How to make federal aid to state and local governments more transparent and effective

Boost direct grants and make them respond more automatically to downturns

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State and local (S&L) governments are enormously important fiscal institutions in the U.S. economy. In 2018, these governments combined spent roughly $2.8 trillion, or almost 14% of U.S. gross domestic product (GDP). S&L governments account for well over a third of all public spending in the U.S., and they are tasked with being the primary spender on enormously important public investments, such as education and infrastructure.

Yet even as S&L governments rival the federal government's fiscal footprint, they face constraints on the ability to finance this spending that the federal government does not. Some of these are real constraints; some are just perceived—but still politically potent. For one, they are largely prevented by both legal and economic restraints from running persistent budget deficits.[1] This means that when economic downturns reduce tax revenue and boost demand for safety net spending, S&L governments cannot simply allow their budget deficits to swell to finance spending as an aid to recovery.[2] Further, many S&L fiscal policymakers seem to believe (contrary to much evidence, it should be said) that they are tightly constrained in how progressive they can make their tax systems—that if they ask higher-income households to pay a higher share, those families will migrate to other states. This leads S&L tax systems to be substantially less progressive than the federal system, which also likely makes it harder to raise revenue.

Almost surely in part because of these constraints, a system of strong federal support for S&L governments' fiscal capabilities emerged over time. By 2018, the federal government transferred almost $700 billion to S&L governments in direct grants, constituting about a fifth of total S&L spending (OMB 2019). Besides direct grants, the federal government also transfers potential fiscal resources to S&L governments by allowing some types of S&L taxes to be deducted from income for federal taxation (although this state and local tax [SALT] deduction was severely limited by the Tax Cuts and Jobs Act [TCJA] passed in 2017, as we discuss below). Finally, during recessions the federal government often provides some sort of extra, temporary fiscal relief to state and local governments.

This report highlights key aspects of the fiscal linkages between the federal and S&L governments. It then

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highlights principles for how fiscal resources flowing from the federal government to S&L governments can be reformed to provide not only long-run support for vital S&L investments, but also anti-recessionary support during downturns.

This report's key findings are:

- **The most important fiscal support the federal government provides state and local governments is direct grants-in-aid.** In 2018 these grants reached almost $700 billion and accounted for about a fifth of total state and local government spending.

  - Medicaid and the Children's Health Insurance Program (CHIP) are by far the single largest grants provided by the federal government to state and local governments.

  - Income support and safety net programs and transportation infrastructure investments are other important recipients of federal aid.

- **Besides direct grants, the federal government offers indirect transfers of potential fiscal resources to state and local governments.** Before 2018, the largest was the deductibility of state and local taxes (SALT) for federal income taxation.

  - The SALT deduction cost the federal government just over $100 billion in 2017.

  - The Tax Cuts and Jobs Act (TCJA) of 2018 sharply limited the SALT deduction and increased the size of the standard deduction, inducing fewer people to claim the SALT deduction as a tax benefit. These changes reduced the overall cost of the SALT deduction to the federal government by roughly 80%.[3]

- **The impact of the reduced SALT deduction on state and local government's spending is hard to predict.**

  - Relatively recent and high-end estimates of this impact imply that the cap on SALT deductions could reduce state and local spending by as much as 3.4%.

  - If one increased direct federal grants-in-aid to keep state and local fiscal resources constant in the face of the cap on SALT deductions, these grants would have to increase by roughly 15% over their current levels.

This report's key conclusions are:

- **Increasing the federal grant commitment to K–12 education through state and local grants could help undo the damage done by stagnant K–12 spending over much of the past decade.** This K–12 spending did not grow at all (adjusted for inflation) between 2008 and 2015, and even by 2017 it was below what would have prevailed had pre–Great Recession spending trends held.

- **Grants to state and local governments can be modified to deliver aid more automatically when state economies slip into recession.**

  - The discretionary aid provided to state and local governments by the American Recovery and Reinvestment Act (ARRA) of 2009 was highly effective in stabilizing the economy. The main downside of this aid was that it is not automatic and needs ongoing congressional appropriation. But Congress allowed this aid to

wither after 2010, even as the unemployment rate remained high.

- Recent proposals to automatically increase the federal contribution to Medicaid when a state's unemployment level rises would deliver fiscal stimulus in a highly targeted and timely way. For example, Fiedler, Furman, and Powell (2019) estimate that by automatically increasing the federal match by 4.8% for each percentage point a state's unemployment rate rises over a specified trigger, we could avoid nearly two-thirds of the fiscal drag imposed by state and local governments' spending cutbacks during recessions.

- The key benefit of tying automatic increases in federal grants to the level of the unemployment rate is that these grants will not "trigger off" before the state economy is relatively healthy again. A premature winding down of federal aid to state and local governments played a key role in delaying a full recovery from the Great Recession.

The remainder of the report expands on these points. The first section sketches out the trajectory of direct federal grants to S&L governments over time. The second section describes the deductibility of S&L taxes and recent modifications to this SALT deduction. The third section examines how much direct grants would have to increase to hold S&L fiscal capacity harmless in the face of the SALT cap and suggests increasing K–12 federal aid as one way to boost federal grants. The fourth section examines how to make federal aid to S&L governments respond more automatically to state economic downturns.

Direct federal fiscal support for state and local governments has risen steadily over time

Figure A shows federal grants-in-aid to S&L governments divided by total S&L spending since 1979 and highlights its strong upward trend in recent decades. Between 1989 and 2018, this share rose substantially, from roughly 13% to just over 20%. Over this same time period, overall state and local spending as a share of total GDP rose less dramatically, from 12.4% to 14.0%.[4] The upshot of this is that much of the rise in S&L spending over the past 30 years has been financed by direct federal grants.

Federal grants as a share of S&L spending peaked in 2010, driven by large temporary infusions of aid from the American Recovery and Reinvestment Act (ARRA). After falling a bit from that peak in the next few years, the share began to rise again after 2013, driven largely by the federally financed Medicaid expansions that were part of the Affordable Care Act (ACA).

The *composition* of federal grants to S&L governments has changed far more radically than the overall level. **Figure B** shows the shares of these grants by function since 1979. Health spending used to account for less than a fifth of all federal grants but now constitutes over 60%. This rise in health spending has been so large that the shares of *all*

other major categories have fallen, with the largest fall occurring in the "education, training, employment, and social services" category, whose share declined from 26.7% in 1979 to 8.7% in 2018.

Medicaid and the Children's Health Insurance Program (CHIP) account for the growth in the health portion of grants. Other key income support and safety net programs like the Supplemental Nutrition Assistance Program (SNAP, often known as "food stamps") are also *financed* largely through federal grants but *spent* and administered at the state level. The transportation portion of federal grants overwhelmingly comes from the National Highway Trust Fund (NHTF). The NHTF is financed largely with a dedicated gasoline tax that has not been indexed for inflation since 1993. This has put sustained downward pressure on the ability of the NHTF to maintain spending levels, and this is projected to become an especially large issue in the coming decade without a significant policy reform (Kirk and Mallett 2019).

The SALT deduction has traditionally provided another potential fiscal resource to states

Until 2018, taxpayers could deduct sales, income, and property taxes paid to S&L governments from their federal taxable income. An economic effect of this deduction was to make the "tax price" of S&L spending lower for subnational governments.[5] For example, under the pre-2018 system, if a state government decided to impose a 5% across-the-board income tax to finance a new spending program, the new tax would not result in a full 5% reduction in state taxpayers' post-tax income. Instead, their post-tax income reduction would be 5% multiplied by one *minus their effective marginal federal income tax rate*—a reduction that is smaller (sometimes significantly smaller) than 5%. In effect, S&L spending is subsidized by the federal government, which transfers income (through lower tax obligations) to residents in these jurisdictions to keep the full cost of providing S&L services from being reflected in S&L taxes.

In theory, because the tax price of S&L spending was lower due to the existence of the SALT deduction, S&L governments could do more spending and raise their own tax rates higher than they would otherwise be able to without sparking the ire of state and local taxpayers. However, just how much the SALT deduction serves to boost S&L spending is quite uncertain, largely because estimating this depends on being able to accurately model voters' behavior in response to tax and spending changes. This type of modeling and prediction is quite hard to do.

The clearest example of the difficulty of predicting how voting behavior will affect S&L spending decisions can be seen in states' responses to the Medicaid expansion that was part of the Affordable Care Act (ACA) passed in 2010. Originally, the ACA Medicaid expansions were mandatory, but a Supreme Court decision allowed state governments to turn down the expansions if they wished. The *economic* incentives for states to accept the

Medicaid expansion were enormous—doing so would ensure a large flow of federal resources into states and would require no commitment of state resources in the first years and only minimal commitments (relative to total costs) in later years.[6] Further, the ACA taxes that financed the expansions were not voluntary, so any state that turned down the Medicaid expansion would be turning down one of the key benefits made possible by the taxes *they were required to pay regardless*.

This discrete question of whether or not to accept almost-free federal resources was much more salient than the question of how much to increase state and local spending in response to a change in its tax price following modifications of the SALT deduction. Yet despite this question about Medicaid expansion being extraordinarily politically salient, and despite the benefits of accepting the expansion being enormous in state fiscal terms and easy to explain to voters, 22 states had not adopted the expansion as of January 2015 (one year after the law took effect). Currently, 14 states remain that have not adopted the expansion. This failure of states to predictably take up nearly free fiscal resources from the federal government highlights just how difficult it is to make firm predictions about the effects of much less salient policy changes (such as modifying the SALT deduction).

Another example of states failing to make the predictable decision on fiscal resources is their role in using debt to finance capital improvements during and after the Great Recession. As is well known, interest rates faced by borrowers at all levels of government fell dramatically during the Great Recession and have stayed low for the decade since. For the first several years following the Great Recession, most states' economies were plagued by excess unemployment. This high unemployment meant that front-loading planned capital investments (such as in infrastructure) would have provided even more benefits than usual. The low interest rates meant that the fiscal cost of undertaking these capital investments were dramatically lower than in other times. Yet despite the much higher benefits and much lower costs of using debt to finance capital investments, state investment spending was quite weak during this time (McNichol 2019). Again, even salient and high-stakes changes in the fiscal environment often fail to predict state and local governments' subsequent spending decisions; efforts to make firm predictions about the effect of modifications to the SALT deduction would be even more difficult.

Because of this difficulty, empirical efforts to measure the magnitude of increased state and local spending due to the existence of the SALT deduction have been sparse, and no consensus estimate of its effect exists. The most recent estimate, made before the TCJA went into effect, found that the SALT deduction reduced the tax price of S&L spending by roughly 7%, which in turn boosted deductible S&L revenues by roughly 14% (Metcalf 2011). This is on the high end of estimates of the SALT deduction's effects. Importantly, however, the same study found that the share of total S&L revenue accounted for by deductible taxes was just 40%. This implies that fiscal resources available for spending rose by only 5.6% due to the existence of the SALT deduction (14% times 40%). Further, less than 80% of state spending is financed by S&L revenues (with federal grants accounting for the rest), so the reduction in potential fiscal resources in this calculation is equivalent to roughly 4.5% (5.6% times 80%).

The TCJA capped the amount of SALT that can be deducted on federal returns to $10,000

in 2018. This change, combined with a larger standard deduction in the TCJA, reduced the aggregate amount of tax savings from the SALT deduction by roughly 75%. If the degree of fiscal support to S&L governments scaled linearly with this aggregate change, it would imply a drag on S&L governments' ability to spend of roughly 3.4% (4.5% times 75%).

This is certainly not a trivial number, but it's important to note that it's on the high end of the range of estimates available (Metcalf 2011 provides a review of these other estimates). Further, and most importantly, the responsiveness of S&L revenues to the SALT deduction is not a fixed economic parameter—instead, it is entirely a political decision. S&L governments could well tell their higher-income households (those who disproportionately benefit directly from the SALT deduction) that because the TCJA was an overall windfall for these families' federal tax bill, they should be able to sustain (or even expand) revenue remitted to S&L governments in its wake.

How we can hold S&L governments' fiscal capacity harmless in the wake of the SALT cap

Davis (2019) notes that perhaps the most direct way the TCJA's SALT cap has harmed the cause of ensuring that S&L governments have ample resources may be rhetorical. While direct empirical estimates of the implied effects of the SALT deduction cap are modest, the cap does give S&L policymakers a ready-made excuse to cut S&L taxes for high-income households (or at least to not seek to raise them).

Wamhoff and Davis (2018) have put forward one proposal to reform the SALT deduction cap. It essentially substitutes a range of other reductions in the value of itemized deductions or other tax expenditures for the SALT deduction cap. The Wamhoff and Davis proposal would still lessen the value of the SALT deduction relative to the pre-TCJA baseline, but would expand it relative to the post-TCJA baseline. It would also raise revenue on net and expand the tax base.

Embedding the issue of the SALT deduction cap in a broader debate about tax expenditures writ large seems like a large step forward in this debate. However, for addressing the narrow issue of holding potential S&L fiscal capacity harmless in the wake of the TCJA's SALT deduction cap, one obvious proposal is simply to boost direct federal fiscal support to states in the form of larger grants-in-aid. As Blair (2019) points out, almost every tax expenditure could be replaced with direct spending that meets its alleged social goal more directly and progressively. This is certainly true of the SALT deduction cap.

Whatever its other effects, the SALT deduction's first-round effects are highly regressive, with high-income households receiving the largest benefits. Further, the effects of the SALT deduction cap on S&L governments' fiscal capacity—even the high-end estimate of those effects—could be fully offset by a modest 15% increase in federal grants-in-aid. For perspective, it's worth noting that, as a share of GDP, federal grants-in-aid have risen by

nearly 25% since 2000. In short, a 15% increase in these grants would hardly constitute something revolutionary and unrealistic.

One obvious area where federal grants could be increased would be in K–12 education. Federal grants currently account for just under 10% of total public spending on K–12 education.[7] Most of these federal grants are aimed at boosting resources for students in lower-income school districts. **Figure C** shows the relationship between the federal share of per-pupil spending and the overall level of this spending across states. It shows that the federal share tends to be higher in states where total per-pupil spending is lower, highlighting that lower-spending states rely more heavily on federal grants.

Recent research strongly indicates that higher per-pupil spending significantly boosts student achievement.[8] Despite this, state and local spending on K–12 education essentially stagnated for nearly a decade due to the fiscal shock caused by the Great Recession. In inflation-adjusted terms, S&L per-pupil spending remained completely flat between 2008 and 2015.[9] While this per-pupil spending has been increasing since 2015, it remains far below the levels that would be implied by pre-2008 trajectories.

Another avenue for increasing the level of federal grants structurally is earmarking a dedicated revenue source for the National Highway Trust Fund that will grow over time with inflation. The current revenue source for the NHTF—the federal gasoline tax—is an obvious choice; raising this tax above its current levels and setting it to rise automatically with inflation would ensure states have more adequate funding for transportation investments over the long term. An additional economic virtue of the gasoline tax is that it helps "price in" the negative externality imposed by emissions associated with gas-powered cars.[10] This discourages inefficient levels of driving and helps reduce greenhouse gas emissions. Despite these efficiency properties, and despite the fact that the federal gasoline tax has been frozen for more than a quarter century (Schaper 2018), policymakers have been reluctant to raise it.

How we can make federal aid to S&L governments more automatic during downturns

Some tranches of federal aid to S&L governments rise automatically during downturns. Spending on safety net programs like Medicaid and SNAP, for example, rises as more people lose jobs and qualify for these programs. Additionally, the federal government picks up half of the tab for extended unemployment benefits that trigger on automatically at the state level when the unemployment rate rises.[11]

However, currently most of the aid flowing from the federal government to S&L governments to fight recessions is not automatic; most of it is discretionary and must be legislated each time a downturn hits. Automatic federal aid to S&L governments during downturns is thus nowhere near sufficient to keep these S&L governments' spending cuts

from being a persistent drag on recovery. This dynamic was particularly disastrous in the years following the Great Recession: After a surge in spending associated with the discretionary aid to states provided by the ARRA, growth in S&L spending decelerated sharply in the following years.

Figure D shows the contribution that S&L spending made to GDP growth following the Great Recession compared with earlier business cycles. It examines this contribution over the entire business cycle, measured from peak to peak, but also examines the narrower three-year period immediately following the technical end of each recession. Based on either measure, the contribution of S&L spending to GDP growth is weakest during and after the most recent recession. But what is most striking is that only in the wake of the last recession did S&L spending actually *contract* on average in the first three years of economic recovery.

Because S&L governments face tight constraints in using debt to finance spending, and because S&L revenues tend to fall sharply during recessions, policymakers have a tough choice to make in the absence of sufficient federal aid: Either raise taxes or cut spending during downturns. Either option would drag on economic recovery from recession (though spending cuts clearly drag on this growth more than any tax increase aside from tax increases focused on the poorest and most cash-constrained households; see Johnson 2010).

These constraints on S&L governments' ability to undertake countercyclical fiscal policy highlight the importance of well-timed federal aid to fight recessions. The discretionary aid to states provided by the ARRA in 2009 and 2010 was highly effective in stabilizing the economy after the shock of the Great Recession. For example, Leduc and Wilson (2014) and Wilson (2012) assess the impact of increased infrastructure spending under ARRA: Wilson uses the fact that much of the ARRA highway spending across states was allocated according to formulas that were exogenous to economic conditions (for example, miles of highway lanes per resident, or the share of youth in each state's population). Wilson's preferred estimate indicates that each $125,000 in announced highway spending was associated with one added job. If this highway spending created jobs across economic sectors in exact proportion to existing employment shares, this would be consistent with an output multiplier of 1. If instead employment generated by this spending were more concentrated in higher-productivity sectors, it would be consistent with a larger output multiplier. Chodorow-Reich et al. (2012) find that each $100,000 spent on increased Medicaid payments to S&L governments due to ARRA was associated with 3.8 jobs, with 3.2 of these jobs created outside of the health sector.

The problem with the discretionary aid provided by ARRA was simply that it did not last long enough after the Great Recession ended. Instead, this aid was turned off with the economy still extraordinarily weak, and this pullback of fiscal stimulus contributed enormously to the slow pace of recovery thereafter, as it contributed to the sharp contraction in S&L spending after the earliest years of recovery.

This pullback in state spending was not inevitable; instead, it was a clearly political decision. States could have, for example, kept spending constant and raised taxes instead.

Because spending tends to have stronger "multiplier" effects in generating output growth than tax changes do, maintaining (or expanding) state spending during the recovery from the Great Recession would have strongly aided recovery even if taxes had to be increased at the state level to finance it.

However, leaving it to states to prioritize how to cut projected budget deficits during recessions is clearly a suboptimal strategy overall. By far the best option is figuring out how to ensure that federal aid continues long enough to let state spending rise (even without raising taxes) during downturns and the early stages of recovery. A key part of this strategy for future recessions should include making federal aid more *automatically* responsive to deteriorating state-level economic conditions, and not having to wait on Congress to pass new legislation in response to each downturn.

One obvious way to increase federal grants to states during the next recession would be to temporarily boost the generosity of federal grants in response to states accepting the ACA Medicaid expansion. Currently, aid to states that have accepted the Medicaid expansion is already quite generous, with the federal government picking up 90% of the cost of expansion in 2020. But there is no reason that this number could not go to 100% *or beyond* during a recession to incentivize the remaining states to expand Medicaid. This type of temporary state-based stimulus would lock in broader eligibility for Medicaid even after the recession ended. This would be an added benefit: Growing research indicates that health outcomes have been greatly improved by the Medicaid expansions made possible by the ACA in those states that have enacted them. Of course, once all states have accepted the ACA Medicaid expansions, other avenues for increasing federal aid to states during recessions would have to be found. Here again, however, federal grants for Medicaid (not just to fund the ACA-related expansions but for other S&L Medicaid spending) remain promising—both in overall effectiveness and in the prospects for making this aid happen automatically when state downturns occur.

The best reason to use the overall federal Medicaid grant to deliver state aid during downturns is that the research shows it is highly effective. It is both large enough and well-targeted enough on liquidity-constrained households to deliver highly effective fiscal stimulus. Fiedler, Furman, and Powell (2019) propose an increase in the federal match for Medicaid whenever a state's unemployment rate exceeds a certain threshold. The size of the increase in the federal match would be proportional to how high above the threshold the state's unemployment rate rises. This would allow the federal aid to ramp down gradually as unemployment returns to the threshold rate after recessions. It would also allow the federal aid to continue as long as the state's unemployment rate remains elevated. This last feature is hugely important, as the drag on economic recovery imposed by state and local spending cutbacks was even more pronounced in the early parts of the recovery phase than during the official recession (as seen in Figure D).

Fiedler, Furman, and Powell suggest the unemployment threshold that triggers the increased federal match be set at the 25th percentile of the state's quarterly unemployment rate measured over a rolling 15-year period, plus one percentage point. Their aim is to not trigger increased federal aid when the state is roughly at full employment, but to trigger such aid anytime a significant rise in unemployment from this

full employment level occurs.

One key virtue of the Fiedler, Furman, and Powell proposal is that it would deliver aid to states that are suffering a localized recession even if the rest of the nation is not. The United States does not currently have strong enough automatic stabilizers to deliver large amounts of aid to states that are affected by idiosyncratic downturns. If, for example, a regional recession caused by energy price declines or a manufacturing downturn were to occur, several U.S. states could be in clear recessions even if the broader U.S. economy continued to post positive growth rates. This is not an academic concern: Eleven states, for example, saw an *increase* in their unemployment rate in either 2015 or 2016.[12] Some have labeled this period of time a national "mini-recession," which was driven largely by weak growth in manufacturing and agriculture. Residents of the states hit hard by these sector-specific shocks deserved relief from the federal government, yet our current system of automatic stabilizers did not provide enough.

Maintenance of effort requirements should be a condition for both long- and short-term aid

One concern often raised about federal grants to state and local governments is that they might be used to substitute for, rather than supplement, state and local spending. For example, if there were no conditions attached to an increase in federal grants for K–12 education spending, a state government could use the grants to reduce its own K–12 spending and redirect fiscal resources to other spending or even toward tax cuts.

Many federal grants are structured to require some degree of state and local commitment to the underlying spending priority addressed by the grant. For example, the size of federal grants for education spending typically depend in part on state and local per-pupil spending commitments. This type of "maintenance of effort" requirement should be part of proposals to expand the scale of federal grants to states, and it is particularly important for federal aid during recessions. The entire point of boosting federal aid countercyclically to fight recessions is to increase total state and local spending. If some of this federal aid instead substitutes for rather than supplements state and local spending, it will be far less effective.

This consideration is another reason why using the existing Medicaid structure to transfer aid to state governments during recessions is promising. There already exists a tight link between the federal contribution to a state's Medicaid program and the state's own spending commitment. Further, temporary anti-recession aid can be made conditional on states not passing any legislation or changing regulations to restrict access to Medicaid.

The need to keep federal fiscal resources from substituting for state and local resources is another reason why it is preferable to deliver these federal transfers through direct spending programs rather than through the deductibility of SALT. Direct spending

programs can be based on formulas or have other conditions attached that help ensure that resources do indeed boost state and local spending. In contrast, the SALT deduction is an indirect subsidy that is hard to put conditions on.

Conclusion

The federal government already delivers a huge amount of fiscal resources to state and local governments. Direct federal grants finance a substantially higher share of state and local spending today than they did 30 years ago. The TCJA substantially scaled back an indirect transfer of fiscal resources to states—the federal income tax deduction for state and local taxes. Given the importance of state and local spending in areas like education and health care, anything that constricts fiscal resources flowing to state and local governments is cause for some concern.

However, the SALT deduction, like nearly every other "tax expenditure" (except for refundable tax credits) can in theory be substituted for with direct spending to meet targeted social goals more efficiently and progressively. A 15% increase in federal grants to state and local governments would almost surely transfer more fiscal resources to state and local governments than the cap on SALT deductions has taken away from these subnational governments.

Finally, besides helping state and local governments meet their permanent obligations to provide valuable public investments in areas like health care, education, and infrastructure, federal grants to states could also be made more automatic in how they respond to state-level economic distress. The combination of economic effectiveness and administrative simplicity argue strongly that automatic increases in the federal Medicaid contribution could be a valuable tool to make the nation's fiscal policy more responsive to downturns, providing needed fiscal stimulus in a timely way.

State and local government spending is a much needed and underappreciated part of the U.S. economy, and federal support for this spending is vital. As taxpayers and residents, we should make sure we're maximizing the bang-for-buck we get from the interaction between federal, state, and local fiscal systems.

Acknowledgments

Notes

1. They key economic constraint is that states, unlike the federal government, cannot issue currency.

2. State and local governments can issue debt to finance capital investments, but they are generally required by law to balance current budgets.

3. See JCT 2018.

4. Author's calculations from Tables 1.1.5 and 3.3 from the National Income and Product Accounts (NIPA) data from the Bureau of Economic Analysis (BEA 2019b, 2019c).

5. The tax price is how much taxes need to be raised to finance $1 in government spending (assuming that debt finance is not an option). Because SALT can be deducted from federal taxes, this means that when state and local governments impose an additional $1 in state and local taxes, the residents of these localities see their after-tax income (including federal taxes) fall by *less* than $1.

6. Specifically, the federal government paid for 100% or more of the costs of Medicaid expansion through the end of 2016. By 2019 the federal share was down to 93%, and after 2020 the federal share is projected to stabilize at 90%.

7. Author's calculation from U.S. Census Bureau 2019.

8. See Lafortune, Rothstein, and Schanzenbach 2018 and Jackson, Johnson, and Persico 2016.

9. Per-pupil current spending by state and local governments was $11,730 in 2015 and $11,731 in 2008 (author's calculations based on data from the U.S. Census Bureau's Annual Survey of School System Finances [U.S. Census Bureau 2019], with spending adjusted for inflation with the CPI-U-RS). Leachman, Masterson, and Figueroa (2017) go more in depth into the evolution of public education spending over the past decade.

10. Externalities are costs imposed by an economic activity that are not borne by those undertaking the activity. In this case, drivers' use of gasoline imposes pollution costs on nondrivers. By putting a price on these costs and forcing drivers to pay them, drivers' demands for gasoline will at least fully factor in the economic costs their decisions impose on society at large.

11. See U.S. DOL-ETA 2015 for a discussion of the role of the federal government in funding extended benefits. In addition to state-level extended benefit programs, the federal government often picks up the entire cost for further extensions to unemployment insurance that remain after the automatic extended benefits expire.

12. Author's calculations from the Bureau of Labor Statistics Local Area Unemployment Statistics database (BLS 2019).

References

Blair, Hunter. 2019. *EPI's Model Federal Budget and Tax Plan: How We Can Raise the Revenue Needed to Provide Universal Health Care, Strengthen Safety Nets, and Shore Up Public Investment*. Economic Policy Institute, July 2019.

Bureau of Economic Analysis (BEA). 2019a. "Table 1.1.2. Contributions to Percent Change in Real Gross Domestic Product." National Income and Product Accounts. Accessed September 2019.

Bureau of Economic Analysis (BEA). 2019b. "Table 1.1.5. Gross Domestic Product." National Income and Product Accounts. Accessed September 2019.

Bureau of Economic Analysis (BEA). 2019c. "Table 3.3. State and Local Government Current Receipts and Expenditures." National Income and Product Accounts. Accessed September 2019.

Bureau of Labor Statistics (BLS). 2019. Local Area Unemployment Statistics Database. Accessed October 2019.

Chodorow-Reich, Gabriel, Laura Feiveson, Zachary Liscow, and William Gui Woolston. 2012. "Does State Fiscal Relief During Recessions Increase Employment? Evidence from the American Recovery and Reinvestment Act." *American Economic Journal: Economic Policy* 4, no. 3: 118–145.

Davis, Carl. 2019. "The SALT Cap Isn't Harming State and Local Revenues. Myths About It May Be." *JustTaxes* (Institute for Taxation and Economic Policy blog), June 24, 2019.

Fiedler, Matthew, Jason Furman, and Wilson Powell III. 2019. "Increasing Federal Support for State Medicaid and CHIP Programs in Response to Economic Downturns." In *Recession Ready: Fiscal Policies to Stabilize the American Economy*, edited by Heather Boushey, Ryan Nunn, and Jay Shambaugh, 93–127. Washington, D.C.: The Hamilton Project at Brookings and the Washington Center for Equitable Growth.

Jackson, C. Kirabo, Rucker C. Johnson, and Claudia Persico. 2016. "The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms." *Quarterly Journal of Economics* 131, no. 1: 157–218. https://doi.org/10.1093/qje/qjv036.

Joint Committee on Taxation (JCT). 2018. *Tables Related to the Federal Tax System as in Effect 2017 Through 2026* (JCX-32-18, April 23, 2018). Supplement to the report *Overview of the Federal Tax System as in Effect for 2018* (JCX-3-18, February 7, 2018). Prepared for a public hearing before the Senate Committee on Finance on April 24, 2019.

Kirk, Robert, and William Mallett. 2019. *Funding and Financing Highways and Public Transportation*. Congressional Research Service Report R45350. Updated July 7, 2019.

Lafortune, Julien, Jesse Rothstein, and Diane Whitmore Schanzenbach. 2018. "School Finance Reform and the Distribution of Student Achievement." *American Economic Journal: Applied Economics 2018* 10, no. 2 (April): 1–26. https://doi.org/10.1257/app.20160567.

Leachman, Michael, Kathleen Masterson, and Eric Figueroa. 2017. *A Punishing Decade for School Funding*. Center on Budget and Policy Priorities, November 2017.
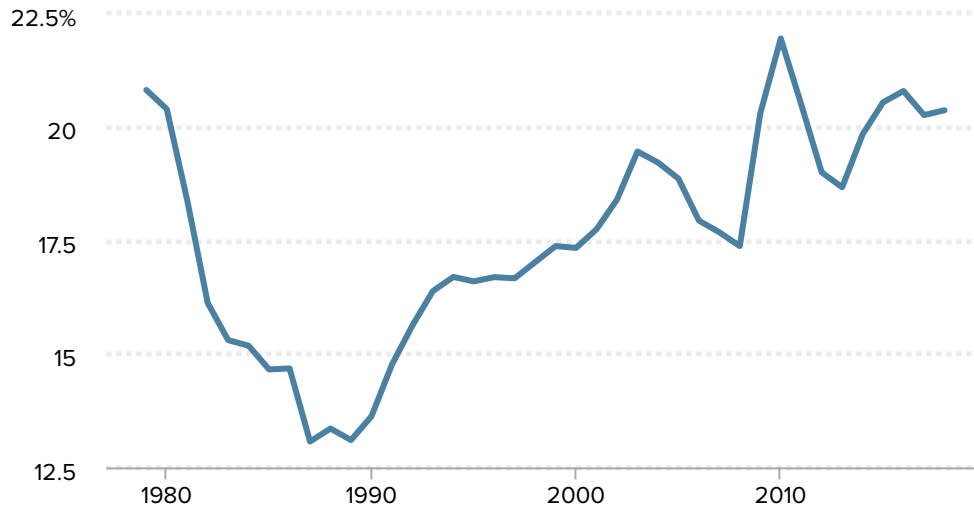
Leduc, Sylvain, and Daniel Wilson. 2014. "Infrastructure Spending as Fiscal Stimulus: Assessing the Evidence." *Review of Economics and Institutions* 5, no. 1: 1–24. https://doi.org/10.5202/rei.v5i1.154.

McNichol, Elizabeth. 2019. *It's Time for States to Invest in Infrastructure*. Center on Budget and Policy Priorities, March 2019.

Metcalf, Gilbert. 2011. "Assessing the Federal Deduction for State and Local Tax Payments." *National Tax Journal* 64, no. 2: 565–590.

Office of Management and Budget (OMB). 2019. *Analytical Perspectives: Fiscal Year 2020 Budget of the U.S. Government*. Washington, D.C.: U.S. Government Publishing Office.

Schaper, David. 2018. "It's Been 25 Years Since the Federal Gas Tax Went Up." NPR's *Morning Edition*, October 5, 2018.

U.S. Census Bureau. 2019. Annual Survey of School System Finances, Fiscal Year 2016. Revised data files released May 21, 2019.

U.S. Department of Labor Employment & Training Administration (U.S. DOL-ETA). 2015. "Unemployment Insurance Tax Topic" (web page). Last updated July 10, 2015.

Wamhoff, Steve, and Carl Davis. 2018. *A Fair Way to Limit Tax Deductions*. Institute for Taxation and Economic Policy, November 2018.

Wilson, Daniel J. 2012. "Fiscal Spending Jobs Multipliers: Evidence from the 2009 American Recovery and Reinvestment Act." *American Economic Journal: Economic Policy* 4, no. 3: 251–282. https://doi.org/10.1257/pol.4.3.251.

A growing share of state and local spending is financed by federal grants

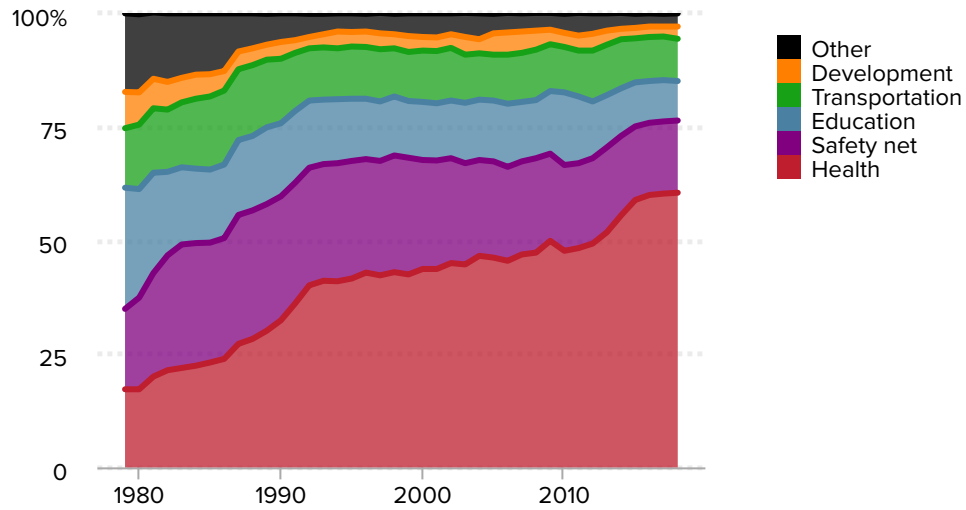Federal grants as a share of state and local expenditures, 1979–2018

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Health care accounts for an ever-growing share of federal grants

Share of total federal grants to state and local governments by function, 1979–2018

Notes: "Development" corresponds to the function "Community and regional development" in the federal budget; "Education" corresponds to "Education, training, employment and social services"; and "Safety net" refers to "Income security."
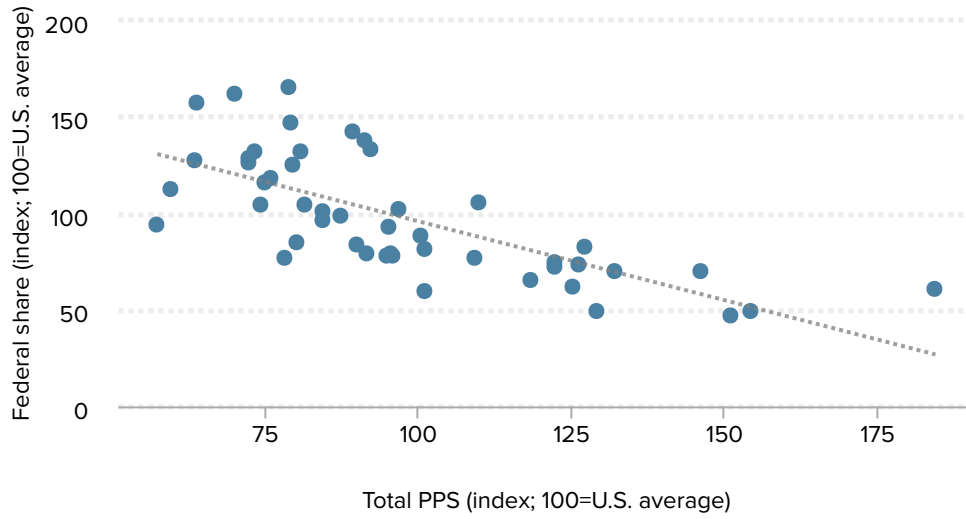
Source: Office of Management and Budget, Analytical Perspectives: Fiscal Year 2020 Budget of the U.S. Government, Table 12.2

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Figure C

Low-spending states rely more on federal grants for education

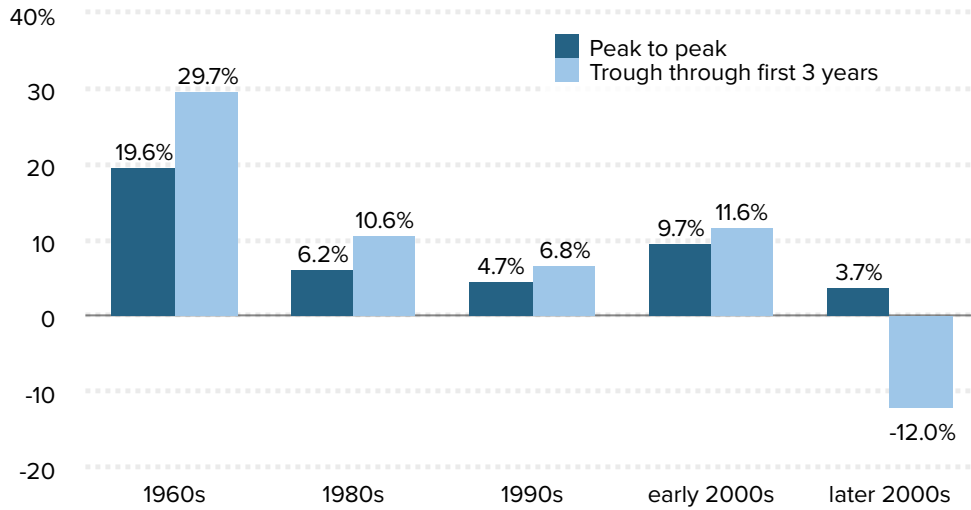Per-pupil spending (PPS) levels and shares of PPS financed by federal grants, by state, 2017

Economic Policy Institute

The recovery from Great Recession has seen drag from state and local spending

Average contribution to annual GDP growth from state and local consumption and investment spending across business cycles, measured from peak to peak and for first three years after trough

Notes: Blue bars measure the average annual contribution of S&L spending to GDP growth across the entire business cycle (from peak to peak). Red bars measure the average annual contribution from the recession's trough through the first three years of recovery. The precise peak-to-peak business cycles peaks corresponding to each set of bars are: (1960s) 1960Q2–1969Q4; (1980s) 1980Q1–1990Q3; (1990s) 1990Q3–2001Q1; (early 2000s) 2001Q1–2007Q4; and (later 2000s) 2007Q4–current (2019Q2). The business cycle troughs are: 1961Q1, 1982Q4, 1991Q1, 2001Q4, and 2009Q4.

Source: Author's analysis of data from the Bureau of Economic Analysis National Income and Product Accounts (NIPA), Table 1.1.2

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