

A History of the Property Tax in America

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The property tax has always been the mainstay of local government finance in the United States. When the first comprehensive census of governments was taken in 1902, property taxes comprised 73 percent of all revenues collected by local governments. In 1992, property taxes comprise 40 percent of the revenues collected by local governments. Comparable numbers are not available for the 19th century, but what we do know suggests that local governments relied heavily on the property tax throughout the century. The role of the property tax in the finances of government overall, however, has changed dramatically. In 1902, property taxes comprised 45 percent of state government revenues, 68 percent of combined state and local revenues, and 42 percent of combined national, state, and local government revenues. In 1992, property taxes comprised 1.2 percent of state revenues, only 18 percent of combined state and local revenues, and 8 percent of all government revenues.¹ Figure 1 plots the share of property taxes in local, state, and all government revenues over the course of the 20th century.

Together these numbers suggest several intimately related questions about the role of the property tax in the finances of American governments. Why is the property tax the most important source of local government revenue? Why does the property tax, used so extensively at the local level, play such a small role at the state and national level? Why did the property tax decline in importance at the state level after 1902? And finally, are the 20th century patterns an extension of 19th century patterns of taxation, or are they a departure from earlier experience? I hope to shed some light on each of these questions by a careful examination of the history of the property tax in the United States. I promise a careful, but not thorough, history of the property tax: a thorough history would occupy volumes. Yet even this brief historical perspective is

valuable, since there have been large movements in the revenue structures of governments over the last two centuries. In the early 19th century, states began abandoning their property taxes, just as they would in the early 20th century. Events then forced them to resume property taxation in the 1840s. The 19th century decline in state property taxes occurred before comprehensive government accounts were collected, and as a result are not as well studied or understood as more recent events. By understanding this history, we can see the 20th century experience in a clearer light.

This history differs from earlier histories of the property tax, particularly the extensive work done at the end of the 19th and beginning of the 20th centuries. That work was both history and policy analysis. The focus of Ely, Seligman, Jensen, and others was the effectiveness and viability of the property tax as a source of government revenue.² They were concerned, as tax payers had always been, about the adequacy and fairness of assessment practices. They were particularly worried about the difficulties in including many different kinds of property within the tax base -- land, buildings, financial assets, and other types of personal property -- when it was abundantly clear that financial and personal property were notoriously difficult to measure. If an equitable and efficient tax system meant taxing all wealth at equal rates, then the system in place in 1900 was neither equitable or efficient. My concerns are not with the specific mechanisms by which the property tax is administered, but the role of the property tax in the larger fiscal system.

In a nutshell, I believe that the property tax is used by local governments, and not used by state and national governments, because local governments are better able to coordinate taxpayers with the benefits of public services financed by those taxes. All governments would

like to levy “benefit” taxes: taxes paid by the people who benefit directly from the government services the taxes finance. Local governments are consistently able to levy property taxes that tax the benefits they provide to their citizens. Expenditures by local governments on services like roads and schools raise local property values and generate property tax revenues.³ State or the national government are unable to use property taxes as benefit taxes. All three levels of government are conscious of the potential for using the property tax as a benefits tax, and all three have tried to use property taxes to take advantage of that potential. Over time, the states and the national government learned that they could not make their property taxes work as a benefits tax. As a result, with understandable exceptions, the national and state governments have forgone the use of the property tax in favor of other revenue instruments.

I’ll begin with a brief overview of the last two centuries of government finance in the United States, and then consider some conceptual issues involved with how government activity is allocated between levels of government and revenue sources. In the sections that follow, I look at the early history of the property tax at the state and national level in much closer detail, examine constitutional changes that led states to rely heavily on the property tax at the end of the 19th century, and then focus on the shift away from state property taxation in the early 20th century. The 19th and 20th centuries are marked by a striking similarity, the decline of state level property taxes in the first forty years, and a striking dissimilarity, the dominance of property taxes in state finance in the last 60 years of the 19th century and the absence of state property taxes in the 20th century.

II. A Brief History of the Property Tax and the Public Finances

The history of American public finance divides itself neatly into three periods. In the first period, from 1790 to 1842, all governments were relatively small and state governments grew rapidly as they took on more responsibility for investments in finance and transportation. Although the estimates for state and local revenues are not perfect, Table 1 gives revenues per capita for each level of government throughout the 19th century, and as a share of GNP for the 20th century.⁴ Between 1800 and 1840, state government revenues (and expenditures) grew more rapidly than national revenues. This culminated in the 1830s with a massive expansion of state investments in canals and banks. While property taxes were perhaps the largest single source of state revenue in 1800, by the late 1830s their importance had declined considerably, particularly in the eastern states. The national government relied primarily on tariff revenues (over 80 percent of national revenues throughout the 19th century), with small excise revenues and occasionally significant receipts from public land sales. Public debt tends to reflect recent investments in social overhead for state and local governments, and the time since the last major war for the national government, but it is also a rough measure of government activity. Table 2 gives the level of debt by level of government for select years from 1838 to 1992. The importance of state investment activity is apparent in 1838 and 1842, when state debt was eight times local debt and thirty times the national debt.

The state investment boom came abruptly to an end in 1839, however, followed by a sharp economic depression. By 1842, eight states and the territory of Florida were in default on their debts. Beginning in the 1840s, states made it much more difficult for themselves to make infrastructure investments. Many states adopted constitutional provisions limiting, or preventing outright, public investment in private corporations, the amount debt that could be issued, and

internal improvement investments. Debt restrictions made the property tax a more important source of state revenue, as new debt issue in several states required raising property taxes. At the same time, states began altering the structure of their property taxes, again through constitutional changes. They required state and local government to assess and tax all taxed property at equal rates (uniformity provisions) and to tax all wealth within the community (universality provisions). State dependence on the property tax increased sharply between the 1830s and the 1840s and property taxes continued to be the single most important source of state and local revenues through the remainder of the century.

Whether it was a reaction to the default crisis or the constitutional changes, state government activity slowed considerably after the 1840s and local governments grew more rapidly. Local government took over investment in transportation, public water and sewage systems, and schools. By 1902 local debt was eight times state debt, and local revenues were roughly the same as state and national revenues combined. This situation would continue, allowing for national government expansion during World War I, right up to the beginning of the Great Depression in 1929. Property taxes remained the bulwark of local government finance for this entire period. Yet, between 1900 and 1940, as between 1800 and 1840, property taxes as a share of state revenues steadily declined.

The Great Depression and New Deal ushered in a third fiscal system. After 1933, the national government put in place a series of domestic government programs designed to deal with the depression, the largest of them in public relief and agricultural subsidies. These programs were expensive, and were typically financed by national government grants to state governments who would, in cooperation with local governments, administer the programs. The

composition of government revenues shifted dramatically toward the national government and away from local governments, with a similar, smaller shift in expenditures.⁵ World War II brought another vast expansion of the national government. The beginning of income tax withholding and a sharp reduction in the personal exemption raised personal income tax receipts twenty fold between 1940 and 1944. This created the basis for the modern American fiscal system. Under this system, which is still with us, the primary source of government revenue is the income tax (counting Social Security payroll taxes as income taxes) and the national government the most active level of government. The modern system is also characterized by extensive use of intergovernmental grants.

Between 1790 and 1842, state governments were, in a relative sense, the most active governments. They pursued new revenues sources in the form of canal tolls, dividends on corporate stock, and charter fees (asset income), and in doing so made large investments in the country's nascent transportation and financial systems. The property tax was a declining share of state revenues and asset income was the tax of choice. From 1842 to 1932, the property tax was the dominant revenue source and local governments took over the most active role. By 1900, state governments depended on property taxes and were far and away the smallest branch of government. States, however, would become progressively less reliant on the property tax as they developed new taxes between 1900 and 1940. Initially these were taxes on automobiles and gasoline, followed by general sales and income taxes. The third system took shape after 1933, and was characterized by a relatively active national government and the extensive use of income taxation.

III. Some Conceptual Issues

The rise and fall of the property tax over the last two centuries is the result the characteristics of the property tax itself as well as the shifting importance of different levels of government and the development of new revenue instruments. To see this, think about a simple model of a government that spends money, X , to provide services that create political benefits, $B(X)$, and pays for these services by raising revenues, R , that create political costs, $C(R)$. The aim is to maximize net political benefits, π , subject to a budget constraint:⁶

$$(1) \quad \pi = B(X) - C(R) + \lambda(X - R)$$

If there are multiple levels of government, j , multiple revenue sources, k , and multiple expenditure functions, i , maximization occurs when the marginal costs of raising revenue at each level of government are equated with the marginal benefit of expenditures at each level of government:

$$(2) \quad B'(X_{ji}) = C'(R_{jk}) = \lambda$$

The intuition behind equation (2) is quite simple. Governments try to raise revenues at the lowest cost. When they spend an additional dollar, they will raise a dollar of revenue from the revenue source with the lowest cost, that is, the lowest marginal cost. As a result, governments that maximize net benefits will equate the marginal costs of raising additional revenue across all of their revenue sources. The implication goes even further, since the model assumes that the marginal costs of raising revenues will be equated across all levels of government. That is, if it is less costly to raise revenues at the state than the local level, taxes will be raised at the state level and funds will be transferred to the local level. Budgets must balance in the model, but not at each level of government. Intergovernmental grants can be used

to capture differences in the cost of raising revenues and the benefits created by expenditures. In this type of model the government is, by definition, “efficient.” In the most general terms, governments raise revenues in the least costly manner, spend money in the most beneficial way possible, and transfer funds between levels of government when necessary.

The concern of this paper is with the costs of raising revenues. These costs have four major components. First are the direct opportunity costs of the taxes. For example, a tax of \$1,000 will deprive taxpayers of the opportunity to buy \$1,000 in goods or services. That generates real economic and political costs. Second, the collection of taxes involves administrative costs. Third, deadweight costs arise because individuals seeking to avoid the burden of the tax, alter their behavior.⁷ For example, a firm choosing to locate a plant in city A or city B, who in the absence of taxation would choose to locate in city A because of lower costs, may, if taxes in city A are higher, choose to locate in city B. Such a decision is in the firm’s best interest, but society loses, because the products the firm produces are more costly to produce in city B. If we assume that the direct costs of two different taxes are the same, then the more “efficient” tax will be the tax with the lowest deadweight costs. Fourth, taxes generate political costs. For example, two taxes with the same direct, administrative, and deadweight costs might generate substantially different political costs if one tax falls primarily on voters and the other tax falls primarily on non-voters. An important element of political costs is perception. Taxpayers who feel they receive government services in return for their taxes are less likely to oppose taxes, than those who believe that their taxes are going to waste, to unproductive uses, or to benefits others.

The model in equation (1) is extremely general, and the cost function, $C(R)$, encompasses

direct, administrative, deadweight, and the (net) political costs of taxation. Two Noble prize winning economists have emphasized different aspects of these costs in the way they think about government. Gary Becker describes government behavior in terms of minimizing deadweight costs: efficient political institutions will develop that are able to deliver government services at the lowest cost if they minimize deadweight costs. Douglass North, on the other hand, describes government behavior in terms of maximizing political net benefits. In North's approach, maximizing governments do not necessarily produce government services at the lowest economic costs. The distinction between deadweight costs and political costs is an important distinction that I will use to distinguish the relative costs of the property tax at the state and local level. Robert Inman's excellent comments on my paper go into these issues in greater detail, and I gladly refer you to them.

In a democratic system, the political viability of a government requires that it provide services with a greater value to (most of) its constituents than the costs of the taxes it imposes on them. Think of a simple majority rule polity, where individual voters support tax increases only if they are better off as a result. Since the 1840s in the United States, property tax rate changes for debt issues are often approved by the voters in a referendum. In order for a rate change to be approved, it must be the case that a majority of voters are better off because of the tax, i.e., that the benefits they receive from the marginal government expenditures outweigh the marginal costs imposed on them by the increased property taxes.

The American political system is more complicated than a simple majority rule polity. In our republic, politicians decide what the government will do, subject to the approval of the voters. If we believe that equation (1) is a reasonable (if highly abstract) depiction of our system

of government, then several conclusions follow. 1) The property tax is a low cost tax at the local level. The strongest and simplest evidence: it has been in use for over two centuries. 2) The local property tax is a low cost tax relative to other tax instruments at all levels of government. In the 20th century local governments rely more on intergovernmental grants for their revenues, but grants have not displaced the local property tax. 3) The persistence of intergovernmental grants suggests that the marginal costs of different revenue sources is roughly equal across types of governments.

4) It must also be the case that the property tax is a more costly tax to impose at the state than the local level. State property taxes declined in the early 19th century, and have all but disappeared in the second half of the 20th century. This suggests that either the administrative or deadweight cost of raising property tax at state levels is higher than at local levels, or that states have more difficulty utilizing the benefit feature of the property tax so that the net political costs are higher at the state level.⁸ There are good reasons to believe, however, that the administrative and deadweight costs of the property tax should be *lower* at the state than the local level. Local governments in most states bear the cost of assessing property values, and states can piggyback on the local assessments. In many states local officials collected both the local and state taxes, and forward the state share to the state treasurer. The deadweight costs of the property tax should also be lower at the state than at the local level, since the opportunity to evade the burden of a tax by physical mobility are more limited for a state than a local tax. As a result, it must be the case that it is the political costs of levying a state property tax that are greater than the costs of levying a local property tax.

The last observation forms the basis for my historical investigation. Since local

governments have used the property tax throughout the nation's history, it is difficult to identify the economic conditions that give rise to changes in the use of the local property tax. But states have varied widely in their use of the property tax, and it is possible to identify the conditions that have affected state decisions. In this indirect way, I hope to illuminate the role that the benefit tax feature of the property tax plays in explaining why the property tax is such a persistent tax at the local level. The critical historical episode occurred at the beginning of the 20th century, when states largely abandoned the property tax, yet local governments continued to use the property tax as their main source of revenue.

IV. Governments and the Property Tax before 1840.

It has been so long since the national government collected a property tax, that it easy to forget that the property tax played a role in the debates surrounding the constitution and that the national government actually levied a property tax in 1798, in 1814, 1815, and 1816, and in 1861. In each case the national government was threatened with unexpected financial demands, and temporarily imposed a "direct tax." After the Revolutionary War, the national government's finances were in a shambles. Burdened by a large debt from the Revolutionary war, unable to raise taxes directly, and unable to persuade the states to meet their requisitions to the national treasury, the constitutional convention sought out new tax authority in 1787. In the end, the Constitution gave the national government the power to levy import duties, excise taxes, and direct taxes, but the later only in proportion to population. Direct taxes were understood to be property taxes, although they also included poll or head taxes and, later in the 19th century, would include income taxes.

The origins of the proportionality restriction are related to our inquiry. The Articles of Confederation apportioned taxes between the several state on the basis of their wealth, although the states were reluctant to make accurate assessments and reluctant to meet their obligations to the national government in any event. The principle of taxation without representation was an important one, and the debate over the apportionment formula for taxation became inextricably tied to the apportionment formula for representation in the House. Slaves were the sticking point. Southern slave owners would have preferred to allocate representation on the basis of total population (including slaves) and to allocate taxation on the basis of wealth (excluding slaves). Northern politicians would not concede to southern wishes. The compromise was to count slaves as 3/5 of a person for purposes of allocating both representation and taxation. In doing so a direct link was made between the benefits and burdens of taxation.⁹

In practice, the proportionality restriction made a national property tax unwieldy. In 1798, faced with the prospect of war with France, Congress enacted a direct tax. The tax was odd. Each slave was taxed at \$.50, houses were taxed at a progressive rate from 2 to 10 mills of value, while the remaining tax to be paid in each state was imposed on land and adjusted to fit the apportionment formula.¹⁰ The 1798 tax was to raise \$2,000,000: \$1,315,00 on houses, \$457,000 on lands, and \$228,000 on slaves. \$734,000 was collected in 1800 and \$534,000 in 1801. The war with France never materialized, and the tax lapsed.

A direct tax was used again in the War of 1812, but this time it was administered in a more effective way. Congress levied taxes of \$3,000,000 in 1814, \$6,000,000 in 1815, and \$3,000,000 in 1816. The tax was apportioned among the states by population. States were allowed the option of collecting the tax themselves, and offered a 15 percent discount if they

payed promptly in cash, an option that several states took advantage of. The experience between 1814 and 1816 was much more favorable and the taxes were paid quickly. The ease with which the national government collected the direct tax, however, relied on the agency of the states. Several states, notably Maryland and Pennsylvania, did not have state property taxes in place in 1814. They paid their share of the requisition from other tax sources. The direct taxes of 1814, 1815, and 1816 worked because the states were able to shoulder the burden. The Civil War tax, levied \$20,000,000 in revenue in 1861, was based on the 1816 tax, but it was never renewed.¹¹

Perhaps a national property tax could have been built in the early 19th century on top of the state property taxes, but states were busily reducing their property taxes after 1800. Immediately following independence most states, like the national government, faced a financial crisis, but unlike the national governments, states were able to draw on their property taxes. Every state had some form of property tax in the 1790s. Under Hamilton's funding proposal, the national government assumed most of the existing state debts, and by the late 1790s most states were in good financial shape. By 1800, several states had eliminated their property taxes altogether, a trend that would continue into the late 1830s. Figure 2 gives average nominal per capita tax revenues for states between 1800 and 1850. The steady downward trend in property tax revenues between 1800 and 1812 is evident.

During the War of 1812 states were forced to shoulder some of the burden of fighting the British directly. Expenditures in most states rose, as did property tax collections. But after the war, property tax collections continued to decline. This was not the result of smaller state budgets. As Table 1 shows, our best estimates suggest that nominal state revenues doubled between 1800 and 1840, and real revenues rose even more, since prices in 1830 were roughly 75

percent of their 1800 levels.

By the late 1830s many states, all in the east, had eliminated their property taxes entirely. New York, Massachusetts, Pennsylvania, Maryland, Rhode Island, South Carolina, Alabama, Georgia, and North Carolina all experienced at least a brief period without property taxes in the 1830s, several states for much longer stretches of time. Table 3 gives property taxes as a share of state revenues for the years 1835 to 1841 and for 1842 to 1848. How were states on the Atlantic seaboard able to maintain increasing expenditures in the face of declining property tax revenues? All of these states were able to exploit one or more of three revenue sources. Either they made successful investments in banks or transportation companies that allowed them collect substantial dividends, they built transportation enterprises that they operated as state businesses, or they taxed a variety of business activities, including taxes on corporate capital and fees for the issuing of corporation charters.¹² By the 1830s, Massachusetts received over half of its revenue from a tax on bank capital, Rhode Island over a third of its revenues from a tax on bank capital, Maryland received over half of its revenues from a corporation tax and dividends on its internal improvement investments, and New York earned steady revenue from the Erie canal and auction duties in New York City.

In contrast to these eastern states, states on the frontier, in both the north and the south, had few business and banks to tax. Frontier states were heavily dependent on the property tax. From 1835 to 1841, property tax collections on the Atlantic seaboard were only 2 percent of state revenues, in the west they were 34 percent. This was one of the reasons that western states were so eager to invest in banks, canals, and railroads. These investments had proven to be directly or indirectly profitable to the eastern states. The western states invested heavily in

canals, railroads, and banks in the mid and late 1830s. Unfortunately, many of these investments would fail dramatically after 1839.

The state canals are the best known of these early investments, and the benefit features of the property tax played a central role in the origins of state canal systems in New York, Ohio, Indiana, and Illinois. The most famous and successful canal was New York's Erie Canal. After the national government turned down the state's request for assistance, the state began construction of the canal on its own. But before the state legislature could agree to a canal plan, it first had to reach a consensus within the state over how the canal was to be funded. The Canal commissioners who promoted the canal were "highly sensitive to the interplay of regional economic interests and their possible effect on legislative authorization for the construction of the canals. They understood the objections of the farmer in the Hudson River Valley, in Delaware, Montgomery, Schoharie, Rensselaer, and Washington counties, who would oppose internal improvements that would open lands in the west far more fertile than their own and would provide the farmers who cultivated them with access to the very markets in which they disposed of their products." (Miller, p. 66). These sectional interests had to be mollified before the canal could be built.

New York had a property tax in place in 1817. The canal promoters proposed that a special property tax be levied on a land within 25 miles of the canal (actually on the middle section of the canal which was the only section authorized in the original bill). Promoters argued that the special canal tax, along with auction duties and the salt tax which would be set aside for the canal fund, would be sufficient to service the canal debt until canal tolls began flowing in. Their expectations turned out to be pessimistic, not optimistic. The canal was a financial success

from its earliest years, and the special canal tax was never levied. Agreeing to tax the benefits that would flow to western land owners from construction of the canal, however, was a critical element in the compromise necessary to begin construction of the canal.¹³

The Erie Canal was an example of a government investment that raised the value of land. These types of investment were enormously attractive to western settlers. In the early 19th century, the major economic asset was land and most of it was in the west. Gallman estimates that investments in clearing and breaking raw land comprised 56 percent of the domestic capital stock in 1776 and 32 percent in 1840, excluding the value of the land itself.¹⁴ Breaking and clearing land was the single most important form of investment in the early 19th century economy. There were millions of acres of fertile raw land in the west. The major obstacle to the development of western lands was the availability of transportation. The Erie canal provided a critical link in establishing an all water route into the west, in the process raising the value of land from New York to Illinois.¹⁵

Ohio became a state in 1802, Indiana in 1816, and Illinois in 1818. This rich agricultural area was anxious to encourage migration and develop its farm lands. In the 1820s, Ohio began planning a canal that would link up with the Erie. As in New York, however, Ohio faced sectional division over the location of the canal and the allocation of tax burdens to finance construction. Prior to 1825, land in Ohio (and in Indiana and Illinois) had been taxed at a flat rate per acre, with land classified into three quality divisions. Promoters of the Ohio canals were able to overcome their sectional divisions by compromising on the structure of the property tax. They proposed a shift from flat per acre taxation to an *ad valorem* tax. “*Ad valorem* taxation not only would increase state revenues, but would also place a larger (and fairer) share of the tax

burden on localities where land values rose quickly because of the canals.” (Scheiber, 1968, p.26) The property tax comprise was critical to the adoption of the canal bill. “By an act of February 3, 1825, the Ohio system of taxation was put on an *ad valorem* basis, with a state board of equalizers appointed to review assessments by local officials. And by what became known as the ‘1825 canal law,’ an act of February 4, the assembly authorized construction on two canals: the Miami Canal from Cincinnati to Dayton; and the Ohio Canal, to be built on the Scioto-Muskingum-Lake Erie route.” (Scheiber, 1968, p. 28).

Both Indiana and Illinois switched from flat per acre property taxes to *ad valorem* taxes when they began their canal projects in the mid-1830s. As in New York and Ohio, the shift to *ad valorem* taxation was a mechanism used by canal promoters to align the costs and benefits of government investment. In essence, the early canal promoters suffered from a coordination problem. In order to win political support for their ventures, they had to devise a system of taxation that would coordinate the costs of financing the canal with the beneficiaries of the canal. In each state this was done by making changes in the system of property taxation.

Both Ohio and New York enjoyed considerable financial success from their canals. Through the 1820s and 1830s, their canal systems produced enough revenue annually to cover operation and maintenance costs, service the canal debt and return a surplus to the state. Their example made it much easier for Indiana and Illinois to embark on their canals and to raise money in the capital markets. Indiana and Illinois began canal projects in 1836, and were joined by Michigan, New York, Ohio, Massachusetts, Pennsylvania, and Georgia who all expanded their transportation investments in the late 1830s and Louisiana, Florida, Mississippi, and Arkansas who all expanded their bank investments.¹⁶ Indiana and Illinois would not enjoy the

success of New York and Ohio. In 1839, in the middle of construction and long before their canals were completed, the economy entered a sharp contraction. Financial markets collapsed and the banks who had promised to advance construction money to Indiana, Illinois, and Michigan, failed. Construction stopped in all three states. Land values plummeted with the halt in construction and the sharp deflation that followed the monetary collapse in 1839. By 1841, Indiana, Illinois, Michigan, Louisiana Mississippi, Arkansas, Maryland, Pennsylvania, and the Territory of Florida were in default on their state debts.

V. Retrenchment: 1842 to 1900

The economic depression hit hard throughout the country. New York, which had begun to widen the Erie and expand its canal network passed a “Stop and Tax” law in 1842, stopping canal construction and reinstating the state property tax. By 1844, Massachusetts, Georgia, Alabama, Maryland, and Pennsylvania had also imposed state property taxes. State property tax collections in the east rose from 2 to 17 percent of state revenues, and from 34 to 45 per cent in the west (Table 3). State property taxes would be collected in all of these states until the end of the century, at levels at or above the 1840s levels.

The 1840s were the beginning of an extended period of political and constitutional change in the United States. Some of these changes followed in the wake of the depression and default crisis, but the foundation for the changes went much deeper. Since Independence, American governments had struggled with the role of democracy in their republican governments. No state had free white male suffrage at the beginning of the Revolutionary War - every state had some property or taxpaying restriction on voting or office holding.¹⁷ The idea

that only property owners with a certain level of assets could safely be entrusted with the vote had a long history, but the implications of that idea were not lost on Americans who had fought for a political independence they were not allowed exercise. By 1830, most states had changed their requirements for voting and office holding.¹⁸ Free white male suffrage became the rule and, as the franchise expanded, privilege became a central issue. By the mid-1830s neither the Whigs nor the Democrats would stand in the way of what at least appeared to be egalitarian/equalitarian/democratic reforms. Arthur Schlesinger argued, in *The Age of Jackson*, that the expanded franchise fueled the Jacksonians' rise to power. By identifying their reform policies with the new mass of poorer voters, both urban and rural, Jackson and his followers were able to forge a durable, winning coalition. The Democratic coalition formed the basis of an enduring political party, and contests between the Whigs and Democrats transformed the American political system.

There has been a great deal of debate about Schlesinger's interpretation, and I would be stepping into deep water indeed were I to try and resolve the debate here. What matters is that the debate over privilege was a driving force behind the changes in state constitutions. Part of Jackson's case against the Whigs was their ties to "aristocratic" Federalists. Jackson himself was vehement and articulate on the subject. He concluded his veto of the Second Bank of the United States charter in 1832 this way:

If we can not at once, in justice to interests vested under improvident legislation, make our Government what it ought to be, we can at least take a stand against all new grants of monopolies and exclusive privileges, against any prostitution of our Government to the advancement of the few at the expense of the many, and in favor of compromise and gradual reform in our code of laws and system of political economy.

I have now done my duty to my country.¹⁹

Whether it was Jackson and the Democrats that made privilege a burning political issue, whether

it was the extension of the franchise that made this inevitable, or whether what developed in the 1840s was a natural outgrowth of a process of democratization begun in the Revolution, by the 1840s it was politically impossible for any politician or party to stand with the few against the many.

The 1840s and 1850s were a period of intense constitutional debate, over half the states adopted new constitutions in those two decades.²⁰ The constitutional changes encompassed four basic types of economic institutions. First, incorporation by act special acts of state legislatures was prohibited and replaced by general incorporation acts that allowed any applicant to obtain a charter through an administrative procedure. The prohibition on special charters went directly to the issue of government abuse of private privilege.²¹ Second, states were prohibited from investing in any private corporations. Third, limits were placed on public debts, both of state and local governments. The debt limitations took many forms, ranging from absolute dollar limits, to a relative share of assessed wealth in the state, to procedural safeguards (legislative super- majorities, sinking funds, bond referenda, etc.). Some states banned investment in internal improvement altogether. The procedural guarantees often required that state or local governments set aside tax revenues to service the debt before issuing it and obtaining the approval of the voters for the increase, this is the birth of the property tax/bond referendum.²² Finally, states began requiring that the property tax be assessed uniformly on all property taxed (the uniformity provision) and, in a smaller set of states, to require that all wealth, both real and personal, be taxed (the universality provision).²³

Not all of these changes were made in every state, and the process of amendment and revision was spread out throughout the 19th century. By the 1850s, 16 states had uniformity

provisions in their constitutions and 7 had universality provisions, by 1900, 29 had uniformity provisions and 21 had universality provisions (Benson, 1965). Twenty states adopted provisions restricting debt and 15 states adopted procedural safeguards (Goodrich, 1950). The combined effect of these changes was to make state government finance more costly. The prohibitions on investment in private corporations took away one source of revenue: dividends on investments. The prohibition on special charters took away another source: sale of lucrative charters.²⁴ The imposition of general incorporation acts was not necessarily bad for state revenues, Massachusetts had been taxing banks under what amounted to free entry since the 1820s (Wallis, Sylla, and Legler, 1994) and several states had corporation taxes. To the extent that general incorporation acts increased the capital value of chartered companies, the change opened up a new revenue source (or expanded an old one). In general, however, states found it more difficult to obtain income from revenue producing assets. On the property tax side, the new uniformity and universality conditions made it more difficult for states to solve the problem of coordinating taxpayers and beneficiaries: property taxes were now levied on all property at equal rates. States were now more constrained in their ability to tailor taxes to beneficiaries.

The effect of the constitutional changes on local government is less clear. What is clear is that local governments took over an increasing share of government activity. Local government investment in infrastructure, particularly railroads, water and sewage, and public utilities grew in absolute terms and in relation to state investment. Table 1 shows the steady decline of state revenues relative to local revenues, and Table 2 documents the rapid growth of local government debt, almost all of which was for infrastructure. In 1913, on the eve of World War I, local governments accounted for 72 percent of all government debt, and local government

revenues were larger than state and national revenues combined. Property taxes were 72 percent of local government revenues in 1913.

States did not completely abandon the field of investment. In our paper, “Railroads and Property Taxes,” Jac Heckelman and I (1997) try to explain why state and local governments continued to invest in railroads after 1840, when it was clear that railroads were quite likely to default on their debts. We examined the relationship between railroad construction and assessed property values from 1850 to 1910 using census data. We concluded that the typical state could afford to pay for roughly 1/3 of the cost of building a mile of track out of increased state property tax revenues caused by rising land values alone. The calculation was made with very conservative assumptions about assessment and tax rates. If we include local government taxes, and local governments were increasingly likely to invest in railroads as the century wore on, increased property tax revenues would easily pay for the cost of construction (local tax rates were roughly 4 time state rates). Those are average effects, of course, and some state and local governments built railroads only to find themselves saddled with large debts and bankrupt railroads.

The railroad case is very interesting. On average, the increased property values associated with railroad investment were larger than the decline in property values associated with the increased tax liabilities.²⁵ These are the easiest kind of government programs to sell to voters, since every land owning voter is likely to be better off as a result of building the railroad. Yet, while local governments continued to invest in railroads, state governments gradually withdrew from the field, even though state governments continued to rely heavily on property tax revenues that would rise if the railroads were built.

VI. The Early 20th Century: 1900 to 1942

Constraints on state governments began changing after 1900. Constitutional restrictions on property taxes eased with the elimination of uniformity and universality clauses in state constitutions.²⁶ New state revenues in the form of automobile license, fees, and motor fuel taxes, followed by general sales and income taxes, enabled states to once again eliminate their property taxes. The shares of state property, sales, and income tax in total state revenues are shown in Figure 3. Between 1902 and 1932 the property tax and sales tax reversed their importance in the state fisc. This transition in state revenues stimulated an expansion of state finances. As Table 1 shows, state revenues rose from 0.8 percent of GNP in 1902 to 2.1 percent in 1927 and 3.8 percent in 1934.

The rapid change in state finances offers a unique opportunity to assess the role of the property tax in local finance. While the size of state government finances were growing absolutely and as a percentage of GNP, the state property tax was disappearing. This would only occur if the costs of raising revenues by the new automobile, sales, and income taxes were lower than the cost of raising revenues by the existing state property tax.²⁷ This is a rare time when we can observe falling costs of raising revenue revealed in the behavior of the state governments. The cost of raising state revenues fell because state motor fuel taxes and motor vehicle and operators licenses were user fees, the ultimate benefit tax. People who paid the taxes and fees got the benefits of driving their vehicles on state provided roads. People who did not drive did not oppose the fees, because they did not bear the costs. State taxpayers were willing to tax

drivers, and, as we shall see, spent the proceeds on state universities, state highways, and large grants to local governments for schools and roads. On the other hand, state taxpayers were not willing to approve increases in state property taxes to build roads and schools between 1902 and 1932.

By 1902, state and local governments had a long history of cooperative finance, particularly for education. The principle that governments equate the marginal costs of raising revenues across levels of governments as well as types of revenues sources was at work. The model suggests that when states obtained a new, low cost revenue source, state tax collections should rise relative to local government tax collections, and states should begin transferring more funds to local governments through intergovernmental grants. If the marginal cost of collecting state revenues was falling and the marginal cost of raising revenues at the state and local level was roughly equal, then we can infer that the marginal cost of raising revenues at the local must have been falling as well. If local revenues were less costly to raise, we expect an increase in the size of local government. Local revenues rose from 4.0 percent of GNP in 1902 to 7.6 percent in 1934.²⁸

Yet local revenues did not shift away from the property tax (Figure 1). Property taxes comprised roughly 70 percent of local revenues throughout the entire period. This is direct evidence that the local property tax was a low cost revenue source. As the marginal cost of raising revenues at the state level fell, and as states transferred those cost advantages to local governments via intergovernmental grants, local governments still found property taxes to be the most effective way of raising revenues. If you accept the argument that the state level administrative and deadweight costs of the property tax were lower than at the local level, then it

must have been the case that local governments continued to use the property tax because they were able to use it at lower *political* costs. They were able to match taxpayers with the services they bought with their taxes, thus minimizing political costs.

The proof is in the details. Table 4 reports figures on total revenues for state and local government separately. The upper panel reports state revenues: total revenues (1), property tax revenues (2), Motor Fuel sales taxes (3), Motor Vehicle and Operator License fees (4), and the change in total revenue between years explained by increasing automobile revenues (5). The figures are impressive, between 1922 and 1932 roughly half of the growth in state revenues came from automobile sources while state property tax revenues actually declined by \$20 million. The lower panel of the table gives local revenues: total revenues (6), local property tax revenues (7), state grants to local governments (8), and the share of the change in local revenues explained by changes in the property tax (9). As expected, property taxes account for the lion's share of local activity, even as grants from state governments increased rapidly.

The property tax can only operate as a benefit tax if the government spends money on services that are geographically specific. Table 5 presents information on combined state and local expenditures for education and highways, as well as a breakdown of highway expenditures by level of government and by source of financing.²⁹ The two activities combined account for about half of the growth in combined state and local expenditures between 1902 and 1927 or 1932.³⁰ Education was slightly more important than highways in terms of total expenditures and the growth of expenditures. The second and third panels of the table break down highway expenditures by source of spending government, columns (7) through (11), and by source of funding government, columns (12) through (16). The panels differ by the allocation of state

highway grants to local or state government expenditures.

The falling cost of raising revenue at the state level not only led to an increase in state revenues and expenditures, but an increase in state grants to local governments for highways (column (12) of table 5) and in total (column (8) of table 4). The marginal cost of raising state revenues via automobile taxes fell, and fell far enough that states essentially abandoned their property taxes. These cost advantages were passed on to local governments in the form of intergovernmental grants. Grants from state to local governments rose from \$52 million in 1902 to \$801 million in 1932, column (8) of Table 4.³¹ State grants to local governments rose from 5.6 percent of local revenue in 1902 to 12.9 percent of local revenue in 1932.

In every respect, the predictions of the model in equation (1) are borne out by actual events. The model works quite nicely. Yet, property taxes account for 68 percent of local revenues in 1902 and 67 percent of local revenues in 1932, at the depths of the Great Depression. Why didn't local governments abandon, or at least reduce their dependence on the property taxation in the early 20th century? The answer is in the nature of local government expenditures. Between 1902 and 1932, local expenditures grew from \$959 million to \$6,375 million, 46 percent of that growth was for education and highway expenditures.³² As late as 1927, local expenditures for highways from their own revenues accounted for 60 percent of all state and local highway spending, column (15) of Table 6. In 1913 that figure was 92 percent.³³ There were clear reasons for state governments to get involved in the construction of intercity highways, since local governments could not construct intercity highways. But most roads are not intercity highways, they are city streets. Unlike intercity connectors, where the benefits of the road are widely disbursed geographically, the primary beneficiaries of city streets are quite

easy to identify. They live or work on or near the street.

Local roads and schools have a specific geographical impact. They are precisely the kind of expenditures that allow the property tax to act as benefit tax. Local taxpayers were willing to approve increases in local property taxes to fund roads and schools, because the taxes went to provide services in their neighborhoods. Even property owners without automobiles or children were willing to support roads and schools since they benefit to the extent that local property values rose as a result of the better schools and roads. In a very important way, the type of expenditures made by local governments allowed them to continue to use the property tax as a benefit tax.

Between 1902 and 1932, the size of the state and local sector more than doubled as a share of national income. One would expect that all revenue sources would be used more extensively in such a period. The abandonment of state property taxes for automobile, sales, and income taxes is direct evidence that the cost of raising revenues at the state level was falling. The growth of state grants to local governments is direct evidence that local governments were able to share in the lower cost revenues. The persistence of the property tax at the local level over this period is direct evidence that local governments were able to use the property tax at substantially lower political costs than state governments. Expanding the conclusion to cover the entire 19th and 20th centuries, we can understand why the property tax has always been a mainstay of local government revenues.

VII. Conclusions

My task in this paper was to show why the property tax is the most important local

government tax in the United States. I have done so largely by looking in the mirror of state government use of the property tax. One of the benefits of a longer historical perspective is a glimpse at an earlier era when states moved away from the property tax just as they have done in this century. When given the opportunity, states abandoned the property tax in favor of asset income (in the 19th century) and sales and income taxes (in the 20th century).

In neither the early 19th or early 20th century were the shifts in state use of the property tax followed by shifts in local use of the property tax. Local government are able to use the property tax at a lower cost than state governments. The advantage is unlikely to have been from lower administrative costs or lower costs deadweight costs. Nor was it the case that states spent money on different functions than local governments. Granted that a state university is different than an elementary school, and that a state highway is different form a local road, but state and local governments in the early 20th century were both spending most of their money of roads and schools.

I have argued that the ability to more closely match the beneficiaries of government investments, policies, and programs with the taxpayers who foot the bill creates a distinct advantage for the property tax at the local level. In several cases in the early 19th century, state governments tinkered with their property tax rules in order to produce a closer match between taxpayers and beneficiaries. States were clearly aware of these connections. The relative decline of state governments between 1840 and 1900 corresponds to the time when, for political reasons, states were stuck with the property tax. When the states were required to rely on the relatively costly property tax, they grew smaller as a share of government activity. When states found new revenue sources, they became larger again. At the same time that states moved to sales and

income taxes, local governments continued to use the property tax. The state sales and income taxes were the very kind of broad based, labor oriented taxes that would cause large amounts of distortion at the local level. If cities and towns tax sales and income, people move. If states and nations tax the same, people move less. Local governments did not have a cost advantage in levying these kind of taxes, and as the overall fiscal system has moved toward sales and income taxes in the 20th century, the local share of revenue collection has diminished.

If the benefit of taxing land were simply that it is immobile, enabling small local governments to avoid deadweight costs, then we would expect to see property taxes used by all three levels of government, albeit perhaps more intensely by smaller jurisdictions. The fact that the national and state governments prefer not to use the property tax suggests that local governments possess some other benefit (or avoid some other cost) from using the property tax. The benefit is the ability to match taxpayers and beneficiaries. Because local government are better able to utilize the benefit tax features of the property tax, and states are not, the property tax has been and will, for the foreseeable future, continue to be the main source of revenue for local governments in the United States.

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Table 1
Government Revenue in Current Dollars and
As Share of GNP
1800 to 1992

CURRENT \$ PER CAPITA	NATIONAL	STATE	LOCAL	TOTAL	AS PERCENT OF GNP
1800	1.96	0.42			
1810	1.80	0.36			
1820	2.52	0.56			
1830	2.07	0.54			
1840	1.50	0.88	1.23	3.60	4.0%
1850	1.93	0.99	1.23	4.14	4.2%
1860	3.32	1.72	2.17	7.20	5.4%
1870	9.82	2.34	5.48	17.64	8.4%
1880	6.39	1.70	4.98	13.07	5.7%
1890	5.74	1.84	5.96	13.55	6.4%
1900	6.42	2.43	8.83	17.68	7.2%
AS SHARE OF GNP					
1902	3.0%	0.8%	4.0%		7.8%
1913	2.4%	0.9%	4.2%		7.5%
1922	5.8%	1.7%	5.2%		12.6%
1927	4.7%	2.1%	6.0%		12.8%
1934	6.0%	3.8%	7.6%		17.4%
1940	7.0%	5.0%	5.8%		17.9%
1946	22.3%	3.7%	3.6%		29.5%
1952	20.4%	4.1%	4.0%		28.5%
1957	19.3%	4.6%	4.7%		28.6%
1962	18.5%	5.2%	5.5%		29.2%
1967	19.7%	5.7%	5.4%		30.8%
1972	18.4%	6.9%	6.2%		31.5%
1977	19.2%	7.6%	6.0%		32.8%
1982	21.6%	8.2%	6.2%		36.1%
1987	21.0%	9.1%	6.9%		37.0%
1992	20.8%	9.3%	7.3%		37.5%

Source: Wallis, 2000a.

Table 2
Total Debt by Level of Government
And Shares of Total Debt by Level of Government
(Millions of \$)

YEAR	STATE DEBT	LOCAL DEBT	NATIONAL DEBT	STATE SHARE	LOCAL SHARE	NATIONAL SHARE
1838	172	25	3	86.0%	12.5%	1.5%
1841	190	25	5	86.4%	11.4%	2.3%
1870	352	516	2,436	10.7%	15.6%	73.7%
1880	297	826	2,090	9.2%	25.7%	65.0%
1890	228	905	1,122	10.1%	40.1%	49.8%
1902	230	1,877	1,178	7.0%	57.1%	35.9%
1913	379	4,035	1,193	6.8%	72.0%	21.3%
1922	1,131	8,978	22,963	3.4%	27.1%	69.4%
1932	2,832	16,373	19,487	7.3%	42.3%	50.4%
1942	3,257	16,080	67,753	3.7%	18.5%	77.8%
1952	6,874	23,226	214,758	2.8%	9.5%	87.7%
1962	22,023	58,779	248,010	6.7%	17.9%	75.4%
1972	59,375	129,110	322,377	11.6%	25.3%	63.1%
1982	147,470	257,109	919,238	11.1%	19.4%	69.4%
1992	372,319	603,920	2,998,639	9.4%	15.2%	75.4%

Source: Wallis, 2000a.

Table 3
Property Taxes as a Share of All State Revenues

	1835-1841	1842-1848	1902
Atlantic Seaboard	0.02	0.17	0.55
West and South	0.34	0.45	0.70
All States	0.16	0.30	0.57
Notes:			
Source: Sylla and Wallis, 1998			
Atlantic States:			
MA, MD, NY, PA, RI, DE, SC, NC			
Western and Southern States:			
IL, IN, OH, AK. MS. KY			

Table 4
State and Local Revenue Sources
1902 to 1932
(Millions of \$)

State Government					
	Total Revenue s	Property Taxes	Motor Fuel Sales	Motor Vehicle Licenses	Percent of State Revenue Growth Explained By Auto Revenues
	(1)	(2)	(3)	(4)	(5)
1902	192	82	0	0	
1913	376	140	0	5	2.72%
1922	1,360	348	13	152	16.26%
1927	2,152	370	259	301	49.87%
1932	2,541	328	527	335	77.63%
Local Government					
	Total Revenue s	Property Tax Revenues	State Grants To Local	Percent of Local Revenue Change Explained By Property Tax Revenues	
	(6)	(7)	(8)	(9)	
1902	914	624	52		
1913	1,755	1,192	91	67.54%	
1922	4,148	2,973	312	74.43%	
1927	6,333	4,360	596	63.48%	
1932	6,192	4,159	801	142.55%	

Source: U.S. Department of Commerce, *Historical Statistics of The United States*.

Table 5
State and Local Expenditures
Total, Education, and Highways
1902 to 1932
(Millions of \$)

	Combined S&L Expenditures	Combined S&L Expenditures	Combined S&L Expenditures	Share of S&L Growth Explained By	
	Total (1)	Education (2)	Highways (3)	Education (4)	Highways (5)
1902	1095	255	175		
1913	2257	577	419	27.7%	21.0%
1922	5652	1705	1294	33.2%	25.8%
1927	7810	2235	1809	24.6%	23.9%
1932	8403	2311	1741	12.8%	-11.5%
1902 to 1927				29.5%	24.3%
1902 to 1932				28.1%	21.4%
	Total Highway Expenditures (7)	Local Highway Expenditures (8)	State Highway Expenditures (9)	Local Share (10)	State Share (11)
1902	175	171	4	97.7%	2.3%
1913	419	393	26	93.8%	6.2%
1922	1,294	991	303	76.6%	23.4%
1927	1,809	1,295	514	71.6%	28.4%
1932	1,741	898	843	51.6%	48.4%
	State Grants to Local for Highways (12)	Local Expenditures Own Funds (13)	State Expenditures Total (14)	Local Share (15)	State Share (16)
1902	2	169	6	96.6%	3.4%
1913	4	389	30	92.8%	7.2%
1922	70	921	373	71.2%	28.8%
1927	197	1,098	711	60.7%	39.3%
1932	229	669	1,072	38.4%	61.6%

Source: U.S. Department of Commerce, *Historical Statistics of The United States*.

Note: Columns (5) and (6) calculate the share of Expenditure explained by Education or Highways,

from the previous year, or for the period indicated.

Endnotes

1. The 1992 figures are taken from the 1992 census of Governments, U.S. Department of Commerce, 1997. The 1902 numbers are taken from *Historical Statistics*, U.S. Department of Commerce, 1975.
2. More recent work on the property tax in general is Netzer's *Economics of the Property Tax*. The most recent history of the property tax is Fisher.
3. See Fischel's paper in this volume for an exposition of the "benefit" view of the property tax.
4. This table was originally presented in Wallis, 2000a. The local government data for the 19th century are speculative, the state data are roughly correct, and the national data are accurate.
5. See Wallis, 1984 and Wallis and Oates, 1998 for a discussion of the New Deal's effects on government finance since 1933.
6. Government debt can be incorporated by counting loans as revenues and repayments of principle as expenditures.
7. For a thorough review of how property taxes can cause distortions in the allocation of resources. See George Zodrow's paper in this volume.
8. The direct costs of the state and local property tax should be the same.
9. The connection between the 3/5 rule for representation and for taxation is discussed in Stabile, 1998, pp. 54-61, see also Dunbar, 1889.
10. The formula is described in Dewey, p. 109. Dunbar, 1889, contains useful detail on the administration of the tax in each period.
11. Administration of the 1861 tax was complicated by the fact that it applied to the entire country, but it could only be imposed in areas in which the federal government had control. As in the War of 1812, the tax was quickly collected by northern state governments. In the south, it was imposed by the federal government piecemeal, initially only in areas that Union troops controlled, and ultimately produced a tangle of administrative problems described by Dunbar, 1889. See Warren and Moses, 1897, for a description of the tax in California, where the state Treasurer, on his own initiative, managed to secure the state a premium of almost 10 percent by converting gold (the official currency in California) into Greenbacks and paying the state's share of the direct tax in Greenbacks.
12. The importance of bank revenues in several states is documented in Sylla, Legler, and Wallis 1987 and in Wallis, Sylla, and Legler, 1994. For a more detailed examination of property taxes and state revenues in individual states, see Sylla and Wallis, 1998.

13. This discussion draws heavily on Miller's chapter on "The Reconciliation of Sectional Differences," pp. 59-73.
14. Gallman, 1992, p. 94.
15. The classic accounts are Callender, 1902 and Goodrich, 1960.
16. See Ratchford, McGrane, Sylla and Wallis, and Grinath, Wallis and Sylla for accounts of the 1830s boom.
17. For a discussion of suffrage restrictions see Porter 1918 and Williamson 1960.
18. I have found Green's (1966) discussion of constitutional change in the South to be particularly informative on the process of constitutional amendment and on the local character of these changes.
19. Richardson, 1904, vol. 2: 557-91.
20. Sturm, 1954, p. 14.
21. State chartering practices and their implications for economic development and state fiscal policies are described at length in Wallis, 1999b and 2000b.
22. Goodrich, 1950, presents a detailed list of state constitutional changes with regard to both debt limitation and internal improvement investment.
23. The imposition of uniformity and universality provisions is discussed in Benson, 1965.
24. For example, New Jersey received a substantial share of its revenues from transit duties on and dividends from Camden and Amboy Railroad, in return for which the state had granted the railroad a monopoly on rail traffic between New York and Philadelphia. Special charters were not prohibited in New Jersey until the Camden and Amboy had been taken over by the Pennsylvania Railroad. See Cadman, 1949.
25. For recent estimates of the impact of railroads on agricultural land values see Craig, Palmquist, and Weiss; and Coffman and Eschelbach.
26. Benson, 1965.
27. State governments were growing, in part, because voters desired more state services, particularly roads and schools. Had the only source of growth in state government been increased demand for its services, then we should have observed an increase in the use of all of its revenue sources. That is, the marginal cost of raising all types of revenues should have risen. Instead, the primary revenue source of state governments, the property tax, all but disappeared by 1942. There is no reason to believe that the state property tax became more expensive to levy, local governments continued to use it. One must conclude that the availability of the new tax

sources allowed the state to collect revenues at a lower cost. If this was not the case, state property tax would have increased as state expenditures went up.

28. While the rate of growth of local revenues between 1902 and 1932 was slower than for state governments, the rapid state growth rate resulted from the small size of state governments in 1902. The increase in the size of local government between 1902 and 1932 alone was larger than the entire size of state government in 1932.

29. I have focused on the highway detail, since it is possible that the automobile represented a new technology that required extensive state government involvement, and did not require expenditures from local governments. Such was not the case.

30. The 1932 numbers are affected by the depression. The federal grant programs had not started in 1932, and local governments were faced with heavy demands for social welfare expenditures as well as declining revenues because of tax delinquencies. This is why local expenditures for highways dropped between 1927 and 1932, and why 1932 is problematic for the discussion of highway expenditures.

31. The bulk of state grants to local governments in 1932 were for education, \$398 million, and for highways, \$229 million.

32. Education and highway expenditures account for 53 percent of local expenditure growth between 1902 and 1927.

33. It is not surprising that state expenditures for highways grew after 1913, the national government made matching grants for highway expenditures available in 1916.