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Fiscally Standardized Cities: A New Approach to Urban Fiscal Analysis

by Robert Tannenwald

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In this column, Tannenwald praises a database generated by researchers at the Lincoln Institute of Land Policy, which allows for better comparisons of localities' fiscal conditions. He also discusses some interesting findings from the database.

In 2010 Las Vegas spent only 29 percent as much per resident as Boston. Las Vegas must be much more fiscally conservative or operationally efficient than Boston, right? Wrong. Las Vegas has far fewer fiscal responsibilities than Boston, accounting for less than 30 percent of all local spending within the city borders. The rest is undertaken by Clark County, independent school districts, and special districts whose jurisdictions overlap the city's to some degree. By contrast, Boston finances almost 84 percent of the local public services delivered within its jurisdiction, including K-12 education, police, and fire. Differences in governance also explain why in 2010 Las Vegas collected own-source revenue per capita equal to only one-third the amount collected by Boston. Nonmunicipal governments collected 52 percent of the local taxes, fees, and charges levied within Las Vegas, compared with 2 percent in Boston.[1]

Intercity differences in governance have been an obstacle to fiscal analysts for many decades. However, data that control for these differences are now available thanks to Howard Chernick, Andrew Reschovsky, and Adam Langley.[2] Under the auspices of the Lincoln Institute of Land Policy, these three scholars have created the Fiscally Standardized Cities (FiSCs) database. In so doing, they have developed methods for estimating the share of revenue and spending within a city attributable to all substate governments operating within its borders, not just the municipality. With FiSCs, one can meaningfully compare the fiscal characteristics of cities with very different governance, such as Boston and Las Vegas.

On the whole, the three economists use fairly straightforward rules for allocating the revenue, spending, and debt of county and district governments to cities that lie partly or completely within their jurisdiction. For example, they assume that a city's share of a county's revenue and outlays equals its share of the county's population. Thus, if the city's population is 50 percent of the county's, the city is assumed to contribute 50 percent of the county's revenue, and 50 percent of the county's spending is assumed to finance services delivered within the city. Regarding school districts, spending and revenue are apportioned on the basis of school enrollment. Thus, if a city has 75 percent of the enrolled students in a school district, 75 percent of the district's revenue and outlays are assigned to the city. Similar rules are used to determine a city's portion of a special district's revenue and expenditures.[3]

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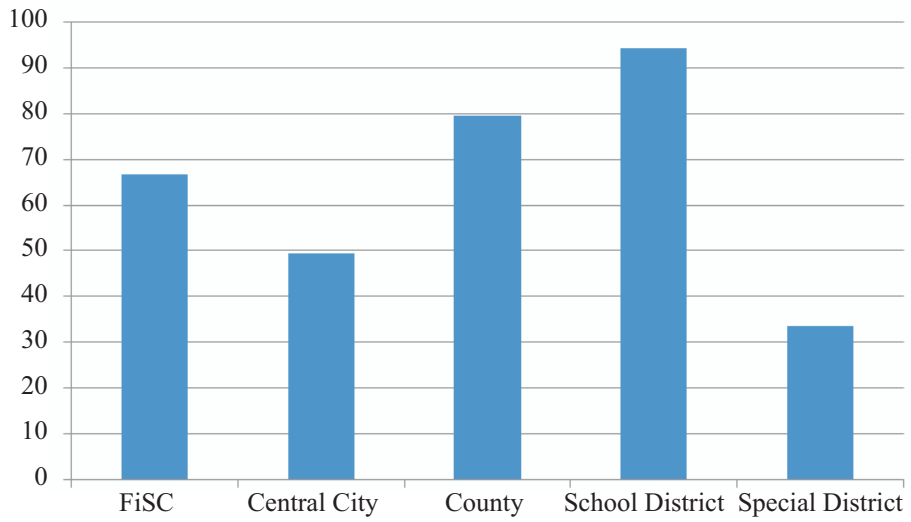
[1]Author's calculations and the Lincoln Institute of Land Policy's Fiscally Standardized Cities database.

[2]Chernick and Reschovsky have collaborated for several decades on research concerning a wide variety of state and local fiscal topics, including the distribution of state and local taxes and the impact of federal tax reform on the states. Langley is a research analyst at the Lincoln Institute, where he has blossomed under the guidance of Chernick, Reschovsky, and other scholars at the institute, such as Daphne Kenyon and Joan Youngman. I had the pleasure of supervising him during his stint as a research assistant at the Federal Reserve Bank of Boston.

[3]A city's portion of a special district's revenue and expenditures are generally assumed to equal the city's portion of the population in the district's geographic area. Special rules were developed to deal with small special districts and unusual situations, such as a city divided among two or more counties. *See* Langley, "Methodology Used to Create Fiscally Standardized Cities' Data Base," Lincoln Institute of Land Policy working paper (2013).

Figure 1.
Property Tax As a Percent of Total Tax Revenues
FiSCs and Their Components, FY2010



Source: Lincoln Institute of Land Policy. Fiscally Standardized Cities database. http://www.lincolninst.edu/subcenters/fiscally-standardized-cities.

At least three things distinguish this effort from others that have attempted to control for intercity differences in local governmental arrangements. The first is the sheer breadth of the authors' work. They have amassed data on 112 U.S. cities for years 1977 through 2010 — for each FiSC and year, they provide statistics on more than 120 fiscal variables, encompassing various categories of spending, revenue, assets, and debt. Statistics for each variable are available not only for the FiSC as a whole, but also are broken down by the municipal government and the various segments of county, school district, and special district governments that comprise the FiSC. Data are available with or without inflation adjustment and on a total or per capita basis. Investigators can access every piece of that data set through a Web page linked to the Lincoln Institute's website.

The second remarkable thing about t[illegible]ndeavor is the painstaking geographic detail that the thr[illegible]holars used in their fiscal standardization strategy. For example, it is one thing to posit that a city's share of school district revenue should be apportioned according to its share of each district's student enrollment. It is quite another thing to determine these shares. In order to accomplish that, the scholars often had to analyze multiple data sources from the U.S. Census Bureau and school districts at the block group or tract level — a very fine degree of geographical disaggregation.

A final noteworthy characteristic was the cooperation between the scholars and census officials in the development of the data set.[4] Officials were particularly helpful in explaining the sources and concepts underlying the census data sets the scholars used in achieving fiscal standardization. Members of the census bureau staff are unsung heroes whose excellent work ensures that social scientists and other fiscal analysts like me have access to valid, reliable data.

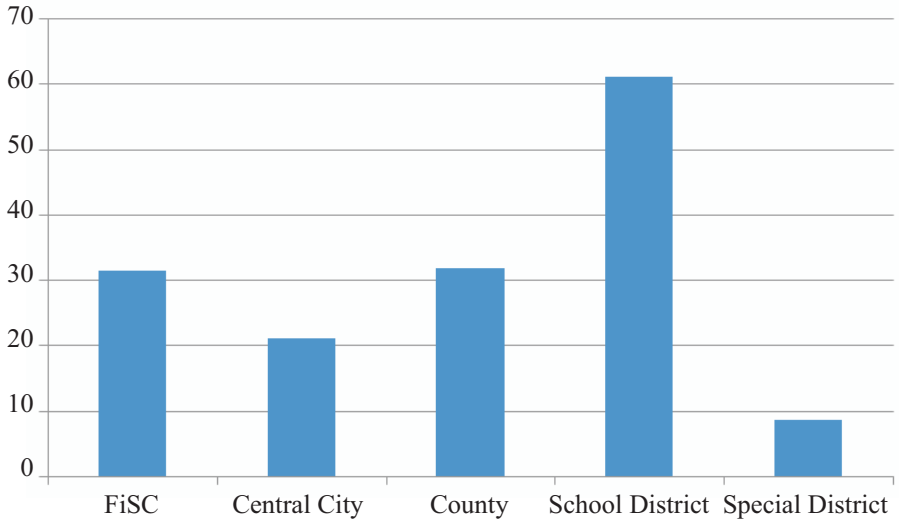
How Standardization Affects FiSCs' Overall Revenue Mix

In 2010 the revenue mix of FiSCs differed from that of central cities in three ways. First, a larger percentage of their tax revenue came from the property tax. On average, the property tax accounted for two-thirds of FiSC tax revenue but only 46 percent of FiSC central city tax revenue. The property tax was especially important in the tax mix of counties and independent school districts serving FiSCs (see Figure 1).

Second, FiSCs relied more heavily on state aid (32 percent of general revenue) than did their central cities (21 percent). The major reason is that independent school districts serving FiSCs received 61 percent of their general

[4]Reschovsky and Langley singled out Lisa Blumerman; chief of the census's governments division, Stephen Owens; and former census official Christopher Pece for special recognition in a January 15 interview.

Figure 2.
State Aid As a Percentage of General Revenue
(FiSC Data)



Source: see Table 1.

revenue from that source. Counties also relied more heavily on state aid for general revenue (31 percent) than central cities (see Figure 2).

Third, FiSCs relied less heavily on charges and miscellaneous revenue sources than did their central governments (25 percent vs. 32 percent). Although special districts tended to rely on them heavily, they accounted for only 14 percent of the average county's general revenue and 4 percent of the general revenue of the average independent school district.

Some Interesting Findings for Specific FiSCs

After fiscal standardization, Las Vegas and Boston look much more similar. Las Vegas's per capita local own-source revenue in 2010 was about 5 percent *higher* than Boston's. Total local direct spending per capita was about 6 percent lower. Las Vegas's per capita spending was lower, even though its per capita revenue was higher, in large part because it got less per capita aid from the state and federal governments.

I was surprised to find that two of the three FiSCs collecting the lowest per capita own-source revenue were "Taxachusetts" towns, Springfield and Worcester (ranked, respectively, 111th and 109th out of 111th) (see Table 1).[5] How could two FiSCs from that bastion of fiscal liberalism be at the bottom of the per capita revenue rankings? Springfield's per capita own-source revenue was only a little more than half that of the median FiSC. The answer lies only partially on a large infusion of intergovernmental aid to the two FiSCs. Both had low per capita direct spending as well. Springfield ranked 85th and was 20 percent below the median; Worcester's per capita spending ranked 101st and was 27 percent below the median.

Both cities lack the resources to support a median level of taxes and spending. In 2010 Springfield's per capita income was 30 percent below, and its poverty rate 100 percent above, their respective national averages. While Worcester's income and poverty numbers were better, they were still worse than the nation as a whole.[6] Moreover, Worcester's property tax base is cramped by the presence of several land-intensive, tax-exempt organizations within its borders.[7] Both cities' revenue-raising capacity is limited by Massachusetts's property tax limitation, Proposition 2-1/2.

At the upper end, I was surprised to find that Atlanta ranked very high on several measures. With the District of Columbia removed from the rankings, Atlanta ranked first

[5]The District of Columbia was removed from the FiSC rankings and the computation of medians because in many ways it assumes the fiscal responsibilities of a state as well as a city.

[6]U.S. Census Bureau, "Worcester, City, Massachusetts (Quick Facts)" and "Springfield, City, Massachusetts (Quick Facts)."

[7]However, in recent years Worcester has succeeded in reaching agreements for payments in lieu of taxes with some of its tax-exempt organizations. *See* Kenyon and Langley, "Payments in Lieu of Taxes by Nonprofits: Case Studies," *State Tax Notes*, July 18, 2011, p. 171.

Table 1.
Rank of Selected FiSCs According to Selected Fiscal Variables FY2010, Dollars Per Capita

Own-source revenues			Direct expenditure		
Rank	**Amount**	**FiSC**	**Rank**	**Amount**	**FiSC**
1	$6,227	Atlanta (GA)	1	$12,055	New York (NY)
2	$6,187	San Francisco (CA)	2	$12,071	San Francisco (CA)
3	$6,106	New York (NY)	3	$9,967	Atlanta (GA)
4	$5,643	Denver (CO)	4	$9,467	Chatanooga (TN)
5	$5,096	Yonkers (NY)	5	$9,344	Los Angeles (CA)
Median: $2,847			Median: $5,971		
107	$1,770	Jackson (MS)	107	$3,766	Oklahoma (OK)
108	$1,730	Mesa (AZ)	108	$3,559	Ft. Wayne (IN)
109	$1,672	Worcester (MA)	109	$3,532	Louisville (KY)
110	$1,607	Montgomery (AL)	110	$3,292	Montgomery (AL)
111	$1,457	Worcester (MA)	111	$2,995	Lexington (KY)

Debt outstanding		
Rank	**Amount**	**FiSC**
1	$22,630	Kansas City (KS)
2	$18,666	Atlanta (GA)
3	$16,105	San Francisco (CA)
4	$15,238	New York (NY)
5	$15,138	Jacksonville (FL)
Median: $6,612		
107	$2,845	Baton Rouge (LA)
108	$2,645	Spokane (WA)
109	$2,270	Springfield (MA)
110	$2,149	Flint (MI)
111	$1,908	Montgomery (AL)

Source: see Table 1.

in per capita own-source revenue, third in per capita direct expenditure, and second in per capita debt outstanding (see Table 1). The Atlanta FiSC includes part of the district governing Hartsfield-Jackson Atlanta International Airport, the busiest airport in the world.[8] According to FiSC method, airport districts are assumed to serve the whole metropolitan area in which they are located, and their revenue, spending, and debt are apportioned by population among municipalities comprising the area. As a result, the Atlanta FiSC received air transportation user charges 20 times the median amount and 19 percent more than second-ranked Denver (which has the 15th busiest airport in the world). It spent 21 times more per capita on airports than the median FiSC, and almost 2-1/2 times more than Denver, second-ranked in that category as well.[9]

Far and away, the FiSC with the highest per capita debt outstanding was Kansas City, Kan. (more than three times the median). The city, whose government is unified with Wyandotte County, has borrowed heavily under a Kansas sales tax revenue bond program (STAR bonds). The bonds are paid back with state sales tax revenue generated by the financed incremental economic activity. Thus, although local governments decide whether to issue the debt, the bonds' collateral is a state revenue stream.[10] These bonds have been an important weapon in Kansas City's ongoing battle for jobs and industry with Kansas City, Mo.

[8]Airports Council International, cited in Justin Bachman, "Atlanta's Still the World's Busiest Airport, but Maybe Not for Long," *Business Week*, Apr. 2, 2014.

[9]According to professor Bartley Hildreth of the Georgia State University Andrew Young School of Policy Studies, Atlanta's high

(Footnote continued in next column.)

rankings were likely attributed to by large EPA-mandated improvements to the city's sewage treatment system. Those mandates led the city to impose the third highest per capita sewerage charges and third highest per capita sewerage outlay among FiSCs in 2010.

[10]The bonds have financed much economic development in and around Kansas City, Kan., especially development anchored by the Kansas Speedway and businesses located in a zone known as Village Park West. Thanks to Bernard Koch, chair of the Kansas Economic Progress Council, and Hildreth for their insight on this topic.

Evaluating Cities' "Fiscal Health": A Further Application of FiSC Data

Proper measurement of a city's spending level is the first step in gauging its fiscal health. After determining spending, one needs to ask to what extent does it reflect the city's preferences, degree of operational efficiency, or fiscal need? A jurisdiction's fiscal need is the degree to which it faces conditions beyond its control that increase the cost of providing public services or increase the services it must provide. Examples include poverty, crime, and a high concentration of school-age children in the population. Controlling for variables that reflect preference and operational efficiency allows one to use the residual to evaluate fiscal need. Similarly, if one measures revenue properly and controls for variables that reflect preference or operational efficiency, one can evaluate fiscal capacity, or the availability of taxable resources. The gap between capacity and need is fiscal health.

Chernick, Reschovsky, and Langley would like to use FiSC data to estimate the fiscal health of the 112 cities in their database. In a recent paper delivered at the University of Wisconsin, Chernick and Reschovsky provided evidence that fiscal health can predict the degree to which cities can weather economic problems such as recessions. Unfortunately, developing and implementing the control variables needed to isolate fiscal need and fiscal capacity (especially fiscal need) are difficult tasks. The researchers demonstrated those methods by evaluating the fiscal health of Milwaukee relative to its suburbs, limiting their analysis to municipal governments.[11] In the future, perhaps they will broaden their analysis to include other cities and all governments serving FiSCs. If they succeed, they will provide new valuable insights into the relative fiscal strengths and weaknesses of U.S. cities.

Whatever path Chernick, Reschovsky, and Langley take, the data set they have created is a valuable contribution to urban fiscal analysis. Stay tuned for much more valuable future analysis using the FiSC database. ☆

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[11]Chernick and Reschovsky, "The Fiscal Health of U.S. Cities," presented at the Public Management Research Conference, Madison, Wis. (June 21-22, 2013).