

Explanation of Fiscally Standardized Cities

Introduction

The concept of *fiscally standardized cities* (FiSCs) was developed to facilitate accurate comparisons of local government finances across the nation's largest cities. While the U.S. Census Bureau provides data on finances for individual local governments, the responsibility for providing local public services is often divided among multiple governments, including the municipal government (referred to in this document as a city government) and overlying county governments, independent school districts, and special districts. Fiscal comparisons across city governments alone can thus be highly misleading.

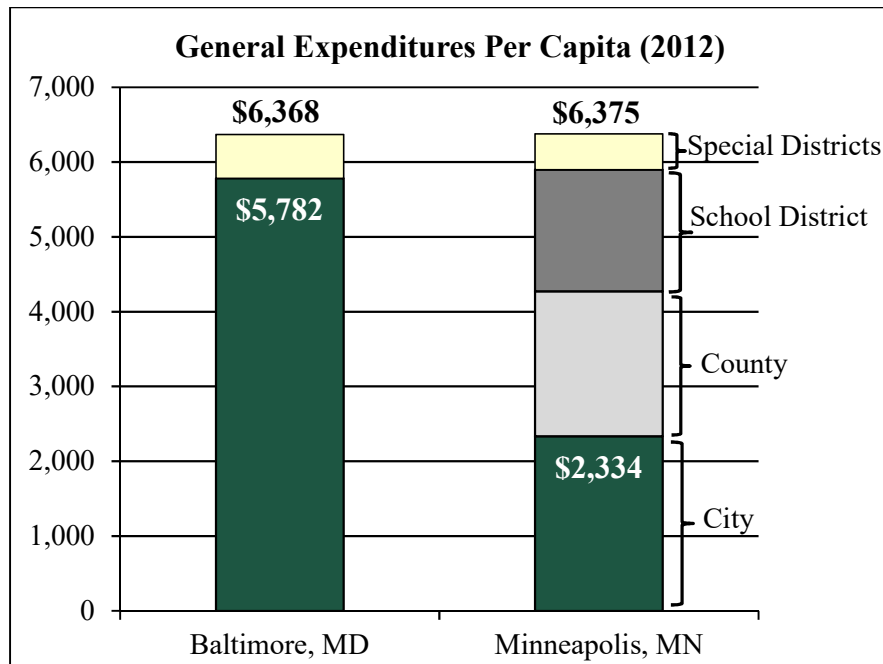
For example, spending by city governments in El Paso, Las Vegas, and Miami only accounts for about one-quarter of all local government expenditures on behalf of residents of those cities. In contrast, because Boston, Baltimore, and Nashville have neither overlying county governments nor independent school districts, city government spending pays for almost all local government public services provided to central city residents and businesses.

The methodology used to construct fiscally standardized cities (FiSCs) was developed by Howard Chernick (Hunter College, City University of New York), Adam Langley (Lincoln Institute) and Andrew Reschovsky (University of Wisconsin-Madison and Lincoln Institute) with financial support from the Lincoln Institute of Land Policy. Adam Langley was responsible for development of the public use FiSC database.

The construction of FiSCs involves adding up revenues and expenditures for the city government and an appropriate share of revenues and expenditures from overlying counties, school districts, and special districts. Thus FiSCs provide a full picture of revenues raised from city residents and businesses and spending on their behalf, whether done by the city government or separate overlying governments.

The FiSC estimates are based on data for individual local governments provided by the U.S. Census Bureau in the quinquennial Census of Government Finance and the Annual Surveys of State and Local Government Finance. The FiSC public use database includes comprehensive data on revenues, expenditures, debt, and assets for 150 of the nation's largest central cities, with the cities selected based on population criteria both at the beginning and end of the panel (1980 and 2010). Annual data are currently available for the years 1977 through 2016, with additional years to be added as the underlying Census data become available.

A comparison of Baltimore, Maryland and Minneapolis, Minnesota demonstrates the importance of the FiSC methodology. As shown in the figure below, simply comparing city government spending in the two cities suggests that Baltimore spends 2.5 times more per capita than Minneapolis. However, the difference is almost entirely due to the fact that the City of Minneapolis splits the provision of local services with overlying Hennepin County and an independent school district. Once these differences in local government structure are taken into account, per capita expenditures for residents in the two cities are nearly identical.



Overview of FiSC Methodology

To create FiSCs, revenues and expenditures for the city government are combined with a share from overlying counties, school districts, and special districts. For counties, fiscal variables are allocated to the FiSC based on the city's share of the county's population. So if a city accounts for 20 percent of the county's population, then 20 percent of revenues and expenditures for the county government will be allocated to the FiSC.

For school districts, fiscal variables are allocated to the FiSC based on the percentage of students in a school district that live in the central city. Thus if 75 percent of students in a school district live in the city, then 75 percent of revenues and expenditures for that school district will be allocated to the FiSC. The number of students in each school district who live in the central city was estimated using geographical information system (GIS) analysis with information on the boundaries of cities and school districts from Census TIGER shapefiles and data on school district enrollment at the Census block group or tract level for the 1980-2010 period.

For special districts, a two-pronged approach was used to develop the FiSC estimates. First, a Web search was used to determine the rough service area for more than 450 special districts. These special districts included the largest districts in terms of revenues and spending, all housing authorities serving FiSCs, and some selected smaller districts. Fiscal variables were allocated to each FiSC based on the city's share of population in each special district's service area. Although this Web search verified the service area for only about 10 percent of the special districts that are assumed to serve FiSCs, because of their large size these districts account for about 90 percent of special district expenditures allocated to FiSCs.

Second, revenues and expenditures for smaller special districts were allocated to the FiSCs based on the type of special district. For example, airports, seaports, and transit utilities typically serve

an entire metropolitan area, so fiscal variables were allocated based on the city's share of the metropolitan area population. Hospital districts, library districts, and park districts typically serve a county or smaller geographic area, so allocations were based on the city's share of the county population. Fire districts and certain types of utilities largely serve small municipalities or unincorporated areas; since they almost never serve the cities in the FiSC sample, no revenues or expenditures were allocated to the FiSCs. Table 5 in the methodology working paper shows the service area for each category of special district that is used for allocations to the FiSCs.

It is important to note that the FiSC methodology provides an approximation of local government revenues and expenditures for central city residents and businesses. Determining the precise level of local government revenues and expenditures within city boundaries is far more complicated, and virtually impossible to do for 150 cities over the 39 years included in the FiSC database. For example, it would be more accurate to allocate property tax revenues based on the geographic distribution of property values rather than using the per-person and per-student allocations described above. There is, however, no central source for data on property tax bases at the city, school district, or county-level. These data would be needed to allocate property taxes for overlying governments that cross city lines. While particular city areas may have distributions of revenue bases (property in particular) and expenditures that depart from the spatially uniform assumption used for the FiSC estimates, there is no reason to believe that these assumptions would lead to a systematic over- or under-assignment of revenues or expenditures to central cities.

An Example: Dayton, Ohio

Dayton, Ohio has a fairly typical local government structure that helps illustrate how revenues and expenditures are allocated to FiSCs. As illustrated in the table below for 2012, the spending estimate for the Dayton FiSC starts with \$347 million in expenditures by the City of Dayton, which is equivalent to \$2,414 on a per capita basis. Spending by Montgomery County is allocated to the FiSC based on Dayton's share of the County's population (26.8 percent). Thus, \$158 million out of the County's \$589 million in spending is allocated to the FiSC, or \$1,097 per capita.

Dayton is served by four independent school districts, with allocations based on the percentage of students in each school district who live in the City of Dayton. The primary school district is Dayton City School District, which largely serves the City but also covers parts of surrounding cities and towns. GIS analysis shows that roughly 86.9 percent of the District's students live in Dayton, so \$204 million out of the school district's \$235 million budget is allocated to the FiSC, or \$1,423 per capita. Three other school districts that serve parts of Dayton are allocated in the same manner; collectively they increase FiSC spending by \$246 per capita.

Dayton is also served by ten special districts. The only special district where the service area was verified with a Web search was the Dayton Metropolitan Housing Authority, which provides affordable housing for residents of Montgomery County. Spending was allocated based on Dayton's share of the County's population (26.8 percent), so \$16 million out of the Housing Authority's \$60 million budget was allocated to the FiSC, or \$111 per capita. For the nine other special districts, allocations depended on the type of special district, as described above for the

second stage of the two-pronged approach for special district allocations. Those that typically serve a county or smaller geographic area have spending allocated based on the city's share of the county population (26.8 percent). For Dayton, this includes Dayton Metro Library, two park districts, and an arts and cultural district. Categories that typically serve an entire metropolitan area have spending allocated based on the city's share of the metropolitan area population (17.0 percent). For Dayton, this includes the Greater Dayton Regional Transit Authority, a port authority, a regional wastewater authority, a transportation improvement district, and an airport authority. Collectively, these ten special districts increase FiSC spending by \$320 per capita.

This example shows why it is important to take a full accounting of all local governments when comparing cities' public finances. The government of the City of Dayton accounts for only 44 percent of all local government spending on behalf of city residents in Dayton.

Direct Expenditures for Dayton, Ohio FiSC (2012)				
Government Name	Expenditures (Millions)	Allocation Percentage	FiSC Estimates	
			Total (Millions)	Per Capita
City of Dayton	346.8	100.0%	346.8	2,414
Montgomery County	589.3	26.8%	157.7	1,097
Dayton City School District	235.3	86.9%	204.4	1,423
Northridge Local School District	20.1	100.0%	20.1	140
Huber Heights City School District	125.8	9.8%	12.3	86
Jefferson Township Local School District	6.7	44.3%	3.0	21
Dayton Metropolitan Housing Authority	59.7	26.8%	16.0	111
Greater Dayton Regional Transit Authority	59.7	17.0%	10.1	71
Dayton Metro Library	26.0	26.8%	7.0	48
Five Rivers Metroparks	20.3	26.8%	5.4	38
Dayton-Montgomery County Port Authority	11.3	26.8%	3.0	21
Montgomery Co. Transportation Improvement Dist.	13.8	17.0%	2.3	16
Centerville-Washington Park District	4.4	26.8%	1.2	8
Tri-Cities North Regional Wastewater Authority	3.2	17.0%	0.5	4
Montgomery Co. Regional Arts and Cultural District	0.7	26.8%	0.2	1
Greene County Regional Airport Authority	0.9	17.0%	0.2	1
FiSC Total			790.2	5,500