United States

Teresa Garcia-Milà
Universitat Pompeu Fabra and Barcelona GSE
teresa.garcia-mila@upf.edu

Therese J. McGuire
Northwestern University
therese-mcguire@northwestern.edu

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Introduction

The United States has a long history of fiscal federalism. It began as a collection of independent states in the late 18th Century and evolved over the course of the years, including the major upheavals of the Revolutionary War, the Civil War, and the Great Depression into being one of the foremost examples of a federation, both economically and politically. Unlike other federations, where the central government has devolved expenditures and revenue responsibilities to states or regions, the power to impose and collect taxes by the federal government was agreed upon by the founding states when the US Constitution was ratified in 1789. The Constitution (and subsequent amendments) allowed broad taxing powers for the federal and state governments, while also limiting access to certain types of taxes for one level of government or another, for example, states cannot impose tariffs and the federal government cannot impose property taxes. Over the years, the federal government has expanded significantly, but the independence of the states and their fiscal autonomy have persisted.[1]

There are three layers of government, one central (the federal government), 50 regional governments (the states), and thousands of local governments. The federal government has three branches: the executive branch (headed by a directly elected president), the legislative branch (the senate with two senators per state and the congress with 435 representatives distributed according to population) and the judicial branch (with the US Supreme Court being the highest court in the country). The term of the president is four years, the term of a senator is six years, and the term of a representative is two years. The governor is the elected executive of a state and, except for Nebraska, which has a unicameral, each state has both a senate and a house. Local governments have elected executives and boards or councils. There are general-purpose local governments, e.g., cities and counties, and special purpose local governments, e.g., school districts and library districts.

The federal government puts few restrictions on state taxes, preserving the states' revenue raising authority and discretion, which is evident in the large diversity across the states in sources of revenue. This diversity is also present on the expenditure side, as states spend significantly different amounts per capita on education, healthcare, transportation, and other

[1] See Dilger (2018) and Wallis (2000) for interesting accounts of the historical evolution of the US fiscal federal system.

categories. This diversity across the states, documented in detail below, is a distinct characteristic of the fiscal federalism system in the US, not found in most other federations.

Local governments are creatures of the states and the states have exercised their powers in defining and restricting local taxes. A primary example is state limits on local government access to the property tax.

In 2018, total (federal, state, and local) spending as a share of GDP was 33.0 percent. The federal government was responsible for over half of this amount (19.1 percent of GDP) with the states and localities having responsibility for the remainder (13.9 percent of GDP). Total revenues as a share of GDP was 26.9 percent, with the federal government at 17.0 percent of GDP and the share for states and localities at 9.9 percent of GDP. The difference in shares between expenditures and revenues at the federal level reflects borrowing, and at the state and local level, it reflects both borrowing and intergovernmental transfers from the federal government to subnational governments. These transfers, which account for significant amounts of total state and local revenues, do not generally aim to equalize resources across states, a characteristic common in other federations, for example, in Canada and Germany (see Garcia-Milà and McGuire, 2019). The limited amount of equalization across regions is another distinctive characteristic of the federal system of the US.

The federal, state, and local governments dedicate a significant share of their budgets to health provision (in 2016, 18.4 percent, 29.0 percent and 9.2 percent, respectively), mainly through the Medicare and Medicaid programs. However, the US does not provide universal health coverage, a widespread practice in developed counties, and particularly generous in some European countries.

The US is a large and prosperous nation. The population of the US was 326.5 million in 2018, making it the third largest country in the world by population (far behind China and India; slightly ahead of Indonesia). The largest state by far in 2018 was California, with a population of 30.6 million; the smallest state was Wyoming with 578,000 residents. The US is one of the wealthiest countries in the world, with GDP per capita in 2018 of $62,795, compared with $47,603 in Germany and $39,290 in Japan (source: the World Bank online data). There is large variation across the 50 states in personal income per capita; in 2018, Connecticut and Massachusetts had income per capita of $76,481 and $71,886, respectively, while West Virginia and Mississippi had income per capita of $40,907 and $37,904, respectively (source: the US Bureau of Economic Analysis online data).

In the remainder of the chapter, we explore in more detail the revenues, expenditures, and intergovernmental relations of the three levels of government in the US. We highlight the dimensions of the US system that make it distinctive compared to systems in other countries.

Revenues and Expenditures

In Table 1, we display aggregate revenues and expenditures of each of the three levels of government in 2016. The federal government relied most heavily on the individual income tax and payroll taxes (dedicated to Social Security and Medicare) for revenues (47.3 percent and 34.1 percent of total revenues, respectively), while state governments, in terms of own-source revenues, relied most heavily on individual income and general sales taxes (at 16.1 and 13.6 percent of total revenues, respectively). Local governments relied most heavily on property taxes for own-source revenues (27.0 percent of total revenues). The different levels of government focused their spending in distinct areas. Of the federal government's total expenditures, 27.6 percent was on retirement benefits (Social Security), 18.4 percent was on healthcare, and 15.4 percent was on defense spending. For state governments, the largest spending categories were for healthcare (largely expenditures for Medicaid recipients) at 29.0 percent, intergovernmental grants to local governments (the most important in terms of dollars being grants to school districts) at 23.9 percent, and higher education at 12.4 percent. The largest spending share for local governments was for K-12 education (primary and secondary education) at 37.2 percent. Public safety at 9.7 percent was a distant second (and nearly tied with healthcare) for local governments.

Intergovernmental grants from the federal government to state and local governments represented 17.2 percent of federal spending, with the largest grant being to support Medicaid. As a source of revenue, intergovernmental grants contributed the largest share of revenues for state and local governments, 29.8 percent of total state revenues and 32.9 percent of total local revenues.

All levels of government rely on individual and corporate income taxes, although they are minor sources of revenue for local governments. The corporate income tax presents issues with defining the tax base and in terms of competitive pressures, as many corporations are not only multistate but also multinational. The individual income tax tends to be the engine for progressivity in the tax systems of the federal government and the states, although many states have flat-rate or effectively flat-rate tax structures. State governments have complete autonomy to administer and collect income taxes, and while the state measure of income for tax purposes begins with a federal measure, most state income base definitions deviate from the federal definition through the use of state-specific deductions and exemptions.

No governments employ value added taxes in the US. Instead, state and local governments rely on general sales taxes, which are ad valorem taxes on purchases, and all three levels of government rely on selective (or excise) taxes, which can be ad valorem or per-unit taxes. Prominent selective sales taxes include taxes on gasoline, alcohol and tobacco products, and hotel stays. General sales taxes were created early in the 20th century and in many states were imposed on purchases of tangible goods at brick-and-mortar stores. As the economy has shifted away from goods to services and toward purchases on the internet, the general sales tax base in many states has withered.[2]

The property tax is a tax on land and improvements to land (and in some instances, on other types of property such as machinery) and is a meaningful source of revenue for local governments only. Even though it is a local revenue source, state governments have authority to define and constrain the tax. Many states impose limits on the property tax rate or growth rate of property tax revenues, and they define different classes of property for assessment purposes.

The federal government collects royalty payments on oil, natural gas, and coal extracted from federal lands and offshore waters. It also imposes a reclamation fee on coal mining operations, with the receipts dedicated to the Department of the Interior's Abandoned Mine Reclamation Fund. Thirty-four states impose a severance tax or fee on the extraction of oil and natural gas; typically, the severance tax is on the value or volume of oil and natural gas extracted. Some states allocate a portion of their oil and natural gas revenues to local governments; however, as a rule, revenues are deposited in the state general fund (Kolesnikoff and Brown, 2018).

In a study of 13 coal-producing states, the authors describe an array of state and local taxes imposed on coal companies and the extraction of coal. All but four of the 13 states impose

[2] A 2018 ruling by the US Supreme Court (South Dakota v. Wayfair) opened the door for states to impose sales taxes on internet sales even when the firms do not have a physical presence in the state.

a severance tax on the extraction of coal (either a fixed amount per ton or a percentage of the gross value of the coal) and all but two states impose a separate reclamation fee, with the revenues being dedicated to the cleanup of abandoned mine sites (Kent and Eastham, 2011).

Severance taxes on non-renewable natural resources (oil, natural gas, coal and other natural resources) make up an important share of total own-source revenues for some states. In 2016, Alaska, New Mexico, North Dakota, and Wyoming obtained between seven and 24 percent of their total own-source revenues from severance taxes on natural resource extraction.

The two largest public health insurance programs are Medicaid and Medicare. Medicare is a program of the federal government that makes payments to healthcare organizations and medical professionals for providing medical care to individuals aged 65 and older. Medicaid (and its associated program CHIP, the Children's Health Insurance Program) is a program delivered by state governments and jointly funded by the federal government and the states. It is the single largest source of healthcare coverage in the country. The program provides payments to healthcare organizations and medical professionals for delivering medical care to low-income individuals and families and to individuals with disabilities. Expenditures on Medicaid and Medicare have grown rapidly in recent decades in part because of the rising cost of healthcare and the aging of the population.

K-12 education is provided by local school districts free of charge to families and is largely jointly funded via local property taxes and equalizing grants from state governments. Postsecondary or higher education is provided by state governments and largely funded by direct state expenditures and tuition fees paid by students. In both the K-12 and higher education sectors, there are many private providers. In the public sphere, publicly funded but privately run K-12 charter schools are growing in importance, particularly in urban areas.

Even though the federal government provides a small share of the funding for K-12 education (on average, less than ten percent of total K-12 revenues), it has played an important role in shaping policy in an attempt to hold states and school districts accountable for improving student achievement. In 2002, the George W. Bush administration passed the No Child Left Behind (NCLB) Act, which required states to show yearly adequate progress in students' reading and mathematics test scores. NCLB represented a marked increase in the federal role in setting K-12 education policy. Thirteen years later, in 2015, after finding that virtually no state was meeting the goals of NCLB, the administration of Barak Obama passed the Every Student

Succeeds Act, which largely turned back to state governments the task of setting and monitoring achievement standards for students in the states' schools.

Through the Social Security program, the federal government provides monthly cash benefits to retired individuals, surviving spouses, and disabled individuals. The size of the cash benefit depends on years of work and level of wages; however, there is a cap on the cash-benefit level, and it applies in a large share of cases. Many state and local governments have pension systems that provide annuities for their retired employees. In recent years, at all levels of government, retirement benefits have become a financial strain as the ratio of workers to retirees has declined with the aging of the population.

Intergovernmental Grants

Unlike in many other countries, federal grants in the US are not a concern in terms of vertical fiscal imbalances. States have full autonomy to raise their own revenues, with authority to impose taxes on the major tax bases. Thus, discussions of the appropriateness of federal transfers are not, as in other federations, about the sufficiency of the transfers' amount to cover states' expenditures, but rather on the purpose and design of the grants.

There are several grants from the federal government to state and local governments. The largest in terms of dollars is the grant to states for Medicaid. Medicaid, a program that provides healthcare insurance for low-income families and disabled persons, is administered at the state level. Its funding is joint between the states and the federal government. The funding from the federal government is through a matching grant, with a matching rate that varies across states according to their income per capita. All states receive at least a 50% matching grant so that for each dollar a state spends on Medicaid, the federal government funds another dollar. However, poorer states can receive much more, with matching rates that can be as high as 75.65 percent, as is the case of Mississippi for FY 2018. The 2010 Affordable Care Act (ACA) expanded the coverage of Medicaid. For expenditures on newly covered individuals, the federal government increased the matching rate to 100 percent for three years, and to 90 percent thereafter. States, according to a ruling of the Supreme Court, could decide whether to implement the Medicaid expansion. As of 2019, all but 14 states participated in the ACA Medicaid expansion program. Federal grants have increased significantly for those states that participate in the expansion program.

Other significant grants from the federal government to subnational governments include grants for education, transportation, and income security. As can be seen in Table 1, in FY 2016, total estimated federal grants to state and local governments were $661 billion. From Dilger (2018) we observe that almost 60 percent of the total went towards supporting healthcare expenditures (largely Medicaid), more than 15 percent of the total for income-security programs (largely cash assistance), nearly nine percent each for education and transportation (highways and public transit), and the remainder for a variety of other purposes.

The main income security program for over sixty years, Aid to Families with Dependent Children (AFDC), was replaced in 1996 with the establishment of the Temporary Assistance for Needy Families (TANF) program. Federal funding support for the cash-assistance program was converted from a matching-rate grant to a block grant for a total amount of $16.6 billion for the 50 states. The amount of the block grant has remained constant in nominal dollars since the program started in 1997 (with a slight decrease in 2017 to a total of $16.5 billion). Over time, the inflation adjusted value of the block grant has decreased by one third. The distribution among states is based on the federal contributions to each state to the AFDC program in 1994. States are required to spend own funds on an amount equal to at least 75% of their expenditures on AFDC in FY 1994 under the maintenance of effort requirement. While the federal government designed the overall requirements and guidelines for the TANF program, states were empowered to determine the eligibility for benefits and administer the program. The welfare reform that established TANF emphasized promoting job preparation and moving welfare recipients into employment. To achieve these goals the states are required to promote work so that 50 per cent of all families, and 90 percent of two-parent families, participate in work activities. (For more information, see Congressional Research Service, 2019.)

Transportation grants are important sources of revenue for spending on highways and transit. The federal government grants to state and local governments for highways and transit are in the form of both formula grants and competitive grants. Federal grants to state governments amount to more than thirty percent of state revenues for highway and transit spending. About ten percent of local government revenues for highways and transit are funded by federal grants. More than twenty percent of transportation expenditures of local governments are funded by state grants.

One of the more important federal grants for K-12 education is Title I, an aid program to support schools serving children from low-income families. Title I funds are distributed to school districts based on the concentration of low-income families in a district as determined by Census data. Additionally, the federal government has grant programs in support of special education for children ages three through 21. Overall, federal support for K-12 education amounts to less than ten percent of total K-12 revenues.[3]

State grants to school districts are large, accounting for almost half of school districts' revenues for K-12 education. The most common form of state aid to local school districts is a foundation aid program, which aims to ensure an adequate level of education spending for all students, irrespective of the school district they attend.

In many countries, the explicit goal of the federal grant system is to reduce the variance across jurisdictions in revenues per capita. This is not an explicit goal of the US grant system. Instead, some grants are targeted to address underlying poverty, as is the case of the Medicaid program, which provides a larger percentage match in its matching-rate grant to poorer states, and the federal transfers for K-12 education, which are larger for school districts with greater percentages of poor students (but which are quite small in amounts).

We examine the redistributive result of federal grants to state and local governments in Figure 1. The top part of Figure 1 shows income per capita of the 50 states ordered from largest to smallest. The bottom part displays the corresponding federal grants to state and local governments per capita. Comparing the two parts of the graph we observe that there is no pattern that would indicate that federal grants are redistributive in nature. Some rich states receive large per capita federal grants, while relatively poor states receive amounts similar to those of rich states.

State grants to local governments are a large source of revenue for many local governments. In Table 2, we display revenue sources for each of three types of local governments: counties, cities, and school districts. For both counties and school districts, state grants are the largest source of their revenues, respectively 26.3 percent and 52.4 percent. For cities, their reliance on state grants is 12.8 percent, after property tax and charges and fees. The

[3] For a detailed description of federal grants to state and local governments, see Congressional Budget Office (2013).

relevance of federal grants to local government revenues is much smaller, ranging from 43.7 percent for the cities to 0.9 percent for the school districts.[4]

Trends

In Table 3, as a measure of the size of government, we display total expenditures and total revenues as a share of GDP over time for the federal government, state and local governments combined, and the total across all levels of government. From 1950 until 2018, government spending in the US grew from 21.3 percent of GDP to 33.0 percent. Over that period, the percentage of GDP spent by state and local governments more than doubled from 6.5 percent to 13.9 percent, whereas federal spending grew more slowly, from 14.8 percent to 19.1 percent. The growth spurts for state and local government spending were from 1960 to 1970, a period which encompasses the creation of the Medicaid program in 1965 and the expansion of other social-safety-net programs, and from 2005 to 2010, which includes the roll out of the American Recovery and Reinvestment Act (ARRA), the Obama administration stimulus program enacted in the wake of the Great Recession. Federal spending also increased dramatically from 2005 to 2010 due to ARRA.

Revenues displayed similar although slower growth trends. Note that state and local revenues are in every year lower than state and local expenditures, reflecting the fact that state and local governments rely to a significant extent on grants from the federal government (which are counted as revenues of the federal government). For the federal government, its spending is greater than or virtually equal to its revenues in every year except 2000, when it ran a surplus. In some years, the deficit implied by the numbers is quite large, for example, in 2010, the year that reflects the stimulus spending of ARRA.

Table 4 displays federal grants to state and local governments measured in real 2012 dollars per capita in total and for four large categories of spending. There has been a rapid rise in the level of federal grants and a marked shift in the relative levels across categories. In 1950, grants for income security dwarfed the level of grants for other purposes. By 2018, grants for healthcare dwarfed grants for other purposes. Grants for healthcare took a large leap from 1960 to 1970 due to the creation of Medicaid in 1965, a state-run program for low-income and

[4] The percentage for school districts is larger than the data indicate. See the note to Table 2.

disabled families; Medicaid is jointly funded by matching grants from the federal government and state own-source revenues. After the Medicaid program was adopted, grants for healthcare continued to grow at a fast pace throughout the period. Grants for transportation grew dramatically between 1950 and 1960 when states started building out the interstate highway system, an initiative largely funded by federal grants.

In Table 5, we examine major categories of tax revenues, aggregated across all levels of government. Income taxes (both individual and corporate) as a share of total tax revenues bounced around a bit over the decades, a reflection of the relative volatility and responsiveness of the taxes to the underlying economy and also a reflection of major federal tax changes enacted by different administrations. Sales taxes remained steady as a share of total taxes, hovering around 20 percent.

Property taxes as a share of taxes fell between 1970 and 1980 reflecting the impact of the property tax revolt, which began with the passage of Proposition 13 in California in 1978. As property tax values increased rapidly in California in the 1970s and local governments failed to adjust their property tax rates, property tax revenues and property tax liabilities soared. There was a tax revolt that culminated in the passage by voter referendum of Proposition 13, an amendment to the California constitution. Proposition 13 limited the overall property tax rate to 1 percent and limited the growth rate of assessed valuation to 2 percent per year unless the property was sold, at which time its assessed value reflected its sale price. Over the next few years, the tax limitation movement swept across the country and various limitation measures were approved by the voters or enacted by state legislatures.[5]

Over the course of the past nearly 60 years, the share of total government expenditures devoted to healthcare increased dramatically, from 4.2 percent in 1960 to 23.7 percent in 2017 (see Table 6). This large increase reflects the passage of major new government healthcare programs over the period (both Medicaid and Medicare were signed into law in 1965), the rising costs of healthcare provision, and the aging of the population. Defense spending as a share of total government expenditures declined significantly, from 33.8 percent in 1960 to 9.2 percent in 2017, reflecting the decline in US involvement in warfare after the 1960s and 1970s. The share of spending devoted to education (K-12 education combined with higher education) was relatively stable over the period.

[5] See O'Sullivan, Sexton and Sheffrin (1995) for a detailed treatment of Proposition 13.

Diversity

States and local governments in the US have significant revenue-raising autonomy and spending responsibility. As noted above, in 2018, state and local government own-source revenue was 9.9 percent of GDP compared to 17 percent for the federal government; state and local government spending was 13.9 percent of GDP compared to 19.1 percent for the federal government.

An important distinction of the US system is that there is great variety across the states in how they raise revenues and set spending priorities.[6] Because the individual income tax and general sales tax are by far the two largest sources of revenue for states other than intergovernmental grants from the federal government, we focus our examination on these two taxes. In Figure 2, we portray states' reliance on the individual income tax in 2016, calculated as the percentage of total state general revenue raised through the individual income tax. We observe large differences across states, with seven states without an individual income tax, while for other states revenues from the individual income tax amount to almost 30 percent of their revenues. In Figure 3, we portray states' reliance on the general sales tax in 2016. We identify five states without a general sales tax, while at the other extreme we find states that raise more than 30 percent of their total general revenues through the general sales tax.

Because local governments raise the vast majority of property tax revenues (97 percent in 2016), we examine local government reliance on the property tax, which is the largest source of revenues for local governments after intergovernmental grants. In Figure 4, we display the percentage of total local general revenues raised through property taxes. We observe that local governments rely on the property tax in all states, although there is large diversity, from a reliance of ten percent to above 60 percent.

On the spending side, we also see wide discretion for state and local governments. For all 50 states, for 2016, we examine in current dollars per capita, combined state and local spending on several categories of spending that account for the largest components of the state and local budget (see Table 1). In Figure 5, we observe the diversity of spending on K-12 education, which ranges from $3,449 per capita in Wyoming to $1,136 per capita in Arizona. For higher

[6] For a detailed study of diversity across states in the US see Garcia-Milà, McGuire and Oates (2018).

education, the differences are proportionally even larger, with Nevada, the state at the bottom of the distribution, spending $486 per capita, less than one third of the spending in North Dakota at $1,617 per capita (see Figure 6). Expenditures on Medicaid, displayed in Figure 7, also reveal large diversity across the states, not dissimilar to the differences observed in education spending. Figure 8 displays values for expenditures on transportation, with the values for Alaska and North Dakota being far above the values of any other state. Even abstracting from these two outliers, diversity is clearly present, with Tennessee spending 28 percent of what Wyoming spends.

Another area of significant diversity in the fiscal federal system in the US is how the states fund K-12 education. The provision of K-12 education is under the responsibility of local school districts and on average funding for K-12 is split approximately 50 percent state and 40 percent local, with the remaining 10 percent funded by the federal government. There is, however, great variance across the states in the share funded by the state. In Figure 9 we display the share of total revenues for K-12 education that come from the state. The diversity across states is quite remarkable, ranging from a low of 24 percent in Illinois, up to nearly 90 percent in Hawaii and Vermont, indicating that there are important differences across states in approaching education funding.

States have wide discretion and have chosen different paths is in the rules, regulations and practices surrounding budgets and funds. Most states have balanced budget requirements (BBRs) that apply to their general fund (which funds the operating budget), but the stringency of the requirement varies from state to state.[7] In some states all that is required is that the governor propose a balanced budget whereas in other states the legislature must pass (and the governor sign) a balanced budget and any unexpected deficit cannot be carried into the next fiscal year nor covered by short-term borrowing. All states have rainy day funds (RDFs), also known as budget stabilization funds, which provide reserves that can be tapped during economic downturns. However, the conditions and requirements for deposits into and withdrawals from the funds differ across the states. For example, in some states, RDFs can be accessed when an unanticipated budget gap arises, whereas withdrawals in other states can be triggered by revenue volatility. The authority for withdrawal can rest with the governor, the legislature, a state agency

[7] It is difficult to agree upon an exact count of states with BBRs because the laws and practices are open to interpretation. For example, the National Association of State Budget Officers identifies 49 of 50 states (see National Conference of State Legislators, 2010) whereas Rueben and Randall (2017) identify 46 states.

or, as is the case in California, all three. Once depleted, the rules for replenishing the RDF also vary across states, with some states being required to replenish the funds in the next fiscal year (Rhode Island and Wyoming) and other states allowing several years for replenishment (Alabama allows ten years, for example). See Walczak and Cammenga (2020).

Challenges and Future Directions

The US fiscal federal system has been remarkably stable for several decades. However, the aging population and rising healthcare costs are presenting challenges for all three levels of government. Income support for retirees and support for healthcare are two of the fastest growing components of public budgets. We saw in Table 6 that healthcare spending as a share of total expenditures (across all levels of government) increased from 4.2 percent in 1960 to 23.7 percent in 2017, far outstripping the share for education, the second largest category. Most state and local governments provide publicly funded pensions to their retired employees. In Figure 10, we see that from 1993 to 2018, aggregate state and local pension benefit payments for retired public-sector employees grew much faster than GDP (benefits grew more than six times while GDP growth was just shy of doubling). The rapid growth in expenditures for healthcare and for income support for retirees is making it more challenging for state and local governments to deliver desired levels of other government services.

Many state and local government pension systems are underfunded, in some cases, severely so.[8] In Figure 11, we display the ratio of aggregate state and local pension fund assets to liabilities over the period 2002 to 2016. After peaking at 66.7 percent in 2007 before the start of the financial crisis, the ratio declined to 47.5 percent in 2016. The aging of the population and the generosity of defined benefit pension plans, the most common form of pension plan for state and local governments, contributed to the growth in liabilities. Underfunded pensions have played a role in budget difficulties for several state and local governments, most notably in the bankruptcy proceedings of the city of Detroit, Michigan in 2013-2014. The city's inability to meet its pension obligations brought the city to bankruptcy. The city exited bankruptcy after 16 months when parties agreed to the "Grand Bargain": financial contributions by philanthropic

[8] For a discussion of the funding status of state pension funds, see Pew Charitable Trusts (2019).

organizations, grants in aid from the state government, financial contributions by the Detroit Institute of Arts, and retirees agreeing to a cut in the generosity of retirees' benefits.

Disregarding intergovernmental expenditures, spending on healthcare has become the single largest category of expenditures for state governments (at 29.0 percent in 2016), the second largest category of expenditures for the federal government (at 18.4 percent, behind only retirement benefit payments at 27.6 percent), and the third largest category of expenditures for local governments (behind spending on K-12 education and public safety). (See Table 1.) The Affordable Care Act of 2010 resulted in an expansion of healthcare coverage to additional families. For states that agreed to cover more families under the program, the federal government increased the matching rate to 100 percent on state Medicaid expenditures for the newly covered families.[9] All but 19 states initially and, as of 2019, all but 14 states agreed to expand coverage. Still, 8.5 percent of the population in the US is not covered by either public or private health insurance.

The two primary issues with public K-12 education are inequities in resources across school districts and low student achievement. In recent decades, state supreme courts have ruled that their state's school funding systems are in violation of the state constitution.[10] Murray, Evans, and Schwab (1998) examined the impact of court challenges and found that court-ordered education finance reform reduced within-state inequality in spending per pupil across school districts. The reduction in inequality resulted largely through increases in spending per pupil at the bottom of the distribution; spending per pupil at the top of the distribution remained unchanged.

Another recent development in public K-12 education is the growth of charter schools. Charter schools are publicly funded but privately operated elementary and secondary schools. They are prevalent in cities with large public school systems, particularly in areas where student achievement levels in traditional public schools are low. The evidence on the effectiveness of charter schools is voluminous and mixed (for two examples see Angrist, Pathak and Walters, 2013 and Center for Research on Education Outcomes, 2013).

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[9] After the first three years, the 100 percent match phased down and by 2020 the match was 90 percent.

[10] There is no authoritative list of state supreme court decisions regarding the constitutionality of state school funding systems, but the courts in at least two-thirds of states have delivered rulings since the early 1970s. In several states, notably New Hampshire and New Jersey, the state supreme court has ruled in multiple cases over the years. In a recent ruling in 2018, the Connecticut Supreme Court overruled a lower court's decision and upheld the existing school funding system.

The US has one of the world's most highly regarded public higher education systems. However, there are concerns that public universities are becoming unaffordable for many families. The concerns center around the level of tuition fees and the level of student debt, which has become cripplingly high for many students.[11]

There is a two-pronged challenge with transportation: declining revenues dedicated to transportation and the deteriorating condition of the infrastructure. Federal funds to support state and local spending on transportation infrastructure have been declining in recent years due to the inability to raise the federal tax on gasoline (at 18.4 cents per gallon since 1993) and the rise of more fuel-efficient cars.[12] States have been stepping into the breach to address the nation's crumbling infrastructure, but they have uneven financial capabilities and political willingness. In addition, many transportation systems cross state lines, making state provision inefficient.

Many of the challenges that the US fiscal federal system faces, in particular, the challenges of an aging population and rising healthcare costs, are common to fiscal federal systems around the world. The challenges in education and transportation are distinctive to the US situation; they exist in part because of the specific approaches the US has taken to funding education and transportation at different levels of government. These approaches are not commonly employed in other countries. Overall, however, the fiscal federal system in the US is viewed in a favorable light. It has been both stable, withstanding the test of time, and flexible, adjusting over time as changing conditions warranted. A distinctive characteristic of the US system is the uncommon degree of revenue-raising authority of its subnational governments. It is a clear strength of the US system and a model for other countries.

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[11] For a discussion of the policy issues related to student debt see Dynarski (2014).
[12] See Transportation Research Board (2006).

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Afterword

While we were writing this chapter, the coronavirus pandemic crisis was putting a strain on the country's fiscal federal system. States, which are responsible for providing healthcare to low-income families, the disabled, and low-income residents of nursing homes, were experiencing increased demand for these services. States and cities were also addressing the complicated logistics of organizing an adequate supply of emergency services, addressing an overflow of hospital capacity, and designing and implementing confinement measures for the population to reduce the spread of the pandemic.

The revenues of state and local governments were being heavily affected by the economic consequences of the measures taken to address the Covid-19 health crisis. Income tax revenues are highly volatile and tend to drop precipitously during economic downturns; this time will not be any different. Many states and localities rely on sales taxes that tend to be more stable over the cycle. This economic crisis, though, is different, as social distancing and mandatory closures have had a large negative impact on consumer spending, which will result in a larger than typical drop in sales tax revenues. Revenues from excise taxes, for example, on motor fuel consumption, and from special taxes on hotels, bars, and casinos, will drop dramatically.

The federal government approved on March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act (CARES Act), consisting of a federal stimulus package of $2 trillion. Within this program, $150 billion has been assigned to support state and local governments through the Coronavirus Relief Fund. This fund, for states, tribal areas, and local governments serving a population larger than 500,000, is dedicated to expenditures related to the COVID-19 emergency through the period March 1 to December 30, 2020. The allocation of these funds is roughly proportional to the population, with a minimum per state of $1.5 billion. Additionally, through the CARES Act, the federal government will cover half of the unemployment benefit payments through the end of 2020, and the full unemployment benefit payments for the 13 weeks extension that can be applied for when the state unemployment benefit coverage ends. There is an allocation in the Act of $25 billion for transportation grants to cover operating expenses of transit agencies during the emergency. In addition, funds up to $6.3 billion will be distributed by the Administration for Children and Families through grants to state and local programs that support children and needy families. The Act also includes $30 billion in funds to state agencies for K-12 education and to institutions of higher education (both public and private).

Table 1: Revenues and Expenditures by Functional Category and Level of Government, 2016
Thousands of dollars

Revenues

	Federal		*State*		*Local*	
	Amount	*% of Total*	*Amount*	*% of Total*	*Amount*	*% of Total*
Total Revenue	3,267,961,000	100%	2,136,454,470	100%	1,805,682,720	100%
Individual Income Tax	1,546,075,000	47.3%	343,620,739	16.1%	32,676,759	1.8%
General Sales Tax	0	0.0%	291,472,708	13.6%	85,507,726	4.7%
Property Tax	0	0.0%	15,945,411	0.7%	487,316,738	27.0%
Selective Sales Tax	95,026,000	2.9%	149,651,791	7.0%	32,239,223	1.8%
Corporate Income Tax	299,571,000	9.2%	46,201,841	2.2%	8,057,481	0.4%
Intergovernmental Grants	0	0.0%	637,167,820	29.8%	593,490,699	32.9%
Charges and User Fees	0	0.0%	208,904,262	9.8%	289,244,596	16.0%
Payroll Taxes & Investment Income	1,115,065,000	34.1%	134,985,193	6.3%	14,400,403	0.8%
Other Revenues	212,224,000	6.5%	308,504,705	14.4%	262,749,095	14.6%

Expenditures

	Federal		*State*		*Local*	
	Amount	*% of Total*	*Amount*	*% of Total*	*Amount*	*% of Total*
Total	3,852,612,000	100%	2,225,106,823	100%	1,838,514,959	100%
K-12 Education	16,649,540	0.4%	7,561,943	0.3%	683,504,771	37.2%
Higher Education	1,026,460	0.0%	274,999,016	12.4%	47,000,015	2.6%
Healthcare	709,187,000	18.4%	646,090,942	29.0%	168,986,614	9.2%
Defense	593,372,000	15.4%	0	0.0%	0	0.0%
Public Welfare	260,836,000	6.8%	62,712,561	2.8%	48,558,391	2.6%
Public Safety	52,232,000	1.4%	74,928,728	3.4%	177,500,861	9.7%
Transportation	28,690,000	0.7%	179,040,307	8.0%	124,601,942	6.8%
Retirement Benefit Payments	1,064,601,000	27.6%	237,133,153	10.7%	52,340,598	2.8%
Intergovernmental Grants	660,833,000	17.2%	532,698,646	23.9%	16,339,742	0.9%
Other Expenditures	465,185,000	12.1%	209,941,527	9.4%	519,682,025	28.3%

Note: State and local government expenditures from the Census Survey of State and Local Government Finances. Federal expenditures by functional category from OMB Historical Table 3.2, adjusted to remove grant spending from the functional categories using data from OMB table 12.2. K-12 grants were calculated as 38% of total education grants based on the Department of Education budget statistics: https://www.usaspending.gov/#/agency/1068.

Table 2: Local Government Sources of Revenue by Type of Local Government, 2017

	County		City		School District	
	Amount	*% of Total*	*Amount*	*% of Total*	*Amount*	*% of Total*
Total Revenue	452,731,442	100%	656,617,943	100%	575,610,755	100%
Property Tax	120,325,503	26.6%	120,995,052	18.4%	212,105,355	36.8%
Sales Tax	37,101,092	8.2%	69,269,772	10.5%	5,364,211	0.9%
Income Tax	5,530,379	1.2%	32,204,359	4.9%	2,352,183	0.4%
State Grants	119,188,159	26.3%	84,018,705	12.8%	301,592,518	52.4%
Federal Grants	12,428,579	2.7%	24,148,742	3.7%	4,975,727	0.9%
Charges & Fees	87,905,896	19.4%	105,588,929	16.1%	20,235,386	3.5%
Utility Revenue	6,523,684	1.4%	93,393,642	14.2%	0	0%
Other	63,728,150	14.1%	126,998,742	19.3%	28,985,375	5%

Source: U.S. Census Bureau, 2017 Census of Governments

Note: The figures for state grants and federal grants for school districts are misleading in that the vast majority of federal grant monies for school districts pass through the states. Accounting for this fact, as a rough approximation, we estimate the state grants share is 45 percent and the federal grants share is 10 percent for school districts.

Table 3: Current Expenditures and Own Source Revenues as a Share of GDP by Level of Government

	Expenditures			*Revenues*		
Year	*Total*	*Federal*	*State + Local*	*Total*	*Federal*	*State + Local*
1950	0.213	0.148	0.065	0.220	0.163	0.058
1960	0.242	0.165	0.077	0.247	0.172	0.074
1970	0.297	0.188	0.110	0.266	0.172	0.094
1980	0.313	0.193	0.120	0.280	0.187	0.093
1990	0.327	0.199	0.129	0.287	0.182	0.105
2000	0.295	0.164	0.131	0.306	0.202	0.104
2005	0.314	0.174	0.140	0.282	0.177	0.105
2010	0.371	0.218	0.154	0.262	0.163	0.099
2015	0.334	0.191	0.142	0.290	0.189	0.101
2018	0.330	0.191	0.139	0.269	0.170	0.099

Source: National Income and Product Accounts, Tables 3.1, 3.2, 3.3.

Table 4: Federal Intergovernmental Grants by Functional Category, 2012 Dollars Per Capita

Year	*Total*	*Healthcare*	*Education*	*Transportation*	*Income Security*
1950	113	6	8	23	67
1960	233	7	17	100	88
1970	541	87	144	103	130
1980	949	164	227	135	192
1990	850	276	137	120	232
2000	1297	566	166	146	311
2005	1654	765	221	168	351
2010	2043	975	328	205	387
2015	1857	1095	180	181	301
2018	1927	1165	168	179	306

Source: Office of Management and Budget Historical Table 12.2; categories not exhaustive.

Table 5: Share of Tax Revenues Across All levels of Government by Category

Year	*Income*	*Sales*	*Property*	*Other*
1950	0.603	0.210	0.120	0.067
1960	0.588	0.215	0.144	0.053
1970	0.579	0.209	0.162	0.050
1980	0.638	0.190	0.120	0.052
1990	0.613	0.191	0.142	0.054
2000	0.663	0.175	0.117	0.045
2005	0.614	0.186	0.138	0.062
2010	0.571	0.200	0.170	0.058
2015	0.632	0.181	0.135	0.051
2018	0.599	0.193	0.150	0.059

Source: National Income and Product Account Tables 3.2, 3.3

Table 6: Share of Total Expenditures Across All Levels of Government by Major Category

Year	*Education*	*Healthcare*	*Defense*
1960	11.3	4.2	33.8
1970	13.8	7.5	26.5
1980	13.4	10.2	16.1
1990	13.2	12.5	15.2
2000	14.9	16.6	10.2
2005	14.1	18.8	11.7
2010	13.3	19.7	11.7
2015	13.4	23.2	9.7
2017	13.3	23.7	9.2

Source: National Income and Product Account Tables 3.1, 3.16; categories not exhaustive.

Figure 1

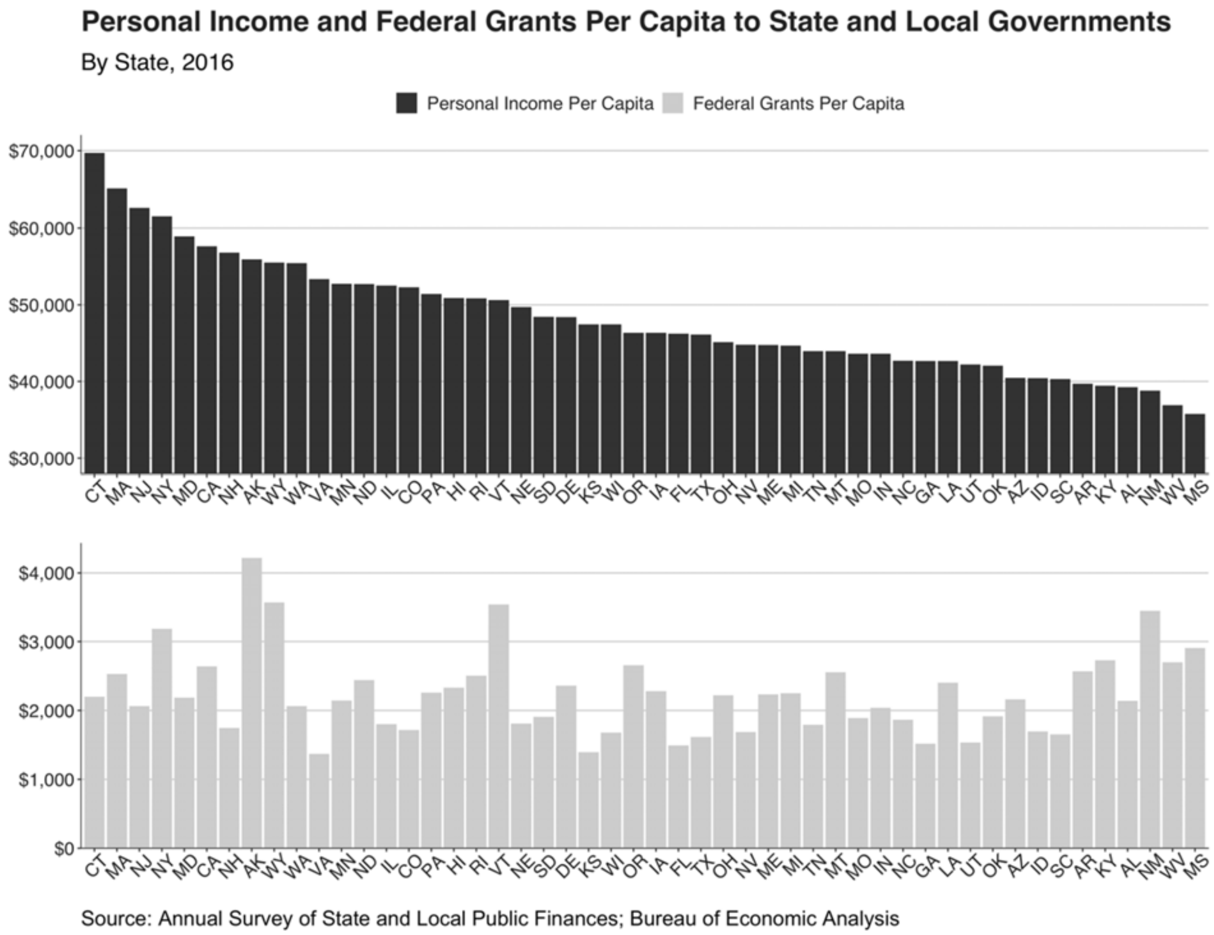

Personal Income and Federal Grants Per Capita to State and Local Governments
By State, 2016
Personal Income Per Capita
Federal Grants Per Capita
$70,000
$60,000
$50,000
$40,000
$30,000
$4,000
$3,000
$2,000
$1,000
$0
CT MA NJ NY MD CA NH AK WY WA VA MN ND IL CO PA HI RI VT NE SD DE KS WI OR IA FL TX OH NV ME MI TN MT MO IN NC GA LA UT OK AZ ID SC AR KY AL NM WV MS
Source: Annual Survey of State and Local Public Finances; Bureau of Economic Analysis

Figure 2

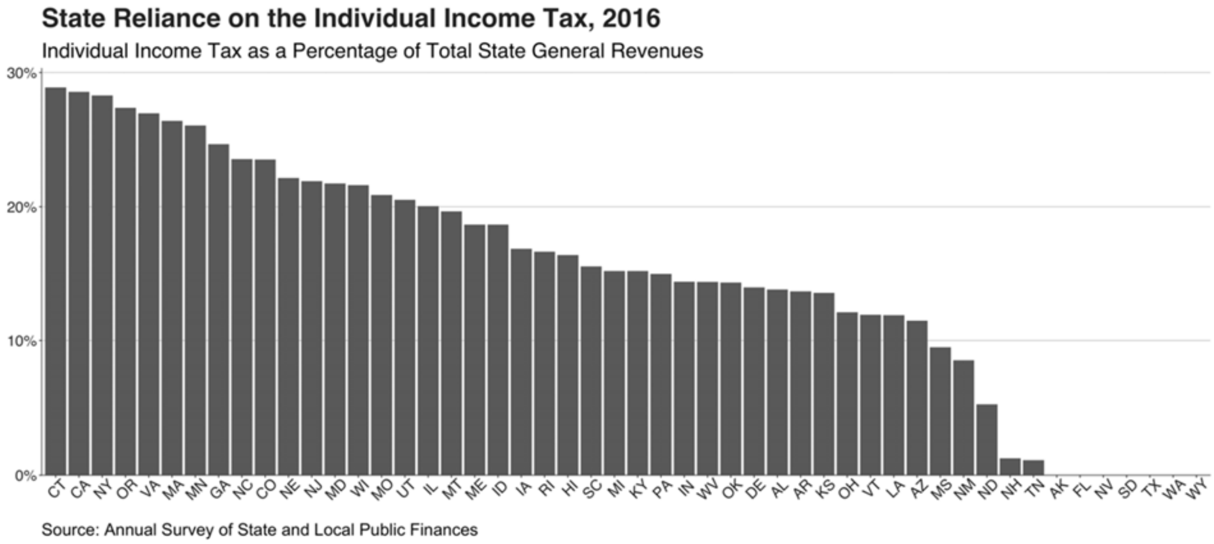
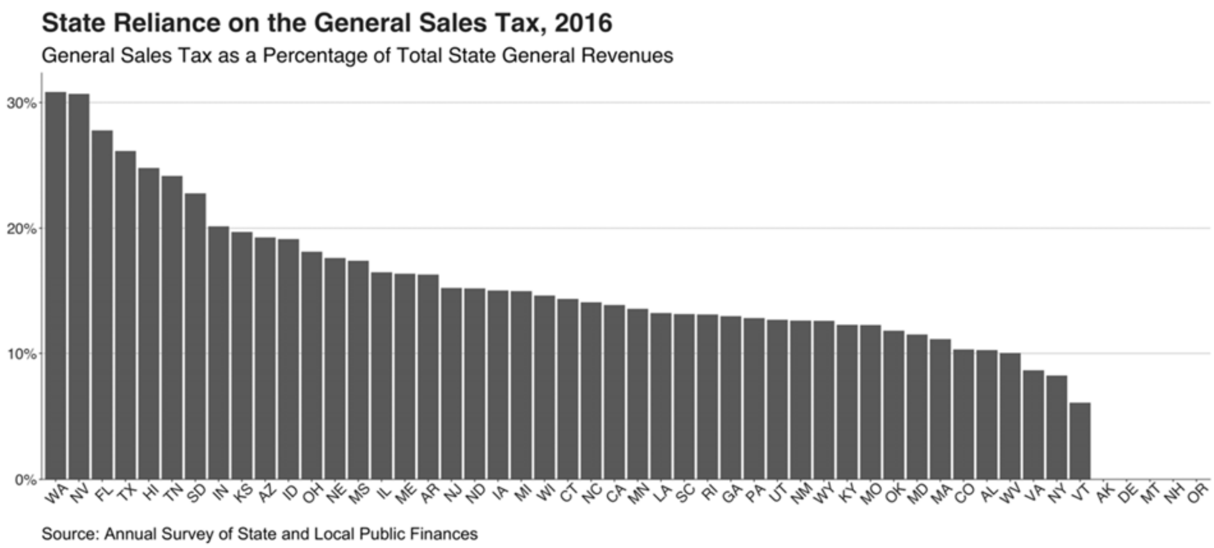


Figure 3



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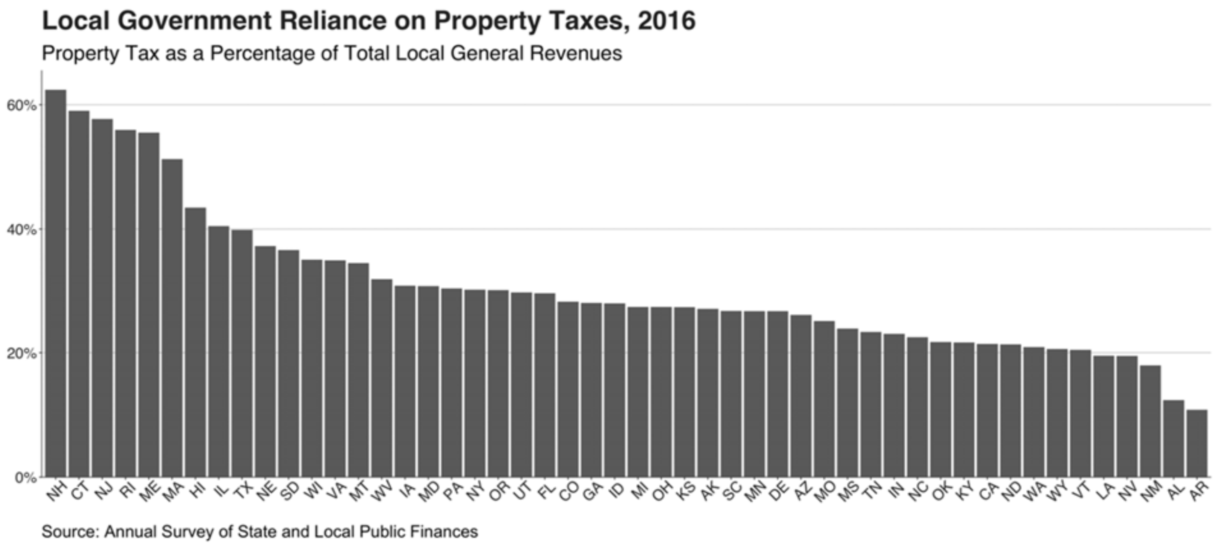


Figure 5

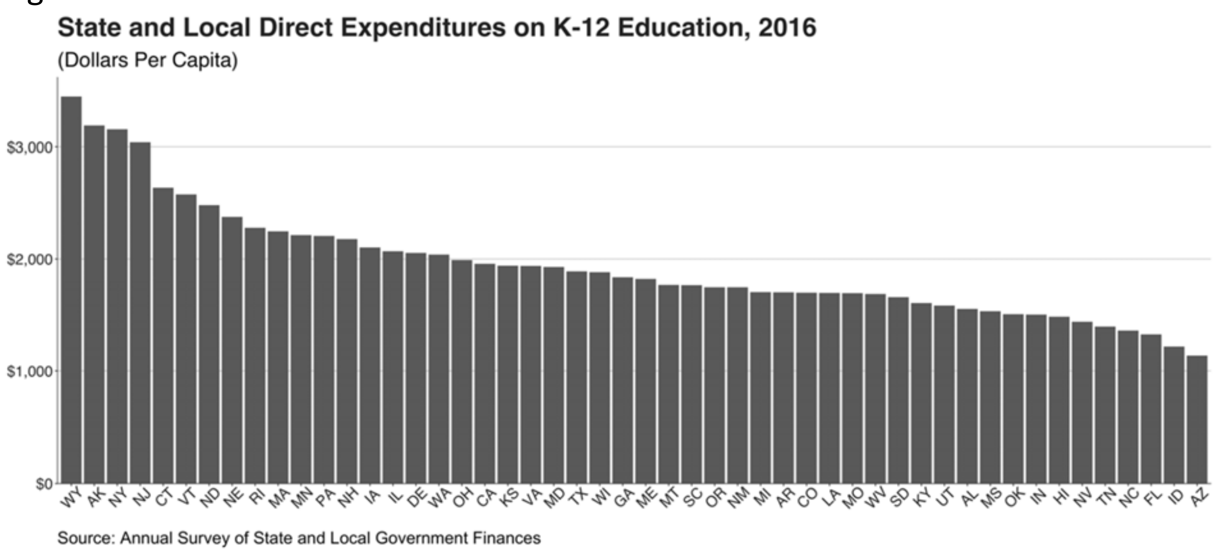
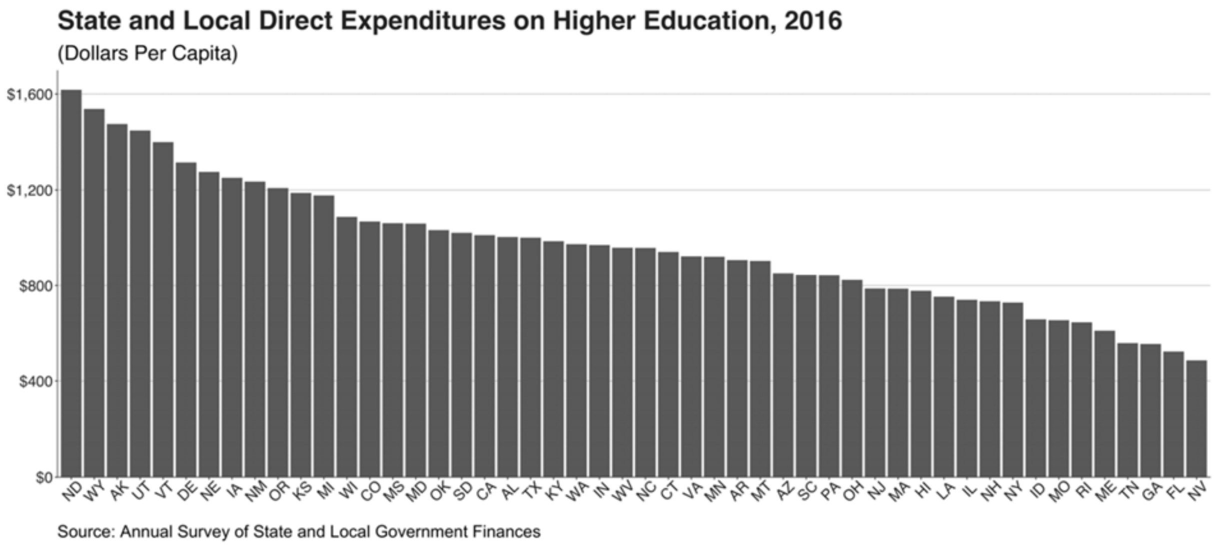


Figure 6



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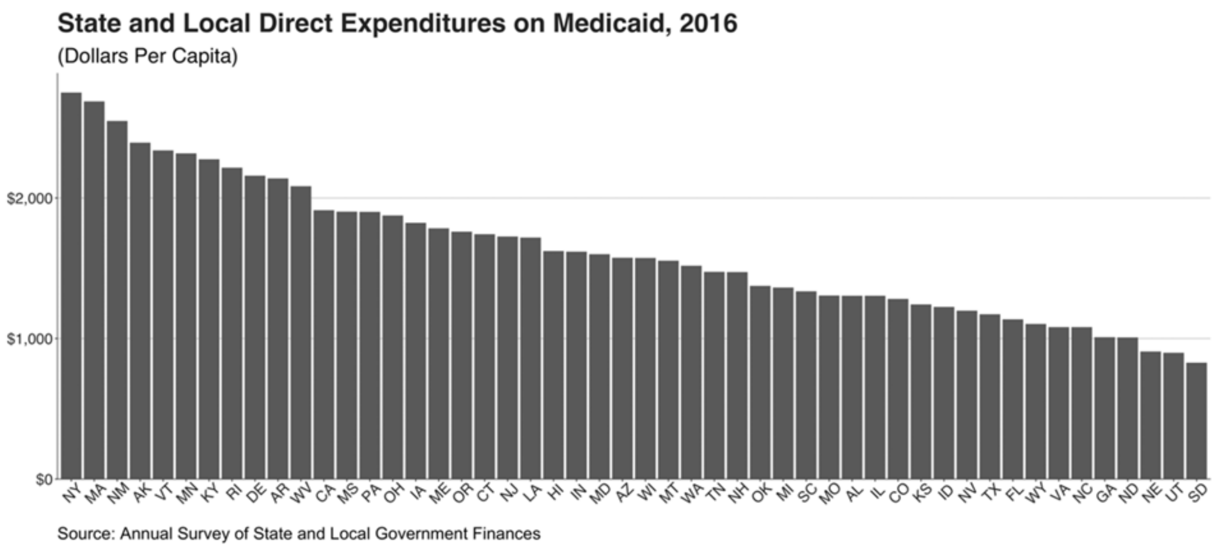
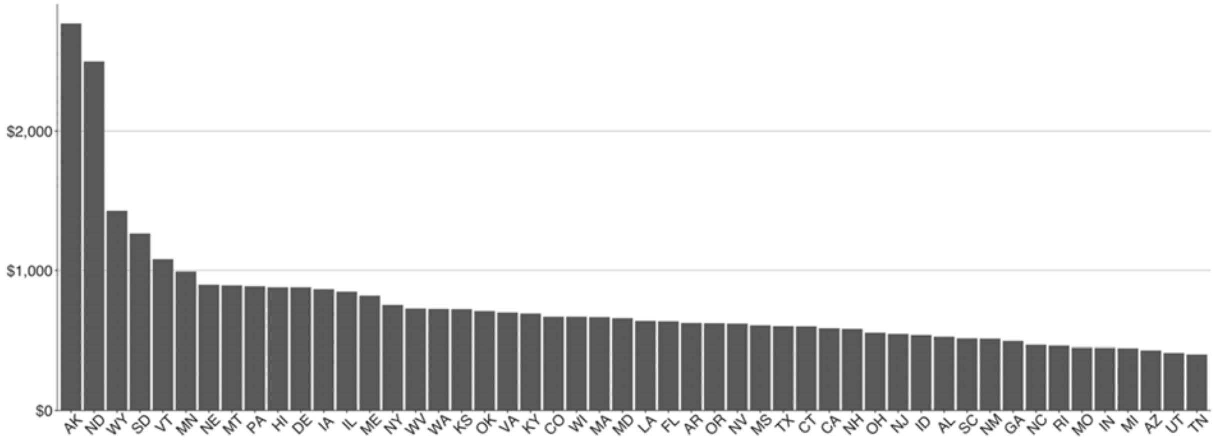


Figure 8

State and Local Direct Expenditures on Transportation, 2016

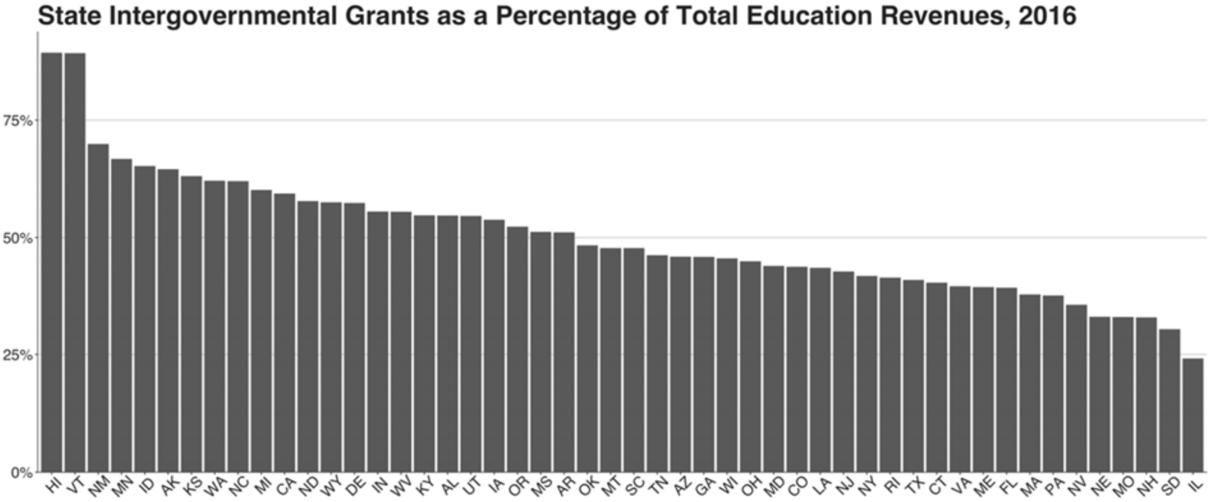
(Dollars Per Capita)



Source: Annual Survey of State and Local Government Finances

Figure 9

State Intergovernmental Grants as a Percentage of Total Education Revenues, 2016



Source: National Center for Education Statistics

Figure 10

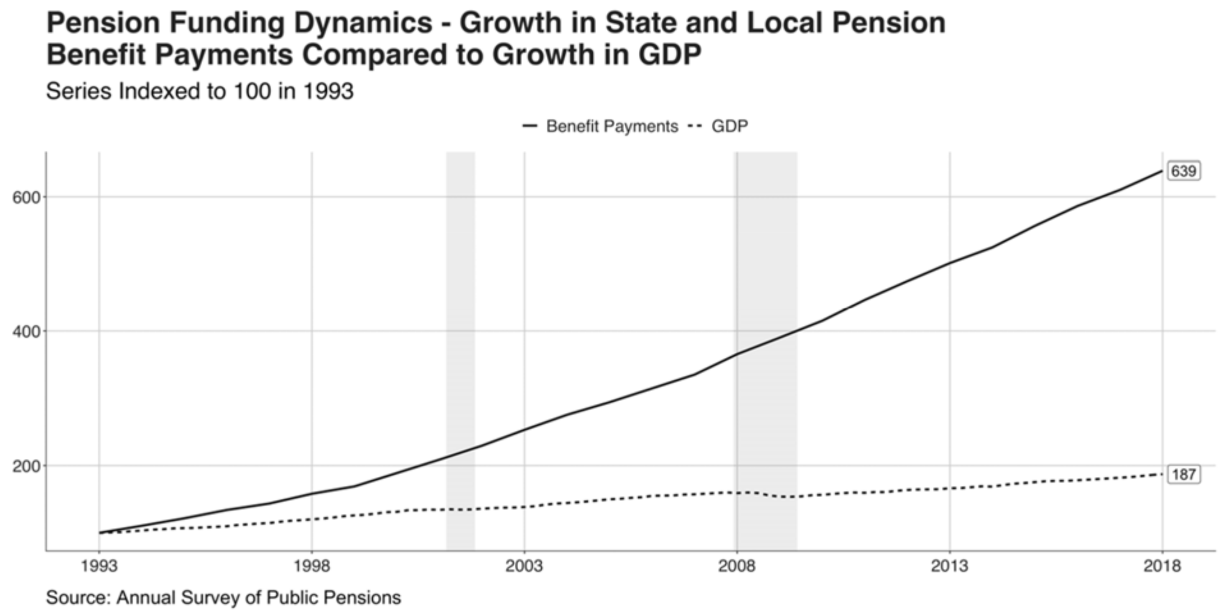


Figure 11