The Source Code: Revenue Composition and the Adequacy, Equity, and Stability of K-12 School Spending

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EXECUTIVE SUMMARY

School finance debates frequently turn on two crucial questions: How much do state and local governments spend on K-12 education? How are education dollars distributed across jurisdictions? This focus makes sense because the answers to these questions determine how well states are able to provide an adequate, equal education for all students.

This report, however, focuses on two different questions: (1) Where do school revenues come from? and (2) How does revenue composition affect education policymaking? Put differently, this report focuses on the degree to which states rely on state versus local revenue, or on different types of taxes (e.g., those on income, sales, or property), and how such features matter for the adequacy and equity of education spending.

Two states with identical finance systems and student populations, and which spend the same amount overall on K-12 schools, might have very different adequacy and equity outcomes depending on the composition of their revenue. In short, money matters; but where money comes from matters too.

WHY REVENUE COMPOSITION MATTERS

When revenue composition is mentioned at all, it's often the statistic that, nationally, about 45 percent of K-12 revenue comes from state sources, about 45 percent from local sources, and around 10 percent from federal sources. Yet in many states this breakdown does not resemble the national situation: State shares vary from approximately 30 to 90 percent while local shares range from nearly nothing to around 65 percent.

These compositional differences may matter for policymaking because different types of state and local revenue tend to be distributed differently to public school districts. In general, local revenue, mostly from property taxes, stays in the jurisdiction where it is raised, with wealthier districts able to raise far more for their schools than their less affluent counterparts (and to raise the same amount at lower tax rates). In contrast, state revenue, which is mostly from income and sales taxes, is typically "pooled" statewide and then distributed based on district need and capacity, with higher-poverty districts receiving more.

As a result of these tendencies, there are often proposals to eliminate local property taxes as a source of school funding, and replace it with state revenue. This, proponents claim, would improve the adequacy and equity of K-12 finance systems, because state revenue, unlike most local revenue, is targeted based on factors such as poverty, wealth, and special-needs student populations.

This report is accompanied by an online data visualization tool, which allows you view your state's "revenue portfolio" and compare it with that in other states.

Try the visualization:
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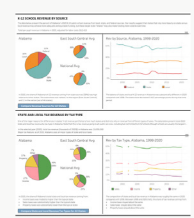

These proposals presuppose (with reason) that relying more on state over local revenue will improve adequacy/equity, but there are very few multistate or national studies confirming or denying this. And it is far from a sure thing. If, for instance, states that rely more heavily on state revenue also tend to be those that target those funds less effectively by district need/capacity, or if districts in these states have more freedom to increase local revenue to meet their needs, these factors could mitigate or even nullify the adequacy/equity impact of larger state revenue "shares."

Revenue composition is also an important focus because adequacy/equity are not the only outcomes that matter to education policymakers. In addition, revenue stability (or volatility) affects how well states are able to provide an adequate education to all children. If revenue is unpredictable, states and districts continually face budget shortfalls, preventing them from planning effectively in both the short and long term.

Unfortunately, as we show below, a greater reliance on state revenue (which draws from income and sales taxes) exposes districts to increased volatility of funding. Because high-poverty districts rely on state aid more, they face greater risk of revenue volatility. Put differently, the revenue composition that enables higher levels of equity/adequacy (relying on state aid) may also create year-to-year budgeting dilemmas for low-income districts.

Accordingly, in this report, we carry out a national examination of the relationship between revenue composition and K-12 school funding adequacy, equity, and volatility/stability. Our analysis, to our knowledge, is the first to explore composition's association with student outcome-based adequacy and equity measures that are comparable across all states, and among the first to examine the role of composition in shaping funding volatility/stability. Using descriptive analyses and a set of regression models designed for panel data, we address three general research questions (which can also be interpreted as hypotheses) using data between 1998 and 2020:

1. Do states that rely more heavily on state revenue exhibit more adequate K-12 spending statewide?
2. Do states that rely more heavily on state revenue exhibit more equitable K-12 spending (i.e., more equal educational opportunity)?
3. Do states that rely more heavily on state revenue experience more volatile K-12 spending?

Our research design, as well as the complexity and heterogeneity of state school finance systems, precludes our drawing any strong conclusions about the *causal* effect of K-12 revenue composition on adequacy, equity, or stability/volatility. Our primary goal, rather, is to explore these relationships and provide policymakers with some sensible recommendations about how to balance their education revenue "portfolios" in a manner that might contribute not only to increased distributional fairness, but also to more rational planning and hiring.

RESULTS

First, we find some evidence that a state that makes a shift to rely more on state revenue is likely to see gains in adequacy. Put differently, when the state share of revenue increases within states over time, funding tends to become more adequate—i.e., a larger proportion of states' students attend school districts that spend at or above estimated adequate levels. Despite this, when we looked across states, we found that this reliance on state revenue is not associated with higher levels of adequacy (increases in state shares may improve adequacy over time even though states with larger state shares don't exhibit more adequate funding).

Second, turning to the connection between revenue composition and equity (or equal opportunity, defined as the gap in adequacy between the highest- and lowest-poverty districts in each state), we reveal that a state that shifts to rely more on state revenue does not consistently see a corresponding shift in equity (the relationship is positive but not statistically significant). In contrast, however, our cross-state analysis revealed that states that rely more heavily on state revenue for their schools do tend to exhibit more equitable K-12 funding.

We interpret the results of both sets of models as tentative evidence of the potential adequacy and equity benefits of ensuring that a healthy share of K-12 funding comes from state sources (typically income and sales taxes), as state revenue is typically pooled and targeted according to district need and capacity.

Greater reliance on state revenue, however, is not without its risks. And so, third, as expected, our models that focused on the connection between composition and spending volatility/stability suggest greater reliance on state revenue (versus local revenue) is associated with more volatile K-12 funding. In other words, where state shares are higher, K-12 revenue tends to jump and dip year to year more severely than it does in states where state shares are lower. This, we suggest, is because the taxes that constitute most state revenue (those on income and sales, particularly the former) are more volatile than the property taxes that feed local coffers.

In summary, our results indicate that greater reliance on state revenue as a share of total K-12 revenue may represent a trade-off—i.e., it may improve adequacy and equity but foster greater volatility of resources over time (and all the hardships that such volatility entails).

POLICY RECOMMENDATIONS

Based on these findings, our first and most general recommendation is for states to maintain at least a somewhat balanced portfolio of revenue by source (state/local) to support public elementary and secondary education. We cannot say what the "optimal shares" might be, and even if we could, they would vary by state characteristics (e.g., student populations, economies, etc.). We can, however, recommend that states maintain a meaningful share (approximately one-third or more) of revenue from local sources, as doing so will provide protection against volatility and its consequences. And this may require rolling back or eliminating policies that cap or otherwise constrain state and/or local revenue growth, as these policies can limit the flexibility to calibrate revenue portfolios, both generally and year by year, in response to economic conditions.

At the very least, our findings lend themselves to implications as to what *not* to do—i.e., **we would caution against any attempt at complete or near complete replacement of local revenue with state revenue without a careful examination of its implications in terms of volatility**.

To be clear, state revenue is the great equalizer in school finance, and adequacy and especially equity are the primary goals of state school finance systems. States should rely heavily on state revenue (and target it at districts that need it most). Yet proposals to replace property taxes entirely with state income and/or sales taxes, while typically well-meaning and correct in their focus on equity, may be addressing a problem (inadequacy/inequity) but exacerbating another (volatility) that is also of particular concern to higher-poverty districts, which already face challenges (e.g., recruiting and retaining teachers) that may be worsened by more volatile funding, particularly during economic downturns.

Recommending that states, if necessary, recalibrate their revenue portfolios is one thing, but actually accomplishing this goal is complicated (even putting aside the fact that few policy areas are as politically explosive as taxes). Concrete recommendations of beneficial approaches to calibrate revenue portfolios are somewhat elusive precisely because there is a trade-off between adequacy/equity and stability. Ideal policies may be those that "crack the code" of this trade-off by drawing on the strengths of state and local revenue. Toward this end, it bears mentioning that the relationships we find in our analysis are not the result of any inherent features of different taxes but rather how they are typically collected and distributed (e.g., state revenue is pooled and distributed based on need while local revenue "stays home"). Thinking outside these proverbial boxes can yield real benefits.

We therefore recommend that states **consider policies to *redistribute stability* (e.g., state taxation of commercial/industrial property) and/or *stabilize redistribution* (e.g., expanding the state sales tax base in a progressive or progressivity-neutral manner)**. The key here is not changing the type of taxes levied but rather who collects them or what is taxed.

The idea of state taxation of nonresidential property has existed in the academic literature for over 40 years but has never really been tried at scale. The approach here is that the state, rather than localities, taxes nonresidential (e.g., commercial and industrial) property, generating state property tax revenue that is more stable than that from sales and especially income taxes, but can also be pooled and distributed the same way as other state revenue (based on district need and capacity). In other words, this policy maintains the adequacy/equity benefits of state revenue while reducing the downside (volatility). Our results, including our supplemental analysis of the property tax bases in California, Connecticut, and Texas, suggest that this type of policy, coupled with well-designed state aid formulas, could shift as much as 20 percent of all K-12 funding from inequitably- to equitably-distributed property tax revenue.

Conversely, instead of "redistributing stability" by "moving" a tax base between governmental levels (in this case, from local to state), states might "stabilize redistribution" by changing the composition of state revenue to rely more on sources that are more stable. In other words, instead of changing the entity levying taxes, change the tax base. Specifically, we suggest states consider ways to rely more heavily on progressive sales taxes (or, even more effectively, to expand the sales tax base in a “progressivity-neutral” manner).

For example, most states levy sales taxes on only a fraction of the services that they can, with such services including everything from haircuts to lawncare to investment counseling and country club memberships. Taxing more of these services (with special priority on those more commonly used by higher earners), while also increasing income tax credits for low-income households, could potentially increase the share of state revenue from sales taxes (which are more stable than income taxes but no less equitable in terms of how they are distributed to schools) without the deal breaker side effect of making state taxation more regressive (or less progressive).

Note that the point of our specific policy recommendations is not to interpret the potential connection between composition and K-12 funding adequacy, equity, and volatility as an invitation to turn taxation and school finance on its head by reversing fundamental features of systems that have developed over many decades. We are mindful that the composition of K-12 revenue is in many respects something that “just happens” rather than an outcome that is planned directly. We also acknowledge that even small changes to these systems often require massive efforts on the part of legislators, advocates, parents, educators, and other stakeholders. Our point, rather, is that there may be unconventional but possibly realistic approaches to revenue composition-focused reform that exploit this trade-off between adequacy/equity and volatility, and that these approaches might confer substantial benefits without requiring an aggregate increase in spending. At the very least, the most general implication of our findings is that revenue composition may be an important factor mediating the outcomes of states’ school finance systems, and it deserves more attention in our debate about the performance of these systems and how to improve them.

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