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Recovering From Volatile Times

Methodology and definitions

The following describes the methodological approach and terms used in the Pew report "Recovering From Volatile Times: The Ongoing Financial Struggles of America's Big Cities."

The Pew American cities project focuses on the center city in each of the 30 largest metropolitan areas.[1] Pew looked at data for each of these cities to understand how they fared over the tumultuous period of 2007 through 2012 and to learn about the strategies they employed to weather the fiscal storm. The cities studied are Atlanta; Baltimore; Boston; Chicago; Cincinnati; Cleveland; Dallas; Denver; Detroit; Houston; Kansas City, Missouri; Las Vegas; Los Angeles; Miami; Minneapolis; New York; Orlando, Florida; Philadelphia; Phoenix; Pittsburgh; Portland, Oregon; Riverside, California; Sacramento, California; San Antonio; San Diego; San Francisco; Seattle; St. Louis; Tampa, Florida; and Washington.

Data and methods

The primary data sources for Pew's analysis are Comprehensive Annual Financial Reports, or CAFRs, for fiscal years 2007 to 2012. Pew researchers collected data from the statement of revenue and expenditures and the statistical section of each city's CAFR for every year in the study period.[2] This analysis considers all governmental revenue and expenditures, not just the cities' general funds.[3] Although each city is unique, Pew organized governmental revenue and expenditure line items into major groupings that are comparable across cities. A detailed description of these groupings is given in the revenue and expenditures sections of this document.

Controlling for the effects of inflation enables comparisons of how fiscal conditions have changed for cities over the period studied and in relation to one another. Dollars are adjusted for inflation using the U.S. Bureau of Economic Analysis' National Income and Product Account estimate. The same gross domestic product deflator values were used for all 30 cities, regardless of geographic location, though each was adjusted to accommodate the appropriate fiscal year calendar in a given city. This approach averts overstatement of differences between cities that results from imperfect inflation estimates.[4]

Data limitations

There are several differences inherent to the governments of the 30 cities that data adjustments cannot standardize, such as the services they provide, the ways they generate revenue, their governmental structures, and their relationships with surrounding local and state governments. Although we have standardized the data across cities to the greatest extent possible and have consulted with the cities and adjusted data where appropriate, readers should keep these differences in mind.

In a few cases, variations from the standard methodology were required because of data constraints. Philadelphia, St. Louis, and Seattle did not break out revenue categories consistent with the detail provided by the other cities. After consulting with these cities, researchers relied on data from the supplemental statistical section of the CAFR (for Seattle and St. Louis) and detailed supplemental financial reports (for Philadelphia). The modifications result in minor differences between the values of the line items used in this research and the values reported in the CAFR's statement of revenue and expenditures.[5]

The remittance of the city share of state-imposed taxes—specifically sales tax, utility tax, and communication service tax in Florida—is reported differently in city CAFRs, especially as it affects Miami and Tampa. In some instances, these taxes are reported as own-source revenue, although they are locally generated state revenue that the city receives from the state. Pew recategorized and included this revenue as intergovernmental to ensure accurate cross-city comparisons.

Analytical approach

Pew researchers identified a "peak" and "trough" revenue year for each city, using inflation-adjusted dollars. Peak years could occur at any point in the study period, while trough years were defined as the lowest revenue point between 2008 and 2012; this time frame specifically targets revenue declines generated by the Great Recession.[6] Next, Pew grouped cities based on 2012 revenue performance relative to each city's previous peak to identify those experiencing rebounds—exceeding their previous revenue high points—and those still struggling to return to pre-downturn levels.

For each city, Pew examined the primary drivers of revenue loss between peak and trough years, calculated the total revenue decline, and analyzed the share of that total loss represented by each revenue source. Similarly, for rebounding cities, Pew identified the revenue streams that were most responsible for financial gains between a city's trough year and the end of the study period. This strategy allowed researchers to assess trends across cities in the types of losses that drove revenue declines and the gains that spurred rebounds.

Revenue

Pew researchers normalized revenue data reported in city CAFRs to create comparable categories that facilitate meaningful comparisons across cities. Although some types of revenue are reported relatively consistently across cities, in other cases Pew combined CAFR line items to create similar revenue groupings across cities. Revenue included the following:

- **Property tax:** All revenue that is raised through taxes on the value of property, including residential, commercial, industrial, and other types of property.
- **Sales tax:** All revenue that is raised through the direct imposition of local option sales taxes by a city.[7]

- **Income tax:** All revenue that is raised through a city's direct imposition of personal income and wage taxes.[8]
- **Other tax revenue:** All tax revenue raised through a city's direct imposition besides property taxes, sales taxes, and income taxes. For many cities, this category includes special local taxes on hotels, utilities, gasoline, occupancy, alcohol, and/or gross business receipts.
- **Intergovernmental revenue:** All grants, transfers, and other funding streams that the city receives from other governments at all levels, including federal, state, and local. Because only a handful of cities list intergovernmental aid by source in their CAFRs, it is not possible to separate federal, state, and local aid.
- **Charges and fees:** All funding that cities collect through the imposition of licensing and user fees, such as vehicle registration fees, traffic tickets, construction permits, fines and forfeitures, and payments in lieu of taxes.
- **Other nontax revenue:** All remaining types of revenue that are not captured in the other categories and that are not collected as taxes, such as donations to government by individuals, income (or loss) from investment decisions, the sale and leasing of city capital assets, and income from the rental of city-owned buildings.

Expenditures

Pew researchers also examined how cities responded to revenue decline and growth by looking at changes in operating spending, reserves, and the management of long-term obligations.[9] Applying the same approach as with city revenue, researchers grouped CAFR line items where appropriate to create comparable spending categories across the cities. Expenditures included the following:

- **Public safety:** Expenditures on police, fire, emergency, and judicial services.
- **Social and health services:** Expenditures on hospitals, mental health, Medicaid, welfare, and public health.
- **Housing and development:** Expenditures on housing and economic development activities.
- **Public works and transportation:** Expenditures on existing infrastructure, utilities (including water and sewer/sanitation), roads, and public transportation provision and maintenance.[10]
- **Parks, recreation, and cultural facilities:** Expenditures on public parks and recreational and cultural facilities, including city-run museums, libraries, and convention centers.
- **Education:** Expenditures on K-12 education. Schools in 26 of the cities studied are run by separate school boards and authorities; the remaining four cities provide education directly.
- **General government**: Expenditures on operational functions, such as the mayor's office, and other functions within City Hall that fall outside other major service-delivery categorizations.
- **Debt service:** Expenditures on debt including interest, principal payments, and bond issuance costs.
- **Other**: All spending that does not fit into another category. It can include such things as retirement benefits (if they are not part of a separate pension fund), other employee benefits (if they are not included in the departments where the employees work), and claims and judgments.

Reserves

Pew measured each city's available general fund balance as a percentage of total general fund revenue to account for its capacity to pay for operations in the face of large and/or sustained budget shortfalls. Pew's assessment of reserves was limited to the available general fund balance (as opposed to assessing balances across total governmental funds) in an effort to create a standardized measure across the 30 cities.[11]

Endnotes

1 As reflected in 2010 U.S. census definitions and population counts.

2 Mandated by state law, CAFRs are final, audited statements of city revenue, expenditures, reserves, and debt. CAFR data were chosen for two reasons. First, CAFRs present city fiscal data that have been reviewed by an outside auditor and are considered final. Other financial documents, such as budgets, are more fluid and tend to be subject to revisions throughout the year as city priorities change. Second, data in CAFRs are standardized by the Governmental Accounting Standards Board, or GASB, and must comply with Generally Accepted Accounting Principles. Although there are some differences in the way CAFR data are presented from city to city, these documents are much more standardized than other city financial documents.

3 The fiscal organization of large cities varies widely. For example, the general fund in Phoenix accounts for about 14 percent of total governmental revenue, while the general fund in New York represents almost 94 percent. Among the 30 cities in this analysis, the general fund typically accounts for about two-thirds of total governmental revenue, which means about one-third of fiscal activity is missed if the general fund is the singular focus of the analysis. This analysis excludes proprietary or enterprise funds generated by the city for specific purposes such as the operation of programs or agencies that are self-sustaining or revenue-positive.

4 Inflation adjustments using National Income and Product Account estimates better reflect the inflation pressures facing local governments (compared with, for example, the consumer price index) but are not a perfect measure of the "basket of goods" for which government entities are responsible. Although this analysis strives to correct for year-over-year changes in the value of the dollar, it is important to not overstate differences between city fiscal conditions based only on the value of a deflator.

5 Because Philadelphia has a unique relationship with the state of Pennsylvania resulting from the ongoing existence of the Pennsylvania Intergovernmental Cooperation Authority, or PICA—formed to stabilize the city's finances—Philadelphia's CAFR document does not present line items for revenue either in the statement of revenue and expenditures or in the statistical section. Note that Pittsburgh also has an ongoing relationship with PICA, but it does not affect the way it presents information in its CAFR.

6 Including 2007 as a "low" will, for some cities with strong revenue performance, simply capture the earliest point in time, not the impact of the Great Recession on revenue.

7 This category does not include sales tax revenue that states or counties impose and collect and then remit a portion of to the cities—that is captured in intergovernmental aid.

8 Income taxes imposed and collected by the state and/or county from which a portion is remitted to cities are captured in intergovernmental aid.

9 Operating spending is defined as total governmental expenditures less capital outlays. Three cities—Atlanta, New York, and Pittsburgh—do not separate capital outlays as line items in their CAFR documents, instead reporting capital spending by department in a capital projects fund. Atlanta and New York did this for each year of the six-year study period, while Pittsburgh began using this method in 2012. Pew consulted with officials in the three cities to arrive at estimates of total capital spending and to reduce expenditure line items appropriately.

10 In San Antonio, spending categorized as "sanitation" in the city's CAFR is dedicated to food inspections. As such, we have included these expenditures under the social services/health category in order to facilitate accurate cross-city comparisons. Note that for all cities, expenditures to expand infrastructure, utilities, roads, and public transportation are accounted for in capital outlays.

11 Financial reporting requirements that govern the CAFR result in standardized reporting across the cities' general fund reserves; this is not the case for balances across other funds. However, note that over the period that the report examines, some cities became early adopters of GASB Rule No. 54, which changes the way cities report year-end fund balances from two categories (reserved and unreserved) to four (restricted, committed, assigned, and unassigned). See Governmental Accounting Standards Board, "Summary of Statement No. 54" (February 2009), http://www.gasb.org/st/summary/gstsm54.html. For these cities, only the money reported as assigned and unassigned was included as unreserved general fund balances. This treatment is the most consistent with the previous definition and with how cities made the transition in reporting.

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