



APPENDIX TO TAXING METROPOLIS: Tax Effort and Tax Capacity in Large U.S. Cities

Tax Data and Methodology

This analysis covers taxes levied in large cities at the metropolitan-area government level or below, including taxes imposed by counties, school districts, transit authorities, and other special districts that overlap the city, as well as city government taxes themselves. In some cases, as described in the following section, taxes that local jurisdictions consider state taxes have been re-categorized and are included in the total local tax results for a city.

The primary source of data on tax revenue is the Comprehensive Annual Financial Reports (CAFRs) of each city and county government for fiscal year 1997.¹ Because many of the CAFRs do not contain the level of detail necessary for the purposes of this study, supplemental information was obtained through follow-up phone calls to state, county, city, and other local government finance, budget, and audit offices. In cases where data were unavailable or incomplete, revenue was estimated using combinations of rate and base data as explained below.

Revenue figures are based on the amount of tax revenue actually collected during the fiscal year, rather than the amount levied. In part, this is due to the fact that this is what is available from the CAFRs. In addition, actual collections more closely represent the resources foregone by taxpayers and the resources available to governments.²

While it is common to look at just the general fund when examining government finances, the collections numbers reported in this study include tax revenue

going into *all* government funds (general, special revenue, debt service, capital projects, and in a few cases expendable trust and enterprise funds). This method was used because it best represents the total level of taxation imposed by local governments upon the taxpayers within a specific city.

What Is a Local Tax? Local governments do not follow a standard procedure in accounting for shared tax revenue. In order to make cities more comparable, it was necessary to reclassify some of this shared tax revenue. As mentioned earlier, if an allocation to localities was based on where the revenue was collected we categorized it as local government tax revenue. If an allocation was based on some other criterion, it was counted as intergovernmental aid. Thus if a state collects \$100 million in sales taxes (net of administrative charges) for allocation to local governments, and locality A has 25 percent of the population but generates 33 percent of sales tax collections, a \$25 million allocation to A would be categorized as formula-driven intergovernmental aid, while a \$33 million allocation would be recognized as (state administered) local government tax revenue.

In some cases, the method of allocation from the government collecting the tax to the government receiving the tax revenue (often state to city/county or county to city) is based on a formula that mixes the base of the tax and some other factor (such as population or miles of road). In such cases, an attempt has been made to extract the amount received as a result of the tax base to count as local tax revenue and the rest is counted as

intergovernmental aid.

One example of this is Arizona's privilege license tax, which resembles a sales tax and is classified as such in this study. The 1997 Maricopa County CAFR describes the allocation of this tax as follows:

The State collects transaction privilege taxes (sales tax) on nearly 20 types of business activities. A portion of each of these taxes is allocated to a pool for distribution to cities, counties, and the State. Of this pool, 40.5 percent is allocated to Arizona counties. Half of the amount earmarked for counties is allocated based upon assessed valuation, and half is allocated based upon location of actual sales tax receipts. (p. xiii)

Maricopa County classifies all of this revenue as intergovernmental aid in its CAFR. However, based upon the criteria discussed above, the allocation dependent upon the location of actual sales tax receipts is counted as Maricopa County sales tax revenue in this study. IBO treats the remainder of Maricopa County's transaction privilege tax allocation from Arizona as formula-driven intergovernmental aid.

There are also cases where a lower level of government counts as own-source tax revenue something that the present study considers intergovernmental aid. An example of this is the complicated property tax system brought on by the passage of California's Proposition 13 in 1978. Under Proposition 13, property taxes are limited to 1.0 percent of assessed property values. Additional levies to service general obligation debt must be approved by voters. All property taxes are collected by county governments. While the debt-related levy is returned to the government that imposed it, the 1.0 percent levy is divided up among the county, city, school district, and special district governments based on a complicated formula involving, among other factors, each locality's share of countywide property taxes prior to the imposition of Proposition 13.

Local governments in California formally record their allocations of the 1.0 percent levy as own-source tax revenue. But the local government property tax

allocations applicable to a given city may not sum to the total property tax revenue actually being generated in that city.³ In the City of Los Angeles, for example, the applicable allocations *to* the city and overlapping governments in 1997 (\$713 million city government, \$504 million county government, \$650 million school district, \$44 million other district) summed to \$1,910 million, which was \$143 million less than the \$2,054 million in property taxes *collected from* city property owners.⁴

Because the latter—aggregate city collections in a city—is what we want to capture for measuring local government tax effort, and because the distribution of collections among California local governments is not a direct function of assessed valuation (the base of the tax), we attribute all of the 1.0 percent property taxes collected in the cities of Los Angeles and San Diego to the counties that collect them, and (in a complete accounting covering all tax and nontax revenues) classify the subsequent allocations of 1.0 percent revenues to the cities, school districts, and other overlapping jurisdictions as intergovernmental transfers. Note that when consolidating the complete revenue accounts and eliminating double-counting, only the *difference* between what the county collects in the city and the allocations that the other local governments receive is left as positive or—as in the case of Los Angeles—negative net intergovernmental aid to the other governments.

A summary of the major adjustments made to reported tax revenue is provided in Table A1.

Categorization of Taxes. The categorization of taxes as “city,” “county,” “school,” and “other” is based on city and county financial reports for each central city area, not on our own classification system. The “city” line includes taxes reported in the city CAFR, including those levied by discretely presented component units. The same is true for the county tax numbers (except that only the portions imposed within the central city are provided here). The “school” and “other” numbers are reported separately for a given central city area only if they are not already included as part of the city or county reporting entity.

Estimating City Shares of Overlapping Government Taxes. All of the overlapping government revenue figures included in this study are estimates of

the portion of tax revenue generated within city boundaries. City shares of overlapping government property taxes were estimated using a ratio of rates (that is, applying the overlapping jurisdiction rates to the city assessed value), except in Phoenix and Detroit where the city CAFRs provided the actual levies of overlapping jurisdictions on properties within city boundaries. In the case of Houston, it was necessary to estimate a blended average property tax rate for independent school districts sharing the city's property tax base.⁵ Overlapping property tax *collections* were then obtained by applying city collections/levy ratios to the estimated city portion of the levies.

Overlapping governments' sales tax collections within city boundaries were, for the most part, also estimated using a ratio of rates. The major exception to this is Chicago, where the base of the sales tax is not the same for all jurisdictions levying the tax. Fortunately, the Illinois Department of Revenue keeps detailed records on the portion of county and special district sales tax revenue generated in each city. City shares of county utility and other/unspecified taxes were estimated using city/county earnings ratios (discussed in the next section).

The criteria used to estimate overlapping government taxes in cities also have some bearing on city government taxes. As noted in the text and discussed further below, our definition of city taxable resources includes the expenditures of nonresidents absorbed by indirect (property, sales, and excise) taxes in the city, but does not include the incomes of nonresidents working in the city. Thus any city income taxes collected from persons living outside the city are in a sense like overlapping government property taxes levied on property located outside the city: they do not constitute tax effort with respect to the city's own taxable resources.

Therefore in the three cases where city income taxes did reach nonresidents in 1997 (New York, Philadelphia, and Detroit), we have estimated and included only the portions of these taxes collected from residents—that is, collected from city taxable resources. In 1997, Philadelphia collected \$416 million from nonresidents, or 38 percent of its total income tax revenue of \$1.1 billion, while Detroit collected an estimated \$72 million from nonresidents, or 23 percent of its \$309 million personal income tax total. In

absolute terms, New York City's nonresident income tax collections (\$324 million) were not much smaller than Philadelphia's, but these collections contributed only 7 percent to the city's total \$4.4 billion personal income tax revenue.⁶

Taxes and Transfers. Our report notes that almost a quarter of New York City's local tax effort—and over half of the tax effort gap between New York City and the other large cities—is accounted for by taxes that finance income transfers. This raises the question of how to treat income transfer payments when comparing tax effort across local jurisdictions. In macroeconomic analysis the distinction between government transfers and government consumption and investment is an important one. Indeed, the size of the public sector *is* the sum of government consumption and investment in conventional analysis. Transfers are viewed as private income that the government re-circulates (differently distributed) back to households—and therefore not, in the aggregate, a net claim on economic output or a net tax on the private sector.⁷

On the other hand, empirical studies of state and local tax and public spending impacts have indicated that taxes used to pay for public goods and services (infrastructure, education, and so on) tend to be associated with increases in local income, employment, and business activity. Taxes used to pay for welfare tend to be associated with decreases.⁸ This supports the inclusion of taxes paying for transfers in measures of local tax effort.

Measuring City Tax Capacity

As noted in the introduction, comparative studies of city taxation are hampered by the lack of good city-level measures of relative capacities to pay. Cities are commonly compared in terms of taxes per capita, but two cities with equal populations may actually have different tax-bearing capacities due to differences in average resident income per capita, differences in business income per capita, or (some argue) differences in household and business wealth per capita. There are broadly two ways of developing a more comprehensive capacity to pay measure: the representative tax system approach (RTS) and the total taxable resources approach (TTR).

RTS estimates “the per capita yield that a hypothetical, uniform, representative tax system would produce” in a given locality and compares this to the average nationwide per capita yield of such a system.⁹ This approach is intended to express the differences in overall capacity to pay that are assumed to exist when for example City A has the same per capita personal income as City B but more per capita property value, or a smaller per capita volume of sales activity. However, the results yielded by the RTS method are to a degree arbitrary. For if a city merely changes the mix of tax rates used to raise a given amount of total revenue, it may—without changing the actual underlying base for any tax—alter its total fiscal capacity (and that of all other cities with differently proportioned tax bases) as measured by RTS.¹⁰ Another difficulty in using the RTS approach for measuring city capacity is that the required data for the various tax bases (such as retail sales and true market values) are often not available at the city level.

The TTR approach, developed by the U.S. Treasury Department, uses total income earned in a locality, ideally including adjustments for depreciation, nonlocal earnings by residents, capital gains, and federal tax and transfer impacts.¹¹ The principle here is that tax policy choices emphasizing one type of tax (and tax-specific base) over another should not be viewed as constitutive of the overall capacity to pay; they are simply how localities choose to tap into that overall capacity. At the state level, TTR is derived through adjustments to gross state product (GSP), which is provided by the Bureau of Economic Analysis (BEA) as the basic measure of incomes earned in the production of gross output.

Gross product is not available from BEA at the sub-state level, although it can be estimated for cities. Instead, we have constructed a measure of city taxable resources (CTR) that is largely, but not entirely, analogous to TTR by merging estimates of city household income and city business net income.

There are two significant differences between TTR and CTR. First, in practice Treasury does not remove depreciation from gross product or incorporate all federal tax and transfer impacts when estimating TTR (only federal indirect taxes are subtracted from GSP; only social insurance transfers are added). As will be seen below, in estimating city taxable resources we

have made these adjustments. The second difference is that while both measures include distributions of income to residents by nonlocal businesses, CTR also excludes distributions of income to nonresidents by local businesses.

The exclusion of income distributed to nonresidents is, as noted in the text, dictated in part by the fact that city governments do not normally reach out and tax such income.¹² But it also reflects our desire for a capacity measure expressing *the resources of the city itself*, as distinct from the resources of the city’s government(s). The resources of a city may, we have seen, provide revenues to a variety of local governments, while conversely local governments (even municipal governments) may procure revenues from non-city resources. It is what cities provide that reflects their sustainability, a critical benchmark in evaluations of tax policy.

The concern with the sustainability of the city as an incubator of income-generating resources lends itself to a capacity measure comprised of the income-earning resources actually domiciled or produced in a city. The “site of production” of one principal resource, labor, is where the household resides. For the other resource, wealth or capital, it is where assets (property) reside.¹³

Household Income Component. Personal income is not available at the city level, except where cities coincide with counties. We derive central city household income from the March 1998 Current Population Survey (CPS). Net household income is household money income as defined by the Census Bureau, plus net capital gains, return to home equity, the market value of noncash government benefits, and employer contributions for social insurance, and less inter-household transfers, state and local financed transfer payments and benefits, payroll deductions, and federal income tax liabilities net of earned income tax credits.

The inter-household transfers (alimony, child care, and financial assistance) are removed because while the CPS counts these transfers as income for the households receiving these payments, the survey does not deduct them from the income of the households making the payments. It is therefore necessary to exclude these transfers from total household income

to avoid double-counting.

Cash and noncash government benefits are, in the aggregate, also a form of inter-household transfers, mediated by taxes.¹⁴ Double-counting of federally funded benefits is avoided by measuring household income net of federal income taxes. However, since state and local income taxes are not being subtracted from household income, the transfers they finance are netted out of the government benefits totals recorded in the CPS.

The central city household net income numbers used here are normalized to bring the weighted sample-based CPS population totals in line with the Census Bureau's noninstitutionalized population estimates. Normalization of the CPS results is required because the weights used are not city-specific, resulting in population estimates that sometimes vary significantly from the Census Bureau's own Population Division estimates.

A frequent criticism of Current Population Survey statistics is that they under-represent the incomes of wealthy households. This is due to the fact that answers to income questions in the Current Population Survey are "top coded"; in the survey for 1997, individual wages were recorded in amounts no greater than \$481,393, self-employment earnings were cut off at \$546,375, interest income limited to \$64,712, and so on. This would not be a problem if it affected all city household income totals proportionately, but it is an issue insofar as some cities (New York, Dallas) have more persons and more income in the upper tail of the income distribution than others (San Antonio, Detroit). The CPS will miss proportionately more of the income of the wealthier cities.

We have made adjustments for the missing income in the CPS. This was done by applying a multiplier to top-coded responses in the major income categories. The size of the multiplier was fixed by estimating the amount of Adjusted Gross Income (AGI) in the household earnings that CPS does capture and comparing that amount with the amount of AGI actually recorded in a city by the IRS. The latter was obtained from IRS files providing average AGI and total returns by zip code.

The adjustments for top coding added almost \$21 billion in wages, self-employment income, income

from property, and retirement income in New York City, but this increase was offset by \$4 billion in additional federal income taxes (which are negative household income) and about \$3 billion in adjustments to eliminate double-counting of property income also showing up in the business income component (see below). The result was a net increase of \$14 billion in city taxable resources.

The comparable adjustments for top coding in the other cities collectively came to just over \$20 billion (most of this in Los Angeles, Dallas, Chicago, and Houston). This was a proportionately smaller adjustment than the one made to the New York City base, but the impact on the gap between local tax effort in New York and average tax effort in the other nine cities was very minor.

It should be noted that differences in income distribution within cities may have some impact on the capacity to bear taxes. That is to say, the true ability to bear taxes may not vary proportionately with household income, so that if two cities have the same CTR but one has a greater share of earnings going to low-income—and therefore highly budget-constrained—households, that city may effectively have a smaller tax base.

The distributional dimension is reflected in city taxable resources insofar as the exclusion from household income of nonfederally funded transfers (which are almost entirely means-tested) disproportionately affects cities like New York with a high proportion of households in poverty. This gets at only some of the possible effects of income distribution on capacity. However, distribution remains as much a problem for RTS measures as for taxable resource approaches.

Business Income Component. The net business income portion of CTR comprises the property income and indirect business tax components of the gross state product (GSP) less capital consumption costs and federal taxes, shared down to the city level. The capital consumption and federal corporate income tax shares of property-type income are estimated from IRS Statistics of Income (SOI) data on corporations by industry.

The GSP components are shared down to the city

level in two steps:

- Regional Economic Information Systems (REIS) industry earnings data are used to share down from the state to the county.
- Earnings data from the 1990 Census sorted by industry and place of work are used to share down from the county to the central city.

Data from the 1990 Census are available at the five-digit Public Use Microdata Areas (PUMA) level by place of residence and at the three-digit PUMA level by place of work. The PUMA-based county/city share down is deployed for seven of the ten big cities. There are two cities, Philadelphia and New York City, for which only the state/county share down is needed, since the city coincides with a county (or in the case of New York City, with five counties), and one city, Phoenix, for which PUMA data could not be used. In the case of Phoenix, the three-digit PUMAs within Maricopa County intersect rather than exactly overlie central city territory.¹⁵ This makes it impossible to extract industry earnings for the city. As a stopgap we have used the ratio of city (Phoenix) to county (Maricopa) commercial/industrial market value as a basis for sharing down the GSP components from the county to the city level.¹⁶

Property-type income as defined by BEA includes several components that also appear in the household income accounts, namely proprietor's (or self-employment) income, dividends, interest, rent and implicit rental income (known as return to home equity in the CPS). To avoid double-counting, we have (using journey to work data) estimated the share of CPS self-employment income earned within the city of residence and netted that out of the city's business property-type income. Similar adjustments were made for CPS dividends and interest income (using the estimated city business share of national property-type income), and household rental income (assumed to be largely derived from local property) and the return to home equity were also netted out of the business side. Thus what remains as net property-type income is by and large undistributed corporate profits.

The indirect business tax (IBT) portion of gross product mainly comprises sales, property, and excise

taxes. (Nontax accruals such as rents and fines are also included, but these make up less than five percent of total IBT.¹⁷) In the national income and gross state product accounts, indirect business taxes constitute a portion of the income earned in the production of output, and insofar as they constitute the portion dispensed in a city, they are part of city taxable resources. However, consistent with our measurement of CTR net of federal personal and corporate income taxes (and with Treasury's treatment of TTR), we remove the portion of income distributions absorbed by federal indirect business taxes.

Other Approaches

The data limitations that this study attempts to overcome have dictated a variety of approaches to comparative city tax analysis, including comparisons of per capita taxes, hypothetical tax bills, county area taxes, and taxes per dollar of gross product. These have yielded results that contrast widely with each other and with IBO's findings.

The comparison of cities in terms of per capita local government taxes yields the greatest contrast with our findings. Steven Craig and D. Andrew Austin, "New York's Million Missing Jobs" (*City Journal*, Winter 1997) compared tax levels for 18 cities by summing city and (except for consolidated governments) county per capita taxes as provided by the Census Bureau for 1994. One major difference between the Craig and Austin study and IBO's work is that, unlike IBO, Craig and Austin's measure of local taxation does not include taxes levied by school districts and other overlapping local governments. Another difference is that Craig and Austin use population as a proxy for taxable resources, while IBO uses a broader measure that includes household income and the profits of local businesses.

Craig and Austin found that New York City's taxes were 140 percent higher than Philadelphia's and 212 percent higher than Chicago's—far greater than our 17 and 47 percent margins of difference in taxes per \$100 of city taxable resources. Since Philadelphia, like New York, has a consolidated city government (no overlapping county or separate school district), the difference between the per capita tax gap and IBO's tax effort gap is entirely due to New York's much higher

per capita household and business net income. The absence of school and other overlapping district taxes exaggerates the New York/Chicago gap observed by Craig and Austin.

The hypothetical taxes approach, conversely, implies smaller tax gaps between New York City and other cities than does our tax effort method. For example, New York's hypothetical bill for a family earning \$50,000 was 18 percent *less than* Philadelphia's, even though New York City tax effort measured against CTR was 17 percent higher. Such differences reflect the fact that hypothetical bills generally limit themselves to just the major taxes and to "representative" taxpayers that may in fact be more representative in some locations than in others. (For example, the representative household in such studies is almost always a homeowner, but rates of homeownership vary widely among large cities: indeed the typical household in New York City rents.) These differences show that while the hypothetical bills may be good indicators of the tax levels faced by some taxpayers, it is not really possible to extrapolate overall tax burdens in a city from such bills.

County area comparisons include all overlapping local governments, but equate areas that are entirely under the jurisdiction of a central city government (New York City) with areas where city governments have jurisdiction over only a part of the county area (Los Angeles County). The county area tax comparison using personal income (provided by BEA at the county level) as a base yields results generally comparable to those of our study (with some notable exceptions—Dallas and San Diego in particular). The chief drawbacks of the county area approach is that the most recent available numbers are old (1992) and the published tax detail is very sparse.¹⁸

Finally, when estimates of gross city product (GCP) are substituted for city taxable resources as a tax effort base, the changes in results are small but telling. New York City slips to second place behind Philadelphia in taxes (including nonresident income taxes) per GCP. This reflects the fact that the nonresident earnings included in GCP—but excluded from city taxable resources—comprise a larger share of total output in New York City than in Philadelphia; thus GCP is 52 percent larger than city taxable resources in New York but only 45 percent larger in

Philadelphia.

Notes

¹ This includes fiscal years with starting dates ranging from July 1, 1996 to March 1, 1997. Fiscal year 1997 was selected because it was the most recent year for which data were available at the time this study began.

² The resources foregone by the taxpayers also include their compliance costs (time lost and/or fees paid to calculate—and minimize—liability, prepare forms, and so on). The resources available to governments are reduced by their tax collection costs (including costs of record keeping and enforcement).

³ The "applicable allocations" are the city allocation, the county allocation times the share of county assessed value within the city, the school district allocation times the city share of school district assessed value, and so on. This is the formula used in California to calculate the schedule of "applicable" overlapping government debt in a city.

⁴ The difference may represent property tax revenue collected in the City of Los Angeles that is allocated to other (non-overlapping) local entities within the county.

⁵ The Houston Independent School District (ISD) lies wholly within the city of Houston and covers about 70 percent of the city's assessed value. The other 30 percent is shared among some 17 ISDs, many of whom lie partly outside the city boundary. A weighted average of the property tax rates of these other ISDs was averaged with the property tax rate of the Houston ISD to produce a school district property tax rate for the entire city.

⁶ New York City's nonresident income tax revenues included \$48 million collected from city government employees living outside the city. With the recent repeal of the city's general nonresident income tax, these employees are now the only nonresidents paying city personal income taxes.

⁷ See, for example, Olivier Blanchard, *Macroeconomics* (Prentice-Hall, 1997), pp. 42, 592. Note, however, that insofar as welfare recipients work in government agencies and provide services in exchange for benefits, some part of the public assistance financed by local taxes might itself be defined as additional government consumption.

⁸ Timothy Bartik, *Who Benefits from State and Local Economic Development Policies?* (Upjohn Institute, 1991), pp. 44-48.

⁹ Robert Tannenwald, "Fiscal Disparity Among the States Revisited." *State Tax Notes*, October 11, 1999, p. 973.

¹⁰ Only if all jurisdictions have identically proportioned tax bases (that is, identical ratios of per capita property value to per capita personal income to per capita sales volume and so forth) will their RTS fiscal capacities be invariant to changes in the mix of tax rates each jurisdiction uses to raise a given revenue total.

¹¹ For details see Michael Compson and John Navratil, "An Improved Method for Estimating the Total Taxable Resources of the States." Washington: U.S. Department of the Treasury, Office of Economic Policy, Research Paper No. 9702.

¹² To this extent the definition of capacity in the taxable resources is, as in the representative tax system approach, a function of tax policy decisions. Unlike RTS, however, city taxable resources do not vary with changes in tax mix.

¹³ When analyzing ultimate tax burdens, undistributed corporate earnings must be allocated back to the individual owners of corporate equity. Doing so might yield a different measure of the business component of taxable resources within a city—not the undistributed corporate earnings *generated within* a city, but rather the share of the nation's (or world's) undistributed earnings *belonging to equity-owning residents* of a city. But the taxes on those undistributed earnings remain a function of where the investment is located, not where the owner lives, suggesting that our measure of the business component is still the most germane for a study of local tax effort.

¹⁴ See the discussion of taxes and transfers above.

¹⁵ Phoenix is the only large city in for which city-specific three digit PUMA are not defined.

¹⁶ The city/county nonresidential property value ratio is slightly smaller than the Phoenix/Maricopa population ratio. However, city/county workplace earnings ratios (the basis for estimating business income in seven other cities) generally exceed population ratios. This has been factored into the calculations of the city share of Maricopa business income.

¹⁷ Starting in 1997, nontaxes also include settlements of lawsuits with tobacco companies; prior to this the nontax share of total IBT was under four percent.

¹⁸ The Census Bureau discontinued its annual compre-

hensive county area finances reports in 1986, and since then has provided only much less detailed and considerably lagged reports on county area finances at five year intervals in the Census of Government Finances.

Table A1. Principal Tax Reallocations						
City/ County/ other local government	Tax	Tax \$ reported by city/county/ other local government	Tax \$ used in our calculations	Difference	Explanation of Difference	
New York City	Stock Transfer Tax	114,042,195	-	(114,042,195)	This transfer from the state is a payment in lieu of a discontinued city tax; the amount bears no relation to the city revenues foregone and is really a form of unrestricted intergovernmental aid.	
New York City	Off Track Betting Surtax	-	20,405,615	20,405,615	The City of New York CAFR reports both the basic OTB payment to the General Fund and OTB surtax as transfers from a discretely presented component unit, while city financial plans include both items in primary government taxes. While the basic payment is OTB net income, the surtax is a true excise tax imposed on operating revenues; we are counting the latter, but not the former, as a city component unit tax.	
Los Angeles (City)	Sales Tax	368,969,000	283,604,000	(85,365,000)	The City of Los Angeles counts revenue we consider a transfer from MTA and state as sales tax revenue.	
Chicago	Motor Fuel Tax	59,448,000	-	(59,448,000)	Motor Fuel tax is collected by the Illinois Department of Revenue and allocated to municipalities on the basis of population. Chicago counts this as tax revenue but we consider it intergovernmental aid.	
Chicago	Sales Tax	162,808,000	330,835,657	168,027,657	The State of Illinois collects a 1% tax that is returned to the municipality within which the sale was made. The City of Chicago counts this revenue as state aid rather than as local tax revenue. Their justification for this is that although the state has historically dedicated this revenue to municipalities, the agreement could be rescinded at any time. We have added most of this revenue back into Chicago's local sales tax total.	
Cook County	Income Tax	7,737,733	-	(7,737,733)	Cook County does not levy its own income tax. A portion of the Illinois state income tax is distributed to local governments on the basis of population. We count this as an intergovernmental transfer rather than tax revenue.	
Cook County	Personal Property Replacement Tax	21,382,974	-	(21,382,974)	This tax on business income was established to replace revenue lost by local governments and school districts when the personal property tax was abolished in the 1970s. Cook County receives a fixed percentage of this revenue every year. Cook County's share is then distributed to the taxing districts in the county on the basis of each district's share of personal property tax collection for the 1976 tax year. Therefore, we consider this an intergovernmental transfer.	
Cook County	Motor Fuel Tax	80,747,214	-	(80,747,214)	This tax is collected by the State of Illinois. A fixed percentage is allocated to Cook County. Cook County counts this as tax revenue but we call it intergovernmental aid.	
Maricopa County	State Sales Tax	-	121,173,472	121,173,472	A portion of the state transaction privilege tax (more or less equivalent to a sales tax) is returned to counties. Of this pool of money, roughly half is allocated to counties based on sales. Maricopa County counts all of the state sales tax revenue as intergovernmental aid. We count a little less than half of it as local tax revenue and a little more than half of it as intergovernmental aid.	
Maricopa County	Vehicle License Tax	-	57,689,412	57,689,412	Most of the allocation of the Arizona state vehicle license tax to counties is based on the tax revenue generated in those counties. Maricopa County counts all of the vehicle license tax revenue as state aid, but we're counting most of it as an "other" tax.	
California local govts	Property Tax	N/A	N/A	N/A	Under Proposition 13, property taxes are limited to 1% of assessed value, plus voter-approved debt service. The 1% levy is collected by county governments and distributed to localities based on a complicated formula involving, among other things, each locality's share of local property taxes prior to the passage of Proposition 13. Because property tax revenue is not allocated based on what was collected from property owners in each city or school district, we count the 1% levy as a county tax for Los Angeles and San Diego counties.	

Source: Independent Budget Office.

Table A2. Total Local Taxes Collected In the Ten Largest U.S. Cities, 1997

City	Level of govt.	Taxes collected by city, county, school, and other local jurisdictions in central city (\$ thousands)							Share of Total
		Property	General Sales	Personal Income	Business Income	Utility	Other and unspecified	Total	
New York City	City	7,290,685.4	2,937,083.1	4,100,641.4	2,925,017.0	217,326.8	1,378,999.4	18,849,753.0	96.4%
	County								
	School								
	Other	46,300.0	183,567.7	-	282,730.8	103,605.0	91,559.3	707,762.9	3.6%
	Total	\$7,336,985.4	\$3,120,650.8	\$4,100,641.4	\$3,207,747.8	\$320,931.9	\$1,470,558.7	\$19,557,515.9	100.0%
Los Angeles	City	188,229.1	283,957.0	-	283,384.0	466,206.0	225,316.0	1,447,092.0	38.6%
	County	1,842,879.2	70,989.2	-	-	14,298.0	68,924.0	1,997,090.4	53.2%
	School	6,129.5	-	-	-	-	-	6,129.5	0.2%
	Other	16,342.9	283,957.0	-	-	-	-	300,299.8	8.0%
	Total	\$2,053,580.6	\$638,903.2	-	\$283,384.0	\$480,504.0	\$294,240.0	\$3,750,611.8	100.0%
Chicago	City	650,014.0	330,835.7	-	-	421,580.0	569,900.0	1,972,329.7	43.3%
	County	323,833.5	88,979.1	-	-	-	147,827.0	560,639.6	12.3%
	School	1,278,700.0	-	-	-	-	-	1,278,700.0	28.1%
	Other	563,530.3	177,725.1	-	-	-	-	741,255.4	16.3%
	Total	\$2,816,077.8	\$597,539.8	-	-	\$421,580.0	\$717,727.0	\$4,552,924.7	100.0%
Houston	City	470,676.0	262,149.0	-	117,355.0	-	39,979.0	890,159.0	34.2%
	County	401,836.9	-	-	-	-	21,505.0	423,341.9	16.3%
	School	943,949.0	-	-	-	-	-	943,949.0	36.3%
	Other	79,968.2	262,149.0	-	-	-	-	342,117.2	13.2%
	Total	\$1,896,430.1	\$524,298.0	-	\$117,355.0	-	-	\$61,484.0	\$2,599,567.1
Philadelphia	City	827,125.8	91,366.6	693,230.4	259,266.1	-	213,236.2	2,084,225.2	100.0%
	County								
	School								
	Other								
	Total	\$827,125.8	\$91,366.6	\$693,230.4	\$259,266.1	-	\$213,236.2	\$2,084,225.2	100.0%
San Diego	City	28,463.7	129,005.3	-	26,655.0	-	158,573.0	342,697.0	29.4%
	County	662,386.5	32,251.3	-	-	-	-	694,637.9	59.5%
	School	65,581.9	-	-	-	-	-	65,581.9	5.6%
	Other	-	64,502.6	-	-	-	-	64,502.6	5.5%
	Total	\$756,432.2	\$225,759.3	-	\$26,655.0	-	\$158,573.0	\$1,167,419.5	100.0%
Phoenix	City	100,834.0	304,654.0	-	-	-	1,185.0	406,673.0	34.3%
	County	111,397.6	74,017.0	-	-	-	28,730.0	214,144.6	18.1%
	School	555,353.4	-	-	-	-	-	555,353.4	46.9%
	Other	8,197.6	-	-	-	-	-	8,197.6	0.7%
	Total	\$775,782.7	\$378,671.0	-	\$0.0	-	\$29,915.0	\$1,184,368.7	100.0%
San Antonio	City	163,855.7	110,034.5	-	16,660.1	-	38,463.2	329,013.5	33.1%
	County	161,078.7	-	-	-	-	2,864.0	163,942.7	16.5%
	School	415,621.0	-	-	-	-	-	415,621.0	41.8%
	Other	29,943.6	55,017.2	-	-	-	-	84,960.8	8.6%
	Total	\$770,499.0	\$165,051.7	-	\$16,660.1	-	\$41,327.2	\$993,538.0	100.0%
Dallas	City	308,050.0	173,032.0	-	88,314.0	-	32,315.0	601,711.0	36.5%
	County	184,474.0	-	-	-	-	-	184,474.0	11.2%
	School	666,756.8	-	-	-	-	-	666,756.8	40.4%
	Other	23,784.5	173,032.0	-	-	-	-	196,816.5	11.9%
	Total	\$1,183,065.3	\$346,064.0	-	\$88,314.0	-	\$32,315.0	\$1,649,758.3	100.0%
Detroit	City	204,125.0	-	238,029.3	23,035.7	54,641.4	54,135.9	573,967.3	74.6%
	County	71,334.1	-	-	-	-	10,431.0	81,765.1	10.6%
	School	113,861.8	-	-	-	-	-	113,861.8	14.8%
	Other								
	Total	\$389,320.9	\$0.0	\$238,029.3	\$23,035.7	\$54,641.4	\$64,566.9	\$769,594.2	100.0%
Non-NYC Sum	City	2,941,373.3	1,685,034.0	931,259.7	814,669.9	942,427.4	1,333,103.3	8,647,867.6	46.1%
	County	3,759,220.6	266,236.7	-	-	14,298.0	280,281.0	4,320,036.3	23.0%
	School	4,045,953.5	-	-	-	-	-	4,045,953.5	21.6%
	Other	721,767.1	1,016,382.9	-	-	-	-	1,738,150.1	9.3%
	Total	\$11,468,314.5	\$2,967,653.6	\$931,259.7	\$814,669.9	\$956,725.4	\$1,613,384.3	\$18,752,007.5	100.0%

Source: Independent Budget Office.

City	Level of government	Distribution of taxes collected by city, county, school, and other local jurisdictions in city						
		Property	General Sales	Personal Income	Business Income	Utility	Other and unspecified	Total
New York City	City	38.7%	15.6%	21.8%	15.5%	1.2%	7.3%	100.0%
	County							
	School							
	Other	6.5%	25.9%	-	39.9%	14.6%	12.9%	100.0%
	Total	37.5%	16.0%	21.0%	16.4%	1.6%	7.5%	100.0%
Los Angeles	City	13.0%	19.6%	-	19.6%	32.2%	15.6%	100.0%
	County	92.3%	3.6%	-	-	0.7%	3.5%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	5.4%	94.6%	-	-	-	-	100.0%
	Total	54.8%	17.0%	-	7.6%	12.8%	7.8%	100.0%
Chicago	City	33.0%	16.8%	-	-	21.4%	28.9%	100.0%
	County	57.8%	15.9%	-	-	-	26.4%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	76.0%	24.0%	-	-	-	-	100.0%
	Total	61.9%	13.1%	-	-	9.3%	15.8%	100.0%
Houston	City	52.9%	29.4%	-	13.2%	-	4.5%	100.0%
	County	94.9%	-	-	-	-	5.1%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	23.4%	76.6%	-	-	-	-	100.0%
	Total	73.0%	20.2%	-	4.5%	-	2.4%	100.0%
Philadelphia	City	39.7%	4.4%	33.3%	12.4%	-	10.2%	100.0%
	County							
	School							
	Other							
	Total	39.7%	4.4%	33.3%	12.4%	-	10.2%	100.0%
San Diego	City	8.3%	37.6%	-	7.8%	-	46.3%	100.0%
	County	95.4%	4.6%	-	-	-	-	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	-	100.0%	-	-	-	-	100.0%
	Total	64.8%	19.3%	-	2.3%	-	13.6%	100.0%
Phoenix	City	24.8%	74.9%	-	-	-	0.3%	100.0%
	County	52.0%	34.6%	-	-	-	13.4%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	100.0%	-	-	-	-	-	100.0%
	Total	65.5%	32.0%	-	-	-	2.5%	100.0%
San Antonio	City	49.8%	33.4%	-	5.1%	-	11.7%	100.0%
	County	98.3%	-	-	-	-	1.7%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	35.2%	64.8%	-	-	-	-	100.0%
	Total	77.6%	16.6%	-	1.7%	-	4.2%	100.0%
Dallas	City	51.2%	28.8%	-	14.7%	-	5.4%	100.0%
	County	100.0%	-	-	-	-	-	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	12.1%	87.9%	-	-	-	-	100.0%
	Total	71.7%	21.0%	-	5.4%	-	2.0%	100.0%
Detroit	City	35.6%	-	41.5%	4.0%	9.5%	9.4%	100.0%
	County	87.2%	-	-	-	-	12.8%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other							
	Total	50.6%	-	30.9%	3.0%	7.1%	8.4%	100.0%
Non-NYC Average Non-NYC	City	34.0%	19.5%	10.8%	9.4%	10.9%	15.4%	100.0%
	County	87.0%	6.2%	-	-	0.3%	6.5%	100.0%
	School	100.0%	-	-	-	-	-	100.0%
	Other	41.5%	58.5%	-	-	-	-	100.0%
	Total	61.2%	15.8%	5.0%	4.3%	5.1%	8.6%	100.0%

Source: Independent Budget Office

Table A4. Local Tax Effort in the Ten Largest U.S. Cities, 1997									
City	Level of government	Local Taxes per \$100 City Taxable Resources							Total
		Property	General Sales	Personal Income	Business Income	Utility	Other and unspecified		
New York City	City	2.98	1.20	1.68	1.20	0.09	0.56	7.70	
	County								
	School								
	Other	0.02	0.08	-	0.12	0.04	0.04	0.29	
	Total	\$3.00 3	\$1.28 2	\$1.68 2	\$1.31 1	\$0.13 4	\$0.60 3	\$7.99 1	
Los Angeles	City	0.21	0.32	-	0.32	0.52	0.25	1.63	
	County	2.07	0.08	-	-	0.02	0.08	2.24	
	School	0.01	-	-	-	-	-	0.01	
	Other	0.02	0.32	-	-	-	-	0.34	
	Total	\$2.31 8	\$0.72 6	\$0.00	\$0.32 3	\$0.54 1	\$0.33 6	\$4.21 7	
Chicago	City	0.78	0.39	-	-	0.50	0.68	2.35	
	County	0.39	0.11	-	-	-	0.18	0.67	
	School	1.53	-	-	-	-	-	1.53	
	Other	0.67	0.21	-	-	-	-	0.88	
	Total	\$3.36 2	\$0.71 7	\$0.00	\$0.00	\$0.50 2	\$0.86 1	\$5.44 3	
Houston	City	0.73	0.41	-	0.18	-	0.06	1.38	
	County	0.62	-	-	-	-	0.03	0.66	
	School	1.46	-	-	-	-	-	1.46	
	Other	0.12	0.41	-	-	-	-	0.53	
	Total	\$2.93 4	\$0.81 3	\$0.00	\$0.18 4	\$0.00	\$0.10 9	\$4.02 8	
Philadelphia	City	2.71	0.30	2.28	0.85	-	0.70	6.84	
	County								
	School								
	Other								
	Total	\$2.71 6	\$0.30 9	\$2.28 1	\$0.85 2	\$0.00	\$0.70 2	\$6.84 2	
San Diego	City	0.09	0.42	-	0.09	-	0.52	1.13	
	County	2.18	0.11	-	-	-	-	2.29	
	School	0.22	-	-	-	-	-	0.22	
	Other	-	0.21	-	-	-	-	0.21	
	Total	\$2.49 7	\$0.74 5	\$0.00	\$0.09 7	\$0.00	\$0.52 4	\$3.84 9	
Phoenix	City	0.37	1.12	-	-	-	0.00	1.50	
	County	0.41	0.27	-	-	-	0.11	0.79	
	School	2.05	-	-	-	-	-	2.05	
	Other	0.03	-	-	-	-	-	0.03	
	Total	\$2.86 5	\$1.39 1	\$0.00	\$0.00	\$0.00	\$0.11 8	\$4.36 6	
San Antonio	City	0.74	0.50	-	0.08	-	0.17	1.48	
	County	0.73	-	-	-	-	0.01	0.74	
	School	1.87	-	-	-	-	-	1.87	
	Other	0.13	0.25	-	-	-	-	0.38	
	Total	\$3.47 1	\$0.74 4	\$0.00	\$0.08 8	\$0.00	\$0.19 7	\$4.47 4	
Dallas	City	0.56	0.31	-	0.16	-	0.06	1.09	
	County	0.34	-	-	-	-	-	0.34	
	School	1.21	-	-	-	-	-	1.21	
	Other	0.04	0.31	-	-	-	-	0.36	
	Total	\$2.15 10	\$0.63 8	\$0.00	\$0.16 5	\$0.00	\$0.06 10	\$3.00 10	
Detroit	City	1.18	-	1.38	0.13	0.32	0.31	3.32	
	County	0.41	-	-	-	-	0.06	0.47	
	School	0.66	-	-	-	-	-	0.66	
	Other								
	Total	\$2.25 9	\$0.00	\$1.38 3	\$0.13 6	\$0.32 3	\$0.37 5	\$4.45 5	
Non-NYC Avg.	City	0.70	0.40	0.22	0.19	0.22	0.32	2.06	
	County	0.90	0.06	-	-	0.00	0.07	1.03	
	School	0.96	-	-	-	-	-	0.96	
	Other	0.17	0.24	-	-	-	-	0.41	
	Total	\$2.73	\$0.71	\$0.22	\$0.19	\$0.23	\$0.38	\$4.47	

Note: Rankings in bold face type.
Source: Independent Budget Office.

Table A5. Alternative Measures of Tax Effort in the Ten Largest U.S. Cities															
City (County)	Total local taxes compared to measures of city income or output ¹					Per capita taxes ²			Hypothetical taxes ³			Total county area taxes ⁴			
	Taxes per \$100 City Taxable Resources (1997)	Rank	NYC/ Other difference	Taxes per \$100 Gross City Product (1997)	Rank	NYC/ Other difference	City/ county taxes per capita (1994)	Rank	NYC/ Other difference	Major local taxes for family earning \$50,000 (1997)	Rank	NYC/ Other difference	Taxes per \$100 personal income (1992)	Rank	NYC/ Other difference
New York City	\$7.99	1	0%	\$5.35	2	0%	\$2,467	1	0%	\$3,277	2	0%	\$8.68	1	0%
Los Angeles	4.21	7	90%	2.67	7	100%	735	4	236%	2,157	3	52%	4.23	8	106%
Chicago (Cook)	5.44	3	47%	3.53	3	52%	792	3	211%	1,893	5	73%	5.85	3	49%
Houston (Harris)	4.02	8	99%	2.15	9	149%	694	6	256%	1,656	6	98%	4.74	6	83%
Philadelphia	6.84	2	17%	5.68	1	-6%	1,026	2	140%	3,977	1	-18%	6.73	2	29%
San Diego	3.84	9	108%	2.63	8	103%	504	8	389%	na	na	na	3.30	10	163%
Phoenix (Maricopa)	4.36	6	83%	2.99	5	79%	473	9	421%	2,018	4	62%	4.15	9	109%
San Antonio (Bexar)	4.47	4	79%	2.93	6	83%	414	10	496%	na	na	na	4.23	7	105%
Dallas	3.00	10	167%	1.93	10	178%	667	7	270%	na	na	na	5.40	4	61%
Detroit (Wayne)	4.45	5	80%	3.13	4	71%	701	5	252%	1,269	7	158%	5.38	5	61%
Non-NYC average	\$4.47		79%	\$2.89		85%	\$700		253%	\$2,162		52%	\$4.79		81%

Notes:

1. City Taxable Resources and Gross City Product estimated by IBO. For GCP calculation, nonresident personal income taxes are included since nonresident earnings are part of GCP.
2. City plus county government taxes per capita taken from Stephen Craig and D. Andrew Austin, "New York's Million Missing Jobs" (*City Journal*, Winter 1997), Appendix Table 2. This measure adds city taxes divided by city population and county taxes divided by county population (all provided by the Census Bureau) and therefore does not reflect the actual county tax collections in a city. The non-NYC average is calculated by IBO and weighted by population.
3. Hypothetical taxes are taken from "Tax Rates and Tax Burdens in the District of Columbia—A Nationwide Comparison, 1997" (Government of the District of Columbia, July 1998), p. 9. The hypothetical family is assumed to own a home and automobile. The taxes included are personal income, property, sales, and auto. State taxes are included in the D.C. study but have been removed here. The non-New York City average hypothetical bill (estimated by IBO for available cities) is unweighted.
4. Total county area taxes provided by the 1992 Census of Governments, Compendium of Government Finances (GC92(4)-5), Table 50, "Local Government Finances for Individual County Areas" (Census Bureau). County personal income provided by the Regional Economic Information System (REIS), Table CA-30 (Bureau of Economic Analysis). The county name is provided in parenthesis when different from the city name.

Source: Independent Budget Office.

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