

Diversifying Municipal Revenue in Connecticut

**Report Prepared for the
Connecticut Tax Study Panel**

Presentation November 17, 2015

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November 2015

Thanks go to Sally Wallace, Bill Fox, Mike Bell, and Daphne Kenyon for their comments on an earlier draft of this report, to Susan Sherman, Michael Galliher, Patrick Flaherty, and Dana Placzek for providing and explaining data used to estimate tax revenue, and to George Rafael, Daryl Jones, Darrell Hill, and Lyle Wray for help in understanding the issues associated with local revenue sources.

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EXECUTIVE SUMMARY

This report considers revenue diversity among towns in Connecticut and provides an analysis of three policy options for increasing local revenue diversity: adoption of local sales taxes, adoption of local income taxes, and increases in fees and charges. Each of these could also reduce local government reliance on property taxes. There are other policies that could be adopted that would increase revenue diversity and/or reduce reliance on the property tax, for example, a state grant program for towns or a property tax circuit breaker. Consideration of these other options are beyond the scope of this report.

Current Environment

Towns in Connecticut are not allowed to use local sales or local income taxes, and are second to the last among all states in terms of their relative reliance on user charges and fees. The result is that local governments in Connecticut have the least diverse revenue structure of any state, and consequently rely relatively more heavily on property taxes than other states. In 2012, 88.0 percent of local government own source revenues in Connecticut were derived from property tax revenue (the highest percent of any state). Local governments in Connecticut are second to last among all states in terms of their relative reliance on user charges and fees.

Other states allow local governments to adopt local option taxes. As of 2012, local governments in 34 states relied on sales taxes. The reliance on local sales taxes varies; local sales tax revenue as a share of local tax revenue ranged from 1.6 percent to 48.5 percent. In 2012, local income taxes were imposed in 12 states; local income tax revenue as a share of local tax revenue ranged from less than one percent to 33.3 percent.

Arguments For and Against Local Revenue Diversification

The principal reasons for adopting a local option tax or increasing charges and fees are that they will diversify the local revenue structure and can reduce the property tax burden. The Advisory Commission on Intergovernmental Relations (1988) outlined several arguments supporting or justifying local revenue diversification. Allowing use of alternative revenue sources would allow towns to better capture local revenue raising capacity, would reduce reliance on the property tax, and would collect revenue from tourists and commuters who impose costs on local governments but do not pay any property taxes to the local government. There are counter arguments, the principal one being that if a local government gains access to additional

revenue options, it will increase revenue, and thus expenditures, beyond what citizens truly desire; however, the empirical evidence on this possibility is mixed. In addition, property tax revenues are less cyclical than sales and income tax revenues, and the property tax base is less geographically mobile than the bases for sales and income taxes.

Policy Option: Allow Local Sales Taxes

Options for Local Sales Taxes

We considered two alternative local sales taxes, a local sales tax where the revenue collected in a town goes to that town, and a regional sales tax in which total local sales tax revenue across all towns in each of the nine planning districts (i.e., Councils of Government) is allocated to the towns in the planning district using a formula in which half of the revenue is allocated to the town from which the revenue was generated and half is allocated on a per capita basis. (Of course, there are many other options for defining regions and for allocating such revenue across towns.)

Estimated Revenue

Using estimated taxable sales by town, the estimated revenue from a one percent local sales tax, ignoring revenue from out-of-state vendors, is \$473.5 million. The available data on state sales taxes due by town do not include sales taxes collected from out-of-state vendors, which are 21.3 percent of total sales taxes due. Thus, our estimated revenues by town underestimate the likely revenue in the aggregate by this percentage. One possible objective for adopting a local sales tax is to reduce property taxes. A one percent local sales tax, if adopted statewide and used just for property tax relief, could reduce total local property taxes, including school property taxes, by about 6.1 percent on average.

Local sales tax revenue per capita by town ranges from \$5 to \$717, a result due to the large disparity across towns in sales tax base per capita. The range for the regional sales tax is from \$42 to \$230, a substantially smaller range. As expected, the regional sales tax shifts the revenue from towns with high local sales tax revenue per capita to towns with low local sales tax revenue per capita. It needs to be stressed that the estimates by town are reasonable indications of local sales tax revenue for informing state tax policy, but not for local government budget making.

Economic Effects

In considering whether to recommend allowing local governments to use local sales taxes, the following factors are relevant.

- Effect on Total Sales

Economic theory suggests that an increase in the sales tax rate will reduce the sales tax base since the increase in the sales tax rate is the same as a price increase. Assuming a price elasticity of 1.0, and using state sales taxes due, the local sales tax revenue from a one percent local sales tax adopted by all towns would be \$603.9 million (this includes sales taxes collected by out-of-state vendors), and state sales tax revenue would fall by an estimated \$36.4 million.

- Effect on Cross-Border Shopping

One of the effects of differential sales tax rates is on cross-bordering shopping. Studies generally find that a one percentage point higher interstate sales tax rate differential is associated with per capita sales along a state's border that are between one and 7 percent lower. Connecticut's basic state sales tax rate is currently 6.35 percent. Connecticut borders three states, New York, Rhode Island, and Massachusetts. Rhode Island and Massachusetts do not have local sales taxes; their state tax rates are 7.0 percent and 6.3 percent, respectively. Along New York's border with Connecticut, the total sales tax rates in New York are generally in the range of 8.125 percent to 8.375 percent. If Connecticut towns adopted a one percent local sales tax, Connecticut border cities would lose some sales to Massachusetts, and might experience a small drop in sales that are made to buyers from New York. One should expect a similar effect from inter-town sales tax rate differentials.

- Effect on Tax Competition

Local jurisdictions currently compete for property tax base. If local governments adopt a sales tax, one should expect that towns will compete for sales tax base as well. The difference is that the competition will be for retail facilities such as shopping centers rather than business facilities more generally.

- **Effect on Fiscal Disparities**

A recent report from the New England Public Policy Center at the Federal Reserve Bank of Boston (Zhao and Weiner 2015) provides an index of fiscal disparities for all Connecticut cities. The index is the difference between the cost of providing non-school public services (costs) and the economic resources available to pay for those services (capacity). There is not much of a consistent pattern between the index and either local or regional sales tax revenue per capita, although the correlation coefficients suggest that larger sales tax revenue per capita is associated with greater fiscal health. We get a similar result if we use the property tax base (i.e., Grand List) per capita rather than the index of fiscal disparities. So, it appears that neither a local or regional sales tax will on average reduce fiscal disparities between towns.

- **Other Issues**

If structured as an add-on to the state sales tax, the cost of administration and compliance would be small. A local sales tax would generate tax revenue from commuters and visitors, thus offsetting some of the service costs associated with commuters and visitors. Sales tax revenue are expected to be more cyclical than property tax revenues. Sales taxes are also more regressive than property taxes.

Policy Option: Allow Local Income Taxes

Options for Local Income Taxes

We considered five alternative definitions of an income tax base:

- Connecticut adjusted gross income, which we refer to as the AGI Tax.
- Connecticut income tax liability, which we refer to as the Income Surtax.
- A tax on earned income imposed by place of work, which we refer to as the Payroll Tax.
- A tax on earned income split equally between place of work and place of residence, which we refer to as the Split Earnings Tax.
- A tax imposed by a town on earned income of the resident, regardless of where earned, and on earnings of non-residents working in the town, but with a credit for taxes paid by place-of-work, which we refer to as the “Residence-base Tax”.

It is also possible to adopt a regional income tax, however, we did not analyze that option.

Estimated Revenue

We selected tax rates of one percent for the taxes on earned income, 0.75 percent for the tax on adjusted gross income (AGI Tax), and 18 percent for the tax on state tax liability (Income Surtax). These rates yield similar total statewide tax revenue, namely, \$1,084.0 million.

Revenue per capita differs widely across towns; per capita revenue ranges from \$40 to \$1,773 for the AGI Tax, and from \$31 to \$1,874 for the Income Surtax. These are substantial ranges. If we don't consider the 5 percent of towns with the highest revenue per capita and the 5 percent with the lowest per capita revenue, we find that for 90 percent of the towns per capita revenue ranges from \$120 to \$639 for AGI Tax, and from \$90 to \$705 for the Income Surtax. For most towns the revenue from the tax on AGI is similar to the revenue from the tax on tax liability.

Per capita revenue for the Payroll Tax ranges from \$22 to \$872. The per capita revenue for the Payroll Tax is positively related to AGI Tax revenue per capita, but the correlation is small, 0.27. The reason is that AGI is based on the income of the residents of a town, while the payroll tax is based on the earned income of those working in the town.

Per capita revenues for the Split Earnings Tax ranges from \$97 to \$760. For towns with low values of per capita Payroll Tax revenue, the per capita revenue for the Split Earning Tax is greater than the Payroll Tax revenue per capita. Towns with small Payroll Tax bases are likely to be residential communities so that resident earned income is likely to be larger than payroll earned income. The opposite is the case for towns with large Payroll Tax revenue per capita.

One possible objective for adopting a local income tax is to reduce property taxes. In the aggregate, a local income taxes in Connecticut would generate sufficient revenue to reduce total property taxes, including school property taxes, by about 11.5 percent. But there are substantial difference between towns in the possible reduction in property taxes, and furthermore the possible reduction for a town differs by tax.

Given the data that were available errors in estimated revenue are likely. A limitation with the data is that they do not include earnings of Connecticut residents who work out-of-state; we are unable to adjust for this. Thus, it needs to be stressed that the estimates by town are reasonable indications of local income tax revenue for informing state tax policy, but not for local government budget making.

Economic Effects

In considering whether to recommend allowing local governments to use local income taxes, the following factors are relevant.

- **Effect on Employment**

It is expected that a local income tax will have a small, negative effect on hours worked. To the extent the local income tax rates differ across towns, for example, if not all towns adopted a local income tax, it is expected that the tax differential will cause migration of the tax base from the towns with the higher income tax rates to those towns with lower tax rates, but with the tax rates proposed, the effect will be small. Much of the research on the effect of local income taxes on tax base mobility has focused on Philadelphia, for which differential income tax rates have been shown to result in migration of workers across the Philadelphia region.

- **Effect on Tax Competition**

The adoption of an income tax will change the incentives for local government competition for tax base. Currently, towns compete for property tax base, with commercial and industrial property being more desirable since there are less associated public service costs than for residential property. Adopting an income tax provides an incentive for towns to compete more strongly for high wage households or high wage jobs, and somewhat less for property.

- **Effect on Equity**

The distribution of the tax payments across households from the AGI Tax will be proportional, assuming that income is measured by AGI. The distribution for the Income Surtax will be the same as the distribution of the state income tax liability. Local earned income taxes are slightly regressive since not all income sources are taxed and the excluded income (largely returns to capital) are associated with higher income households. Any of the local income taxes will be less regressive than either property taxes or sales taxes.

- **Effect on Fiscal Disparities**

Income tax revenue per capita is generally larger for towns with better fiscal health, as measured by the index of fiscal disparities created by the New England Public Policy Center

at the Federal Reserve Bank of Boston (Zhao and Weiner 2015). This is particularly true for the AGI Tax, the Income Surtax, and the Split Earnings Tax. Thus, the adoption of local income taxes will not offset existing fiscal disparities. The results are the same if we consider property tax base (i.e., Grand List) per capita rather than the index of fiscal disparities.

- **Other Issues**

The cost of administration and compliance, assuming state administration, would be small for a local income tax that is based on state AGI or state tax liability. The administrative cost for an earned income tax administered by each town will be large relative to the tax revenue generated, and would require significant administrative capabilities, although regional administration would likely reduce the total cost of administration. Given the size of many of the towns in Connecticut, we suspect that administering such a tax for many towns would be a challenge. If the tax is based on payroll, the tax would generate tax revenue from commuters, and thus offset some of the service costs associated with commuters and visitors.

Local Option Tax Design Issues

If Connecticut chooses to allow cities to adopt a local sales tax or a local income tax, the state will have to specify the design of the tax structure, which means selecting one of the options for each of several parameters or features. In particular, the state will have to:

- Define of the tax base;
- Specify the allowable tax rate or rates;
- Determine whether the tax is optional or mandated;
- Determine whether the town's elected officials can adopt the tax on their own or whether to require voter approval through a referendum;
- Determine whether the administration of the tax will be done by the state, some regional body, or by each town;
- Determine whether the revenue can be used only for specific purposes or for any activity allowed by law;
- Specify the extent to which the revenue collected in a town is allocated to that town or shared among towns.

Policy Option: Increase Reliance on User Charges and Fees

Possible Reasons for Small Usage of Charges and Fees

Local governments in Connecticut are second to last among all states in terms of their relative reliance on user charges and fees. There are several possible explanations for why Connecticut ranks so low in the use of charges and fees.

- There are services for which the state has set limits on the size of the fees that can be charged, for example, for the issuance of marriage licenses.
- There are services that local governments perform in other states that Connecticut towns do not provide. For example, in Connecticut, public hospitals and public transit are provided by the state, while they are typically provided by local governments in other states.
- It has been suggested that citizens would view the implementation of a charge for a service such as waste collection not as a way to reduce property taxes but as an addition payment to the government. And, thus it is thought that citizens would oppose such a fee.
- Officials may avoid imposing fees and charges over the concern that charges and fees impose a substantial burden on low income households.

Argument For and Against Charges and Fees

In addition to generating revenue that can be used to reduce property taxes, charges and fees can serve as signals of the cost of a public service, similar to prices for private goods. If charges vary with the amount of service consumed, individuals are expected to adjust their consumption of these services, relating the benefits they receive to what they pay. Charges thus act as a rationing device in the same way that prices ration goods and services in the private sector. In addition, charges can be used to reduce congestion when the demand for a public service exceeds capacity.

A major issue with charges is equity. On the one hand, for public services that do not involve distributional concerns, charges ensure that those who benefit from the public service pay for it. Based on the benefit principle of equity, this would be equitable. This is also relevant for services consumed by nonresidents, who might not pay taxes commensurate with the cost of providing those services. On the other hand, there are potential vertical equity issues that may

arise. For many public services the user charges would constitute a larger percentage of income for lower income individuals and therefore may be regressive. The extent to which this is the case would vary with the nature of the public services.

There are charges or fees that do not vary with the use of the public service. For example, the fee for solid waste collection is generally a flat amount, independent of the amount of solid waste generated. Such a fee is not associated with the cost of providing the service. In this case, the fee is essentially equivalent to a flat per household tax. However, some cities have adopted a fee structure that depends on the volume of solid waste that a household generates.

Estimates of Potential Revenue

To estimate the potential for increasing revenue from charges and fees, we selected three states that do not have a large city and for which current charges as a share of OSR is close to the average for the U.S. If Connecticut increased its current charge revenue sufficiently to cover the same percentage of each expenditure category as these 3 other states, Connecticut could increase its current service revenue by between \$349 million and \$867 million, or between 38.6 percent and 96.0 percent. If used to reduce property taxes, towns in Connecticut could reduce total property taxes by between 3.8 percent and 9.3 percent.

Impact Fees

Impact fees are one-time charges on new development that are used to pay for the construction or expansion of off-site capital improvements that are necessitated by and benefit the new project. They are not considered a user charge. Towns in Connecticut are not allowed to impose impact fees. To estimate the potential revenue from impact fees, we used data on impact fee revenue per housing permit for Florida. Applying these data to Connecticut yields annual revenues estimates for impact fees in Connecticut that range between \$33.4 million and \$45.2 million. Data are not available that would allow us to estimate impact fee revenue by town.

Policy Options for Increasing Charges and Fees

- State legislation regarding limits the state imposes on fees could be reviewed to determine whether they are still appropriate.

- Actions that would encourage greater use of user charges and fees might be proposed, such as funding a comparative interstate study of the use, design, and fee levels of user charges or a campaign to promote the increase use of charges.
- For services such as waste collection, local governments could be encouraged to adopt a fee structure that is based on the volume of waste a resident puts in the system and that is not as regressive as a flat per household charge.
- Consideration could be given to authorizing the use of impact fees.

INTRODUCTION¹

The current composition of local government revenue in the United States is much different than it was 70 years ago. For example, in 1942, property taxes accounted for 92.2 percent of local government taxes and 88.3 percent of own source revenue.² By 2012, property taxes had fallen to 73.5 percent of local tax revenue and 47.1 percent of own source revenue.³

This decrease in the relative important of property taxes in the United States is the result of at least two developments. The first is the growth in the use of local sales taxes and local income taxes. In 1942, local sales and income taxes accounted for less than 3.4 percent of tax revenue, but by 2012, these revenue sources had increased to 16.3 percent of tax revenue. Second, the use of charges and miscellaneous revenue increased from 10.5 percent of own source revenue in 1942 to 35.8 percent in 2012. As a result, local government revenue sources are now more diverse and rely less heavily on property tax.

This report explores the diversity of local government revenue among towns in Connecticut and discusses three options for increasing that diversity, namely adopting local sales taxes, adopting local income taxes, or increasing reliance on charges and fees. To the extent that reducing reliance on property taxes is an objective, each of these three policy could have the effect of reducing the reliance on property taxes. The second section presents comparative measures by state of the diversity of local government revenue. The third section discusses the arguments for and against revenue diversity and the advantages and disadvantages of relying on local sales taxes, local income taxes, and user charges and fees. The fourth section explores the nature and structure of local sales taxes as used in other states, suggests alternatives for structuring a local sales tax in Connecticut, discusses incentive effects of sales taxes, provides revenue estimates, discusses equity/fairness, and relates the estimated sales tax revenue per capita by town to a measure of the fiscal gap. The fifth section covers the same issues for the local income tax. The final section focuses on user charges and fees.

We searched for prior studies of the effect of adopting local sales taxes and local income taxes in Connecticut, and did not find any. However, the 2003 Blue Ribbon Commission on

¹ Thus report draws heavily from Sjoquist and Stoycheva (2012).

² U.S. Bureau of the Census (1951). Own source revenues are general revenues from taxes, charges and miscellaneous general revenue, and do not include intergovernmental revenue or revenue from utilities, liquor stores and trust funds.

³ U.S. Bureau of the Census, State and Local Government Finance (2012).

Property Tax Burdens and Smart Growth Incentives did consider the option of local sales and income taxes. The Commission concluded, “The commission believes that local-option taxes on a municipality-by-municipality basis in a state like Connecticut are generally counterproductive - they tend to foster tax competition between communities and make high-tax towns that opt for additional taxes less competitive. The commission believes that regional revenue sharing offers the best model.” (p. 31) The Commission goes on to recommend an increase in the real estate conveyance tax, the imposition of a 15 percent surcharge on the state room occupancy tax to be retained by the host municipality, and regional sharing of part of the state sales tax, with the host community getting the greatest share.

In 2006, the Program Review and Investigations Committee issued a report entitled *Connecticut’s Tax System*. One option it considered, but did not recommend, was to expand the taxing authority of local governments to levy an income or sales tax. The Committee concluded that “this option would negatively impact the complementary nature and simplicity of the current system, and may lead to taxpayer confusion and resentment. It may generate competition among municipalities and possibly encourage sprawl. This would circumvent issues with the spending cap but still allow funding to go to towns.” (pp. 164-165)

Nonetheless, in a recent report, the Connecticut Conference of Municipalities (2011) suggested that consideration be given to allowing towns to use local option taxes. The report states, “Distressed municipalities could be allowed to levy certain types of local-option taxes as a way to take pressure off property taxes. For example, locally levied sales taxes, entertainment taxes and hotel occupancy taxes can be considered in municipalities where those industries are strong.” (p. 6)

In addition to the three policies discussed in this report, there are other policies that could be adopted that would increase local revenue diversity and/or reduce the reliance on the property tax. Such options include a state grant program for towns and a property tax circuit breaker. However, consideration of these other options are beyond the scope of this report.

LEVEL OF REVENUE DIVERSIFICATION

There is little revenue diversity among the local governments in Connecticut, i.e., the 169 towns and the few existing school districts. There are various ways of illustrating this point. Consider first property tax revenue as a share of own source revenue and as a share of total taxes

(Table 1, columns 1 and 2).⁴ Connecticut relies relatively more heavily on property taxes than most other states. In 2012, 88.0 percent of local government own source revenues (OSR) in Connecticut were derived from property tax revenue (the highest percent of any state). At the other end of the range was the District of Columbia and local governments in Louisiana, which derived just 24.6 percent and 28.6 percent of their OSR from property taxes, respectively. The average for the United States was 51.1 percent.

Table 1. Measures of Revenue Diversity, 2012

State	[1] Property Taxes as a Share of Own Source Revenue	[2] Property Taxes as a Share of Total Tax Revenue	[3] State and Federal Intergovernmental Revenue as a Share of General Revenue	[4] Herfindahl Index
Alabama	30.1%	42.8%	41.3%	0.181
Alaska	51.1%	79.7%	41.4%	0.292
Arizona	44.8%	66.1%	37.5%	0.250
Arkansas	25.3%	43.1%	56.7%	0.161
California	45.7%	75.9%	45.6%	0.235
Colorado	41.7%	63.0%	30.6%	0.226
Connecticut	88.0%	98.8%	29.2%	0.776
Delaware	56.1%	81.8%	53.0%	0.344
District of Columbia	24.6%	31.6%	28.7%	0.148
Florida	47.0%	76.4%	29.2%	0.241
Georgia	48.9%	65.9%	31.9%	0.285
Hawaii	52.1%	69.2%	16.4%	0.310
Idaho	54.5%	95.1%	46.7%	0.322
Illinois	63.7%	83.7%	33.3%	0.417
Indiana	43.0%	78.4%	40.7%	0.250
Iowa	49.4%	80.8%	36.1%	0.284
Kansas	47.3%	75.3%	31.9%	0.256
Kentucky	33.0%	55.1%	40.9%	0.162
Louisiana	28.6%	44.8%	38.8%	0.206
Maine	81.0%	99.1%	31.9%	0.661
Maryland	43.2%	55.7%	32.5%	0.264
Massachusetts	77.3%	96.0%	32.2%	0.605
Michigan	55.0%	92.1%	48.3%	0.330
Minnesota	52.9%	93.4%	45.5%	0.303
Mississippi	39.0%	93.1%	41.2%	0.292
Missouri	38.6%	57.2%	33.1%	0.195

⁴ See Appendix A for a discussion of the government revenue data used in this report.

Montana	60.9%	97.2%	43.0%	0.388
Nebraska	54.3%	77.4%	30.5%	0.319
Nevada	39.3%	68.1%	42.7%	0.190
New Hampshire	85.2%	99.0%	30.1%	0.729
New Jersey	80.5%	98.1%	28.3%	0.654
New Mexico	37.4%	55.1%	53.0%	0.222
New York	45.8%	58.8%	34.4%	0.245
North Carolina	46.6%	75.8%	41.8%	0.262
North Dakota	47.2%	76.6%	48.0%	0.256
Ohio	45.4%	65.2%	38.5%	0.247
Oklahoma	30.4%	51.1%	35.4%	0.188
Oregon	55.8%	85.6%	41.6%	0.337
Pennsylvania	56.3%	70.8%	40.0%	0.347
Rhode Island	81.8%	97.8%	26.7%	0.676
South Carolina	53.0%	77.8%	35.3%	0.304
South Dakota	52.2%	73.0%	31.1%	0.309
Tennessee	37.0%	64.2%	32.1%	0.204
Texas	59.1%	83.9%	32.0%	0.365
Utah	46.3%	69.9%	37.0%	0.249
Vermont	59.1%	94.0%	68.9%	0.374
Virginia	59.2%	75.4%	36.3%	0.366
Washington	43.0%	64.1%	41.2%	0.227
West Virginia	52.2%	80.4%	44.3%	0.302
Wisconsin	68.2%	94.8%	39.9%	0.479
Wyoming	43.8%	76.9%	40.5%	0.267
United States	51.1%	73.9%	37.4%	0.281

Source: Author's calculation based on 2012 Census of Governments, U.S. Bureau of the Census.

As a share of total local taxes, local property taxes comprise 98.8 percent of total local government taxes in Connecticut (which ranks Connecticut the 3rd highest among all states). This helps to explain in part why in 2012 property tax per capita in Connecticut was the third highest among all states, and 1.9 times the U.S. average. (Note also that local OSR per capita in Connecticut ranks 9th in the country, so local government taxes in Connecticut are relatively high.) At the other end of the range is Alabama, where only 42.8 percent of local government taxes come from the property tax. There are 13 states in which property taxes as a share of local government total taxes exceeds 90 percent, 7 of which are in the Northeast. The average for the United States is 73.9 percent.

While not really under the control of local governments, intergovernmental revenues is a source of revenue diversity. Connecticut local governments get 29.2 percent of their general

revenue from intergovernmental grants, which is lower than 47 states and the District of Columbia (Table 1, column 3).

For a more complete or comprehensive measure of revenue diversification one can use the Herfindahl Index. The Herfindahl Index is calculated as the sum of the squares of the share of each source of own source revenue. The greater the number of revenue sources available and the more equal the share of revenue from the available revenue sources, the greater is the diversity of revenue sources. If a local government had only one source of revenue, the Herfindahl Index would equal one, while if there were 10 revenue sources and each source yielded the same amount of revenue, the Herfindahl Index would equal 0.10.⁵ The greater the concentration of revenue, the larger the value of the Herfindahl Index, while the greater the diversity of revenue, the lower is the value of the Herfindahl Index.

Using the 2012 local government OSR revenue data from the Bureau of the Census, Herfindahl indices were calculated for each state, including the District of Columbia (Table 1, column 4). By this measure, Connecticut has the least diverse local government revenue system of any state, with a Herfindahl Index of 0.776. The value of the Herfindahl Index for all local governments in the U.S. is 0.189, suggesting substantial diversity of local government revenue sources. Twenty-seven states have Herfindahl index values of less than 0.200. The five states with the highest Herfindahl Index values, and thus the smallest degree of local government revenue diversity, are Connecticut (0.776), New Hampshire (0.729), Rhode Island (0.676), Maine (0.661), and Massachusetts (0.605), all of which are states in the Northeast. Given that these states do not have very diverse local government revenue structures, it is not surprising that they also rely heavily on property taxes. The correlation between the Herfindahl Index and property taxes as a share of own source revenue is very high, namely, 0.96.

⁵ The following illustrates how to calculate a Herfindahl Index. With 9 revenue sources and with each source yielding the same amount of revenue, each revenue source accounts for 1/9th of total revenue. To calculate the Index, one would square 1/9th and sum over the 9 revenue sources, i.e., $\Sigma(1/9)^2 = 0.11$. On the other hand, if one revenue source accounted for 60 percent of the revenue and another 8 accounted for 5 percent each, the Index would equal 0.38, i.e., $\Sigma(0.6^2 + 0.05^2 + 0.05^2 + 0.05^2 + 0.05^2 + 0.05^2 + 0.05^2 + 0.05^2 + 0.05^2) = 0.38$.

REASONS FOR AND AGAINST DIVERSIFYING LOCAL GOVERNMENT REVENUE

In this section we discuss the arguments in support of and against local government revenue diversification.

Arguments for Revenue Diversification

The Advisory Commission on Intergovernmental Relations (1988) outlined several arguments supporting or justifying local revenue diversification. These include the following arguments.

Capture Local Revenue Raising Capacity

Local governments differ in the relative size of alternative tax bases since economic and demographic conditions that determine the size of the tax bases differ across jurisdiction.⁶ For example, a sales tax will have a high revenue capacity in a locality which is a retail center, while an income tax will rank high in relative capacity in a jurisdiction with a high concentration of professional employees. Similarly, a jurisdiction dominated by manufacturing plants will rank high for property taxation. In order to take advantage of the tax base with the highest revenue raising capacity, local governments should have a diverse set of potential revenue sources available to them to finance their public services.

More generally, revenue sources differ along several dimensions. They differ in terms of their revenue raising capacity, stability over the business cycle, growth rate, equity, ease of administration, economic effects, acceptability by citizens, etc. Thus, alternative revenue portfolios could be constructed, each of which would yield a difference mix of characteristics. Several authors have explored this idea and estimated the trade-offs among some of these characteristics.⁷

Just as investors have different preferences for risk and return, local governments may differ in their preferences over the various revenue characteristics. The citizens of one jurisdiction may have a preference for revenues that are tied to the benefits received from public services, while another jurisdiction may be more concerned with the regressivity of their revenue

⁶ Yilmax and Zahradnik (2008).

⁷ White (1983); Misiolek and Perdue (1987); Dye and McGuire (1991); Harmon and Mallick (1994).

structure.⁸ Thus, if a local government can use alternative revenue instruments, the local government can choose the revenue portfolio that more closely achieves its desired mix of characteristics.

Reduce Reliance on the Property Tax

A second often cited reason for revenue diversification is that by allowing local governments to use non-property tax revenue, local governments can reduce their reliance on the property tax. As noted above, greater revenue diversity is associated with a smaller relative reliance on property taxes.

Equity

Another argument for revenue diversity is premised on the notion that beneficiaries of local public services should pay a fair share of the cost of public services. This is particularly relevant for tourists and commuters who impose costs on local governments but do not pay any property taxes to the local government. (Of course, a business' property, and thus the property tax revenue, is positively related to the number of workers the business employs. To that extent, property tax revenue is generated indirectly from commuters.) To the extent that property taxes and other revenue sources do not capture the cost of the service burden placed on a jurisdiction from nonresidents, a sales tax or an income tax might do better. Clearly, a sales tax only generates revenue from a nonresident to the extent that he or she purchases taxable products or services. Tourists and shoppers are likely to make larger purchases than workers, and thus are more likely to contribute more revenue per trip.

On the other hand, local payroll taxes can broaden the base of who pays for local public services to include nonresident workers (Wallace and Edwards 1999). Of course a local payroll tax will generate revenue only from workers and not from other visitors to the jurisdiction.

In the 1970s there were various attempts to measure whether nonresidents "exploited" central cities in the sense that the cost of providing public services to nonresidents exceeded the revenue they generated. One of the first such studies (Neenan 1970) found a significant net benefit to nonresidents, i.e., nonresidents received more in benefits than the taxes and fees they paid to the central city. However, other studies found much smaller effects. Bradford and Oates (1976) found that the net effects of nonresidents on net costs (i.e., cost imposed by nonresidents

⁸ A tax or tax system is said to be regressive (progressive) if the tax burden as share of income decreases (increases) as income increases.

less revenue collected from nonresidents) were of minor quantitative importance. Shields and Shideler (2003) also found that there is not a significant equity issue due to non-residents. The results do depend on the local government's revenue structure.

Revenue Stability and Other Characteristics of Taxes

A fourth argument for a diversified revenue structure concerns the stability of total revenue over the business cycle. Just as a diversified investment portfolio can reduce the overall risk of a loss, a diversified revenue structure can reduce the risk of revenue loss to the local government. To the extent that the effect of changes in economic conditions have differential effects on tax sources, a diversified tax structure will have a smaller risk of revenue decline in the face of economic recessions. Of course, if changes in economic conditions have the same effect on all revenue sources, diversification will have no effect on revenue stability.

Economic Efficiency

A final reason for revenue diversification is that financing local public services through user charges and fees promotes an efficient level of public services.⁹ Charges and fees, when appropriately designed, serve as signals of the cost of the public service, similar to prices for private goods. Since user charges vary with the amount of service consumed, individuals can adjust their consumption in response to the charge. In other words, user charges or fees are benefit charges. Taxes, on the other hand, are paid regardless of the level of consumption of public services, and therefore the effective marginal cost that the citizen pays to consume one more unit of the public service may be perceived to be zero. As a result, the quantity demanded of public services financed with taxes will be higher than what is socially optimal because each individual taxpayer ignores the extra cost that results from his or her consumption of the public service. (See the section on charges and fees for a more extensive discussion of user charges.)

Arguments against Revenue Diversification

There are two principal counter arguments against a diversified revenue structure. First, Hamilton (1975) (see also Fischel 2001) advanced a theory that the property tax is a benefit tax, and thus is an ideal tax for local governments. In essence, the premise is that local jurisdictions offer alternative tax-public service packages and that households choose among the jurisdictions based on the household's most preferred package. Thus, the property tax liability is equal to the

⁹ Bierhanzl and Downing (1998); Downing (1999); Duff (2004).

benefits a household receives from the public services that the local government provides. In this world, the property tax is essentially the price that a resident pays for the public services that are provided. However, others, for example Zodrow (2001), argue that this theory is not supported by empirical evidence. A more ad hoc argument is that the benefits of public services such as police protection, fire service, and streets networks are positively associated with the value of one's property and thus with property taxes paid.

The second argument against local revenue diversification is that if a local government gains access to additional revenue options, it will increase revenue, and thus expenditures, beyond what the citizen truly desire. There are several reasons why this might happen, but the main argument is based on the Leviathan view of government, as espoused by Buchanan (1967) and Buchanan and Wagner (1977). Under this view government decision makers are assumed to determine expenditure levels with little regards to the preferences of voters. Furthermore, it is assumed that the government bureaucrats prefer greater public spending than the citizens. Government bureaucrats, the argument goes, are able to increase expenditures since more revenue instruments leads to a more complex tax structure, which allows greater manipulation of voters by government officials. The empirical evidence of the effect of the revenue structure on the level of expenditures is mixed; see for example Wagner (1976), who found support for this view of government, and Ladd and Weist (1987), who obtain contrary results.¹⁰

Another reason for not adopting local sales or income taxes is that property tax revenue is less cyclical than income tax and sales tax revenue. This is in large part due to the ability to adjust the property tax rate in response to changes in the property tax base. The property tax base is also less responsive to changes in the tax rate than the sales tax and income tax bases. The property tax base responds slowly to changes in the property tax rate, particularly in the short run, because property is hard to move geographically.

LOCAL SALES TAXES

Reliance on Local Sales Taxes

The Census Bureau reports that as of 2012, local governments in 34 states, plus the District of Columbia, relied on sales taxes (Table 2). The reliance on local sales taxes varies

¹⁰ For a review of the literature, see Sjoquist, Walker, and Wallace (2005), Sjoquist, Wallace, and Edwards (2004), and Ross and Nguyen-Hoang (2015).

widely among these 34 states, as reflected in local sales tax revenue as a share of local tax revenue, which ranged from 1.6 percent to 48.5 percent (Table 2). The difference in reliance on the sales tax reflect differences in the percentage of local governments in the state that employ a local sales tax and the local sales tax rates.

Table 2. Local Sales Tax Revenue as a Percentage of Local Tax Revenue, 2012

State	Percent	State	Percent
Louisiana	48.5%	New York	16.5%
Arkansas	45.7%	Alaska	12.8%
Oklahoma	43.1%	Iowa	12.4%
New Mexico	38.4%	Texas	10.3%
Alabama	36.8%	Hawaii	10.1%
Colorado	28.7%	California	9.3%
Arizona	26.6%	Nebraska	8.9%
Tennessee	25.1%	Nevada	7.5%
Georgia	24.8%	Ohio	7.3%
Missouri	24.0%	Virginia	7.1%
South Dakota	22.7%	South Carolina	6.2%
North Carolina	19.2%	Florida	6.2%
Washington	18.8%	Illinois	5.3%
Utah	18.3%	Wisconsin	2.8%
Kansas	17.7%	Pennsylvania	2.7%
North Dakota	17.6%	Vermont	2.1%
Wyoming	17.4%	Minnesota	1.6%

Source: Bureau of the Census, *Government Finances: FY 2012*

Local Sales Taxes in Selected States

There is significant variation across states in how local sales taxes are imposed and the purposes for which the revenue can used. The following illustrates this diversity.

Georgia

Georgia allows seven alternative local option sales taxes. These are:

1. MARTA tax, used to fund the bus and rail system in Fulton, DeKalb, and Clayton Counties.
2. Local Option Sales Tax (LOST), designed for property tax relief, with the revenue shared between the county and municipal governments within the county based on a negotiated sharing agreement;

3. Special Purpose Local Option Sales Tax (SPLOST), used to fund capital improvements by the county and municipal governments;
4. Education Special Purpose Local Option Sales Tax (ESPLOST), used for capital improvements for schools;
5. Homestead Option Sales Tax (HOST), used to fund county government homestead exemptions of up to 100 percent of taxable value;
6. Municipal Option Sales Tax (MOST), used to fund an upgrade of the city of Atlanta's water-sewer system;
7. Transportation Special Purpose Option Sales Tax (TSPOST), used to fund transportation projects within designated multi-county regions.

All of Georgia's local sales taxes are one percent, are county wide with the exception of the MOST and TSPOST, and must be approved through referendum. Some are permanent while others have term limits, but the temporary ones can be re-authorized through referendum.

California

As early as 1944, local governments in California were allowed to adopt their own sales tax ordinance, tax rates, and exemptions. But in 1955, California established the Bradley-Burns uniform sales tax in order to reduce the complexity of the system. The Bradley-Burns sales tax is imposed at one percent and is split 25 percent to the county government and 75 percent to the city or county depending on the location of the sale, with the revenue going to the general fund.¹¹ All counties in California have adopted a Bradley-Burns sales tax. In addition, a city or county can adopt by referendum a local option sales tax of up to 1.5 percent.

Utah

Utah has 16 different local sales taxes. There is a one percent sales tax that all jurisdictions impose. Local governments also have authority to impose, subject to referendum, sales taxes for other purposes. Six of 16 local sales taxes are for various types of transportation projects, 3 are for hospital and cultural support, while the rest are supplementary sales taxes for various classes of government. Total local sales tax rates vary from 1.25 percent to 3.65 percent, with the median rate being 1.6 percent.

¹¹ If the sale occurred in the non-incorporated area of a county, the revenue goes to the county government.

Tennessee

In Tennessee, counties can impose a local sales tax up to a rate of 2.75 percent. Municipalities within that county can impose a tax at a rate equal to the difference between 2.75 percent and the county sales tax rate. Half of the revenue is allocated to education, and some revenue is earmarked for tourism promotion.

Designing a Local Sales Tax System

If Connecticut chooses to allow cities to adopt local sales taxes, the state will have to specify the design of the local sales tax structure, which means selecting one of the options for each of several parameters or features. This section lists the parameters that have to be determined and discusses the options for each parameter. In designing a local sales tax, consideration should be given to the provision of the Streamline Sales Tax Project (SSTP). While Connecticut is not a member of the SSTP, if Congress were to pass something like the Marketplace Fairness Act, its provisions would likely be similar to those adopted by the SSTP, such as common sales tax base and single tax administrator for all sales taxes imposed in a state.

Sales Tax Base

The state could allow each city to decide which goods and services will be taxed (which is the case, for example, in Alabama), could require that the sales tax base be the same as the base for the state sales tax (which is the case in most states), or specify specific differences between the state and local sales tax base (as in the case of Georgia and several other states). In Georgia there are some differences in the state and local sales tax bases, the largest being the exemption of food for home purchase for the state sales tax but not for most local sales taxes.

Allowing cities to define their own tax base creates issues since it could significantly increase administrative and compliance costs, and thus most tax policy experts recommend a uniform base for all sales taxes within a state. Determining whether a product or service is taxed in any given jurisdiction is not costless. Firms already struggle to determine the local sales tax rates that apply at different locations, and that problem is compounded if firms also have to determine which products the tax applies in each town.

Sales Tax Rate

The state could require that all municipalities that adopt a sales tax impose the same tax rate, for example, one percent, or the state could allow each municipality to adopt its own sales tax rate, or to choose from a set of possible rates, for example, 0.5 percent, 1 percent, or 1.5

percent. Allowing cities to choose alternative rates will increase compliance costs. However, limiting the sales tax rate to, say, one percent means that a local government that would prefer a tax rate of 0.5 percent has to choose between a zero percent (i.e., not having a sales tax), and a one percent sales tax rate. Actual practice varies across states.

Situs of Sales

The sales tax could be based on where the sale occurred (origin basis) or where the product is used (destination basis). State sales taxes are generally imposed on a destination basis. Thus, if the good or service is delivered, the transaction is assumed to have occurred where the product is delivered. Residents who purchase a product out-of-state, for example, a book from Amazon, are legally required to pay a use tax to their home state.

Using the destination basis for siting sales for local sales taxes imposes heavy demands on the vendor to determine the tax rate at the point of delivery and to maintain records of sales for each destination site. If the tax is origin base there is an incentive for the vendor to locate in the municipality with a low local sales tax rate; such an incentive does not exist when the tax is based on destination. States are split between the two options. In states that use origin as the basis for the local sales tax, exceptions are made for sales such as automobile purchases so that the situs is the residence of the buyer, thereby eliminating the location incentive for auto dealers.

Optional versus Mandated Sales Tax

The state could require that a sales tax of a fixed tax rate be adopted by each municipality; this would be equivalent to a state grant with revenues distributed on a situs collection basis. Or, it could allow each municipality to decide whether to adopt a sales tax. Mandating that all municipalities adopt a sales tax with the same tax rate would mean that the sales tax rate would be uniform across the state, which reduces administrative and compliance costs. However, this benefit would come at the expense of fiscal freedom on the part of the cities to set their own tax structure. In most states, the local sales tax is a local government option.

Should a Referendum Be Required?

The state needs to determine whether the municipality's elected officials can adopt a sales tax on their own or whether to require voter approval through a referendum. This is a political and not an economic issue; the choice depends at least in part on whether the state believes that voters should have a direct rather than an indirect say in setting a municipality's tax structure. The general practice is to require a referendum, although there are exceptions.

Who Should Administer the Local Sales Tax?

Collecting sales tax revenue, and generally enforcing compliance with the tax, could be done by the state or by each municipality. The administrative costs would be lower if the state collected local sales taxes as part of its current sales tax collection responsibilities. This would be particularly true for municipalities with small sales tax bases. However, it is possible that local governments might be more aggressive in collecting and enforcing local sales taxes since they are more directly affected by the collection rate. Local administration would require that the town employ a staff with the requisite skills, including the ability to conduct sales tax audits. While there are some issues associated with state administration of local sales taxes, Due and Mikesell (1994) suggest these issues are not overwhelming; most tax policy experts argue for state administration of local sales taxes. Some of the issues with state administration concern the timeliness of the transfer of tax collections to the local government, whether the state audits vendors to ensure that vendors have paid the required local sales tax, and how to allocate sales tax collections that are less than the total (state plus local) sales tax liability or when the location of the sale is not provided. In most states, the state administers local sales taxes, although Louisiana is an exception.

Use of the Revenue

The state can specify that the sales tax revenue can be used only for specific purposes, or allow the revenue to be used to fund any government activity allowed by law. Typically sales tax revenue is earmarked for specific services or categories of services. This is a political issue relating to how much authority and freedom local governments should have in deciding how to use its revenue.

Restrictions on the use of sales tax revenue may not have much effect in practice. Suppose that the use of the revenue is restricted to a specific public service, and suppose further that sales tax revenue is less than the current existing expenditures on the designated activities. Given that other revenue sources are fungible, the local government can simply replace existing revenue with sales tax revenue and use the freed up revenue for other purposes. On the other hand, if the revenue from the sales tax exceeds the desired expenditure level on the allowable services, expenditures on the allowable services will be larger than the local government desires.

One commonly designated use of sales tax revenue is to reduce property taxes. For example, in Georgia local governments are required to roll back property taxes by the amount of the prior year's LOST revenue. However, Zhao and Jung (2008) estimate that only 17 percent of

LOST revenues are used for property tax reduction. The rollback in Georgia is from the property tax rate that the jurisdiction sets. Knowing that it must rollback the property tax rate, the jurisdiction can set an artificially higher property tax rate and rollback from that rate. Thus, in effect the local government can set any property tax levy it wants. Sales tax revenue could be used to reduce property taxes on certain classes of property, as with the Georgia HOST.

Geographic Coverage

It has been implicitly assumed to this point that the revenue would go to the host town, i.e., the municipality from which the revenue was collected. However, it would be possible to impose the local sales tax in some defined region (or perhaps in entire the state) and split the revenue by formula among the municipalities in the region. For example, the regions might be comprised of retail centers and the surrounding municipalities. How the revenue would be allocated to the various municipalities depends on the objective of the allocation, since that would determine the factors that would be used in the formula. There are many formulas that could be used to allocate the revenue. For example, the state could adopt a formula that allocated half of the revenue to the host municipality and half on a per capita basis throughout the region. Or, the formula could be based on the inverse of the property tax base per capita, so that more of the sales tax revenue goes to municipalities with smaller per capita property tax bases.

Economic Issues Associated with Local Sales Taxes

There are four economic issues associated with the adoption of a local sales tax that we consider: incentive effects, the amount of revenue generated, equity/fairness, and the effect on fiscal disparities.

Incentive Effects

Economic theory suggests that an increase in the sales tax rate will reduce the sales tax base since the increase in the sales tax rate is the same as a price increase. It is reasonable to assume that the price elasticity of the sales tax base is between 0.7 and 1.0. These elasticities suggest that the adoption of a one percent local sales tax rate statewide would result in a decrease in the sales tax base of between 0.66 percent and 0.94 percent.

The current basic sales tax rate in Connecticut is 6.35 percent,¹² and state sales tax revenues due in fiscal year 2013-14 was \$3,869.3 million.¹³ A one percent local sales tax

¹² Certain goods and services are taxed at rates different than 6.35 percent.

adopted statewide would increase the basic statewide sales tax rate by 15.7 percent. In the absence of any loss of sales tax base due to the tax rate increase, the sales tax revenue would increase by 15.7 percent, or by \$607.4 million. However, assuming price elasticities of 0.7 and 1.0 implies that total sales tax revenue would increase by 15.0 and 14.7 percent, respectively. This would consist of new revenue to towns but a loss of revenue to the state of between 0.66 and 0.94 percent. Assuming a price elasticity of 1.0, the local sales tax revenue from a one percent local sales tax would be \$603.9 million. State sales tax revenue would fall by \$36.4 million.

There is a substantial literature on the mobility of sales tax bases, although much of the focus is on the effect of differential sales tax rates on cross-bordering shopping.¹⁴ These studies generally find that a one percentage point higher interstate sales tax rate differential is associated with per capita sales along a state's border that are between one and 7 percent lower. For example, Walsh and Jones (1988) studied West Virginia's phased-in reduction of the sales tax rate on grocery purchases. For each percentage point reduction in the sales tax rate they find that grocery sales along the West Virginia border increased by about 5.9 percent. It is expected that differential sales tax rates across jurisdictions within a state would have similar effects on the location of purchases as interstate sales tax rate differentials.

Connecticut's basic state sales tax rate is currently 6.35 percent. Connecticut borders three states, New York, Rhode Island, and Massachusetts, with the bulk of its border adjacent to Massachusetts. Rhode Island and Massachusetts do not have local sales taxes; their state tax rates are 7.0 percent and 6.3 percent, respectively. New York has a state sales tax rate of 4 percent and local sales tax that range up to 4.88 percent. Along New York's border with Connecticut, the total sales tax rates in New York are generally in the range of 8.125 percent to 8.375 percent. If Connecticut added a one percent local sales tax, Connecticut border cities would lose some sales to Massachusetts, and might experience a small drop in sales that are made to buyers from New York.

Local jurisdictions currently compete for property tax base, perhaps by keeping property tax rates low or offering special incentives to large developments. If local governments adopt a

¹³Actual sales tax revenue was in 2013-14 was \$4,107.8 million. But this includes such items as late payments and fines and fees from audits.

¹⁴See for example, Mikesell (1970); Mikesell and Zorn (1986); Fisher (1980); Fox (1986); Walsh and Jones (1988), and Tosun and Skidmore (2007).

sales tax, one should expect that towns will compete for sales tax base as well. The difference is that the competition will be for retail facilities, e.g., shopping centers, rather than business facilities more generally (Lewis 2001).

Revenue

Appendix Table A1 provides estimates of sales tax revenues, total and per capita, by town for a one percent sales tax imposed in all Connecticut towns, with revenue going to the town from which the revenue was generated. We refer to this as the Local Sales Tax. As an alternative we estimated revenue for a Regional Sales Tax. For the Regional Sales Tax we summed local sales tax revenue across all towns in each of the nine planning districts (i.e., Councils of Government) and allocated the revenue across towns in the planning district using a formula in which half of the revenue was allocated to the host town and half was allocated on a per capita basis.

The estimated Regional Sales Tax revenue by town, total and per capita, are also presented Appendix Table A1. Appendix A explains how these estimates were developed. The last column in Appendix Table A1 is a fiscal disparities index, which is discussed below.

It needs to be stressed that these estimates should not be used for budgeting purposes; data limitation suggest that the revenue estimates should be viewed with caution and may be imprecise (see Appendix A for a discussion). Because the data do not accurately measure the tax base for each town, we did not attempt to adjust for possible changes in the base due to the tax increase and to cross border shopping. However, these estimates do provide a reasonable indication of local sales tax revenue for informing state tax policy, but not for local government budget making.

The data on state sales taxes due by town do not include sales taxes collected from out-of-state vendors, which are 21.3 percent of total sales taxes due. Since there is no obvious way to appropriately allocate this sales tax revenue to towns, we are forced to ignore the revenue collected from out-of-state vendors. The sum of the estimated revenue by town from a one percent local sales tax is thus \$473.5 million.¹⁵ Local sales tax per capita by town ranges from \$5 to \$717, which is a large variation in per capita revenue across towns. The range for the regional sales tax is from \$42 to \$230, which is a much smaller range.

¹⁵ This figure differs from the \$607.4 million report above because the \$607.4 million includes sales tax revenue from out-of-state vendors.

Obviously, the makeup of the regions can be altered (we used the towns in the planning districts out of convenience), and an alternative formula for the distribution sales tax revenue within the district could be selected. Having the state define the regions would seem to make more sense than allowing towns to decide which towns they want to with. The decision of whether the region will adopt a local sales tax could be made by vote of a majority or super majority of towns, with the possibility that the choice for each town be by referendum in that town. Or, there could be a region-wide referendum. There is no need for a regional authority, particularly if the administration of the tax is done by the state.

As expected the regional sales tax increases the revenue to towns with low local sales tax revenue per capita and decrease revenue from towns with high local sales tax revenue per capita. This can be seen in Figure 1, which plots the Local and Regional Sales Tax revenue per capita, as reported in Appendix Table A1. The line in Figure 1 represents equal values of the revenue per capita from the two sales taxes. Points above the line represent towns for which sales tax revenue per capita from the Regional Sales Tax is greater than for the Local Sales Tax. Notice that towns with lower Local Sales Tax revenue per capita are generally above the line, that is, those towns have higher Regional Sales Tax revenue per capita than Local Sales Tax revenue per capita.

Figure 1. Estimated Regional and Local Sales Tax Revenue

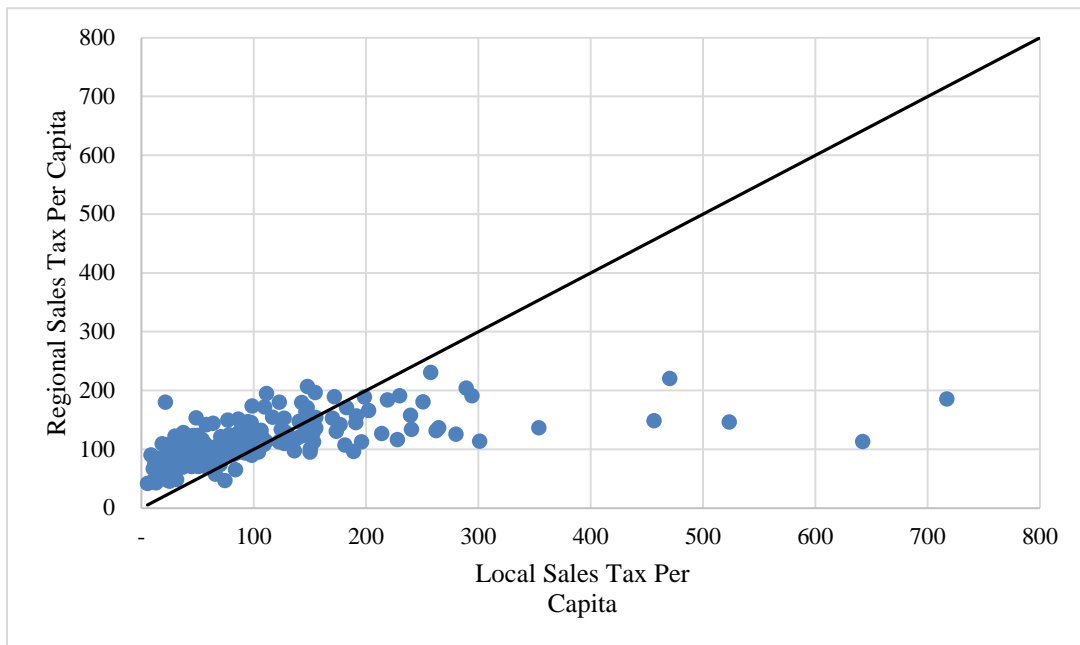
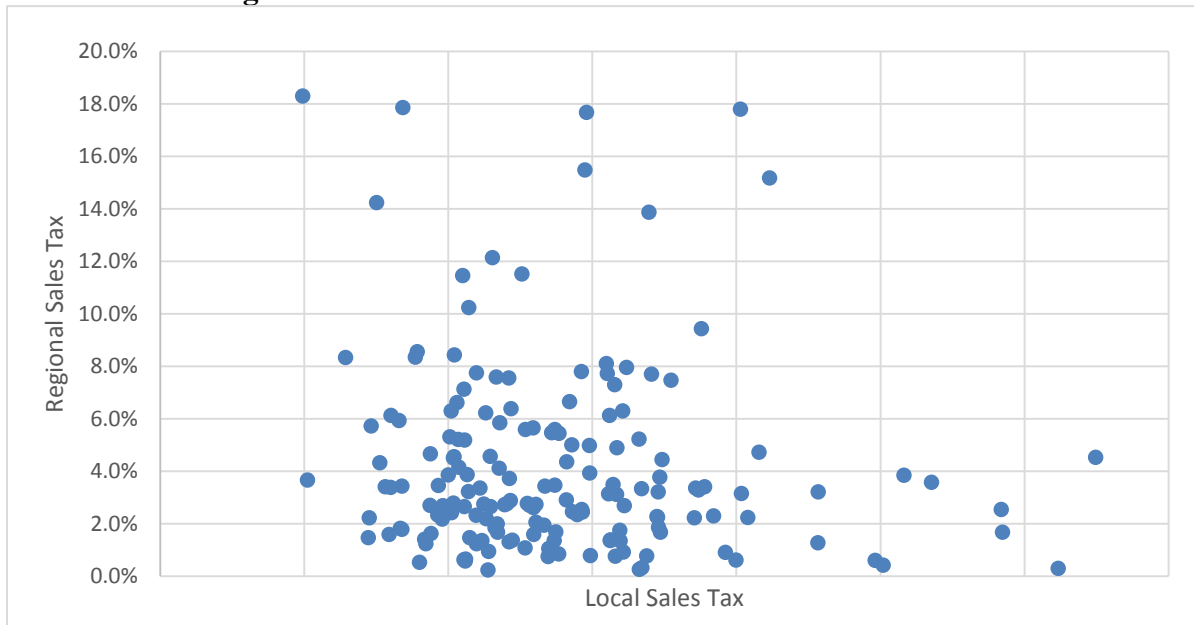


Figure 2 provides more detail on the distribution of sales tax revenue per capita. In particular, the figure shows that there are many more towns with Local Sales Tax revenue per capita below \$75 and above \$200 than for the Regional Sales Tax.

Figure 2. Distribution of Estimated Sales Tax Revenue Per Capita



Figure 3. Potential Percentage Reduction in Property Taxes Using Revenue from the Local Sales Tax and Regional Sales Tax



To the extent that the sales tax will be used to reduce property taxes, it is of interest to show the potential reduction in property taxes. Figure 3 plots the potential reduction in property taxes for the Local Sales Tax and the Regional Sales Tax. Bear in mind that because the sales tax revenue from out-of-state vendors is not included, the calculation understates the potential total reduction in property taxes by 21.3 percent. On average, property taxes could be reduced by 5.0 percent (or 6.1 percent if the revenue from out-of-state vendors is included.)

Because it is hard to make comparisons across all 169 towns, 23 towns were selected in order to provide a clearer picture of how sales tax revenue varies across towns. The 23 towns represent 5 categories of towns: large cities, small cities, rich suburbs, mixed base, and rural. Appendix Table 2A lists the towns and several demographic and economic variables for each town for two different years. Table 3 reports the latest population, Net Grand List per capita, millage rate, property tax revenue, and estimated sales tax revenue. A couple of observations. First, Bridgeport has a small sales tax base and Manchester has a large sales tax base despite the size of their population. Two, the magnitude of the difference in per capita revenue between the two sales taxes can be large.

Table 3. Local and Regional Sales Taxes

	Population	Net Grand List (in millions)	Mill Rate	Prop Tax Revenues (in millions)	Local Sales Tax Revenue (in 1000s)	Local Sales Tax Revenue Per Capita	Regional Sales Tax Revenue (in 1000s)	Regional Sales Tax Revenue Per Capita
Large Cities								
Bridgeport	147,216	\$6,981	41.11	\$285.96	\$7,693.8	\$53	\$4,614.2	\$134
Hartford	125,017	\$3,398	74.29	\$255.55	\$21,528.1	\$172	\$259.8	\$72
New Haven	130,660	\$5,995	38.88	\$230.99	\$19,258.1	\$148	\$491.8	\$52
Stamford	126,456	\$24,294	17.89	\$432.10	\$19,210.7	\$155	\$1,883.3	\$99
Small Cities								
Manchester	58,211	\$3,888	35.83	\$122.29	\$14,005.8	\$241	\$10,247.2	\$93
Meriden	60,456	\$3,246	34.70	\$113.89	\$5,302.1	\$87	\$730.1	\$74
New London	27,545	\$1,565	26.60	\$41.47	\$5,903.8	\$214	\$48.3	\$46
Torrington	35,611	\$2,359	33.47	\$79.23	\$6,134.2	\$170	\$3,489.7	\$126
Rich								
Glastonbury	34,768	\$4,208	30.50	\$128.47	\$4,305.7	\$125	\$449.9	\$69
Guilford	22,417	\$3,490	22.36	\$77.17	\$1,749.5	\$78	\$820.7	\$87
Litchfield	8,333	\$1,109	22.20	\$24.79	\$3,838.1	\$457	\$4,850.9	\$121
New Canaan	20,194	\$8,249	14.08	\$116.62	\$1,948.0	\$98	\$1,018.8	\$107
Mixed Base								
Hamden	61,607	\$4,049	37.14	\$149.05	\$5,544.5	\$90	\$1,334.5	\$70
Middletown	47,333	\$3,581	26.90	\$95.67	\$5,077.0	\$107	\$231.8	\$45
Norwich	40,347	\$2,433	26.90	\$64.82	\$3,968.8	\$98	\$480.8	\$85
Windsor	29,142	\$2,908	27.95	\$8.22	\$3,575.7	\$123	\$4,053.0	\$163
Rural								
Bozrah	2,639	\$244	22.50	\$5.42	\$282.3	\$108	\$5,668.7	\$127
Durham	7,361	\$732	32.19	\$23.55	\$410.4	\$56	\$2,548.4	\$203
Killingly	17,233	\$1,365	19.70	\$28.73	\$1,702.2	\$98	\$2,494.8	\$78
North	3,241	\$344	21.50	\$7.49	\$70.3	\$21	\$136.9	\$90
Plainfield	15,228	\$1,035	21.52	\$22.46	\$1,285.2	\$84	\$168.7	\$113
Union	848	\$98	23.59	\$2.31	\$77.6	\$75	\$4,675.4	\$116
Washington	3,526	\$1,255	11.50	\$14.38	\$453.2	\$127	\$2,658.2	\$136

Equity/Fairness

The sales tax in Connecticut is more regressive than the property tax (Institute on Taxation and Economic Policy 2015). However, the equity of the local sales tax will differ from the equity of the state sales tax if the local sales tax base differs from the tax base for the state.

One might also be concerned with fiscal equity, i.e., differences in the tax revenue per capita across towns. This was discussed above, where it was noted that there is a large variance across towns in local sales tax revenue per capita.

One fairness issue concerns the link between the cost of public services and sales tax revenue. The sales tax in any given city will generate revenue from tourists, shoppers and commuters from other Connecticut cities and other states. This is especially true for cities that are large retail center. Thus, a significant percentage of local sales taxes that an individual pays is likely paid to a jurisdiction other than the jurisdiction of residence, and this percentage is likely to vary widely across jurisdictions. The likely result is that there will be differences across jurisdictions in the relationship between the benefits received from public services and the taxes paid. We are unable to estimate the percentage of sales tax revenue in any town that is paid by non-residents.

Fiscal Disparities

A recent report from the New England Public Policy Center at the Federal Reserve Bank of Boston (Zhao and Weiner 2015) provides an index of fiscal disparities for all Connecticut cities (see column 5 of Appendix Table A1). The index is the difference between the cost of providing non-school public services (costs) and the economic resources available to pay for those services (capacity). A larger positive (negative) number represents a larger (smaller) disparities, i.e., greater fiscal disparity since the cost of service exceeds (is less than) the resources. To better see the relationship between local government sales taxes and fiscal disparities we plotted estimated revenue per capita for the Local Sales Tax and Regional Sales Tax against the fiscal disparity index in Figure 4 and Figure 5, respectively. The correlation coefficient between the index and Local Sales Tax revenue per capita is -0.13, and -0.26 for the Regional Sales Tax, which suggests that larger sales tax revenues per capita are associated with towns with greater fiscal health. As can be seen most of the towns are concentrated near the zero value of the index, particularly for the Local Sales Tax. However, even in the mass of towns near zero fiscal disparity, the correlations with sales tax revenues are about the same as reported

above. So, it appears that neither a local or regional sales tax will reduce the fiscal disparities between towns.

Figure 4. Local Sales Tax and Fiscal Disparities

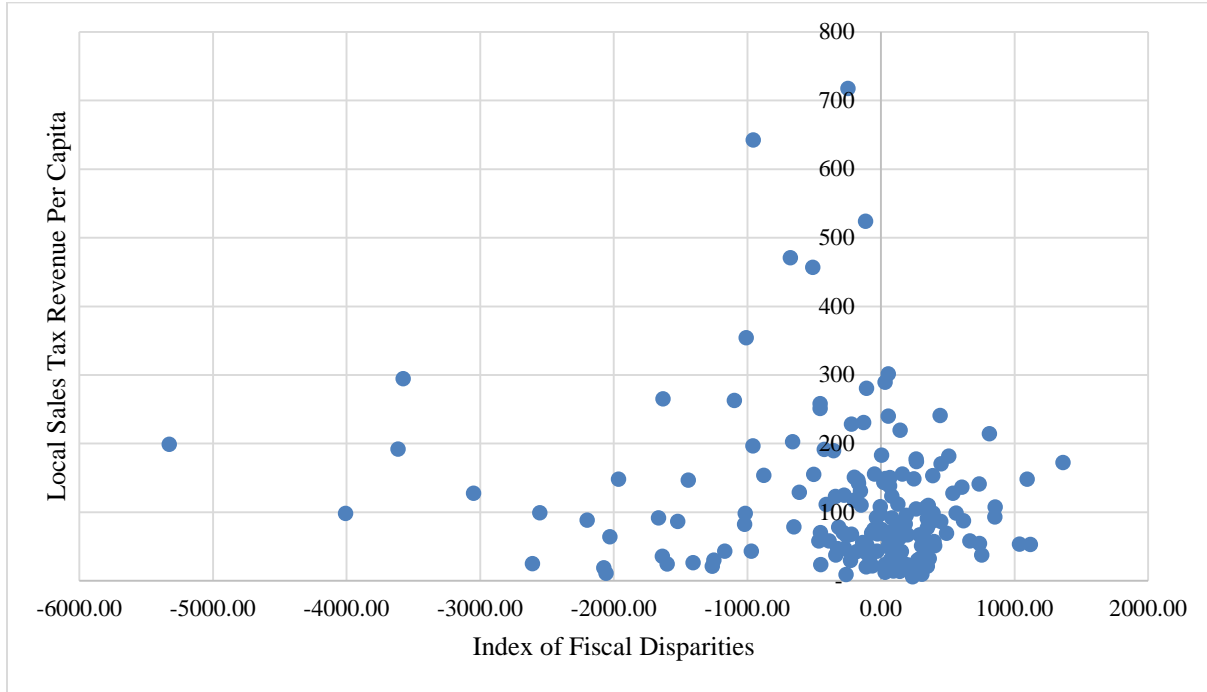
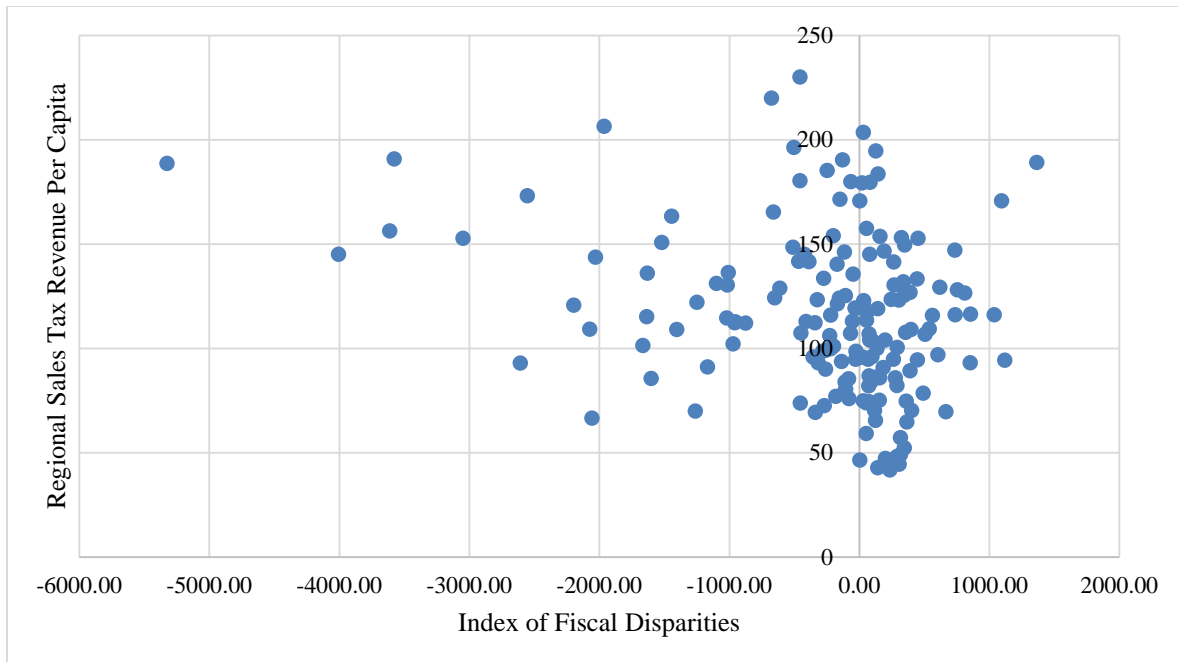


Figure 5. Regional Sales Tax and Fiscal Disparities



We also considered the relationship across towns between sales tax base per capita and the property tax base (Grand List) per capita. The relationship is similar to that shown in Figures 4 and 5, i.e., sales tax base per capita is positively related to the property tax base per capita, again implying that a local sales tax will not do much to reduce fiscal disparities. This is not surprising since the correlation between the index of fiscal disparities and the Grand List per capita -0.47.

Summary Discussion Regarding Adopting a Local Sales Tax

The following are relevant points in considering the adoption of local sales taxes.

- The principal reasons for a adopting local sales tax is that it will diversify the local revenue structure and the revenue can be used to reduce property taxes.
- A one percent local sales tax, if adopted statewide and used just for property tax relief, could reduce property taxes by about 6.1 percent, on average.
- If structured as an add-on to the state sales tax, the cost of administration and compliance would be small.
- A local sales tax would generate tax revenue from commuters and visitors, thus offsetting some of the service costs associated with commuters and visitors.
- Sales tax revenues per capita vary widely across towns, from \$5 to \$717 for the Local Sales Tax and from \$42 to \$230 for the Regional Sales Tax.
- Estimated sales tax revenues per capita are negatively correlated with a measure of fiscal disparity, meaning that sales tax revenues per capita are higher the smaller the fiscal gap.
- Given the sales tax rates in border states, adding a one percent local sales tax should not have a major effect on the interstate location of businesses.
- Differences in local sales tax rates across town will result in some shifting of sales between towns similar to the shifting across state's border.
- If local governments adopt a sales tax, it is expected that towns will compete for sales tax base in a way similar to how they currently compete for property tax base.
- The sales tax is more regressive than the property tax.

Although not discussed above, it should be pointed out that adopting local sales taxes could preclude the state from increasing the state sales tax rate.

LOCAL INCOME TAXES

Reliance on Local Income Taxes

In 2012, local income taxes were imposed in 12 states (Table 4). New Jersey (Newark) and California (San Francisco and Los Angeles) have local payroll taxes imposed on employers, but the Census Bureau does not classify them as income taxes and therefore does not report the revenue as income tax revenue; thus these two states are not included in Table 4.¹⁶ In most states that allow local income taxes, very few local governments actually have local income or payroll taxes; for example, one city in Delaware, two cities in Missouri and in New York (including New York City), and two transit districts in Oregon have local income taxes. The states in which a substantial number of municipal or county governments impose an income tax are Maryland, Kentucky, Ohio, and Pennsylvania. There has been little growth in local income taxes as a percentage of taxes since 1980, in fact most large cities that currently use the income tax adopted it by 1970.¹⁷

Table 4. Local Income Tax Revenue as a Percentage of Local Tax Revenue, 2012

State	Percent	State	Percent
Maryland	33.3%	Delaware	6.6%
Kentucky	26.4%	Missouri	3.7%
Ohio	22.0%	Michigan	3.6%
Pennsylvania	17.5%	Alabama	2.0%
Indiana	17.0%	Iowa	1.7%
New York	11.0%	Kansas	0.04%

Source: Bureau of the Census, *Government Finances: FY 2012*

¹⁶ The Census Bureau considers payroll taxes imposed on businesses a business tax, not an income tax. In addition, Iowa allows an income tax in school districts.

¹⁷ Wallace and Edwards (1999) provide an overview of the structure of local income taxes and Sjoquist and Stoycheva (2012) provide a description of the local income or payroll tax in each state.

Local Income Taxes in Selected States

There is significant variation across states in how local income taxes are imposed. The following illustrates this diversity. It should be noted that local income taxes are not normally imposed on corporate income.

Ohio

Local governments in Ohio are significant users of local income taxes. Nearly all municipal governments impose a tax on earned income at rates that generally range from one percent to three percent, with an average rate of 1.3 percent. Municipal governments can impose an income tax of up to one percent without voter approval. The base of the tax is comprised of wages, salaries, other compensation and net corporate and non-corporate profits attributable to the municipality; in most cases residents can credit taxes paid to the city of employment against income taxes due to their city of residence. The tax is locally administered, with differences across municipalities in compliance and reporting requirements. School districts can impose a local income tax, but it requires voter approval. The school district tax rates range from 0.25 percent to 2 percent, with one percent being the most common tax rate. Most school districts use state taxable income as the base, although about 10 percent of the districts with an income tax use earned income, i.e., wages, salary, other compensation, and earnings from non-corporations.

Pennsylvania

Most cities and townships in Pennsylvania have an earned income tax. Municipalities have the option of imposing the tax on nonresident employees, but nonresident taxpayers get to credit the tax on the income tax imposed by their place of residence. No referendum is required to adopt an income tax; tax rates cannot exceed one percent, except in certain cases. If a school district imposes an earned income tax, the revenue is split between the municipality and school district. The tax base is comprised of wages, salaries, other compensation and net profits from non-corporations. Recently, the state has formed countywide tax collection districts and imposed more uniformity on the administrative process.

Kentucky

Local governments in Kentucky are authorized to impose a tax on earnings by place of employment, and/or a tax on net profits of non-corporate businesses conducting a business within the city. Cities can adopt different rates for the payroll tax and the net profits tax; the

median rate for the payroll tax is one percent while the median rate for the net profits tax is 1.4 percent. No referendum is required. There are limits on the tax rate that can be imposed.

Structuring a Local Income Tax System

If Connecticut chooses to allow cities to adopt local income taxes, the state will have to design a local income tax structure, which means selecting an option for each of several parameters or features. This section lists the parameters that have to be determined and the options for each parameter. Many of the parameters that have to be selected are the same as with a local sales tax.

Income Tax Base

There are several options for the income tax base:

- **Gross Earning.** The most commonly used base is gross earned income, which includes wages, salaries, other compensation, and net profits of non-corporations. This base thus excludes income from sources such as dividends, interest, royalties, rents, etc. In most states there are no personal exemptions, deductions, or credits allowed.
- **Adjusted Gross Income.** In some states the local income tax uses state adjusted gross income (AGI) as the base, which includes all state taxable sources of income. Generally, there are no personal exemptions, deductions, or credits allowed.
- **Taxable Income.** The local income tax base for school districts in Ohio is state taxable income. This base incorporates all of the exemptions and deductions of the state income tax, but not any credits allowed under the state personal income tax. Given Connecticut's income tax structure, taxable income is not actually calculated; the tax tables incorporate the exemptions, which phase out as Connecticut AGI increases. Thus, to use taxable income as the base in Connecticut it would be necessary to redo the income tax forms to accommodate a local income tax.
- **Tax Liability.** Indiana's local income tax, and Iowa's school district income tax, imposes a surtax on the state's tax liability. Thus, even with a flat local income tax rate, the local tax incorporates the progressivity of the state's income tax rate structure, as well as any personal exemptions and tax credits.

These alternative income tax bases obviously differ in terms of what income is taxed, but they also differ in terms of the equity of the tax, i.e., the degree of regressivity or progressivity, as well as administrative and compliance costs. These two issues are discussed below.

Income Tax Rate

Local income tax rates differ across states. For taxes using AGI, state taxable income, or earned income as the tax base, the rates are generally one percent. Because state tax liability is much smaller than AGI, state taxable income, and earned income, the tax rates are generally higher than one percent when state tax liability is the base. Higher tax rates are used in large cities such as Philadelphia and Detroit. With very few exceptions, local income tax rates are flat, i.e., there is only one rate. As with the sales tax, states differ as to whether the state sets the tax rate or whether the rate can be set by the municipality. In most states, the local income tax rate is set by the local government, but frequently with some maximum allowable rate.

Optional versus Mandated Income Tax

As with the local sales tax, the state could require that an income tax of a fixed tax rate be adopted by each municipality; this would be equivalent to a state grant with revenues distributed on the basis of the income tax base. Or, it could allow each municipality to decide whether to adopt an income tax. If all towns are required to adopt a local income tax, Other than Maryland, local governments decide whether to have an income tax. See the discussion of this issue in the local sales tax section above.

Situs/Allocation of Revenue

The situs of the tax base can be based on place of residence, where the income is earned, or both. For local income taxes that use AGI, state taxable income, or state tax liability as the tax base, situs is place of residence. For local income taxes that use earned income as the base, some are imposed by place of work while in some states the tax is levied on earned income of residents and on the earnings of nonresidents, but generally, although not always, the nonresident gets a credit against the income tax imposed by the resident's city for the tax imposed by place-of-work. The recent U.S. Supreme Court decision regarding Maryland's income tax (*Comptroller of the Treasury of Maryland v. Wayne*) would suggest that a credit on taxes paid to the municipality of employment would be mandatory.

In most states the local income tax is imposed on the employee. However, Los Angeles and San Francisco have payroll taxes that are paid by the employer. Assuming that this tax is born by the employee, then the payroll tax is born by anyone (both nonresidents and residents) who works in the city, but not by residents who work outside of the city.

In Michigan the tax revenue is essentially shared between the place of residence and the place of employment. Residents pay a tax on their income while nonresidents pay a rate that is half of that for residents on income arising from sources within the city. Residents receive a credit for the tax paid on earnings from outside their city of residence. For example, suppose that the tax rate in the place of residence is one percent and all of the \$50,000 in taxable income is earned outside the city of residence. The taxpayer would pay \$250 to the place of work (0.5 percent tax rate times \$50,000) and \$250 to the place of residence (one percent times \$50,000 less a credit for the \$250 in taxes paid to the place of work.)

When the tax is based on where income is earned, it is necessary to allocate earnings to the various jurisdictions in which the individual has attributable earnings. States differ in terms of how one's place of employment is determined. In Indiana, place of work is where your main place of business was located or where the employee main work activity was performed as of the first of the year. In Birmingham, Alabama, a worker must calculate the proportion of work that was performed in the city over the year. So, for workers like delivery people this requires keeping records of time spent in each jurisdiction, which is significant administrative burden on the taxpayer. It is also difficult to audit the accuracy of such allocations.

Should a Referendum Be Required?

The state needs to determine whether the municipality's elected officials can adopt an income tax on their own or whether to require voter approval through a referendum. This is a political and not an economic issue; the choice depends on whether the state believes that voters should have a direct rather than an indirect say in setting a municipality's tax structure.

Who Should Administer the Local Income Tax?

Collection and enforcement of local income taxes that are based on earnings is done by the local government, while local income taxes that are based on AGI, state taxable income, or state tax liability are administered by the state. For the later, it would seem that administrative costs would be lower if the state were responsible for the collection of the local income tax since the local income tax can be piggy backed on the state income tax.

Local administration of a local earnings tax is challenging, particularly if not all towns impose an earning tax. For example, if the tax is based on place of residence, employers located outside the town imposing the tax will not necessarily withhold income taxes or report income earned by residents of the town, which means that the local government will have a difficult task ensuring compliance. However, the state could require all firms in the state to withhold any earnings tax liability. The fixed costs of administering a local earned income tax will be high, suggesting that adopting an earnings tax may not be desirable for towns for which the tax revenue is small. While there are small towns in other states that have an earnings tax, there are no known studies of the cost and effectiveness of the administration.

Use of the Revenue

The issues associated with the allowable use of local income taxes are the same as for local sales taxes. See the discussion of this topic above in the section on sales taxes.

Geographic Coverage

The issues associated with the geographic coverage are the same as for local sales taxes. See the discussion of this topic above in the section on sales taxes.

Economic Issues Associated with Local Income Taxes

There are four economic issues we consider, incentive effects, the amount of revenue generated, equity/fairness, and effect on fiscal disparities.

Incentive Effects

If all local governments in Connecticut adopt an income tax at a uniform tax rate, the effect on the number of jobs and hours worked will be the same as if the state increased its income tax rate. To the extent the local income tax rates differ across towns, it is expected that the tax differential will cause migration of the tax base from the towns with the higher income tax rates to those towns with lower tax rates. Much of the research on the effect of local income taxes on tax base mobility has focused on Philadelphia, for which differential income tax rates have been shown to result in migration of workers across the region. Grieson (1980) estimated that Philadelphia lost 14 percent of its employment between 1965 and 1975 as a result of its high income tax rate, which was three to 4 times the tax rate in surrounding jurisdictions. Inman, et al. (1987) obtain an estimated elasticity of employment with respect to the wage tax rate of between -0.11 and -0.14 for Philadelphia. That is, for every 10 percent increase in the tax rate,

employment fell by 1.1 to 1.4 percent. Luce (1994) estimated an elasticity of -0.6 for wage tax rate differential using data from the Philadelphia area, that is, an increase of 10 percent in the tax rate differential results in an estimated decrease in employment of 6 percent. If local income tax revenue is used to reduce the property tax rate, the reduction in property taxes will offset at least some of the disincentive effect of a local income tax.

In terms of economic incentives it does not matter if an income tax is imposed on the employer or the employee. If imposed on the employer and the employer cannot reduce wages to offset the tax, the employer may decide to move to a city without an income tax. If the tax is imposed on employees and the employees can get an offsetting wage increase, the employer may decide to move to a city without an income tax. If the tax results in a reduction in net wages, employees may decide to seek work in a city without an income tax. In any of these cases, the city will lose jobs.

The adoption of an income tax will change the incentives for local government competition for tax base. Currently, towns compete for property tax base, with commercial and industrial property being more desirable since there is less associated service cost with such property than for residential property. An income tax provides an incentive for towns to compete more strongly for high wage households or high wage jobs, and somewhat less for property. Towns will be less inclined to compete for large facilities that offer low wage jobs. So, more of the inducements that local governments offer will be tailored to attract high wage jobs rather than just buildings.

Revenue

The revenue from a local income tax will depend on the tax base that is chosen and the tax rate. We consider three tax bases: Connecticut AGI (which we refer to as the AGI Tax), state tax liability (which we refer to as the Income Surtax), and earned income. For the earned income tax we consider three alternative taxes: 1) a tax imposed by place of work, which we refer to as the Payroll Tax; 2) a tax imposed by a town on earned income of the residents, regardless of where earned, and on earnings of non-residents working in the town, with a credit for taxes paid by place of work, which we refer to as the Residence-base Tax; 3) a tax equally split between place of work and place of residence, which we refer to as the Split Earnings Tax. We will also refer to a tax that applies to earned income only of the residents of the town, which we will refer to as the Resident-only Tax.

As with the sales tax, a regional income tax is an option for any of the five income taxes. Given the number of options, we did not estimate local income tax revenue by town for a regional option. The options for how to adopt a regional income tax are the same as those for the regional sales tax, as discussed in the previous section. If a regional earnings tax is locally administered, an agency would have to be established or one of the towns appointed to administer the tax. But such a regional agency could also be established to administer non-regional earnings taxes. Ohio provides an example for such regional administration.

The Connecticut Department of Revenue Services provided Connecticut AGI and state tax liability by town of residence. These values do not include data from returns filed by non-residents, which account for 3.1 percent of AGI and 3.5 percent of tax liability. Thus, the revenue estimates presented below will slightly understate the likely tax revenue a town would receive from these taxes.

The Connecticut Department of Labor provided data on earnings by town and place of work. Among other problems (see Appendix A), these data have two major limitations for estimating earned income tax revenue. First, these data do not include profit from non-corporate businesses; we use Census data to account in an imperfect way for this limitation. With this adjustment, we can estimate the revenue for an earned income tax imposed by place of employment, i.e., the Payroll Tax. Note that the Payroll Tax revenue for any town will not depend on whether other towns adopt the tax, except through the effect on firm location due to the tax.

The second limitation with these data is that the data do not include earnings of Connecticut residents who work out-of-state; we are unable to adjust for this. Thus, the data underestimate the revenue for a residence-based earned income tax, i.e., a tax on earned income of the residents, regardless of where earned, and on earnings of non-residents working in the town, with a credit for taxes paid by place of work. For the Residence-base Tax, a town's tax revenue will depend on which other towns adopt the tax since that determines whether a resident's out-of-town earned income is taxed by the town of residence or by the town in which the individual works. If all towns adopt the Residence-base Tax, the tax base consists of a payroll tax plus the residents' out-of-state earned income. Since we cannot measure out-of-state earned income, the Payroll Tax and the Residence-base Tax are equivalent using our data in the case that all towns adopt a residence-base tax, since the only difference between the two tax bases

when all towns adopt the Residence-based Tax is earning from out-of-state. (See Appendix A for a discussion of the procedure used to estimate the earned income tax bases.)

We set the tax rates at one percent for the tax on earned income, 0.75 percent for the AGI Tax, and 18 percent for the Income Surtax. These rates yield similar total statewide tax revenue, namely, \$1,084.0 million. Income tax rates that would raise essentially the same aggregate tax revenue as a one percent local sales tax are: 0.42 percent on Connecticut AGI, 9.99 percent on Connecticut income tax liability, and 0.55 percent on earnings and net non-corporate profits.

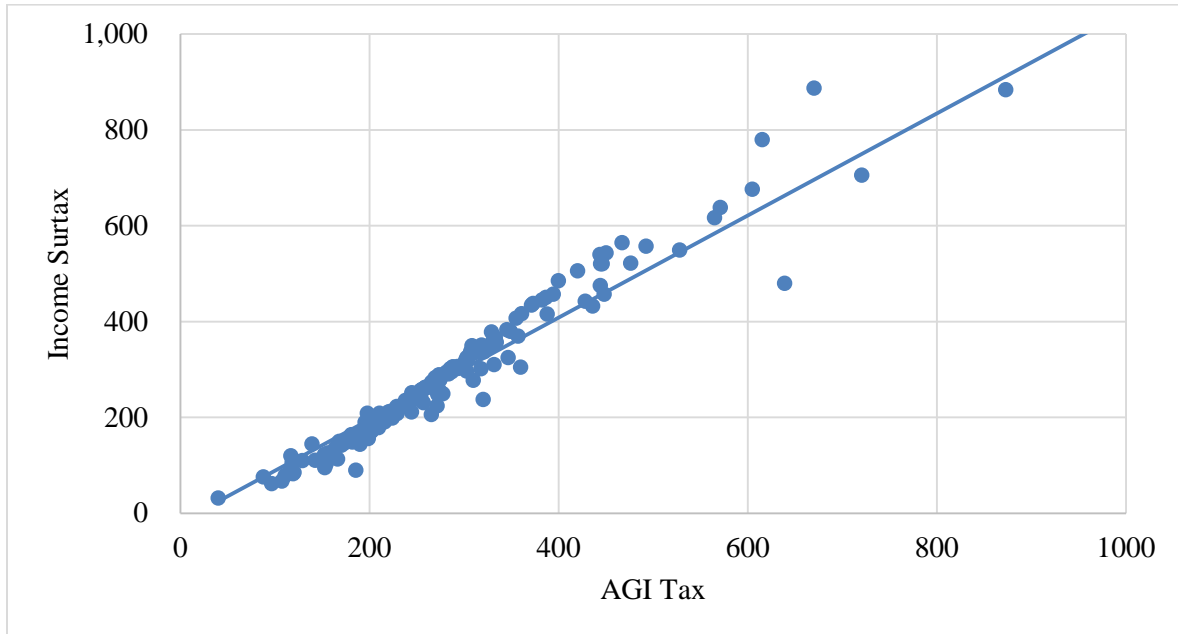
Appendix Table A3 provides estimates of total and per capita tax revenues by town for each of the tax bases. It needs to be stressed that these estimates are not appropriate for budgeting purposes; data limitation suggest that the revenue estimates should be viewed with caution and may be imprecise, particularly for the earnings tax. Because the data do not accurately measure the tax base for each town, we did not attempt to adjust for possible changes in the base due to behavioral responses to the tax. However, these estimates do provide a reasonable indication of tax revenue that municipalities might generate for informing state tax policy, but not for local government budget making.

Revenue per capita differs widely across towns; per capita revenue range from \$40 to \$1,773 for the AGI Tax, and from \$31 to \$1,874 for the Income Surtax, which are substantial ranges. If we don't consider the 5 percent of towns with the highest revenue per capita and the 5 percent with the lowest per capita revenue, we find that for 90 percent of the towns AGI Tax per capita ranges from \$120 to \$639, and from \$90 to \$705 for the Income Surtax. Figure 6 plots per capita tax revenue for the two income taxes. For most towns the revenue from the tax on AGI is similar to the revenue from the tax on tax liability, for 147 towns the amounts are within 25 percent of each other. However, the ratio of revenue from the AGI Tax to that from the Income Surtax ranges from 0.76 to 2.08.¹⁸ There are four things to note. First, higher per capita AGI Tax revenue is associated with higher per capita Income Surtax revenue. In fact the correlation between the two is 0.98. Second, the slope of a simple regression line through the dots in Figure 6 has a slope that is greater than one, so that as AGI increases the per capita tax revenue for the Income Surtax increases faster than per capita tax revenue for the AGI Tax. Third, the

¹⁸ State tax liability is always less than state AGI, but because the tax rates differ, the revenue from the local tax on tax liability does not have to be less than the local tax on AGI.

relationship between the two revenues is more varied at the high AGI levels. Fourth, the ratio of per capita revenue from the AGI Tax to that from the Income Surtax is inversely related to AGI.

Figure 6. Per Capita Income Tax Revenue for AGI Tax and Income Surtax



Per capita revenue for the Payroll Tax ranges from \$22 to \$872, which is not as large as the range for the AGI Tax. The per capita revenue for the Payroll Tax is positively related to per capita revenue for the AGI Tax, but the correlation is small, 0.27. The reason is that AGI is based on the income of the residents of a town, while the Payroll Tax is based on the earned income of those working in the town.

As noted above, the revenue from a Residence-based Tax depends on which towns adopt the tax. If all towns adopt a Residence-based Tax, the results using our data would be the same as for the Payroll Tax. However, for illustrative purposes we calculated the revenue for a Residence-based Tax if only the four largest towns adopted it. Table 5 presents the results. For comparison purposes we calculated two ratios. First, we take the ratio of the revenue for a Residence-based Tax to the revenue from a Payroll Tax. For these 4 cities, the revenue from the former is larger than the latter, and the relative differences vary, from 11 percent more to 52 percent more. We also calculated revenue for a Resident-only Tax and took the ratio of the Residence-based Tax to the Resident-only Tax (column 4 of Table 5). (Recall that the Resident-

only Tax applies to the earned income only of the residents of the town.) The ratios are large, suggesting that these 4 towns would generate a substantial percentage of their revenue from the earned income of non-residents.

Table 5. Tax Revenue for Residence-base Tax

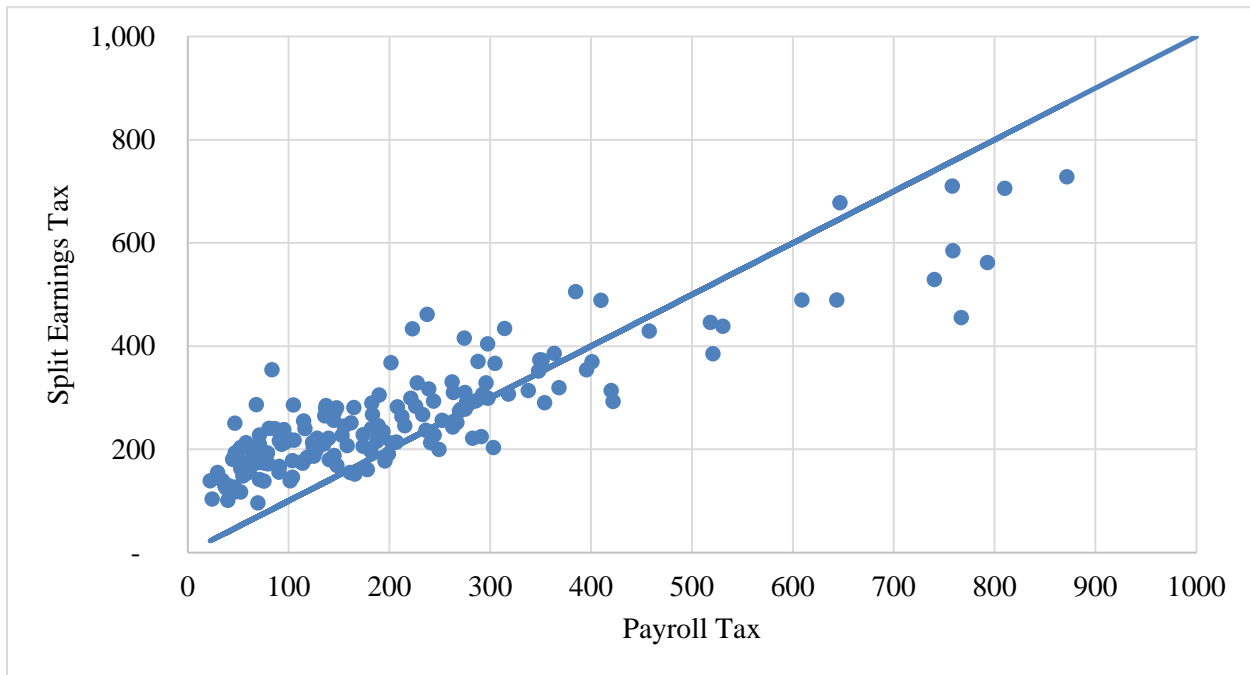
	Tax Revenue	Tax Revenue Per Capita	Ratio of Bases	
			Residence-base/Payroll	Residence-base / Resident-only
Bridgeport	33,441,235	230	1.52	2.02
Hartford	93,269,242	745	1.11	7.03
New Haven	59,355,611	455	1.16	3.45
Stamford	105,168,062	848	1.23	3.17

To explore the relationship between the Payroll Tax and the Resident-only Tax, we created the ratio of the revenue from the two taxes (Table 6). A ratio greater than one means that tax revenue is larger when the tax is based on place of work (Payroll Tax) than place of residence (Resident-only Tax). There are only 35 towns from which Payroll Tax revenue is greater than Resident-only Tax revenue. These 35 towns are employment centers, and thus generate more revenue when the earned income tax is a Payroll Tax.

Table 6. Distribution of the Ratio of Payroll Tax Revenue to Resident-only Tax Revenue

Range	Number of Towns
0 to 0.2	22
0.2 to 0.4	44
0.4 to 0.6	30
0.6 to 0.8	21
0.8 to 1.0	17
1.0 to 1.4	17
1.4 to 2.0	9
2.0 and above	9

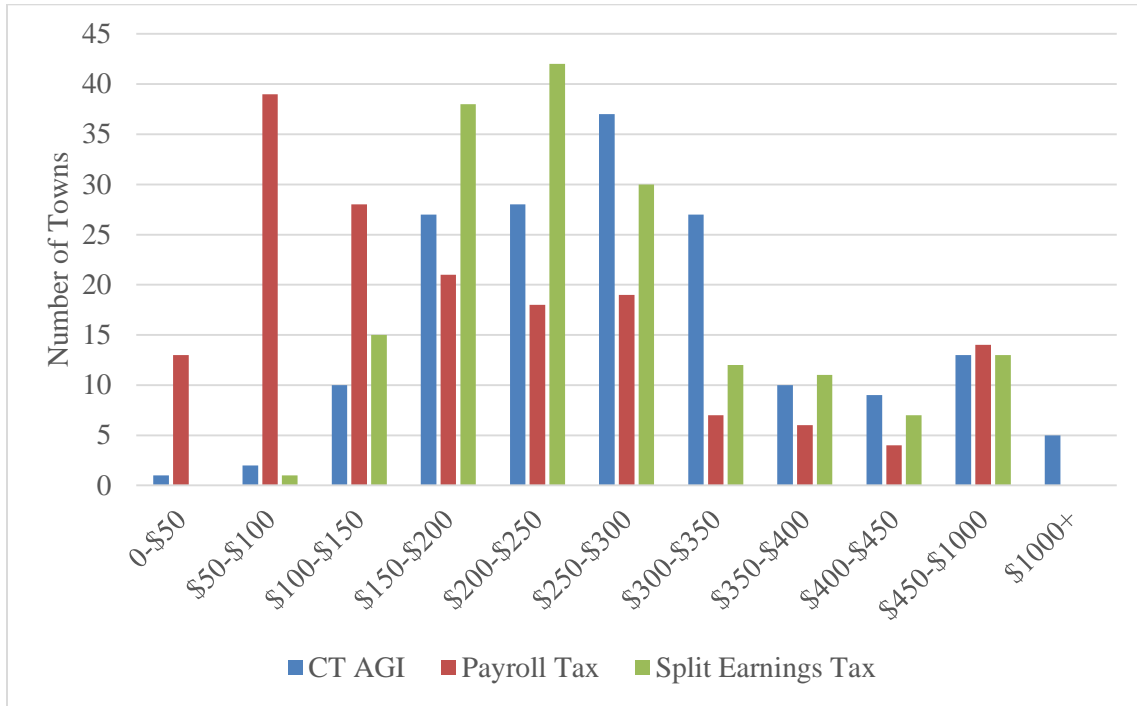
Figure 7. Earned Income Tax Revenue per Capita



We also consider a tax in which the tax on earned income is split 50/50 between place of residence and place of employment. Per capita revenues for the Split Earnings Tax ranges from \$97 to \$710. Figure 7 shows the relationship between per capita revenues for the Payroll Tax and the Split Earnings Tax. The line in Figure 7 represents points for which the revenue per capita from the two taxes are equal. For low values of per capita Payroll Tax revenue, the per capita revenue for the Split Earnings Tax is greater than the per capita revenue for the Payroll Tax, i.e., the points are above the line. Towns with small Payroll Tax bases are likely to be residential communities so that resident earned income is likely to be larger than payroll earned income, since residents in such communities work outside their town of residence. The opposite is the case for towns with large per capita Payroll Tax revenue.

Figure 8 provides more detail on the distribution of tax revenue per capita for three income taxes (we exclude the Income Surtax since it is closely related to the tax on AGI). In particular, the figure shows that there are many more towns with Payroll Tax revenue per capita below \$150 than either the AGI Tax or the Split Earnings Tax. Furthermore, the distribution for the Split Earnings Tax is more uniformly distributed than either of the other two taxes.

Figure 8. Income Tax per Capita



One possible objective of adopting a local income tax is to reduce property taxes. In the aggregate, the income taxes generate sufficient revenue to reduce total property taxes by about 11.5 percent. But there are substantial differences between towns in the possible reduction in property taxes, and furthermore the possible reduction for a town differs by the particular income tax considered. For each of three taxes (AGI Tax, Payroll Tax, and Split Earnings Tax) we calculated the income tax revenue as a percentage of property tax revenue. Table 7 summarizes the distribution of the potential percentage reduction in property tax. For the AGI Tax and the Split Earnings Tax, most of towns can reduce property taxes by 5 to 15 percent. However, for the Payroll Tax, most of the towns can reduce property taxes by less than 10 percent. The reason is that there are many towns that generate very little revenue with a Payroll Tax, and a few towns with very large payrolls which allows a substantial reduction in property taxes for these towns.

Table 7. Potential Reduction in Property Tax

Percent Reduction	Number of Towns		
	AGI Tax	Payroll Tax	Split Earnings Tax
0 to 5%	4	65	6
5% to 10%	57	61	91
10% to 15%	97	24	58
15% to 20%	8	7	10
20% of more	3	12	4

Table 8 present total and per capita income tax revenue estimates for the 23 sample cities, while Table 9 shows the possible percentage reduction in property tax revenue. The tables illustrate the points made above.

Table 8. Local Income Tax Revenue

	[1]		[2]		[3]		[4]	
	AGI Tax		Income Surtax		Payroll Tax		Split Earnings Tax	
	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita
Large Cities								
Bridgeport	15,660.4	108	9,720.7	67	24,131.7	166	22,127.3	152
Hartford	12,094.0	97	7,727.6	62	95,987.7	767	56,998.3	456
New Haven	16,840.0	129	14,237.6	109	54,987.4	422	38,151.5	293
Stamford	54,097.8	436	53,598.5	432	94,076.1	759	72,560.1	585
Small Cities								
Manchester	12,198.8	210	11,187.5	192	12,541.5	216	14,293.4	246
Meriden	9,952.9	164	8,238.6	136	11,032.2	182	11,936.1	197
New London	3,181.3	115	2,338.9	85	7,796.2	283	6,115.5	222
Torrington	6,142.4	170	5,099.0	141	7,470.8	207	7,728.3	214
Rich Suburbs								
Glastonbury	15,559.9	450	18,768.0	543	10,278.9	297	13,965.3	404
Guilford	9,401.6	420	11,316.2	506	4,091.0	183	6,488.0	290
Litchfield	2,537.2	302	2,680.9	319	1,588.7	189	2,067.4	246
New Canaan	34,492.7	1730	36,224.2	1817	4,736.8	238	9,204.6	462
Mixed Base								
Hamden	12,949.6	211	12,809.9	208	9,719.9	158	12,729.6	207
Middletown	9,648.5	203	9,300.5	196	17,507.5	368	15,174.7	319
Norwich	5,770.4	143	4,464.8	110	8,048.7	199	7,717.5	191
Windsor	7,028.1	561	6,636.2	530	18,733.0	1495	14,245.1	1137
Rural								
Bozrah	582.6	223	556.2	212	507.5	194	584.9	223
Durham	2,741.8	372	3,205.4	434	1,075.2	146	2,004.1	272
Killingly	2,883.8	167	1,957.9	113	4,172.0	241	3,685.3	213
North Canaan	132.6	40	102.8	31	996.1	303	668.2	203
Plainfield	2,359.8	154	1,705.2	111	1,594.7	104	2,230.4	146
Union	174.9	168	156.0	150	54.7	53	122.0	117
Washington	2,013.3	565	2,195.1	616	830.0	233	951.9	267

Table 9. Income Tax Revenue as a Percent of Property Tax Revenue

	AGI Tax	Income Surtax	Payroll Tax	Split Earnings Tax
Large Cities				
Bridgeport	5.5%	3.4%	8.5%	7.8%
Hartford	4.7%	3.0%	37.5%	22.3%
New Haven	7.3%	6.2%	23.9%	16.6%
Stamford	12.8%	12.7%	22.2%	17.1%
Small Cities				
Manchester	10.0%	9.2%	10.3%	11.7%
Meriden	8.7%	7.2%	9.6%	10.4%
New London	7.7%	5.6%	18.8%	14.7%
Torrington	7.7%	6.4%	9.3%	9.6%
Rich Suburbs				
Glastonbury	12.2%	14.7%	8.1%	10.9%
Guilford	12.2%	14.7%	5.3%	8.4%
Litchfield	10.1%	10.7%	6.4%	8.3%
New Canaan	30.0%	31.5%	4.1%	8.0%
Mixed Base				
Hamden	8.7%	8.6%	6.5%	8.6%
Middletown	10.0%	9.7%	18.2%	15.8%
Norwich	8.9%	6.9%	12.4%	11.9%
Windsor	19.9%	18.8%	53.0%	40.3%
Rural				
Bozrah	10.8%	10.3%	9.4%	10.9%
Durham	11.6%	13.6%	4.6%	8.5%
Killingly	10.0%	6.8%	14.5%	12.8%
North Canaan	1.7%	1.4%	13.1%	8.8%
Plainfield	10.4%	7.5%	7.1%	9.9%
Union	6.2%	5.5%	1.9%	4.3%
Washington	13.9%	15.1%	5.7%	6.6%

Equity/Fairness

An income tax on AGI will be proportional, assuming that income is measured by AGI. The distribution of the tax for an income tax using tax liability will be the same as the distribution of the state income tax liability.

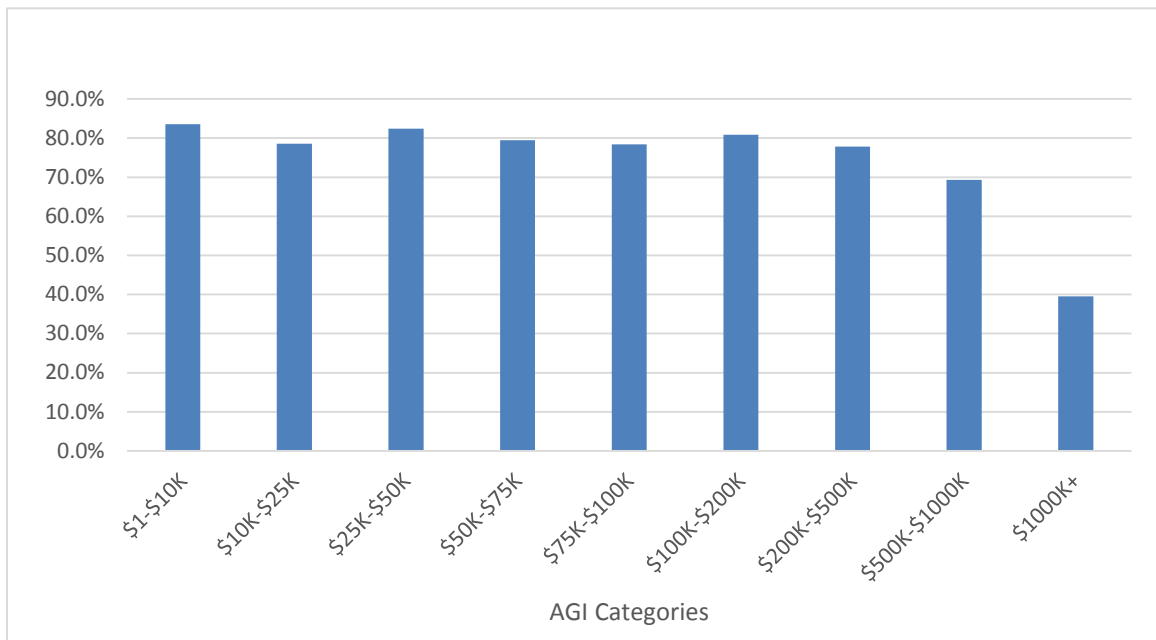
Local earned income taxes are slightly regressive since not all income sources are taxed and the excluded income (largely returns to capital) are associated with higher income households. Figure 9 shows earned income (including net non-corporate profits) as a share of Federal AGI by AGI category using IRS data for Connecticut. While the pattern is not consistent, in general the earned income share decreases as AGI increases, particularly at the

upper AGI levels. Since the Payroll Tax is not imposed on earnings from out-of-state, there is a horizontal inequity between those who work in-state and those who work out-of-state.

Fiscal Disparities

A recent report from the New England Public Policy Center at the Federal Reserve Bank of Boston (Zhao and Weiner 2015) provides an index of fiscal disparities across Connecticut cities (Table A1, column 4). (See the discussion of the index in the previous section.) To illustrate the direction of the effect of local income taxes on fiscal disparities we plotted the fiscal disparity index and per capita tax revenue for three taxes, the AGI Tax, the Payroll Tax, and the Split Earnings Tax, see Figures 10, 11, and 12. Recall that a negative value of the index implies fiscal health. As can be seen, tax revenue per capita is generally larger for towns with better fiscal health. This is particularly true for the AGI tax and the Split Earnings Tax, for which where the correlation coefficients are -0.83 and -0.41. The pattern for the payroll tax is not as clear, but the correlation coefficient of -0.17 suggests that larger per capita revenue is associated with towns that have greater fiscal health. Thus, the adoption of local income taxes will not in general offset existing fiscal disparities.

Figure 9. Earnings and Net Profits as a Percentage of AGI, FY 2012



Source: *Statistics of Income, IRS*

Figure 10. AGI Tax and Fiscal Disparities

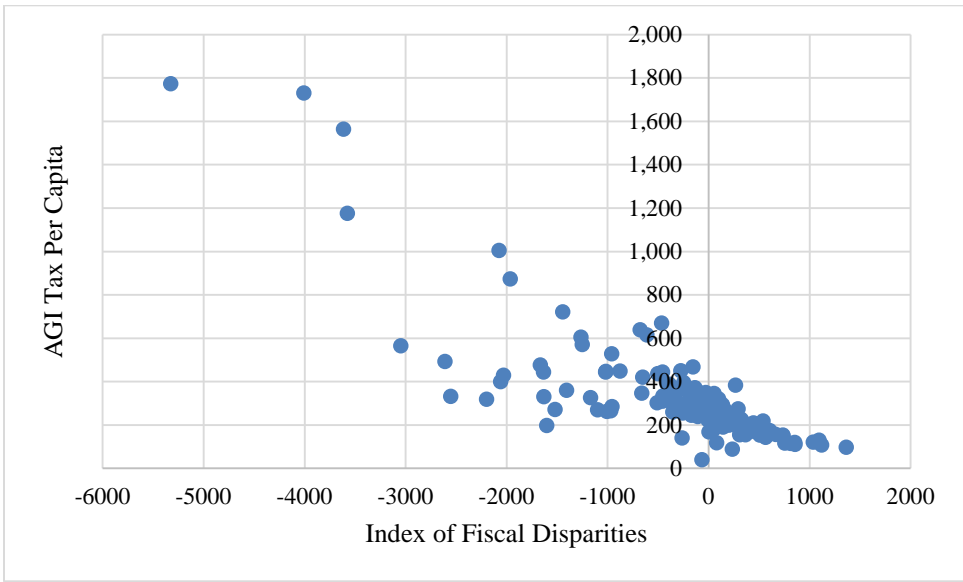


Figure 11. Payroll Tax and Fiscal Disparities

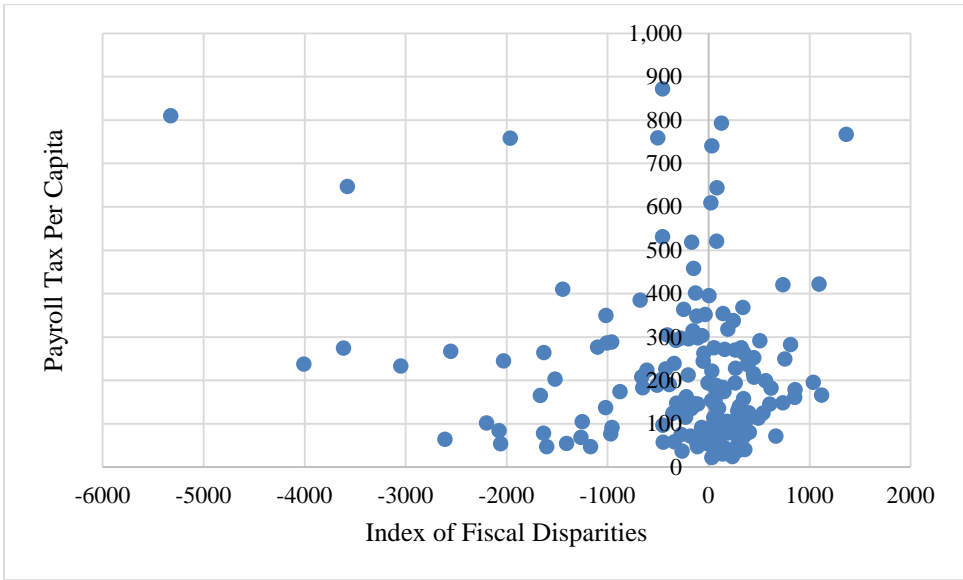
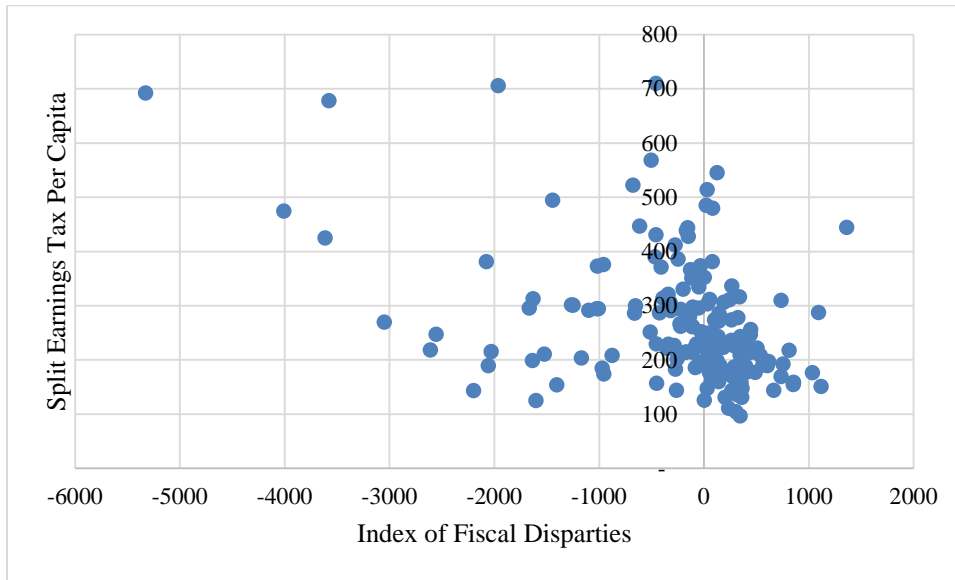


Figure 12. Split Earnings Tax and Fiscal Disparities



We also considered the relationship between the various income tax bases per capita and the property tax base per capita. The correlations between property tax base per capita and the AGI Tax and Income Surtax bases are 0.67 and 0.65, respectively, while the correlation with the Payroll Tax base per capita is 0.26. These correlations are consistent with the relationship between the taxes and the index of fiscal disparities, that is, the income taxes will not, in general, reduce the level of fiscal disparity.

Summary Discussion Regarding Adopting a Local Income Tax

The following are relevant points in considering the adoption of local income taxes.

- The principal reasons for adopting a local income tax is that it will diversity the local revenue structure and the revenue can be used to reduce the property tax burden.
- Given the estimated income tax revenue, a local income tax, if adopted by all towns and used just for property tax relief, could reduce property taxes by about 11.5 percent. However, there are large difference between towns in the potential for reducing property taxes, and the differences depend on which income tax is adopted.
- The cost of administration and compliance, assuming state administration, would be small for a local income tax that is based on state AGI or state tax liability. The administrative cost for an earned income tax administrated by each town will be large and would require significant administrative capabilities. Given the size of many of the towns

in Connecticut, we suspect that administrating such a tax for many towns would be a challenge. Regional administration of an earnings tax would overcome some of the administrative issues associated with the administration by town.

- If the tax is based on payroll, the tax would generate tax revenue from commuters, and thus offset some of the service costs associated with commuters and visitors.
- Income tax revenue per capita varies widely across towns, with the difference depending on which tax is adopted.
- Estimated income tax revenue per capita is negatively correlated with a measure of fiscal disparity. This means that local income taxes will not reduce fiscal disparities.
- The income tax based on AGI or state tax liability is progressive, while an earned income tax is less regressive than the property tax or a sales tax.
- An earned income tax based on payroll is likely to be reduce employment by a small amount in any town that adopts it, particularly if neighboring towns do not adopt an earned income tax.

USER CHARGES AND FEES

Reliance on User Charges and Fees

Table 10 shows local government revenue from current charges as a share of OSR by state.¹⁹ The District of Columbia and Connecticut have the lowest share of current charges overall at 8.5 and 8.6 percent, respectively, while in Mississippi current charges account for over 50 percent of local own source revenue. On average, local governments in the U.S. generate 22.9 percent of their OSR from current charges. It is worth noting that for more than half of the states, current charges as a share of OSR ranges from 20 percent to 30 percent.

¹⁹ The Bureau of the Census defines current charges as the amounts received from the public for performance of specific services benefitting the person charged, and from sales of commodities and services, except liquor store sales. Includes fees, assessments, and other reimbursements for current services, rents and sales derived from commodities or services furnished incident to the performance of particular functions, gross income of commercial activities, and the like. Excludes amounts received from other governments (Intergovernmental revenue) and interdepartmental charges and transfers. Current charges are distinguished from license taxes, which relate to privileges granted by the government or regulatory measures for the protection of the public. Current charges do not include fines for violations of law, civil penalties, and special assessments such as impact fees.

Table 10. Current Charges as a Share of OSR, 2012

	Current Charges as a Share of OSR		Current Charges as a Share of OSR
Mississippi	51.1%	Utah	24.1%
Wyoming	38.1%	New Mexico	23.6%
Indiana	37.0%	Ohio	22.8%
Idaho	34.6%	Wisconsin	22.7%
Tennessee	33.8%	South Carolina	22.5%
North Carolina	33.3%	Arizona	22.5%
Iowa	32.7%	Hawaii	22.4%
Nevada	32.4%	Texas	22.1%
Oklahoma	32.1%	South Dakota	22.0%
Michigan	31.9%	North Dakota	20.9%
Alaska	30.0%	Delaware	20.5%
Minnesota	29.5%	Alabama	20.0%
California	29.3%	Georgia	18.4%
Florida	28.3%	Maryland	18.2%
Arkansas	27.8%	Illinois	16.2%
Kentucky	27.4%	Pennsylvania	15.9%
Louisiana	26.9%	Massachusetts	15.3%
West Virginia	26.7%	Virginia	14.8%
Oregon	26.2%	New York	14.6%
Montana	25.8%	Maine	14.2%
Colorado	25.7%	New Jersey	13.4%
Vermont	25.7%	Rhode Island	12.1%
Missouri	25.4%	New Hampshire	11.0%
Nebraska	25.3%	Connecticut	8.6%
Washington	25.2%	District of Columbia	8.5%
Kansas	25.0%	United States	22.9%

Note: Current charges do not include utility charges.

Source: Bureau of the Census, Government Finances: FY 2012.

Table 11 presents the share of current charge revenue by service category and the share of the expenditures financed by current charges, both for the U.S. and for Connecticut. Hospital fees, sewerage charges and other charges are the major source of current charge revenue in the U.S., with hospitals accounting for the largest share of current charges revenue in the U.S. Since public hospitals in Connecticut are a state function, local governments in Connecticut collect no current charge revenue from hospitals.

Table 11. Current Charges by Function, 2012

Function	Current Charges as a Share of Total Charges		Current Charges as a Share of Expenditures	
	U.S.	Connecticut	U.S.	Connecticut
Education	13.2%	14.0%	4.1%	1.4%
Hospitals	22.3%	0.0%	75.8%	N.A.
Highways	1.9%	0.1%	6.2%	0.2%
Air transportation (airports)	6.3%	0.1%	89.6%	31.8%
Parking facilities	1.2%	7.0%	132.4%	161.5%
Sea and inland port facilities	0.9%	0.1%	100.5%	108.2%
Natural resources	0.3%	0.3%	9.8%	9.8%
Parks and recreation	3.5%	10.1%	23.0%	39.5%
Housing and community development	1.4%	0.4%	11.7%	2.9%
Sewerage	20.9%	34.4%	96.9%	83.2%
Solid waste management	8.0%	6.0%	73.6%	28.3%
Other charges	20.0%	27.6%	36.9%	38.7%
Total	100.0%	100.0%		

Source: Author's calculation based on 2012 Census of Governments, U.S. Bureau of the Census.

The extent to which current charges are used to cover the expenditures for government services varies significantly across services. For the U.S., revenue from parking revenues and water transportation facilities exceed expenditures on these services. Other services with a large ratio of current charge revenue to expenditures are air transportation, sewerage, hospitals, and waste management. On the other hand, education, highways, parks and recreation, and housing and community development have low current charge revenue to expenditure ratios.

For most services, Connecticut collects a smaller percentage of expenditures in current charges than the average for the U.S. Of particular note are air transportation and solid waste management. However, there are some functions for which current charges as share of expenditures in Connecticut exceed the U.S. average.

We attempted to determine current charges for a sample of Connecticut cities in order to show comparisons across cities. However, we were unsuccessful because cities differ greatly in how they categorize current charges.

Issues Associated with Current Charges

Charges and fees can serve as signals of the cost of a public service, similar to prices for private goods.²⁰ If charges vary with the amount of service consumed, it is expected that individuals will adjust their consumption of these services, relating the benefits they receive to the cost. Charges thus act as a rationing device in the same way that prices ration goods and services in the private sector.

In addition, charges can be used to reduce congestion when the demand for a public service exceeds capacity. For example, congestion tolls on some urban interstate lanes are being used to manage traffic congestion on those lanes. But in addition, charges can be used to limit the excess demand of facilities such as swimming pools and golf courses on weekends, of electricity during heat waves, and of water during droughts.

A major issue with charges is equity. On the one hand, for services that do not involve distributional concerns, charges ensure that those who benefit from the service pay for it. Based on the benefit principle of equity, this would be equitable. This is also relevant for services consumed by nonresidents, who might not pay taxes commensurate with the cost of providing those services.

On the other hand, there are potential vertical equity issues that may arise. For many public services user charges would constitute a larger percentage of income for lower income individuals, and therefore may be regressive. The extent to which this is the case would vary across public services. On the other hand, there may be public services that are used more by higher income households. For example, higher income individuals may consume more recreational services such as golf, so public provision of golf courses financed through general taxes subsidizes the consumption of higher income individuals.

There are charges or fees that do not vary with the use of the public service. For example, the fee for solid waste collection is generally a flat amount, independent of the amount of solid waste generated. Such a fee is often not directly associated with the cost of providing the service

²⁰ Bierhanzl and Downing (1998); Downing (1999); Duff (2004).

to a particular household, which depends on front footage and the amount of solid waste that the family generates. In this case, the fee is essentially equivalent to a flat per household tax. Some cities have adopted a fee structure that depends on the volume of solid waste that a household generates.

The Potential for Expanding the Use of Current Charges in Connecticut

As noted above, local government current charges as a share of OSR in Connecticut are relatively low. In this subsection we explore the possibility of expanding current charges for Connecticut towns. In order to determine the potential for expanding the use of current charges in Connecticut we need to understand why Connecticut ranks so low (Table 10). There are several explanations.

- There are services for which the state has set limits on the size of the fees that can be charged, for example, for the issuance of marriage licenses.
- There are services that local governments perform in other states that Connecticut towns do not provide. In Connecticut, hospitals service and public transit are provided by the state, where they are typically provided by local governments in other states. If we exclude hospital current charges in calculating current charges as a share of OSR, the U.S. average goes from 22.9 percent to 17.8 percent.
- There appears to be a reticence among towns in Connecticut to use charges. For example, in our interviews with local government officials it was noted that most waste and recycling is financed through the property tax rather than through charges. There appears to be two reasons for that. First, it was suggested that citizens would view the implementation of a charge for waste collection not as a way to reduce property taxes but as an addition payment to the government. And thus it was thought that citizens would oppose such a fee. Second, officials avoid imposing fees and charges over the concern that charges and fees impose a substantial burden on low income households. These reasons are consistent with Duff's (2004) discussion of the political feasibility of user charges
- It is possible that since Connecticut has no large city, local governments have less opportunity to collect charges. However, there are other states that do not have a large city and yet collect relatively more in current charges than Connecticut.

To estimate the potential for increasing current charge revenue, we selected three states that do not have a large city and for which current charges as a share of OSR is close to the average for the U.S. These states are Delaware, South Dakota, and North Dakota. We also used the U.S. average. If Connecticut increased its revenue from current charges sufficiently to cover the same percentage of expenditures in each expenditure category as these 3 other states, Connecticut could increase its revenue from current charges by between \$349 million and \$867 million, or between 48.1 percent and 96.0 percent. If used to reduce property taxes, towns in Connecticut could reduce property taxes by between 3.8 percent and 9.3 percent.

Impact Fees

Local governments in the U.S. have increased their use of economic development impact fees, which are one-time charges on new development used to pay for the construction or expansion of off-site capital improvements that are necessitated by and benefit the new project.²¹ (As noted in footnote 18, impact fee revenue is not included in current charge revenue as reported by the Census Bureau.) Connecticut towns are not authorized to impose impact fees.

Financing the public infrastructure required as a result of new development by impact fees, if they are appropriately structured, is expected to be economically efficient, particularly in comparison to using the property tax. The ideal is for the value of the impact fee to be equal to the cost of the required public infrastructure and thus provide the appropriate incentives to developers. However, in practice impact fees are rarely structured so that economic efficiency is achieved (Snyder and Stegman 1986). It is commonly argued that impact fees, like user charges, are fair since the person responsible for generating the expenditure pays the cost. However, if existing public infrastructure built for previous development is being financed from property taxes, it may seem as unfair to require new development to pay impact fees as well as the property tax required to pay off the cost of existing infrastructure.

There are a substantial number of studies of the effect of impact fees on housing prices. In general these studies find that impact fees are paid by buyers in the form of higher housing prices.²² A concern with impact fees is whether they will reduce economic development. There is not a lot of research on this topic, and the research that has been conducted is not of one mind on

²¹ For a description of impact fees and their use, see Burge (2010). Duncan Associates hosts a website, ImpactFees.com, which provides a comprehensive and current collection of online information relating to impact fees and infrastructure financing.

²² See Burge (2010) and Been (2005) for a review of the literature on the effect of impact fees on housing prices.

this subject. Earlier research associates impact fees with improvement in economic development, i.e., the studies find a positive correlation between impact fees and job growth. The explanation offered for such results is that impact fees reduce other barriers to development that communities establish to prevent unwanted development (Nelson and Moody 2003). More recent research however, for example, Burge and Ihlanfeldt (2009), find that an increase in impact fees results in a decrease in employment.

Designing an impact fee system is difficult and potentially costly, but administering the system is not particularly costly. The collection rate is high since the city can deny the issuance of a building permit until the impact fees are paid.

The Bureau of the Census does not separately report impact fee revenue, but includes it as part of Special Assessments. We were unable to find impact fee revenue by state other than for Florida. Assuming that impact fee revenue is associated with increases in housing, we took annual impact fee revenue for Florida local governments for the period 2010 – 2013 and divided it by the number of housing permits issued. The resulting annual values ranged from \$7,159 to \$11,503, with an average of \$8,209. Applying these values to Connecticut's housing permits yields annual revenues estimates that range between \$33.4 million and \$45.2 million. We obtain similar values when we used the dollar value of housing permits rather than the number of housing permits.

The revenue that might be expected from impact fees will depend on the size of the fees charged. Duncan Associates' most recent survey of impact fees (available at ImpactFees.com) reports that for a standard \$200,000 home, Florida's average impact fee is \$9,014, while the national average, excluding California, is \$8,510. So, Florida's current impact fees are similar to other states, and thus the estimated impact fee revenue for Connecticut is based on essentially the average impact fee.

Summary Discussion of Charges and Fees

Towns in Connecticut do not appear to rely on charges and fees to the extent that local government in other states do. While there are various reasons why charge and fee revenue is relatively low in Connecticut, there does appear to be room to increase fee and charge revenue. State legislation regarding limits the state imposes on fees should be reviewed to determine whether they are still appropriate. For services such as waste collection, local governments could be encouraged to adopt a fee structure that is based on the volume of waste a resident puts in the

system and that is not as regressive as a flat per household charge. Consideration might be given to authorizing the use of impact fees. In 2013, the Connecticut House of Representatives considered HB 5135, a bill to authorize the use of impact fees; the Connecticut Conference of Municipalities testified in favor of the legislation.

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APPENDIX A. NOTES ON REVENUE DATA AND REVENUE ESTIMATION.

Census Bureau Revenue Data

The data for Tables 1, 2, 4, 10, and 11 come from the 2012 Census of Government conducted by the U.S. Bureau of the Census. For each state, the Census provides revenue data by four types of local governments: counties, municipalities, townships, special districts, and school districts. The focus of this report is on towns in Connecticut. Connecticut towns provides services that in other states are provided by counties, municipalities, townships, and school districts. Thus, for comparison purposes, the data for these four types of local government were combined to produce the data used in the Tables. The data thus exclude special districts.

Herfindahl Index

The Census identified the following 27 sources of own source revenue: property tax, general sales tax, motor fuel tax, alcoholic beverage tax, tobacco product tax, public utility tax, individual income tax, corporate income tax, motor vehicle tax, other selective sales tax, all other taxes, education charges, hospital charges, highway charges, air transportation charges, parking facilities charges, sea and inland water charges, natural resource charges, park and recreation charges, housing and community development charges, sewerage charges, solid waste management charges, other charges, other general revenue, sale of property, special assessments, and interest earnings. These were the categories used to construct the Herfindahl Index. While the value of the Herfindahl Index will differ depending on how many categories are used, the rankings of states does not change much if some of the categories are combined.

Estimating Sales Tax Revenue

The Connecticut Department of Revenue Services provided sales and use tax due by town. For most retail establishments DRS was able to allocate sales to the town in which the sale was made. However, some firms that collect sales taxes in multiple towns report all of their sales tax collections on one form. DRS data suggests that multi-outlet vendors account for 13.1 percent of total tax due. Attributing all of these sales to the vendor's headquarter town would overstate the sales in that town, although an unknown number of these multi-outlet vendors have outlets in only one town. We allocated the sales taxes due from multi-outlet vendors to towns based on the town's share of total state employment. Sales taxes are also collected from out-of-state vendors selling in Connecticut; revenue from these vendors account for 23.1 percent of

sales taxes due. We do not know in what town the sales were made. We could have arbitrarily allocated these revenues, but choose not to. Thus, the estimated revenue by town will understate the actual revenue that a town would likely receive if a sales tax is adopted.

Estimating Income Tax Revenue

The Connecticut Department of Revenue Services provided data on Connecticut adjusted gross income and tax liability by town of residence for tax year 2013. Returns from out-of-state and out-of-country could not be assigned to a town; including them would increase AGI by 3.1 percent and tax liability by 3.5 percent.

The Connecticut Department of Labor provided total wage and salary income for residents of each town by place of employment. These data come from quarterly reports filed by establishments with employees who are required to report wages for each employee by place of work for the employment security tax; these are commonly called ES202 reports. Not all firms are required to file, so the data will underestimate tax revenue from an earned income tax by place of employment. But adjustments were made to account for the missing establishments.

Estimating the earned income tax revenue when the tax is imposed by location of the residence and place of work, with a credit for taxes paid by place of work, is more difficult. The DOL matched the social security numbers from the ES202 reports with social security numbers from the Department of Motor Vehicle records in order to determine town of residence of each employee. DOL had an 87 percent match rate. Nonmatching was due to errors in reported social security numbers and to employees without Connecticut driver's licenses, including out-of-state workers. In addition, these data do not include wage and salary income of Connecticut residents who work out-of-state; to the extent that these workers work in New York City, they will get a credit for the taxes they pay to NYC. We allocated to towns the wage and salary income that was not assigned to a town by DOL. We did this assuming the distribution of the unassigned income was the same as the assigned income. Thus, the estimated statewide tax bases are the same, but the distribution across towns differ.

Because of these difficulties, the estimated revenues from this version of the earned income tax are less reliable than the estimated revenue for the tax based on place of work.

ES202 data only include wage and salary data, and thus we had to adjust these data to account for other sources of earned income. To do that we used Census data to determine non-wage and salary earnings as a percentage of total earned income for each town. We inflated the

DOL wage and salary income earned in each town by this percentage. We assume that the distribution of this other earned income for each town by place of residence is the same as the distribution of wages and salary income.

We compared our estimate of earned income by residence to earned income as reported by the Census Bureau's American Community Survey (ACS), which is reported by residence. The state totals were within 1 percent of each other. There are differences in the two values for some towns, but generally less than 10 percent. The ACS data is based on a survey with an average error of 10 percent.

APPENDIX B. APPENDIX TABLES

Table A1. Local and Regional Sales Tax Revenue and Fiscal Disparity Index

Town	Local Sales Tax		Regional Sales Tax		Fiscal Disparity Index
	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	
Andover	84.2	27	268.3	87	75.81
Ansonia	1,104.0	58	1334.5	70	667.30
Ashford	135.7	32	207.3	48	289.15
Avon	2,343.5	129	2342.8	129	-611.39
Barkhamsted	162.0	43	357.6	95	-28.33
Beacon Falls	191.2	32	394.8	65	125.71
Berlin	10,560.7	523	2948.1	146	-114.51
Bethany	163.2	29	589.3	106	-227.40
Bethel	2,210.7	117	2905.7	154	-201.22
Bethlehem	167.4	47	259.8	72	-270.19
Bloomfield	2,290.9	111	3999.1	194	126.66
Bolton	355.2	71	516.5	104	79.29
Bozrah	282.3	108	312.5	119	-5.05
Branford	5,356.1	191	4062.2	145	-422.74
Bridgeport	7,693.8	53	13734.8	94	1118.75
Bridgewater	61.1	35	199.0	115	-1634.77
Bristol	5,213.3	86	5715.4	94	447.11
Brookfield	3,361.4	202	2745.4	165	-660.33
Brooklyn	542.3	66	470.2	57	317.28
Burlington	187.9	20	786.3	84	-110.32
Canaan	540.1	471	252.4	220	-676.35
Canterbury	128.7	25	231.8	45	265.62
Canton	2,349.8	228	1193.5	116	-220.65
Chaplin	68.4	28	118.0	49	317.28
Cheshire	2,681.5	92	3491.1	119	-33.44
Chester	192.8	46	511.7	123	-323.03
Clinton	2,502.9	189	1269.1	96	-354.22
Colchester	1,329.6	82	1462.3	91	182.89
Colebrook	13.3	9	136.9	90	-260.41
Columbia	530.2	97	522.9	95	-3.39
Cornwall	133.9	88	183.2	121	-2197.01
Coventry	335.3	27	1067.1	86	157.39
Cromwell	2,090.6	149	1728.9	123	33.95
Danbury	17,976.0	219	15044.0	184	143.26
Darien	4,009.1	192	3269.0	156	-3612.55
Deep River	312.2	68	460.5	100	-220.27
Derby	1,749.9	136	1243.1	97	605.66
Durham	410.4	56	691.0	94	-135.58

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East Granby	553.3	110	863.3	171	-149.07
East Haddam	359.2	39	693.3	76	-80.49
East Hampton	640.1	49	956.6	74	52.46
East Hartford	7,203.3	141	7529.9	147	735.44
East Haven	3,198.1	110	3140.7	108	355.09
East Lyme	1,338.1	70	1883.3	99	-281.25
East Windsor	1,752.6	155	1733.0	154	160.16
Eastford	92.2	56	122.6	74	77.51
Easton	158.3	21	527.9	70	-1261.38
Ellington	967.0	62	1565.4	100	136.49
Enfield	6,827.3	153	5668.7	127	389.47
Essex	651.4	98	868.7	130	-1015.20
Fairfield	11,797.8	196	6743.5	112	-957.52
Farmington	6,555.4	258	5848.5	230	-455.85
Franklin	546.3	280	244.1	125	-106.64
Glastonbury	4,305.7	125	4614.2	134	-274.55
Goshen	127.1	43	268.9	91	-1167.21
Granby	765.3	68	1112.0	99	-26.11
Greenwich	12,264.5	199	11641.9	189	-5325.65
Griswold	386.3	32	891.8	75	360.87
Groton	3,674.5	92	5817.7	145	81.35
Guilford	1,749.5	78	2778.6	124	-650.87
Haddam	353.7	42	641.9	77	-180.10
Hamden	5,544.5	90	7708.0	125	347.29
Hampton	24.0	13	77.5	43	141.53
Hartford	21,528.1	172	23650.1	189	1364.01
Hartland	27.3	12	168.8	75	32.28
Harwinton	188.2	33	480.8	85	-82.76
Hebron	272.0	28	924.3	96	97.52
Kent	256.0	86	446.5	151	-1520.59
Killingly	1,702.2	98	1546.1	89	390.74
Killingworth	241.0	37	449.9	69	-336.82
Lebanon	101.1	14	617.2	84	94.77
Ledyard	734.7	49	2303.4	153	323.93
Lisbon	1,305.2	301	491.6	113	55.40
Litchfield	3,838.1	457	1247.0	148	-510.28
Lyme	25.9	11	160.9	67	-2056.59
Madison	1,503.1	82	2093.0	114	-1020.06
Manchester	14,005.8	241	7752.5	133	443.63
Mansfield	986.6	37	3374.6	128	755.01
Marlborough	149.9	23	611.7	96	30.40
Meriden	5,302.1	87	7839.7	129	618.85
Middlebury	838.7	111	852.2	113	-408.58
Middlefield	328.7	74	499.5	113	-51.73
Middletown	5,077.0	107	6263.6	132	338.99

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Milford	12,672.3	240	8325.1	157	54.66
Monroe	1,523.3	78	1825.6	93	-316.46
Montville	1,512.8	77	2931.2	149	348.70
Morris	102.0	43	243.1	102	-969.47
Naugatuck	2,196.3	69	2494.8	78	490.93
New Britain	3,887.2	53	8478.3	116	1037.39
New Canaan	1,948.0	98	2891.3	145	-4006.31
New Fairfield	327.1	23	1503.7	107	-449.38
New Hartford	480.1	69	742.8	107	-68.37
New Haven	19,258.1	148	22228.1	171	1094.44
New London	5,903.8	214	3489.7	126	812.48
New Milford	4,091.7	146	3926.4	140	-171.18
Newington	2,911.4	95	4485.7	147	189.93
Newtown	1,609.2	58	3928.5	141	-388.45
Norfolk	961.2	642	168.7	113	-954.47
North Branford	1,016.5	71	1737.5	121	30.89
North Canaan	70.3	21	591.0	180	-63.68
North Haven	5,526.2	230	4568.7	190	-128.09
North Stonington	344.8	65	524.3	99	-256.18
Norwalk	21,696.1	251	15591.5	180	-455.69
Norwich	3,968.8	98	4675.4	116	563.88
Old Lyme	692.6	91	770.1	101	-1664.74
Old Saybrook	2,716.6	265	1394.1	136	-1630.06
Orange	9,991.2	717	2580.6	185	-247.25
Oxford	657.2	52	1023.6	80	-105.29
Plainfield	1,285.2	84	991.4	65	365.61
Plainville	3,144.8	177	2511.9	141	264.31
Plymouth	617.1	51	852.1	70	402.44
Pomfret	179.6	43	316.7	75	153.75
Portland	676.1	71	820.7	87	145.21
Preston	145.6	31	389.2	82	73.67
Prospect	577.6	61	709.3	75	57.85
Putnam	1,730.8	181	1018.8	107	507.16
Redding	276.3	30	1123.0	122	-1248.83
Ridgefield	3,637.2	146	4053.0	163	-1441.92
Rocky Hill	2,820.9	143	3537.0	179	22.32
Roxbury	56.5	25	213.8	93	-2608.41
Salem	172.0	41	331.4	79	-112.06
Salisbury	367.1	99	644.3	173	-2552.76
Scotland	9.4	5	72.4	42	236.53
Seymour	1,098.6	66	1358.3	82	289.36
Sharon	177.2	64	397.7	144	-2029.29
Shelton	5,671.6	142	4850.9	121	-167.45
Sherman	94.4	26	395.4	109	-1404.39

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Simsbury	3,081.4	131	2926.6	124	-153.94
Somers	346.3	30	1150.1	100	291.91
South Windsor	3,998.5	155	3489.8	135	-46.93
Southbury	2,992.1	151	2006.0	101	-198.31
Southington	5,968.7	138	5091.0	118	64.04
Sprague	89.6	30	256.3	86	276.92
Stafford	682.3	57	1311.3	109	397.03
Stamford	19,210.7	155	24329.1	196	-503.12
Sterling	36.0	9	168.7	44	307.13
Stonington	2,840.8	153	2076.1	112	-875.62
Stratford	7,665.3	148	6379.2	123	246.09
Suffield	477.3	30	1679.8	107	74.67
Thomaston	818.1	104	741.7	95	263.54
Thompson	199.1	21	491.8	52	347.20
Tolland	801.1	53	1552.9	104	100.66
Torrington	6,134.2	170	5503.1	153	451.32
Trumbull	4,442.4	123	4069.9	112	-339.49
Union	77.6	75	48.3	46	4.96
Vernon	3,707.4	127	3189.0	109	539.07
Voluntown	59.5	23	123.2	47	202.03
Wallingford	8,245.2	183	7695.4	171	5.02
Warren	35.4	24	126.1	86	-1600.35
Washington	453.2	127	543.9	153	-3047.35
Waterbury	10,211.7	93	10247.2	93	852.74
Waterford	6,907.3	354	2658.2	136	-1007.36
Watertown	3,364.9	150	2119.1	95	68.29
West Hartford	10,996.4	174	8250.6	130	267.00
West Haven	2,997.7	54	6424.0	116	737.33
Westbrook	1,816.2	262	907.1	131	-1097.57
Weston	191.4	19	1119.9	109	-2074.14
Westport	7,877.4	294	5103.7	191	-3576.23
Wethersfield	2,174.1	82	3161.8	119	141.67
Willington	401.6	67	625.5	104	198.23
Wilton	2,715.7	148	3787.4	206	-1962.56
Winchester	563.9	51	1371.9	123	304.77
Windham	2,717.0	107	2944.7	116	856.37
Windsor	3,575.7	123	5225.0	180	82.87
Windsor Locks	3,623.9	289	2548.4	203	31.93
Wolcott	750.5	45	1172.2	70	117.46
Woodbridge	519.8	58	1272.4	142	-464.91
Woodbury	694.4	70	730.1	74	-452.62
Woodstock	203.6	26	469.6	59	52.78
TOTAL	473,537.5		473,537.5		

Table A2. Demographic and Economic Variables for Case Study Cities

Cities	Population		Unemployment		TANF Recipients		Net Grand List (in millions)		Mill Rate		Prop Tax Revenues		Total Revenues (in millions)	
	2013	2009	2013	2009	2013	2009	2013	2009	2013	2009	2013	2009	2013	2009
Large Cities														
Bridgeport	147,216	137,298	11.8%	12.3%	2.3%	2.6%	\$6,981	\$5,540	41.11	44.58	\$285.96	\$248.74	\$539.08	\$484.34
Hartford	125,017	124,060	14.7%	14.3%	4.3%	5.5%	\$3,398	\$3,451	74.29	68.34	\$255.55	\$250.67	\$549.64	\$540.96
New Haven	130,660	123,330	11.2%	11.4%	3.3%	3.6%	\$5,995	\$4,945	38.88	42.21	\$230.99	\$203.40	\$507.02	\$469.08
Stamford	126,456	121,026	6.4%	7.4%	0.6%	0.5%	\$24,294	\$23,929	17.89	16.18	\$432.10	\$386.68	\$512.39	\$458.84
Small Cities														
Manchester	58,211	56,388	7.4%	8.2%	1.1%	1.4%	\$3,888	\$3,837	35.83	32.98	\$122.29	\$112.76	\$172.93	\$161.45
Meriden	60,456	59,186	9.5%	10.3%	2.2%	2.4%	\$3,246	\$3,659	34.70	27.96	\$113.89	\$104.18	\$196.86	\$187.84
New London	27,545	26,184	10.5%	9.6%	2.5%	2.8%	\$1,565	\$1,272	26.60	30.89	\$41.47	\$39.60	\$84.16	\$83.26
Torrington	35,611	35,408	8.5%	10.3%	0.8%	1.1%	\$2,359	\$1,928	33.47	35.33	\$79.23	\$68.67	\$120.66	\$110.59
Rich Suburbs														
Glastonbury	34,768	33,353	5.3%	5.8%	0.1%	0.2%	\$4,208	\$4,074	30.50	28.35	\$128.47	\$115.60	\$156.35	\$136.52
Guilford	22,417	22,469	5.6%	5.6%	0.1%	0.2%	\$3,490	\$3,455	22.36	19.19	\$77.17	\$65.71	\$89.45	\$77.34
Litchfield	8,333	8,686	6.5%	7.1%	0.2%	0.1%	\$1,109	\$901	22.20	25.50	\$24.79	\$23.03	\$28.88	\$26.63
New Canaan	20,194	20,000	5.4%	5.9%	0.0%	0.0%	\$8,249	\$7,049	14.08	15.12	\$116.62	\$106.92	\$133.65	\$119.24
Mixed Base														
Hamden	61,607	58,119	7.7%	7.6%	0.8%	0.7%	\$4,049	\$4,310	37.14	29.42	\$149.05	\$126.26	\$200.85	\$181.48
Middletown	47,333	48,383	7.7%	7.6%	1.0%	1.0%	\$3,581	\$3,475	26.90	25.50	\$95.67	\$88.79	\$140.11	\$131.21
Norwich	40,347	36,639	9.0%	9.1%	2.1%	2.3%	\$2,433	\$1,852	26.90	29.66	\$64.82	\$53.98	\$112.15	\$100.99
Windsor	29,142	29,014	7.6%	8.0%	0.6%	0.7%	\$2,908	\$2,591	27.95	29.30	\$82.16	\$76.56	\$108.23	\$100.50
Rural														
Bozrah	2,639	2,466	7.7%	7.2%	0.4%	0.5%	\$244	\$239	22.50	19.50	\$5.42	\$4.66	\$7.67	\$7.14
Durham	7,361	7,469	5.8%	5.9%	0.0%	0.0%	\$732	\$769	32.19	26.25	\$23.55	\$20.24	\$28.56	\$25.18
Killingly	17,233	17,828	9.5%	10.4%	1.1%	1.1%	\$1,365	\$1,257	19.70	17.80	\$28.73	\$25.86	\$54.33	\$50.02
North Canaan	3,241	3,366	7.0%	8.0%	0.1%	0.5%	\$344	\$346	21.50	21.00	\$7.49	\$7.22	\$10.83	\$10.62
Plainfield	15,228	15,442	10.1%	10.4%	1.1%	1.1%	\$1,035	\$1,007	21.52	19.94	\$22.46	\$20.25	\$47.19	\$44.66
Union	848	761	5.5%	6.7%	0.0%	0.0%	\$98	\$73	23.59	28.93	\$2.31	\$2.23	\$2.88	\$2.79
Washington	3,526	3,689	5.8%	6.2%	0.1%	0.1%	\$1,255	\$981	11.50	13.00	\$14.38	\$12.28	\$15.65	\$13.91

Source: Municipal Fiscal Indicators, 2009-2013, Office of Policy and Management.

Table A3. Local Income Tax Revenue

Town	CT AGI		CT Income Tax Liability		Earnings by Place of Work		Earnings by Place of Residence		Earnings Split 50/50	
	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita	Total (\$1,000)	Per Capita
Andover	889.2	287	913.3	295	155.8	50	1,131.5	366	610.2	197
Ansonia	2,996.2	156	2,404.1	125	1,364.4	71	4,160.7	217	2,709.0	141
Ashford	987.1	230	894.9	208	225.7	52	1,276.8	297	700.5	163
Avon	11,204.5	615	14,186.4	779	4,062.3	223	12,191.3	670	7,899.0	434
Barkhamsted	959.4	254	920.3	244	261.3	69	1,216.4	322	724.1	192
Beacon Falls	1,383.2	229	1,321.6	219	478.9	79	1,920.3	318	1,166.1	193
Berlin	5,922.4	293	6,170.8	306	7,020.3	348	7,152.4	354	7,092.5	351
Bethany	2,073.4	373	2,428.8	437	639.5	115	2,326.0	419	1,415.4	255
Bethel	4,857.8	257	4,356.1	231	4,015.1	213	6,020.7	319	4,974.5	263
Bethlehem	963.4	269	991.3	277	269.6	75	1,040.1	290	626.4	175
Bloomfield	5,582.3	271	5,679.9	276	16,308.8	793	6,116.0	297	11,557.5	562
Bolton	1,572.5	316	1,686.9	339	579.3	117	1,908.3	384	1,193.1	240
Bozrah	582.6	223	556.2	212	507.5	194	667.3	255	584.9	223
Branford	8,785.0	313	9,440.0	337	6,338.3	226	9,733.1	347	7,941.3	283
Bridgeport	15,660.4	108	9,720.7	67	24,131.7	166	19,880.3	137	22,127.3	152
Bridgewater	768.4	444	821.3	475	134.5	78	553.5	320	330.6	191
Bristol	11,831.2	195	10,609.4	175	15,282.2	252	15,691.1	259	15,495.2	256
Brookfield	5,761.7	347	5,388.7	324	3,455.5	208	6,059.4	365	4,691.8	282
Brooklyn	1,582.3	192	1,291.6	157	622.3	76	1,712.1	208	1,138.1	138
Burlington	3,332.3	355	3,814.7	407	441.6	47	4,466.2	476	2,352.6	251
Canaan	733.7	639	550.5	480	441.6	385	757.7	660	580.3	505
Canterbury	1,034.7	202	872.6	170	177.2	35	1,289.7	252	713.9	139
Canton	3,719.2	361	4,289.8	416	1,413.1	137	4,626.8	449	2,876.6	279
Chaplin	416.8	173	350.7	146	112.4	47	541.4	225	305.0	127
Cheshire	9,637.2	329	11,060.5	378	10,285.1	351	11,586.1	396	10,917.6	373
Chester	1,281.9	309	1,452.3	350	1,214.4	292	1,328.6	320	1,271.7	306
Clinton	3,430.9	259	3,477.1	263	1,641.5	124	4,214.5	318	2,823.0	213

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Colchester	4,178.8	259	4,219.5	262	1,704.6	106	5,479.2	340	3,507.3	218
Colebrook	212.1	139	220.0	144	56.5	37	382.1	251	195.8	129
Columbia	1,475.9	270	1,495.9	273	399.9	73	1,758.0	321	1,062.3	194
Cornwall	483.0	318	457.6	301	154.9	102	280.5	185	211.3	139
Coventry	3,192.6	257	3,218.1	259	556.2	45	4,144.5	333	2,244.0	180
Cromwell	4,265.1	303	4,565.4	324	3,115.7	221	5,427.3	386	4,207.7	299
Danbury	15,597.3	190	11,778.8	144	29,026.3	354	17,774.2	217	23,805.5	290
Darien	32,728.6	1564	29,429.7	1406	5,743.9	274	12,039.6	575	8,698.1	416
Deep River	1,317.6	286	1,389.1	301	748.3	162	1,669.0	362	1,159.0	251
Derby	2,232.9	174	1,919.3	149	1,867.2	145	2,992.3	233	2,411.4	188
Durham	2,741.8	372	3,205.4	434	1,075.2	146	3,050.9	413	2,004.1	272
East Granby	1,619.1	322	1,694.0	336	2,305.8	458	2,000.1	397	2,163.1	430
East Haddam	2,237.1	245	2,296.4	251	581.2	64	2,813.4	308	1,657.1	181
East Hampton	3,644.2	281	3,806.3	294	801.2	62	4,628.5	357	2,622.2	203
East Hartford	7,694.4	150	5,743.7	112	21,529.1	420	10,224.5	200	16,079.9	314
East Haven	5,603.8	192	4,925.0	169	2,644.6	91	6,587.0	226	4,535.8	156
East Lyme	5,231.2	274	5,518.4	289	2,454.6	128	6,212.5	325	4,233.8	221
East Windsor	2,530.4	224	2,235.3	198	3,059.0	271	3,216.0	285	3,136.5	278
Eastford	356.9	216	313.7	190	309.8	188	408.3	247	356.1	216
Easton	4,567.7	605	5,102.3	676	515.6	68	4,035.2	534	2,165.6	287
Ellington	4,602.8	294	4,731.0	302	1,496.1	95	6,114.8	390	3,734.9	238
Enfield	8,375.1	187	6,722.6	150	10,558.4	236	10,615.0	237	10,593.4	237
Essex	2,974.9	446	3,470.2	520	2,328.7	349	2,641.8	396	2,488.4	373
Fairfield	31,751.6	528	33,015.5	549	17,324.2	288	27,878.1	464	22,253.9	370
Farmington	11,289.3	444	13,720.4	540	22,165.3	872	13,920.0	547	18,521.6	728
Franklin	466.7	239	455.8	234	580.8	298	579.9	297	582.5	299
Glastonbury	15,559.9	450	18,768.0	543	10,278.9	297	18,180.0	526	13,965.3	404
Goshen	963.5	326	1,019.7	345	139.9	47	1,061.3	359	569.6	193
Granby	3,938.3	349	4,284.8	380	913.1	81	4,768.5	423	2,713.9	241
Greenwich	109,425.7	1773	115,699.3	1874	50,009.1	810	35,434.5	574	43,592.9	706
Griswold	2,177.3	182	1,772.5	148	485.7	41	2,651.9	222	1,554.2	130
Groton	4,744.7	118	4,222.2	105	20,903.0	521	9,689.1	241	15,461.5	385

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Guilford	9,401.6	420	11,316.2	506	4,091.0	183	9,309.3	416	6,488.0	290
Haddam	2,536.8	304	2,703.1	324	594.6	71	2,968.3	356	1,749.3	210
Hamden	12,949.6	211	12,809.9	208	9,719.9	158	15,955.7	260	12,729.6	207
Hampton	504.2	278	452.1	249	54.3	30	526.7	290	281.2	155
Hartford	12,094.0	97	7,727.6	62	95,987.7	767	15,196.1	121	56,998.3	456
Hartland	441.4	196	428.1	190	50.6	22	615.8	273	314.3	139
Harwinton	1,522.4	270	1,578.8	280	359.0	64	2,167.2	385	1,138.4	202
Hebron	2,961.5	307	3,254.1	338	687.1	71	3,894.8	404	2,196.0	228
Kent	804.8	272	663.7	224	600.7	203	649.4	219	627.9	212
Killingly	2,883.8	167	1,957.9	113	4,172.0	241	3,116.8	180	3,685.3	213
Killingworth	2,161.6	332	2,386.1	367	376.4	58	2,601.0	400	1,384.4	213
Lebanon	1,613.2	220	1,547.7	211	505.1	69	2,173.1	297	1,273.2	174
Ledyard	3,393.3	225	3,195.8	212	4,145.0	275	4,210.9	280	4,180.1	278
Lisbon	784.4	181	709.2	164	451.4	104	1,109.2	256	770.5	178
Litchfield	2,537.2	302	2,680.9	319	1,588.7	189	2,640.4	314	2,067.4	246
Lyme	966.4	400	1,172.4	485	129.5	54	787.0	326	423.0	175
Madison	8,129.4	444	9,514.2	520	2,511.5	137	8,257.4	451	5,208.8	285
Manchester	12,198.8	210	11,187.5	192	12,541.5	216	16,174.2	278	14,293.4	246
Mansfield	3,086.4	117	3,162.7	120	6,574.9	249	3,559.2	135	5,272.0	200
Marlborough	2,038.9	319	2,244.1	351	553.5	87	2,630.8	411	1,534.1	240
Meriden	9,952.9	164	8,238.6	136	11,032.2	182	12,898.1	213	11,936.1	197
Middlebury	2,919.4	387	3,397.3	450	2,301.4	305	3,306.4	438	2,767.6	367
Middlefield	1,209.3	274	1,270.9	287	1,078.7	244	1,532.3	347	1,296.9	293
Middletown	9,648.5	203	9,300.5	196	17,507.5	368	12,559.5	264	15,174.7	319
Milford	18,269.6	345	20,248.2	383	14,551.4	275	18,408.1	348	16,399.8	310
Monroe	7,011.5	357	7,257.5	370	2,900.0	148	8,528.3	434	5,503.5	280
Montville	3,519.5	179	3,064.2	156	5,161.8	263	4,371.4	223	4,771.7	243
Morris	632.4	266	646.7	272	182.2	77	697.0	293	412.0	173
Naugatuck	5,770.1	182	4,962.1	156	3,593.2	113	7,668.1	241	5,559.2	175
New Britain	8,807.8	120	6,226.5	85	14,311.7	196	11,485.1	157	12,957.9	177
New Canaan	34,492.7	1730	36,224.2	1817	4,736.8	238	14,169.5	711	9,204.6	462
New Fairfield	4,488.1	320	3,325.6	237	808.0	58	3,585.3	256	2,136.5	153

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New Hartford	2,003.0	289	2,110.5	304	631.7	91	2,546.3	367	1,500.1	216
New Haven	16,840.0	129	14,237.6	109	54,987.4	422	19,832.9	152	38,151.5	293
New London	3,181.3	115	2,338.9	85	7,796.2	283	4,225.3	153	6,115.5	222
New Milford	6,843.7	245	5,910.1	211	3,778.3	135	8,248.5	295	5,878.2	210
Newington	7,302.3	239	6,950.6	227	9,734.5	318	9,017.1	295	9,390.0	307
Newtown	10,777.5	388	11,534.5	415	5,275.0	190	12,160.0	438	8,474.6	305
Norfolk	425.2	284	434.7	290	136.4	91	384.6	257	249.5	167
North Branford	3,829.5	266	3,913.2	272	2,201.3	153	4,485.5	312	3,263.6	227
North Canaan	132.6	40	102.8	31	996.1	303	240.4	73	668.2	203
North Haven	6,875.2	286	7,181.0	299	9,625.0	401	7,983.5	332	8,870.7	369
North Stonington	1,348.5	255	1,243.3	235	674.5	127	1,459.0	276	1,048.5	198
Norwalk	26,815.2	310	23,992.2	277	45,913.3	531	28,640.7	331	37,941.3	439
Norwich	5,770.4	143	4,464.8	110	8,048.7	199	7,355.3	182	7,717.5	191
Old Lyme	3,621.1	477	3,963.5	522	1,253.7	165	3,239.4	426	2,133.6	281
Old Saybrook	3,394.4	331	3,690.9	360	2,705.0	264	3,713.3	362	3,181.8	310
Orange	5,497.2	395	6,368.5	457	5,066.4	364	5,693.9	409	5,372.0	386
Oxford	3,669.7	288	3,887.2	305	1,847.8	145	4,805.9	377	3,263.6	256
Plainfield	2,359.8	154	1,705.2	111	1,594.7	104	2,916.2	190	2,230.4	146
Plainville	3,667.6	206	3,302.0	186	4,789.1	270	4,946.3	278	4,869.9	274
Plymouth	2,439.1	201	2,175.7	179	971.8	80	3,323.0	274	2,085.9	172
Pomfret	1,149.3	272	1,046.5	248	734.0	174	1,236.5	293	963.1	228
Portland	2,688.8	283	2,770.9	292	962.3	101	3,287.3	347	2,072.6	218
Preston	1,011.2	213	944.4	199	291.2	61	1,242.1	261	740.8	156
Prospect	2,433.1	256	2,453.3	258	888.3	93	3,216.8	338	1,993.2	209
Putnam	1,461.2	153	906.9	95	2,781.3	291	1,451.9	152	2,143.5	224
Redding	5,257.6	571	5,873.3	638	966.7	105	4,572.8	497	2,633.4	286
Ridgefield	17,893.2	721	17,512.5	705	10,176.7	410	14,385.6	579	12,141.9	489
Rocky Hill	5,682.6	288	5,991.6	303	12,024.7	609	7,134.4	361	9,667.0	490
Roxbury	1,133.9	493	1,281.3	557	148.2	64	856.5	372	453.8	197
Salem	1,274.1	305	1,357.3	325	219.7	53	1,565.9	375	848.4	203
Salisbury	1,234.8	332	1,153.9	310	993.8	267	847.6	228	936.6	252

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Scotland	153.1	88	130.9	75	42.6	24	342.4	197	180.3	104
Seymour	3,780.3	229	3,593.0	217	2,147.9	130	5,319.0	322	3,609.6	218
Sharon	1,186.4	428	1,224.1	442	676.9	244	515.0	186	630.1	228
Shelton	10,997.5	275	11,132.0	278	20,739.6	518	14,345.0	359	17,849.9	446
Sherman	1,305.9	360	1,103.7	304	199.0	55	917.2	253	537.5	148
Simsbury	11,022.6	467	13,319.5	565	7,416.7	314	13,515.6	573	10,241.2	434
Somers	3,134.7	274	2,944.6	257	1,356.4	118	2,931.2	256	2,111.1	184
South Windsor	8,116.2	315	8,732.5	339	6,752.9	262	10,475.1	407	8,516.4	331
Southbury	6,193.9	312	6,659.0	335	5,879.5	296	7,243.7	365	6,528.4	329
Southington	11,521.0	266	11,846.6	274	6,734.1	156	14,926.1	345	10,596.3	245
Sprague	603.4	202	509.6	171	271.9	91	734.6	246	494.1	165
Stafford	2,352.6	195	1,979.3	164	1,506.3	125	3,035.9	252	2,248.9	187
Stamford	54,097.8	436	53,598.5	432	94,076.1	759	46,814.3	378	72,560.1	585
Sterling	585.7	154	387.7	102	151.3	40	641.8	169	383.7	101
Stonington	8,308.2	448	8,467.9	457	3,228.7	174	4,486.3	242	3,813.4	206
Stratford	11,375.3	220	10,285.8	199	17,461.4	338	14,660.3	284	16,212.9	314
Suffield	4,765.1	303	4,665.9	297	2,201.3	140	4,895.1	311	3,486.3	222
Thomaston	1,673.4	214	1,544.0	197	1,518.4	194	2,180.6	278	1,836.9	235
Thompson	1,749.0	186	842.5	90	658.0	70	1,167.4	124	903.2	96
Tolland	4,784.8	319	5,191.6	347	2,036.4	136	6,166.7	412	3,968.2	265
Torrington	6,142.4	170	5,099.0	141	7,470.8	207	7,980.4	221	7,728.3	214
Trumbull	12,123.3	334	12,919.8	356	8,668.8	239	14,617.3	403	11,485.1	317
Union	174.9	168	156.0	150	54.7	53	206.4	198	122.0	117
Vernon	6,363.8	218	5,859.0	201	3,633.0	125	8,517.5	292	5,953.1	204
Voluntown	518.9	199	405.6	156	100.3	38	581.5	223	325.4	125
Wallingford	11,440.6	254	11,498.8	255	17,844.9	396	13,939.0	309	15,989.4	354
Warren	291.8	198	307.7	209	70.0	47	298.2	202	174.2	118
Washington	2,013.3	565	2,195.1	616	830.0	233	1,091.1	306	951.9	267
Waterbury	13,154.9	120	9,010.3	82	17,716.7	161	16,317.4	148	17,063.2	155
Waterford	5,117.1	262	5,115.2	262	5,582.2	286	5,901.5	303	5,740.0	294
Watertown	5,330.3	238	5,268.3	235	4,080.7	182	6,812.3	304	5,369.1	240
West Hartford	24,246.0	383	28,169.1	445	14,422.5	228	28,146.8	444	20,813.1	329

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West Haven	8,450.0	153	6,749.2	122	8,202.8	148	10,515.9	190	9,322.5	168
Westbrook	1,867.2	270	1,958.1	283	1,913.8	276	2,121.3	306	2,016.3	291
Weston	10,305.8	1004	10,897.9	1062	860.2	84	6,961.2	678	3,632.2	354
Westport	31,456.7	1175	32,390.2	1210	17,316.4	647	18,968.4	709	18,154.6	678
Wethersfield	7,292.3	274	7,413.5	279	4,877.2	183	9,545.9	359	7,110.5	267
Willington	1,371.4	228	1,301.8	216	475.0	79	1,641.3	273	1,043.3	173
Wilton	16,022.8	873	16,215.8	884	13,912.4	758	11,992.7	653	13,035.1	710
Winchester	2,023.1	181	1,676.8	150	1,565.3	140	2,507.9	225	2,005.7	180
Windham	2,804.3	111	1,979.9	78	4,515.0	178	3,527.2	139	4,064.2	161
Windsor	7,028.1	242	6,636.2	228	18,733.0	644	9,191.9	316	14,245.1	490
Windsor Locks	2,626.8	210	2,238.8	179	9,277.2	740	3,596.4	287	6,633.0	529
Wolcott	3,824.0	229	3,712.5	222	1,209.4	72	5,037.5	302	3,029.4	182
Woodbridge	6,019.4	670	7,966.0	887	1,812.9	202	5,190.8	578	3,302.4	368
Woodbury	3,302.8	333	3,622.9	366	959.0	97	3,594.2	363	2,116.5	214
Woodstock	2,107.7	266	1,632.4	206	904.9	114	1,900.4	240	1,373.5	173
TOTAL	1,095,001.5		1,083,274.3		1,081,550.9		1,087,009.1		1,084,551.1	