RESEARCH REPORT

Making Sense of State School Funding Policy

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November 2017

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Executive Summary

States are a focal point for policy discussions around school funding, as they set policies that direct billions of dollars in state funding and potentially affect decisions by school districts about how to raise and use local revenue. School funding policy has long been a contentious issue in state capitols, a fact that remains today as policymakers in red states, such as Kansas, and blue states, such as Connecticut, enact or consider major reforms to how they fund schools.

State policy on school funding is complicated both because of the ways the policies are designed and because districts can respond in ways that may counteract state policymakers' goals.

This report provides an overview of how state school funding policy works. Every state is different, but our analysis reveals several key themes:

- **Districts with the highest-need students are not always the highest-need districts**. It seems obvious that districts that serve many high-needs students, such as those from economically disadvantaged families, are also those most in need of state funding to make up for a lack of local property wealth. But in many states, there is no more than a weak association between average family incomes and per-student property wealth.

- **Districts are not passive recipients of state funds** but rational actors that respond to incentives different state policies create. State efforts to shore up funding in some districts may lead other districts to increase their funding to keep up. Likewise, state policies that target funding to certain types of students may lead districts to overidentify students who qualify for additional funding.

- **Funding formulas are only part of the story**. Many states run sizable portions of their funding through categorical funding streams, which may direct dollars to students in need but limit flexibility for districts. Additionally, states may leave responsibility for funding capital expenditures (such as renovations or construction) to districts, resulting in better facilities in property-wealthy districts.

- **District-level funding is not school-level funding**. States can target funding to particular districts, but they are more constrained in their ability to target funding to schools or students. How money flows within districts is potentially important, but little is known about how state policy can affect within-district decisionmaking.

The interaction of state and local funding is a constant balancing act subject to decisions by legislators, judges, district administrators, and voters. The policy tools described in this report are used to ensure that funding is tailored based on student and district needs, but understanding the incentives they create and how they interact with each other is critical to accomplishing states' goals.

Making Sense of State School Funding Policy

For many years, local school districts were primarily responsible for funding K–12 education in the United States, typically through property taxes. But since the 1970s, state and local governments have held roughly equal responsibility for funding K–12 education, with each providing just under half of all funds (federal support totals less than 10 percent) (figure 1).[1]

Sources of K–12 Education Revenue, 1919–20 to 2013–14
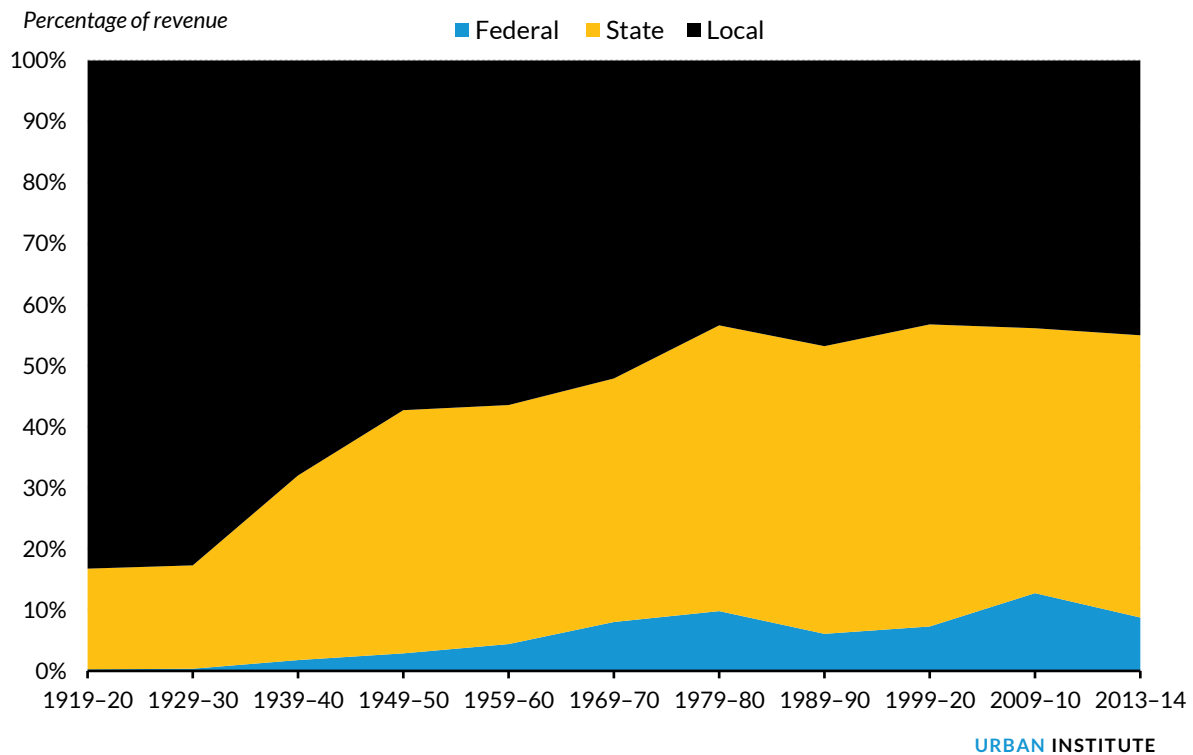
Percentage of revenue

Federal State Local

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Source: National Center for Education Statistics, Digest of Education Statistics, 2016, table 235.10, "Revenues for Public Elementary and Secondary Schools, by Source of Funds: Selected Years 1919–20 through 2013–14."

Looking just at state and local funding, the share that comes from the state varies substantially within the US from just 28 percent in Illinois in 2013–14 to more than 90 percent in Vermont and Hawaii (figure 2).[2]

FIGURE 2

State and Local Shares of Combined State and Local Funding, by State, 2013–14
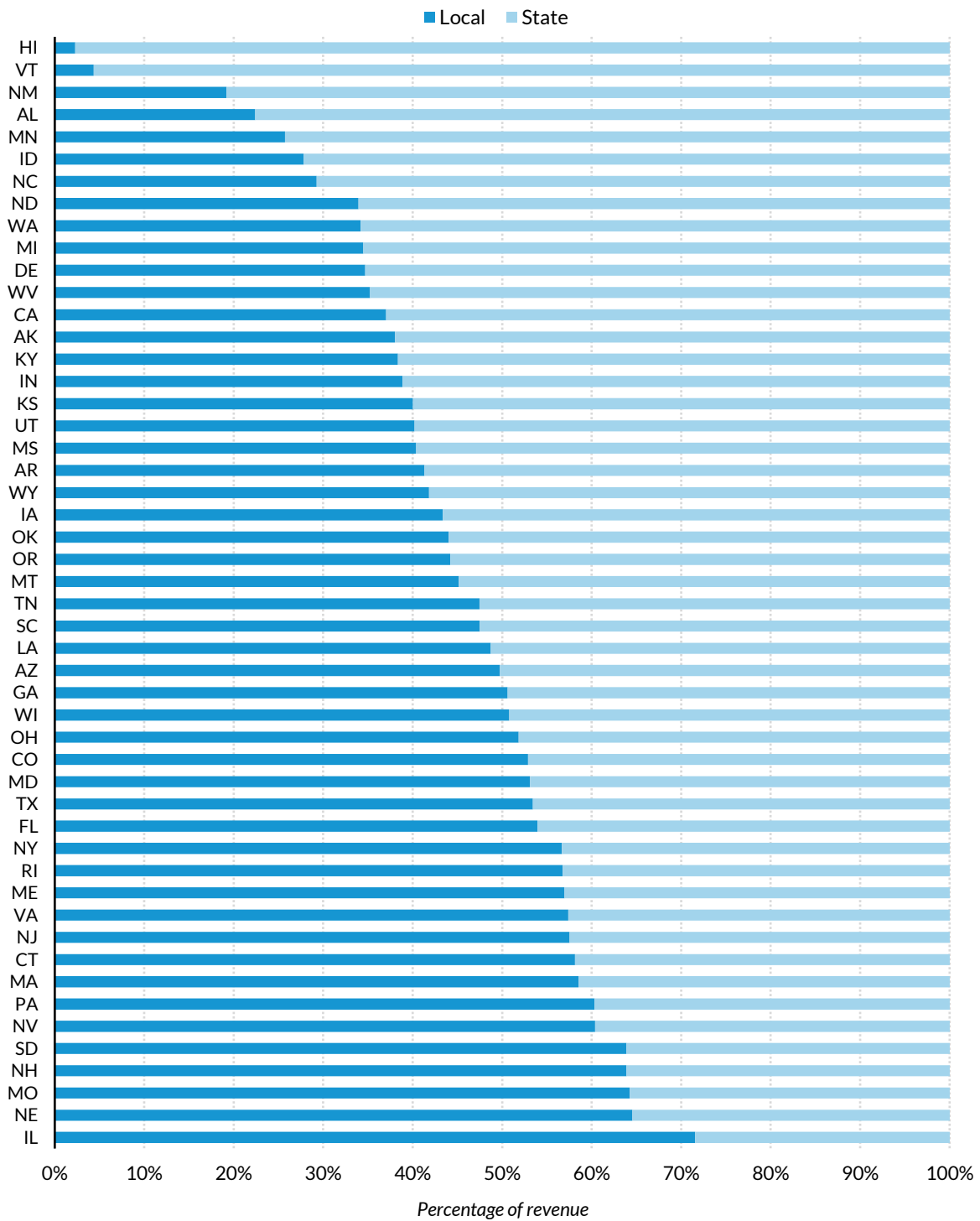

Source: National Center for Education Statistics, Digest of Education Statistics, 2016, table 235.10, "Revenues for Public Elementary and Secondary Schools, by Source of Funds: Selected Years 1919–20 through 2013–14."

States and districts share the cost of funding education on paper. But state governments have much greater power to influence the distribution of funds across school districts, by setting policies that may affect both the state and local contributions to public education. States largely exercise this power by using education funding formulas, which typically estimate each district's ability to contribute to education and determine the minimum level of per-student funding in each district.

Policy changes at the state level often result from state court decisions that require legislators to remedy shortcomings of existing funding policy. Between 1971 and 2010, 42 states had their school funding systems challenged in court. In 28 of those states, the courts have overturned the existing system (Jackson, Johnson, and Persico 2016). Further, state legislatures often amend the formula parameters, changing inputs such as the way that students are counted or updating the funding levels for inflation or other factors.[3]

School funding remains an active topic in state legislatures and courts around the country. In 2016, a Connecticut judge found the state's school financing system unconstitutional, and, in 2017, Kansas implemented a new funding system that was promptly overturned by the state supreme court. Also in 2017, Illinois legislators overhauled their state's funding policy.[4]

This report provides an overview of how state education funding policy works, with a focus on the way that advocates and policymakers may consider funding formula changes that accomplish different policy goals.

Goals of State Funding Policy

Broadly speaking, policymakers may amend funding formulas with the ultimate goal of improving educational quality in ways that benefit students and the state. For example, they may believe that a stronger education system will help the state achieve greater economic prosperity (and increased tax revenues). They may also want to ensure that resources are used as efficiently as possible, so that the best possible outcomes are obtained for a given level of funding.

However, the goals of education funding formulas can vary substantially. Policymakers may aim for equity in education funding, ensuring that districts (and their students) across the state have access to the same resources. However, equity can have many different meanings within the context of school finance reforms. Policymakers might want to ensure that all students receive equal resources, such as

the same amount of funding per student, across all districts. But they might want to go further and ensure that students with higher needs have access to more resources, regardless of where they live.

Just as policymakers may want to promote equity for students, they may also wish to promote equity for taxpayers (Berne and Stiefel 1999). One form of taxpayer equity would be to ensure that all taxpayers pay the same property tax rate, regardless of where they live. Another form of taxpayer equity would be to aim to maximize funding contributions from districts, ensuring that districts are raising dollars in accordance with both the size of their property tax base and their overall fiscal capacity. A policymaker may wish to do this to reduce the tax burden on property owners who have seen unexpected increases in the value of their property or so that state funding dollars can be appropriately targeted at districts that do not have the same resources.

Finally, policymakers may also consider whether their state's funding model supplies sufficient resources for schools to provide an adequate education. A given system may provide relatively equal resources, but these resources may not be sufficient to reach the goal of providing an adequate education for all students. Measuring adequacy typically involves linking the provision of education resources to desired educational outcomes, a process that can be fraught (Clune 1994; Hanushek 2007; Odden 2003).

Relationship between Property Wealth and Student Needs

The disparate goals of policymakers are further complicated by the fact that student needs may not be directly correlated with the ability of a district to contribute to education funding. Most states consider the ability of each district to contribute local resources (e.g., from property taxes) to their schools as part of their funding models. The simplest way to think about this is in terms of the total value of property that can be taxed per student who lives in the district. For any chosen tax rate, a district with more property wealth per student will be able to raise more local revenue per student than a district with less property wealth.[5]

It seems plausible that districts with less property wealth per student are also those with more economically disadvantaged students. But this is often not the case, because property wealth per student is based not just on typical house prices but also on the amount and types of property in the district (including nonresidential property) relative to the number of students. For example, cities often have both large populations of disadvantaged students and abundant property wealth.

Figure 3 shows that property wealth per student is only weakly correlated with median family income and poverty rates in many states. The average correlation across the 16 states examined is 0.25, and in only two of these states does the correlation between family income or poverty and property wealth per student consistently exceed 0.5.

Correlation between Property Values and Measures of Family Economic Disadvantage in 16 States
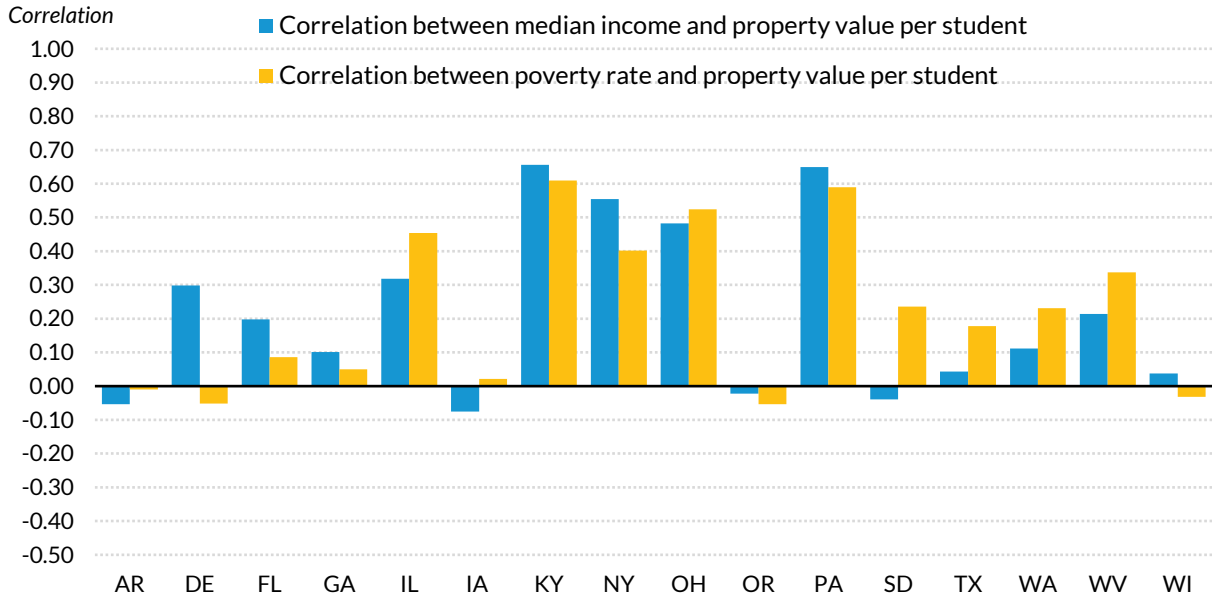
Source: Authors' calculations from data in "Building Equity: Fairness in Property Tax Effort for Education," EdBuild, February 21, 2017, https://edbuild.org/content/building-equity.

Notes: We have reversed the sign of the correlation with poverty rates to make it easier to compare with the correlation with median family income. We exclude as outliers districts with median household income or property wealth per student at or above the 99th percentile of the state-specific, enrollment-weighted distribution. Nevada is excluded because it has a very small number of districts.

Figure 4 shows the relationship between household income and per-student property wealth across 338 districts in Illinois, which has a correlation in roughly the middle of the pack of the states we examined ($r = 0.32$). For most levels of property wealth per student, districts vary widely in the income of the typical household.

FIGURE 4

Property Wealth per Student versus Median Household Income, Illinois school districts

Property wealth per student

Median household income

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Source: Authors' calculations from data in "Building Equity: Fairness in Property Tax Effort for Education," EdBuild, February 21, 2017, https://edbuild.org/content/building-equity.

This means that, in states like Illinois, a policy that targets state funding based on property wealth will benefit a different set of districts than a policy that targets funding based on student disadvantage. Put another way, well-designed efforts to ameliorate inequalities in ability of districts to raise local revenue will likely differ from policies aimed at increasing funding to districts serving high-need students.

Addressing Differences in Student Needs across Districts

Because of the imprecise relationship between district ability to pay and student needs, many funding formulas use strategies to direct more funds to students with higher needs. States typically specify a base level of combined state and local funding in each district. This base level of funding may be adjusted for student need based on the characteristics of the district and the students it serves so that more per-student funding flows to districts seen as having greater needs.

Thirty-one states adjust funding levels based on the size or sparsity of each district.[6] The thinking is that small districts tend to have higher per-student costs (since fixed costs are spread over a smaller number of districts) and sparse districts have greater transportation costs.[7]

Most states also target funding based on student characteristics.[8] Common student factors include special education (47 states), English language learners (40 states), student economic disadvantage (28 states), and grade level (25 states). Sixteen states provide additional funding to districts with greater concentrations of low-income students.[9]

A common way to adjust the basic funding level for student characteristics is to "weight" the student enrollment numbers in the formula. For example, a state might give each student who receives a free or reduced-price lunch (FRL) an additional weight of 0.25 and each English language learner (ELL) an additional weight of 0.75. In this scenario, a district of 1,000 students total, which includes 100 students who receive FRL and 200 ELLs, would have a weighted total enrollment of 1,175. A total allocation of $10,000/student would thus result in $11.75 million of funding for this district, compared with $10 million for a district with 1,000 students who do not fall into either of these categories.

Some states obtain the same result by attaching weights to funding amounts instead of enrollment counts. Continuing the example above, the state would allocate $10,000 per regular education student, $12,500 per student eligible for FRL, and $17,500 per ELL. The total funding for the hypothetical district would be the same because the underlying math is the same.

Although the use of weights within state formulas can do a great deal to increase funding in districts that disproportionately serve high-needs students, weighting may have some disadvantages. They may create incentives for states to increase the number of students who receive additional weight and the funding that comes with it (Greene and Forster 2002; Hoxby and Kuziemko 2004).

In addition to choosing which student characteristics to weight, states also decide whether to calculate enrollment based on a single point in time (e.g., a fall audit), average daily attendance, or something else. Funding based on attendance will result in less funding to schools that have lower attendance rates (compared with funding based on enrollment). These schools may disproportionately serve disadvantaged students (Baker and Corcoran 2012). States that use weighting also have to decide whether to allow weights to be "stacked" or aggregated, such that an ELL from a low-income background would receive a higher weight than either an ELL or a student from a low-income background would receive separately.

Further, weights may not sufficiently account for differences in the concentration of high-need students (Weston 2013). Some states have attempted to resolve this problem by interacting the size of the weight with the concentration of need within the district. New Jersey provides an additional 47 percent of the base per-student funding amount for each student eligible for FRL in districts where the FRL share is below 20 percent, but an additional 57 percent per student eligible for FRL in districts where the FRL share is at or above 60 percent.[10]

How Funding Formulas Work

Most states have a general funding formula, through which an average of 72 percent of state funding to K–12 school districts flows.[11] (This share varies across states, as we show below.) It is important to bear in mind that the district is generally the unit of analysis in school finance policy discussions, although the question of how funding flows across schools within districts is important (Ejdemyr and Shores 2017; Hyman 2017). We also set aside the issue of how states provide funding to schools outside of traditional districts, such as charter and private schools.

States typically first calculate a target funding level for each district. Student needs are factored into that target in 37 states, as described above. In addition to or in place of student needs, 14 states calculate the resources required to provide K–12 education, such as salaries for school staff.[12] For example, they might calculate the resources required to hire one teacher for every 20 students at a given salary level.

Once the state calculates each district's target funding level, the next step is to determine how much of that funding is provided by the state government (with local governments left to fund the rest). Because local funding is primarily derived from property taxes, states typically pick up a larger share of the target funding level for districts with lower property wealth per student (although some consider incomes in the district as well, even though school districts cannot usually tax income directly).

We describe three general approaches that states use to determine the state and local contributions to school districts. A key theme of this discussion is that, in nearly all cases, districts are not passive recipients of state funds but rational actors that have leeway to respond to the incentives different state policies create.

Model 1: Foundation Aid

The most popular model for school funding is the foundation grant. As of 2015, 37 states used this approach to school funding, and others used it in combination with other methods.[13]

Under the foundation model, a state decides the minimum that should be spent, per student, and estimates each district's ability to pay. For example, a state could set a minimum of $10,000 per student and estimate how much each district could pay using a 1.0 percent property tax. The state would then provide foundation funding up to the minimum $10,000 spending amount. In some cases, districts may not get any foundation funding because they can meet (or exceed) the spending minimum on their own.

In many foundation formulas, the state requires a minimum spending level but allows districts to spend more if they wish. When districts have leeway to choose their property tax rate, some districts elect to tax at a higher rate, creating some inequality among districts. Further, property-rich districts get more funding from the same increase in the property tax rate than property-poor districts. For example, an increase in the tax rate from 1.0 to 1.2 percent would produce an additional $200 per student in a district with $100,000 in property wealth per student, but an additional $1,000 per student in a district with $500,000 in property wealth per student.

This model requires a high level of funding from the state (or a high required local tax rate) to minimize differences between districts with low and high property wealth. A heavy reliance on state funding means that budget cuts may lead to districts increasing their spending to compensate. Because property-wealthy districts can raise more money per student with small increases in the property tax rate, differences between districts can quickly increase.

The strength of this system is that it enables each district to spend at or above a minimum level determined by the state. But it is unlikely to create incentives for lower-wealth districts to increase their tax effort, and it may create incentives for higher-wealth districts to do so to stay ahead (e.g., in competition for teachers). It also results in low-wealth districts being very reliant on state funding, so that they may be hardest hit if state funding is cut.

Model 2: Guaranteed Tax Base

Because districts have unequal access to property wealth, foundation grants must be large to minimize differences in spending among districts. To help districts that have low property wealth, some states have opted to use a guaranteed tax base model (sometimes called "power equalization"), where districts

are guaranteed a minimum amount of money for their tax effort. Under this model, any increase in the property tax rate raises the same amount of money across all school districts.

In our example of a foundation aid system in the "Model 1" section, a state guaranteed each district $10,000 per student in revenue with the expectation that districts would assess a 1.0 percent property tax. In a guaranteed tax base model, the state could guarantee $10,000 per student for every 1.0 percent in property tax assessed. For example, a state that set its local tax rate at 1.5 percent would have combined state and local funding of $15,000 per student, with the state making up any shortfall not covered by local taxes.

The result is that districts that could previously only raise small amounts of revenue from its tax base can now raise substantially more with a "match" from the state. Districts with lower property wealth now have an incentive to raise local taxes, since each additional dollar of local spending will yield more money from the state.

Because power equalization formulas can dramatically change incentives for districts, states that use a power equalization model typically use it in combination with a foundation grant, matching dollars spent above a minimum foundation amount up to a maximum.

Model 3: Centralized Funding

When states guarantee a minimum level of funding, either overall or for a particular property tax rate, districts have some leeway to choose property tax rates to raise required local funding. Some states have opted for a different path. Rather than trying to keep up with rich districts by providing foundation funding or equalizing the funding generated by a given set of tax rates, these states have centralized their school finance systems.

In a centralized system, the state assigns a standard property tax rate for all districts. In return, it guarantees roughly the same per-student amount across districts. In practice, this model is like a foundation grant, but the district has no leeway to raise funds above the minimum amount for current expenditures. For example, the state sets a standard payment $10,000 per student, and each district pays a required 1.0 percent tax.

Recapture of District Revenue and Hold Harmless

In all three approaches to school funding, states may have to decide how to treat districts that want to raise more than the amount targeted (or guaranteed) by the state. The state could allow the district to keep the money or the state could "recapture" the additional funds.

In a recapture model, a state could specify that any local funds raised above a certain limit, such as the $10,000 per 1.0 percent tax, are absorbed into a general education fund by the state. As a result, a district that set its tax rate at 1.0 percent and collected $15,000 per student, in addition to receiving no state funds, would only spend $10,000 per student and send the remaining $5,000 per student to the state.

In any state funding model, there is a risk to using recapture. Living in a high-wealth district may be associated with preferences for high spending on education, and those preferences may be reflected in property values. Under recapture, additional dollars in property taxes would not go to local students, and property values in the district may decline as a result. If the state relies on recapture to fund redistribution to property-poor districts, the state may be forced to lower the recapture threshold to raise the same amount of money as it had before (Hoxby and Kuziemko 2004).

When states alter or replace their funding formulas, the allocation of limited state resources often means that some districts will lose funding. To minimize this, states sometimes enact "hold harmless" provisions that protect districts from sudden losses of funding. These provisions may also be enacted for very small districts or for those that are experiencing a steep decline in enrollment.

Nonformula Funding

Not all state funding is run through a general formula. Resources provided outside the formula are generally provided in the form of categorical funding, where dollars are designated for specific programs or students. For example, the largest state categorical funding stream is special education, which averages 6 percent of state funding nationwide. Although some states incorporate special education status into their formula as a weight, many states opt to deliver special education dollars, in whole or in part, through categorical funding.

The allocation of categorical funding can be based on the number of students enrolled in a given program, the resources used to deliver a given service, or other factors. In many cases, policymakers use

categorical funding to ensure that a minimum level of funding is spent on a given set of programs. In this way, categorical funding may limit district spending flexibility (Smith et al. 2013).

Nationwide, about 26 percent of state funding is run through categorical funding. Some of the programs that categorical funding streams may support are vocational education, bilingual programs, and transportation (table 1).

TABLE 1

State Funding, 2013–14

Source	Share
General formula assistance	71.8%
Other state revenue	14.1%
Special education programs	6.2%
Staff improvement programs	1.5%
Compensatory and basic skills programs	1.5%
Transportation programs	1.3%
Gifted and talented programs	0.4%
Vocational education programs	0.4%
Bilingual education programs	0.3%

Source: 2013–14 F33 data on geographically based school districts
Notes: Other state revenue includes other program, nonspecified, and state revenue on behalf of the school district. Capital outlay and debt-services programs revenue and school lunch program payments are excluded.

States vary widely in the degree to which they use categorical funding to distribute state dollars. Arizona, Louisiana, Mississippi, New Hampshire, North Carolina, North Dakota, Oregon, and Tennessee rely mostly on general formulas, distributing less than 10 percent of state funding through categorical programs. Illinois, Maryland, and West Virginia have roughly a 50/50 split, whereas 76 percent of state dollars are distributed through categorical programs in South Carolina (see appendix table A.1).

Most states have progressive categorical funding streams, where more money flows to districts with relatively more students from low-income families. However, in roughly half of states, categorical funding is relatively less progressive than the state's formula funding. The difference can sometimes be stark. For example, in Illinois, about 54 percent of state funding in 2013–14 was distributed via a progressive formula: districts attended by poor students received 40 percent more in per-student funding that districts attended by nonpoor students. But the other half of state funding flowed through categorical streams that are regressive, with districts attended by poor students receiving 15 percent less than districts attended by nonpoor students.[14]

A challenge to calculating how categorical funding is distributed is that it may be targeted to particular groups of students to a greater extent than general formula funding. For example, the state

may require districts to spend money designated for at-risk students on programs targeted at these students (e.g., after-school programs or individual tutoring). As a result, how the funding is distributed across districts may obscure which students are most likely to benefit.

Another form of revenue that is typically managed outside a general funding formula is money raised for capital expenditures. Responsibility for raising these funds, which typically fund construction or repairs for school facilities, often lies with the local district.[15] For example, in many states, school districts have the ability to levy additional property taxes to raise funds for capital expenditures. Because property-wealthy districts are able to raise more funding than a property-poor district with the same tax, some have raised concerns about the equity of these capital outlay revenues (Duncombe and Wang 2003).

Finally, revenue for school districts may also come from private sources, such as parent-teacher associations, student fees, or donations from nonprofits (Addonizio 2000). These activities are likely associated with community wealth. But these funds are not consistently captured in public reporting, so it is difficult to systematically assess the level and distribution of these funds.

State Examples

In practice, each state's school funding policy is a unique combination of funding formula model(s) and policy decisions made around the minimum level of funding, the use of weights for student need, and other decisions. Brief overviews of school funding in three states collectively help illustrate the variety of approaches taken.
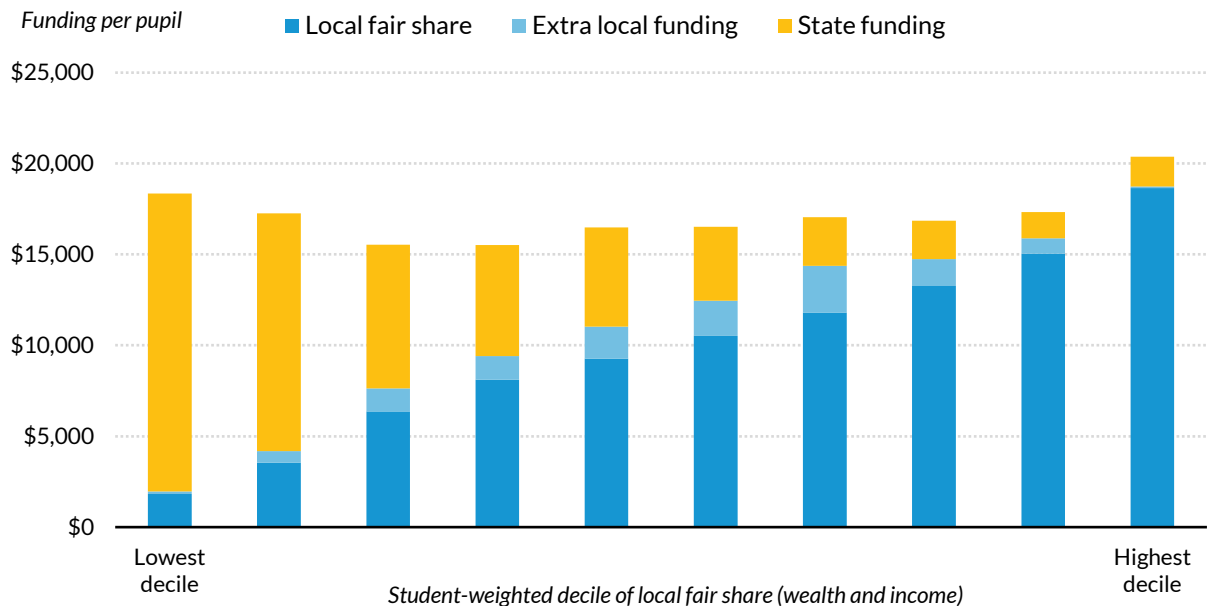
New Jersey

New Jersey's current foundation program was first implemented in 2009.[16] New Jersey calculates an "adequacy budget" per student for each district, which is based on student need and the local costs that each district faces. For example, districts with more students eligible for FRL or who are ELLs have higher adequacy budgets (New Jersey Department of Education 2007).

New Jersey uses both property wealth and a district's aggregate income to estimate how much a district can provide to its schools. The state provides the difference between this "local fair share" and

the adequacy budget. The "local fair share" is not a required contribution, and many districts contribute more or less than the specified amount.

Figure 5 shows the state and local contributions by decile of district local fair share (a combination of property wealth and income) in 2014–15.[17] The state contributes the vast majority of funding for the poorest 10 percent of districts, and this contribution decreases as district wealth and income increases. The bottom 10 percent of districts in terms of wealth or income spend more than any other decile, except for the top decile which relies almost exclusively on local funding.

Average Local and State Funding per Student, by Property Wealth of District, 2014–15

Funding per pupil ■ Local fair share ■ Extra local funding ■ State funding

Lowest decile — Student-weighted decile of local fair share (wealth and income) — Highest decile

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Source: Authors' calculations from New Jersey Data Book.
Note: Statistics are weighted by student enrollment in each district.

As discussed, this arrangement can effectively equalize funding across districts, but it leaves the poorest districts at the mercy of state funding. This is most vividly seen in New Jersey as state budget cuts took effect between 2009 and 2011, and state funding per student fell 18 percent across all districts. Over the same period, local funding per student only fell 5 percent.[18]

This decline in state funding hit the highest-poverty districts the hardest. The 10 percent of districts with the highest poverty rates experienced a decline in state funding equivalent to 15 percent of their

2009 total state and local funding, and the next-poorest decile experienced a decline of 23 percent (table 2). No other decile experienced a decline of more than 6 percent.[19]

Local funding was relatively stable over this period, so the highest poverty districts experienced large declines in combined state and local funding, whereas other districts experienced much more modest cutbacks in funding.

Percentage Changes in School Funding during Great Recession, New Jersey, 2009–11, relative to 2009

Decile of poverty rate	State	Local	State + local
Lowest poverty	-2%	1%	-1%
2nd	-6%	0%	-6%
3rd	-5%	1%	-3%
4th	-3%	-5%	-8%
5th	-5%	-3%	-8%
6th	-6%	2%	-4%
7th	-5%	0%	-5%
8th	4%	-16%	-13%
9th	-23%	-4%	-27%
Highest poverty	-15%	-4%	-19%

Source: Authors' calculations from Common Core of Data F-33 files.
Notes: Deciles and statistics weighted by student enrollment.

Texas

In Texas, most funding is allocated under a foundation grant program. Texas guarantees a basic allotment to school districts of $5,140 per student in exchange for setting a tax rate of at least 1 percent.[20] This allotment is adjusted based on local costs, district size and sparsity, and student characteristics. The final entitlement reflects multiple components of the funding system, some of which use weights for different categories of students (where enrollment is measured using average daily attendance).

Districts that raise the full entitlement with a 1 percent tax rate send any additional revenue to the state (i.e., the funds are recaptured). Districts that have relatively low property values and are not able to raise the entitlement with a 1 percent tax rate are sent a check from the state to bring them up to the target amount.

This arrangement accounts for 88 percent of funding in the school finance system, but districts can raise additional funds by increasing their tax rate under a guaranteed tax base formula. For each 0.01 percentage point increase in the tax rate above 1 percent, up to a maximum of 1.06 percent, Texas

guarantees a yield of $77.53 per student (as of the 2016–17 school year).[21] For example, if a district can raise $30 per weighted student using an additional 0.01 percent of property tax, the state will provide an additional $47.53 as an incentive. This part of the guaranteed tax base part of the formula guarantees every district the same return as the Austin school district gets from its property tax base, which is one of the wealthiest in the state in terms of property wealth per student.[22]

For tax rates between 1.06 and 1.17 percent, each district is guaranteed a lower yield of $31.95 per 0.01 percentage point per student. Tax revenue that exceeds the guaranteed yield is recaptured by the state. The recaptured funds are used to fund the foundation grant program.

The result is that Texas schools receive the same total state and local funding for tax rates up to the maximum of 1.17 percent, regardless of their property wealth per student. About half of districts (53 percent) set rates of 1.04 percent which is the maximum rate that does not require voter approval. Another 40 percent set rates above 1.04 percent. A small number of districts are allowed to tax above 1.17 percent. Only 6 percent of districts choose rates below 1.04 percent.

This system produces relatively equal funding per student, regardless of the district's property wealth (figure 6). Most funding comes from the basic allotment, so that funding is relatively equal regardless of the tax rate chosen by each district (which generally has to fall between 1.00 and 1.17 percent). Additionally, the guaranteed tax base portion of funding allows property-poor districts to keep up with property-rich districts for a given tax rate.

Most districts receive more under equalized funding than they would receive from their local tax base. Only 7 percent of districts with the highest property wealth (serving 3 percent of students) per student are net contributors to the system—they remit more of their property tax revenues to the state than they receive in state aid.

FIGURE 6

Average Local and State Funding per Student, by Property Wealth of District, Texas, 2016–17

Funding per student
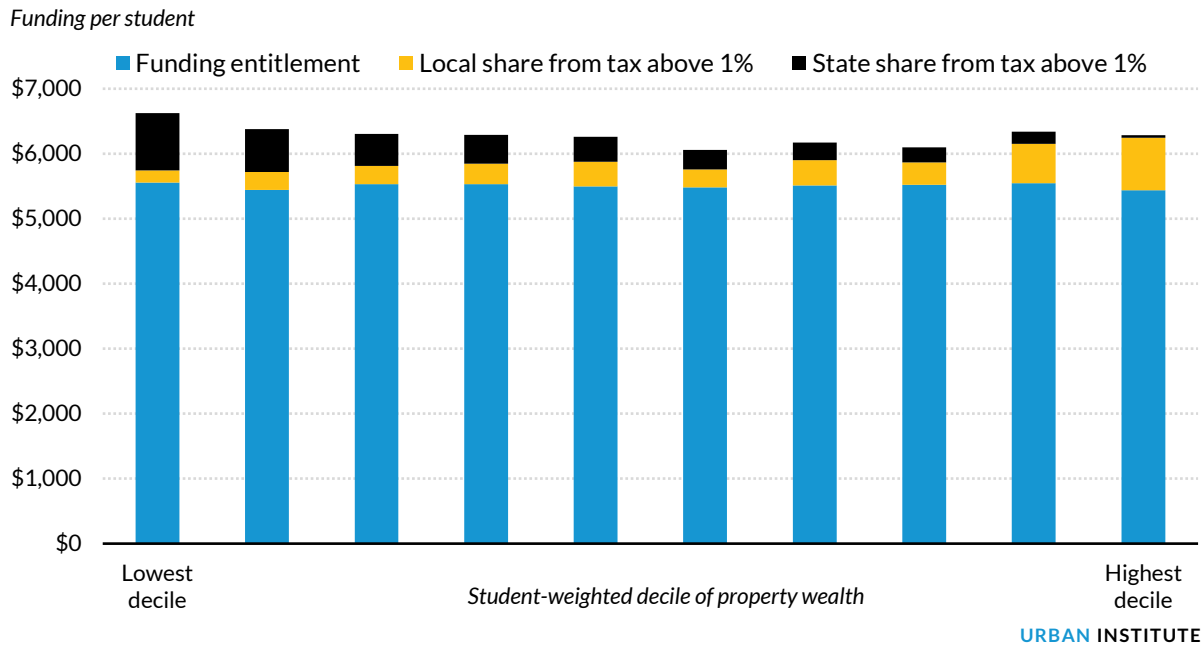
Source: Authors' analysis of data provided by Texas Education Agency in response to a public information request.
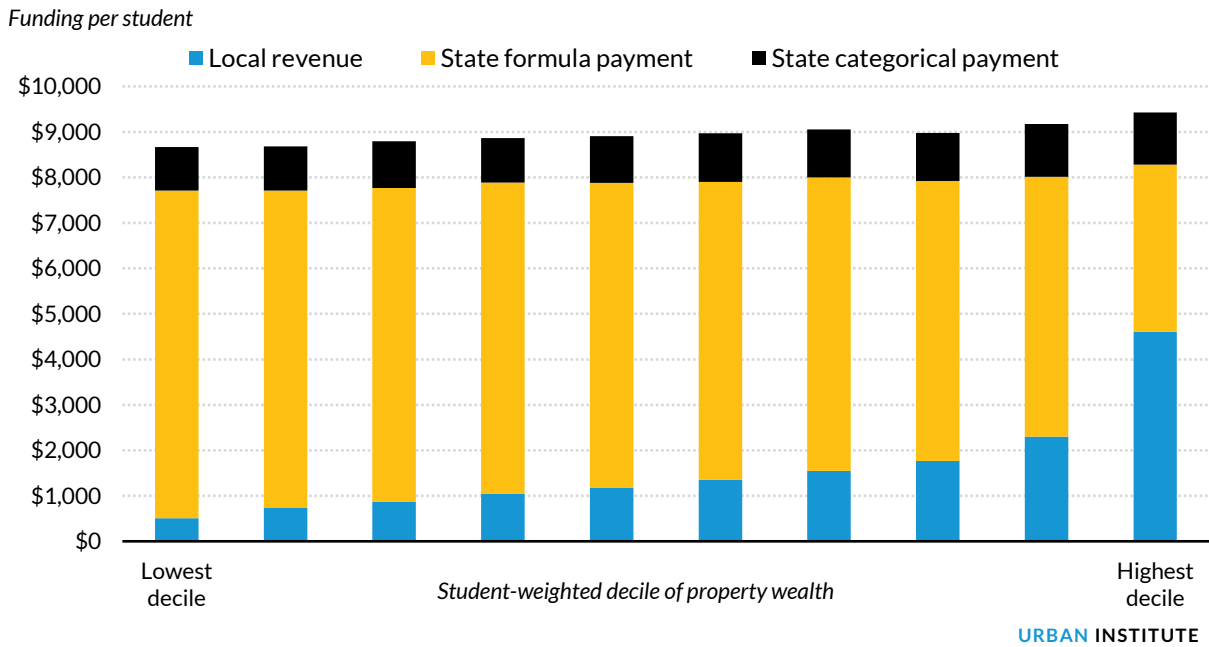
Michigan

In Michigan, the school funding formula is centralized, so every school district is required to tax at the same rate (0.6 percent or 1.8 percent, based on property type), and the state provides funding to meet a predetermined per-student amount for each district.[23] Michigan refers to this amount as the "foundation allowance."

Once state funding is added to local revenue, the amount allocated per student is roughly equal regardless of property wealth, with the exception of about 50 hold harmless districts (less than 10 percent of the districts in Michigan). These districts that have the option to tax local property at their historic levels but get no state revenue through the formula. These districts barely register in the student-weighted averages because there are only a few and they are relatively small (figure 7).

FIGURE 7

Average State and Local Revenue, by Decile of District Property Wealth, Michigan, 2016–17

Funding per student

Student-weighted decile of property wealth

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Source: Authors' analyses of Michigan Department of Education State Aid data from 2016–17.

Michigan has other funding streams that provide additional dollars outside what is distributed through their state aid system. For example, Michigan has many categorical funding streams, including a categorical funding stream that acts as a weight for low-income students (the regular education funding formula is unweighted). Further, Michigan allows its intermediate school districts, which function like county-level governing districts, to raise additional funds through property taxes for school districts in their jurisdiction. In 2016, intermediate school districts raised $1.6 billion from local tax revenue (DeGrow 2017).

Though Michigan's system ensures relative funding equality among its school districts, there are some potential downsides to this system. Districts where residents want to spend more on education are more limited in their ability to raise more for school funding. And a much higher proportion of the funding (about 80 percent) comes from state revenue (through sales and other taxes) than from district property wealth.

Conclusion

On its surface, the issue of school funding may seem to be a simple relatively problem for policymakers: decide which districts or students need the most support and allocate money accordingly. However, as we have outlined in this report, ensuring that education dollars flow where policymakers want them to is difficult.

One of the underlying reasons for this difficulty is the fact that school funding is a partnership between local school districts and the state. Districts that are free to set their own property tax rates will respond to incentives state funding systems create. State policy may therefore have different effects on the overall level and distribution of school funding than policymakers intend. When districts that have the ability to set their own tax rates, or raise money through other means, the choices that they make may run counter to the intentions of policymakers.

Because funding systems often aim at increasing funding for districts with more low-income students, the low correlation between property wealth and student need in many states means that efforts to help property-poor districts are best accomplished through different means than attempts to increase funding to districts serving high-need students. Put another way, they cannot assume that shoring up funding in property-poor districts will ensure that districts serving high-need students will have sufficient resources.

More generally, when policymakers have multiple objectives in distributing education dollars, the allocation of money toward one goal may work to undo progress toward another. For example, tying funding to student attendance rather than enrollment may succeed in encouraging attendance but also undermine efforts to distribute more resources to high-need schools. Additionally, efforts to reduce the spending of wealthy districts may reduce the amount of funds that are available in the system to shore up funding in poor districts.

The complicated interaction of state and local funding raises the question of whether states should seek to reduce their reliance on property taxes, rather than only trying to redistribute across districts. But this approach may come with its own risks. For example, states that fund schools based largely on sales and income taxes may face shortfalls in the wake of an economic recession, leaving schools worse off than they would be under a system that relied more on property taxes (which tend to be less sensitive to economic conditions).

The interaction of state and local funding means that state education funding formulas are a constant balancing act that can be affected by court cases, legislative action, and economic changes that

put pressure on state budgets. We have documented the wide range of tools that state policymakers can use to distribute money to school districts. Understanding how they work and interact with each other is critical to ensuring that reforms accomplish lawmakers' goals.

Appendix A.

Progressivity and Share of Formula and Nonformula State Funding, 2013–14

State	Progressivity of state formula funding	Progressivity of nonformula state funding	Progressivity of all state funding	Percent of state funding through formula
AK	1.14	1.03	1.18	68%
AL	1.01	1.04	1.02	83%
AR	1.03	1.07	1.04	73%
AZ	1.06	1.08	1.06	97%
CA	1.16	1.08	1.15	78%
CO	1.05	1.08	1.06	89%
CT	1.56	1.35	1.44	40%
DE	1.03	1.06	1.05	79%
FL	1.01	1.01	1.01	44%
GA	1.03	1.07	1.05	62%
IA	1.05	1.03	1.04	76%
ID	1.01	1.03	1.01	77%
IL	1.40	0.86	1.11	49%
IN	1.05	1.09	1.05	85%
KS	1.10	1.02	1.07	73%
KY	1.10	1.07	1.09	59%
LA	1.02	1.03	1.02	95%
MA	1.45	1.07	1.30	66%
MD	1.12	1.29	1.19	48%
ME	1.09	1.05	1.09	82%
MI	0.97	1.23	1.01	84%
MN	1.01	1.25	1.07	74%
MO	1.10	1.05	1.10	89%
MS	1.03	1.03	1.03	95%
MT	1.02	0.95	1.01	74%
NC	1.04	1.19	1.04	98%
ND	1.00	1.08	1.01	92%
NE	1.08	1.03	1.07	75%
NH	1.11	1.03	1.11	92%
NJ	1.99	1.34	1.73	60%
NM	1.01	1.13	1.02	90%
NV	1.00	0.99	1.00	73%
NY	1.20	0.99	1.12	61%
OH	1.27	1.42	1.28	90%
OK	1.08	1.02	1.06	61%
OR	1.05	1.11	1.06	95%
PA	1.42	1.10	1.28	57%
RI	1.41	0.95	1.36	82%
SC	1.01	1.00	1.00	24%
SD	1.11	1.11	1.11	85%
TN	1.03	0.96	1.03	93%
TX	1.17	1.03	1.16	87%
UT	1.00	1.04	1.01	58%

State	Progressivity of state formula funding	Progressivity of nonformula state funding	Progressivity of all state funding	Percent of state funding through formula
VA	1.10	1.24	1.14	72%
VT	1.00	1.02	1.00	82%
WA	1.03	1.10	1.06	70%
WI	1.10	1.20	1.11	86%
WV	1.02	1.02	1.02	54%
WY	1.10	1.00	1.05	73%

Source: Authors' calculations from NCES Common Core of Data F-33 file 2013–14.

Note: Capital outlay and debt services programs revenue and school lunch program payments are excluded.

Notes

1. Table 235.10 "Revenues for Public Elementary and Secondary Schools, by Source of Funds: Selected Years 1919–20 through 2013–14," National Center for Education Statistics, Digest of Education Statistics, 2016, https://nces.ed.gov/programs/digest/d16/tables/dt16_235.10.asp?current=yes.

2. Hawaii is a single state-run school district and therefore receives very little funding from local sources. The share of funding the federal government provides ranges from 4 percent in Connecticut to 15 percent in Louisiana.

3. Ricardo Cano, "4 Things You Beed to Know about Arizona's New School Funding Formula," *AZ Central*, January 26, 2016, http://www.azcentral.com/story/news/arizona/politics/education/2016/01/26/arizona-new-school-funding-formula/78708582/.

4. Kate Zernike, "An F-Minus for America's Schools From a Fed-Up Judge," *New York Times*, September 8, 2016, https://www.nytimes.com/2016/09/09/nyregion/crux-of-connecticut-judges-grim-ruling-schools-are-broken.html; Hunter Woodall, Katy Bergen, and Dion Lefler, "School Funding Formula Ruled Unconstitutional in Kansas," *Governing*, October 3, 2017, http://www.governing.com/topics/education/tns-kansas-school-funding-ruling.html

5. A related goal that some policymakers have is property tax relief. Since property taxes are generally highest (in dollars) in high-wealth districts, efforts to relieve this "burden" can disproportionately benefit affluent districts (Baker and Corcoran 2012).

6. Authors' calculations from "FundED: State Education Funding Policies for All 50 States," EdBuild, accessed October 24, 2017, funded.edbuild.org.

7. For example, Texas increases the base funding level for districts with less than 5,000 students, and for districts that are over 300 square miles. See Deborah A. Verstegen, "A 50 State Survey of School Finance Policies (2015): Texas," accessed November 17, 2017, https://schoolfinancesdav.files.wordpress.com/2015/04/texas.pdf.

8. Not all states do this through the general formula. Some do it through categorical funding, as we discuss in the "Nonformula Funding" section.

9. Authors' calculations from "FundED: State Education Funding Policies for All 50 States," EdBuild, accessed October 24, 2017 funded.edbuild.org.

10. Deborah A. Verstegen, "A 50 State Survey of School Finance Policies (2015): New Jersey," accessed November 17, 2017, https://schoolfinancesdav.files.wordpress.com/2015/04/new-jersey.pdf.

11. Authors' calculations from 2013–14 F33 data, comparing general state revenue (which is generally formula-driven) with all state revenue for geographically based school districts. The share of state revenue in this category is approximately the same as it was in the mid-1990s.

12. Authors' calculations from "FundED: State Education Funding Policies for All 50 States," EdBuild. See Alabama example, "A Guide to State Allocation Calculations 2016–2017," Alabama State Department of Education, https://www.alsde.edu/sec/leafa/State Allocations/State Guide to Allocations 2016-17.pdf; and see North Carolina example, Brian Matteson, "Funding North Carolina's Public Schools," North Carolina General Assembly, March 3, 2015, https://www.ncleg.net/documentsites/committees/JointAppropriationsEducation/2015 Session/03_03_2015 Meeting/FRD_PubSchoolAllotment_2015_03_03.pdf.

13. Deborah A. Verstegen, "A 50 State Survey of School Finance Policies (2015)," accessed November 17, 2017, https://schoolfinancesdav.wordpress.com/.

14. Progressivity calculations use Chingos and Blagg (2017) method and 2013–14 F33 data.

15. Just 13 states and DC contributed more than 50 percent toward capital outlay in the 2007–08 school year; Hawaii, Massachusetts, Wyoming, and the District of Columbia all contributed 100 percent of funding (Filardo 2010).

16. "School Funding Data," Education Law Center, accessed November 8, 2017, http://www.edlawcenter.org/research/school-funding-data.html.

17. Calculations are weighted by district enrollment (including the creation of deciles), but a similar pattern is obtained using unweighted calculations.

18. Matthew Chingos and Kristin Blagg, "How Has Education Funding Changed over Time?" Urban Institute, August 2017, https://apps.urban.org/features/education-funding-trends/.

19. These calculations are weighted by district enrollment. Unweighted calculations find a 17 percent decline for the highest-poverty decile, but a smaller decline (7 percent) for the second-poorest decile (which is similar to other deciles).

20. Texas proportionally reduces the Basic Allotment for districts with a maintenance and operations compressed tax rate below 1.00. See "Overview of School Finance System," Texas Association of School Boards, Inc., 2016, https://www.tasb.org/Services/Legal-Services/TASB-School-Law-eSource/Business/Financial-Responsibility-Guide/documents/overview_sch_finan_system_feb16.pdf.

21. Technically, it is per weighted student in average daily attendance, which is calculated by dividing the full weighted entitlement for each district by the basic allotment.

22. The few districts with greater wealth per student than Austin retain any revenue above $77.53 per 0.1 percent per weighted student in average daily attendance (it is not recaptured by the state).

23. Exceptions are for capital improvements and supervisory school districts (Zimmer and Jones 2005).

References

Addonizio, Michael F. 2000. "Private Funds for Public Schools." *Clearing House: A Journal of Educational Strategies, Issues and Ideas* 74 (2): 70–4.

Baker, Bruce D., and Sean P. Corcoran. 2012. "The Stealth Inequities of School Funding: How State and Local School Finance Systems Perpetuate Inequitable Student Spending." Washington, DC: Center for American Progress.

Berne, Robert, and Leanna Stiefel. 1999. "Concepts of School Finance Equity: 1970 to the Present." In *Equity and Adequacy in Education Finance: Issues and Perspectives*. Helen F. Ladd, Rosemary Chalk, and Janet S. Hansen, eds., 7–33. Washington, DC: National Academies Press.

Chingos, Matthew M., and Kristin Blagg. 2017. "Do Poor Kids Get Their Fair Share of School Funding?" Washington, DC: Urban Institute.

Clune, William H. 1994. "The Shift from Equity to Adequacy in School Finance." *Educational Policy* 8 (4): 376–94.

DeGrow, Ben. 2017. "How School Funding Works in Michigan." Midland, MI: Mackinac Center for Public Policy.

Duncombe, William D., and Wen Wang. 2009. "School Facilities Funding and Capital-Outlay Distribution in the States." *Journal of Education Finance* 34 (3): 324–50.

Ejdemyr, Simon, and Kenneth Shores. 2017. "Pulling Back the Curtain: Intra-District School Spending Inequality and Its Correlates." Working paper. California: Stanford University.

Mary Filardo, Stephanie Cheng, Marni Allen, Michelle Bar, and Jessie Ulsoy. 2010. "State Capital Spending on PK–12 School Facilities." Washington, DC: 21st Century School Fund.

Greene, Jay P., and Greg Forster. 2002. *Effects of Funding Incentives on Special Education Enrollment*. Civic report no. 32. New York: Manhattan Institute for Policy Research.

Hanushek, Eric A. 2007. "The Alchemy of 'Costing Out' Adequate Education." In *School Money Trials: The Legal Pursuit of Educational Adequacy*, edited by Martin R. West and Paul E. Peterson, 77–101. Washington, DC: Brookings Institution Press.

Hoxby, Caroline M., and Ilyana Kuziemko. 2004. "Robin Hood and His Not-So-Merry Plan: Capitalization and the Self-Destruction of Texas' School Finance Equalization Plan." Working paper 10722. Cambridge, MA: National Bureau of Economic Research.

Hyman, Joshua. 2017. "Does Money Matter in the Long Run? Effects of School Spending on Educational Attainment." *American Economic Journal: Economic Policy* 9 (4): 256–80.

Jackson, C. Kirabo, Rucker C. Johnson, and Claudia Persico. 2015. "The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms." *Quarterly Journal of Economics* 131 (1): 157–218.

New Jersey Department of Education. 2007. *A Formula for Success: All Children, All Communities*. Trenton: New Jersey Department of Education.

Odden, Allan. 2003. "Equity and Adequacy in School Finance Today." *Phi Delta Kappan* 85 (2): 120–25.

Smith, Joanna, Hovanes Gasparian, Nicholas Perry, and Fatima Capinpin. 2013. "Categorical Funds: The Intersection of School Finance and Governance." Washington, DC: Center for American Progress.

Weston, Margaret. 2013. "Adjusted Weighted Pupil Funding for Concentrated Poverty in California Schools." Center for Poverty Research University of California, Davis.

Zimmer, Ron, and John T. Jones. 2005. "Unintended Consequence of Centralized Public School Funding in Michigan Education." *Southern Economic Journal* 71 (3): 534–44.

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