HOW FAIR AND ADEQUATE IS YOUR STATE'S SCHOOL FUNDING?

AFT TEACH Conference
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ALBERT SHANKER INSTITUTE

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Introduction to the SFID

- The **School Finance Indicators Database (SFID)** is a public collection of resources on K-12 school funding
- In this presentation, we will use SFID data to summarize the state of school finance in the U.S. and help you get started using our data and resources in your own work

THREE PRINCIPLES OF THE SFID PROJECT	
Money matters	Adequate and equitable funding is a necessary condition for educational success
Context matters	Resources should be targeted at the students who need them most
Policy matters	Good finance policy can improve outcomes, and bad policy makes them worse

A few things to bear in mind...

- We will be looking at some aggregate results, but the defining feature of school finance in the U.S. is heterogeneity
  - There are essentially 51 different finance systems in the U.S.
  - Relatively few are uniformly bad and none is uniformly good
  - We offer multiple tools for you to examine your individual state (or district)
- Our measures are designed for easy interpretation, but underneath that virtually all of them control for factors that affect the "value of the education dollar"
  - For example, Census poverty and labor market costs
  - Better comparisons within and between states
- Due to lag, our latest year of data is 2018 (2017-18 school year)

PART ONE

Summarizing the adequacy and fairness of state school finance systems in the U.S.

Describing state finance systems

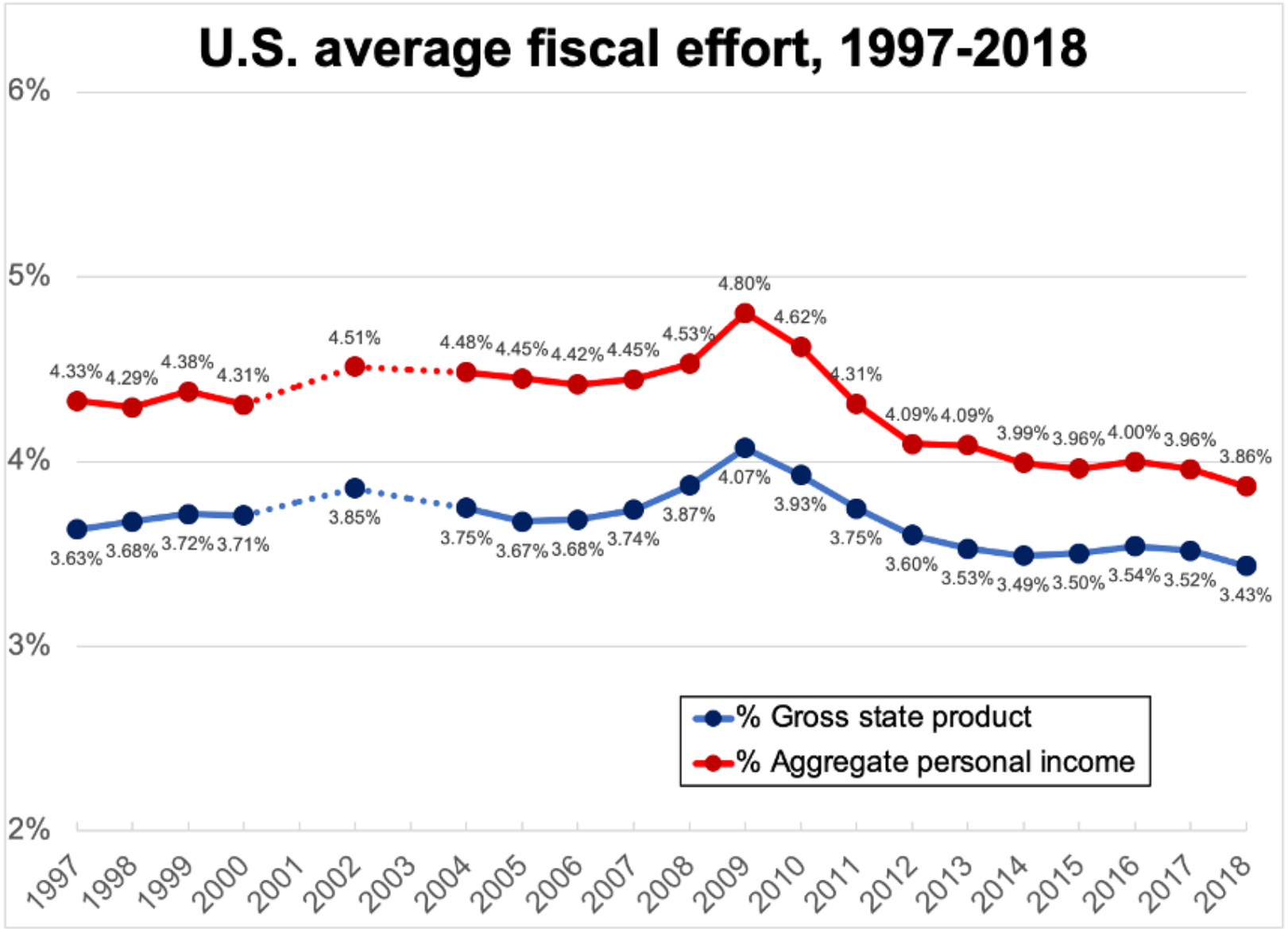
- Our three "core indicators" provide a concise (though necessarily partial!) summary of the equity and fairness of each state's school finance system:

Fiscal effort	How much does your state spend on K-12 education as a percentage of its total "economic pie?"
Progressivity	Do higher-poverty districts in your state receive more resources than lower-poverty districts?
Adequacy	Is education spending in your state sufficient to meet common outcome goals?

- As we'll discuss later, all of the data we'll be looking at (and much more) are available to download, and presented in reports, profiles, and visualizations at the SFID website:

schoolfinancedata.org/

Effort has decreased (permanently?)



The typical state devotes a smaller share of its total "economic pie" to K-12 schools now than it did 20 years ago.

$$\ln SCHOOL_{it} = b_0 + b_1 State_i + b_2 LaborMarket_{it} + b_3 CWI_{it} + b_4 FINANCE_{it} + b_5 PopulationDensity_{it} + b_6 Enrollment_{it} + b_7 INDICATORS_{it} + b_8 Scale_{it} + b_9 Poverty_{it} + b_{10} SchlType_i + b_{11} DATABASE_{it} + e$$

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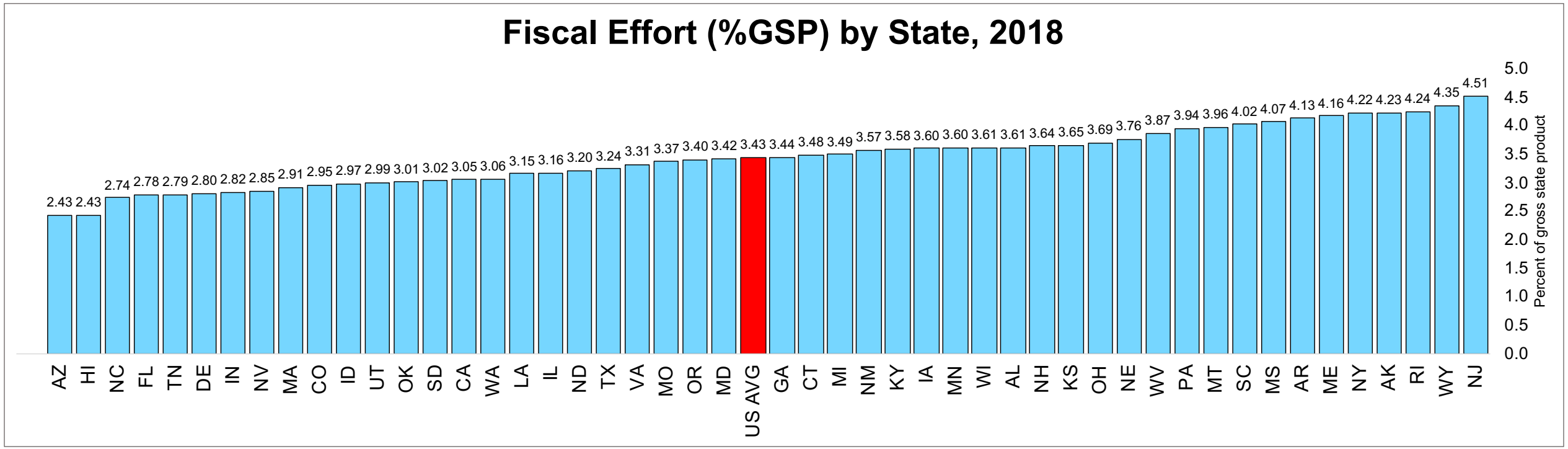
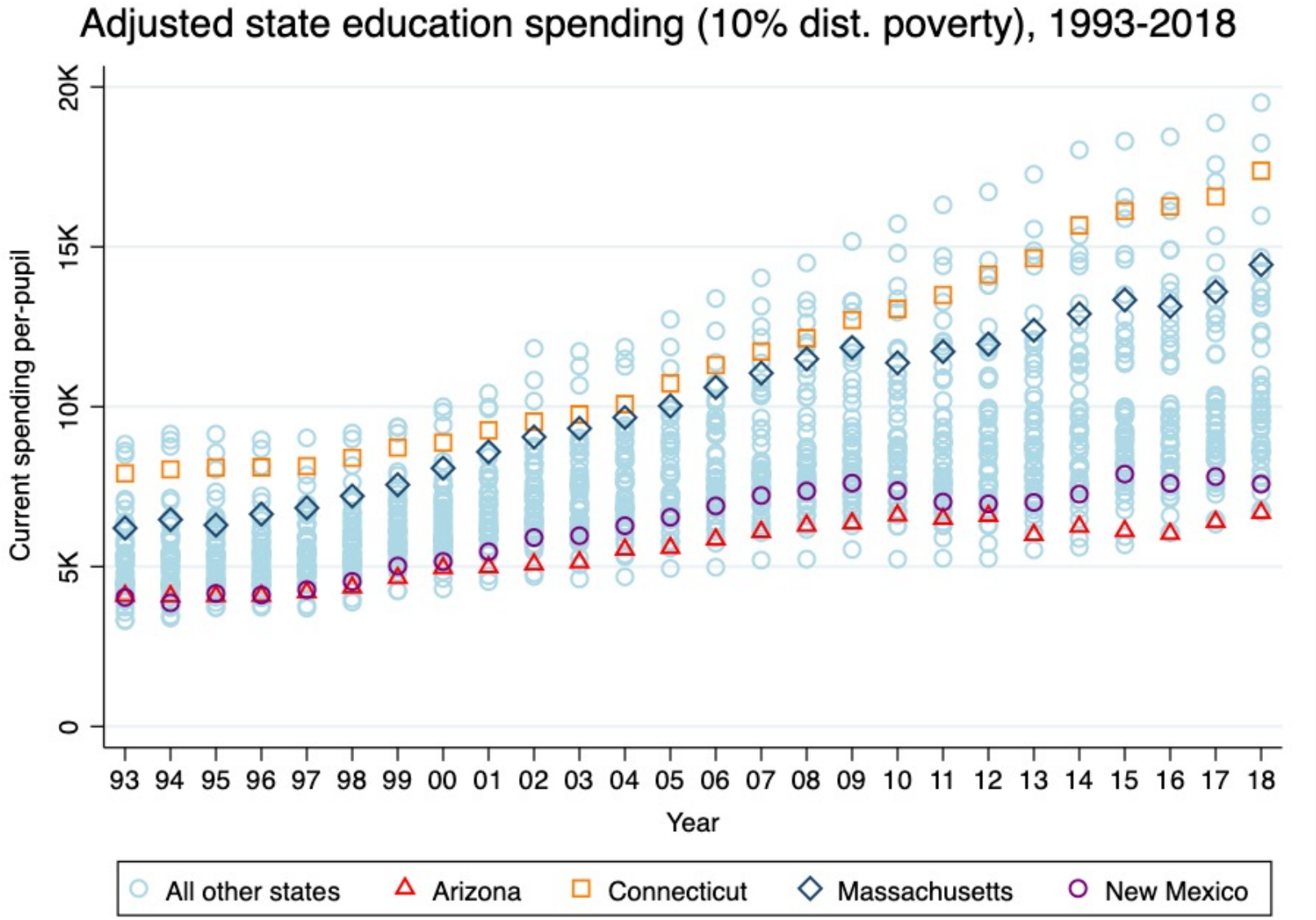
Effort varies widely by state



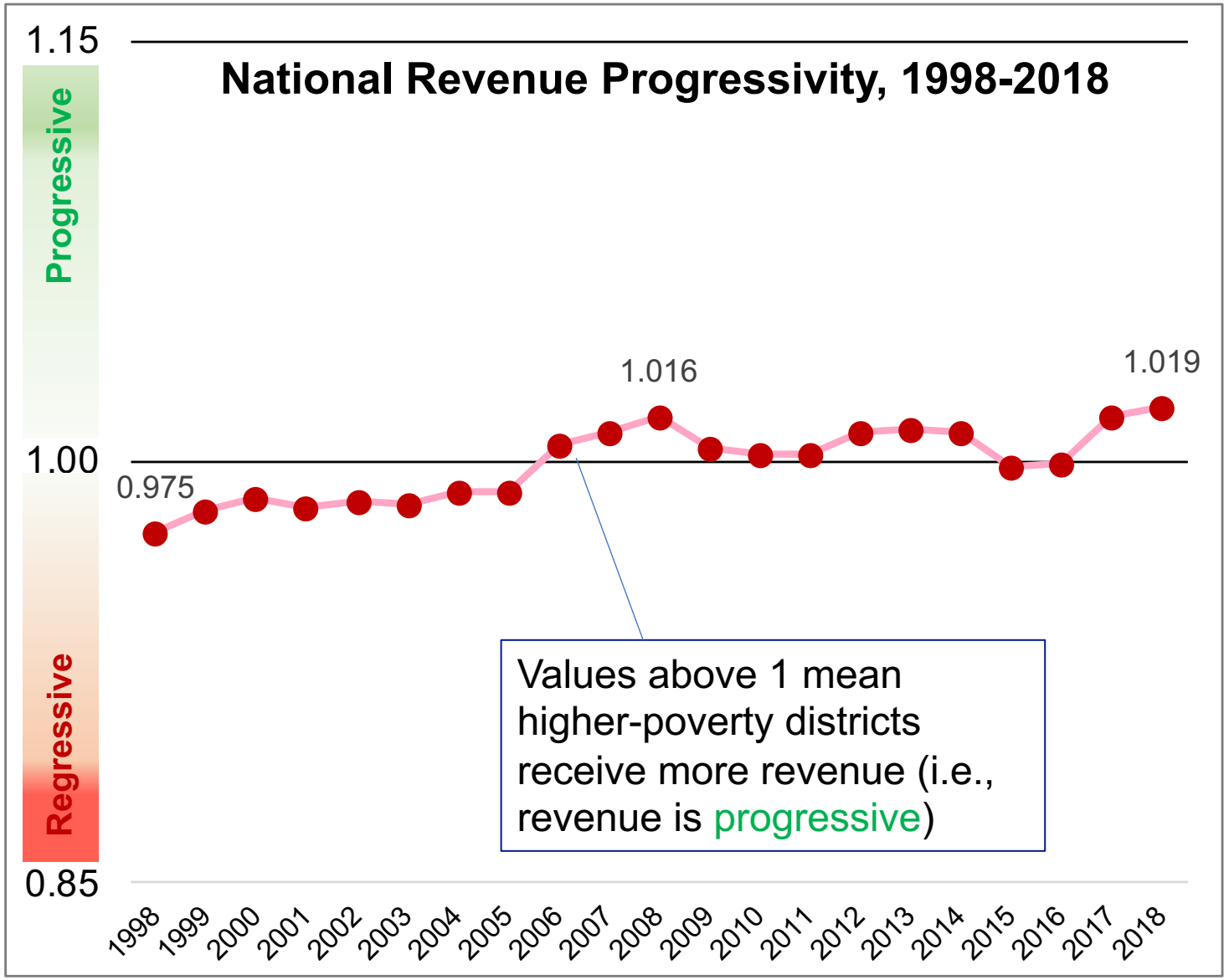
- GSP-based effort ranges from 2.4 percent in AZ and HI to 4.5 percent in NJ (and even seemingly smaller differences can represent billions of dollars!)
- But remember that states with large economies can put forth less effort and still produce the same amount of resources as states with smaller economies

Increasing inequality of education spending



As states recovered from the 2007-09 recession, some reinvested in schools (effort!) and others did not, exacerbating inter-state inequality.

Two decades of non-progressive funding



- In general, states must ensure that higher-poverty districts have more resources to meet their higher costs
- Yet, on average, the highest- and lowest-poverty districts in each state receive roughly the same amounts of (state and local) revenue

Figure note: Ratio of labor market-centered state and local revenue between highest- and lowest-poverty district quintiles (defined state by state)

Strong progressivity is the exception

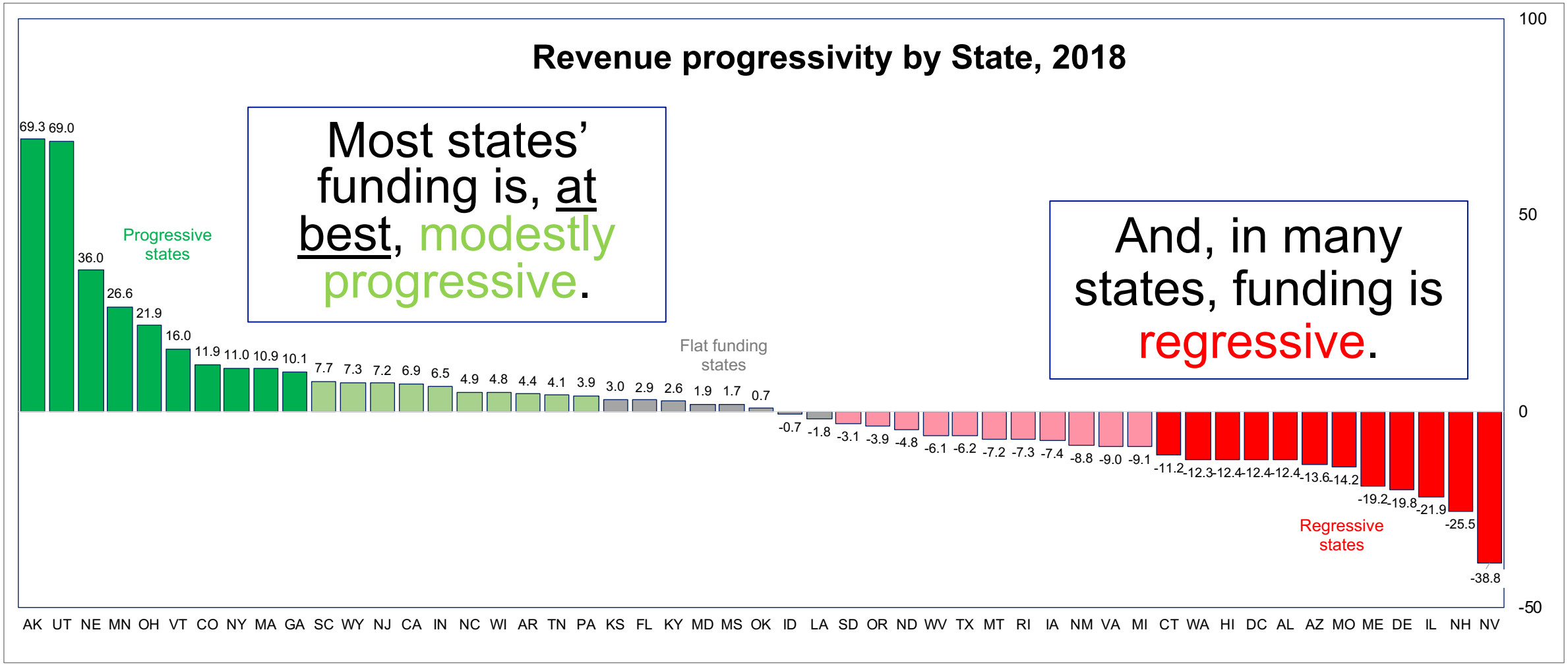


Figure note: Percentage difference in predicted state and local revenue between high-poverty (30%) and zero-poverty district in each state (controlling for labor market costs, population density, and size).

$SCHOOL_i = b_0 + b_1State_i + b_2LaborMarket_i + b_3CWI_i + b_4FINANCE_i + b_5PopulationDensity_i + b_6Enrollment_i + b_7INDICATORS_i + b_8Scale_i + b_9Poverty_i + b_{10}SchlType_i + b_{11}DATABASE_i + e$

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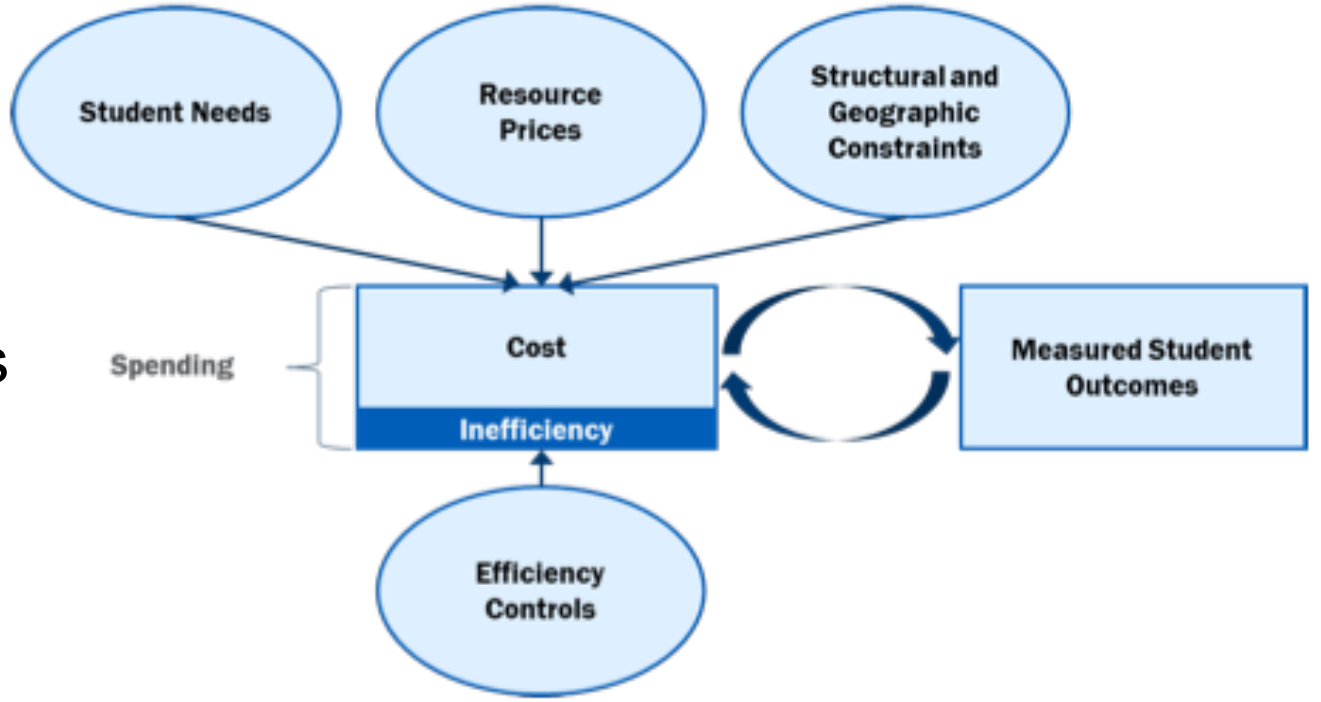
Adequacy and equal opportunity

- Adequacy measures help us gauge **equal educational opportunity**
- In the SFID, we assess adequacy by comparing:
  - Actual spending per-pupil
  - Spending per-pupil required to achieve national average test scores (this is a modest goal)
- Our system allows for these comparisons for each state (by district poverty level) and for over 12,000 individual districts

Figure 1. Education Cost Model Components



$(\ln)SCHOOL = b_0 + b_1State_i + b_2LaborMarket_i + b_3CWI_i + b_4FINANCE_i + b_5PopulationDensity_i + b_6Enrollment_i + b_7INDICATORS_i + b_8Scale_i + b_9Poverty_i + b_{10}SchlType_i + b_{11}DATABASE_i + e$

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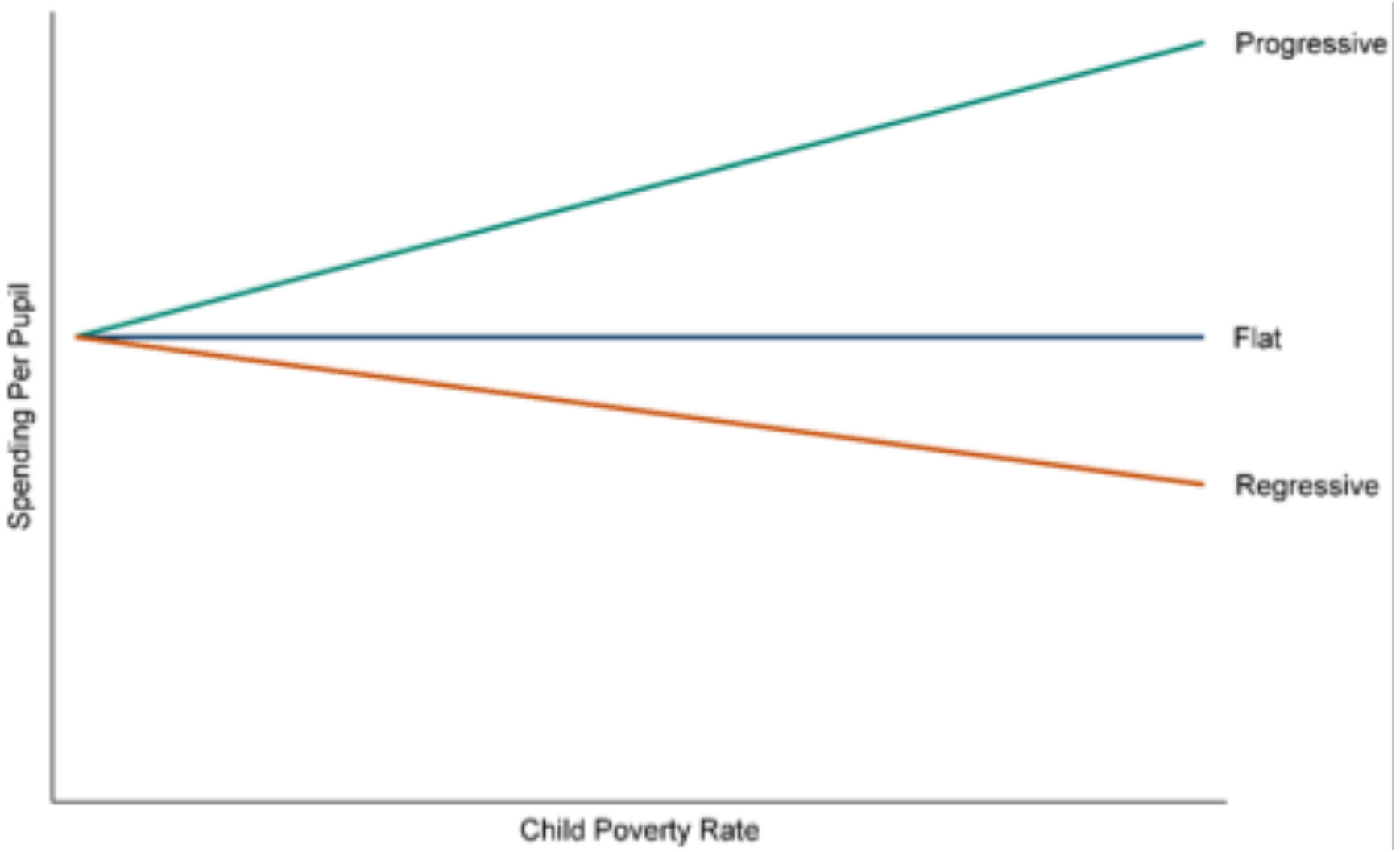
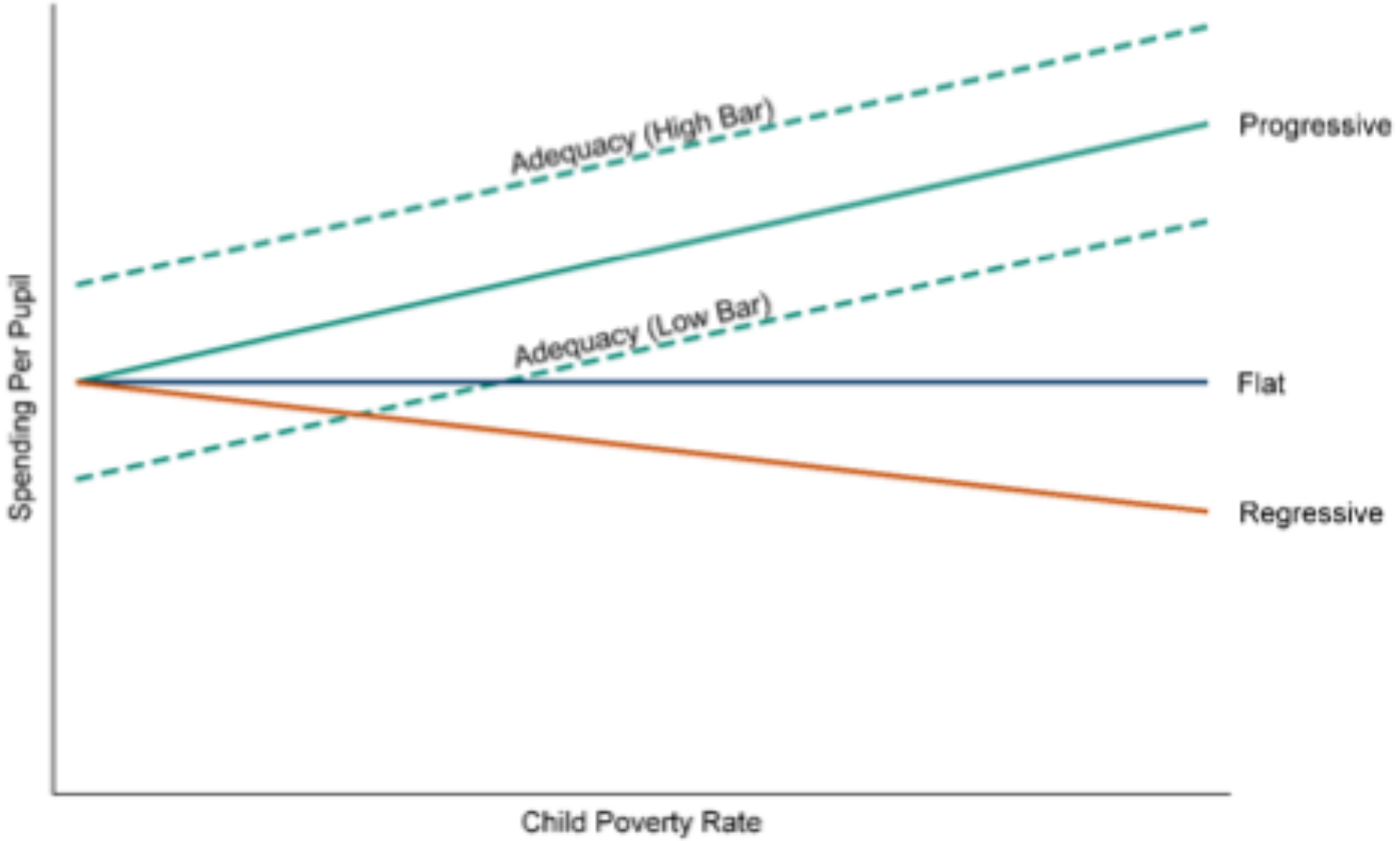
Adequacy and progressivity (part 1)



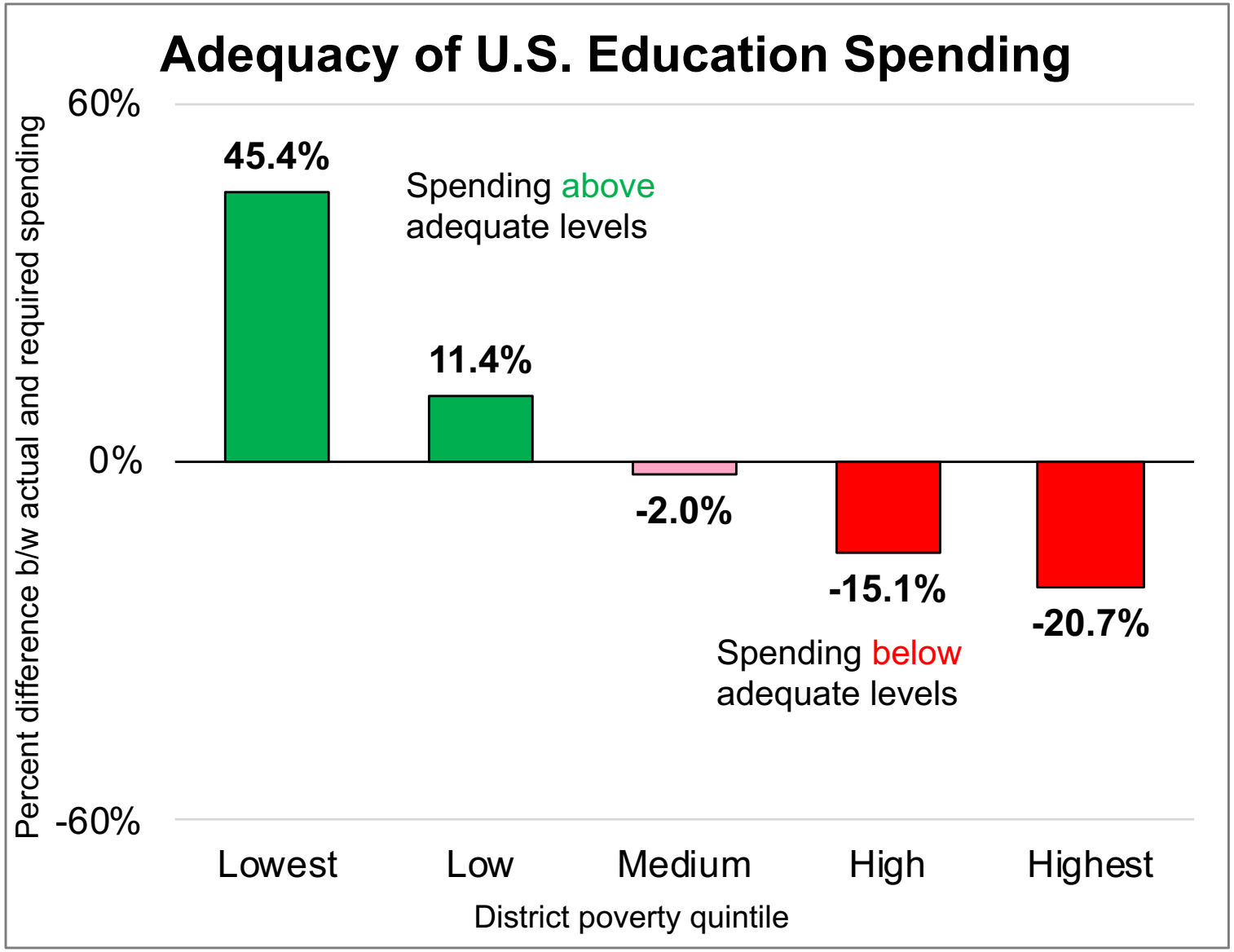
- Our three “core indicators” are interrelated
- Even if resources are high overall (high effort), how they are distributed can have serious implications for equal opportunity (adequacy)

Adequacy and progressivity (part two)



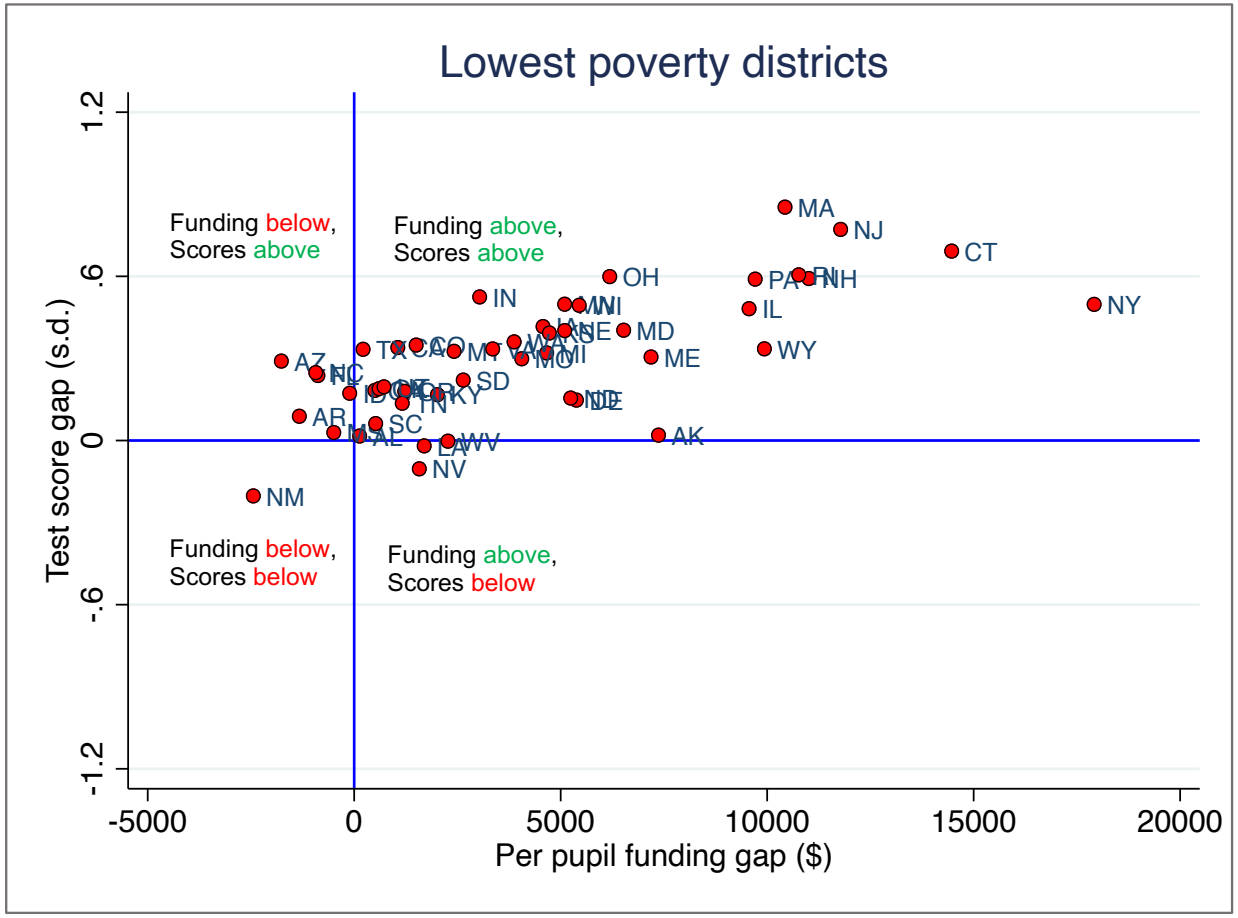
- In general, progressive funding is consistent with equal opportunity, since costs (adequate funding levels) tend to increase with poverty
- States, however, can maintain equal opportunity even if funding is inadequate (or the "bar" is set higher)

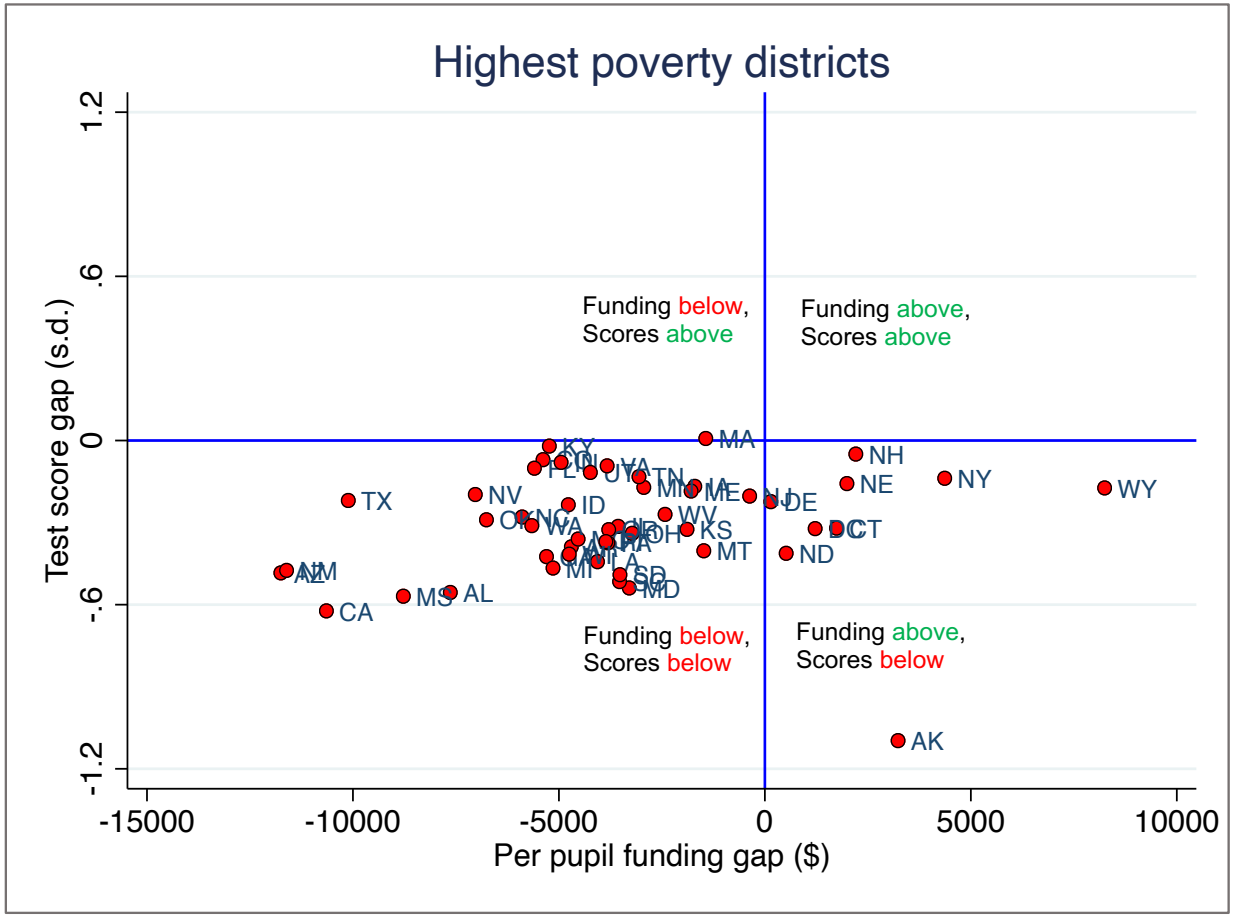
Plenty of opportunity, it's just not equal



These are illustrative U.S. averages, which show that lower-poverty districts receive funding above our adequate levels, and higher-poverty districts receive less.

Funding gaps by outcome gaps

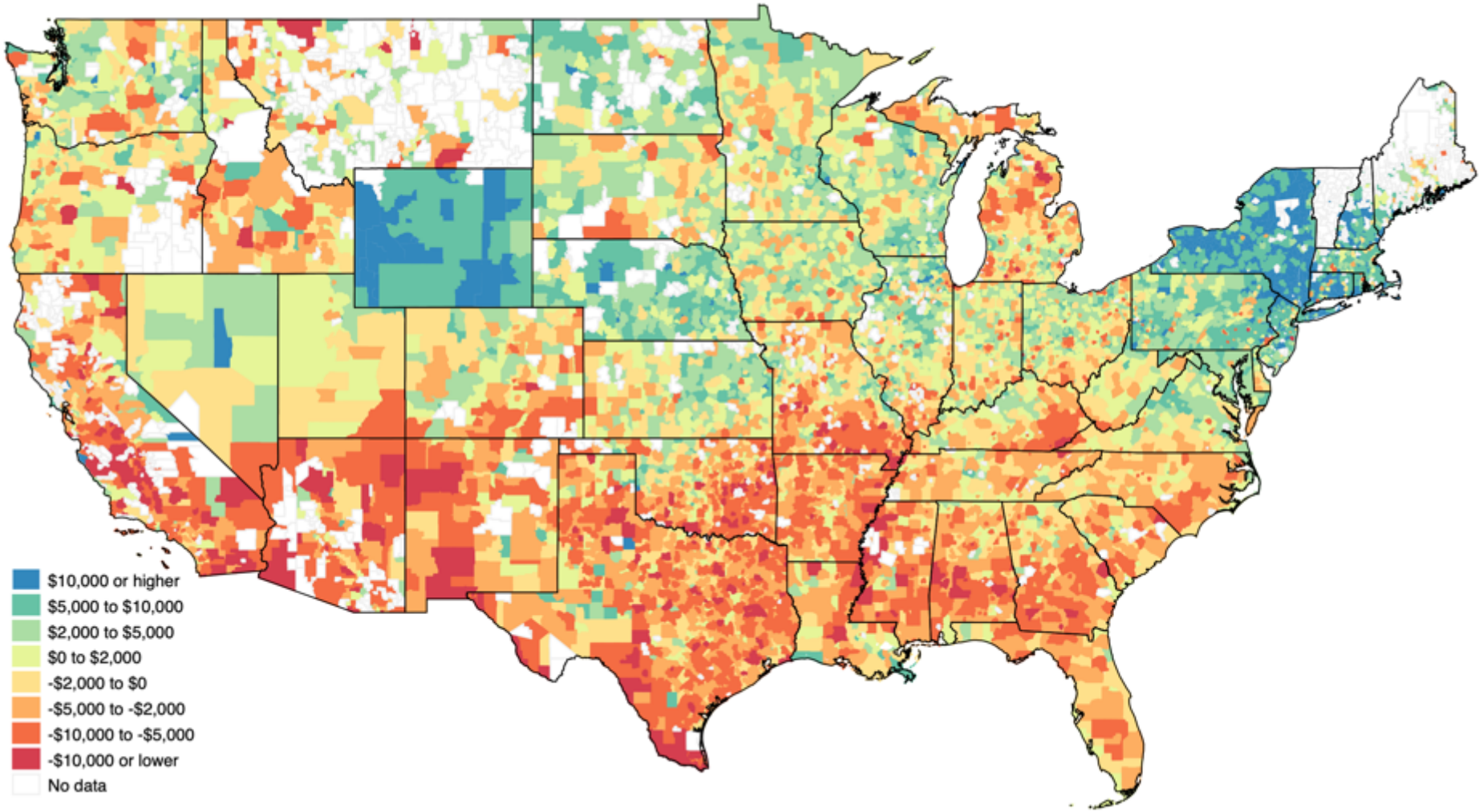




The lowest-poverty districts in each state tend to be funded adequately and score above the U.S. average

The opposite situation is found in the highest-poverty districts

Map of district funding gaps



Inadequate funding is a national problem. Even in states where most districts spend above our adequate levels, there are districts that slip through the cracks

$$\ln SCHOOL = b_0 + b_1 State_i + b_2 LaborMarket_i + b_3 CWI_i + b_4 FINANCE_i + b_5 PopulationDensity_i + b_6 Enrollment_i + b_7 INDICATORS_i + b_8 Scale_i + b_9 Poverty_i + b_{10} SchlType_i + b_{11} DATABASE_i + e$$

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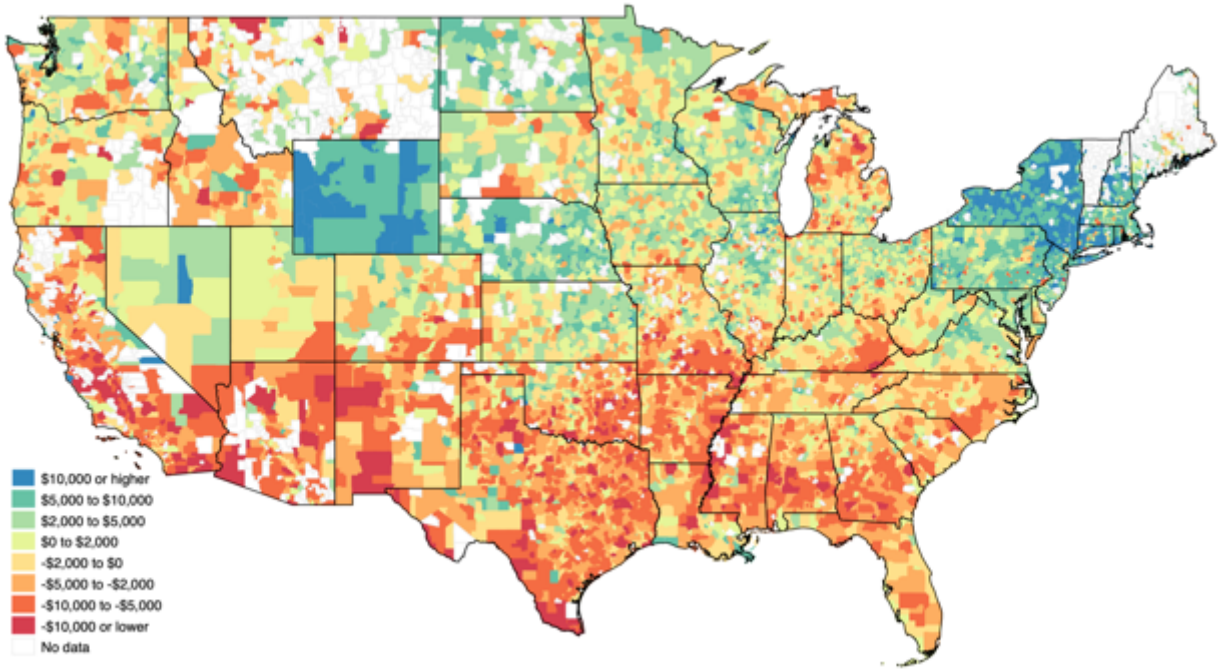
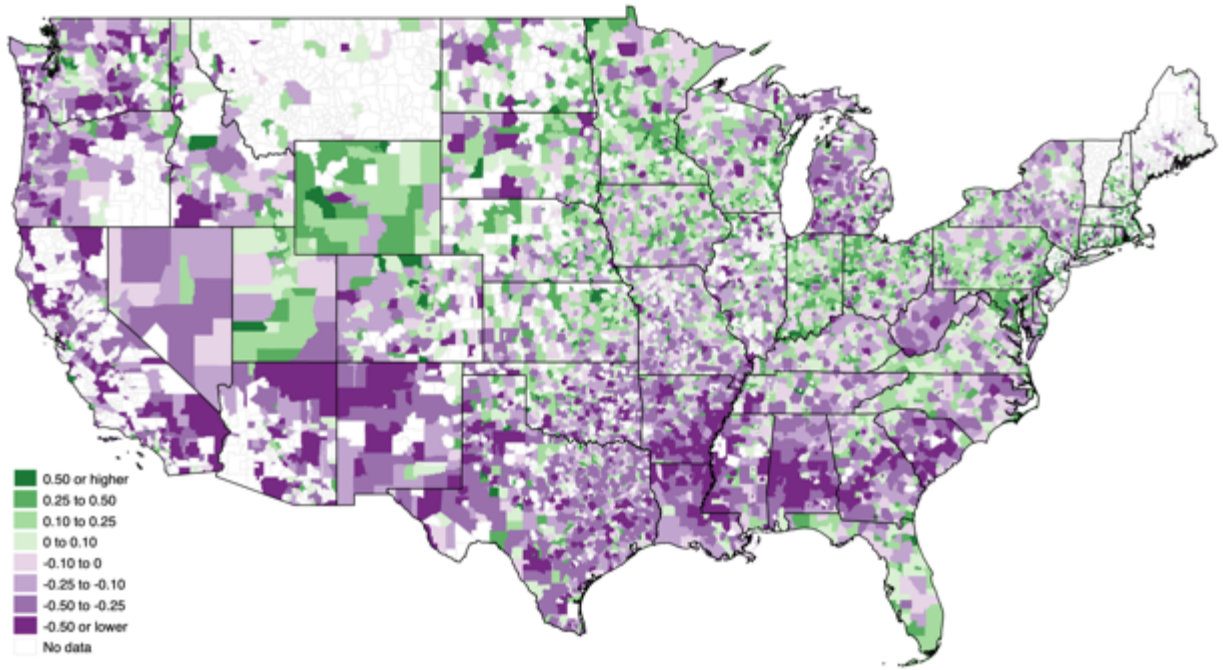
A tale of two maps: funding and outcome gaps





Note the correspondence between below-adequate funding and below-average scores. Funding matters.

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

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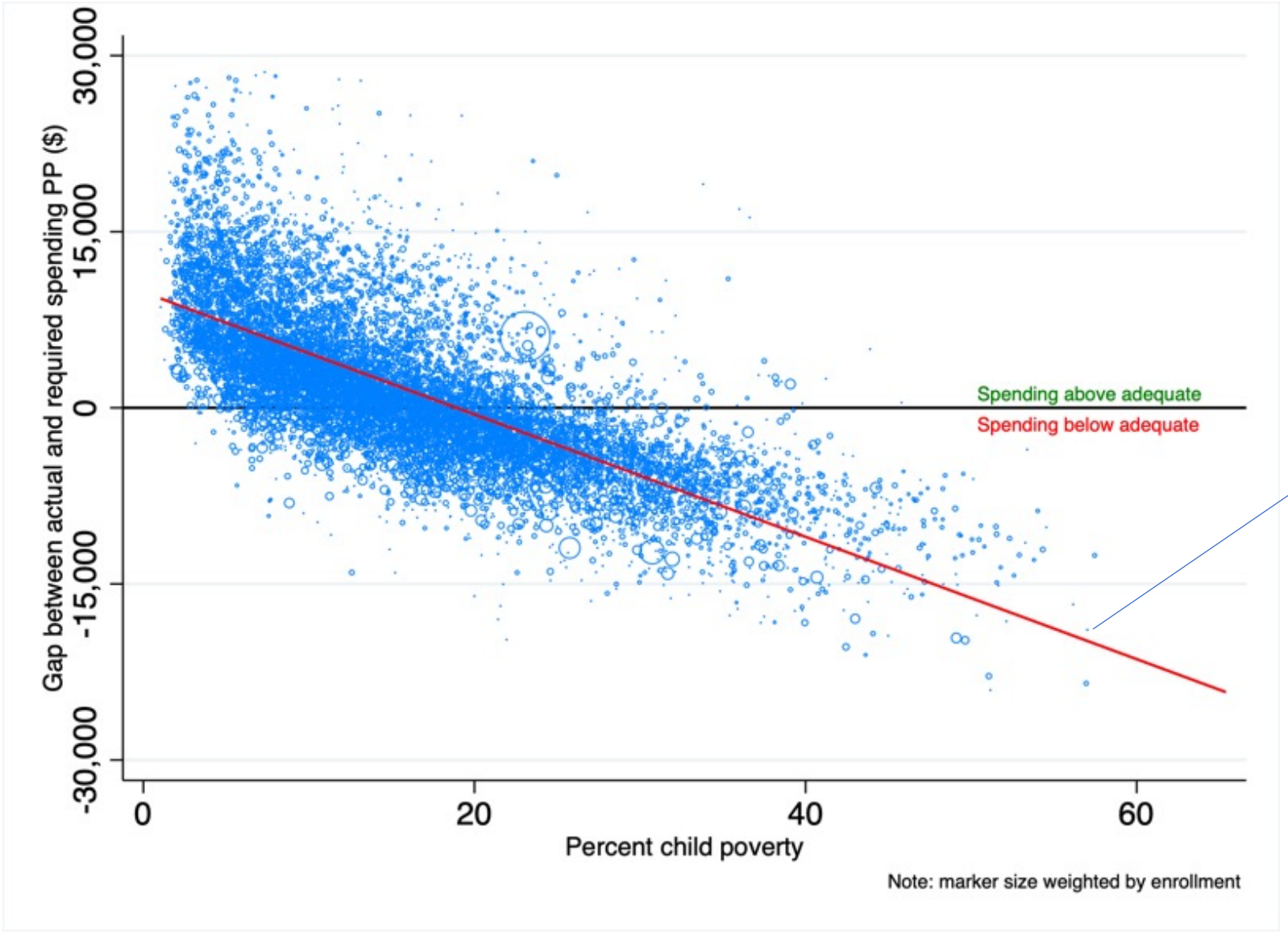
Funding gaps by district poverty



Once again, we find a strong (negative) association between district child poverty and funding gaps.

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

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Summary conclusions

- Bearing in mind the caveat that states vary widely, three big picture findings:
  - The typical state devotes a smaller share of its economy to K-12 schools than it did 20 years ago
  - In most states, high- and low-poverty districts receive similar funding, or high-poverty districts receive less
  - Low-poverty districts in most states receive adequate funding and high-poverty districts receive inadequate funding (and test scores to match)
- There are a small handful of states in which funding is adequate and equitable, but even in these states, there are districts that slip through the cracks
- **Important**: Although some states deal with challenging situations (e.g., high-poverty students and small economies from which to raise revenue), poor funding is due in large part to policy choices. It is not an accident.

PART TWO

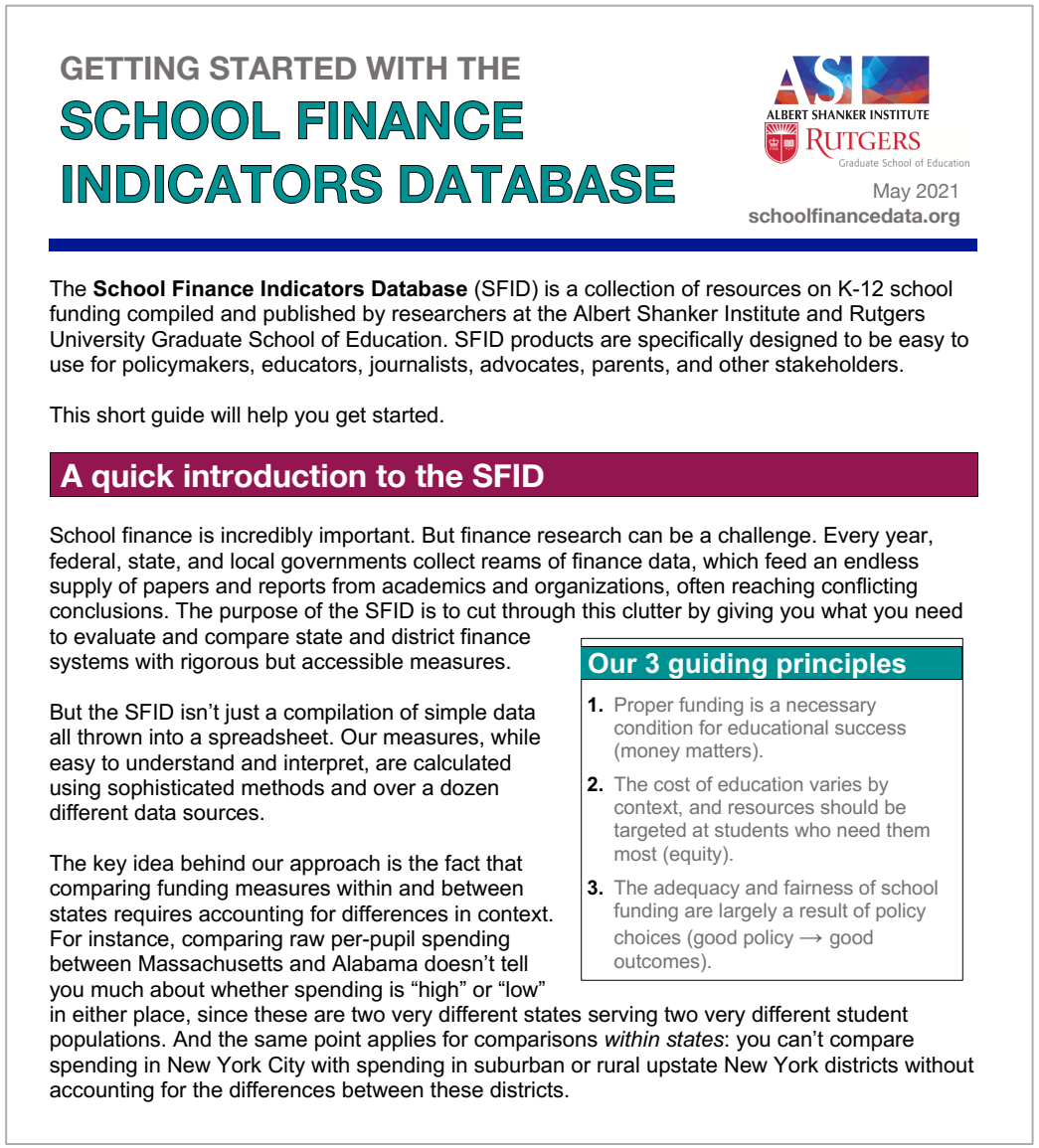
Getting started with our finance data and resources

Using our data and resources

- The purpose of this project is to inform and improve school finance debates and policymaking in the U.S.
- All our resources are designed to be used by all stakeholders, regardless of their finance or research backgrounds
- Our state and district datasets are free to download for yourself, along with user-friendly documentation
  - These datasets (and accompanying documentation) include many measures not discussed in this presentation, such as teacher salary competitiveness, staffing ratios, etc.
- But we also have many resources that you can use without analyzing the data yourself, and everything is available at the SFID website:

schoolfinancedata.org

Resources: getting started guide



GETTING STARTED WITH THE

SCHOOL FINANCE INDICATORS DATABASE

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

May 2021
schoolfinancedata.org

The **School Finance Indicators Database** (SFID) is a collection of resources on K-12 school funding compiled and published by researchers at the Albert Shanker Institute and Rutgers University Graduate School of Education. SFID products are specifically designed to be easy to use for policymakers, educators, journalists, advocates, parents, and other stakeholders.

This short guide will help you get started.

A quick introduction to the SFID

School finance is incredibly important. But finance research can be a challenge. Every year, federal, state, and local governments collect reams of finance data, which feed an endless supply of papers and reports from academics and organizations, often reaching conflicting conclusions. The purpose of the SFID is to cut through this clutter by giving you what you need to evaluate and compare state and district finance systems with rigorous but accessible measures.

But the SFID isn't just a compilation of simple data all thrown into a spreadsheet. Our measures, while easy to understand and interpret, are calculated using sophisticated methods and over a dozen different data sources.

Our 3 guiding principles

1. Proper funding is a necessary condition for educational success (money matters).
2. The cost of education varies by context, and resources should be targeted at students who need them most (equity).
3. The adequacy and fairness of school funding are largely a result of policy choices (good policy → good outcomes).

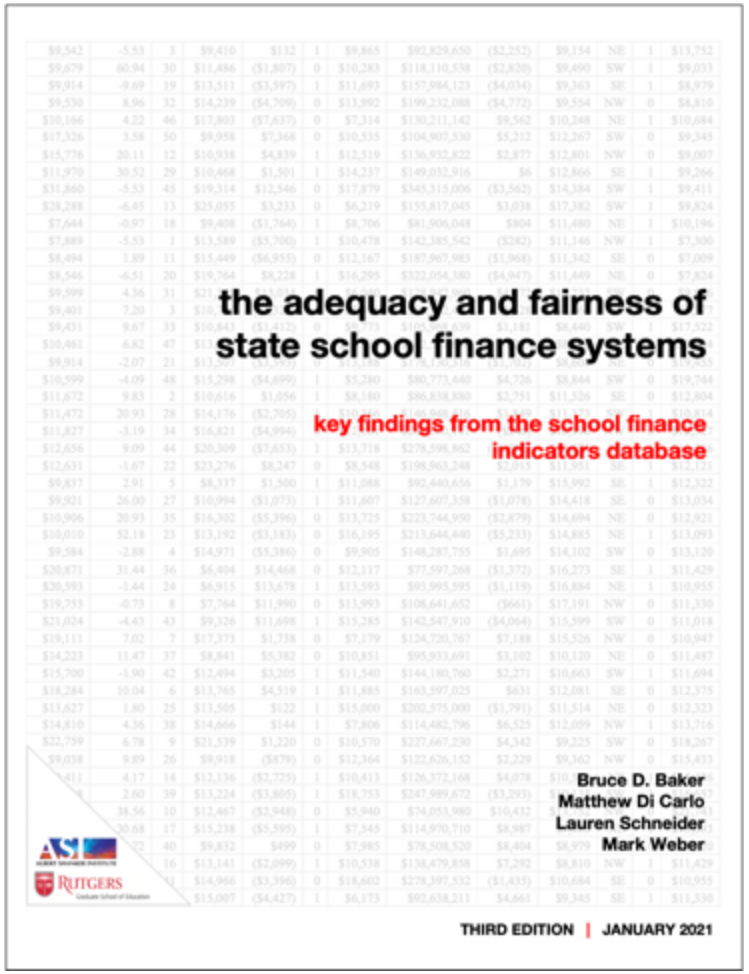
The key idea behind our approach is the fact that comparing funding measures within and between states requires accounting for differences in context. For instance, comparing raw per-pupil spending between Massachusetts and Alabama doesn't tell you much about whether spending is "high" or "low" in either place, since these are two very different states serving two very different student populations. And the same point applies for comparisons *within states*: you can't compare spending in New York City with spending in suburban or rural upstate New York districts without accounting for the differences between these districts.

NEW! Check out our short "**Getting Started with the SFID**" guide, which includes:

- Descriptions of the datasets and resources, including many variables not discussed today
- A catalog of all data visualizations
- Walk-through example of how to download and use our datasets (in Excel)

This guide was uploaded to this session's resources and is also available on the SFID website

Resources: annual report and research briefs



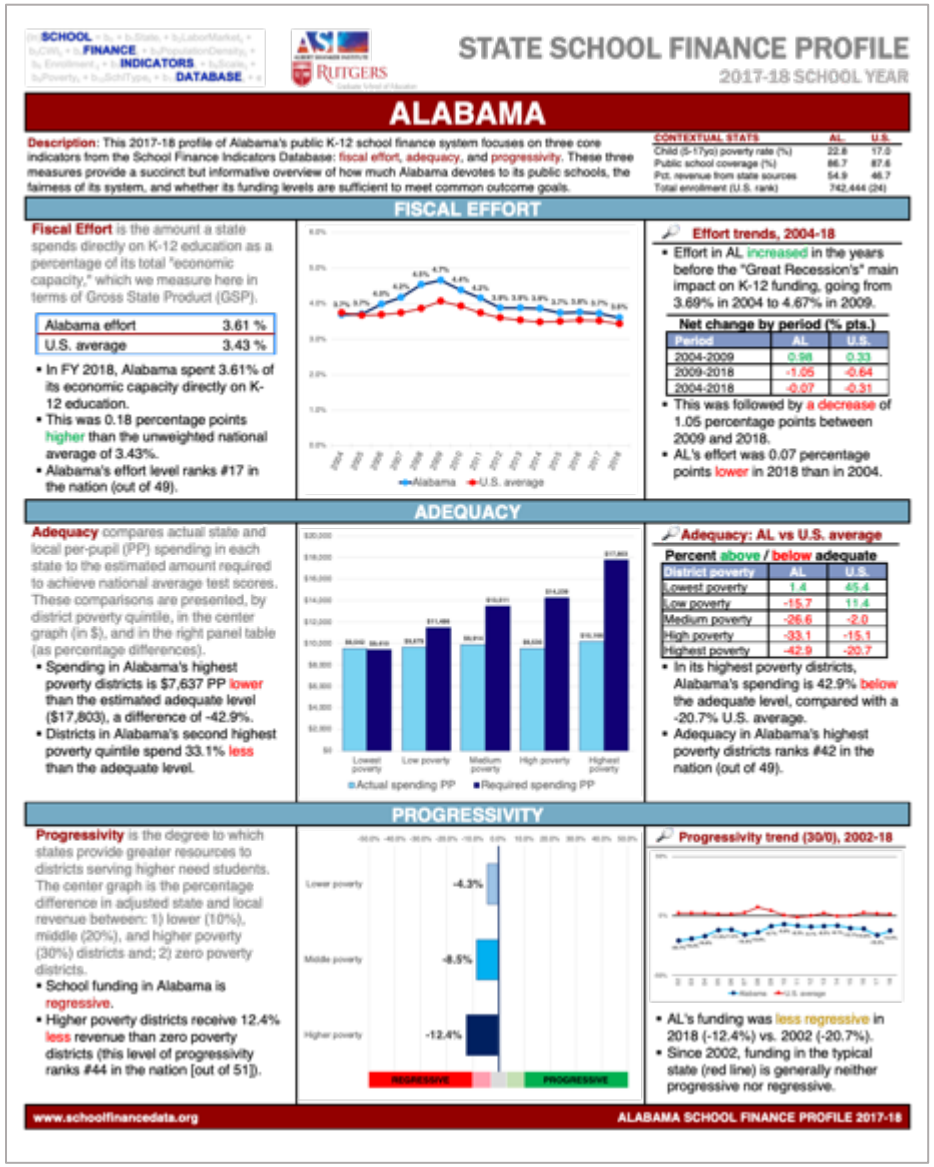
ANNUAL REPORT

Summarizes the latest findings on the three “core indicators”

RESEARCH BRIEFS

Occasional analyses of different measures not included in the annual report or profiles.

Resources: one-page state profiles



SCHOOL FINANCE INDICATORS DATABASE

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STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ALABAMA

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

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

FISCAL EFFORT

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

Alabama effort	3.61 %
U.S. average	3.43 %

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

Alabama U.S. average

Effort trends, 2004-18

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

Net change by period (% pts.)

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

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

ADEQUACY

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

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

Lowest poverty · Low poverty · Medium poverty · High poverty · Highest poverty

Actual spending PP · Required spending PP

Adequacy: AL vs U.S. average

Percent above / below adequate

District poverty	AL	U.S.
Lowest poverty	1.4	45.4
Low poverty	-15.7	15.4
Medium poverty	-26.6	-2.0
High poverty	-33.1	-15.1
Highest poverty	-42.9	-20.7

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

PROGRESSIVITY

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

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

Lower poverty -4.3% · Middle poverty -8.5% · Higher poverty -12.4%

REGRESSIVE · PROGRESSIVE

Progressivity trend (30/0), 2002-18

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

www.schoolfinancedata.org · ALABAMA SCHOOL FINANCE PROFILE 2017-18

The profiles summarize, visualize, and describe in clear language the key results for each state (and D.C.)

- Focus on the "core indicators" of effort, adequacy, and progressivity
- Comparisons with U.S. averages
- Trends over time
- Updated annually with latest data

$$\ln SCHOOL = b_0 + b_1 State_i + b_2 LaborMarket_i + b_3 CWI_i + b_4 FINANCE_i + b_5 PopulationDensity_i + b_6 Enrollment_i + b_7 INDICATORS_i + b_8 Scale_i + b_9 Poverty_i + b_{10} SchlType_i + b_{11} DATABASE_i + e$$

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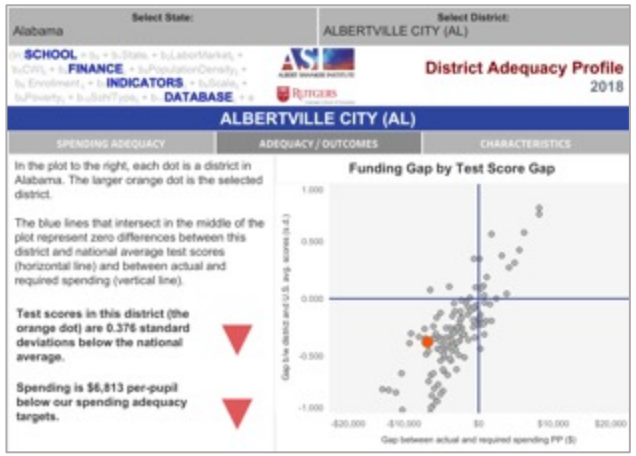
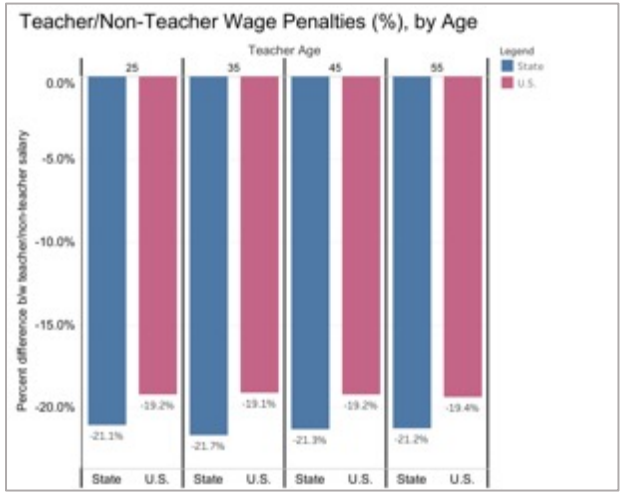
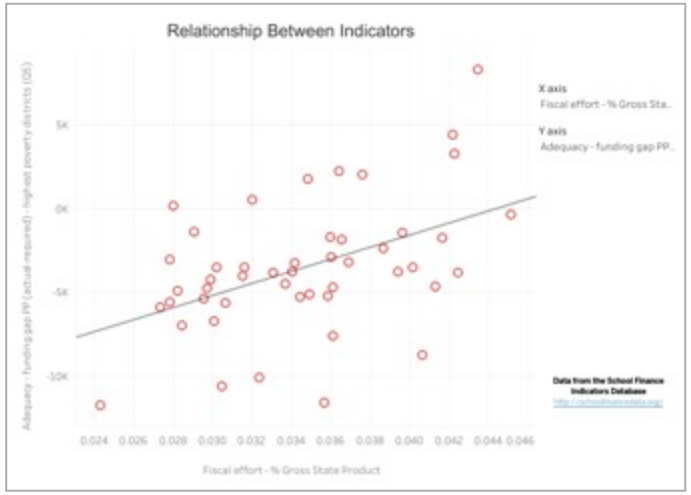
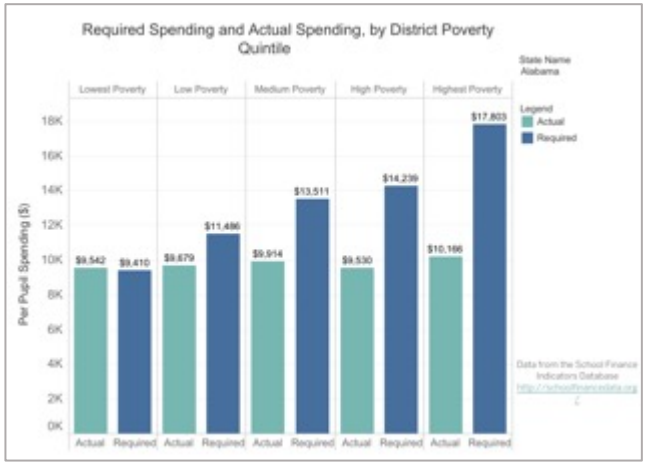
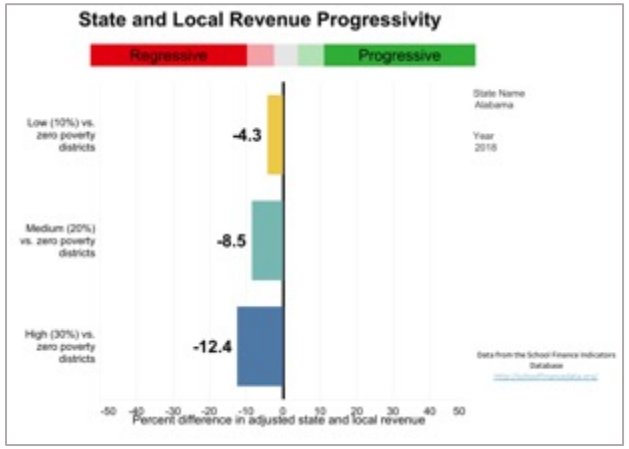
Resources: online data visualizations

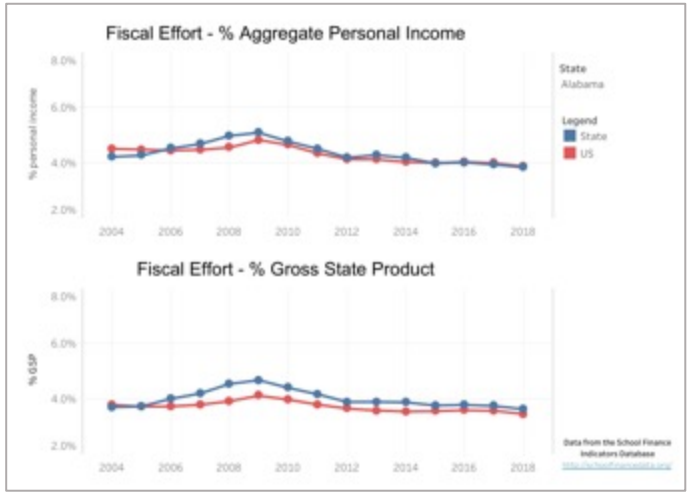












Visualize the latest results for a state or district on a group of selected measures (including the three “core indicators”).

$$(\ln)\,\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_i + b_3 CWI_i + b_4 \textbf{FINANCE}_i + b_5 PopulationDensity_i + b_6 Enrollment_i + b_7 \textbf{INDICATORS}_i + b_8 Scale_i + b_9 Poverty_i + b_{10} SchlType_i + b_{11} \textbf{DATABASE}_i + e$$

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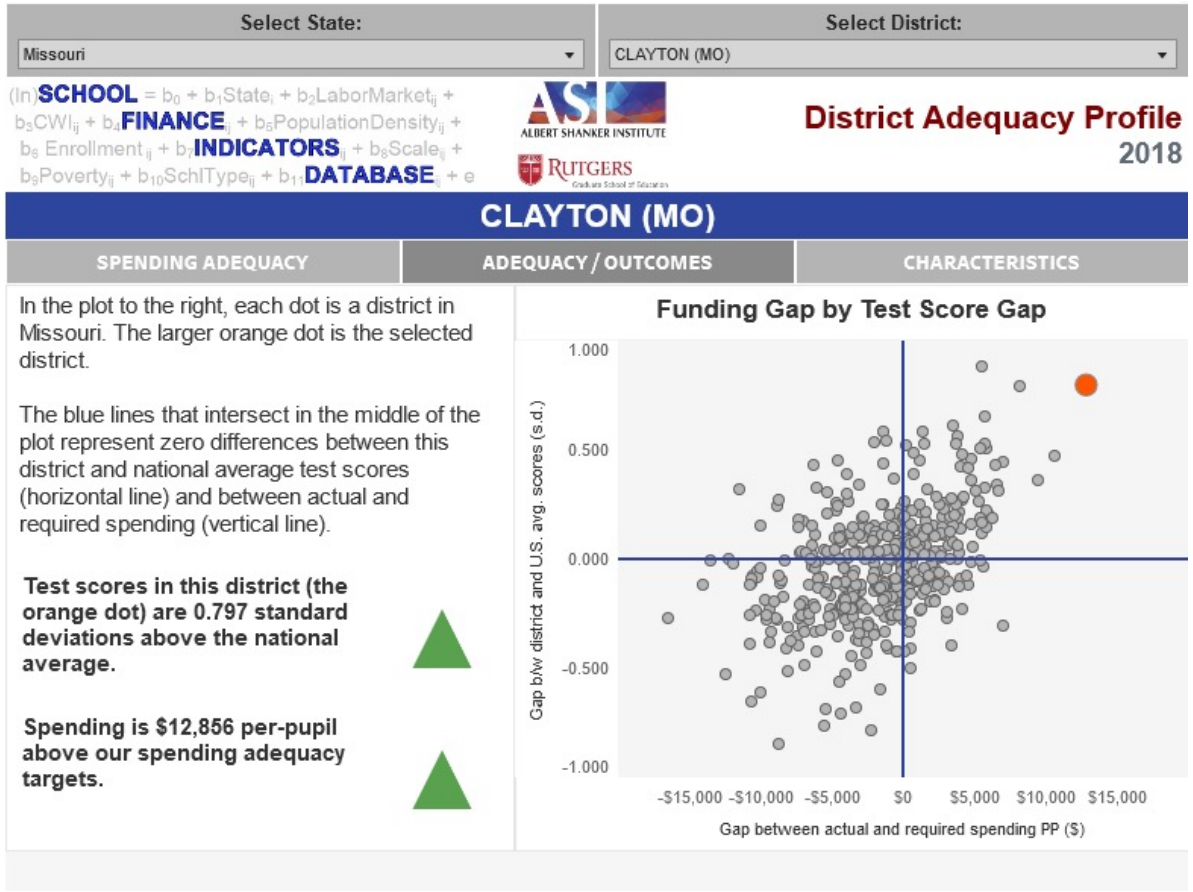
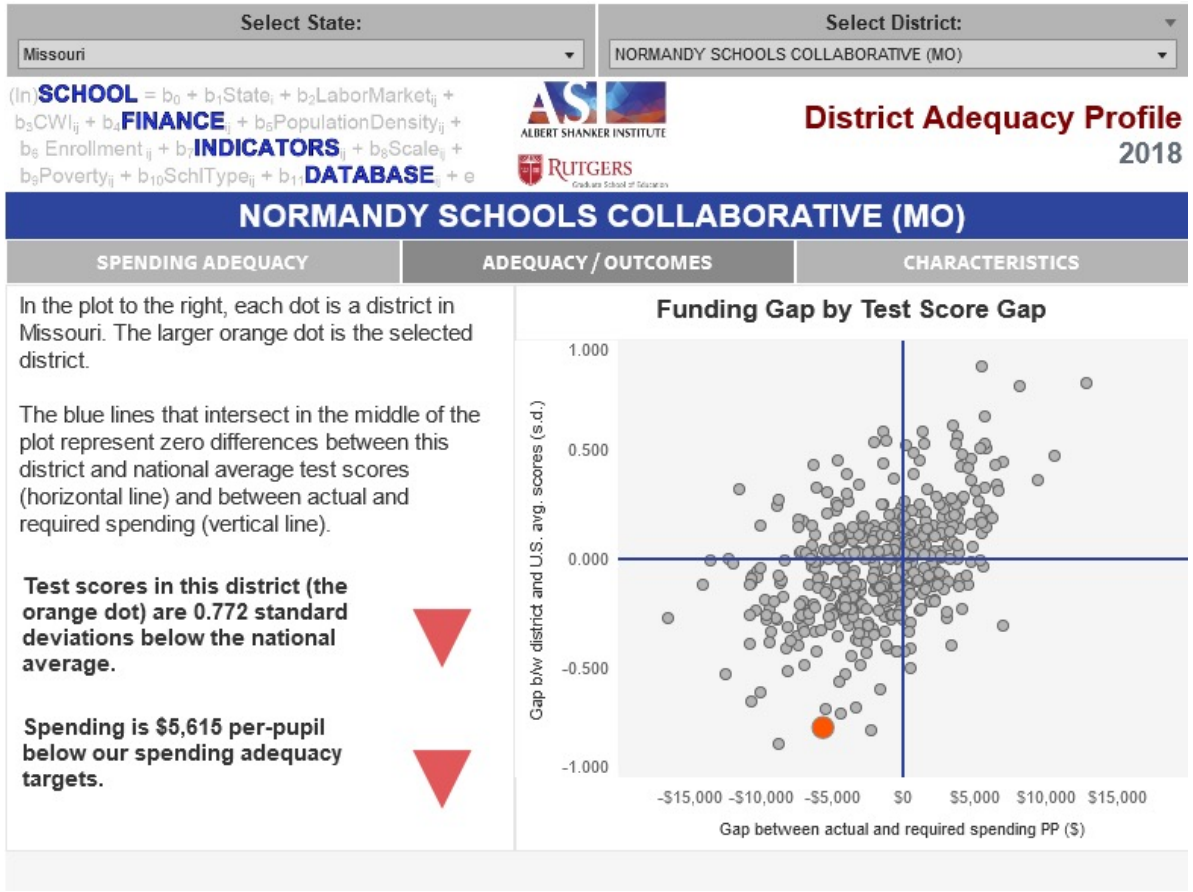
Resources: visualization example





District adequacy profiles for two Missouri districts

Thank you!

We are very happy to answer questions and would love to hear your feedback as to how we can improve our resources

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