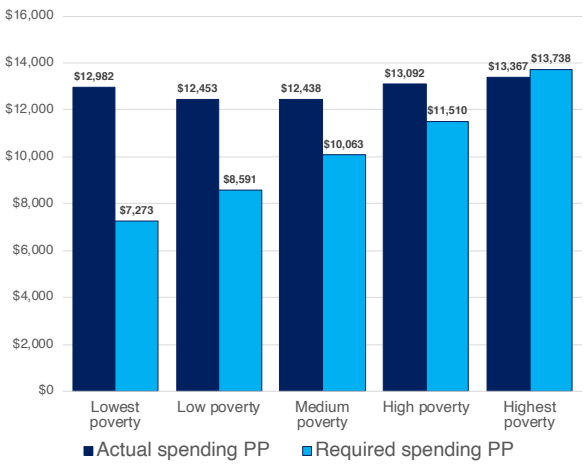
Period	ME	U.S.
2004-2009	0.05	0.35
2009-2017	-0.50	-0.56
2004-2017	-0.45	-0.21

- This was followed by a decrease of 0.50 percentage points between 2009 and 2017.
- ME's effort was 0.45 percentage points lower in 2017 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 $371 PP lower than the estimated adequate level ($13,738), a difference of -2.7%.
- Districts in Maine's second highest poverty quintile receive 13.8% more than the estimated adequate level.



Adequacy: ME vs. US average

Percent above / below adequate

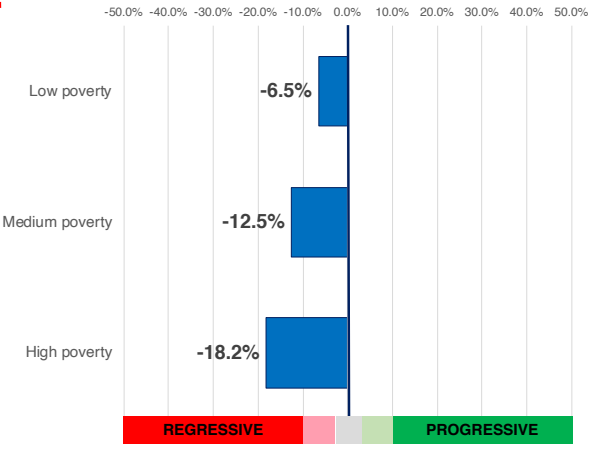
Poverty quintile	ME	U.S.
Lowest poverty	78.5	23.2
Low poverty	45.0	6.2
Medium poverty	23.6	-6.3
High poverty	13.8	-22.1
Highest poverty	-2.7	-28.2

- In its highest poverty districts, Maine's spending is 2.7% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Maine's highest poverty districts ranks #8 in the nation (out of 50).

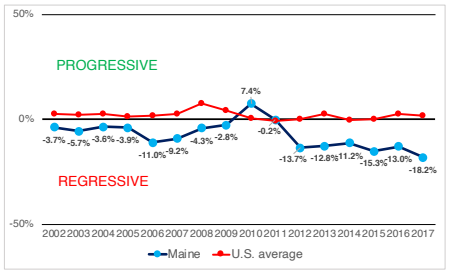
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Maine is regressive.
- High poverty districts receive 18.2% less revenue than zero poverty districts (this level of progressivity ranks #48 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ME's funding was more regressive in 2017 (-18.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

MARYLAND

Description: This 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.

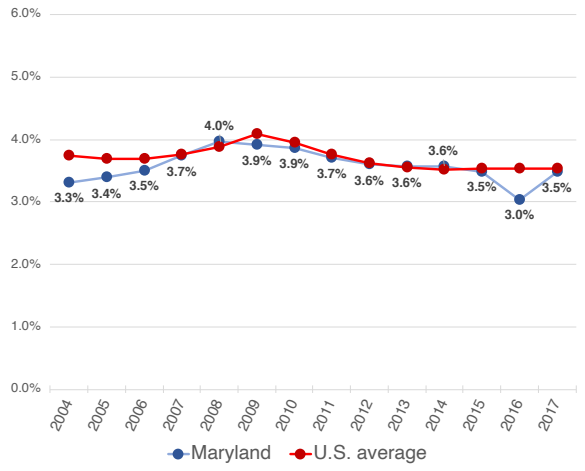
CONTEXTUAL STATS	MD	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.3
Public school coverage (%)	84.4	87.8
Pct. revenue from state sources	43.6	47.1
Total enrollment (U.S. rank)	886,221	(20)

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	3.48 %
U.S. average	3.53 %

- In FY 2017, Maryland spent 3.48% of its economic capacity directly on K-12 education.
- This was 0.05 percentage points lower than the unweighted national average of 3.53%.
- Maryland's effort level ranks #26 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MD increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.31% in 2004 to 3.91% in 2009.

Net change by period (% pts.)

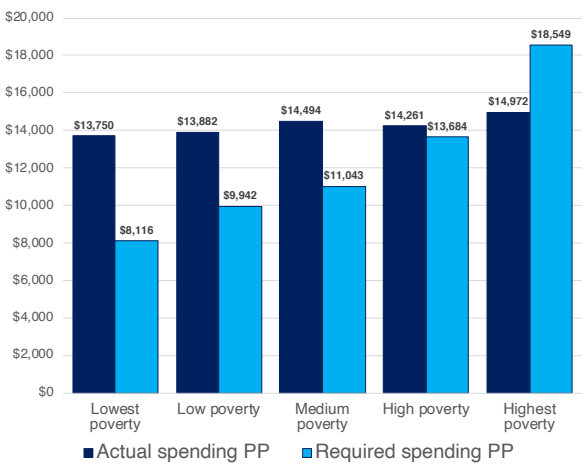
Period	MD	U.S.
2004-2009	0.60	0.35
2009-2017	-0.43	-0.56
2004-2017	0.17	-0.21

- This was followed by a decrease of 0.43 percentage points between 2009 and 2017.
- MD's effort was 0.17 percentage points higher in 2017 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 $3,577 PP lower than the estimated adequate level ($18,549), a difference of -19.3%.
- Districts in Maryland's second highest poverty quintile receive 4.2% more than the estimated adequate level.



Adequacy: MD vs. US average

Percent above / below adequate

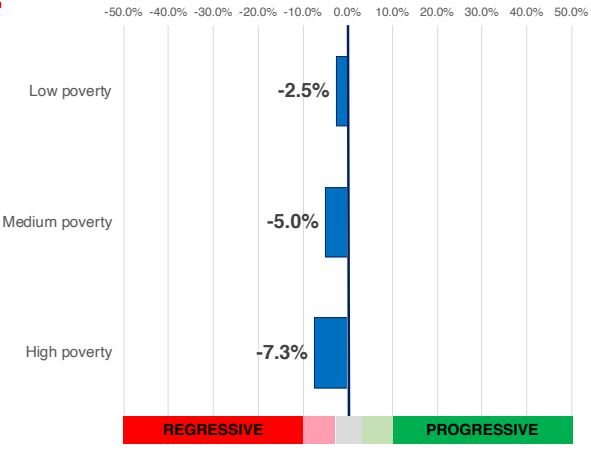
Poverty quintile	MD	U.S.
Lowest poverty	69.4	23.2
Low poverty	39.6	6.2
Medium poverty	31.3	-6.3
High poverty	4.2	-22.1
Highest poverty	-19.3	-28.2

- In its highest poverty districts, Maryland's spending is 19.3% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Maryland's highest poverty districts ranks #18 in the nation (out of 50).

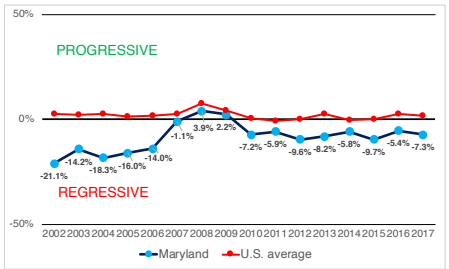
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Maryland is moderately regressive.
- High 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), 2002-17



- MD's funding was less regressive in 2017 (-7.3%) vs. 2002 (-21.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

MASSACHUSETTS

Description: This 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.

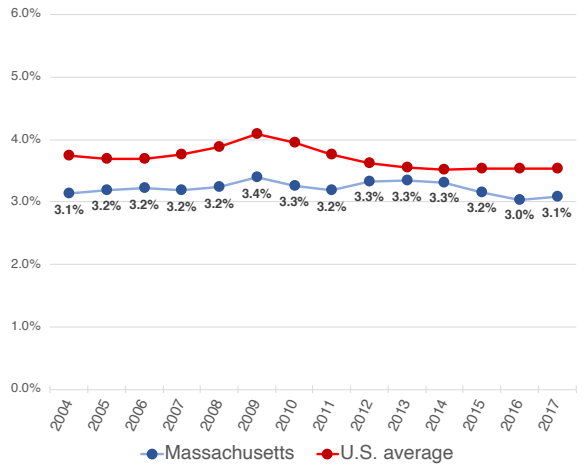
CONTEXTUAL STATS	MA	U.S.
Child (5-17yo) poverty rate (%)	12.7	17.3
Public school coverage (%)	88.9	87.8
Pct. revenue from state sources	38.7	47.1
Total enrollment (U.S. rank)	964,514 (17)	

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	3.08 %
U.S. average	3.53 %

- In FY 2017, Massachusetts spent 3.08% of its economic capacity directly on K-12 education.
- This was 0.46 percentage points lower than the unweighted national average of 3.53%.
- Massachusetts's effort level ranks #37 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.13% in 2004 to 3.39% in 2009.

Net change by period (% pts.)

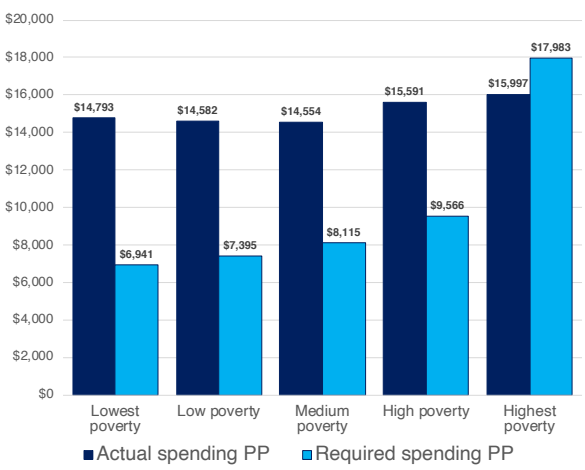
Period	MA	U.S.
2004-2009	0.26	0.35
2009-2017	-0.31	-0.56
2004-2017	-0.05	-0.21

- This was followed by a decrease of 0.31 percentage points between 2009 and 2017.
- MA's effort was 0.05 percentage points lower in 2017 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 $1,985 PP lower than the estimated adequate level ($17,983), a difference of -11.0%.
- Districts in Massachusetts's second highest poverty quintile receive 63.0% more than the estimated adequate level.



Adequacy: MA vs. US average

Percent above / below adequate

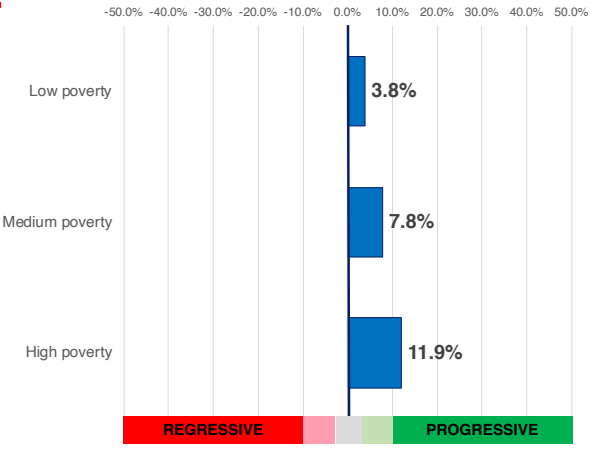
Poverty quintile	MA	U.S.
Lowest poverty	113.1	23.2
Low poverty	97.2	6.2
Medium poverty	79.3	-6.3
High poverty	63.0	-22.1
Highest poverty	-11.0	-28.2

- In its highest poverty districts, Massachusetts's spending is 11.0% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Massachusetts's highest poverty districts ranks #12 in the nation (out of 50).

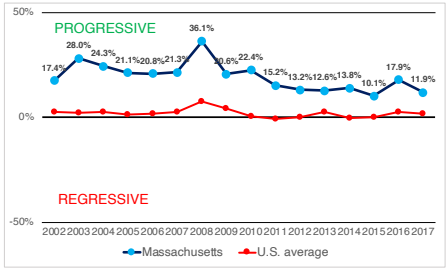
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Massachusetts is progressive.
- High poverty districts receive 11.9% more revenue than zero poverty districts (this level of progressivity ranks #9 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MA's funding was more regressive in 2017 (11.9%) vs. 2002 (17.4%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

MICHIGAN

Description: This 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.

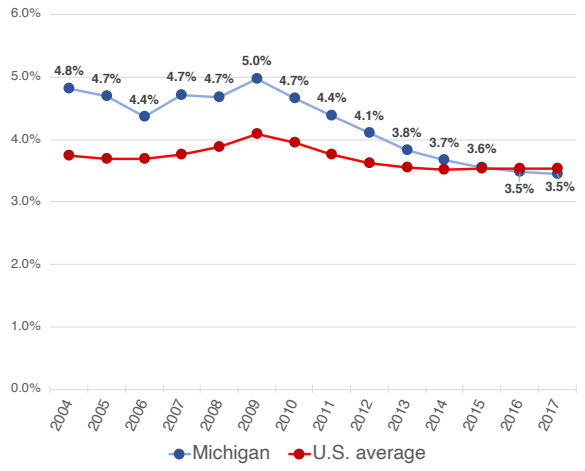
CONTEXTUAL STATS	MI	U.S.
Child (5-17yo) poverty rate (%)	17.7	17.3
Public school coverage (%)	88.4	87.8
Pct. revenue from state sources	58.6	47.1
Total enrollment (U.S. rank)	1,528,666 (10)	

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	3.45 %
U.S. average	3.53 %

- In FY 2017, Michigan spent 3.45% of its economic capacity directly on K-12 education.
- This was 0.08 percentage points lower than the unweighted national average of 3.53%.
- Michigan's effort level ranks #28 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.82% in 2004 to 4.97% in 2009.

Net change by period (% pts.)

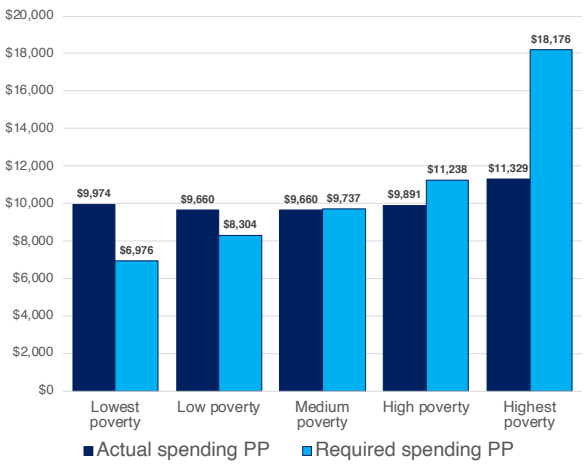
Period	MI	U.S.
2004-2009	0.15	0.35
2009-2017	-1.52	-0.56
2004-2017	-1.37	-0.21

- This was followed by a decrease of 1.52 percentage points between 2009 and 2017.
- MI's effort was 1.37 percentage points lower in 2017 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 $6,847 PP lower than the estimated adequate level ($18,176), a difference of -37.7%.
- Districts in Michigan's second highest poverty quintile receive 12.0% less than the estimated adequate level.



Adequacy: MI vs. US average

Percent above / below adequate

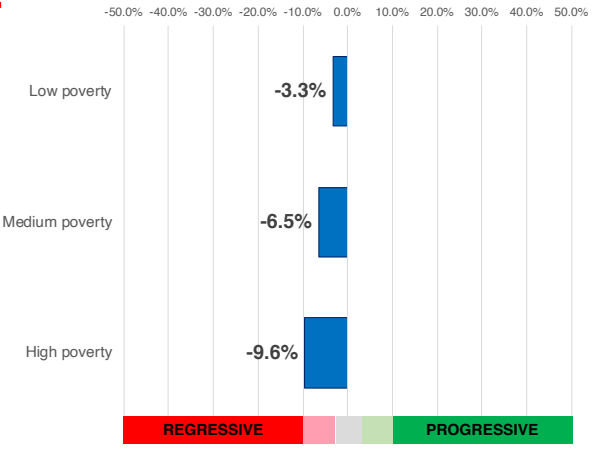
Poverty quintile	MI	U.S.
Lowest poverty	43.0	23.2
Low poverty	16.3	6.2
Medium poverty	-0.8	-6.3
High poverty	-12.0	-22.1
Highest poverty	-37.7	-28.2

- In its highest poverty districts, Michigan's spending is 37.7% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Michigan's highest poverty districts ranks #37 in the nation (out of 50).

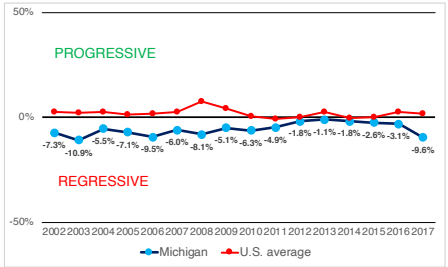
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Michigan is moderately regressive.
- High poverty districts receive 9.6% less revenue than zero poverty districts (this level of progressivity ranks #39 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MI's funding was more regressive in 2017 (-9.6%) vs. 2002 (-7.3%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

MINNESOTA

Description: This 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.

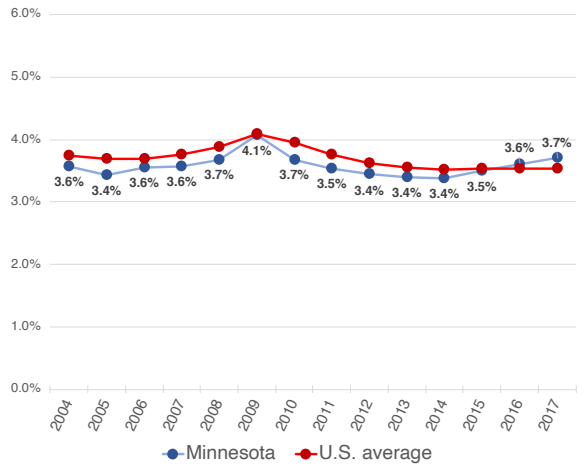
CONTEXTUAL STATS	MN	U.S.
Child (5-17yo) poverty rate (%)	10.8	17.3
Public school coverage (%)	87.2	87.8
Pct. revenue from state sources	64.9	47.1
Total enrollment (U.S. rank)	875,021 (21)	

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	3.70 %
U.S. average	3.53 %

- In FY 2017, Minnesota spent 3.70% of its economic capacity directly on K-12 education.
- This was 0.17 percentage points higher than the unweighted national average of 3.53%.
- Minnesota's effort level ranks #19 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MN increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.57% in 2004 to 4.08% in 2009.

Net change by period (% pts.)

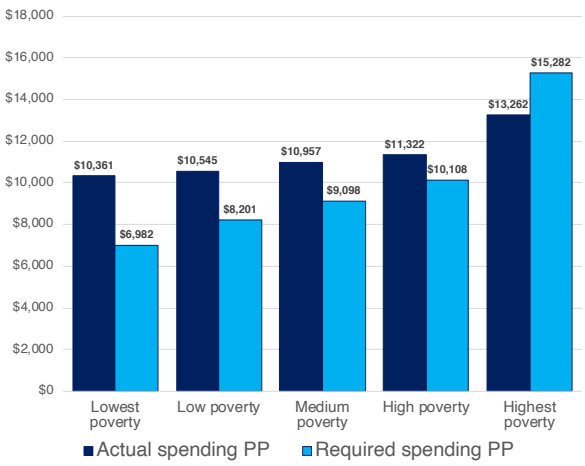
Period	MN	U.S.
2004-2009	0.50	0.35
2009-2017	-0.37	-0.56
2004-2017	0.13	-0.21

- This was followed by a decrease of 0.37 percentage points between 2009 and 2017.
- MN's effort was 0.13 percentage points higher in 2017 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 $2,020 PP lower than the estimated adequate level ($15,282), a difference of -13.2%.
- Districts in Minnesota's second highest poverty quintile receive 12.0% more than the estimated adequate level.



Adequacy: MN vs. US average

Percent above / below adequate

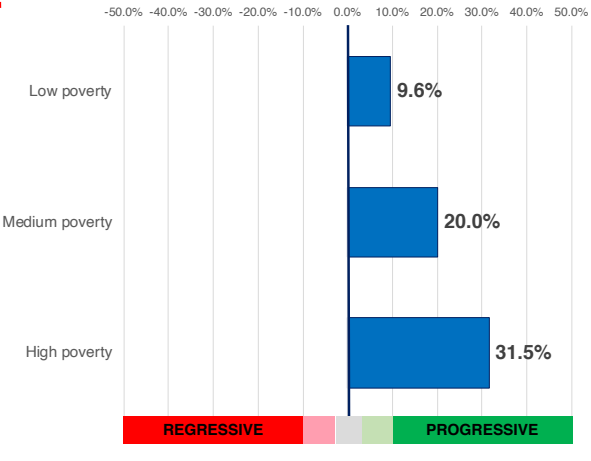
Poverty quintile	MN	U.S.
Lowest poverty	48.4	23.2
Low poverty	28.6	6.2
Medium poverty	20.4	-6.3
High poverty	12.0	-22.1
Highest poverty	-13.2	-28.2

- In its highest poverty districts, Minnesota's spending is 13.2% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Minnesota's highest poverty districts ranks #14 in the nation (out of 50).

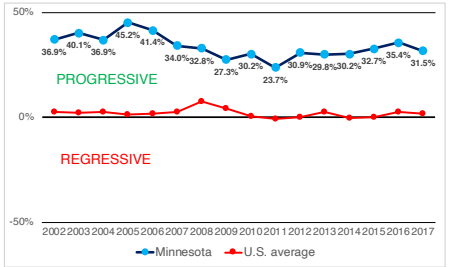
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Minnesota is progressive.
- High poverty districts receive 31.5% more revenue than zero poverty districts (this level of progressivity ranks #4 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MN's funding was more regressive in 2017 (31.5%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

MISSISSIPPI

Description: This 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.

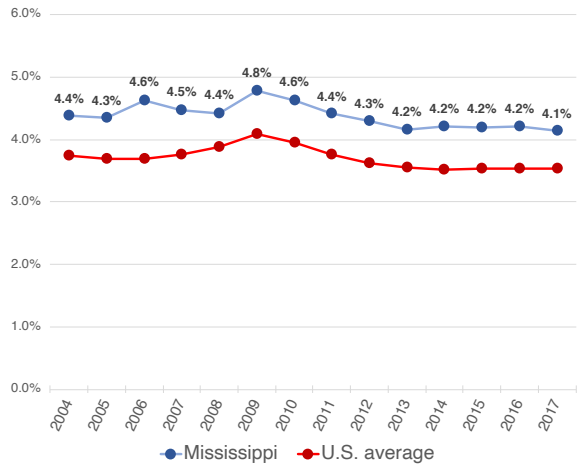
CONTEXTUAL STATS	MS	U.S.
Child (5-17yo) poverty rate (%)	27.0	17.3
Public school coverage (%)	87.5	87.8
Pct. revenue from state sources	50.8	47.1
Total enrollment (U.S. rank)	483,150 (34)	

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).

Mississippi effort	4.14 %
U.S. average	3.53 %

- In FY 2017, Mississippi spent 4.14% of its economic capacity directly on K-12 education.
- This was 0.60 percentage points higher than the unweighted national average of 3.53%.
- Mississippi's effort level ranks #9 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MS increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.38% in 2004 to 4.78% in 2009.

Net change by period (% pts.)

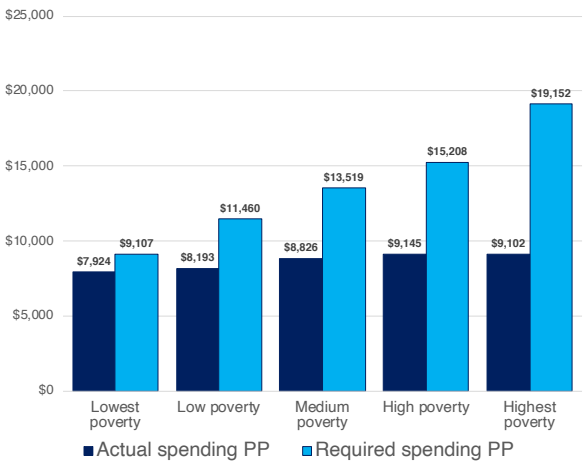
Period	MS	U.S.
2004-2009	0.40	0.35
2009-2017	-0.65	-0.56
2004-2017	-0.24	-0.21

- This was followed by a decrease of 0.65 percentage points between 2009 and 2017.
- MS's effort was 0.24 percentage points lower in 2017 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 $10,050 PP lower than the estimated adequate level ($19,152), a difference of -52.5%.
- Districts in Mississippi's second highest poverty quintile receive 39.9% less than the estimated adequate level.



Adequacy: MS vs. US average

Percent above / below adequate

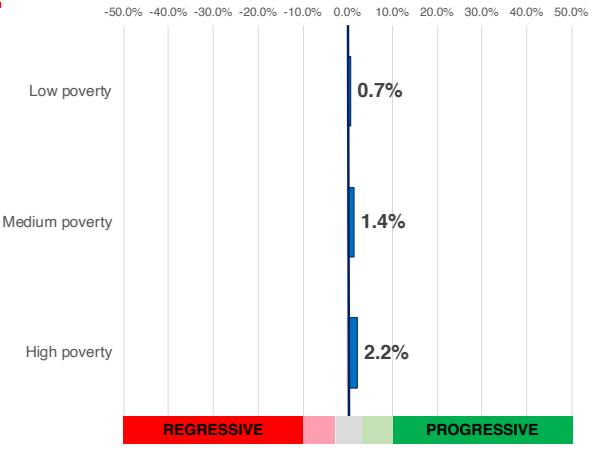
Poverty quintile	MS	U.S.
Lowest poverty	-13.0	23.2
Low poverty	-28.5	6.2
Medium poverty	-34.7	-6.3
High poverty	-39.9	-22.1
Highest poverty	-52.5	-28.2

- In its highest poverty districts, Mississippi's spending is 52.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Mississippi's highest poverty districts ranks #46 in the nation (out of 50).

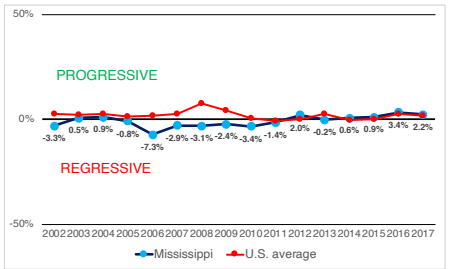
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Mississippi is neither progressive nor regressive.
- High poverty districts receive 2.2% more revenue than zero poverty districts (this level of progressivity ranks #18 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MS's funding was more progressive in 2017 (2.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

MISSOURI

Description: This 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.

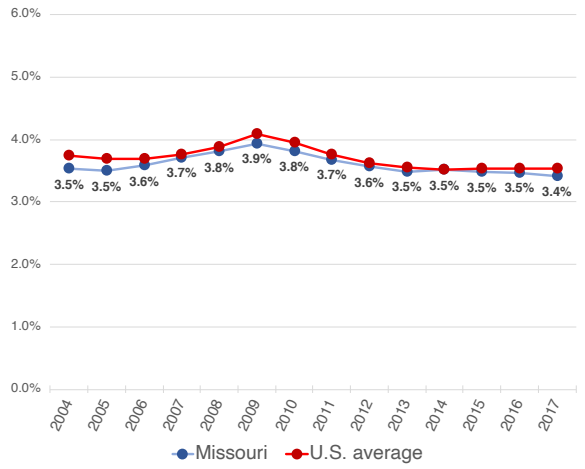
CONTEXTUAL STATS	MO	U.S.
Child (5-17yo) poverty rate (%)	17.2	17.3
Public school coverage (%)	84.7	87.8
Pct. revenue from state sources	42.2	47.1
Total enrollment (U.S. rank)	915,040 (18)	

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	3.42 %
U.S. average	3.53 %

- In FY 2017, Missouri spent 3.42% of its economic capacity directly on K-12 education.
- This was 0.11 percentage points lower than the unweighted national average of 3.53%.
- Missouri's effort level ranks #29 in the nation (out of 50).



Effort trends, 2004-17

- 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 3.94% in 2009.

Net change by period (% pts.)

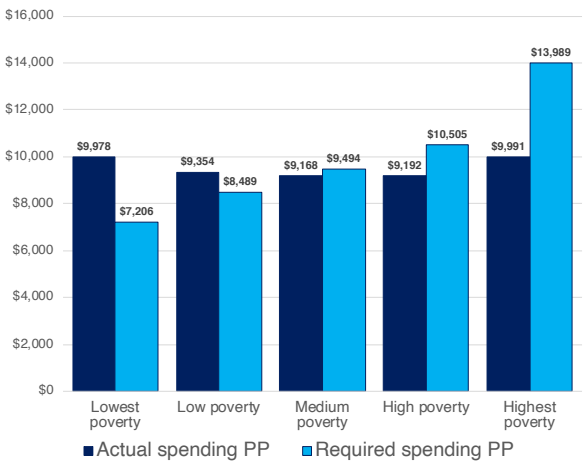
Period	MO	U.S.
2004-2009	0.41	0.35
2009-2017	-0.51	-0.56
2004-2017	-0.11	-0.21

- This was followed by a decrease of 0.51 percentage points between 2009 and 2017.
- MO's effort was 0.11 percentage points lower in 2017 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 $3,999 PP lower than the estimated adequate level ($13,989), a difference of -28.6%.
- Districts in Missouri's second highest poverty quintile receive 12.5% less than the estimated adequate level.



Adequacy: MO vs. US average

Percent above / below adequate

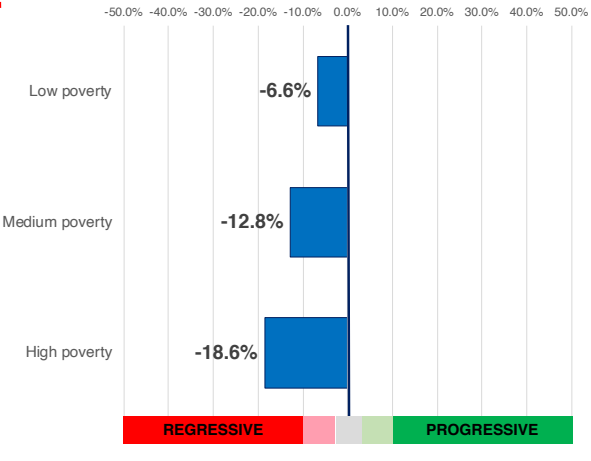
Poverty quintile	MO	U.S.
Lowest poverty	38.5	23.2
Low poverty	10.2	6.2
Medium poverty	-3.4	-6.3
High poverty	-12.5	-22.1
Highest poverty	-28.6	-28.2

- In its highest poverty districts, Missouri's spending is 28.6% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Missouri's highest poverty districts ranks #26 in the nation (out of 50).

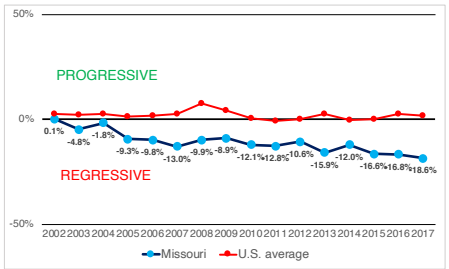
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Missouri is regressive.
- High poverty districts receive 18.6% less revenue than zero poverty districts (this level of progressivity ranks #49 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MO's funding was more regressive in 2017 (-18.6%) vs. 2002 (0.1%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

MONTANA

Description: This 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.

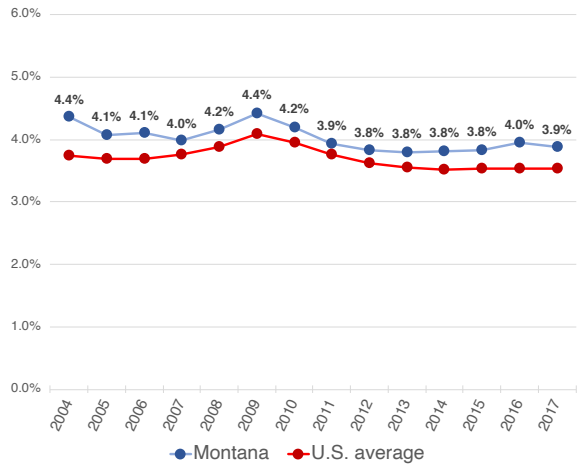
CONTEXTUAL STATS	MT	U.S.
Child (5-17yo) poverty rate (%)	14.0	17.3
Public school coverage (%)	84.7	87.8
Pct. revenue from state sources	46.9	47.1
Total enrollment (U.S. rank)	146,375 (43)	

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	3.88 %
U.S. average	3.53 %

- In FY 2017, Montana spent 3.88% of its economic capacity directly on K-12 education.
- This was 0.34 percentage points higher than the unweighted national average of 3.53%.
- Montana's effort level ranks #13 in the nation (out of 50).



Effort trends, 2004-17

- Effort in MT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.36% in 2004 to 4.42% in 2009.

Net change by period (% pts.)

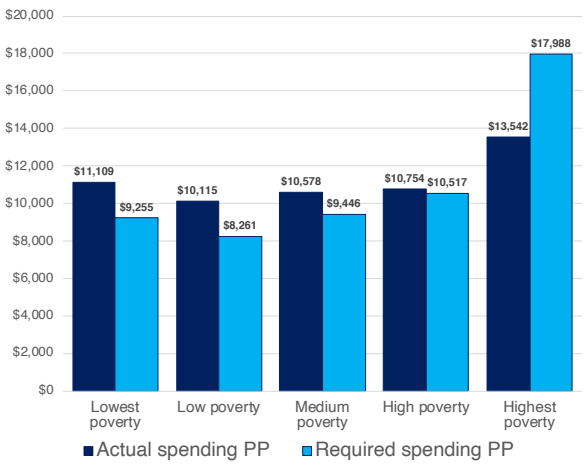
Period	MT	U.S.
2004-2009	0.06	0.35
2009-2017	-0.54	-0.56
2004-2017	-0.49	-0.21

- This was followed by a decrease of 0.54 percentage points between 2009 and 2017.
- MT's effort was 0.49 percentage points lower in 2017 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 $4,446 PP lower than the estimated adequate level ($17,988), a difference of -24.7%.
- Districts in Montana's second highest poverty quintile receive 2.3% more than the estimated adequate level.



Adequacy: MT vs. US average

Percent above / below adequate

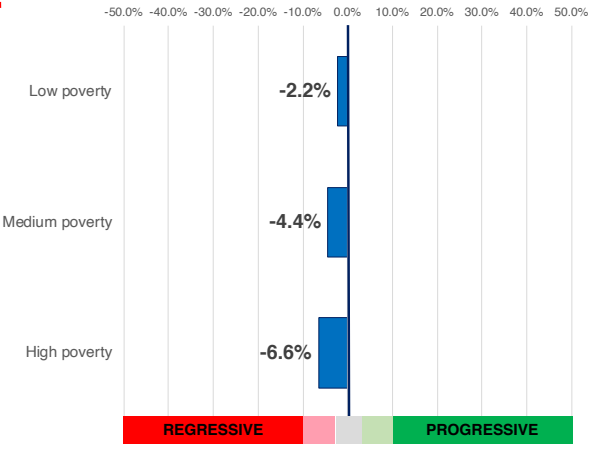
Poverty quintile	MT	U.S.
Lowest poverty	20.0	23.2
Low poverty	22.4	6.2
Medium poverty	12.0	-6.3
High poverty	2.3	-22.1
Highest poverty	-24.7	-28.2

- In its highest poverty districts, Montana's spending is 24.7% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Montana's highest poverty districts ranks #22 in the nation (out of 50).

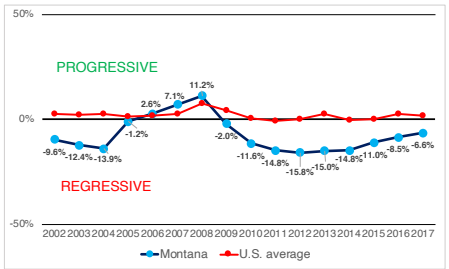
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Montana is moderately regressive.
- High poverty districts receive 6.6% less revenue than zero poverty districts (this level of progressivity ranks #32 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- MT's funding was less regressive in 2017 (-6.6%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

NEBRASKA

Description: This 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.

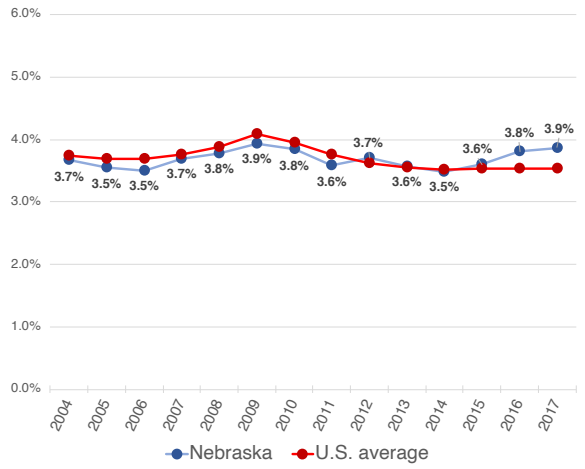
CONTEXTUAL STATS	NE	U.S.
Child (5-17yo) poverty rate (%)	12.6	17.3
Public school coverage (%)	85.2	87.8
Pct. revenue from state sources	32.7	47.1
Total enrollment (U.S. rank)	319,194 (37)	

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	3.87 %
U.S. average	3.53 %

- In FY 2017, Nebraska spent 3.87% of its economic capacity directly on K-12 education.
- This was 0.33 percentage points higher than the unweighted national average of 3.53%.
- Nebraska's effort level ranks #14 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NE increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.67% in 2004 to 3.94% in 2009.

Net change by period (% pts.)

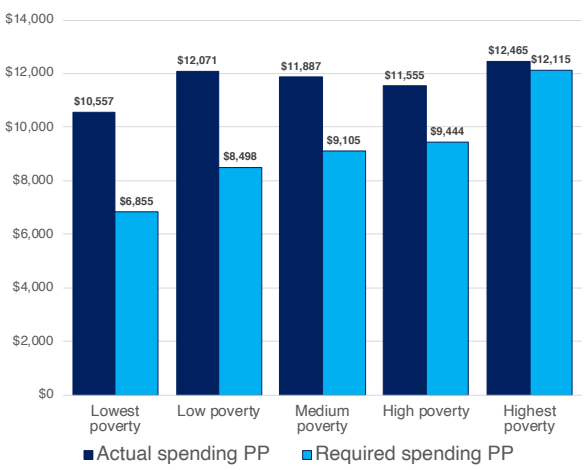
Period	NE	U.S.
2004-2009	0.27	0.35
2009-2017	-0.07	-0.56
2004-2017	0.20	-0.21

- This was followed by a decrease of 0.07 percentage points between 2009 and 2017.
- NE's effort was 0.20 percentage points higher in 2017 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 $350 PP higher than the estimated adequate level ($12,115), a difference of 2.9%.
- Districts in Nebraska's second highest poverty quintile receive 22.4% more than the estimated adequate level.



Adequacy: NE vs. US average

Percent above / below adequate

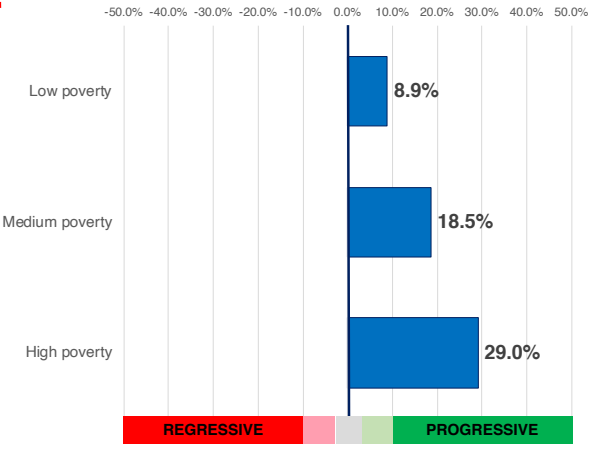
Poverty quintile	NE	U.S.
Lowest poverty	54.0	23.2
Low poverty	42.0	6.2
Medium poverty	30.6	-6.3
High poverty	22.4	-22.1
Highest poverty	2.9	-28.2

- In its highest poverty districts, Nebraska's spending is 2.9% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Nebraska's highest poverty districts ranks #4 in the nation (out of 50).

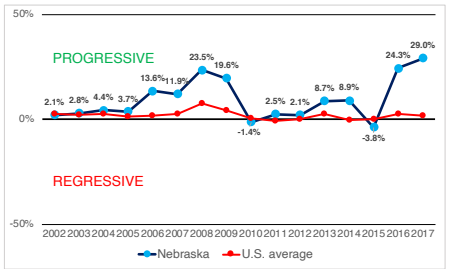
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Nebraska is progressive.
- High poverty districts receive 29.0% more revenue than zero poverty districts (this level of progressivity ranks #5 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NE's funding was more progressive in 2017 (29.0%) vs. 2002 (2.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

NEVADA

Description: This 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.

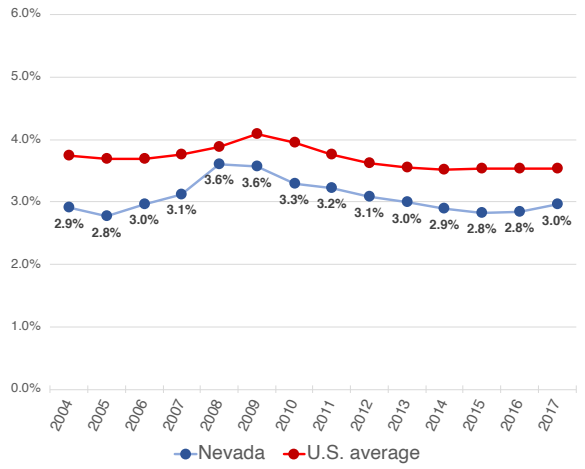
CONTEXTUAL STATS	NV	U.S.
Child (5-17yo) poverty rate (%)	17.9	17.3
Public school coverage (%)	91.1	87.8
Pct. revenue from state sources	63.2	47.1
Total enrollment (U.S. rank)	473,744 (35)	

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).

Nevada effort	2.96 %
U.S. average	3.53 %

- In FY 2017, Nevada spent 2.96% of its economic capacity directly on K-12 education.
- This was 0.57 percentage points lower than the unweighted national average of 3.53%.
- Nevada's effort level ranks #42 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NV increased in the years before the "Great Recession's" main impact on K-12 funding, going from 2.91% in 2004 to 3.57% in 2009.

Net change by period (% pts.)

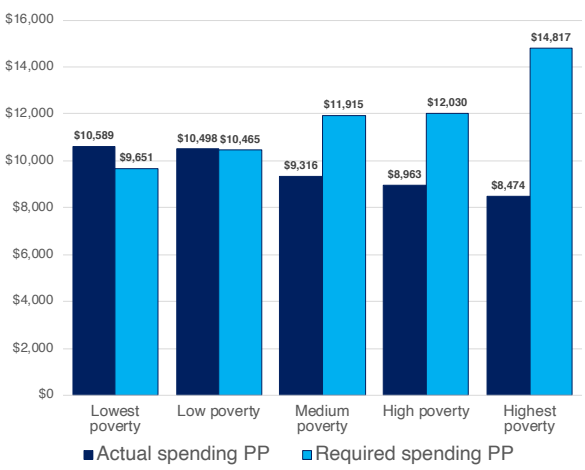
Period	NV	U.S.
2004-2009	0.65	0.35
2009-2017	-0.60	-0.56
2004-2017	0.05	-0.21

- This was followed by a decrease of 0.60 percentage points between 2009 and 2017.
- NV's effort was 0.05 percentage points higher in 2017 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 $6,343 PP lower than the estimated adequate level ($14,817), a difference of -42.8%.
- Districts in Nevada's second highest poverty quintile receive 25.5% less than the estimated adequate level.



Adequacy: NV vs. US average

Percent above / below adequate

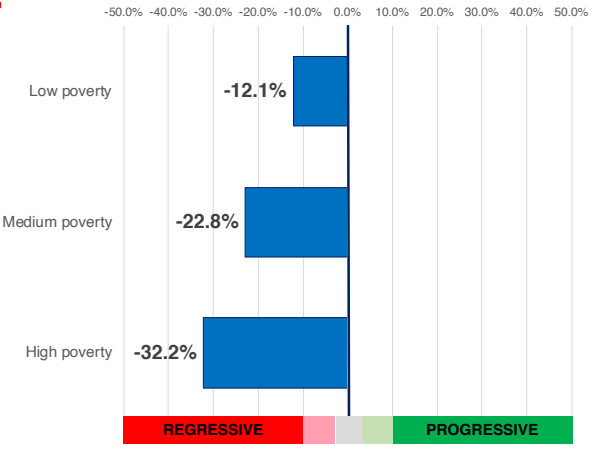
Poverty quintile	NV	U.S.
Lowest poverty	9.7	23.2
Low poverty	0.3	6.2
Medium poverty	-21.8	-6.3
High poverty	-25.5	-22.1
Highest poverty	-42.8	-28.2

- In its highest poverty districts, Nevada's spending is 42.8% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Nevada's highest poverty districts ranks #42 in the nation (out of 50).

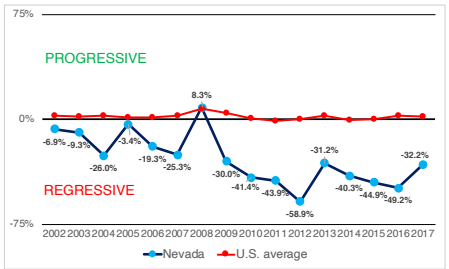
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Nevada is regressive.
- High poverty districts receive 32.2% less revenue than zero poverty districts (this level of progressivity ranks #51 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NV's funding was more regressive in 2017 (-32.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

NEW HAMPSHIRE

Description: This 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.

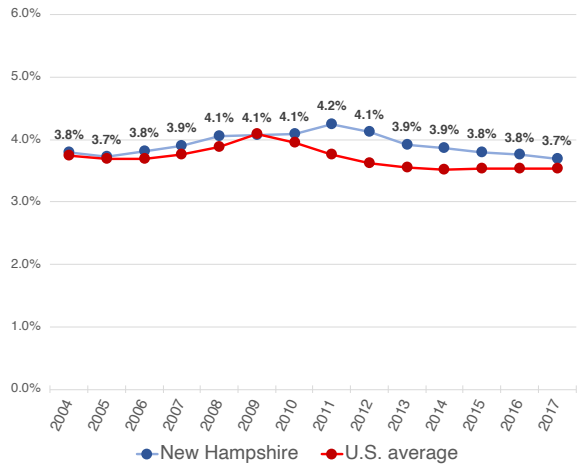
CONTEXTUAL STATS	NH	U.S.
Child (5-17yo) poverty rate (%)	9.1	17.3
Public school coverage (%)	89.6	87.8
Pct. revenue from state sources	32.1	47.1
Total enrollment (U.S. rank)	180,888 (41)	

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).

New Hampshire effort	3.69 %
U.S. average	3.53 %

- In FY 2017, New Hampshire spent 3.69% of its economic capacity directly on K-12 education.
- This was 0.16 percentage points higher than the unweighted national average of 3.53%.
- New Hampshire's effort level ranks #20 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NH increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.79% in 2004 to 4.07% in 2009.

Net change by period (% pts.)

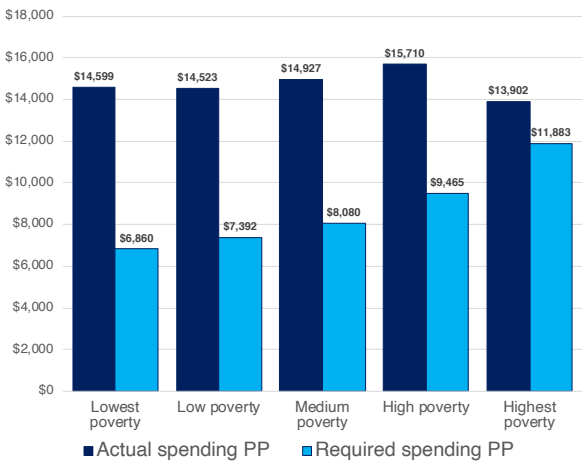
Period	NH	U.S.
2004-2009	0.28	0.35
2009-2017	-0.38	-0.56
2004-2017	-0.10	-0.21

- This was followed by a decrease of 0.38 percentage points between 2009 and 2017.
- NH's effort was 0.10 percentage points lower in 2017 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 $2,019 PP higher than the estimated adequate level ($11,883), a difference of 17.0%.
- Districts in New Hampshire's second highest poverty quintile receive 66.0% more than the estimated adequate level.



Adequacy: NH vs. US average

Percent above / below adequate

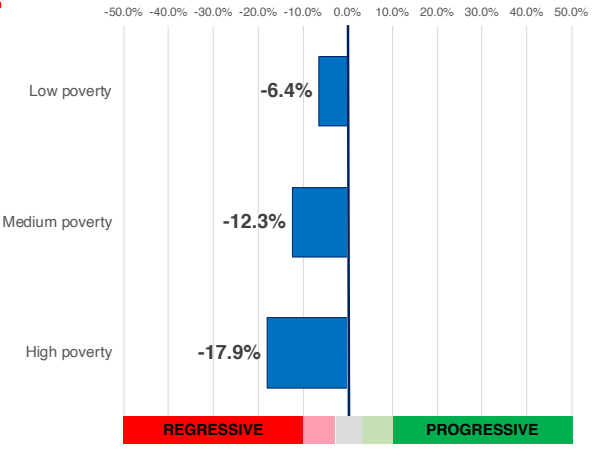
Poverty quintile	NH	U.S.
Lowest poverty	112.8	23.2
Low poverty	96.5	6.2
Medium poverty	84.7	-6.3
High poverty	66.0	-22.1
Highest poverty	17.0	-28.2

- In its highest poverty districts, New Hampshire's spending is 17.0% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in New Hampshire's highest poverty districts ranks #3 in the nation (out of 50).

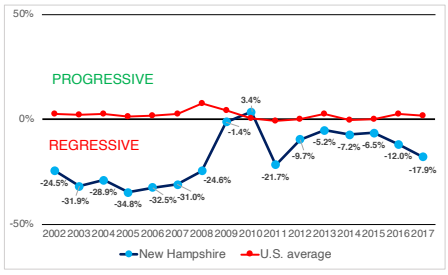
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Hampshire is regressive.
- High poverty districts receive 17.9% less revenue than zero poverty districts (this level of progressivity ranks #47 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NH's funding was less regressive in 2017 (-17.9%) vs. 2002 (-24.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

NEW JERSEY

Description: This 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.

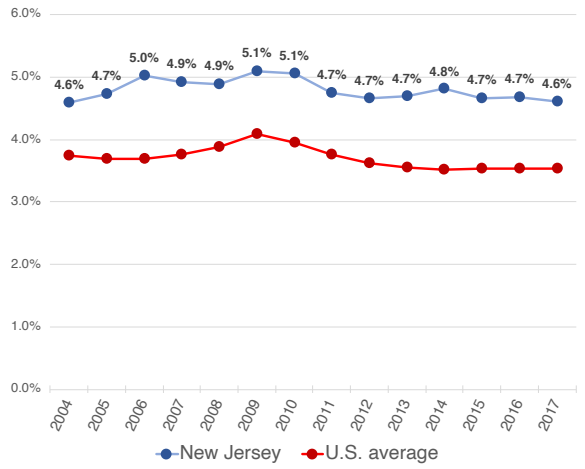
CONTEXTUAL STATS	NJ	U.S.
Child (5-17yo) poverty rate (%)	13.1	17.3
Public school coverage (%)	87.8	87.8
Pct. revenue from state sources	41.0	47.1
Total enrollment (U.S. rank)	1,410,421	(11)

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	4.61 %
U.S. average	3.53 %

- In FY 2017, New Jersey spent 4.61% of its economic capacity directly on K-12 education.
- This was 1.07 percentage points higher than the unweighted national average of 3.53%.
- New Jersey's effort level ranks #3 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NJ increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.59% in 2004 to 5.10% in 2009.

Net change by period (% pts.)

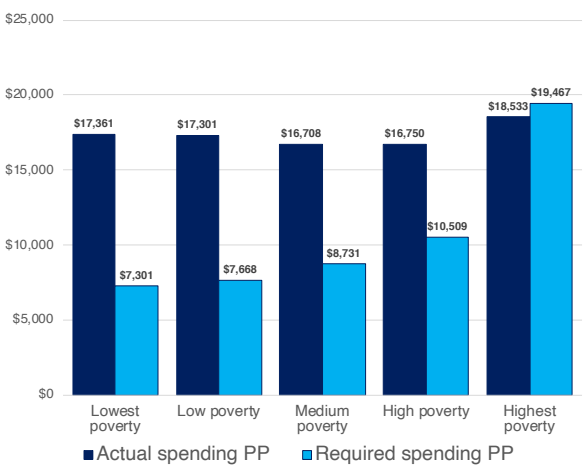
Period	NJ	U.S.
2004-2009	0.50	0.35
2009-2017	-0.49	-0.56
2004-2017	0.01	-0.21

- This was followed by a decrease of 0.49 percentage points between 2009 and 2017.
- NJ's effort was 0.01 percentage points higher in 2017 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 $934 PP lower than the estimated adequate level ($19,467), a difference of -4.8%.
- Districts in New Jersey's second highest poverty quintile receive 59.4% more than the estimated adequate level.



Adequacy: NJ vs. US average

Percent above / below adequate

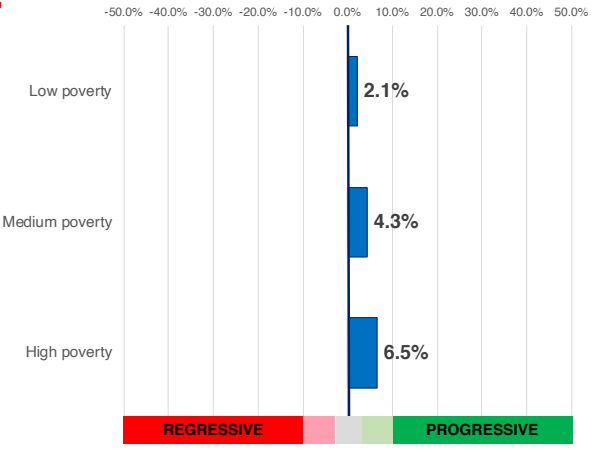
Poverty quintile	NJ	U.S.
Lowest poverty	137.8	23.2
Low poverty	125.6	6.2
Medium poverty	91.4	-6.3
High poverty	59.4	-22.1
Highest poverty	-4.8	-28.2

- In its highest poverty districts, New Jersey's spending is 4.8% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in New Jersey's highest poverty districts ranks #10 in the nation (out of 50).

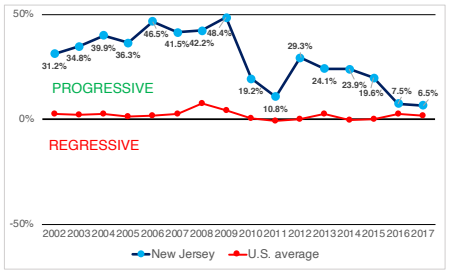
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Jersey is moderately progressive.
- High poverty districts receive 6.5% more revenue than zero poverty districts (this level of progressivity ranks #12 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NJ's funding was more regressive in 2017 (6.5%) vs. 2002 (31.2%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

NEW MEXICO

Description: This 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.

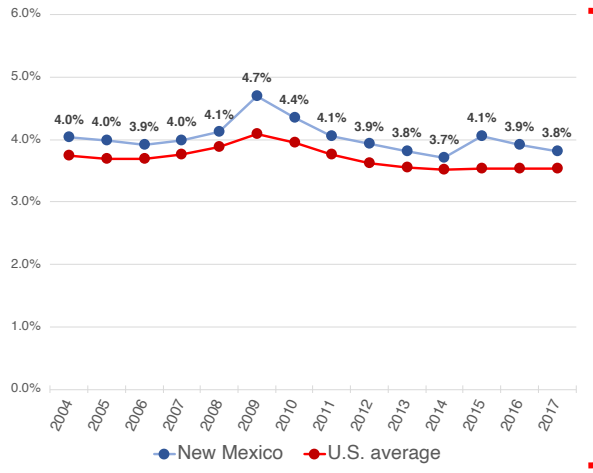
CONTEXTUAL STATS	NM	U.S.
Child (5-17yo) poverty rate (%)	24.6	17.3
Public school coverage (%)	91.4	87.8
Pct. revenue from state sources	66.5	47.1
Total enrollment (U.S. rank)	336,263 (36)	

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	3.82 %
U.S. average	3.53 %

- In FY 2017, New Mexico spent 3.82% of its economic capacity directly on K-12 education.
- This was 0.29 percentage points higher than the unweighted national average of 3.53%.
- New Mexico's effort level ranks #15 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NM increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.03% in 2004 to 4.70% in 2009.

Net change by period (% pts.)

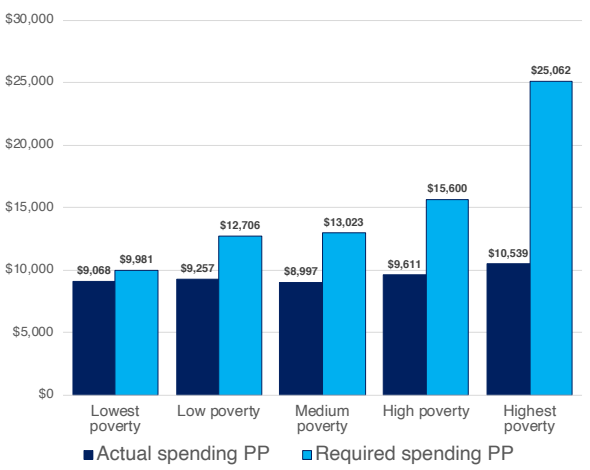
Period	NM	U.S.
2004-2009	0.66	0.35
2009-2017	-0.88	-0.56
2004-2017	-0.21	-0.21

- This was followed by a decrease of 0.88 percentage points between 2009 and 2017.
- NM's effort was 0.21 percentage points lower in 2017 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 $14,524 PP lower than the estimated adequate level ($25,062), a difference of -58.0%.
- Districts in New Mexico's second highest poverty quintile receive 38.4% less than the estimated adequate level.



Adequacy: NM vs. US average

Percent above / below adequate

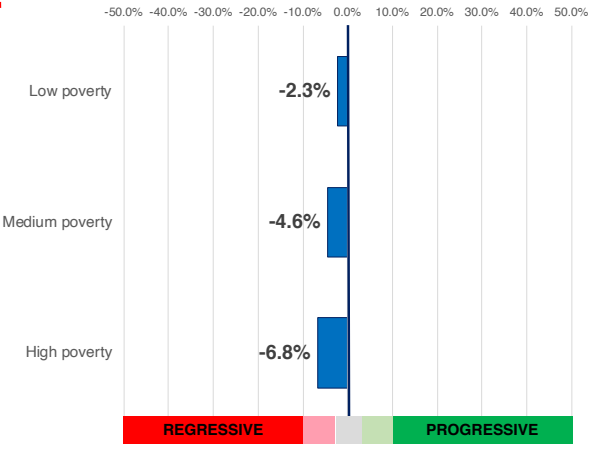
Poverty quintile	NM	U.S.
Lowest poverty	-9.1	23.2
Low poverty	-27.1	6.2
Medium poverty	-30.9	-6.3
High poverty	-38.4	-22.1
Highest poverty	-58.0	-28.2

- In its highest poverty districts, New Mexico's spending is 58.0% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in New Mexico's highest poverty districts ranks #49 in the nation (out of 50).

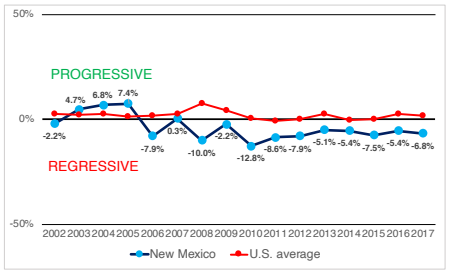
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Mexico is moderately regressive.
- High poverty districts receive 6.8% less revenue than zero poverty districts (this level of progressivity ranks #33 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NM's funding was more regressive in 2017 (-6.8%) vs. 2002 (-2.2%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

NEW YORK

Description: This 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.

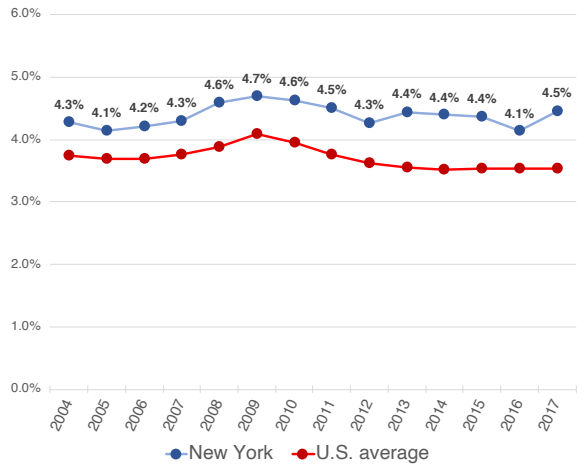
CONTEXTUAL STATS	NY	U.S.
Child (5-17yo) poverty rate (%)	18.9	17.3
Public school coverage (%)	84.6	87.8
Pct. revenue from state sources	40.8	47.1
Total enrollment (U.S. rank)	2,729,776 (4)	

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	4.45 %
U.S. average	3.53 %

- In FY 2017, New York spent 4.45% of its economic capacity directly on K-12 education.
- This was 0.92 percentage points higher than the unweighted national average of 3.53%.
- New York's effort level ranks #4 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.28% in 2004 to 4.69% in 2009.

Net change by period (% pts.)

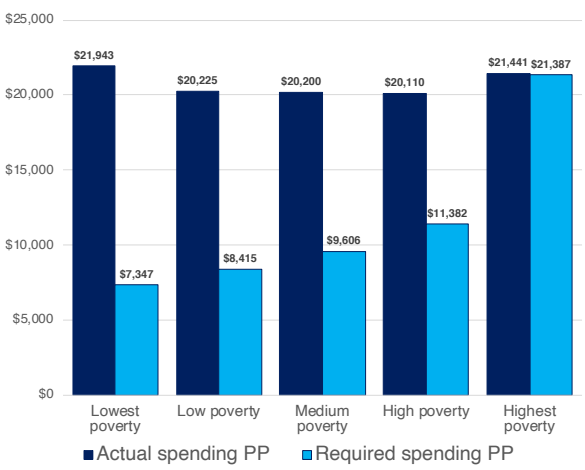
Period	NY	U.S.
2004-2009	0.41	0.35
2009-2017	-0.23	-0.56
2004-2017	0.18	-0.21

- This was followed by a decrease of 0.23 percentage points between 2009 and 2017.
- NY's effort was 0.18 percentage points higher in 2017 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 $55 PP higher than the estimated adequate level ($21,387), a difference of 0.3%.
- Districts in New York's second highest poverty quintile receive 76.7% more than the estimated adequate level.



Adequacy: NY vs. US average

Percent above / below adequate

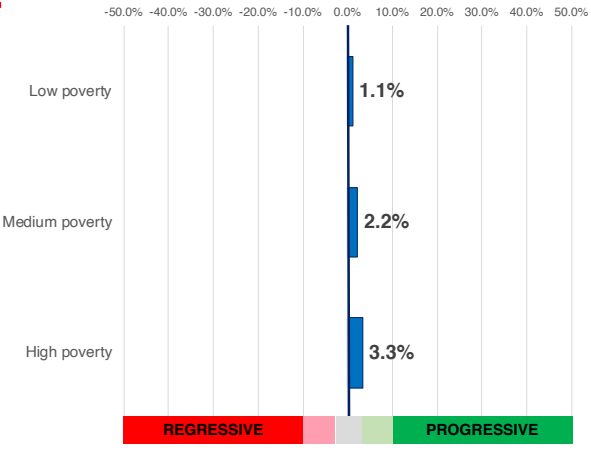
Poverty quintile	NY	U.S.
Lowest poverty	198.7	23.2
Low poverty	140.3	6.2
Medium poverty	110.3	-6.3
High poverty	76.7	-22.1
Highest poverty	0.3	-28.2

- In its highest poverty districts, New York's spending is 0.3% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in New York's highest poverty districts ranks #6 in the nation (out of 50).

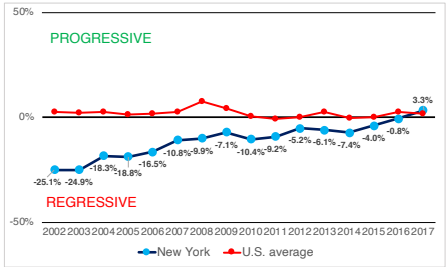
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in New York is moderately progressive.
- High poverty districts receive 3.3% more revenue than zero poverty districts (this level of progressivity ranks #15 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NY's funding was more progressive in 2017 (3.3%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

NORTH CAROLINA

Description: This 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.

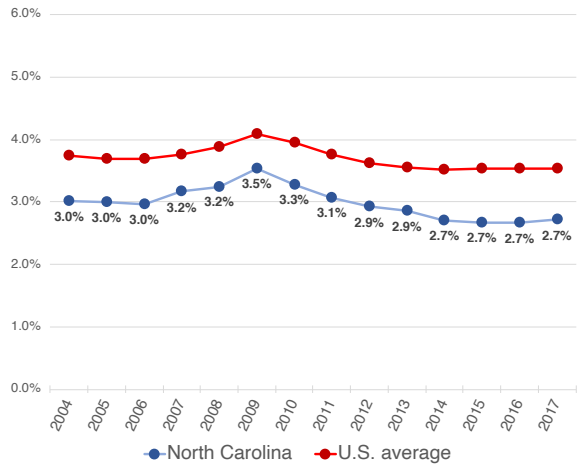
CONTEXTUAL STATS	NC	U.S.
Child (5-17yo) poverty rate (%)	19.6	17.3
Public school coverage (%)	88.2	87.8
Pct. revenue from state sources	61.5	47.1
Total enrollment (U.S. rank)	1,550,062 (9)	

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	2.72 %
U.S. average	3.53 %

- In FY 2017, North Carolina spent 2.72% of its economic capacity directly on K-12 education.
- This was 0.82 percentage points lower than the unweighted national average of 3.53%.
- North Carolina's effort level ranks #48 in the nation (out of 50).



Effort trends, 2004-17

- Effort in NC increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.02% in 2004 to 3.54% in 2009.

Net change by period (% pts.)

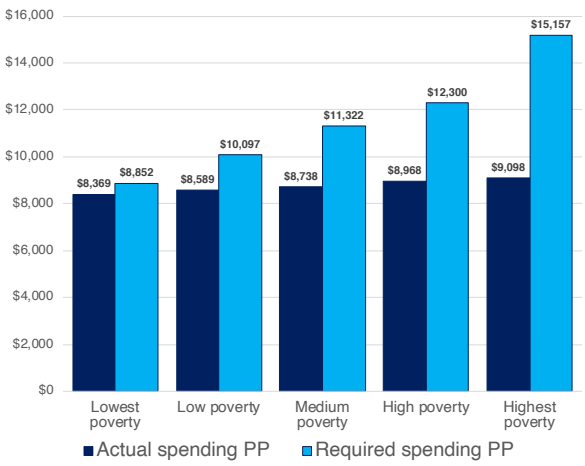
Period	NC	U.S.
2004-2009	0.52	0.35
2009-2017	-0.82	-0.56
2004-2017	-0.30	-0.21

- This was followed by a decrease of 0.82 percentage points between 2009 and 2017.
- NC's effort was 0.30 percentage points lower in 2017 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 $6,059 PP lower than the estimated adequate level ($15,157), a difference of -40.0%.
- Districts in North Carolina's second highest poverty quintile receive 27.1% less than the estimated adequate level.



Adequacy: NC vs. US average

Percent above / below adequate

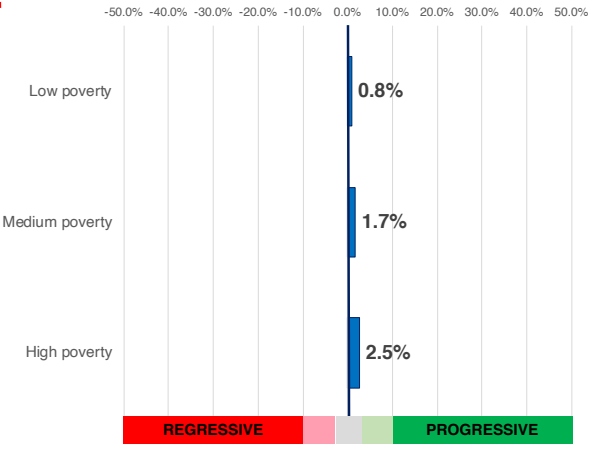
Poverty quintile	NC	U.S.
Lowest poverty	-5.5	23.2
Low poverty	-14.9	6.2
Medium poverty	-22.8	-6.3
High poverty	-27.1	-22.1
Highest poverty	-40.0	-28.2

- In its highest poverty districts, North Carolina's spending is 40.0% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in North Carolina's highest poverty districts ranks #38 in the nation (out of 50).

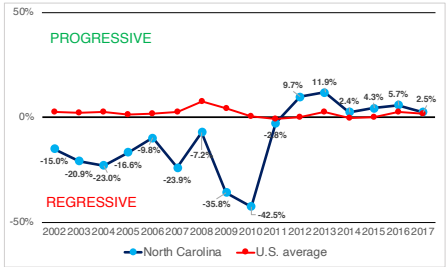
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in North Carolina is neither progressive nor regressive.
- High poverty districts receive 2.5% more revenue than zero poverty districts (this level of progressivity ranks #17 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- NC's funding was more progressive in 2017 (2.5%) vs. 2002 (-15.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

NORTH DAKOTA

Description: This 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.

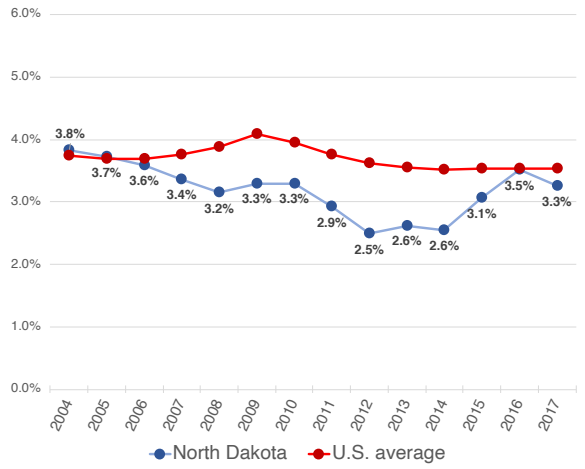
CONTEXTUAL STATS	ND	U.S.
Child (5-17yo) poverty rate (%)	10.4	17.3
Public school coverage (%)	90.6	87.8
Pct. revenue from state sources	58.0	47.1
Total enrollment (U.S. rank)	109,706 (48)	

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	3.26 %
U.S. average	3.53 %

- In FY 2017, North Dakota spent 3.26% of its economic capacity directly on K-12 education.
- This was 0.28 percentage points lower than the unweighted national average of 3.53%.
- North Dakota's effort level ranks #32 in the nation (out of 50).



Effort trends, 2004-17

- Effort in ND decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.83% in 2004 to 3.30% in 2009.

Net change by period (% pts.)

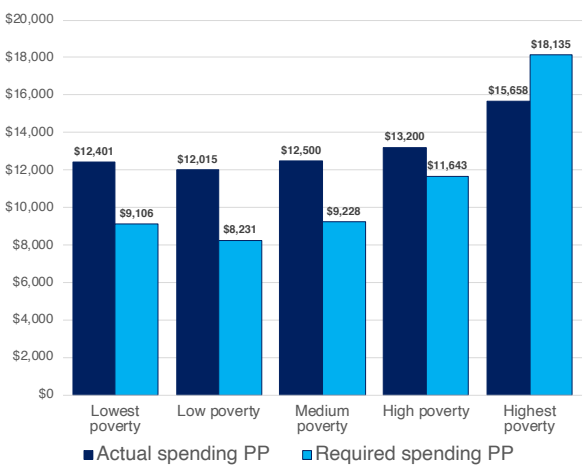
Period	ND	U.S.
2004-2009	-0.53	0.35
2009-2017	-0.04	-0.56
2004-2017	-0.57	-0.21

- This was followed by a decrease of 0.04 percentage points between 2009 and 2017.
- ND's effort was 0.57 percentage points lower in 2017 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 $2,477 PP lower than the estimated adequate level ($18,135), a difference of -13.7%.
- Districts in North Dakota's second highest poverty quintile receive 13.4% more than the estimated adequate level.



Adequacy: ND vs. US average

Percent above / below adequate

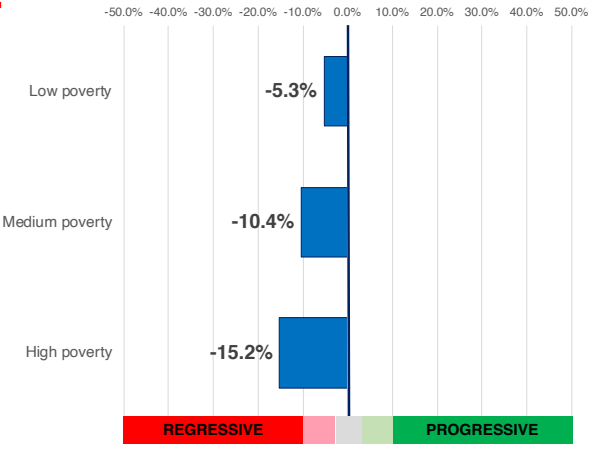
Poverty quintile	ND	U.S.
Lowest poverty	36.2	23.2
Low poverty	46.0	6.2
Medium poverty	35.5	-6.3
High poverty	13.4	-22.1
Highest poverty	-13.7	-28.2

- In its highest poverty districts, North Dakota's spending is 13.7% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in North Dakota's highest poverty districts ranks #16 in the nation (out of 50).

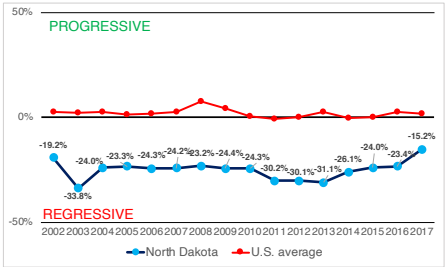
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in North Dakota is regressive.
- High poverty districts receive 15.2% less revenue than zero poverty districts (this level of progressivity ranks #43 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ND's funding was less regressive in 2017 (-15.2%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

OHIO

Description: This 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.

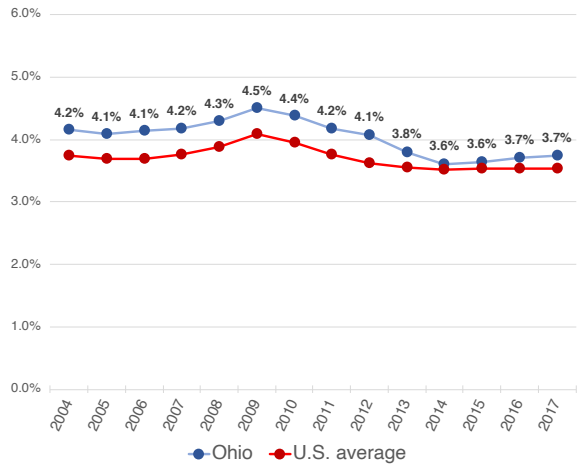
CONTEXTUAL STATS	OH	U.S.
Child (5-17yo) poverty rate (%)	18.2	17.3
Public school coverage (%)	85.3	87.8
Pct. revenue from state sources	40.3	47.1
Total enrollment (U.S. rank)	1,710,143 (8)	

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	3.75 %
U.S. average	3.53 %

- In FY 2017, Ohio spent 3.75% of its economic capacity directly on K-12 education.
- This was 0.22 percentage points higher than the unweighted national average of 3.53%.
- Ohio's effort level ranks #17 in the nation (out of 50).



Effort trends, 2004-17

- Effort in OH increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.15% in 2004 to 4.50% in 2009.

Net change by period (% pts.)

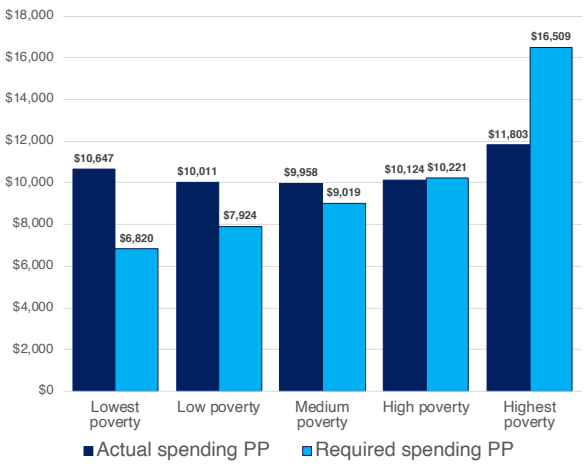
Period	OH	U.S.
2004-2009	0.35	0.35
2009-2017	-0.75	-0.56
2004-2017	-0.40	-0.21

- This was followed by a decrease of 0.75 percentage points between 2009 and 2017.
- OH's effort was 0.40 percentage points lower in 2017 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 $4,706 PP lower than the estimated adequate level ($16,509), a difference of -28.5%.
- Districts in Ohio's second highest poverty quintile receive 1.0% less than the estimated adequate level.



Adequacy: OH vs. US average

Percent above / below adequate

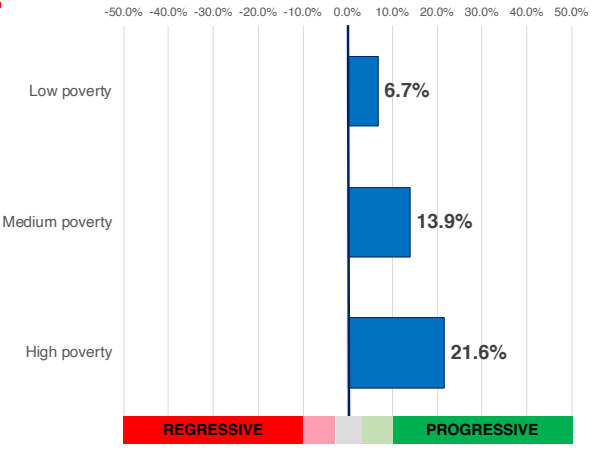
Poverty quintile	OH	U.S.
Lowest poverty	56.1	23.2
Low poverty	26.3	6.2
Medium poverty	10.4	-6.3
High poverty	-1.0	-22.1
Highest poverty	-28.5	-28.2

- In its highest poverty districts, Ohio's spending is 28.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Ohio's highest poverty districts ranks #25 in the nation (out of 50).

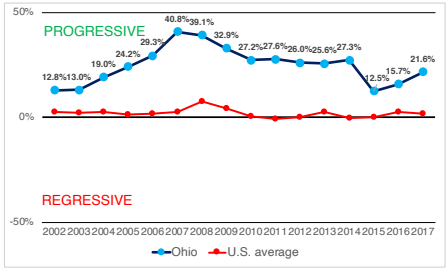
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Ohio is progressive.
- High poverty districts receive 21.6% more revenue than zero poverty districts (this level of progressivity ranks #6 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- OH's funding was more progressive in 2017 (21.6%) vs. 2002 (12.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

OKLAHOMA

Description: This 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.

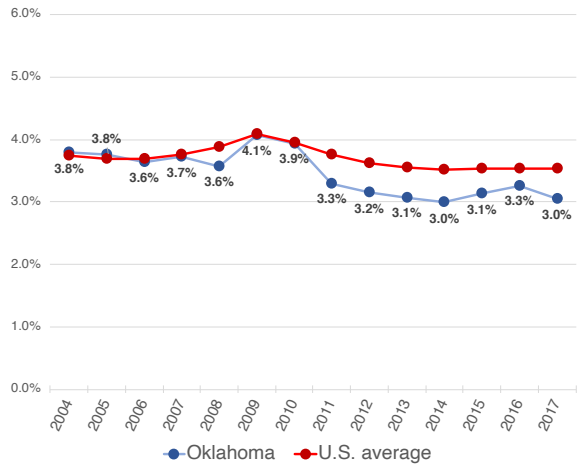
CONTEXTUAL STATS	OK	U.S.
Child (5-17yo) poverty rate (%)	20.1	17.3
Public school coverage (%)	89.7	87.8
Pct. revenue from state sources	46.6	47.1
Total enrollment (U.S. rank)	693,903 (26)	

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	3.05 %
U.S. average	3.53 %

- In FY 2017, Oklahoma spent 3.05% of its economic capacity directly on K-12 education.
- This was 0.49 percentage points lower than the unweighted national average of 3.53%.
- Oklahoma's effort level ranks #39 in the nation (out of 50).



Effort trends, 2004-17

- Effort in OK increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.79% in 2004 to 4.08% in 2009.

Net change by period (% pts.)

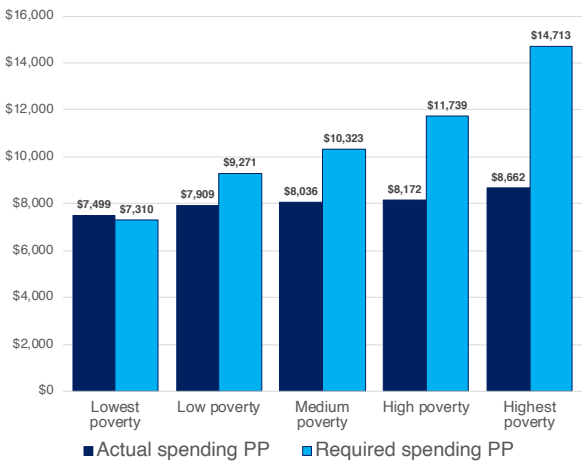
Period	OK	U.S.
2004-2009	0.29	0.35
2009-2017	-1.03	-0.56
2004-2017	-0.74	-0.21

- This was followed by a decrease of 1.03 percentage points between 2009 and 2017.
- OK's effort was 0.74 percentage points lower in 2017 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 $6,050 PP lower than the estimated adequate level ($14,713), a difference of -41.1%.
- Districts in Oklahoma's second highest poverty quintile receive 30.4% less than the estimated adequate level.



Adequacy: OK vs. US average

Percent above / below adequate

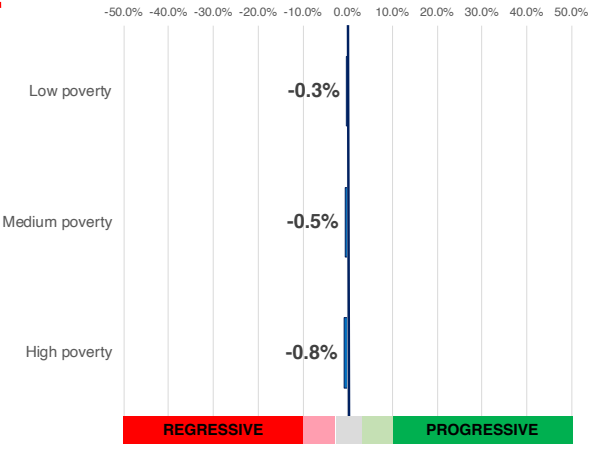
Poverty quintile	OK	U.S.
Lowest poverty	2.6	23.2
Low poverty	-14.7	6.2
Medium poverty	-22.2	-6.3
High poverty	-30.4	-22.1
Highest poverty	-41.1	-28.2

- In its highest poverty districts, Oklahoma's spending is 41.1% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Oklahoma's highest poverty districts ranks #40 in the nation (out of 50).

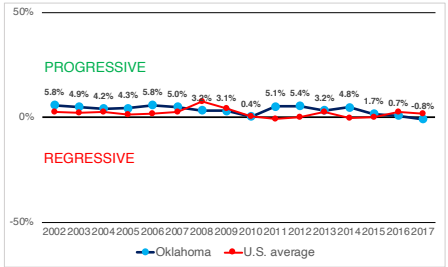
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Oklahoma is neither progressive nor regressive.
- High poverty districts receive 0.8% less revenue than zero poverty districts (this level of progressivity ranks #25 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- OK's funding was more regressive in 2017 (-0.8%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

OREGON

Description: This 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.

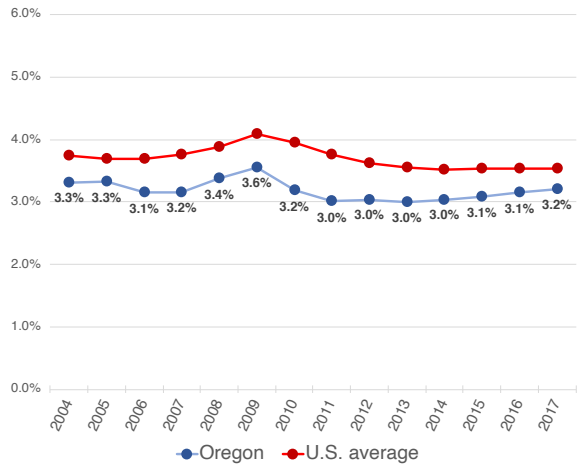
CONTEXTUAL STATS	OR	U.S.
Child (5-17yo) poverty rate (%)	14.9	17.3
Public school coverage (%)	87.4	87.8
Pct. revenue from state sources	52.5	47.1
Total enrollment (U.S. rank)	606,277 (29)	

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	3.21 %
U.S. average	3.53 %

- In FY 2017, Oregon spent 3.21% of its economic capacity directly on K-12 education.
- This was 0.32 percentage points lower than the unweighted national average of 3.53%.
- Oregon's effort level ranks #34 in the nation (out of 50).



Effort trends, 2004-17

- Effort in OR increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.31% in 2004 to 3.55% in 2009.

Net change by period (% pts.)

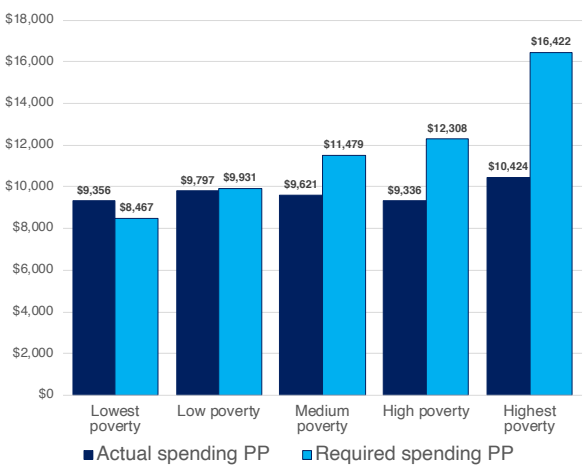
Period	OR	U.S.
2004-2009	0.24	0.35
2009-2017	-0.34	-0.56
2004-2017	-0.10	-0.21

- This was followed by a decrease of 0.34 percentage points between 2009 and 2017.
- OR's effort was 0.10 percentage points lower in 2017 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 $5,998 PP lower than the estimated adequate level ($16,422), a difference of -36.5%.
- Districts in Oregon's second highest poverty quintile receive 24.2% less than the estimated adequate level.



Adequacy: OR vs. US average

Percent above / below adequate

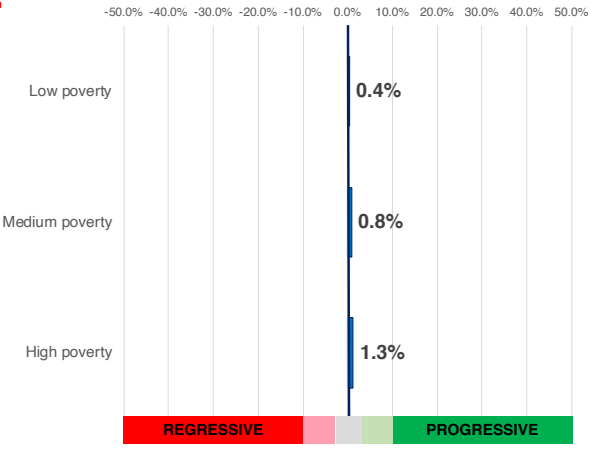
Poverty quintile	OR	U.S.
Lowest poverty	10.5	23.2
Low poverty	-1.3	6.2
Medium poverty	-16.2	-6.3
High poverty	-24.2	-22.1
Highest poverty	-36.5	-28.2

- In its highest poverty districts, Oregon's spending is 36.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Oregon's highest poverty districts ranks #35 in the nation (out of 50).

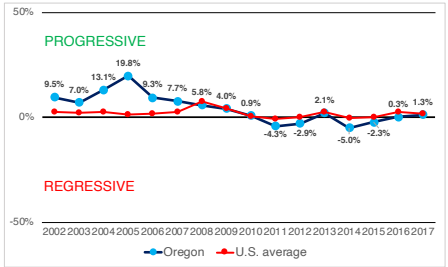
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Oregon is neither progressive nor regressive.
- High poverty districts receive 1.3% more revenue than zero poverty districts (this level of progressivity ranks #21 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- OR's funding was more regressive in 2017 (1.3%) vs. 2002 (9.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

PENNSYLVANIA

Description: This 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.

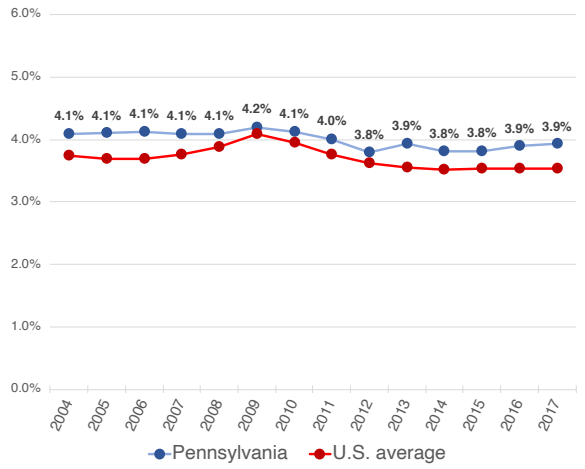
CONTEXTUAL STATS	PA	U.S.
Child (5-17yo) poverty rate (%)	15.7	17.3
Public school coverage (%)	85.2	87.8
Pct. revenue from state sources	38.7	47.1
Total enrollment (U.S. rank)	1,727,497 (7)	

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	3.93 %
U.S. average	3.53 %

- In FY 2017, Pennsylvania spent 3.93% of its economic capacity directly on K-12 education.
- This was 0.39 percentage points higher than the unweighted national average of 3.53%.
- Pennsylvania's effort level ranks #12 in the nation (out of 50).



Effort trends, 2004-17

- Effort in PA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.10% in 2004 to 4.20% in 2009.

Net change by period (% pts.)

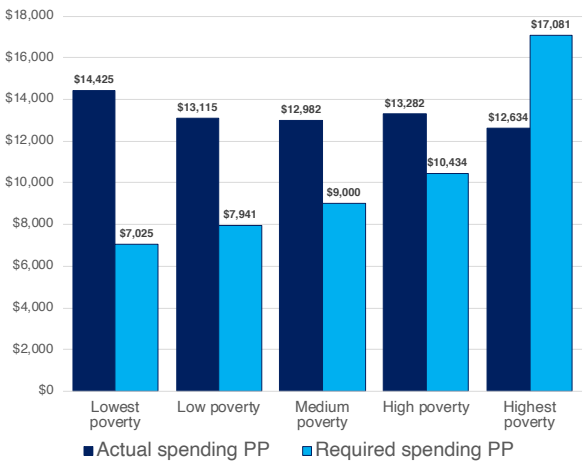
Period	PA	U.S.
2004-2009	0.10	0.35
2009-2017	-0.27	-0.56
2004-2017	-0.17	-0.21

- This was followed by a decrease of 0.27 percentage points between 2009 and 2017.
- PA's effort was 0.17 percentage points lower in 2017 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 $4,446 PP lower than the estimated adequate level ($17,081), a difference of -26.0%.
- Districts in Pennsylvania's second highest poverty quintile receive 27.3% more than the estimated adequate level.



Adequacy: PA vs. US average

Percent above / below adequate

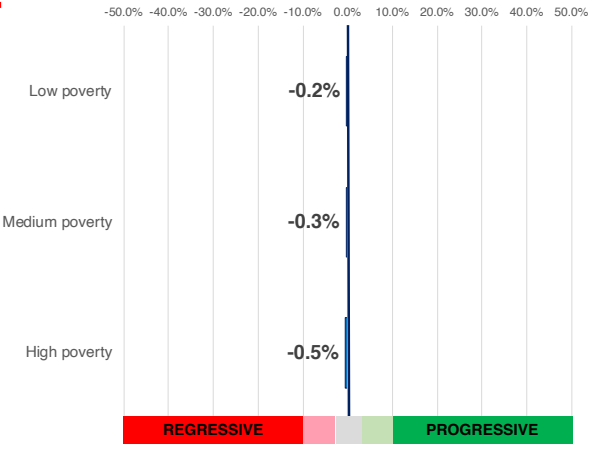
Poverty quintile	PA	U.S.
Lowest poverty	105.3	23.2
Low poverty	65.2	6.2
Medium poverty	44.2	-6.3
High poverty	27.3	-22.1
Highest poverty	-26.0	-28.2

- In its highest poverty districts, Pennsylvania's spending is 26.0% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Pennsylvania's highest poverty districts ranks #24 in the nation (out of 50).

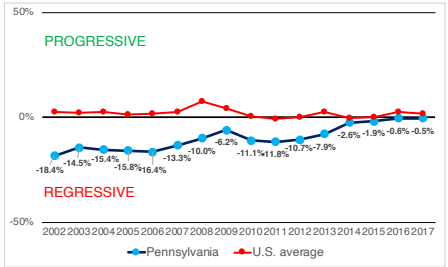
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Pennsylvania is neither progressive nor regressive.
- High poverty districts receive 0.5% less revenue than zero poverty districts (this level of progressivity ranks #24 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- PA's funding was less regressive in 2017 (-0.5%) vs. 2002 (-18.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

RHODE ISLAND

Description: This 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.

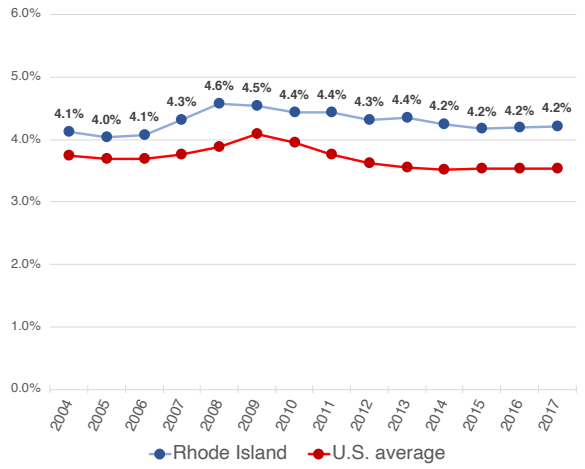
CONTEXTUAL STATS	RI	U.S.
Child (5-17yo) poverty rate (%)	17.1	17.3
Public school coverage (%)	87.2	87.8
Pct. revenue from state sources	40.5	47.1
Total enrollment (U.S. rank)	142,150 (44)	

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	4.22 %
U.S. average	3.53 %

- In FY 2017, Rhode Island spent 4.22% of its economic capacity directly on K-12 education.
- This was 0.68 percentage points higher than the unweighted national average of 3.53%.
- Rhode Island's effort level ranks #6 in the nation (out of 50).



Effort trends, 2004-17

- Effort in RI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.13% in 2004 to 4.54% in 2009.

Net change by period (% pts.)

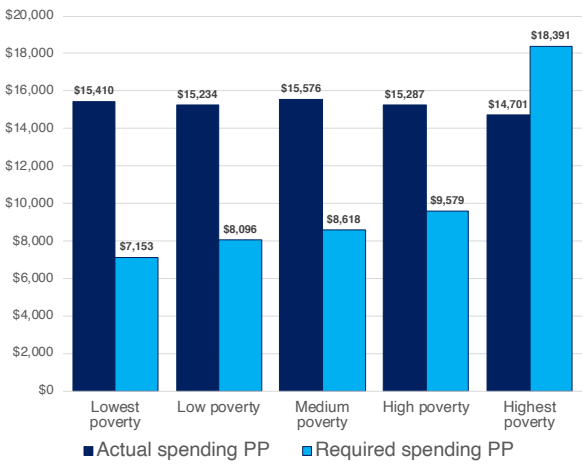
Period	RI	U.S.
2004-2009	0.42	0.35
2009-2017	-0.33	-0.56
2004-2017	0.09	-0.21

- This was followed by a decrease of 0.33 percentage points between 2009 and 2017.
- RI's effort was 0.09 percentage points higher in 2017 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 $3,691 PP lower than the estimated adequate level ($18,391), a difference of -20.1%.
- Districts in Rhode Island's second highest poverty quintile receive 59.6% more than the estimated adequate level.



Adequacy: RI vs. US average

Percent above / below adequate

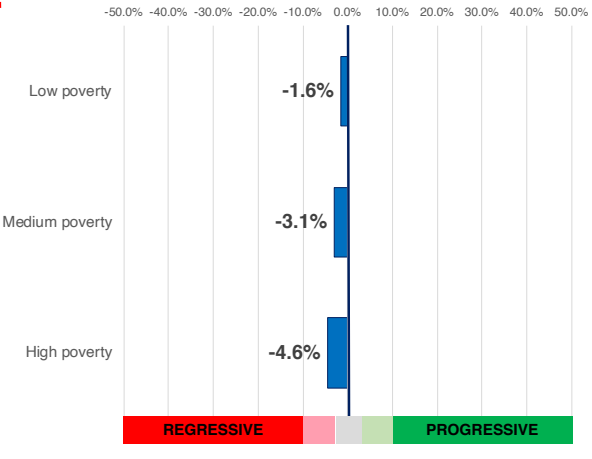
Poverty quintile	RI	U.S.
Lowest poverty	115.4	23.2
Low poverty	88.2	6.2
Medium poverty	80.7	-6.3
High poverty	59.6	-22.1
Highest poverty	-20.1	-28.2

- In its highest poverty districts, Rhode Island's spending is 20.1% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Rhode Island's highest poverty districts ranks #19 in the nation (out of 50).

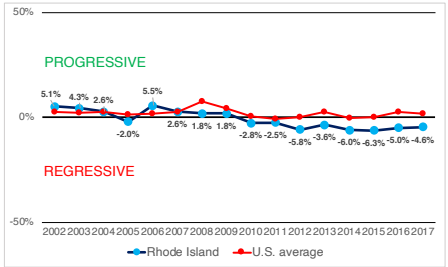
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Rhode Island is moderately regressive.
- High poverty districts receive 4.6% less revenue than zero poverty districts (this level of progressivity ranks #29 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- RI's funding was more regressive in 2017 (-4.6%) vs. 2002 (5.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

SOUTH CAROLINA

Description: This 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.

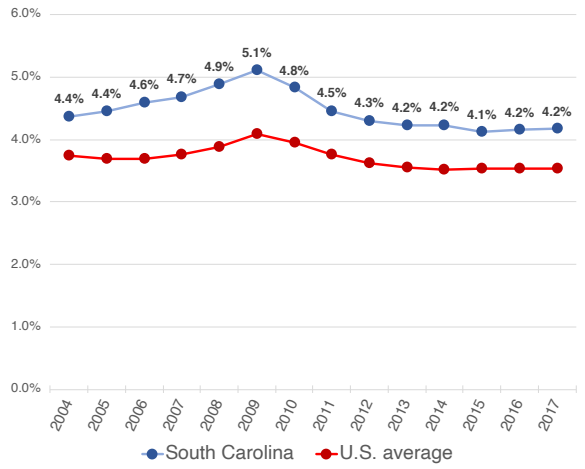
CONTEXTUAL STATS	SC	U.S.
Child (5-17yo) poverty rate (%)	21.3	17.3
Public school coverage (%)	88.6	87.8
Pct. revenue from state sources	47.5	47.1
Total enrollment (U.S. rank)	771,250 (23)	

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	4.17 %
U.S. average	3.53 %

- In FY 2017, South Carolina spent 4.17% of its economic capacity directly on K-12 education.
- This was 0.64 percentage points higher than the unweighted national average of 3.53%.
- South Carolina's effort level ranks #7 in the nation (out of 50).



Effort trends, 2004-17

- Effort in SC increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.37% in 2004 to 5.10% in 2009.

Net change by period (% pts.)

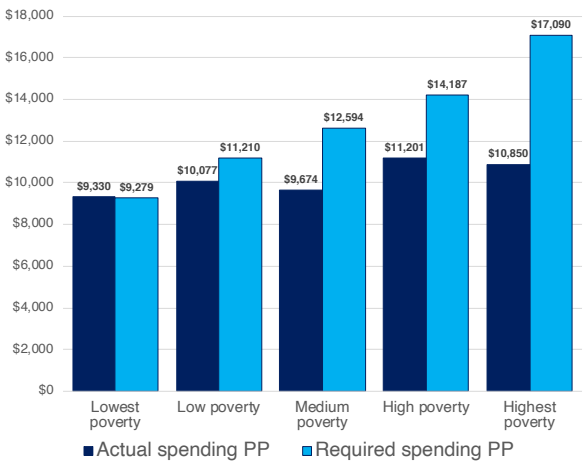
Period	SC	U.S.
2004-2009	0.73	0.35
2009-2017	-0.93	-0.56
2004-2017	-0.20	-0.21

- This was followed by a decrease of 0.93 percentage points between 2009 and 2017.
- SC's effort was 0.20 percentage points lower in 2017 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 $6,240 PP lower than the estimated adequate level ($17,090), a difference of -36.5%.
- Districts in South Carolina's second highest poverty quintile receive 21.0% less than the estimated adequate level.



Adequacy: SC vs. US average

Percent above / below adequate

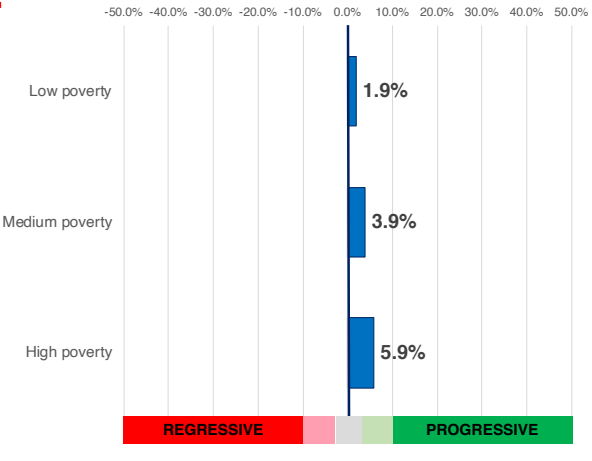
Poverty quintile	SC	U.S.
Lowest poverty	0.6	23.2
Low poverty	-10.1	6.2
Medium poverty	-23.2	-6.3
High poverty	-21.0	-22.1
Highest poverty	-36.5	-28.2

- In its highest poverty districts, South Carolina's spending is 36.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in South Carolina's highest poverty districts ranks #34 in the nation (out of 50).

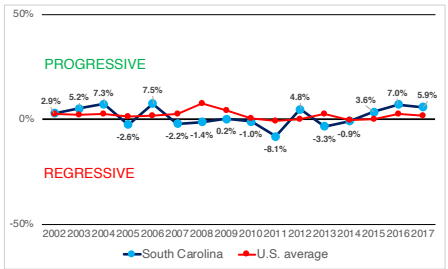
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in South Carolina is moderately progressive.
- High poverty districts receive 5.9% more revenue than zero poverty districts (this level of progressivity ranks #13 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- SC's funding was more progressive in 2017 (5.9%) vs. 2002 (2.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

SOUTH DAKOTA

Description: This 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.

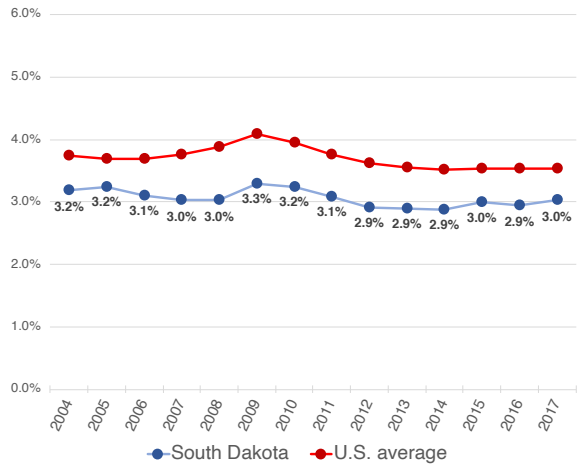
CONTEXTUAL STATS	SD	U.S.
Child (5-17yo) poverty rate (%)	15.2	17.3
Public school coverage (%)	89.5	87.8
Pct. revenue from state sources	34.1	47.1
Total enrollment (U.S. rank)	136,302 (45)	

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	3.03 %
U.S. average	3.53 %

- In FY 2017, South Dakota spent 3.03% of its economic capacity directly on K-12 education.
- This was 0.50 percentage points lower than the unweighted national average of 3.53%.
- South Dakota's effort level ranks #41 in the nation (out of 50).



Effort trends, 2004-17

- Effort in SD increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.19% in 2004 to 3.29% in 2009.

Net change by period (% pts.)

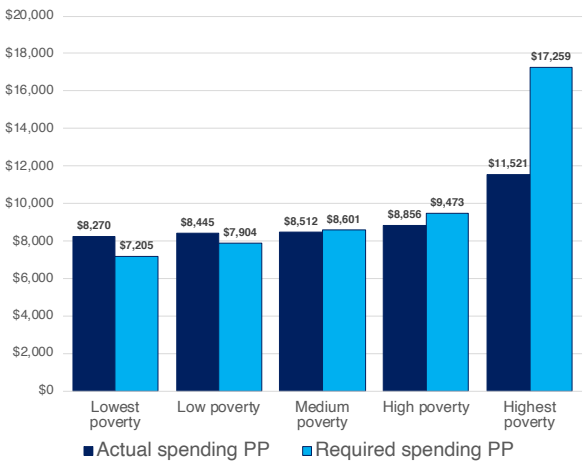
Period	SD	U.S.
2004-2009	0.11	0.35
2009-2017	-0.26	-0.56
2004-2017	-0.16	-0.21

- This was followed by a decrease of 0.26 percentage points between 2009 and 2017.
- SD's effort was 0.16 percentage points lower in 2017 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 $5,738 PP lower than the estimated adequate level ($17,259), a difference of -33.2%.
- Districts in South Dakota's second highest poverty quintile receive 6.5% less than the estimated adequate level.



Adequacy: SD vs. US average

Percent above / below adequate

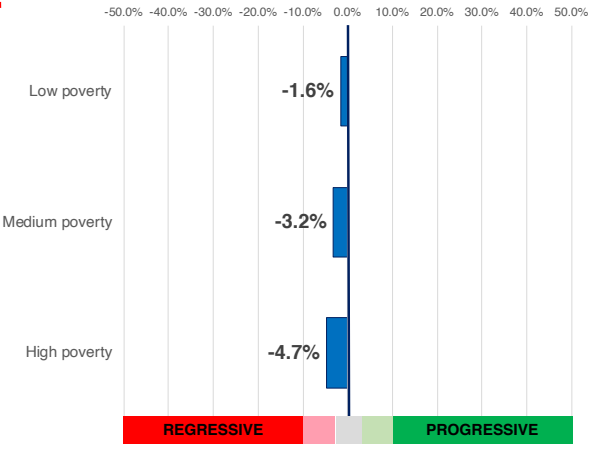
Poverty quintile	SD	U.S.
Lowest poverty	14.8	23.2
Low poverty	6.9	6.2
Medium poverty	-1.0	-6.3
High poverty	-6.5	-22.1
Highest poverty	-33.2	-28.2

- In its highest poverty districts, South Dakota's spending is 33.2% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in South Dakota's highest poverty districts ranks #32 in the nation (out of 50).

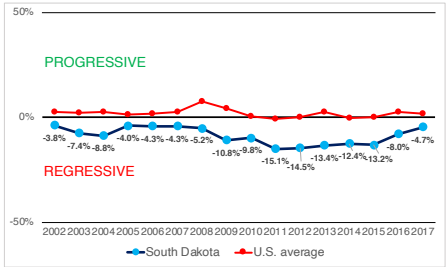
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in South Dakota is moderately regressive.
- High poverty districts receive 4.7% less revenue than zero poverty districts (this level of progressivity ranks #30 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- SD's funding was more regressive in 2017 (-4.7%) vs. 2002 (-3.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

TENNESSEE

Description: This 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.

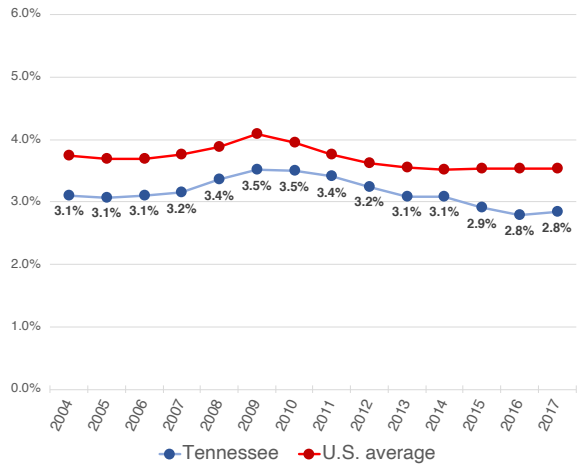
CONTEXTUAL STATS	TN	U.S.
Child (5-17yo) poverty rate (%)	19.8	17.3
Public school coverage (%)	85.8	87.8
Pct. revenue from state sources	45.6	47.1
Total enrollment (U.S. rank)	1,001,562 (16)	

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	2.84 %
U.S. average	3.53 %

- ⊕ In FY 2017, Tennessee spent 2.84% of its economic capacity directly on K-12 education.
- ⊕ This was 0.70 percentage points lower than the unweighted national average of 3.53%.
- ⊕ Tennessee's effort level ranks #46 in the nation (out of 50).



Effort trends, 2004-17

- ⊕ 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 3.51% in 2009.

Net change by period (% pts.)

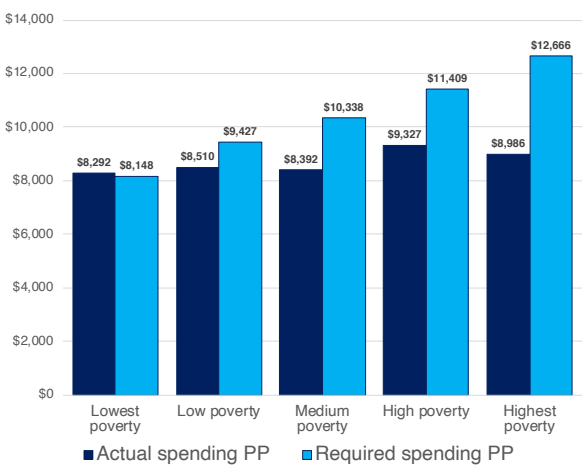
Period	TN	U.S.
2004-2009	0.40	0.35
2009-2017	-0.67	-0.56
2004-2017	-0.27	-0.21

- ⊕ This was followed by a decrease of 0.67 percentage points between 2009 and 2017.
- ⊕ TN's effort was 0.27 percentage points lower in 2017 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 $3,680 PP lower than the estimated adequate level ($12,666), a difference of -29.1%.
- ⊕ Districts in Tennessee's second highest poverty quintile receive 18.3% less than the estimated adequate level.



Adequacy: TN vs. US average

Percent above / below adequate

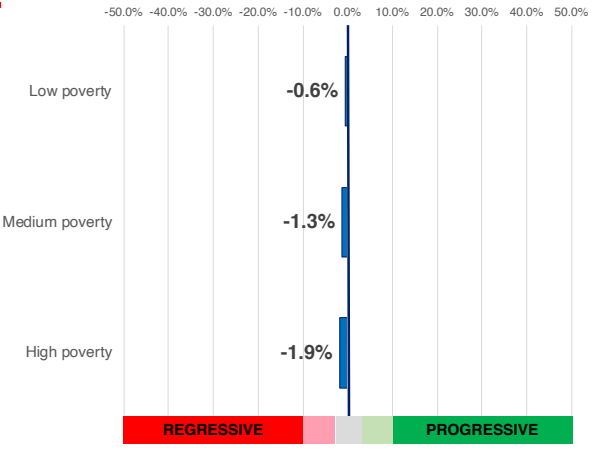
Poverty quintile	TN	U.S.
Lowest poverty	1.8	23.2
Low poverty	-9.7	6.2
Medium poverty	-18.8	-6.3
High poverty	-18.3	-22.1
Highest poverty	-29.1	-28.2

- ⊕ In its highest poverty districts, Tennessee's spending is 29.1% below the adequate level, compared with a -28.2% U.S. average.
- ⊕ Adequacy in Tennessee's highest poverty districts ranks #28 in the nation (out of 50).

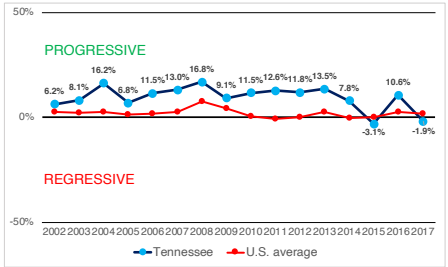
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- ⊕ School funding in Tennessee is neither progressive nor regressive.
- ⊕ High poverty districts receive 1.9% less revenue than zero poverty districts (this level of progressivity ranks #27 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- ⊕ TN's funding was more regressive in 2017 (-1.9%) vs. 2002 (6.2%).
- ⊕ 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

TEXAS

Description: This 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.

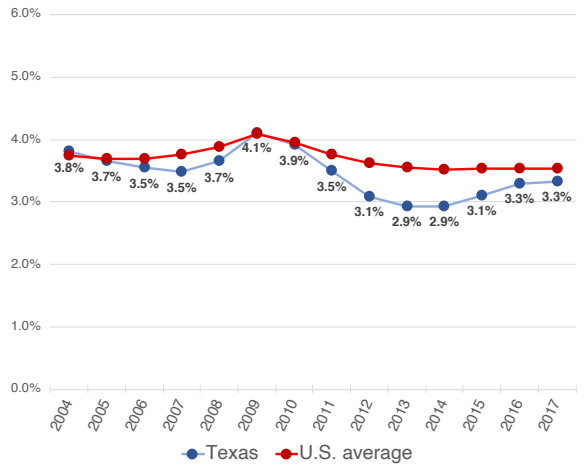
CONTEXTUAL STATS	TX	U.S.
Child (5-17yo) poverty rate (%)	19.9	17.3
Public school coverage (%)	91.5	87.8
Pct. revenue from state sources	35.6	47.1
Total enrollment (U.S. rank)	5,360,849 (2)	

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	3.33 %
U.S. average	3.53 %

- In FY 2017, Texas spent 3.33% of its economic capacity directly on K-12 education.
- This was 0.20 percentage points lower than the unweighted national average of 3.53%.
- Texas's effort level ranks #30 in the nation (out of 50).



Effort trends, 2004-17

- Effort in TX increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.81% in 2004 to 4.11% in 2009.

Net change by period (% pts.)

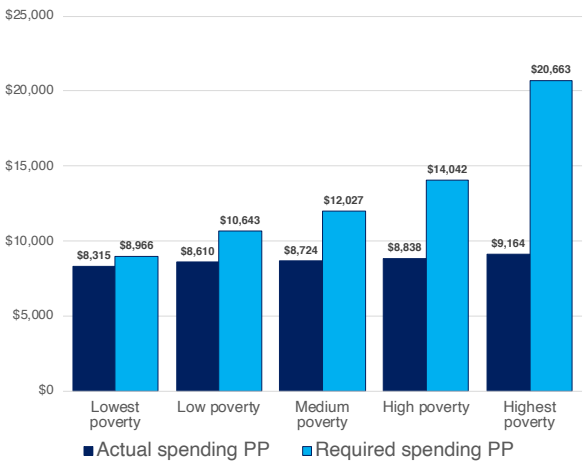
Period	TX	U.S.
2004-2009	0.31	0.35
2009-2017	-0.78	-0.56
2004-2017	-0.48	-0.21

- This was followed by a decrease of 0.78 percentage points between 2009 and 2017.
- TX's effort was 0.48 percentage points lower in 2017 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 $11,499 PP lower than the estimated adequate level ($20,663), a difference of -55.6%.
- Districts in Texas's second highest poverty quintile receive 37.1% less than the estimated adequate level.



Adequacy: TX vs. US average

Percent above / below adequate

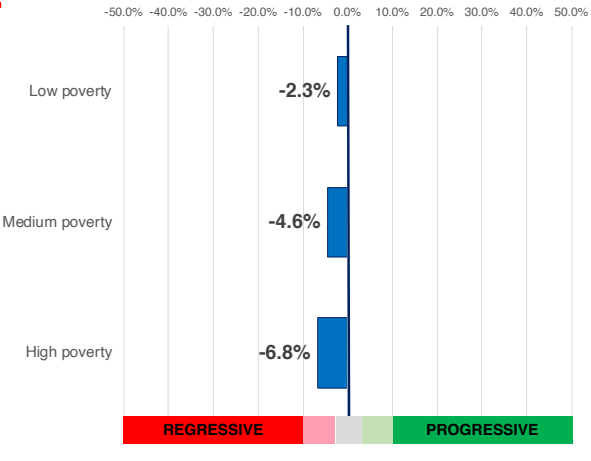
Poverty quintile	TX	U.S.
Lowest poverty	-7.3	23.2
Low poverty	-19.1	6.2
Medium poverty	-27.5	-6.3
High poverty	-37.1	-22.1
Highest poverty	-55.6	-28.2

- In its highest poverty districts, Texas's spending is 55.6% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Texas's highest poverty districts ranks #47 in the nation (out of 50).

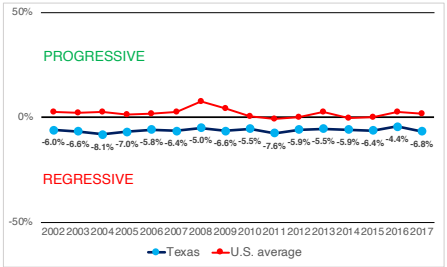
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Texas is moderately regressive.
- High poverty districts receive 6.8% less revenue than zero poverty districts (this level of progressivity ranks #34 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- TX's funding was more regressive in 2017 (-6.8%) vs. 2002 (-6.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

UTAH

Description: This 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.

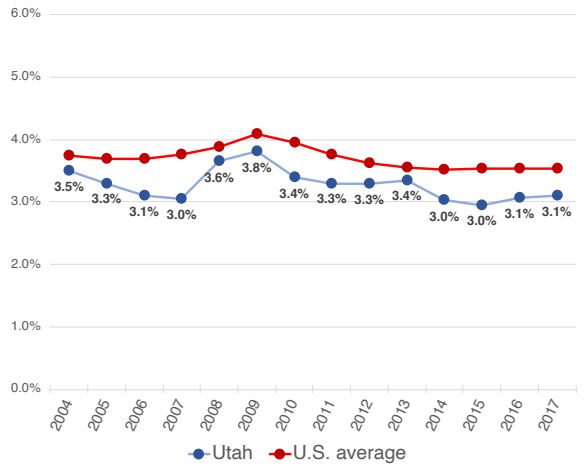
CONTEXTUAL STATS	UT	U.S.
Child (5-17yo) poverty rate (%)	9.5	17.3
Public school coverage (%)	92.3	87.8
Pct. revenue from state sources	51.8	47.1
Total enrollment (U.S. rank)	659,801 (28)	

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	3.09 %
U.S. average	3.53 %

- In FY 2017, Utah spent 3.09% of its economic capacity directly on K-12 education.
- This was 0.44 percentage points lower than the unweighted national average of 3.53%.
- Utah's effort level ranks #36 in the nation (out of 50).



Effort trends, 2004-17

- Effort in UT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.50% in 2004 to 3.81% in 2009.

Net change by period (% pts.)

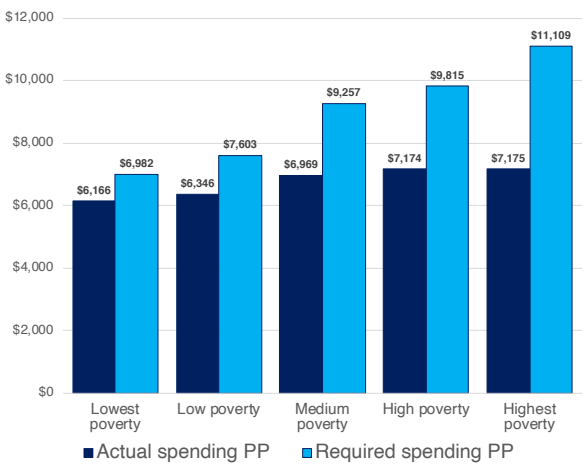
Period	UT	U.S.
2004-2009	0.31	0.35
2009-2017	-0.71	-0.56
2004-2017	-0.40	-0.21

- This was followed by a decrease of 0.71 percentage points between 2009 and 2017.
- UT's effort was 0.40 percentage points lower in 2017 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 $3,934 PP lower than the estimated adequate level ($11,109), a difference of -35.4%.
- Districts in Utah's second highest poverty quintile receive 26.9% less than the estimated adequate level.



Adequacy: UT vs. US average

Percent above / below adequate

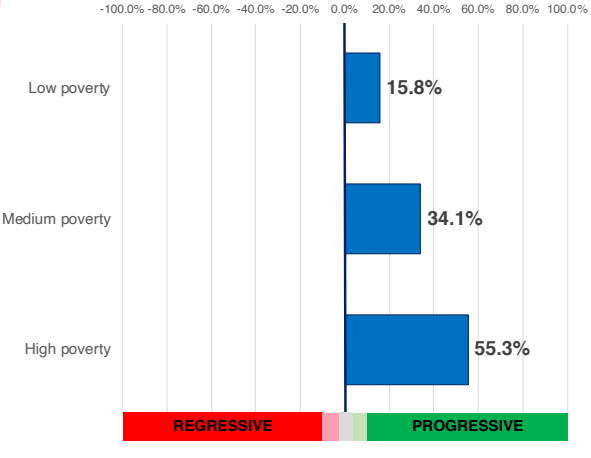
Poverty quintile	UT	U.S.
Lowest poverty	-11.7	23.2
Low poverty	-16.5	6.2
Medium poverty	-24.7	-6.3
High poverty	-26.9	-22.1
Highest poverty	-35.4	-28.2

- In its highest poverty districts, Utah's spending is 35.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Utah's highest poverty districts ranks #33 in the nation (out of 50).

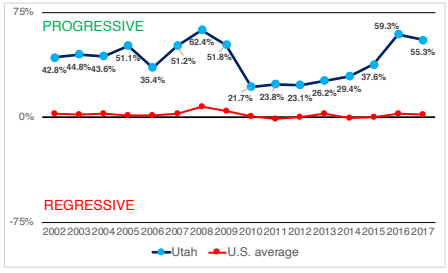
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Utah is progressive.
- High poverty districts receive 55.3% more revenue than zero poverty districts (this level of progressivity ranks #3 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- UT's funding was more progressive in 2017 (55.3%) vs. 2002 (42.8%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

VERMONT

Description: This 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.

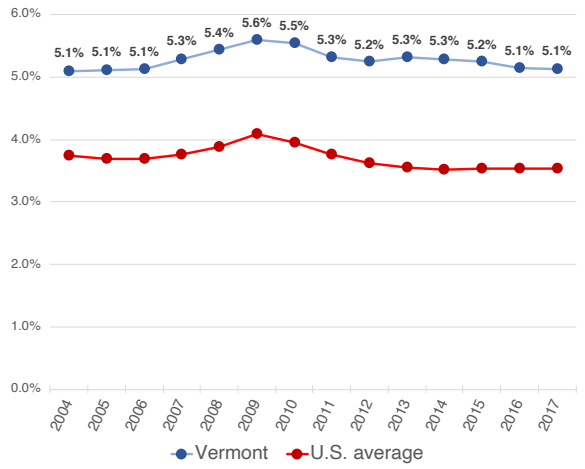
CONTEXTUAL STATS	VT	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.3
Public school coverage (%)	90.6	87.8
Pct. revenue from state sources	90.3	47.1
Total enrollment (U.S. rank)	88,428 (50)	

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).

Vermont effort	5.13 %
U.S. average	3.53 %

- In FY 2017, Vermont spent 5.13% of its economic capacity directly on K-12 education.
- This was 1.59 percentage points higher than the unweighted national average of 3.53%.
- Vermont's effort level ranks #1 in the nation (out of 50).



Effort trends, 2004-17

- Effort in VT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 5.09% in 2004 to 5.59% in 2009.

Net change by period (% pts.)

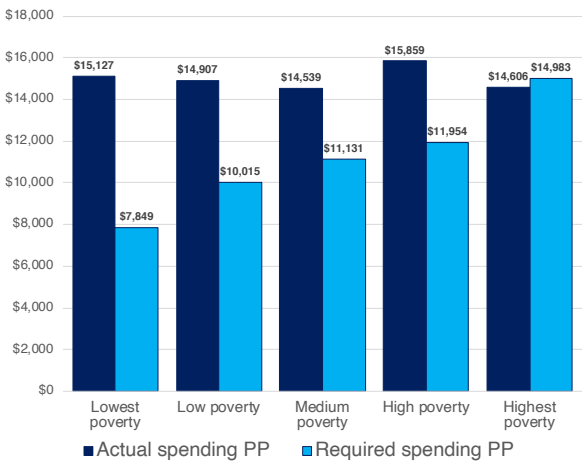
Period	VT	U.S.
2004-2009	0.50	0.35
2009-2017	-0.46	-0.56
2004-2017	0.03	-0.21

- This was followed by a decrease of 0.46 percentage points between 2009 and 2017.
- VT's effort was 0.03 percentage points higher in 2017 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 Vermont's highest poverty districts is $376 PP lower than the estimated adequate level ($14,983), a difference of -2.5%.
- Districts in Vermont's second highest poverty quintile receive 32.7% more than the estimated adequate level.



Adequacy: VT vs. US average

Percent above / below adequate

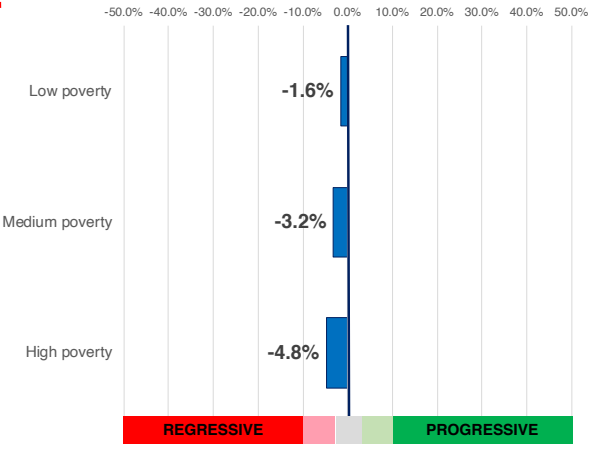
Poverty quintile	VT	U.S.
Lowest poverty	92.7	23.2
Low poverty	48.9	6.2
Medium poverty	30.6	-6.3
High poverty	32.7	-22.1
Highest poverty	-2.5	-28.2

- In its highest poverty districts, Vermont's spending is 2.5% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Vermont's highest poverty districts ranks #7 in the nation (out of 50).

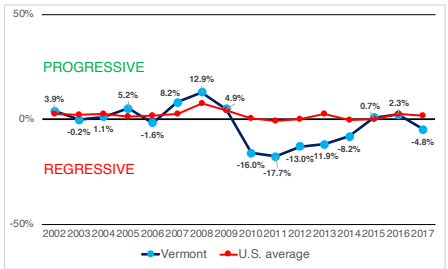
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Vermont is moderately regressive.
- High 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), 2002-17



- VT's funding was more regressive in 2017 (-4.8%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

VIRGINIA

Description: This 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.

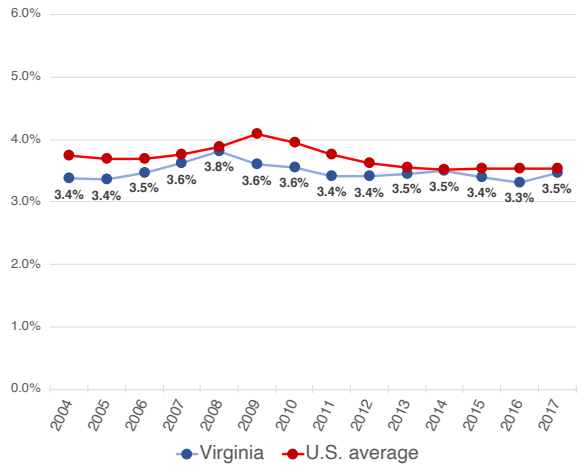
CONTEXTUAL STATS	VA	U.S.
Child (5-17yo) poverty rate (%)	13.3	17.3
Public school coverage (%)	88.1	87.8
Pct. revenue from state sources	39.7	47.1
Total enrollment (U.S. rank)	1,287,026 (12)	

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	3.46 %
U.S. average	3.53 %

- In FY 2017, Virginia spent 3.46% of its economic capacity directly on K-12 education.
- This was 0.07 percentage points lower than the unweighted national average of 3.53%.
- Virginia's effort level ranks #27 in the nation (out of 50).



Effort trends, 2004-17

- Effort in VA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.38% in 2004 to 3.60% in 2009.

Net change by period (% pts.)

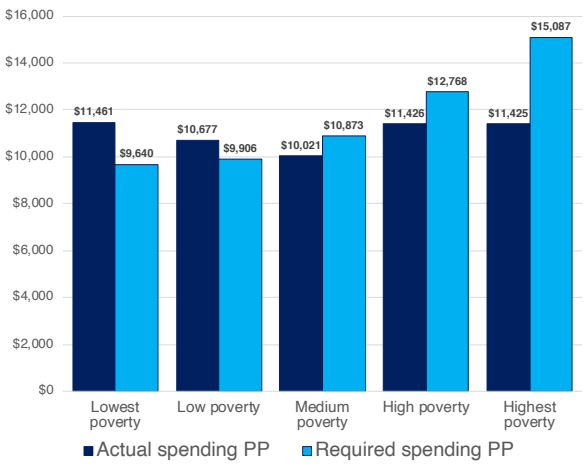
Period	VA	U.S.
2004-2009	0.22	0.35
2009-2017	-0.14	-0.56
2004-2017	0.09	-0.21

- This was followed by a decrease of 0.14 percentage points between 2009 and 2017.
- VA's effort was 0.09 percentage points higher in 2017 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 $3,662 PP lower than the estimated adequate level ($15,087), a difference of -24.3%.
- Districts in Virginia's second highest poverty quintile receive 10.5% less than the estimated adequate level.



Adequacy: VA vs. US average

Percent above / below adequate

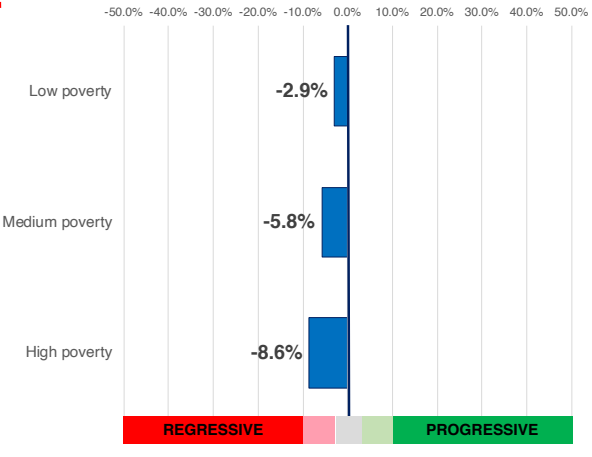
Poverty quintile	VA	U.S.
Lowest poverty	18.9	23.2
Low poverty	7.8	6.2
Medium poverty	-7.8	-6.3
High poverty	-10.5	-22.1
Highest poverty	-24.3	-28.2

- In its highest poverty districts, Virginia's spending is 24.3% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Virginia's highest poverty districts ranks #20 in the nation (out of 50).

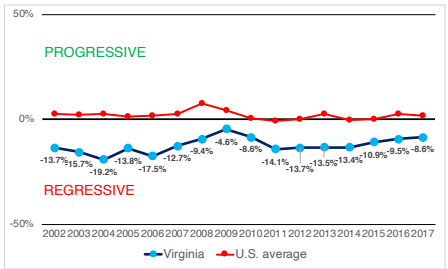
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Virginia is moderately regressive.
- High poverty districts receive 8.6% less revenue than zero poverty districts (this level of progressivity ranks #36 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- VA's funding was less regressive in 2017 (-8.6%) vs. 2002 (-13.7%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

WASHINGTON

Description: This 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.

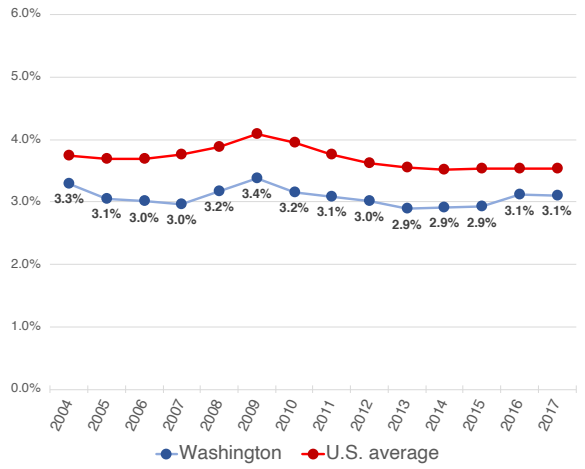
CONTEXTUAL STATS	WA	U.S.
Child (5-17yo) poverty rate (%)	13.4	17.3
Public school coverage (%)	87.8	87.8
Pct. revenue from state sources	62.8	47.1
Total enrollment (U.S. rank)	1,101,711 (14)	

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	3.11 %
U.S. average	3.53 %

- In FY 2017, Washington spent 3.11% of its economic capacity directly on K-12 education.
- This was 0.42 percentage points lower than the unweighted national average of 3.53%.
- Washington's effort level ranks #35 in the nation (out of 50).



Effort trends, 2004-17

- 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 3.38% in 2009.

Net change by period (% pts.)

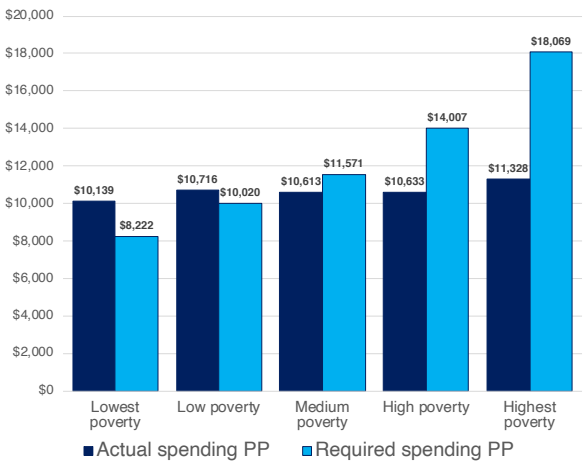
Period	WA	U.S.
2004-2009	0.08	0.35
2009-2017	-0.27	-0.56
2004-2017	-0.19	-0.21

- This was followed by a decrease of 0.27 percentage points between 2009 and 2017.
- WA's effort was 0.19 percentage points lower in 2017 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 $6,742 PP lower than the estimated adequate level ($18,069), a difference of -37.3%.
- Districts in Washington's second highest poverty quintile receive 24.1% less than the estimated adequate level.



Adequacy: WA vs. US average

Percent above / below adequate

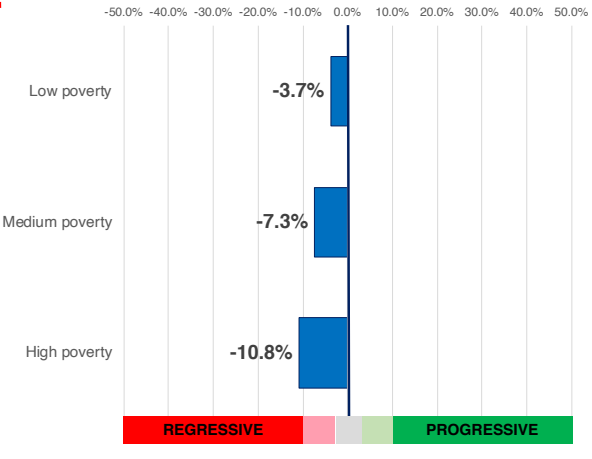
Poverty quintile	WA	U.S.
Lowest poverty	23.3	23.2
Low poverty	6.9	6.2
Medium poverty	-8.3	-6.3
High poverty	-24.1	-22.1
Highest poverty	-37.3	-28.2

- In its highest poverty districts, Washington's spending is 37.3% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Washington's highest poverty districts ranks #36 in the nation (out of 50).

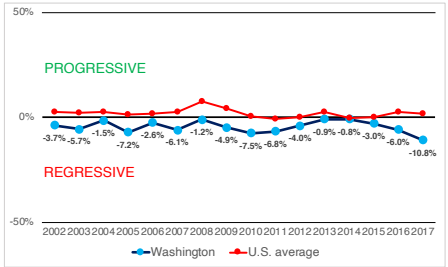
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Washington is regressive.
- High poverty districts receive 10.8% less revenue than zero poverty districts (this level of progressivity ranks #40 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- WA's funding was more regressive in 2017 (-10.8%) 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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
2016-17 SCHOOL YEAR

WEST VIRGINIA

Description: This 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.

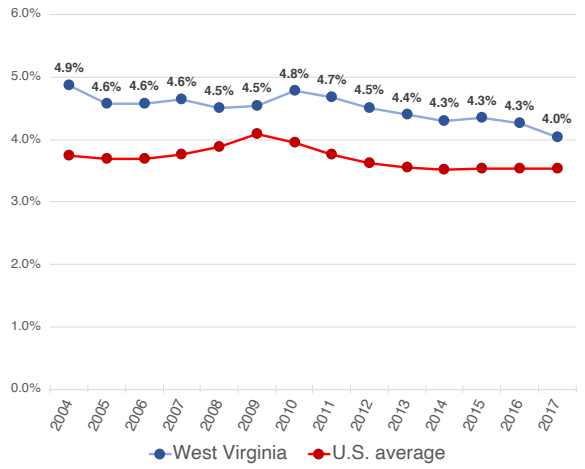
CONTEXTUAL STATS	WV	U.S.
Child (5-17yo) poverty rate (%)	22.3	17.3
Public school coverage (%)	89.8	87.8
Pct. revenue from state sources	53.9	47.1
Total enrollment (U.S. rank)	273,855 (39)	

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	4.04 %
U.S. average	3.53 %

- In FY 2017, West Virginia spent 4.04% of its economic capacity directly on K-12 education.
- This was 0.50 percentage points higher than the unweighted national average of 3.53%.
- West Virginia's effort level ranks #11 in the nation (out of 50).



Effort trends, 2004-17

- Effort in WV decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.86% in 2004 to 4.54% in 2009.

Net change by period (% pts.)

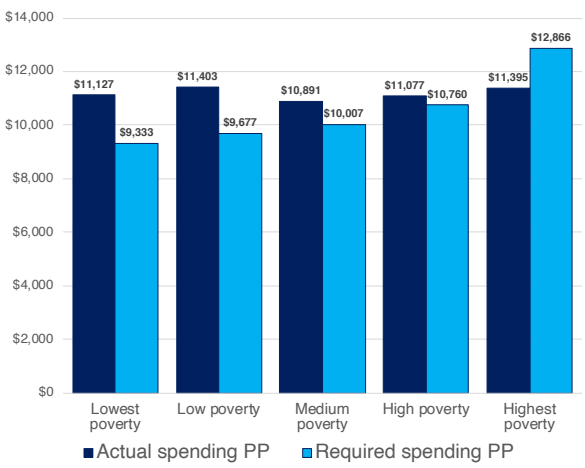
Period	WV	U.S.
2004-2009	-0.32	0.35
2009-2017	-0.50	-0.56
2004-2017	-0.83	-0.21

- This was followed by a decrease of 0.50 percentage points between 2009 and 2017.
- WV's effort was 0.83 percentage points lower in 2017 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 $1,472 PP lower than the estimated adequate level ($12,866), a difference of -11.4%.
- Districts in West Virginia's second highest poverty quintile receive 2.9% more than the estimated adequate level.



Adequacy: WV vs. US average

Percent above / below adequate

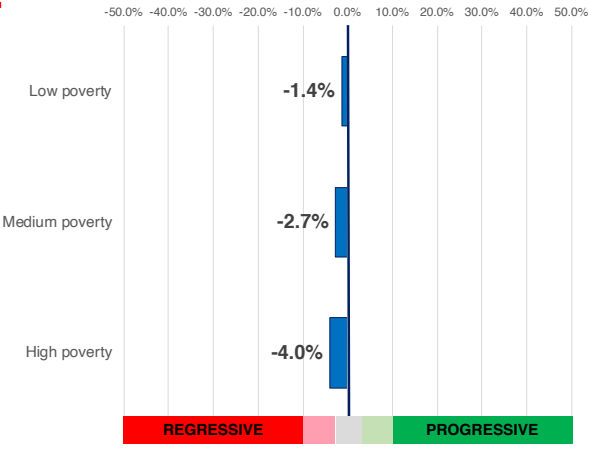
Poverty quintile	WV	U.S.
Lowest poverty	19.2	23.2
Low poverty	17.8	6.2
Medium poverty	8.8	-6.3
High poverty	2.9	-22.1
Highest poverty	-11.4	-28.2

- In its highest poverty districts, West Virginia's spending is 11.4% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in West Virginia's highest poverty districts ranks #13 in the nation (out of 50).

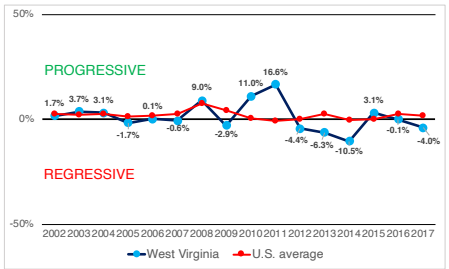
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in West Virginia is moderately regressive.
- High poverty districts receive 4.0% less revenue than zero poverty districts (this level of progressivity ranks #28 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- WV's funding was more regressive in 2017 (-4.0%) vs. 2002 (1.7%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

WISCONSIN

Description: This 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.

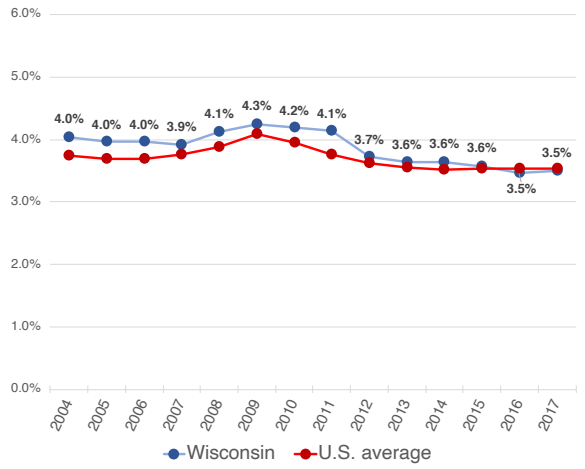
CONTEXTUAL STATS	WI	U.S.
Child (5-17yo) poverty rate (%)	13.5	17.3
Public school coverage (%)	83.4	87.8
Pct. revenue from state sources	53.0	47.1
Total enrollment (U.S. rank)	864,432 (22)	

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	3.50 %
U.S. average	3.53 %

- In FY 2017, Wisconsin spent 3.50% of its economic capacity directly on K-12 education.
- This was 0.03 percentage points lower than the unweighted national average of 3.53%.
- Wisconsin's effort level ranks #25 in the nation (out of 50).



Effort trends, 2004-17

- Effort in WI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.04% in 2004 to 4.25% in 2009.

Net change by period (% pts.)

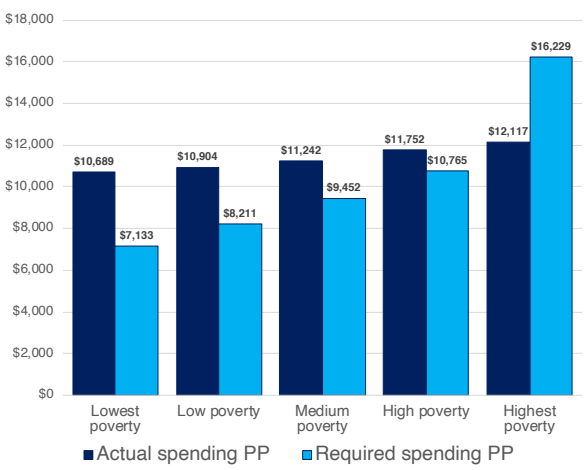
Period	WI	U.S.
2004-2009	0.21	0.35
2009-2017	-0.75	-0.56
2004-2017	-0.54	-0.21

- This was followed by a decrease of 0.75 percentage points between 2009 and 2017.
- WI's effort was 0.54 percentage points lower in 2017 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 $4,111 PP lower than the estimated adequate level ($16,229), a difference of -25.3%.
- Districts in Wisconsin's second highest poverty quintile receive 9.2% more than the estimated adequate level.



Adequacy: WI vs. US average

Percent above / below adequate

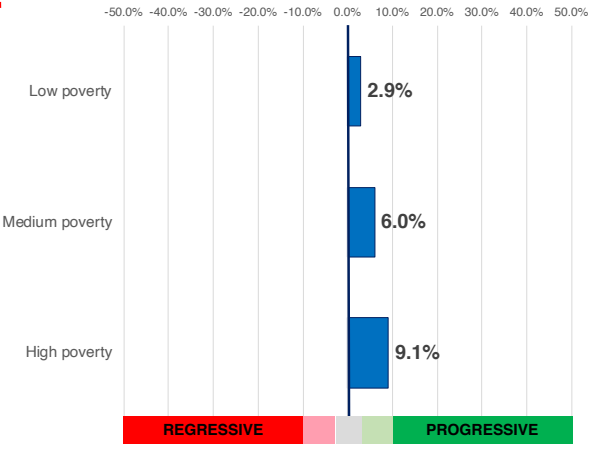
Poverty quintile	WI	U.S.
Lowest poverty	49.9	23.2
Low poverty	32.8	6.2
Medium poverty	18.9	-6.3
High poverty	9.2	-22.1
Highest poverty	-25.3	-28.2

- In its highest poverty districts, Wisconsin's spending is 25.3% below the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Wisconsin's highest poverty districts ranks #23 in the nation (out of 50).

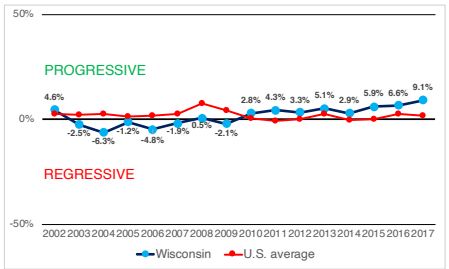
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Wisconsin is moderately progressive.
- High poverty districts receive 9.1% more revenue than zero poverty districts (this level of progressivity ranks #10 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- WI's funding was more progressive in 2017 (9.1%) vs. 2002 (4.6%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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*

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

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2016-17 SCHOOL YEAR

WYOMING

Description: This 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.

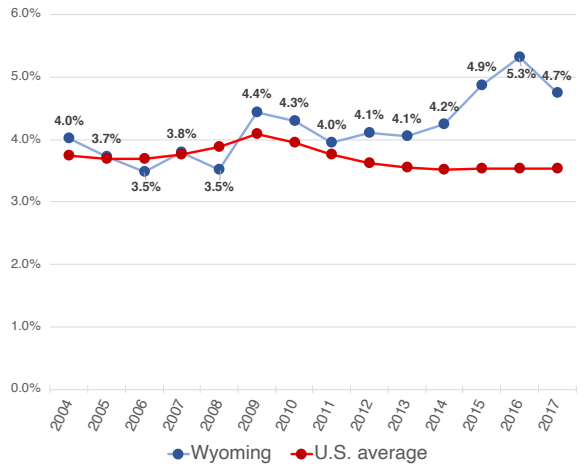
CONTEXTUAL STATS	WY	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.3
Public school coverage (%)	93.5	87.8
Pct. revenue from state sources	59.1	47.1
Total enrollment (U.S. rank)	94,170 (49)	

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	4.74 %
U.S. average	3.53 %

- In FY 2017, Wyoming spent 4.74% of its economic capacity directly on K-12 education.
- This was 1.20 percentage points higher than the unweighted national average of 3.53%.
- Wyoming's effort level ranks #2 in the nation (out of 50).



Effort trends, 2004-17

- Effort in WY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.02% in 2004 to 4.44% in 2009.

Net change by period (% pts.)

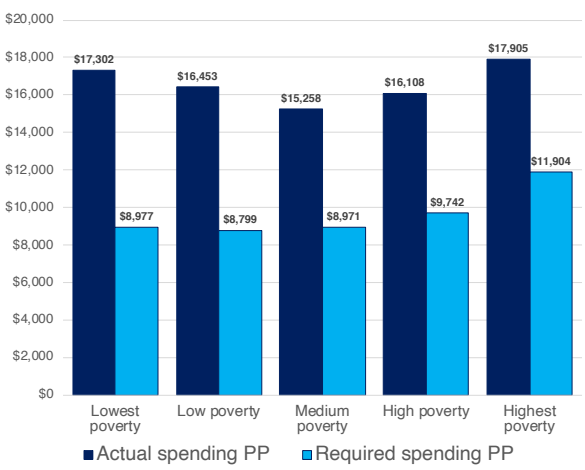
Period	WY	U.S.
2004-2009	0.42	0.35
2009-2017	0.30	-0.56
2004-2017	0.72	-0.21

- This was followed by an increase of 0.30 percentage points between 2009 and 2017.
- WY's effort was 0.72 percentage points higher in 2017 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 $6,001 PP higher than the estimated adequate level ($11,904), a difference of 50.4%.
- Districts in Wyoming's second highest poverty quintile receive 65.3% more than the estimated adequate level.



Adequacy: WY vs. US average

Percent above / below adequate

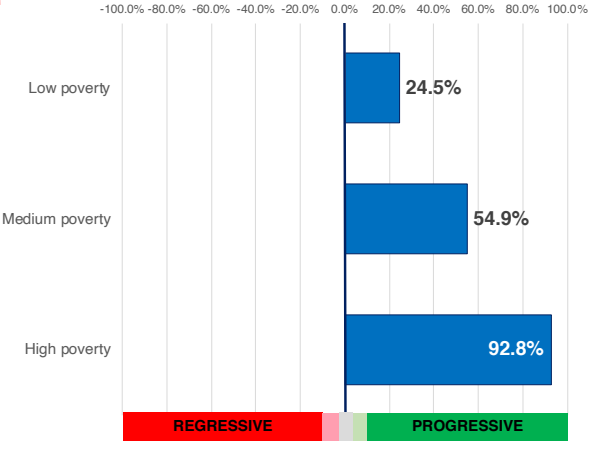
Poverty quintile	WY	U.S.
Lowest poverty	92.7	23.2
Low poverty	87.0	6.2
Medium poverty	70.1	-6.3
High poverty	65.3	-22.1
Highest poverty	50.4	-28.2

- In its highest poverty districts, Wyoming's spending is 50.4% above the adequate level, compared with a -28.2% U.S. average.
- Adequacy in Wyoming's highest poverty districts ranks #1 in the nation (out of 50).

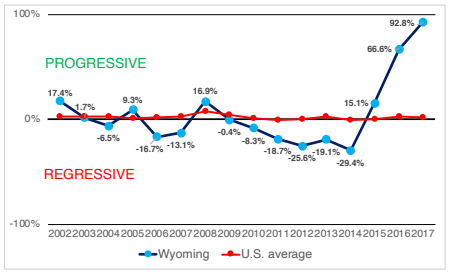
PROGRESSIVITY

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) low (10%), medium (20%), and high poverty (30%) districts and; 2) zero poverty districts.

- School funding in Wyoming is progressive.
- High poverty districts receive 92.8% more revenue than zero poverty districts (this level of progressivity ranks #1 in the nation [out of 51]).



Progressivity trend (30/0), 2002-17



- WY's funding was more progressive in 2017 (92.8%) vs. 2002 (17.4%).
- 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 2016-17

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, which draws on data from a dozen sources, 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 130 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **adequacy**, and **progressivity**. The full SID dataset, along with full documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. 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., 2017 is 2016-17). *Note that the latest data in this profile (2016-17) predate the coronavirus pandemic by 3-4 years.*
- 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 is 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.
- In order to facilitate replication or further analysis, the notes below include the names of SID variables used in each section of this profile.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2017) 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 2017) 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 2016) 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 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. average effort is unweighted and can be interpreted as effort in the typical state in a given year.
- 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 in effort levels can translate into large changes in spending, particularly in high capacity states.
- **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 current 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 2016-17 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, structural characteristics (e.g., size), and the students they serve. For more information about the NECM, see the SFID documentation and annual report.

- 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. average adequacy percentages (the difference between actual and required spending) in the right panel table are calculated using averages of actual and required spending across all states, by poverty quintile, weighted by enrollment. 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.
- **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 classified 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 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, "low poverty" districts are those with 10 percent poverty, "medium poverty" districts have 20 percent poverty, and "high 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.
- 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