



## **Who Pays the Hamilton County Sales Tax?**

Prepared for

**Cultural Facilities Task Force**

Prepared by the

Economics Center

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## INTRODUCTION

At the request of the Cultural Facilities Task Force, the Economics Center at the University of Cincinnati investigated how much of Hamilton County's sales tax is paid by Hamilton County residents. As a part of this examination, the Economics Center examined data from a variety of sources and developed estimates based on its analysis. These findings are briefly described here.

The State of Ohio taxes retail sales of most tangible personal property, as well as the rental of such property and the sales of a range of specified services. In addition to the state sales tax (currently 5.75%), counties are authorized to levy a tax on the same goods and services. Sales taxes are paid by anyone other than government and non-profit entities making these purchases. In 2013, Hamilton County received nearly \$139 million in sales tax revenue from an estimated \$14.0 billion in taxable sales.

Hamilton County estimated taxable sales	\$14,027,287,713
Hamilton County sales tax revenue (net of 1.0% administration fee)	\$138,870,148

Source: Economics Center and Ohio Department of Taxation

## Who Pays the Sales Tax?

In general, Hamilton County sales taxes are paid by anyone making taxable purchases that occur in Hamilton County (with the exception of motor vehicle purchases, which are treated as occurring in the county of residence of the purchaser). Consequently, part of Hamilton County's \$139 million in sales tax revenue comes from purchases made by residents of neighboring counties and other visitors who make purchases from Hamilton County businesses.

To determine the proportion of the tax that is paid by Hamilton County residents, the Economics Center drew upon data from the Consumer Expenditure Survey (CES), the only Federal survey to provide information on the complete range of consumers' expenditures. This survey classifies expenditures into different categories that the Economics Center used to determine the amount of taxable expenditures of Hamilton County residents.

## Income vs. Spending

Based on responses to the Consumer Expenditure Survey, the Bureau of Labor Statistics (BLS) produces tables about the income and expenditures of households and other consumer units by income, region, and selected metropolitan areas, as well as other characteristics. Because most households save a portion of their income and pay taxes, they do not spend all of their income on goods and services. Based on its own analysis of the BLS consumer expenditure data, the Economic Center estimates that Hamilton County residents spend an average of 75.5 percent of their income.

## Taxable vs. Non-Taxable Expenditures

The Economics Center made a distinction between taxable expenditures and those that are non-taxable (such as food consumed at home, most shelter costs, most non-auto transportation, education, insurance, and certain services). This distinction is based on the Economics Center's analysis of Ohio's sales tax legislation. Through this research, the Economics Center determined that \$8.26 billion dollars of Hamilton County resident expenditures in 2013 were taxable, 42.4 percent of all spending by County residents.

## Leakage

Leakage occurs when Hamilton County residents spend their income in counties outside of their home county. The Economics Center identified three categories of leakage: normal, travel, and tax avoidance.

- **Normal Leakage:** This results from typical consumer spending patterns, such as a resident of Hamilton County travelling outside of the county in order to go to a restaurant or to purchase goods from a store in another county. The Economics Center determined that approximately one-fourth of all households live in ZIPs adjacent to or crossing Hamilton County boundaries with other Ohio counties, which provides convenient access to additional business establishments. In addition, many residents can easily get to stores in Northern Kentucky<sup>1</sup>. In most expenditure categories, normal leakage accounts for 5% or 10% of all spending by County residents.
- **Travel Leakage:** This results from Hamilton County residents making purchases while on business or leisure trips, including vacations. Travel leakage is estimated to account for 5% or 7% of expenditures in categories such as food and drink, transportation (except vehicle purchases), and entertainment, while hotel spending by County residents is considered to occur entirely outside of Hamilton County.
- **Tax Avoidance:** This results from Hamilton County residents travelling across state lines to avoid high excise taxes, particularly on tobacco and related products. Due to Hamilton County being a border county, it is particularly susceptible to this type of leakage.

## Summary of Taxable Spending

The following table summarizes the taxable expenditures by Hamilton County residents in 2013. The middle column shows that taxable spending by County residents in all 17 categories totaled \$8.26 billion<sup>2</sup>. The far right column presents the amount of resident spending in each category that occurred in Hamilton County. The difference between the two numbers is the total leakage of

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<sup>1</sup> Estimates of normal leakage were based in part on research conducted by Telenav, Inc., which found that consumers are willing to travel 3 to 9 miles for a wide variety of shopping categories.

<sup>2</sup> This represents 42.4% of all spending by Hamilton County residents. The other 57.6% of their spending was for goods and services that are not subject to state and local sales taxes.

resident expenditures. This leakage ranges from 100 percent for hotels to 0 percent for vehicle purchases. The overall average leakage rate is 9.85 percent, resulting in a total of \$7.45 billion in Hamilton County resident spending occurring within the County.

<b>Expenditures by Hamilton County Residents in 2013 (Thousands of Dollars)</b>		
<b>Expenditure Categories</b>	<b>Total Spending</b>	<b>Spending in Hamilton Co.</b>
<b>Food and drink</b>		
Food away from home	\$997,039	\$852,468
Alcoholic beverages	\$175,264	\$149,851
<b>Shelter</b>		
Dwelling maintenance	\$452,718	\$430,082
Household services	\$260,155	\$247,147
Housekeeping supplies	\$235,824	\$224,033
Household furnishings and equipment	\$587,956	\$529,160
Hotels, etc.	\$80,747	\$0
<b>Transportation</b>		
Vehicle purchases (net outlay)	\$1,289,814	\$1,289,814
Gasoline and motor oil	\$1,088,080	\$981,992
Vehicle maintenance, repair, and rental	\$449,590	\$405,755
<b>Other</b>		
Apparel and services	\$627,260	\$564,534
Entertainment, except admissions	\$767,030	\$642,004
Medical supplies	\$77,084	\$73,230
Personal care products and services	\$229,407	\$206,466
Telephone	\$461,889	\$438,795
Tobacco products and smoking supplies	\$136,762	\$98,469
Miscellaneous	\$345,515	\$310,964
<b>Total</b>	<b>\$8,262,134</b>	<b>\$7,444,764</b>

Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics, September 2013, and Economics Center analysis.

## Conclusion

When the figure for local spending by Hamilton County residents (\$7,444,764,000) is divided by the total estimated Hamilton County taxable sales (\$14,027,287,713), **53 percent of the Hamilton County sales tax is paid by County residents.** The remaining 47 percent of Hamilton County sales taxes are paid by other consumers.

## Methodological Note

*Because of a decreased sample size, the Bureau of Labor Statistics has not published consumer expenditure figures for the Cincinnati area since its 2006 report of findings from the 2003 and 2004 surveys. Consequently, the Economics Center created 2013 estimates for the Cincinnati metro area based on this earlier data and statistics for the Midwest region and the Cleveland MSA from 2012 and 2004.*

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### **About the Economics Center**

The Research and Consulting division of the Economics Center provides the knowledge building blocks that help clients make better policy and economic development decisions. Our dynamic approach and critical data analysis empower leaders to respond to changing economic conditions, strengthen local economies and improve the quality of life for their communities.



## Sources of Hamilton County Sales Tax Revenue

Prepared for

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## INTRODUCTION AND PREVIOUS RESEARCH

Last month, at the request of the Cultural Facilities Task Force, the Economics Center at the University of Cincinnati investigated how much of Hamilton County's sales tax is paid by Hamilton County residents.<sup>1</sup> In 2013, Hamilton County received nearly \$139 million in sales tax revenue from an estimated \$14,027 million in taxable sales. Part of this sales tax revenue comes from purchases made by residents of neighboring counties and other visitors who make purchases from Hamilton County businesses.

Through its analysis, the Economics Center was able to determine that:

- Hamilton County residents spend an average of 75.5 percent of their income;
- 42.4 percent of all spending by County residents is on taxable items; and
- 9.9 percent of these taxable expenditures occur outside of Hamilton County.<sup>2</sup>

Applying these figures to the total estimated Hamilton County taxable sales, the Economics Center concluded that a total of \$7,445 million in Hamilton County resident spending occurred within the County in 2013, which means that **53 percent of the Hamilton County sales tax is paid by County residents**. The remaining 47 percent of the Hamilton County sales tax is paid by other consumers.

The following analysis expands upon this work by estimating the proportions of the Hamilton County sales tax that are attributable to the City of Cincinnati and to the balance of Hamilton County.

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<sup>1</sup> To determine the proportion of the tax that is paid by Hamilton County residents, the Economics Center combined data from several sources: the Ohio Department of Taxation; the American Community Survey, which contains the latest data on Hamilton County demographics; and the Consumer Expenditure Survey, which classifies expenditures into different categories that the Economics Center used to determine the amount of taxable expenditures of Hamilton County residents.

<sup>2</sup> Some spending by Hamilton County residents occurs elsewhere for three reasons: typical consumer spending patterns, such as to go to a restaurant or to purchase goods from a store in another county; making purchases while on business or leisure trips, including vacations; and traveling across state lines to avoid high state excise taxes, particularly on tobacco and related products.

## INTRA-COUNTY SOURCES OF SALES TAX REVENUE

The local portion of the sales tax is levied at the county level in Ohio. In Hamilton County, a substantial proportion of this sales tax is paid by County residents who happen to live in the City of Cincinnati. In addition, businesses located in Cincinnati are an important part of the County's economic base and account for a significant share of the taxable sales that occur in the County.

The primary focus of this analysis is to identify the relative local sales tax shares that are paid by Hamilton County residents who live in the City of Cincinnati and by residents who live elsewhere in Hamilton County. A secondary element of this research is the estimation of the proportion of Hamilton County sales tax that is attributable to businesses located in the City of Cincinnati compared to that collected by other County businesses.

To determine how much of the Hamilton County resident share of the sales tax is borne by City of Cincinnati residents versus people living in the rest of Hamilton County, the Economics Center conducted additional research that combined data on the number and income distribution of households for all of Hamilton County and for just the City of Cincinnati with consumer spending data by income level. As with the previous analysis, this research utilized data from the Census Bureau's American Community Survey in conjunction with the data from the Consumer Expenditure Survey.

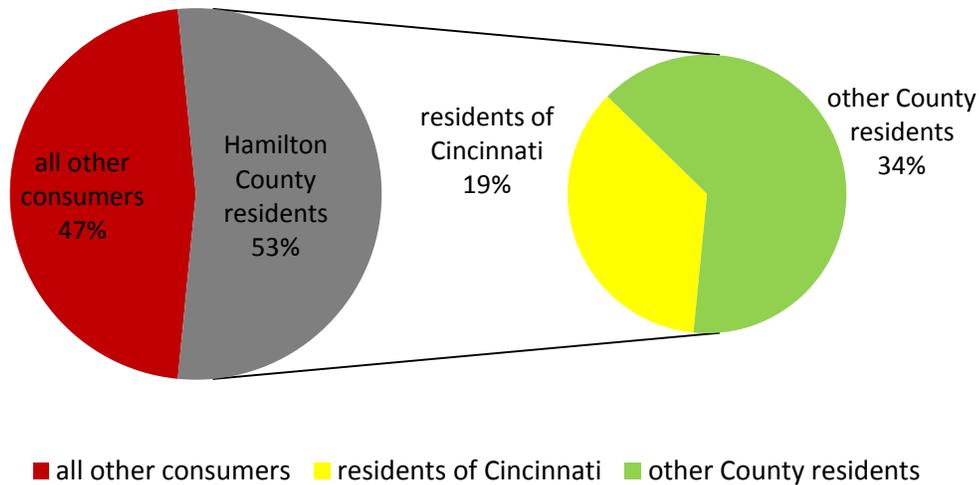
Based on this analysis, the Economics Center found that:

- 36.3 percent of Hamilton County's household population lives in the City of Cincinnati;
- The median household income for Cincinnati is markedly lower (31%) than that for Hamilton County;
- The average household spending of Cincinnati residents is only slightly lower (13%) than the County's; and
- Cincinnati residents make a higher proportion of their taxable purchases in Hamilton County, when compared to other residents of the County (i.e., there is less leakage of city residents' spending).

Utilizing these findings, the Economics Center concluded that **Cincinnati residents account for 36 percent of the sales tax that Hamilton County residents pay, and other County residents pay 64 percent**. This split is quite similar to that of Hamilton County's household population. In both cases, Hamilton County households living outside of Cincinnati account for slightly less than two-thirds of the total, while Cincinnati residents account for just over one-third.



When this information is combined with the results of the earlier analysis, the result looks like this:



Another way to view the source of Hamilton County sales taxes is by the businesses that sell taxable products. To determine this, the Economics Center combined data from the Ohio Department of Taxation on 2013 Hamilton County sales tax collections by industry with City and County industry data on employment and wages. This produced an estimate of the relative shares of the sales tax collected by City and County businesses.

While about half of all wages paid in Hamilton County are paid to those employed in the City of Cincinnati, many of these employees work in various professional service industries that do not sell taxable goods and services.

Our preliminary analysis of this data indicates that 36.1 percent of taxable retail sales in Hamilton County (excluding motor vehicle sales) are made by businesses located in the City of Cincinnati, while 63.9 percent are made by businesses located elsewhere in Hamilton County, figures that are comparable to the split found in the analysis of Hamilton County residents' shares of the tax.

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