The Recession and Kentucky Cities' Revenue:

How Did We Fare, and What Lessons Have We Learned?

The Kentucky League of Cities advocates that cities need flexible local revenue options in order to most effectively govern and respond to local needs. A recent analysis of city-provided budget and revenue information provides insights into how Kentucky cities are weathering the recession based on our existing local tax structure.

*The data, reviewed for the Kentucky League of Cities by **Dr. William Hoyt**, professor of economics and director of the University of Kentucky Martin School of Public Policy and Administration, finds that the fiscal restraints on cities in Kentucky have been further impacted by the recession. In spite of revenue limitations, Kentucky cities are faring better than some others across the nation … at least at this point. Kentucky's city leaders are making their budgets work and providing services to citizens, even in tough economic times.*

Some data for this piece was provided by KLC Policy, Research and Federal Relations Manager Joseph Coleman.

The recent recession has caused governments at all levels to reevaluate their budgets — both the sources of revenue and expenditures. Recessions stress budgets from both sides — the reduction in revenues because of the diminished economic activity and increases in expenditures generally associated with social welfare and other assistance programs, as well as programs designed to stimulate the economy through increased government spending.

While most media attention has been on federal and state budget shortfalls, local governments have not been immune to the impacts of the recession. Revenue sources of local governments, such as cities, are significantly different from those of the federal and most state governments, so the impacts, or how hard the recession affects revenues, may not be the same. Revenue impacts vary among cities, both among and within states, both because of differential impacts of the recession and different revenue structures.

What impacts did the recession have on city revenues? It did affect Kentucky cities, but the good news is that they appear to be performing relatively well compared to the rest of the nation, and some lessons can be learned from the last three years.

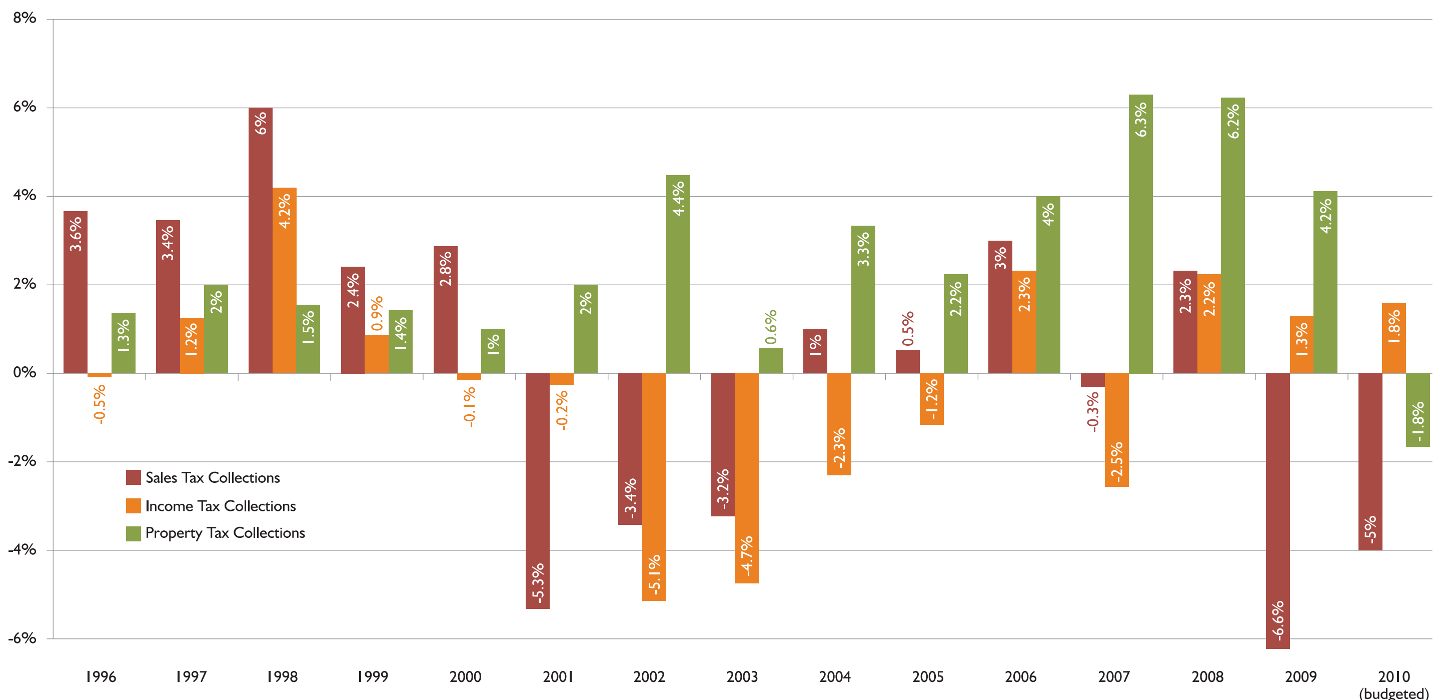


Figure 1: Primary Sources of Tax Revenue for All Levels of Government 1996-2010

From Christopher W. Hoene and Michael A. Pagano, National League of Cities: Research Brief on America's Cities, "City Fiscal Conditions in 2010," National League of Cities, October 2010, p. 3.

REVENUE STABILITY AND SOURCES OF REVENUE

The impact of changes in economic conditions on revenues depends on the sources of revenue. Stability of revenue depends on where the revenue is obtained. To examine stability, consider the primary sources of tax revenue for all levels of government: income (earnings), sales and property taxes.

Recessions, by definition, are reductions, for two quarters, in gross domestic product, the output or earnings of a region, be it a country, a state or a city. Both economic theory and evidence from numerous past recessions suggests that during recessions, earnings will decrease more dramatically than sales. There are several reasons for this: households facing reductions in earnings will use savings to fund consumption; a significant share of income that serves as a source of consumption comes from sources other than earnings that are generally untaxed; and income during recessionary periods is stabilized by social welfare payments and unemployment insurance. For these reasons, we expect that sales tax revenues should generally be more stable than income or earnings tax revenues. This matters to cities because "income" or "earnings" translate to payroll tax.

Property tax revenues are traditionally a more stable source of revenue than either income or sales taxes. While this stability is, in part, a reflection of relative stable and growing real estate values, it is also attributable to valuation practices because real estate reassessment is a gradual process. Of course, this recession is closely associated with and precipitated in part by dramatic reductions in real estate prices that have led to reductions in property tax revenues during the past few years.

Figure 1 shows the annual percent changes in sales, property and income tax collections, adjusted for inflation, from a survey of U.S. cities for the period 1996-2010. While 2008 showed growth in all three revenue sources, 2009 and 2010 (budgeted) saw significant reductions in sales tax revenues and, for 2010, a reduction in property tax revenues — the only time this occurred during the period.

MUNICIPAL REVENUE STRUCTURE IN KENTUCKY AND THE UNITED STATES

To understand and compare the impact of recessions, as well as economic growth on revenue streams of different governments, some understanding of differences in sources of revenue is necessary. *Figure 2a* provides a summary of the source of funds for local governments across the United States in 2008, while *Figure 2b* provides the same for local governments in Kentucky.[1] "Local government" includes city, county and school data. While there are many similarities between Kentucky and the rest of the United States, there are some clear distinctions. First, Kentucky local governments are slightly more reliant on state aid (38 percent of revenue versus 31 percent), much more reliant on income (occupational license) taxation (9 percent versus 2 percent) and much less reliant on property taxes (19 percent versus 28 percent). While Kentucky local governments do not have authority to collect a general sales tax — on average, a source of about 5 percent of local

Figure 2a: Sources of Local Revenue, United States, 2008

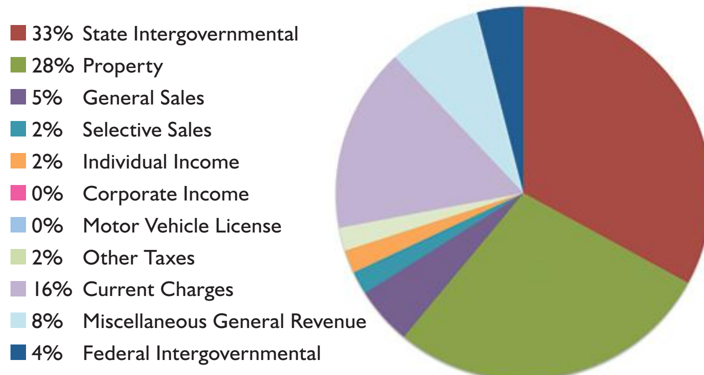


Figure 2b: Sources of Local Revenue, Kentucky, 2008

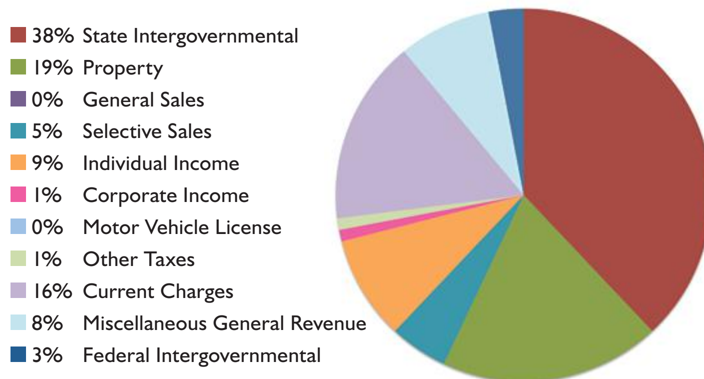
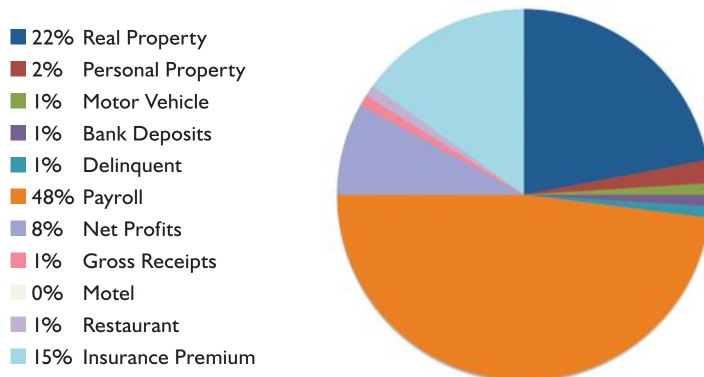


Figure 3: Share of Tax Revenue, All Classes: Fiscal Years 2007-2009



government revenue in the United States — they collect significantly more of their revenues from selective sales taxes (5 percent versus 2 percent). It is important to consider that, while these figures show big-picture comparisons for Kentucky versus other states, cities receive a very small portion of the state aid.

Figure 2b describes the source of funds for all local governments in Kentucky. A better understanding of the source of tax revenues for Kentucky cities can be obtained from *Figure 3*. As it shows, the greatest source of revenues for Kentucky cities is the payroll tax, which accounted for about 48 percent of Kentucky city tax revenue during the period 2007-2009. The next-largest source is the real estate property tax revenue (22 percent) and the insurance premium tax revenue (15 percent). While *Figure 3* provides a summary for all Kentucky cities, it masks some important distinctions in sources of revenue across class of city. Cities classified as 1 through 5 can use a payroll tax, while class-4 and -5 cities can apply a tax on restaurant receipts.

Most noticeable is the dramatic differences in the use of property and payroll taxes. Lexington and Louisville, as well as the class-2 and -3 cities, collect at least 40 percent of their tax revenues from payroll, with Lexington collecting almost 60 percent. In contrast, Lexington, Louisville and class-2 cities collect less than 25 percent of their tax revenues from the property tax. Not surprisingly, larger cities that are more likely to be employment centers, use the payroll tax much more than smaller cities — it provides an opportunity to "export" taxes to residents of other cities. It does, however, suggest the impacts of recessions on the revenues of large and small cities in Kentucky can be quite different. For the smaller cities of classes 4, 5 and 6, real property and insurance premiums were a much more important source.

Table 1: Change in Revenue and Revenue Losses by Source of Revenue, 2008 and 2009

Source	2008		2009	
	Median Change Revenue	% Cities with Reduction	Median Change Revenue	% Cities with Reduction
Total	4.08	29.91	2.68	38.67
Real Property	4.10	29.05	3.23	30.28
Personal Property	5.00	42.20	0.00	64.08
Motor Vehicles	0.34	51.37	-5.18	71.35
Bank Deposits	4.31	32.30	1.31	42.04
Payroll	4.47	21.26	-0.25	55.91
Net Profits	2.26	65.45	0.24	53.57
Gross Receipts	8.02	50.00	-0.26	83.33
Motel	9.10	29.17	0.18	48.00
Restaurant	0.02	61.54	6.73	30.00
Insurance Premiums	1.85	43.88	1.00	45.91

Table 2: Changes in Total Revenue, by City Class

Class	2008		2009	
	Median Change Revenue	% Cities with Reduction	Median Change Revenue	% Cities with Reduction
2	3.88	18.18	1.51	16.67
3	2.64	5.88	-0.02	52.94
4	4.72	24.44	2.33	37.50
5	4.95	27.66	2.79	41.49
6	2.56	41.03	3.43	36.44
Lexington	5.11	NA	-0.25	NA
Louisville	2.04	NA	-1.81	NA

THE IMPACT OF THE RECESSION ON KENTUCKY TAX BASES

Differences in the impacts of the recession on tax revenues between Kentucky cities and those in the rest of the United States, as well as within Kentucky, depend not only on the source of revenues but also on the impact of the recession on the sources.

Critical to tax revenues in Kentucky, particularly our larger cities, is growth in earnings, because this affects payroll taxes. The trends in earnings in Kentucky mirror those of the United States as a whole but never decreased to the levels of the U.S. average. However, a smaller decrease in earnings in Kentucky is somewhat misleading. Growth in earnings in the past three years does not mean higher earnings in Kentucky — in 2009, the average hourly wage in Kentucky in private, nonfarm employment was $18.82, while the U.S. average was $21.61.[2]

This recession is closely tied to dramatic reductions in property values, and, for many U.S. cities, this has led to significant reductions in property tax revenues. While Kentucky has, for the most part, not seen dramatic reductions in property values as some parts of the country, many cities have still seen reductions. We may see more dips, as property assessment is a gradual process.

HOW DID THE RECESSION AFFECT KENTUCKY CITY TAX REVENUES?

Table 1 demonstrates the median changes in tax revenue by source for all cities in Kentucky between the years 2007 and 2008 and 2008 and

William H. Hoyt

Director, Martin School of Public Policy and Administration and Professor of Public Policy

William Hoyt's research focuses on issues in public economics, with particular emphasis on state and local public finance and cost-benefit analysis of public programs. Dr. Hoyt's current research includes work on fiscal competition, local economic development, the impacts of state and local tax policies on employment, the impacts of tax policies on housing markets, educational choice plans and crossover in the use of poverty programs. He has published in *The American Economic Review*, *The Review of Economics and Statistics*, the *Journal of Public Economics* and the *Journal of Urban Economics*, among others. In addition to his appointments in the Martin School and the Department of Economics, he is also an associate of the Center for Drug and Alcohol Research (CDAR). Dr. Hoyt has served as principal investigator on projects funded by the Robert Wood Johnson Foundation, the National Science Foundation, the U.S. Department of Labor and the U.S. Department of Agriculture (Economic Research Service). He has done extensive work with and for a number of state agencies in Kentucky, including the Cabinet for Health and Family Services, the Cabinet for Economic Development, the governor's office and the Kentucky Department of Parks as well as serving on numerous advisory boards for the Commonwealth of Kentucky. He is on the editorial board of the *Journal of Urban Economics* and a research fellow for the Center for Economic Studies (Munich, Germany).

2009. The table suggests that, for 2008, there is fairly robust growth in revenue across all sources, with the exceptions of restaurant tax and motor vehicle receipts. However, in 2009, the median change in collections was zero or below for a number of sources, including the payroll in 2009. While the median city may have had an increase in revenue, a high percentage of cities have suffered decreases in revenue from some of these sources. **For the major sources of revenue, payroll, property and insurance premiums, from 2007 to 2008, 29 percent of cities had reductions in real property tax revenues, 21 percent had reductions in payroll taxes, and 44 percent had reductions in insurance premium tax revenues. From 2008 to 2009, even more cities faced reductions in revenue from these sources: 30 percent had reductions in real property tax revenues, 56 percent had reductions in payroll taxes, and 46 percent had reductions in insurance premium tax revenues.**

While the median increase in total tax revenues was 4.08 percent between 2007 and 2008 and 2.68 percent between 2008 and 2009, a significant number of cities had reductions in total tax revenues: 30 percent of cities between 2007 and 2008 and 39 percent between 2008 and 2009.

Table 2 reports changes in total tax revenue by class of city. For all classes, revenue increased steadily between 2007 and 2008. Growth was noticeably reduced between 2008 and 2009, with Lexington and Louisville having reductions in revenues and with the median for class-3 cities also being negative. Again, examining only the median tax change masks significant variation among cities. Between 2007 and 2008, 41 percent of class-6 cities and 25 percent of class-4 and -5 cities had revenue reductions. Class-2 and -3 cities seemed to fare much better between these years. However, between 2008 and 2009, there were significant increases in the percentage of class-3, -4 and -5 cities that had revenue reductions, with more than 50 percent of class-3 cities having reduced revenues. Only class-2 cities seemed to be relatively unharmed by the downturn.

LESSONS LEARNED?

On first inspection, it is tempting to say that Kentucky cities escaped relatively unharmed by the recession. But a deeper look suggests that averages mask some significant differences among cities in Kentucky. While it appears that the smallest and largest of the cities — those relying on property taxes and those relying on payroll taxes — may have been the most adversely affected, cities of all sizes saw reductions in tax revenues. And, while many cities saw reductions in property, payroll and insurance premium revenues, some actually saw increases.

It is tempting to say that a broader base with perhaps less reliance on payroll and more on property taxes, which are limited by state mandate, might be in order. However, while property tax revenue appears more stable than payroll, it, too, was reduced in many cities in Kentucky and in cities throughout the United States in this recession.

In summary, there was no city tax base that was not affected by the recession. Flexibility in designing a tax structure to fit the economy of the city may offer some relief from instability in revenues. KYC

Editor's note: KLC contends that, for cities, the path to greater flexibility runs through a broader and better balanced set of tax options. Additions of consumption and service levies would give cities of all sizes greater latitude in tying their revenue stream to an economy dominated by service and consumption. More options would also give individual communities a better chance of creating a menu of revenues that fit their own needs and would help blunt the local impact of a recession.

1. The source of data is the United States Census Bureau, Governments Division, Government Finance Statistics: http://www.census.gov/govs/estimate/. Note that these data are for all local governments, as the Census Bureau does not provide detailed information on tax revenues by type of local government.

2. From the Bureau of Labor Statistics, State and Metro Employment, Hours, & Earnings, http://www.bls.gov/sae/#tables.

KLC staff members assisting with this piece were Joseph Coleman, policy, research and federal relations manager; and Joe Ewalt, director of policy development