



## Factors underlying the growth of local government in the 19th century United States

RANDALL G. HOLCOMBE<sup>1</sup> & DONALD J. LACOMBE<sup>2</sup>

<sup>1</sup>*Department of Economics, Florida State University, Tallahassee, FL 32306, U.S.A.; e-mail: holcombe@garnet.acns.fsu.edu;* <sup>2</sup>*Department of Economics, Ohio University, Athens, OH 45701, U.S.A.*

Accepted 28 June 2003

**Abstract.** Early in the 19th century local governments spent less than either the federal or state governments. By the end of the 19th century local governments spent more than the federal and state governments combined. This growth is obviously related to the growth of cities, but cities continued to grow in the 20th century, while the local government share of total government expenditures fell, so the growth of cities cannot be the complete answer. An examination of expenditures and revenues in two cities – Boston and Baltimore – suggests that no one component of expenditures was responsible for increases in total spending. Rather, it appears that the primary causal factor was revenue growth. Cities rely heavily on property taxes, and the increasing value of taxable property allowed cities to raise increasing amounts of revenue, leading to increased government spending.

### 1. Introduction

The 20th century literature on government growth focuses on growth at the federal level (or at all levels), because in the 20th century national governments grew faster than their subnational units, both in the United States and around the world. If, however, one looks at government growth in the 19th century United States, local governments grew far faster than the federal or state governments. Of course this was due to the growth of cities, but while cities continued to grow through the 20th century, federal government growth far-outstripped local government. In 1800 only 4.2% of the U.S. population lived in urban areas, while by 1900 urban population was 39.7% of total population, offering a ready explanation for the growth of local relative to federal and state government expenditures. These percentage figures probably even understate the growth of cities in the 19th century. Because of population growth, in 1800 the U.S. urban population was only 222,000, and reached 30.2 million by 1900. One manifestation of this growth in urban population was that by the beginning of the 20th century local government expenditures were more than federal and state government expenditures combined. However, by 1998 urban population was 80.1% of total population, and 217

million people, but local government expenditures were less than either federal or state government expenditures. Clearly, the growth of cities is not the entire answer to the growth of local government expenditures in the 19th century. This paper's goal is to shed some light on the phenomenon of local government growth in the 19th century by looking in detail at the growth of two local governments: the cities of Boston and Baltimore.

Twentieth century government growth has been studied extensively, but analysts have not arrived at a consensus regarding the underlying cause (or causes) of government growth. Peacock and Wiseman (1961) argue that government expenditures ratchet up in response to crises, but remain above their pre-crisis level after crises have passed. This ratchet explanation of government growth is supported by Ressler and Thompson (1985), and by Higgs (1987), who argues that a key causal factor in the 20th century government growth in the United States was a change in citizen ideology that occurred near the beginning of that century. Meltzer and Richard (1981) argue that democratic government grows because median income is less than average income, so the median voter in a democracy prefers larger government with more redistribution, and Peltzman (1980) uses a similar argument about democracy, redistribution, and government growth. The theme of Borchert (1977), an edited volume, is that bureaucratic incentives lead to growing government. In contrast, Baumol (1967) argues that government growth is a natural outgrowth of the fact that government activities are labor-intensive compared to private sector activities. As this overview on the literature on 20th century government growth suggests, not only is there no consensus on the underlying causes, but there are a number of conflicting explanations.

This introduction suggests a number of reasons for examining local government growth in the 19th century United States. First, government expenditures at all levels increased substantially in the 19th century, growing from \$2.10 per capita in 1820 to \$23.87 per capita (in constant 1914 dollars) by 1902. While the total is small by contemporary standards, that still represents an increase of more than 10 times in less than a century.<sup>1</sup> Second, while the 20th century saw more growth in federal expenditures than in government expenditures at other levels, 19th century government growth was dominated by local governments. In the United States, local government expenditures were 13.5% of total government expenditures at all levels in 1820, rose to 58.8% of total government expenditures by 1902, and continued their increase to peak at 64 percent of total government expenditures in 1913, the year the federal income tax was initiated.<sup>2</sup> In constant 1914 dollars, local governments spent only \$2.40 per resident in 1820, but \$21.39 per resident in 1870, just 50 years later. Clearly, this is a phenomenon worth studying. A third reason for examining local government growth in the 19th century is

that it may shed some light on the overall process of government growth. As the preceding summary of the literature showed, there is no consensus on the underlying causes of government growth, so an analysis of 19th century local government growth, which looks at an earlier time period and different level of government than is most often studied, may shed some light on the issue of government growth more generally.

## **2. The growth of local government expenditures**

While government expenditures at all levels rose during the 19th century, federal expenditures per capita were roughly 3.4 times larger in 1902 than in 1820, while local government expenditures were 43.3 times larger. Local government expenditures rose from 13.5% of total government expenditures in 1820 to 58.8% of the total in 1902, as calculated by Holcombe and Lacombe (2001). These figures clearly show that the growth of cities does not entirely explain the growth in local government expenditures. While 39.7% of the nation's population was urbanized in 1900, by 1998 the urban population was 80.1% of the total, but local expenditures had fallen to 23.6% of total government expenditures. As a percentage of government expenditures, local government expenditures were about the same as a percentage of total government expenditures in the 1990s as they were in the 1830s, even though only about 10% of the population was urbanized then.

One way to gain some insight on this local government growth is to examine local government revenues and expenditures in more detail, but statistics on 19th century local government expenditures are not readily available, and are less than comprehensive. While some studies have tried looking at aggregate local expenditures with what little data are available,<sup>3</sup> this paper uses data from two cities to provide some insight into the nature of 19th century local government growth. Hollander (1899) provides extensive data on government revenues and expenditures in Baltimore during the 19th century, and Huse (1916) provides data on Boston. The next several sections use that data to provide a more complete picture of city government growth in the 19th century.

## **3. Expenditures in Boston**

Table 1 summarizes expenditure data for the City of Boston from the 1820s through the first decade of the 20th century. Data is from Huse (1916), who has an appendix with extensive annual data on revenues and expenditures. Table 1 gives average per capita expenditures over ten year periods, calculated

Table 1. Ten-year average of per-capita government expenditures for the City of Boston

	1820– 1830	1830– 1840	1840– 1850	1850– 1860	1860– 1870	1870– 1880	1880– 1890	1890– 1900	1900– 1908
General									
government	.54	.79	.75	.91	.89	1.21	1.71	2.66	2.96
Police	.17	.32	.66	1.31	1.51	2.34	2.83	3.39	3.37
Fire	.20	.36	.52	.70	.71	1.86	1.97	2.68	2.47
Institutions	.69	.70	1.00	1.73	2.21	2.44	2.84	3.56	3.12
Public									
grounds	.14	.15	.16	.23	.34	.65	1.90	3.00	1.98
Streets, sewers, etc.	2.28	2.49	2.87	5.86	6.17	14.61	10.48	14.76	15.82
Library	0	0	0	.39	.14	.40	.56	.96	.59
Schools	1.02	1.22	2.18	2.76	3.17	5.31	5.14	6.50	8.20
Water	0	0	4.12	3.25	3.09	5.88	5.17	5.89	4.88
County of									
Suffolk	.55	.53	.58	1.15	.77	.97	1.94	2.55	2.63
Rapid transit	0	0	0	0	0	0	0	1.25	2.57
Miscellaneous	.14	.19	.40	.64	1.36	.41	.37	.38	.87

by taking the annual data in Huse (1916) and dividing by population<sup>4</sup> to get per capita expenditures, and then adjusting for inflation using price level data from *Historical Statistics* to put the data in real terms. The annual real per capita data are then averaged over the decade to give the data in Table 1. The increases in particular categories are interesting, but the most noticeable thing about the data is the substantial increase in total per capita expenditures over the 19th century.

To see how expenditure categories changed relative to each other, Figure 1 shows the categories in Table 1 as a percentage of total expenditures. What is so striking about this way of looking at the data is how constant individual categories remained over a period of many decades when Boston was growing substantially, and when cities in general were changing at a rapid pace. The category “Streets, Sewers, etc.” is always the largest, and hovers around 30% of total expenditures, followed by “Schools” and “Water”, which each make up about 15% of total expenditures for decades.

Figure 1 shows how relatively constant different components of expenditures were over a period of nearly a century. After Boston began its water utility in the 1830s, the three largest components of the budget barely changed

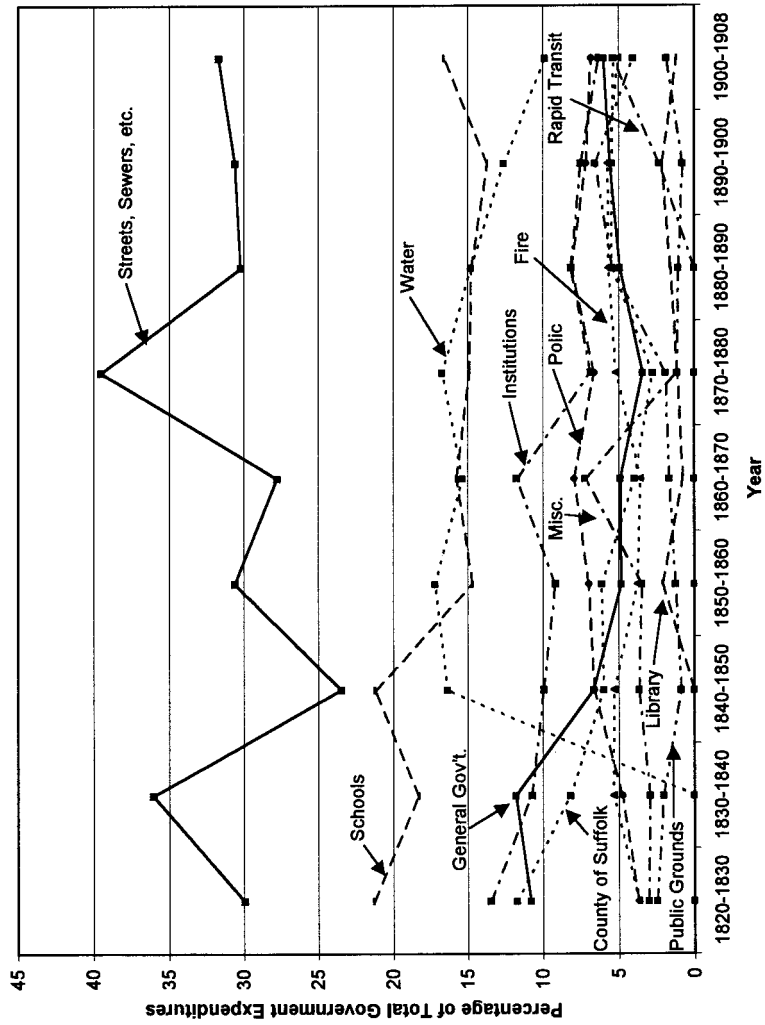


Figure 1. Boston real per capita expenditures as a percentage of total expenditures for selected categories.

relative to each other. The series at the bottom of Figure 1 are difficult to distinguish, but that is because they all make up small percentages of the budget. After 1840 only one category ever is above 10% of the budget, and most remain below 5%. If one is looking for a smoking gun to explain the growth of expenditures in the City of Boston, these data do not provide any such evidence.

In looking for causes of government growth, the fact that no one element of government expenditures stands out as a causal factor driving growth may be significant. Consider, in contrast, federal government expenditures in the 20th century. There were substantial changes in the components of federal expenditures as New Deal programs began in the 1930s, military expenditures increased in response to wars (including the Cold War) in the 1950s and 1960s, and transfer expenditures – most notably, Social Security – increased in the last few decades of the century. By contrast, one cannot point to any of the individual components of Boston city expenditures as being the cause of increased expenditures. In the aggregate, expenditures grew substantially over the decades, but all components increased at remarkably close rates, leaving their relative positions approximately unchanged.

#### **4. Expenditures in Baltimore**

An examination of city government expenditures in Baltimore tells a similar story. Table 2 shows real per capita Baltimore city expenditures in various categories every five years from 1820 to 1895. The data are in slightly different form from the Boston expenditures, but tell the same story. After adjusting for inflation and population growth, there was a huge increase in real per capita expenditures in all categories. In 1820 Baltimore was spending a total of \$1.53 per person. By 1895 expenditures had risen to \$11.98 per person. Table 2 shows that expenditures rose substantially in all categories.

Figure 2 shows these expenditures calculated as a percentage of total expenditures. The percentage breakdown shows some changes in the categories. Most notably, streets and bridges accounted for 31.1% of the total in 1820, and declined to 14.5% by 1895. The decline was not uniform, however, and some years (1835, 1850, 1890) show spikes, while other years are substantially lower. That should not be surprising for capital expenditures, however. Markets, wharves, and harbor expenditures continually decline as a percentage of the total, as do court expenditures. The really remarkable thing about these expenditure categories, though, is that no one category grows substantially faster than the others over this whole 75 year period. As with Boston, there was a substantial growth in per capita government expenditures overall,

Table 2. Baltimore real per capita government expenditures for selected categories, 1820–1895

	Street paving & repairing sewers, bridges, street reconstruc- tion, street cleaning	Interest on debt principal of debt sinking fund	Fire	Water	Health	Markets, wharves, harbor	Courts	Schools
1820	.44	.43	.05	.05	.09	.21	.15	0
1825	.25	.50	.07	.05	.04	.30	.18	0
1830	.33	.48	.05	.01	.04	.28	.29	.05
1835	1.63	.58	.18	.11	.09	.47	.40	.07
1840	.48	2.10	.08	.07	.09	.21	.27	.18
1845	.52	2.54	.11	.05	.04	.25	.27	.24
1850	.76	2.25	.11	.13	.07	.34	.32	.33
1855	1.80	3.25	.17	.44	.09	.61	.42	.50
1860	.81	3.93	.72	3.70	.07	.33	.67	.87
1865	.59	2.56	.25	1.47	.07	.32	.35	.64
1870	1.81	4.06	.41	2.15	.17	1.12	.57	1.75
1875	2.25	4.84	.53	1.65	.87	.77	.77	1.75
1880	1.82	5.19	.59	2.90	.77	.40	.59	1.93
1885	1.90	4.33	.60	1.88	.22	.40	.48	2.19
1890	3.84	3.26	.81	2.33	.24	.23	.38	3.00
1895	1.78	3.71	1.15	1.53	.28	.23	.52	3.06

but there are no particular expenditure categories that appear responsible for the overall expenditure growth in Baltimore.

Debt-related expenditures peak at more than 60% of total expenditures in the 1840s, and streets and bridges are more than 40% in 1835. Other than that, no single category rises above 30% of total expenditures, and most of the categories stay below 20%. Keeping in mind that Figure 2 shows a 75-year history of expenditures, the categories as a share of the total appear remarkably constant. Streets and bridges are always toward the upper end, and water shows a peak at mid-century and remains one of the higher categories. Schools show the clearest trend, starting at zero, and climbing steadily to make up 25% of total city expenditures by 1895. One would expect for

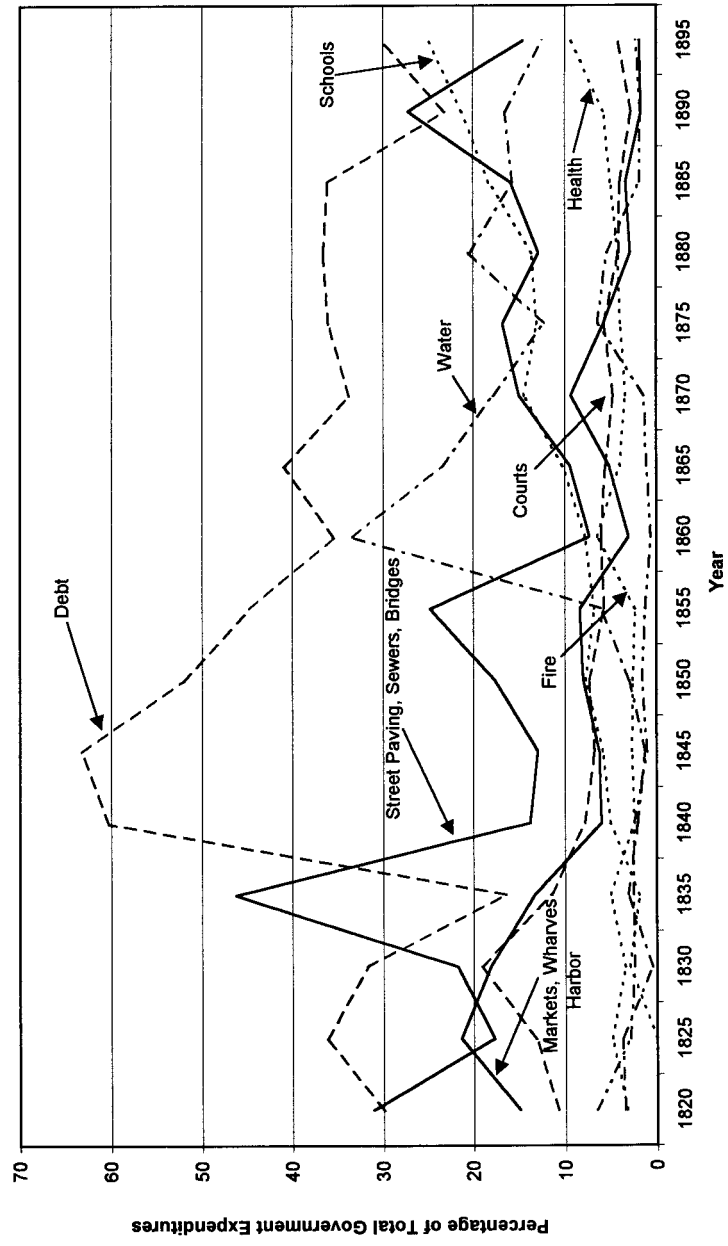


Figure 2. Baltimore real per capita expenditures as a percentage of total expenditures for selected categories 1820–1895

there to be changes over three-quarters of a century, but no one expenditure category (or group of expenditure categories) stands out as the one that caused the substantial increase in total expenditures. All categories increased substantially.

## 5. Revenues

Figures 3 and 4 show Boston and Baltimore revenues broken down by source for the same period of 1820-1895. While the examination of expenditures did not show any one category being responsible for the overall rise in expenditures, an examination of revenues shows that property taxes were responsible for almost all of the increase in revenues. For Boston, the historical tables in Huse (1916) that are the source of this data do not break down taxes into their component categories for each year. However, in the text, Huse does give some breakdowns. For example, Huse (1916: 207) gives dollar figures for the components of taxes which, when converted to percentages, show that property taxes in 1886 made up more than 90% of Boston's total tax revenues. The next largest category was the city's corporation tax, which raised 6.4% of total tax revenues, followed by its bank tax, which raised 2.1% of revenues. The city also received tax revenues from its poll tax and from a tax on ships engaged in foreign trade. Huse discusses Boston's tax structure throughout the volume, and property taxes are always by far the dominant source of tax revenue.

The dominant role of property taxes is even more clear in the case of Baltimore, where Hollander (1899) lists property taxes as a separate category. Figure 4 shows that property taxes grow far faster than any other revenue category, and make up an overwhelming share of total revenues. Property taxes are over \$10 per capita, with fees being the next-largest source of revenues at about \$1 per capita. All other sources were negligible when compared to property taxes.

When one looks at the expenditures side of the budget, there is no one category that stands out as one that is driving the upward trend of expenditures, but when one looks at the revenue side of the budget, it is clear that most of the revenue growth was in property taxes. Looking at this evidence, one can make the argument that the growth in city government expenditures in Boston and Baltimore was due to an increase in the supply of funding available through property taxes, rather than because of an increase in the demand for some specific government goods or services. The argument is that there were locational advantages to being in the city, which were capitalized into property values. The cities were able to capture some of this locational rent through property tax assessments, and they took advantage of this ability

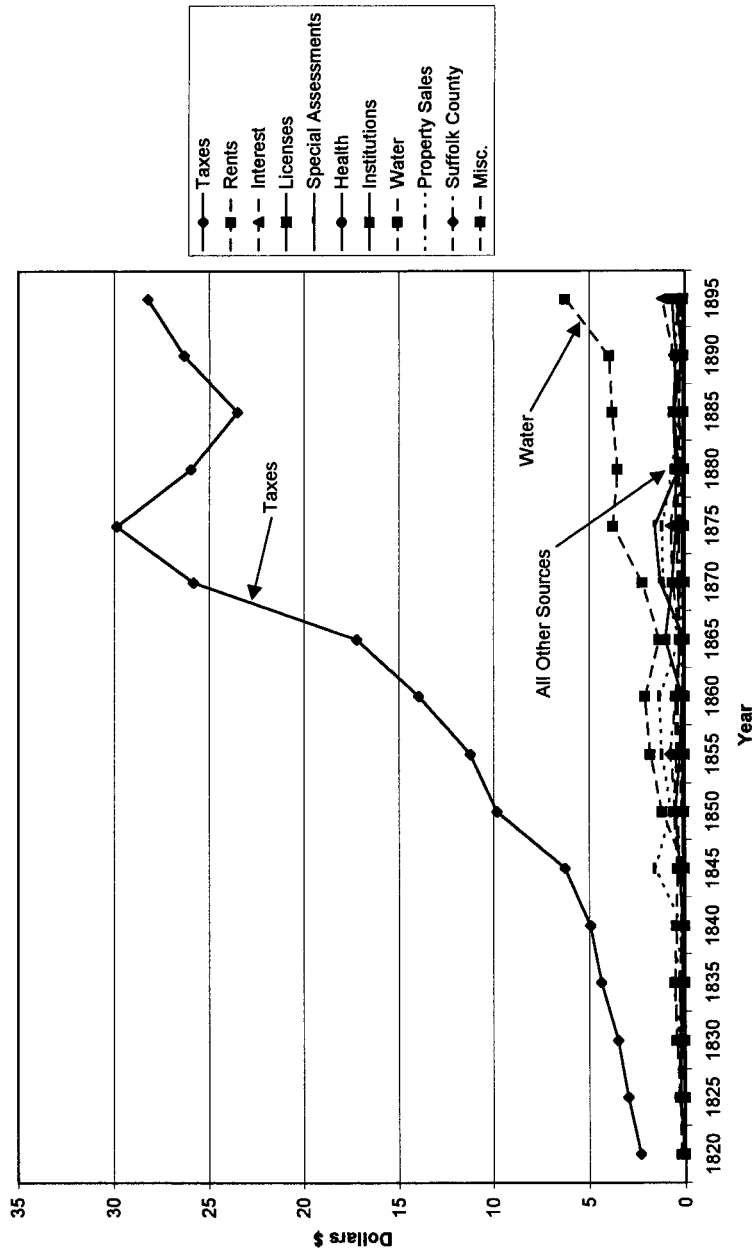


Figure 3. Boston real per capita revenues for selected categories 1820–1895

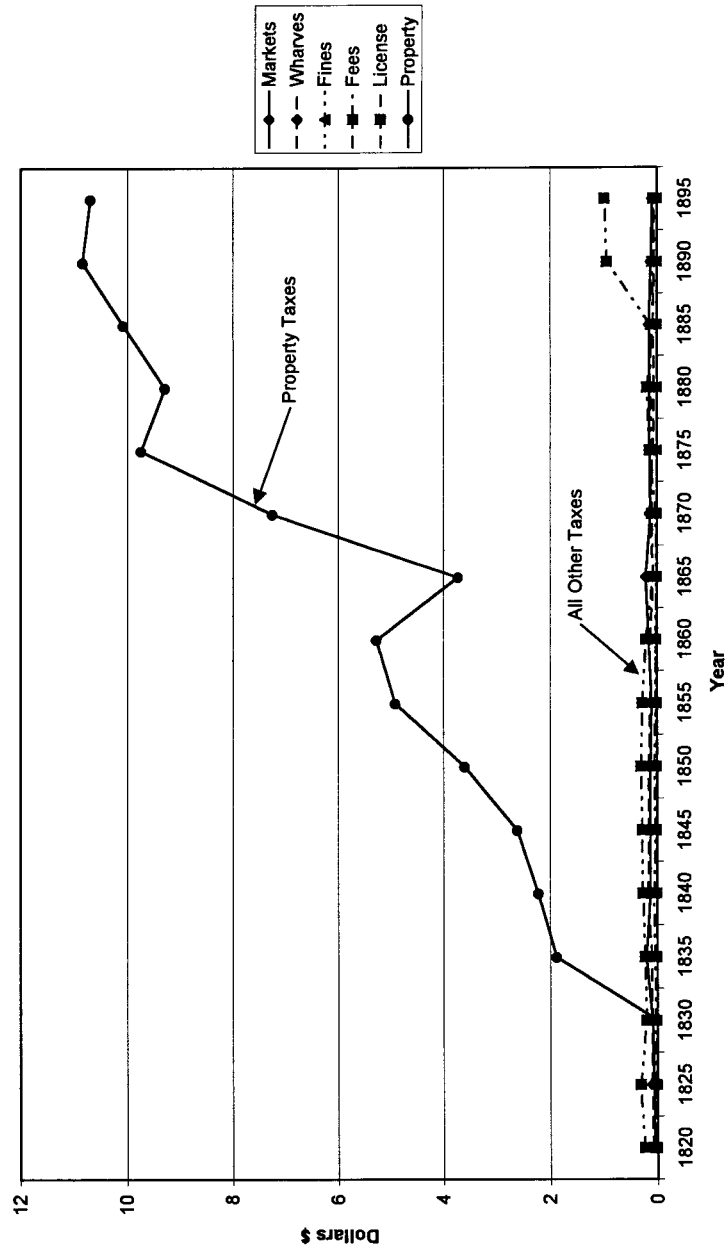


Figure 4. Baltimore real per capita revenues for selected categories 1820–1895

by increasing their tax take from the citizens. It was the supply of revenues through a growth in the tax base that led to the expansion of city government.

Looking at the evidence from Boston and Baltimore, a case can be made that the growth in city government expenditures in the 19th century was driven by the growth in sources of tax revenue to fund growth, rather than from the demand side. While the evidence points that way, it is ambiguous enough that it cannot be called proof.

## **6. Boston compared to Baltimore**

Both Boston and Baltimore had budgets that were always very close to balanced during the whole period, so the trend in total spending is almost identical to the trend in total revenue for each city, despite some borrowing by both cities (discussed further below). However, Boston spent more per capita than Baltimore for the entire period, and the gap between Boston and Baltimore widened during the period. Table 3 lists real per capita total revenues for Boston and Baltimore from 1820 to 1895, along with the ratio of Boston to Baltimore's total revenues for that period. The substantial growth is apparent for both cities, but Boston's revenues, increasing from \$2.92 per capita to \$46.04 per capita, were 15.8 times higher in 1895 than in 1820, while Baltimore's revenues, which rose from \$2.27 to \$18.36 during the same period, were only 8.1 times larger. Both cities experienced substantial growth in real per capita revenues, but Boston's growth was much higher.

In 1820 Boston raised 1.39 times as much revenue as Baltimore (and because both cities came close to balancing their budgets every year, Boston also had about that much more in expenditures). By 1850 Boston was raising more than three times as much revenue per capita than Baltimore, having increased its per capita revenues from \$2.62 in 1820 to \$13.82 just 30 years later. Baltimore closed the gap in the 1850s, lowering the ratio to 1.55 by 1860, but then Baltimore's revenues per capita stagnated, increasing only 22% from 1860 to 1895, while Boston's per capita revenues increased by 214% during that same period.

City governments were growing substantially during this period for a number of reasons, including technological factors which would affect items like roads and waterworks, social factors, which would affect items like police and education expenditures, and the private sector economic growth that attracted workers to cities.<sup>5</sup> Those factors might explain why city expenditures saw such substantial growth over the period, but they should have affected Boston and Baltimore in about the same ways. Thus, it is interesting to note how differently, overall, per capita revenues two cities grew. Boston grew much faster than Baltimore from 1820 to 1850, then Baltimore closed the

Table 3. Baltimore and Boston real per capita total revenues, 1820–1895

Year	Boston	Baltimore	Boston/ Baltimore
1820	\$2.92	\$2.27	1.29
1825	\$4.88	\$2.52	1.94
1830	\$5.68	\$3.87	1.47
1835	\$7.11	\$4.55	1.56
1840	\$6.89	\$4.12	1.67
1845	\$10.25	\$5.08	2.02
1850	\$15.42	\$5.52	2.79
1855	\$18.63	\$10.26	1.81
1860	\$21.56	\$15.01	1.44
1865	\$23.31	\$10.48	2.22
1870	\$37.43	\$16.24	2.31
1875	\$44.50	\$20.06	2.22
1880	\$37.17	\$18.36	2.02
1885	\$35.54	\$18.04	1.97
1890	\$40.11	\$18.94	2.11
1895	\$46.04	\$18.36	2.51

gap substantially in the 1850s, and then Boston had substantial per capita revenue growth from 1865 to 1895 while Baltimore barely grew in terms of per capita revenue from 1860 to 1895. But Hollander (1899: 253) notes, “After the taxable basis had become practically inelastic, and the tax rate has reached oppressive proportions, an effective check was put upon municipal spending”. Hollander’s observation on Baltimore’s revenues is in line with the conjecture that it was revenue availability, rather than spending demands, that caused the growth in government expenditures. In 1877 Baltimore began taxing personal property (Hollander 1899: 384) to try to generate more revenue, but Baltimore’s total tax base still did not grow like Boston’s, keeping Baltimore’s expenditure level lower.

The populations of Boston and Baltimore were close to each other over this whole period, and especially close at the end of the period. Boston’s population in 1895 was 495,691 while Baltimore’s was 480,953, so there was less than a 3% difference in the sizes of those cities. Both cities had tremendous growth over the 75-year period, with Boston ending with a population more than 10 times larger than at the beginning of the period, and Baltimore seeing its population grow by more than seven times. Boston’s population

was 43,298 in 1820, and Baltimore's was 62,738, but by 1840 they were very close, with Boston's population at 98,383 and Baltimore's at 102,313. While Baltimore was larger in 1820, Boston had almost caught up by 1840. By 1875 the two cities' populations were almost identical, as they were 20 years later in 1895. One point of looking at the cities' populations is to see that they were very close throughout the whole period, so it would be difficult to explain the differences in their expenditure levels as the result of population differences. Also, their populations grew at about the same rate throughout the period, so it would be difficult to explain the differences as resulting from differential population growth rates.

Boston always spent more than Baltimore per capita, but how much more varied considerably over this 75-year period. In 1820 Boston spent about 40% more per capita than Baltimore. By 1850 Boston spent more than three times as much per capita, but by 1860 Boston's expenditures relative to Baltimore's were only 55% greater. By 1895 the difference had grown again and Boston was spending 2.7 times as much per capita as Baltimore. What accounts for not only the differences in spending levels, but also the changes in the relative magnitudes of the differences? Again, the evidence suggests that the differences are the result of differences in revenue availability rather than differences in the demand for government services.

## **7. Collective choice in Boston and Baltimore**

Table 3 shows that in 1820 Boston spent only \$2.92 per capita, but that amount more than doubled by 1830 to \$5.68 per capita. This substantial increase in expenditures came along with a significant change in the type of government in Boston. Until 1821, all important business of the city, including the election of city officers, the passing of laws, and voting on the budget, was done in town meetings in which all voters could participate (Huse 1916: 5). This system worked well when Boston was a small town, but the eligible voting population had grown to about 7,000 by 1820, and participatory democracy became increasingly cumbersome. In 1822 Boston voters approved a city charter which, while it did not give the city government any more power, allowed decisions to be made by the city's mayor and Board of Aldermen, taking away some direct citizen control over the city's activities. Along with the loss of citizen oversight, and perhaps because of it, Boston saw "a steady rise in both the amount raised by taxation and the tax rate" (Huse 1916: 37) after 1830.

Huse (1916: 36) notes that expenditures rose more rapidly than taxes in the 1820s, and "the city government was becoming acquainted with the convenience of the loan, and gladly kept down the tax rate". Huse concludes

that the city should have raised taxes sooner to pay for the increased expenditures, but another possibility is that, freed from the direct oversight of town meetings, the city government found it easier to increase spending – always a popular measure – without increasing taxes to pay for that spending. Perhaps the institutional changes in Boston at the beginning of this substantial expansion in government expenditures reduced the constraints on government expenditures, creating the opportunity for budget-maximizing bureaucrats of the type described by Niskanen (1971) the opportunity to increase Boston's government expenditures.

Different types of institutional changes affected the fiscal policies of Baltimore. From 1792 to 1816 the Maryland legislature had imposed maximum tax levies on cities, so that the Baltimore's revenues could grow only along with the tax base (Hollander 1899: 73). After 1817, when the restriction was removed, Hollander (1899: 130) notes that “[t]he growing demands of the municipal budget were thus borne almost entirely by the direct taxation of general property”. Thus, in both Boston and Baltimore there were significant institutional changes around 1820 that facilitated increased taxation and expenditures.

Data are not available prior to these changes to enable one to see whether the political changes may have led to revenue and expenditure changes, but note that in 1820 expenditures in both Boston and Baltimore were less than \$3 per capita. By 1835, 15 years later, expenditures had more than doubled in both cities, so there is some indication that these data begin at a point where local government expenditures began to accelerate. In both cities, institutional changes of different sorts were made around this time that would facilitate the expansion of government expenditures. In Boston it was a change in the form of government, while in Baltimore it was the elimination of a restriction on tax rates imposed by the state.

## **8. Conclusion**

When looking at the evidence from Boston and Baltimore, it appears that the growth in local government expenditures in the 19th century was driven more by an increase in the supply of revenues, in the form of increases in the property tax base, than by an increase in the demand for services. As locational rents made urban living more attractive, property values rose, and local governments were able to capture some of this increase in value by taxing their residents. Property tax revenues were by far the greatest source of revenues to local governments. Meanwhile, looking at the provision of government services over this 75-year period, the composition of services remained remarkably constant, indicating that there was no one area of expenditure that

drove the demand for government services. Government growth was driven primarily by revenue availability rather than service demand.

Another possibility is that there are diseconomies of scale in local government, pushing up costs as population expanded in both Boston and Baltimore. There are several reasons to question this, however. First, Holcombe and Lacombe (2001), using data from city expenditures during this time, find that city expenditures per capita were roughly constant across cities of different sizes, suggesting constant returns to scale. Second, toward the latter part of the century, per capita expenditures in Boston increased significantly more rapidly than in Baltimore even though population growth was approximately the same in both cities, suggesting something other than economies of scale in the provision of city services. Third, both cities had significant improvements in public works that appeared to be constrained only by the availability of tax revenue.

This argument that government growth in these cities was driven by the availability of tax revenues is not meant to imply that government services were not substantially upgraded as a result of the massive increase in expenditures over this time period. Particularly in areas of water supply and sewerage treatment, cities made great strides in infrastructure provision that was largely invisible, because it was underground, yet allowed more people to live in a healthier environment, as Blake (1956) and Melosi (2000) describe in detail. Without these changes that made urban living more sanitary and therefore more healthy, city growth would undoubtedly have been slower in the 19th century. Yet expenditure data do not show an increased emphasis in these areas; in Boston the major categories remain remarkably constant as a percentage of the total, and in Baltimore education is the expenditure category that shows the most substantial increase. Cities did produce output beneficial to its citizens, and especially in areas of sanitation and public health improved their well-being, but an examination of these city budgets indicates that the primary influence on the level of expenditures was not the demand for services but the availability of revenues.

Economists have offered a number of explanations for government growth, mostly with reference to the substantial growth in the expenditures of national governments in the 20th century. The data presented here appear consistent with public choice explanations of government growth, such as Niskanen (1971), Borchering (1977), and Brennan and Buchanan (1980), who suggest that governments maximize their budgets or revenues subject to political and economic constraints. The data do not offer support for the ratchets theory of government growth, discussed by Peacock and Wiseman (1961), Rassler and Thompson (1985), and Higgs (1987), because substantial government growth occurred continuously, and without crises to which

the government responded. Demand-based theories, such as Baumol (1967) also receive no support from the data, because government seems to expand relatively equally in all areas, from infrastructure, which may be demand-induced as a city grows, to education, which would seem to have little relation to city growth. As increased revenue became available, expenditures in all areas went up. Demand-based theories such as those of Peltzman (1980) and Meltzer and Richard (1981), which posit that government grows because democracy allows people to vote themselves benefits paid for by tax revenue, are more consistent with the data, in that it does appear that local government growth is driven by revenue availability.

Higgs (1987) conjectures that a change in citizen ideology toward the end of the 19th century led to more rapid government growth, but this does not explain why local government grew so much in the 19th century relative to the federal government, while the federal government grew so much in the 20th century relative to local government. As Wallis (1984) notes, part of the federal government's growth in the 1930s emanated from the failure of city finances during the Depression, relating the growth of the federal government – and the stagnation of local government – to revenue availability. The local government tax base grew more in the 19th century because of the growth in the property tax base, while the federal government's tax base grew more in the 20th, due to changes in the structure of the labor market that made it more feasible to tax incomes.

If one wants to explain government growth, any explanation must be consistent with events over different time periods and over different levels of government. The fact that the federal government grew little in the 19th century, and grew more during the 20th, while local governments, which did grow during the 20th century, had relatively more growth in the 19th, is consistent with the accessibility of tax bases at both levels. The growth of city property tax bases in the 19th century allowed them to increase their expenditures, while the shift from agricultural employment and smaller employers to larger employers made the 20th century income tax feasible, allowing the federal government to grow in the 20th century. This analysis suggests that a better understanding of local government growth during the 19th century can lend insight not only into the events of that century, but also into the substantial growth of government in the 20th century.

The conclusions offered here are necessarily tentative, because data is limited, and because no hypotheses were tested in any formal sense. Yet within the context of the literature on government growth, the data do appear to support some hypotheses about government growth more than others, and the paper does offer further analysis on the growth of local government in the 19th century – a topic that has been studied relatively little despite its

relevance to both the history of economic development in the 19th century and the study of government in the 20th. When this analysis of local government growth in 19th century Boston and Baltimore is placed within the context of the literature on government growth, the data appear most consistent with the hypothesis that governments maximize their budgets and revenues, and the extraordinary growth of local governments in the 19th century appears to be caused mostly by the increased availability of revenues because of a growing property tax base.

## Notes

1. Data in this paragraph is from Holcombe and Lacombe (2001).
2. Wallis (1984) and Holcombe (1996) discuss changes in the federal government early in the 20th century that led to federal expenditures overtaking local.
3. See Davis and Legler (1966) and Legler, Sylla, and Wallis (1988) for earlier studies on this subject. Those studies did not use comprehensive data, and went back only to 1880 and 1850, respectively. An Inter-university Consortium for Political and Social Research (ICPSR) database developed by Sylla, Legler, and Wallis (1995) has some data for both city and county government budget in the 1800s, but there are few observations, especially in the early part of the century, and sometimes the data appear incomplete. Holcombe and Lacombe (2001) uses this ICPSR data to try to estimate local government expenditures.
4. Population is taken from the U.S. census for census years, and interpolated to estimate population in non-census years.
5. Monkkonen (1995) notes that local governments often borrowed to help finance private investment, especially in railroads that would bring commerce to them. See also Studenski and Krooss (1952: 134), who report that in the 1830s the city of Baltimore lent more than \$4 million to railroad and canal companies.

## References

- Baumol, W.J. (1967). The macroeconomics of unbalanced growth. *American Economic Review* 57: 415–426.
- Blake, N.M. (1956). *Water for the cities: A history of the urban water supply problem in the United States*. Syracuse, NY: Syracuse University Press.
- Borcherding, T.E. (Ed.) (1977). *Budgets and bureaucrats: The sources of government growth*. Durham, NC: Duke University Press.
- Brennan, G. and Buchanan, J.M. (1980). *The power to tax: Analytical foundations of a fiscal constitution*. Cambridge: Cambridge University Press.
- Davis, L.E. and Legler, J. (1966). Government in the American economy, 1815–1902: A quantitative study. *Journal of Economic History* 26: 514–552.
- Higgs, R. (1987). *Crisis and Leviathan: Critical episodes of the growth of American government*. New York: Oxford University Press.
- Holcombe, R.G. (1996). The growth of the federal government in the 1920s. *Cato Journal* 16: 175–199.

- Holcombe, R.G. and Lacombe, D.J. (2001). The growth of local government in the United States from 1820 to 1870. *Journal of Economic History* 61: 184–189.
- Hollander, J.H. (1899). *The financial history of Baltimore*. Baltimore: Johns Hopkins Press. Reprint: New York: AMS Press, 1982.
- Huse, C.P. (1916). *The financial history of Boston from May 1, 1822, to January 31, 1909*. Cambridge: Harvard University Press.
- Legler, J.B., Sylla, R. and Wallis, J.J. (1988). U.S. city finances and the growth of government, 1850–1902. *Journal of Economic History* 48: 347–356.
- Melosi, M.V. (2000). *The sanitary city: Urban infrastructure in America from colonial times to the present*. Baltimore: Johns Hopkins University Press.
- Meltzer, A.H. and Richard, S.F. (1981). A rational theory of the size of government. *Journal of Political Economy* 89: 914–927.
- Monkkonen, E.H. (1995). *The local state: Public money and American cities*. Stanford, CA: Stanford University Press.
- Niskanen, W.A. (1971). *Bureaucracy and representative government*. Chicago: Aldine-Atherton.
- Peacock, A.T. and Wiseman, J. (1961). *The growth of government expenditures in the United Kingdom*. Princeton: Princeton University Press.
- Peltzman, S. (1980). The growth of government. *Journal of Law & Economics* 23: 209–287.
- Rassler, K.A. and Thompson, W.R. (1985). War making and state making: Government expenditures, tax revenues, and global wars. *American Political Science Review* 79: 491–507.
- Studenski, P. and Krooss, H.E. (1952). *Financial history of the United States*. New York: McGraw-Hill.
- Sylla, R.E., Legler, J.B. and Wallis, J. (1995). *State and local government [United States]: Sources and uses of funds, city and county data, nineteenth century [Computer file]*. New York, NY: R.E. Sylla, New York University/Athens, GA: J.B. Legler, University of Georgia/College Park MD: J. Wallis, University of Maryland [producers], 1994. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].
- Wallis, J.J. (1984). The birth of the old federalism: Financing the new deal, 1932–1940. *Journal of Economic History* 44: 139–159.

