Do States Practice Benefit Taxation?

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July 27, 2009

Abstract

Two strong/testable predictions of the Tiebout model are that people will sort themselves according to demand for public goods and services and that jurisdictions will rely on benefit taxes to fund public goods and services. A casual look across the fifty states leaves doubt as to the veracity of these predictions; states appear to be characterized by wide distributions in income (and presumably tastes for public goods) and by reliance on ability-to-pay taxes. However, whether these "facts" are an indictment of the Tiebout model depends on whether the variance across residents in taxes paid is mirrored by a related variance in benefits received. If so, then the Tiebout model would seem to stand or at least potentially be consistent with the facts.

We hope to shed light on the question of whether taxes and benefits are linked within a given state as the Tiebout model predicts they should be. We will gather data on all 50 states over the past few decades. These data will be employed to portray broad trends over time, differences across the states, and, within each state, trends over time in tax burdens, tax mixes, tax structures, expenditure shares, and expenditure levels. We will look for links between certain types of expenditures (e.g., expenditures that disproportionately benefit the poor) and certain types of revenues (e.g., revenues that are disproportionately paid by the poor). This analysis will provide a detailed picture of the landscape that we hope will point to potential discrepancies or consistencies with the predictions of the Tiebout model.

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1 Benefit Taxation and the Tiebout Hypothesis

A taxpayer's net fiscal benefit is the difference between the value of public services she consumes and her tax burden. When net fiscal benefits for all taxpayers are zero, fiscal policy is aligned according to the benefit-principle. That is, benefit taxation matches a taxpayer's tax payments with the value of public services benefitting that taxpayer.¹

A taxpayer's net fiscal benefit varies across states because of across state variation in tax structure and the distribution of public expenditures. Net fiscal benefits will also vary across taxpayers within a state since taxpayers with different characteristics face different tax burdens and consume different amounts of public services.²

In the United States, the mobility of households and the democratic nature of state and local fiscal policy create suitable conditions for the existence of benefit finance. Household mobility encourages benefit finance because fiscal policies vary across jurisdictions and fiscal policies likely play at least some role in the location decision of households. Thus, households with similar demands for public services will tend to cluster together and households will avoid locations where taxes exceed benefits. If a taxpayer lives in a state where her net fiscal benefit is small or negative she may elect to move to another state where she receives a higher net fiscal benefit. For example, a state with high income taxes on the rich that spends disproportionately on the poor might create a situation where the poor enjoy positive net fiscal benefits while the rich have negative net fiscal benefits. This policy may attract poor residents from other states but it is likely to repel many of the state's own rich residents. If these migration patterns are substantial, the state may find itself unable to maintain poor residents' positive net fiscal benefits.³

Political forces also encourage benefit finance; voters are not expected to support a fiscal policy that leaves a majority receiving negative net fiscal benefits. A state's tax structure and its distribution of public expenditures are likely affected by the threat of exit and the use of voice through the political process. In the above example, the state's rich residents may use the threat of exit to alter the state's tax and expenditure mixtures to increase their own net fiscal benefits.

These twin forces of exit and voice exert the strongest tendency towards benefit finance when the costs and benefits of each public program are clear to taxpayers. Of course, it is difficult for anyone, let alone taxpayers, to accurately calculate the distribution of public service benefits across the population. Further, the general equilibrium nature of tax incidence makes the determination of the real economic burden of taxation extremely complicated. Regardless, taxpayers have the ability to respond to tax and expenditure policy according to how they perceive their own tax burden and public service benefits.

In some cases, it is relatively straightforward to determine tax burdens and public service benefits. Public schools charge fees for lunch, highways have tolls, and local gov-

¹This section draws heavily on Oates (1972), Tiebout (1956), and Musgrave (1959).

²Using Tax Foundation data from the 1960s, Aaron and McGuire (1970) and Hines (2000) measure for various income levels the size of net fiscal benefits from federal taxes and expenditures. Ruggles and O'Higgins (1981) calculates net fiscal benefits at both the federal and local (i.e., non-federal) level.

³See Brown and Oates (1987).

ernments require fees for trash collection. When these taxes do not align well with benefits most households can find alternative food sources, driving routes, and trash disposal mechanisms. Thus, the jurisdictions must charge a fee that seems reasonable to the constituent users of the service. Beyond explicit user charges, other revenue instruments such as gas taxes, hunting licenses, and arguably tobacco taxes attempt to roughly align tax burdens with the benefits of public service consumption and the variety of external costs imposed on society.

In most cases, however, the difficulties of accurately determining and understanding the distributions of tax burdens and public service benefits suggests that a general system of benefit finance is unlikely to be achieved. Further, while benefit finance appeals to some concepts of equity, the tax burdens implied by benefit finance may not correspond very well to other societal notions of fairness.

For reasons of fairness, the voters in a state may install a tax system based on ability-topay rather than the benefit principle. In these cases, instead of corresponding directly with benefits, tax payments would correspond with measures of ability-to-pay such as income and wealth. Thus, we might observe a progressive income tax, an estate tax, or a property tax. Because willingness to pay for public services and/or the public service benefits may increase with income, however, the existence of progressive taxation does not imply that tax payments are necessarily out of line with benefits.

Our question is purely positive: do states practice benefit taxation?

2 Conceptual Framework

State and local governments spend money on a wide range of goods and services; some of these goods and services are amenable to benefit-tax financing, while others are not. To finance these goods and services states and local governments raise money through a wide range of revenue instruments; some of these instruments can be designed as benefit taxes, while are others are difficult to tailor to beneficiaries. We propose categorizing state and local government expenditures and revenues along two dimensions.

First, revenues and expenditures are described according to beneficiary and taxpayer characteristics. On the expenditure side a particular public service can be rich-intensive, poor-intensive, or neutral, depending on whether the rich or poor benefit disproportionately. On the revenue side, the distribution of the burden of the tax or fee across people may be rich-intensive (i.e., progressive), poor intensive (i.e., regressive), or neutral.

Second, expenditures and revenues are described according to how well they align with benefit finance. An expenditure aligns with benefit-tax financing if it satisfies three conditions: a) it must be possible to identify the beneficiaries of the service being provided, b) taxing or charging a fee to the beneficiaries must not conflict with societal notions of fairness, and c) it must be administratively feasible to charge or tax people for the service being provided. A revenue instrument aligns with benefit-tax financing if it satisfies three conditions: a) it must be possible to tailor the tax to the group that benefits and tax payments must be highly correlated with benefits received, b) targeting the tax must not conflict with societal notions of fairness, and c) it must be administratively feasible to target the tax or charge to a particular group.

We use these categorizations to assess the nature and extent of the use of benefit-tax finance by states and to examine a number of hypotheses prefaced on the assumption that states, in fact, do practice benefit finance. Our method then is to examine whether the data regarding differences across states and changes over time in various categories of revenues and expenditures are consistent with predictions predicated on the assumption that states practice benefit taxation.

One difficulty in attempting to infer any causal patterns with these data is that the variables of interest are simultaneously determined. We propose to use court-ordered school finance reform, which occurred at different times in different states, as an exogenous shock that caused spending on K-12 education to become more poor-intensive. If Tiebout mechanisms are at work, we would expect to see changes in other categories of spending or in the revenue system to maintain next fiscal benefits, or we would expect to see changes in the composition of the population as people hurt by the change in K-12 spending move out of the state.

3 Trends in State and Local Revenues and Expenditures

In this section of the paper we will present basic facts separately on revenues and expenditures. We begin by examining national level aggregates and averages over the 44-year period from 1962 to 2006. The composition of state and local government revenues has changed dramatically over this period. The property tax has become relatively less important as a source of general revenue, while the general sales tax and the individual income tax have become relatively more important. The individual income tax is generally rich-intensive while the general sales tax is generally poor-intensive. Figure 1 displays the composition of general own source revenue for state and local governments in 1962 and 2006. General own source revenues includes all revenues except for intergovernmental, liquor, utility, and social insurance revenues. In 1962, property taxes represented 38% of revenues; in 2006, although still the largest revenue instrument, property taxes represented 21% of revenues. Individual income tax revenues represented 15% of revenues in 2006, up from 6% in 1962. Revenues from general sales taxes and "other" revenues both increased by 4 percentage points, from 12% to 16% and 14% to 18%, respectively. Beyond property taxes, selective sales tax revenues experienced the most dramatic decline in relative importance falling from 16% to 7% of revenues.

The composition of state and local direct general expenditures has also changed from 1962 to 2006. Direct general expenditures include all expenditures except for liquor, utility, social insurance, and intergovernmental expenditures. Figure 2 displays the composition of direct general expenditures for state and local governments in 1962 and 2006. The most striking increase occurs in the share of expenditures devoted to non-cash public

welfare, essentially representing Medicaid expenditures, which increases from 8% to 18% of expenditures. Both health and higher education expenditures exhibit small two percentage point increases in their share of expenditures, while "other" expenditures increased from 11% to 14%. The largest decreases occurred in the share of expenditures on K-12 education and highways with decreases of five and eleven percentage points, respectively. Thus, states appear to have increased their share of spending in a poor-intensive service (public welfare) and also on a relatively rich-intensive service (higher education). Tables 1 and 2 provide more summary statistics on revenue and expenditure shares.

Comparing 1962 real per-capita revenues and expenditures to their 2006 levels provides additional evidence on which categories exhibited the largest increases. Figure 3 shows that property taxes are the largest revenue source in both 1962 and 2006. Per-capita revenues from the general sales tax and the individual income tax represent two of the largest proportional increases. Real per-capita revenues from the individual income tax in 2006 are over eight times as large as they were in 1962, while 2006 revenues from general sales are over 4 times as large as their 1962 level. Charges for hospitals and education and miscellaneous revenues also exhibit large increases. Interest revenue and miscellaneous revenues not elsewhere classified (i.e., the Census does not define their source) make up more than 60% of miscellaneous revenues.

The largest proportional increases in real per-capita expenditure occur in the categories of higher education (\times 4), non-cash public welfare (\times 7), and police, fire and corrections (\times 4). Figure 4 shows the real per-capita expenditure levels in some major categories. Although its share of direct expenditures has declined, K-12 education expenditures remain the highest at \$1,675 per-capita in 2006. Tables 3 and 4 provide additional summary statistics on revenue and expenditure levels.

Not all states' changes in revenue and expenditure shares mirror those seen in the national aggregates. The next set of figures compares the shares of revenues and expenditures derived from specific categories in 2006 to their shares in 1962 and two periods in between. Figure 5 compares the property tax share in 1962 to the property tax share in 2006 for all 50 states. Points along the 45 degree line represent states that did not change their share from 1962 to 2006. This figure shows that from 1962 to 2006 the share of general own source revenues derived from property taxes declined in every single state. The subsequent two figures compare shares in 1962 and 1977 and 1977 and 2006, demonstrating that the relative decline in the property tax share occurs throughout the entire period. 1977 marks the last year before Proposition 13 passes in California and the "tax revolt" begins.

Over the years 1962 to 2006 the individual income tax share increases by substantial amounts in nearly every state. Figures 8-10 demonstrate that the increase in the individual income tax share is most widespread from 1962 to 1977, with increases less widespread and more modest from 1977 to 2006. The widespread increased importance of the income tax is one of the clearest results from our analysis.

Figures 11 - 13 show that from 1962 to 2006 there is a similar but less widespread increase in the relative importance of the general sales tax. Here again the share increases are more widespread from 1962 to 1977, with many states decreasing the general sales tax share from 1977 to 2006.

In 1962 selective sales taxes were the second largest state and local revenue source in the United States (see Figure 1). By 2006 they had declined to the sixth most important, their national share falling by more than 50%. Figure 14 demonstrates that this decline occurred in all states over almost the entire 44 year period.

Figure 15 compares the revenues shares of total charges and various types of charges over the period. From 1962 to 2006 charges increased in relative importance in all but two states (CT and AK). The changes in the revenue shares of the three categories of charges examined here (education, hospital, and other), however, are more mixed across states.

Higher education and non-cash public welfare experience the most widespread increases in expenditure shares from 1962 to 2006. Figures 16 - 18 show that nearly every state increased its higher education share from 1962 to 2006. This increase, however, is concentrated in the period from 1962 to 1977, with a majority of states keeping shares relatively constant or declining after 1977.

Figures 19 - 21 demonstrate that the increases in the non-cash public welfare share are similarly widespread and, in contrast with higher education, the share increases occur in both periods, 1962-1977 and 1977-2006. Figure 22 presents the same figures for K12 education with the K-12 education share declining in most states.

In many ways, states' revenue and expenditure mixes have become more similar during this period. Columns (1) - (4) in Table 5 display the across state coefficient of variation for expenditure and revenue shares in 1962, 1977, 1992, and 2006. Columns (5), (6), and (7) show the change in the coefficient of variation from 1962-1977, 1977-1992, and 1962-2006, respectively. As column (7) indicates, states have become much more similar in terms of their individual income tax share with the coefficient of variation falling 0.31 points, from 0.66 to 0.35. States have also become more similar in the general sales tax and miscellaneous revenue shares. The share of state expenditures on health have become more dissimilar, while public welfare and higher education expenditure shares have become more similar across states. Property tax revenue shares and K-12 expenditure shares do not demonstrate any convergence or divergence across states.

As noted above, the most noticeable changes in revenue and expenditure shares occur in the individual income tax, general sales tax, higher education, and non-cash public welfare. The next section further examines revenues and expenditures in these categories.

4 Do States Practice Benefit Taxation?

In this section we examine whether differences across states and changes over time in various categories of revenues and expenditures are consistent with predictions predicated on the assumption that states practice benefit taxation. We begin by examining simple correlations between revenues and expenditures.

Expenditures on higher education are sometimes characterized as rich-intensive expenditures. The income tax is generally a rich-intensive tax. If forces conducive to benefit taxation exist, we might expect states that increase expenditures on higher education to pay for those expenditures with an increased reliance on individual income taxes. Figure 23 shows a positive correlation between the percentage change from 1962 to 2006 in real per-capita expenditures on higher education and real per-capita individual income tax revenues. Figure 24 shows the same positive correlation for percentage changes from 1977 to 2006.

Expenditures on non-cash public welfare are poor-intensive. If a state wanted to keep net fiscal benefits roughly constant, increases in public welfare expenditures should not coincide with increase in rich-intensive taxes like the income tax. Figure 25 shows that, from 1962 to 2006, there is a negative correlation between percentage changes in real percapita public welfare expenditures and percentage changes in real percapita public welfare expenditures positive, however, when examining only the period 1977 to 2006 (Figure 26).

As expected, increases in real per-capita personal income are positively correlated with increase in real per-capita income tax revenues, as shown in Figures 27 and 28.

The main poor-intensive source of state and local tax revenue is the general sales tax. In order to keep net fiscal benefits roughly constant, states expanding poor-intensive expenditures might increase general sales taxes. Figures 29 and 30 demonstrate that no such positive relationship exists for public welfare and general sales tax revenues; in fact the relationship between the two is negative from 1962 to 2006.

Figures 31 and 32 show a negligibly positive correlation between changes in higher education expenditures and general sales tax revenues. This is contrary to what is expected if, all else equal, states were attempting to roughly maintain net fiscal benefits as they increased higher education expenditures. Of course, as is the case with all the expenditurerevenue pairs we examine, it is possible that rather than trying to maintain net fiscal benefits across the population, states were attempting to realign them.

Changes in personal income are positively correlated with changes in general sales tax revenues (Figure 33) and higher education expenditures (Figure 35), but are essentially uncorrelated with changes in public welfare expenditures (Figure 38).

As noted above, we hope to use court-mandated changes in K-12 education spending as an exogenous increase in poor-intensive expenditures. Figures 39 - 42 display correlations between percentage changes in K-12 spending and percentage changes in general sales tax revenues and income tax revenues. K-12 spending is positively correlated with both income tax revenues and general sales tax revenues, which is not surprising since the distribution of the benefits of general K-12 spending is not clearly rich- or poor-intensive.

Of course, beyond increases in tax revenues there are also changes in tax structure. A primary example is the changing structure of the income tax in many states. The NBER's Taxsim program allows us to calculate the average state tax rate at different levels of real income from 1977 to 2006. Both the progressivity and the general level of income tax rates have changed within many states. Figures 43 - 45 provide comparisons of the average tax rate schedule for several states for 1977 and 2006.

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Figure 1: U.S. Revenue Mix



Figure 2: U.S. Expenditure Mix



Figure 3: U.S. (Major) Revenues



Figure 4: U.S. (Major) Expenditures



Figure 5: Property Taxes as Share of Revenues



Figure 6: Property Taxes as Share of Revenues



Figure 7: Property Taxes as Share of Revenues



Figure 8: Individual Income Taxes as Share of Revenues



Figure 9: Individual Income Taxes as Share of Revenues



Figure 10: Individual Income Taxes as Share of Revenues



Figure 11: General Sales Taxes as Share of Revenues



Figure 12: General Sales Taxes as Share of Revenues



Figure 13: General Sales Taxes as Share of Revenues



Figure 14: Selective Sales Taxes as Share of Revenues



Figure 15: Charges as Share of Revenues



Figure 16: Higher Education as Share of Expenditures



Figure 17: Higher Education as Share of Expenditures



Figure 18: Higher Education as Share of Expenditures



Figure 19: Non-Cash Public Welfare as Share of Expenditures



Figure 20: Non-Cash Public Welfare as Share of Expenditures



Figure 21: Non-Cash Public Welfare as Share of Expenditures



Figure 22: K-12 Education as Share of Expenditures







Figure 24:



Figure 25:



Figure 26:



Figure 27:



Figure 28:



Figure 29:



Figure 30:



Figure 31:



Figure 32:



Figure 33:



Figure 34:



Figure 35:



Figure 36:



Figure 37:



Figure 38:



Figure 39:



Figure 40:



Figure 41:



Figure 42:



Figure 43:



Figure 44:



Figure 45:

Table 1:

Category	minimum	maximum	median	mean	std dev				
Revenues									
PROP	8.46% NM	43.18% NH	19.54% WY	20.58%	7.06				
GSALES	$0\%^*$	31.72% WA	$14.87\%~\mathrm{MI}$	18.12%	7.68				
SSALES	2.88% WY	$17.10\%~\mathrm{NV}$	7.65% CT	7.65%	2.65				
IIT	$0\%^{**}$	$29.01\%~\mathrm{MD}$	$15.96\%~\mathrm{RI}$	17.21%	7.83				
CIT	$0\%^{***}$	$9.54\%~\mathrm{AK}$	2.60% CT	2.99%	1.80				
EDFEES	2.06% AK	10.99% ND	6.75% OR	5.82%	2.11				
HOFEES	$0.01\% \mathrm{VT}$	16.9% SC	4.70% HI	5.05%	4.19				
CHARGEO	4.31% WY	15.22% IN	7.91% AZ	8.82%	2.24				
TAXO	2.2% IN	$24.17\%~\mathrm{WY}$	5.17% KY	5.88%	4.49				
MISREV	$7.97\%~\mathrm{MS}$	$46.29\%~{\rm AK}$	11.61% NY	11.66%	5.71				
Expenditures									
HIED	5.02% NY	15.28% UT	10.3% CO	9.28%	2.38				
K12	19.20% AK	30.79% NJ	22.79% WV	23.64%	2.47				
NCPWELF	$10.95\%~\mathrm{WY}$	$26.53\%~\mathrm{RI}$	$16.79\%~\mathrm{AL}$	17.30%	3.49				
MEDICAID	$7.51\%~\mathrm{NV}$	$20.99\%~\mathrm{RI}$	$12.37\%~\mathrm{MD}$	12.85%	3.17				
HEALTH	2.21% NH	$16.78\%~\mathrm{AL}$	7.65% TX	8.58%	3.51				
HIWAYS	$4.30\%~\mathrm{MA}$	$14.33\%~{\rm SD}$	7.17% OK	6.49%	2.27				
POFICO	4.66% ND	$11.34\%~\mathrm{NV}$	7.48% OH	8.25%	1.48				
NATURE	$1.25\%~\mathrm{MA}$	6.40% ND	2.72% KS	2.86%	1.25				
GOVADM	$3.76\%~\mathrm{AL}$	8.17% DE	$5.27\%~\mathrm{AR}$	5.21%	1.08				
SANITA	$1.58\%~{\rm AK}$	$3.91\%~\mathrm{HI}$	2.61% PA	2.89%	0.61				
GEXPNEC	$2.52\%~{\rm SC}$	$13.55\%~\mathrm{AK}$	$4.61\%~\mathrm{MD}$	5.23%	2.40				

Revenue and Expenditure Shares (2006)

State + Local Sample Summary Statistics

Note: Authors' tabulations based on Census Bureau data. Percentages represent the share of all state and local government general purpose own revenues or the share of all state and local government direct general expenditures. *Mean* is the population-weighted mean.

* Four states (DE, MT, NH, OR) did not have any state or local GSALES.

** Seven states (AK, FL, NV, SD, TX, WA, WY) did not have any state or local IIT. NH and TN tax only dividend and interest income.

*** Two states (NV, WY) do not have any state or local CIT.

NCPWELF represents non-cash public welfare expenditures and includes MEDICAID. POFICO includes police, fire, and correctional expenditures. CHARGEO includes all current charges that are not for hospitals or education. MISREV includes donations from private sector, fines and forfeits, interest earnings, net lotto revenue, special assessments, rents, royalties, property sales, and miscellaneous general revenue not elsewhere classified. TAXO includes death and gift tax, documentary and stock transfer tax, license taxes, severance taxes, and taxes not elsewhere classified.

Table 2:

Revenue and Expenditure Shares (1962)

State + Local Sample Summary Statistics

Category	minimum maximum		median	mean	std dev			
Revenues								
PROP	12.71% HI	55.05% NJ	37.28% OR	36.68%	11.87			
GSALES	$0\%^{*}$	30.16% HI	12.43% LA	14.84%	8.19			
SSALES	9.45% OR	$24.84\%~\mathrm{AL}$	15.83% MT	15.34%	4.12			
IIT	$0\%^{**}$	24.58% DE	4.90% OK	7.57%	5.71			
CIT	$0\%^{***}$	6.25% NC	2.28% MD	3.46%	1.85			
EDFEES	1.63% NY	8.27% NC	5.37% OH	4.67%	1.72			
HOFEES	0% AK	6.39% GA	2.15% WI	2.32%	1.56			
CHARGEO	2.81% VT	13.7% ND	$5.70\%~\mathrm{AL}$	5.83%	2.01			
TAXO	4.57% HI	24.23% LA	9.32% ME	9.52%	3.86			
MISREV	$2.01\%~{\rm MA}$	$29.59\%~{\rm AK}$	$4.94\%~\mathrm{MD}$	5.00%	4.35			
Expenditures								
HIED	1.88% MA	12.39% NM	7.63% AK	6.64%	2.36			
K12	22.27% HI	35.53% IN	28.89% FL	29.6%	3.27			
NCPWELF	3.1% HI	19.38% OK	7.42% TN	8.03%	3.15			
MEDICAID	.%	.%	.%	.%				
HEALTH	3.09% SD	11.12% GA	6.61% WI	7.12%	1.68			
HIWAYS	8.84% HI	34.71% VT	18.93% MO	17.53%	5.31			
POFICO	3.08% ND	9.65% MA	5.51% IN	6.53%	1.61			
NATURE	$1.84\%~\mathrm{MA}$	7.59% ID	3.58% NJ	3.59%	1.27			
GOVADM	3.45% KY	6.66% FL	4.52% IN	4.80%	0.74			
SANITA	0.99% SD	4.76% WI	2.67% UT	3.22%	1.00			
GEXPNEC	1.81% TX	$12.8\%~\mathrm{HI}$	3.26% PA	3.79%	2.32			

Note: Authors' tabulations based on Census Bureau data. Percentages represent the share of all state and local government general purpose own revenues or the share of all state and local government direct general expenditures. *Mean* is the population-weighted mean.

* Nine states (DE, ID, MA, MN, MT, NE, NH, NJ, VT) did not have any state or local GSALES.

** Thirteen states (CT, FL, IL, IN, ME, MI, NE, NV, RI, SD, TX, WA, WY) did not have any state or local IIT. NH and TN tax only dividend and interest income.

*** Fourteen states (FL, IL, IN, ME, MI, NE, NH, NM, NV, OH, TX, WA, WV, WY) do not have any state or local CIT.

See notes from Table 1 for additional notes on categories. MEDICAID does not exist in 1962.

Table 3:

State + Local Sample Summary Statistics								
Category	minimum	maximum	median	mean	std dev			
Revenues								
PROP	\$420 AL	2,371 NJ	1,074 MD	$1,\!198$	473			
GSALES	0*	1,853 WA	841 MO	1,024	409			
SSALES	$272 \mathrm{GA}$	974 NV	394 AK	433	143			
IIT	0^{**}	2,002 NY	835 ID	$1,\!041$	500			
CIT	0^{***}	$1,214 { m ~AK}$	144 AZ	184	177			
EDFEES	$201 \ \mathrm{FL}$	650 VT	$350 \ AR$	324	103			
HOFEES	$0.4 \mathrm{VT}$	$1,334 \mathrm{WY}$	$262 \mathrm{MO}$	280	246			
CHARGEO	$205 \mathrm{MS}$	$1,026 {\rm ~AK}$	$429~\mathrm{MI}$	515	171			
TAXO	120 GA	2,348 WY	283 IL	341	434			
MISREV	$353 \mathrm{MS}$	$5,\!891~{ m AK}$	656 IN	678	770			
Expenditures								
HIED	$$412 \ FL$	1,071 VT	$675 \ \mathrm{AR}$	641	161			

2,655 AK

2,230 NY

1,695 NY

1,752 WY

1,926 AK

833 CA

627 WY

985 AK

306 NY

1,873 AK

1,562 CO

1,143 OK

843 WI

516 AK

466 WA

480 TX

196 IA

360 MA

183 LA

317 CO

1,671

1,240

916

605

453

586

201

371

206

385

314

348

282

277

255

128

108

129

50

283

Real Per Capita Revenue and Expenditure Levels (2006) State + Local Sample Summary Statistics

Note: Authors' tabulations based on Census Bureau data. *Mean* is the population-weighted mean. All figures are in 2006 dollars.

* Four states (DE, MT, NH, OR) did not have any state or local GSALES.

1,217 TN

713 NV

485 NV

137 NH

291 GA

318 WV

228 TX

102 NV

169 SC

98 RI

** Seven states (AK, FL, NV, SD, TX, WA, WY) did not have any state or local IIT. NH and TN tax only dividend and interest income.

*** Two states (NV, WY) do not have any state or local CIT. See notes from Table 1 for additional notes on categories.

K12

NCPWELF

MEDICAID

HEALTH

HIWAYS

POFICO

NATURE

GOVADM

GEXPNEC

SANITA

Table 4:

Real Per Capita Revenue and Expenditure Levels (1962) State + Local Sample Summary Statistics

Category	minimum	maximum	median	mean	$std \ dev$			
Revenues								
PROP	\$178 AT	1 003 MA	664 OH	682	957			
CSALES	0*	652 WA	205 TN	265	207 150			
GOALES	0 196 OD	002 WA	200 IN 962 CD	200	100			
SSALES	180 UR	555 N V	203 SD	200	00			
		493 DE	79 OK	146	116			
CIT	0^{***}	115 NY	40 OK	65	34			
EDFEES	40 NY	151 CO	89 OH	79	26			
HOFEES	$0 \ \mathrm{AK}$	$143 \mathrm{WY}$	36 TX	39	26			
CHARGEO	42 NC	272 ND	92 NH	107	51			
TAXO	$75 \mathrm{GA}$	418 LA	$153 \mathrm{CO}$	167	79			
MISREV	32 WV	721 AK	85 NY	91	106			
Expenditures								
IIIED	Ф49 МЛА	200 CA	159 MC	145	69			
TIED V10	545 MA	500 CA	105 MS	140	08			
K12	401 AR	889 W Y	629 IL	636	124			
NCPWELF	71 VA	390 OK	$159 \mathrm{GA}$	173	62			
MEDICAID				•				
HEALTH	$70 \ \text{SD}$	265 NY	$134 \mathrm{MO}$	154	47			
HIWAYS	255 HI	$1,012 { m WY}$	390 TN	370	164			
POFICO	$58 \mathrm{MS}$	244 NV	$112 { m ME}$	144	47			
NATURE	$38 \mathrm{SC}$	201 WY	$77 \mathrm{ME}$	80	43			
GOVADM	$55 \ SC$	$207 \ \mathrm{AK}$	$97 \mathrm{MI}$	105	34			
SANITA	$23 \ \mathrm{SD}$	112 WA	61 UT	69	24			
GEXPNEC	32 AR	$370~\mathrm{HI}$	$69~\mathrm{FL}$	84	67			

Note: Authors' tabulations based on Census Bureau data. *Mean* is the population-weighted mean. All figures are in 2006 dollars.

* Nine states (DE, ID, MA, MN, MT, NE, NH, NJ, VT) did not have any state or local GSALES.

** Thirteen states (CT, FL, IL, IN, ME, MI, NE, NV, RI, SD, TX, WA, WY) did not have any state or local IIT. NH and TN tax only dividend and interest income.

*** Fourteen states (FL, IL, IN, ME, MI, NE, NH, NM, NV, OH, TX, WA, WV, WY) do not have any state or local CIT.

See notes from Table 1 for additional notes on categories. MEDICAID does not exist in 1962.

Table 5:

Coefficients of Variation (1962, 1977, 1992, 2006)

Boodi Sampio Saminar , Sociolis	State +	Local	Sample	Summary	Statistics
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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Category	1962	1977	1992	2006	$\Delta 1962 - 77$	$\Delta 1977 - 2006$	$\Delta 1962-2006$	
Revenues								
PROP	.34	.35	.36	.36	.01	.01	.02	
GSALES	.48	.36	.34	.37	12	.01	11	
SSALES	.26	.29	.37	.33	.03	.04	.07	
IIT	.66	.47	.43	.35	19	12	31	
CIT	.47	.38	.44	.57	09	.19	.10	
EDFEES	.33	.35	.36	.32	.02	03	01	
HOFEES	.64	.67	.80	.84	.03	.17	.20	
CHARGEO	.34	.34	.26	.27	0.0	07	07	
TAXO	.39	.57	.64	.66	.18	.09	.27	
MISREV	.72	.37	.46	.44	35	.07	28	
Expenditures								
HIED	.32	.26	.26	.24	06	02	08	
K12	.11	.10	.12	.11	01	.01	0.0	
NCPWELF	.40	.33	.26	.20	07	13	20	
MEDICAID		.41	.29	.24		17		
HEALTH	.25	.32	.40	.43	.07	.11	.18	
HIWAYS	.26	.34	.27	.30	.08	04	.04	
POFICO	.28	.22	.24	.20	06	02	08	
NATURE	.33	.32	.35	.40	01	.08	.07	
GOVADM	.16	.20	.16	.20	.04	0.0	.04	
SANITA	.35	.34	.28	.23	01	11	12	
GEXPNEC	.57	.38	.64	.46	19	.08	11	

Note: Authors' tabulations based on Census Bureau data. Columns (1) through (4) display the coefficient of variation for various revenue and expenditure shares across states for each year. The coefficient of variation is the ratio of the standard deviation to the mean. Columns (5) through (7) report level changes in the coefficient variation over three different time periods.

States without any revenues or expenditures classified under any category are excluded from the calculation of the mean and standard deviation of shares. See notes from Table 1 for additional notes on the definitions of categories. MEDICAID does not exist in 1962.