

Estimates of the Effect of a Potential 1% Sales Tax for an Erie County Regional Asset District

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Revised



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We at the Economic Research Institute of Erie (ERIE) are certainly not the first to work on the concepts of a regional asset tax or an increase in the local sales tax. Prior work was done by folks at the Center for Local Government Services, the Northwest Division of the Pennsylvania Economy League, and the Erie Area Council of Governments. They have been kind enough to share their work with us, and the current report has benefited from their previous efforts.

Estimates in this report build on the work done by and for the Allegheny Regional Asset District. Folks there graciously shared their data, technique, and in some cases, their time. Special thanks to David L. Donahoe, Executive Director of the Allegheny Regional Asset District, and to Michael Weir, Senior Fellow of the Pennsylvania Economy League, Western Division, for their insights. This work builds most fundamentally on estimates created by James W. Turner of the Pennsylvania Economy League's Research Group for the Allegheny Regional Asset District in 1993.

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Estimates of the Effect of a Potential 1% Sales Tax for an Erie County Regional Asset District

EXECUTIVE SUMMARY

In response to a request from County Executive Rick Schenker, the Economic Research Institute of Erie at the Black School of Business at Penn State Behrend prepared estimates of the impact of a potential 1% increase in the sales tax in Erie County.

Key Findings:

- ▶ A conservative estimate of the revenue that would be raised from an additional 1% sales tax locally would be about \$25 million in fiscal year 2005-06.
- ▶ The 1% additional sales tax would mean about \$92 of additional taxes for the average Erie resident. If 25% of the tax is exported (paid by visitors from outside the County), that would be reduced to \$69.
- ▶ A 1% addition to the sales tax locally will probably cause prices of taxed items to rise by about 1%.
- ▶ A 1% addition to the sales tax in Erie County will probably not cause significant loss of sales from Erie merchants to locations outside the County.
- ▶ If the \$25 million of potential new revenue were split in the same way that the Allegheny Regional Asset District (ARAD) used, this would mean \$12.5 million for Erie County Regional Assets, \$6.25 million for Erie County Government, and \$6.25 million to be split among 38 municipal governments in Erie County.
- ▶ Erie municipal governments would receive from \$2,100 to \$3.8 million each in FY 2005-06, using the ARAD distribution formula.
- ▶ The \$6.25 million for municipalities would amount to about 18% of the property taxes paid to Erie County municipal governments in 2002, and could conceivably allow municipal property tax rate reductions from 13% to 100% in the various municipalities.
- ▶ If visitors to Erie County follow the same patterns seen in Allegheny County and Philadelphia, they may pay as much as 25% of the new sales tax (or \$6.25 million), allowing Erie County to export part of this tax to non-residents.

I. INTRODUCTION: FREE LUNCHES AND FREE LIBRARIES

There ain't no such thing as a free lunch.

It may be bad grammar, but it's good economics. It means that there are opportunity costs attached to anything we do. If someone invites you out for a "free" lunch, you are giving up some time which could be put to other uses. If it takes you an hour to eat the lunch, you have given up the value of the next best thing you could have been doing with that hour.

The "no free lunch" concept also applies from society's broader point of view. Even if the lunch were free to you personally, it uses up some of society's resources which could have been put to some other use. The time, labor, natural resources, and capital that went into making that burger or salad could have been used to produce a little more education, health care, or roads.

This concept, "TANSTAAFL" for short, also applies at the county level where we might say "there ain't no such thing as a free library." Even if there is no explicit cost for the library patron who borrows a book, *someone* is paying to buy the book, hire the staff, build the building, purchase the equipment, maintain the sidewalks, etc. Those dollars may come from taxpayers generally rather than from the library users, but that means that the dollars can't be used for other things that the county might have used them for. They're clearly not free. And at the most fundamental level, the taxpayers had to give the dollars up to the county, so the individual taxpayers couldn't use them for the purposes which they might have preferred.¹

If we collectively decide that we want to provide library services "for free" to Erie County citizens, then we also have to collectively decide that we'll pay for those services somehow. The question is, how? And also, who? What kind of taxes could be used, and upon whom would those taxes fall? There are many alternatives. And, of course, none of them is painless—or "free."

We have chosen to use the library as our example here, but the concept applies to any good or service provided by government, such as the regional assets which have been the topic of discussion in Erie County for some time. There are various ways that regional assets might be funded. One technique was adopted in 1994 by the residents of Allegheny County, who chose to approve legislation that added 1% to the sales tax locally with the proceeds being shared among local governments and the regional assets of the area.

In May 2004, Erie County Executive Rick Schenker asked the Economic Research Institute of Erie (ERIE) at the Black School of Business at Penn State Erie to prepare estimates relating to the hypothetical imposition of a 1% addition to the local sales tax, similar to the Regional Asset District tax that Allegheny County implemented in 1994. If we were to consider such a tax, what information would we need to make an informed decision?

¹ Although economists use the TANSTAAFL concept universally, we cannot claim to have invented the actual phrase. The first use of the actual "There ain't no such thing as a free lunch" slogan appears to have come from science fiction patriarch Robert Heinlein in his novel "The Moon Is a Harsh Mistress." In the setting of a colony on the moon, it is clear that everything—even air—is costly.

The key questions posed by Mr. Schenker are:

- 1) How much revenue would be generated from a 1% sales tax?
- 2) How much would be available for:
 - a) regional assets
 - b) property tax reform
 - c) relief for low income seniors?
- 3) How much revenue would be available for each of the 38 municipalities in Erie County, if we use the same distribution formula that Allegheny County employed?

This report provides estimates of the possible impact of such a tax, to facilitate intelligent and informed discussion about whether the citizens of Erie County would want to consider creating a local regional asset district.



Caution: Economic Data Ahead!

The estimates in this report are just that—*estimates*. While we've spent some time trying to devise reasonable methods to make these estimates, we have to recognize that most fundamentally we're trying to forecast what people will do in the future. Given the fact that human behavior is often inherently unpredictable and surprising in many ways, there is no guarantee that actual experience in the future will match with these forecasts. And we often have to make these estimates without the data that we'd most like to have. Major changes in the macroeconomy—a recession or a boom—will also change the results significantly. Having said that, this report will present the techniques and data involved in arriving at the estimates, and the reader can judge for him- or herself if the estimates are useful in making decisions about the desirability of the possible tax. It is a fact of life that we still have to make decisions even if we don't have all the information we might like.

II. HOW MUCH REVENUE WOULD BE GENERATED FROM A 1% SALES TAX INCREASE?

To answer this question, it is necessary to look at the amount that the current 6% statewide sales tax generates in Erie County, as well as forecasts of sales tax revenues in the future.

A. The Past and Present

The Pennsylvania Department of Revenue makes data available on sales tax remittances for the state and all counties.² These tell the amount of tax revenues that businesses in Erie County sent to the PA Department of Revenue, at the state rate of 6% on taxable sales. Table 1 presents these data for the last few fiscal years³ for Erie County.

**Sales tax remittances
from Erie County,
FY 2002-03:
\$90.7 million**

² The sales tax data are published in the Statistical Supplement to the Pennsylvania Tax Compendium, online at: <http://www.revenue.state.pa.us/revenue/cwp/browse.asp?A=246&BMDRN=2000&BCOB=0&C=34245>. Most recent: fiscal year 2002-03.

³ Fiscal years run from July 1 to June 30 for Erie County and the State of Pennsylvania.

**Table 1
Sales Tax Remittances
from Erie County**

Fiscal Year	Motor Vehicle	Non-MV	Total
1996-97	\$18,881,000	\$59,293,000	\$78,174,000
1997-98	19,330,000	60,515,000	79,845,000
1998-99	19,890,000	60,705,000	80,595,000
1999-00	22,546,000	62,446,000	84,992,000
2000-01	22,668,000	63,478,000	86,146,000
2001-02	23,865,000	63,719,000	87,584,000
2002-03	25,678,000	65,040,000	90,718,000

While these are useful as a basis for some of our estimates, they are not quite what we need. We'd prefer to have the amount of *taxable sales* that occurred in the county, and the amount of sales tax which they generate at the state's 6% rate. Sounds simple, doesn't it? But the data we actually have are the amounts of taxes that were *remitted* from merchants in the county, which may or may not reflect those merchants' actual sales in Erie County. Why are they different?

The problem arises primarily from the fact that companies that operate facilities in many counties of the state may choose to remit their sales tax payments from their headquarters location rather than from each county in which they do business. For example, consider the hypothetical situation of Drugs"R"Us, which operates several drugstores in Erie County but is headquartered in Philadelphia. If they choose to submit their sales tax data and payments for all their Pennsylvania stores through their Philadelphia home office, then the numbers reported for Erie County tax remittances will miss their sales that actually took place in Erie County, and assign them to Philadelphia. On the other hand, if firms that operate in other counties report from offices in Erie County, this will tend to falsely inflate the Erie numbers.

**Problem:
Sales tax remittance
data are NOT actual
sales taxes paid here.**

Given the problem with remittances vs. sales, the key question is: do the tax remittance data tend to over- or under-state the actual sales data for Erie County? To the extent that chains operating in Erie County report from offices outside Erie County, the tax remittance data will understate the true tax collections. Conversely, to the extent that chains operating stores outside Erie County report from offices in Erie County, the tax remittance data will tend to overstate true tax collections. Which of these is the larger effect?

One other problem arises with the "remittance by county" data. There are two categories of revenues that are not attributed to individual counties. One is the remittances from the Pennsylvania Liquor Control Board, and the other is "Miscellaneous", which the Department of Revenue characterizes as "out of state, unallocated, and separately remitted use tax collections." These are not a trivial amount; they summed to \$2.4 billion in fiscal year (FY) 2002-03, or 32% of the total remitted statewide. A portion of these revenues are undoubtedly attributable to Erie County, but we have no way of knowing just how much. If Erie's share of these amounts is proportional to its share of the revenues that *are* reported by county, it could amount to as much as another 47% added to the reported amounts. In the estimates in this report, we do not make any adjustments for the Miscellaneous and LCB categories separately.

These problems mean that any analysis done using the tax *remittance* data will not give precise answers to our questions. But if the data give us a reasonable approximation--a ballpark figure--that can still help local voters and leaders make decisions, even if they're not accurate "to two decimal places." While the PA Department of Revenue apparently has no data on actual sales by county for Erie, perhaps we can offer some evidence to help make an educated guess at whether the true amounts are greater or smaller than the remittance data indicate. In fact, we can approach it from several directions.

First, Erie County accounts for about 1.2% of the statewide sales tax remittances, as reported by the PA

Department of Revenue's "Remittances by County" data.⁴ But Erie plays a much larger role in the state economy if we look at other measures. In 2002 Erie accounted for 2.3% of statewide population, 2.3% of statewide employment, and 1.9% of statewide income.⁵ This suggests that the tax remittance data may understate the true tax collections by a substantial amount. If Erie actually has the shares of Pennsylvania statewide sales tax revenues that these variables imply, how much tax revenue would be generated? Table 2 shows the calculations for fiscal year 2002-03.

**Erie's share of statewide:
Sales tax remittances: 1.2%
Population: 2.3%
Income: 1.9%
Employment: 2.3%**

**Table 2
Erie Sales Tax Revenue Calculations
Based on Erie's Percent of Three Statewide Economic Measures for 2002**

Economic Measure	PA	Erie	Erie % of PA	Implied Erie Sales Tax Revenue (\$ thousands)	Actual Erie Sales Tax Remittances (\$ thousands)	"Missing" Erie Tax Revenue (\$ thousands)	"Missing" Erie Tax Revenue (%)
Population	12,328,827	280,427	2.27	\$165,873	\$90,718	\$75,155	82.8
Total Personal Income (\$ thou)	383,618,317	7,095,154	1.85	134,877	90,718	44,159	48.7
Total employment	6,987,882	160,145	2.29	167,126	90,718	76,408	84.2

These results strongly suggest that the remittances data *understate* rather than *overstate* the amount of sales in Erie County. In fact, they imply that the actual sales may be as much as 84% more than the remittances reported by the Department of Revenue for Erie County. In fiscal year 2002-03, Erie County tax remittances were \$90.7 million, but this technique suggests that they should have been in the neighborhood of \$135 to \$167 million, resulting in about \$44 to \$76 million of tax revenue missed by the remittance data.⁶ This means that in FY 2002-03, the tax remittance data may have under-stated true tax revenues by as much as 84%. This clearly suggests that revenue estimates based on the sales tax remittance data would be very conservative estimates for Erie County, and should be adjusted for that fact.

**Estimate #1:
Sales tax remittance data may underestimate true sales taxes paid by 49 to 84%.**

Second, and even more to the point, may be data on retail sales. Every five years, the U.S. Census Bureau conducts its series of Economic Censuses which includes the Census of Retail Trade and the Census of Accommodations and Food Services. While not everything in these major categories is subject to the Pennsylvania sales tax (examples: groceries, clothes), and there are some items that are taxed that are not in these categories (examples: auto repair, exterminator services), these two Censuses cover the broad majority of taxable items in Pennsylvania.

Unfortunately, while the Economic Census is generally regarded as the data source with the most detailed data about these industries, it is not as timely as we might like. The most recent data currently available are for 1997. (Data for 2002 will be out within the next year.) However, there is no reason to think that these patterns have changed dramatically through time, so 1997 data should provide a reasonable proxy for our purposes.⁷ These two Economic Censuses tell us that Erie County accounted

⁴ Same source as the previous data. These do NOT include an estimate for Erie's share of the LCB and Miscellaneous categories. If we consider Erie as a share of the statewide total tax remittances without these two categories, Erie's share is 1.78% rather than 1.2%.

⁵ Data are for calendar year 2002, and are from the Regional Economic Information System of the U.S. Bureau of Economic Analysis, available online at: <http://www.bea.doc.gov/bea/regional/reis/>.

⁶ Note that this does *not* mean that the taxes weren't actually paid to the state. It just means that these payments were not officially attributed to Erie County in the "Remittances by County" database.

⁷ Data from 1992 give similar results to those from 1997. The 1992 Census of Retail Trade used a different industrial breakdown (Standard Industrial Classification codes, rather than the newer North American Industrial Classification System codes), but even with this change, Erie's share of all Pennsylvania retail trade was 2.36% in 1992 on an SIC basis, close to its 2.33% in 1997 on a NAICS basis. Note that these numbers are just for Retail Sales, and do not include the Accommodations/Food Service data, as the analysis in the text does.

for about 2.31% of statewide taxable sales (as we've defined them here) in 1997.⁸ If we apply that percentage to the Pennsylvania totals for taxes remitted at the state level, we get an estimate of the 1997 sales taxes that were generated in Erie County, regardless of the location from which they were remitted.

Here are the calculations from the Economic Census:

Pennsylvania total "taxable sales" in 1997:	\$97.21 billion
Erie total "taxable sales" in 1997:	2.24 billion
Erie's % of PA total:	2.31%

If we apply this percentage to the state tax remittances for the last few years, we can estimate what Erie County's total sales tax amounts might have been. Table 3 shows the results.

Table 3
Erie Sales Tax Calculated as a Percent
of Pennsylvania Economic Census Totals

Fiscal Year	Pennsylvania Statewide Remittances (\$ thousands)	Erie Tax Rev Calculated at 2.31% (\$ thousands)	Actual Erie Sales Tax Remittances (\$ thousands)	"Missing" Erie Tax Revenue (\$ thousands)	"Missing" Erie Tax Revenue (%)
1998-99	\$6,605,756	\$152,413	\$80,595	\$71,818	89.1
1999-00	7,018,332	161,932	84,992	76,940	90.5
2000-01	7,203,756	166,211	86,146	80,065	92.9
2001-02	7,292,499	168,258	87,584	80,674	92.1
2002-03	7,519,561	173,497	90,718	82,779	91.2

These results reinforce the conclusion above that the remittances database *understates* rather than *overstates* the amount of sales in Erie County. In fiscal year 2002-03, Erie County tax remittances were \$90.7 million, but this technique suggests that they should have been in the neighborhood of \$173.5 million, resulting in about \$82.8 million of tax revenue missed by the remittance data. This means that in FY 2002-03, the tax remittance data understated true tax revenues by more than 91%. Remember, though, that this estimate is based on the aggregate of all retail, accommodation, and food service sales less groceries and clothing, so these totals undoubtedly include items that are not in fact taxable in Pennsylvania. But they also exclude some other goods and services that are taxable. Nevertheless, the magnitude of the missing tax revenue--ranging from 89 to 93%--again clearly suggests that revenue estimates based on the sales tax remittances would be very conservative estimates.

Estimate #2:
Sales tax remittance data may underestimate true sales taxes paid by 89 to 93%.

A third approach was taken by those making the initial estimates for the Allegheny Regional Asset District, when that county was contemplating the addition of the 1% additional sales tax in 1993. The Pennsylvania Economy League (PEL) created estimates using tax revenue data that are broken down by industry (NAICS) code. The PA Department of Revenue reports statewide total sales tax remittances by industry. The PEL used Allegheny County's share of total statewide payrolls by industry category as a proxy for the county's share of total economic activity by industry.⁹ They then applied these percentages to the statewide tax remittance data for each industry. This approach explicitly takes into account an area's unique industrial structure, and assumes that an industry's share of total statewide sales tax will be estimated reasonably well by its share of statewide payroll. This approach led to quite accurate estimates for Allegheny County's initial year, although it was less accurate in subsequent years.

⁸ This includes all Retail Trade (NAICS 44-45), less Food and Beverage Stores (NAICS 445) and Clothing & Clothing Accessories Stores (NAICS 448) since most of those products are nontaxable in Pennsylvania, plus Accommodation & Foodservices (NAICS 72).

⁹ The payroll data came from the U.S. Commerce Department's *County Business Patterns* program, which is online at: <http://www.census.gov/epcd/cbp/view/cbpview.html>

Application of this technique is a little more complicated because it is necessary to match up the industry categories from two different data sources, and they do not always fit together precisely. Table 4 shows the calculations for Erie County using *County Business Patterns* payroll data from 2001 (the most recent year for which data are available), and applies them to PA Department of Revenue data for fiscal year 2002-03. The results of this technique indicate that there would have been about \$153 million in sales taxes generated in Erie County in 2002-03, compared with the \$90.7 million that was remitted by merchants in the county.¹⁰ The “missing” tax revenue amounts to about \$62.6 million, or 69% of the official “sales tax remitted” data. Yet again, this approach reinforces the idea that the tax remittance data understate true tax collections.

Estimate #3:
Sales tax remittance data may underestimate true sales taxes paid by 69%.

Table 4
Erie Sales Tax Calculated as a Percent
of Pennsylvania Totals by Industry

Industry	2001 PA State Wages*	2001 Erie Wages*	Erie % of PA Total Wages	PA 2002-03 Sales Tax Collections*	Erie Estimated Taxes*
Manufacturing	\$29,311,679	\$1,281,975	4.37	\$338,236	\$14,793
Public Utilities	2,465,042	25,393	1.03	238,365	2,455
Wholesale Trade	10,679,240	139,974	1.31	600,254	7,868
Retail Trade					
Building Materials	1,376,067	26,510	1.93	427,417	8,234
General Merchandise Stores	1,616,740	41,233	2.55	571,960	14,587
Food Stores, Eating/Drinking Places & Liquor Stores	5,632,388	124,037	2.20	867,451	19,103
Auto Dealers and Motor Vehicles	3,181,579	84,791	2.67	1,559,980	41,574
Furniture	496,214	10,478	2.11	156,690	3,309
Other Retail	4,269,583	72,707	1.70	872,417	14,856
Services	66,457,819	1,033,648	1.56	1,399,461	21,766
Other**	41,722,079	493,414	1.18	329,461	3,896
Government & Unclassified	2,641,835	14,068	0.53	157,856	841
TOTAL:	\$169,850,265	\$3,348,228	1.97	\$7,519,548	\$153,283
*In thousands of dollars					
**Agriculture, Mining, Construction, Finance, Insurance and Real Estate, Transportation & Warehousing					

Table 5 summarizes the results. The conclusion is that any estimates based on the “sales tax remitted by county” data will be very conservative estimates of the sales tax revenues that will actually be generated, perhaps 49% to 91% below the actual amounts. These five alternate estimates average a value of 75.2% for the “missing” Erie tax revenue. This gives us a basis for evaluating, and even adjusting, the estimates to be presented below.

Conclusion:
Sales tax remittance data need to be adjusted upward by 49 - 91%.

¹⁰ Erie's total wages amount to 1.97% of total state wages, as seen in the last line of Table 4. Applying this percentage to the PA 2002-03 Sales Tax Collections would yield an estimate of \$148.2 million. But this technique would ignore the unique industry mix of Erie County, which is the point of this industry-by-industry technique.

**Table 5
Summary of Tax Remittance
Underestimate Calculations for Erie County, FY 2002-03**

Economic Measure	Erie Sales Tax Revenue (\$ thousands)	"Missing" Erie Tax Revenue (\$ thousands)	"Missing" Erie Tax Revenue (%)
Actual Erie sales tax remittances	\$90,718		
Sales tax revenues implied by:			
-Population	\$165,873	\$75,155	82.8
-Total personal income	134,877	44,159	48.7
-Total employment	167,126	76,408	84.2
-Econ Census of Retail & Accmdtns	173,497	82,779	91.2
-PEL's industry-by-industry approach	153,283	62,565	69.0

Simple estimates of the impact of a 1% increase in the sales tax:

The total sales tax remitted by firms in Erie County for the last seven years are presented in Table 6 and Figure 1. (These are the same data as in Table 1 above.) Given that the current sales tax rate is 6%,

**1% of sales tax generated
\$15.1 million of
remittances in FY 2002-03.**

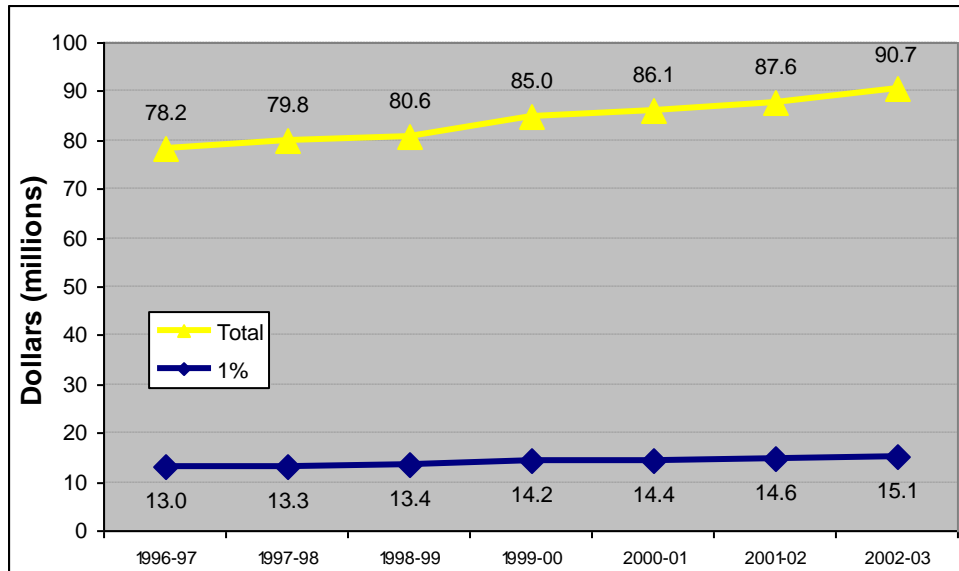
dividing these amounts by six will tell the amount of remittances that resulted from 1% of sales tax in those years. These amounts are shown in the last row of Table 6. Thus in fiscal year 2002-03 (July 1 2002 to June 30 2003), Erie County merchants remitted \$90.7 million to the State, so one percent of the sales tax generated tax revenue of

\$15.1 million in Erie County. Figure 1 shows that these amounts have been increasing consistently over the last few years.

**Table 6
PA Sales Tax Remittances by Erie County
(thousands of dollars)**

Fiscal Year:	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Erie County							
Motor Vehicle	\$18,881	\$19,330	\$19,890	\$22,546	\$22,668	\$23,865	\$25,678
Non-MV	59,293	60,515	60,705	62,446	63,478	63,719	65,040
Sum	78,174	79,845	80,595	84,992	86,146	87,584	90,718
1% of the 6% tax:	\$13,029	\$13,308	\$13,433	\$14,165	\$14,358	\$14,597	\$15,120

Figure 1
Sales Tax Remittances by Erie County
Total (6%) and 1%



But, does this mean that an *additional* 1% added to the current 6% rate would have actually raised the amounts listed in Table 6? Not necessarily, for a few reasons:

1) The addition of another 1% of sales tax will raise the price that consumers pay. It is well established that people tend to buy less of a good as its price rises. At any given price, there are some people who are very close to being indifferent about whether to buy the product or not. That additional 1% tax will be enough to push some of them over the edge, and make them decide not to buy. Others who continue to purchase the good may choose to buy less of it. Thus, an addition of 1% to the current sales tax will tend to reduce the total amount of sales to some extent, resulting in less revenue generated than might be expected from the simple “1/6 of 6%” approach above. The key question is “how much is this effect?” Is this such a small effect as to be negligible, or will it make a big difference in the totals?

Economic theory also tells us that the after-tax price may *not* rise by the exact amount of the tax (1%). On the one hand, as the price rises some buyers will reduce their purchases and this reduction in quantity demanded will moderate the price pressure somewhat. This effect suggests that the reduction in sales resulting from the tax increase will not be as great as might initially be feared, since prices will probably not rise by the full 1% increase in the tax. On the other hand, there is some evidence that merchants in a less-than-fully-competitive market sometimes use an increase in a sales tax as an occasion to raise prices by more than the actual tax increase, implicitly blaming the tax for the price increase. If this occurs, the loss of sales will be greater than otherwise expected. The empirical literature is split on this issue, however,¹¹ so perhaps it is wise to expect prices to rise by about the amount of the tax increase.

A 1% addition to the sales tax will probably cause prices to rise.

2) The higher after-tax price that will result from the additional tax will make Erie County merchants who are subject to the tax a little less competitive with those outside the area. If Erie County has a lower sales tax rate than other nearby jurisdictions, we may experience some sales to out-of-county residents who come here to do their holiday shopping, or to make large purchases for which the difference in tax

¹¹ Poterba (1996) found that there was little evidence of over-shifting of the tax (prices rising by more than the amount of the tax) in a study of clothing prices in eight major cities over the 1947-77 period. He also reviews the empirical and theoretical literature on this issue.

rates is enough to overcome the time and travel costs of coming to Erie County.¹² Raising the sales tax rate will reduce the advantage Erie merchants have had compared to these other jurisdictions, and may be expected to result in fewer sales to out-of-county buyers. Even though the Erie County sales tax rate with the 1% addition is less than the rate in, say, New York State, the differential between them will shrink, and this will provide less incentive for New Yorkers to come here. Table 7 presents information on sales tax rates in neighboring areas, as well as Philadelphia and Allegheny County.¹³ Remember, though, that each area has different rules on what is and is not subject to the tax. For example, clothing is (mostly) exempt from the sales tax in Pennsylvania, but not in New York. These factors may play a bigger role than the actual level of the tax, since the rates are relatively similar across jurisdictions.

A 1% addition to the sales tax will probably not cause much loss of Erie sales to neighboring counties.

**Table 7
Sales Tax Rates in Erie's Neighbors**

Area	Tax Rate, Total (State & Local Combined)		
	State	Local	
Erie County, PA	6.00%	6.00%	0.00%
Chautauqua County, NY	7.25	4.25	3.00
Ashtabula County, OH	7.00	6.00	1.00
Crawford County, PA	6.00	6.00	0.00
Warren County, PA	6.00	6.00	0.00
Ontario, Canada	15.00	8.00*	7.00**
Allegheny County, PA	7.00	6.00	1.00
Philadelphia County, PA	7.00	6.00	1.00

*8% Ontario Province tax, **7% federal GST.

This competitive effect may be especially strong where consumers have good shopping alternatives just outside the jurisdiction where the tax applies. Since there are no major shopping areas just across Erie County's borders, we may expect this effect *not* to play a major role here. However, the internet may provide Erie consumers an alternative to buying locally and paying the tax. Given the small amount of the hypothetical tax being considered, and the extra transport and time costs in using the internet, it is not expected that this alternative will have a major impact on Erie County taxable sales.

¹² We are unaware of good data on the amount of sales that Erie County merchants make to out-of-county customers. There is some indirect evidence about out-of-county customers, though, in that the 1992 Economic Census reported that Erie County had 78 retail jobs per 1,000 population, compared with 72 per 1,000 in both PA and the US, so Erie's number was about 8.3% higher than the state's and nation's. Erie County also had 626 retail establishments per 100,000 population, compared with 597 per 100,000 for PA and 596 for the U.S. as a whole, about 4.9% higher. Higher numbers on these variables implies either that Erie Countians buy more retail stuff than average, that Erie County merchants use more employees or stores per sale than retail merchants elsewhere, or—most likely—that Erie County retailers service customers from outside county borders—that Erie is a regional retail center for nearby areas.

¹³ Data sources for tax rates:

-New York: www.tax.state.ny.us/pdf/publications/Sales/pub718_504.pdf.

-Ohio: http://tax.ohio.gov/divisions/sales_and_use/documents/salestaxmapcolor.pdf.

-Ontario: www.trd.fin.gov.on.ca/userfiles/page_attachments/Library/3/Rsie_sb901May04.pdf?N_ID=3 and <http://www.2ontario.com/traveltips/tips22.asp>

-Pennsylvania: www.revenue.state.pa.us/revenue/cwp/view.asp?A=2&Q=55744

Information on what is and is not taxable in PA can be found at:

<http://www.revenue.state.pa.us/revenue/cwp/view.asp?A=299&Q=209114> and *Retailers' Information: State and Local Sales, Use and Hotel Occupancy Tax, Public Transportation Assistance Fund Taxes and Fees, and Vehicle Rental Tax*, available online at: www.revenue.state.pa.us

Conclusion:
We will adjust tax remittance data upward by 66.6%.

The evidence in the previous section suggests that estimates based on tax remittances, as these are, may substantially underestimate the actual sales in the county. Table 5 above indicates that we should add 50% to 90% to any estimates based on the remittance data. For this report, we choose to adjust the estimate by 66.6%, a little less than the midpoint of the range mentioned above. Given that most of the

Conclusion:
1% of sales tax would have yielded about \$25 million for Erie in FY2002-03.

approaches in Table 5 found the adjustment factor to be significantly higher than this, and averaged a 75% value, we believe this to be a conservative approach to making the necessary adjustment. In other words, it may under-estimate the true amount of sales tax dollars. Making this adjustment results in the estimates in the second-last row of Table 8. This technique suggests that a 1% addition to the sales tax rate would have yielded about \$25.2 million in FY 2002-03. Table 8 also presents the values that would result from using a 75% adjustment factor instead of 66.6%. This would yield an estimate of \$26.4 million for FY 2002-03.

Table 8
PA Sales Tax Remittances for Erie County
Adjusted for Under-reporting
(thousands of dollars)

Fiscal Year:	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Erie County							
Motor Vehicle	\$18,881	\$19,330	\$19,890	\$22,546	\$22,668	\$23,865	\$25,678
Non-MV	59,293	60,515	60,705	62,446	63,478	63,719	65,040
Sum	78,174	79,845	80,595	84,992	86,146	87,584	90,718
1% of tax:	\$13,029	\$13,308	\$13,433	\$14,165	\$14,358	\$14,597	\$15,120
1% adjusted (66.6%):	21,715	22,179	22,388	23,609	23,929	24,329	25,199
1% adjusted (75%):	22,801	23,288	23,507	24,789	25,126	25,545	26,459

Finally, another estimation can build on the experiences of Philadelphia and Allegheny Counties with their own 1% sales tax revenues. These data avoid the problems inherent in the state's "Remittances by County" data, since they reflect the actual taxable sales in these two counties rather than the remittances. According to the 1997 Economic Census, Erie County taxable sales¹⁴ amounted to 19.4% of Allegheny County taxable sales in 1997, and 31.7% of Philadelphia's taxable sales.¹⁵ If we apply these 1997

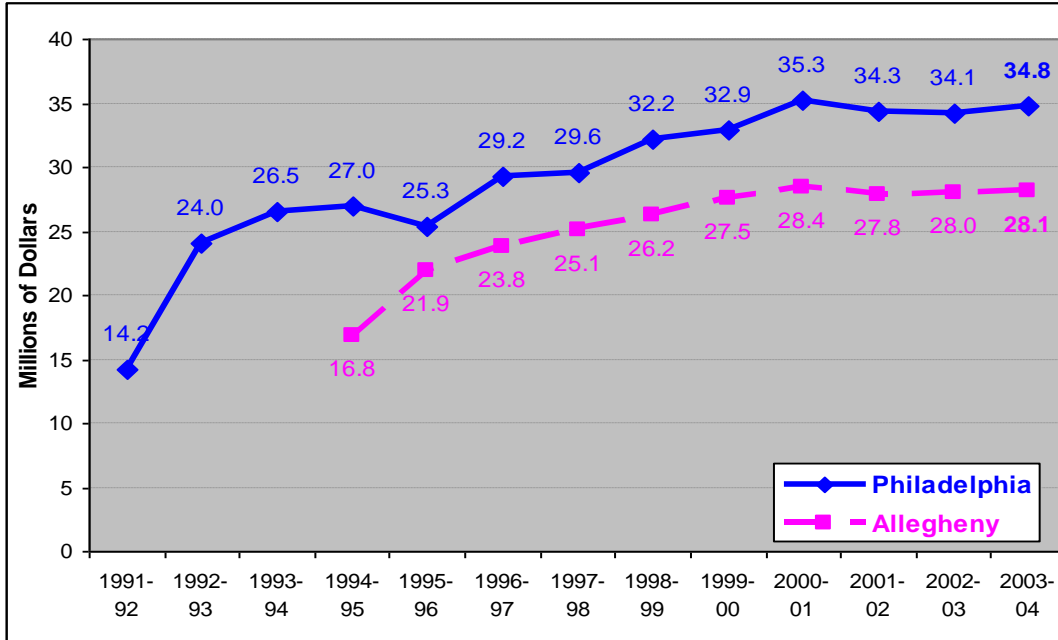
Allegheny & Phila Estimates:
1% of sales tax would have yielded about \$31 million for Erie in FY2002-03.

percentages to Allegheny's and Philadelphia's actual tax collections, we find estimates for Erie in the range of \$28.1 to \$34.8 million for the 1% sales tax in Erie in FY 2003-04. Figure 2 shows the estimated amounts from this approach. While these numbers are somewhat larger than those in the table above, they reinforce the general range within which we may expect Erie tax revenues to lie.

¹⁴ As above, this includes all Retail Trade (NAICS 44-45), less Food and Beverage Stores (NAICS 445) and Clothing & Clothing Accessories Stores (NAICS 448) since most of those products are nontaxable in Pennsylvania, plus Accommodation & Foodservices (NAICS 72).

¹⁵ No, this is not a typo. Allegheny County's taxable sales were greater than Philadelphia's. This may be due to the existence of retail centers just outside Philadelphia's borders, resulting in Philadelphia residents spending more of their retail dollars outside the county.

Figure 2
Estimates of Erie County 1% Sales Tax Revenues
as Percentages of Philadelphia and Allegheny County Revenues



B. The Future (Forecasts)

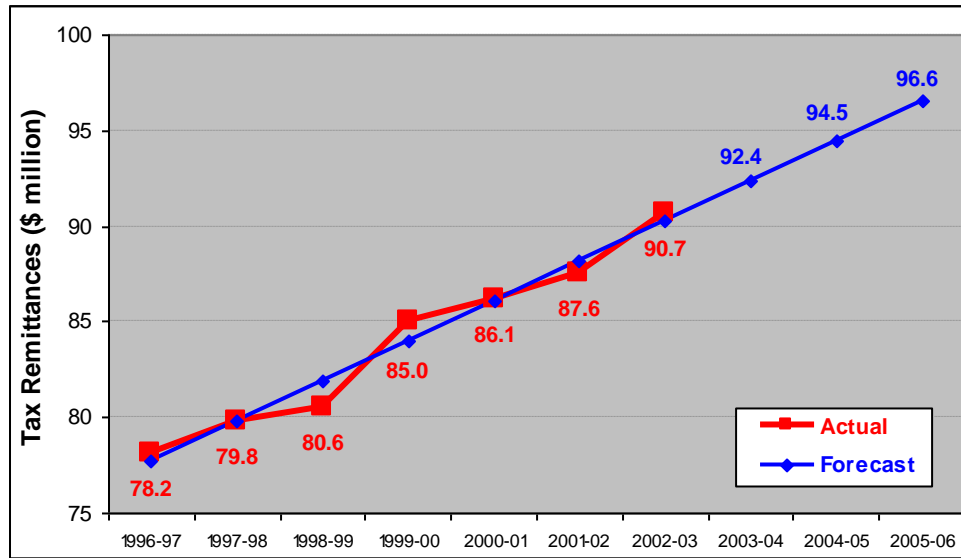
The data above tell how much a 1% sales tax would have raised in the past. But what about the future, where we'll all be living, and where these tax changes would actually be occurring? Two ways to get a feel for this would be to: 1) simply fit a trend line to the data for the recent past and extend it forward, and 2) use estimates made for sales tax revenues for the Commonwealth of PA in total (which use more sophisticated forecasting methods) and step them down to get Erie County numbers. Since we are already in fiscal year 2004-05, we will project revenues for FY 2005-06.

1) Simple trend extension

Figure 3 shows the result of fitting a simple linear trend line to the Erie County tax *remittance* data for 1996 to 2003, and extending it to FY 2005-06. This suggests that sales tax remittances would grow to about \$96.6 million by FY 2005-06; 1% of this amount would be \$16.1 million.¹⁶

¹⁶ The equation of the trend line is: $Y = -4103969 + 2095.0 \cdot \text{Year}$, with $R^2 = 0.973$. Both parameters are statistically significant beyond the 1% level. The slope of this trend line implies an increase of \$2.1 million per year in remittances. Note that this approach uses just seven data points to project out three years. We would have preferred to have more data points, but the PA Department of Revenue only has data back to FY 1996-97 for the motor vehicle portion of the tax remittances by county. A quadratic trend line was also estimated for these data, but the fit was worse statistically, with a lower adjusted R^2 and statistically insignificant coefficients.

Figure 3
Erie County Tax Remittance Forecast: Trend Projection



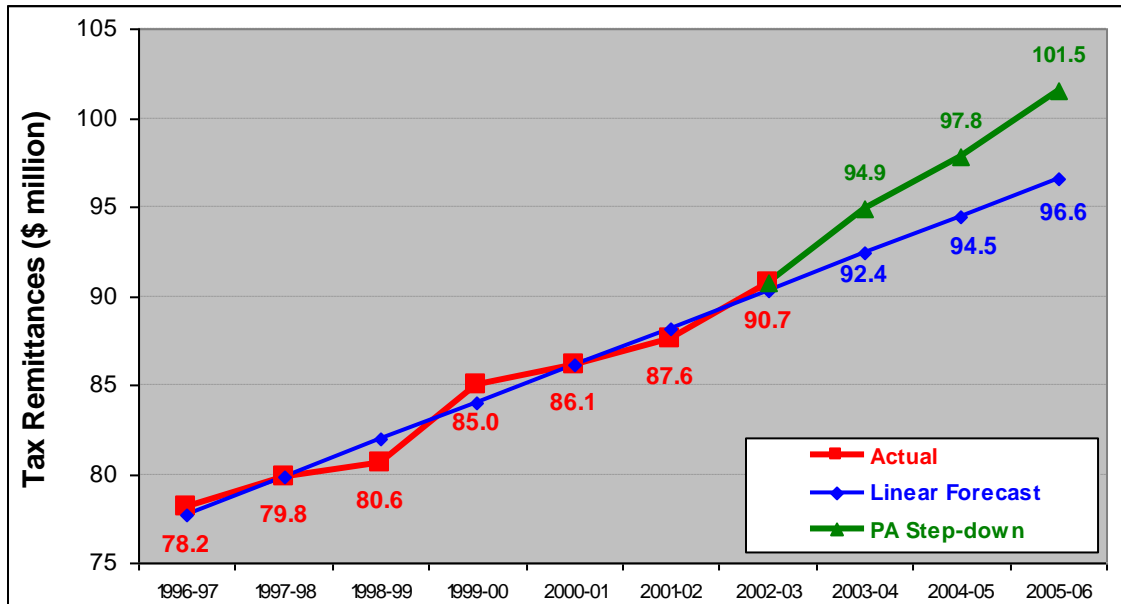
2) Stepping down Pennsylvania estimates

The Bureau of Research at the Pennsylvania Department of Revenue prepares forecasts for all the major revenue sources for the Commonwealth each year. The econometric model they use to estimate the sales and use tax relies on historical relationships between the sales and use tax revenues each year and a number of other economic variables, such as consumer expenditures on durables goods nationwide, national business fixed investment, national sales of motor vehicles, and a variable reflecting the Commonwealth's population distribution.¹⁷

Their estimates are for the whole state; they do not publish forecasts for individual counties. In the past seven years, Erie County sales tax remittances have averaged a little over 1.23% of the total sales tax revenues of the state. Applying this figure to the statewide estimates leads to a forecast for Erie County sales taxes of \$101.5 million in FY 2005-06, and the 1% figure would be \$16.9 million. As Figure 4 shows, this technique results in estimates that are a little higher than the simple trend projection method in the previous section. This technique assumes that Erie's share of the state's sales tax remittances in the future will remain the same as the average for the last seven years.

¹⁷ See *2004 - 2005 Estimate Documentation*, Pennsylvania Dept of Revenue, Bureau of Research, Feb 11, 2004. Available online at: http://www.revenue.state.pa.us/revenue/lib/revenue/2004_05_Est_Doc.pdf

**Figure 4
Erie County Tax Remittance Forecast: Stepping Down State Projections**



Given these two approaches, it would be appropriate to estimate that Erie County sales tax *remittances* would be in the neighborhood of \$97-\$100 million for FY 2005-06 (average \$99.1 million), with a 1% tax accounting for approximately \$16.1 to \$16.9 million of revenue (midpoint of \$16.5 million.)

But we have seen above that in the recent past, tax remittances from Erie County need to be adjusted upwards by about 67%. Adjusting the numbers above for this effect yields an estimate of \$161 to \$169 million for sales in FY 2005-06, and tax revenues of \$26.8 to \$28.2 million, with a midpoint of \$27.5 million. These estimates ignore the possible offsets that might occur from the higher tax rate reducing spending locally.

Estimate of possible revenue from a 1% tax, for FY 2005-06: \$26 - \$28 million

Allegheny County's experience suggests that when a new sales tax is implemented, there is a learning period during which the local merchants adjust to the new tax laws. This is sometimes called a "compliance period". During this period, tax revenues may be less than expected as some merchants are not yet in full compliance with the new law. As a result, it may make sense to estimate on the low side for the initial period, with an estimate of say, \$25 million for fiscal year 2005-06 for Erie County. This is the figure that will be used as the basis for answering the remaining questions. Based on the U.S.

Conservative estimate of revenue from a 1% tax, for FY 2005-06: \$25 million

Census Bureau's population estimate of 280,427 for Erie County in 2002, this amounts to \$89.15 per person in the county.¹⁸

¹⁸ U.S. Census Bureau's Population Estimates program, estimated for July 1, 2002. Data are available online at: <http://www.census.gov/popest/cities/SUB-EST2003-05.html>

III. HOW WOULD THE REVENUES BE SPLIT?

The remaining key questions are:

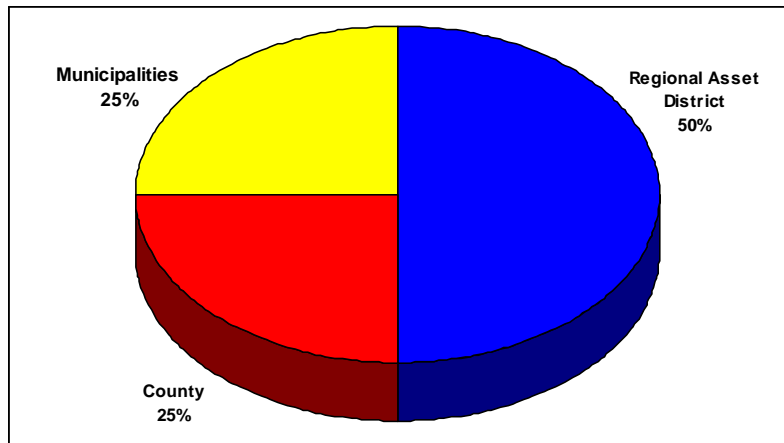
- 2) How much would be available for:
 - a) regional assets
 - b) property tax reform
 - c) relief for low income seniors?
- 3) How much revenue would be available for each of the 38 municipalities in Erie County, if we use the same distribution formula that Allegheny County employed?

A. Technique for Splitting the Revenue

In Allegheny County, the revenues from the 1% additional sales tax are split thus:

- 50% to the Regional Asset District
- 25% to Allegheny County
- 25% to 128 local governments in Allegheny County, according to a distribution formula.

Figure 5
Distribution of Allegheny County RAD Sales Tax Revenue



If Erie County were to adopt the same approach, this would mean that Erie County regional assets (however they would be defined) would receive a major infusion of tax revenues, in the amount of approximately \$12.5 million. Erie County government would also receive \$6.25 million, or about \$22 per county resident. In 2002, Erie County government received a total of \$44.2 million in real estate taxes, so the 1% additional sales tax would amount to about 14% of total property taxes paid to the County by Erie residents. Presumably some part of this could be used for property tax reduction, if the voters desire that.

The first two parts of the revenue distribution (50% to the Regional Asset District and 25% to the county) are straightforward; the last (25% to Erie County's 38 municipalities) is more complicated, and thus is the focus of this section of the report. If—and it's a big "if"—Erie County follows the same distribution formula adopted by Allegheny County, we can calculate the share of new revenues that would go to each municipality.

How was the local governments' portion of the Allegheny County money used? Their law required local governments to use 2/3 of the funds to reduce local taxes, and required "every municipality to establish a real property tax relief program for low- and moderate-income senior citizens."¹⁹ Pittsburgh was also required to "eliminate the city portion of the county's personal property tax and to reduce its admissions

¹⁹ Turner (1995), p. 21.

tax from 10 percent to 5 percent.”²⁰

The Allegheny County distribution formula has two aspects: 1) it rewards tax effort, i.e., those areas that tax themselves more to pay for their expenditures get a larger share of the new sales tax revenue, and 2) it is redistributive, as Turner (1995, p. 20) says: “those communities in relatively poor fiscal shape tend to receive substantially more in revenue than relatively well-off communities.”

The formula used in Allegheny County starts with the ratio of each municipality’s real estate value per capita compared to the county’s:

$$\frac{\text{Municipality A's per capita real estate value}}{\text{Allegheny County's per capita real estate value.}}$$

This gives a measure of the municipality’s current wealth relative to the county average. A high number for a municipality means greater wealth per capita and, presumably, less need. Note that this formula does not use a measure of income, but of real estate value.

This ratio is then divided into the total municipal tax revenues (not just property taxes) for each local government to get municipal weighted tax revenues. This has the effect of weighting the poorer municipalities more and the richer municipalities less. It also means that those areas that tax themselves more will get a higher percentage of the total available for distribution. These amounts are summed for all the municipalities, and each municipality’s share of that total is calculated. This is the share that each municipality will receive from the revenue available to be distributed to all municipalities.

**Allegheny County’s formula:
1) rewards tax effort
2) redistributes to poorer areas**

In order to apply this formula to Erie County, we start with the ratio of each municipality’s per capita property value as a percent of the county’s per capita property value. This gives a measure of the municipality’s current wealth. In Erie County, Summit, Fairview and Millcreek Townships were at the top of the list in 2002, and Conneaut Township, Wattsburg and Union City Boroughs were at the bottom. Table 9 shows this value for the 38 municipalities in Erie County in 2002, the left set of columns in alphabetical form and the right set ranked from highest to lowest.²¹

**In Erie County municipalities,
property values per capita
range from 2/3 below the
county average to more than
double the county average.**

These fractions are then divided into the tax revenues each municipality raises locally, and the result is calculated as a share of the countywide total. Repeating, this has two effects: 1) areas that levy greater taxes on their residents are seen as putting forth greater effort to fund themselves, so they will get a greater share of the total sales tax revenue to be distributed; and 2) dividing by the property value ratio will give a greater share to the municipalities that have less wealth, the “poorer” areas in terms of property values. This calculation gives the percent of total sales tax revenue that would go to each municipality; these are presented in Table 10 (the left column in alphabetical order, and the right column ranked by share) and Figure 6. Multiplying these percentages by the estimated total revenue from the tax gives the estimated revenue for each municipality.

**Using Allegheny County’s
formula, Erie County
municipalities would get
from 0.03% to 61% shares
of the new revenues.**

²⁰ *Ibid.*

²¹ The data in this section concerning municipalities come from the PA Department of Community and Economic Development through the Governor’s Center for Local Government Services, online at: <http://ctcoas01.state.pa.us/dced/MSS.mainmenu.show>.

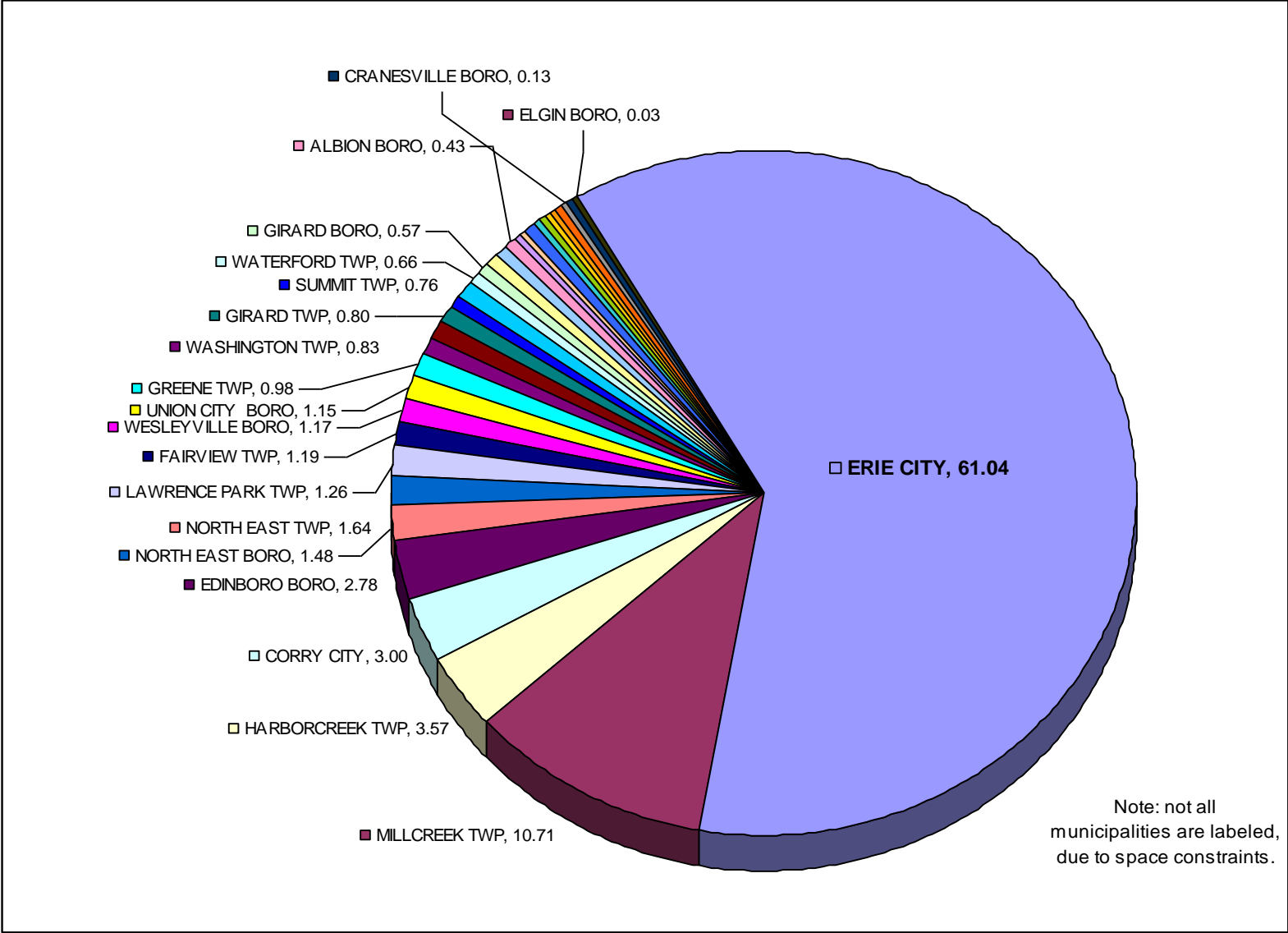
Table 9
Relative Property Wealth in Erie County, 2002:
Municipalities' Property Value Per Capita as a
% of the Erie County Property Value Per Capita

Alphabetical			Ranked		
Municipality	% of County	Rank	Municipality	% of County	Rank
Albion Boro	68.22	30	Summit Twp	205.73	1
Amity Twp	79.48	26	Fairview Twp	171.37	2
Concord Twp	83.39	23	Millcreek Twp	151.14	3
Conneaut Twp	36.03	38	Washington Twp	126.39	4
Corry City	75.59	28	Harborcreek Twp	111.56	5
Cranesville Boro	61.10	34	McKean Twp	106.30	6
Edinboro Boro	61.34	33	North East Twp	105.05	7
Elgin Boro	62.67	32	Girard Twp	100.95	8
Elk Creek Twp	87.69	21	Greene Twp	100.23	9
Erie City	72.67	29	Erie County	100.00	
Erie County	100.00		Lawrence Park Twp	99.48	10
Fairview Twp	171.37	2	Franklin Twp	99.39	11
Franklin Twp	99.39	11	Girard Boro	96.08	12
Girard Boro	96.08	12	Union Twp	95.90	13
Girard Twp	100.95	8	Wayne Twp	95.16	14
Greene Twp	100.23	9	Greenfield Twp	92.91	15
Greenfield Twp	92.91	15	McKean Boro	92.59	16
Harborcreek Twp	111.56	5	Le Boeuf Twp	91.99	17
Lake City Boro	87.73	20	Venango Twp	90.81	18
Lawrence Park Twp	99.48	10	Waterford Twp	89.12	19
Le Boeuf Twp	91.99	17	Lake City Boro	87.73	20
McKean Boro	92.59	16	Elk Creek Twp	87.69	21
McKean Twp	106.30	6	Springfield Twp	86.70	22
Mill Village Boro	63.91	31	Concord Twp	83.39	23
Millcreek Twp	151.14	3	North East Boro	80.59	24
North East Boro	80.59	24	Waterford Boro	80.32	25
North East Twp	105.05	7	Amity Twp	79.48	26
Platea Boro	78.99	27	Platea Boro	78.99	27
Springfield Twp	86.70	22	Corry City	75.59	28
Summit Twp	205.73	1	Erie City	72.67	29
Union City Boro	54.27	36	Albion Boro	68.22	30
Union Twp	95.90	13	Mill Village Boro	63.91	31
Venango Twp	90.81	18	Elgin Boro	62.67	32
Washington Twp	126.39	4	Edinboro Boro	61.34	33
Waterford Boro	80.32	25	Cranesville Boro	61.10	34
Waterford Twp	89.12	19	Wesleyville Boro	58.94	35
Wattsburg Boro	52.09	37	Union City Boro	54.27	36
Wayne Twp	95.16	14	Wattsburg Boro	52.09	37
Wesleyville Boro	58.94	35	Conneaut Twp	36.03	38

Table 10
Each Erie County Municipality's Share
of Total New Sales Tax Revenues

Alphabetical			Ranked		
Municipality	Share	Rank	Municipality	Share	Rank
Albion Boro	0.43 %	22	Erie City	61.04 %	1
Amity Twp	0.22	32	Millcreek Twp	10.71	2
Concord Twp	0.23	31	Harborcreek Twp	3.57	3
Conneaut Twp	0.52	20	Corry City	3.00	4
Corry City	3.00	4	Edinboro Boro	2.78	5
Cranesville Boro	0.13	33	North East Twp	1.64	6
Edinboro Boro	2.78	5	North East Boro	1.48	7
Elgin Boro	0.03	38	Lawrence Park Twp	1.26	8
Elk Creek Twp	0.28	28	Fairview Twp	1.19	9
Erie City	61.04	1	Wesleyville Boro	1.17	10
Fairview Twp	1.19	9	Union City Boro	1.15	11
Franklin Twp	0.31	26	Greene Twp	0.98	12
Girard Boro	0.57	19	Washington Twp	0.83	13
Girard Twp	0.80	15	McKean Twp	0.80	14
Greene Twp	0.98	12	Girard Twp	0.80	15
Greenfield Twp	0.45	21	Summit Twp	0.76	16
Harborcreek Twp	3.57	3	Lake City Boro	0.73	17
Lake City Boro	0.73	17	Waterford Twp	0.66	18
Lawrence Park Twp	1.26	8	Girard Boro	0.57	19
Le Boeuf Twp	0.23	30	Conneaut Twp	0.52	20
McKean Boro	0.08	36	Greenfield Twp	0.45	21
McKean Twp	0.80	14	Albion Boro	0.43	22
Mill Village Boro	0.08	37	Venango Twp	0.41	23
Millcreek Twp	10.71	2	Springfield Twp	0.40	24
North East Boro	1.48	7	Waterford Boro	0.34	25
North East Twp	1.64	6	Franklin Twp	0.31	26
Platea Boro	0.11	34	Wayne Twp	0.29	27
Springfield Twp	0.40	24	Elk Creek Twp	0.28	28
Summit Twp	0.76	16	Union Twp	0.25	29
Union City Boro	1.15	11	Le Boeuf Twp	0.23	30
Union Twp	0.25	29	Concord Twp	0.23	31
Venango Twp	0.41	23	Amity Twp	0.22	32
Washington Twp	0.83	13	Cranesville Boro	0.13	33
Waterford Boro	0.34	25	Platea Boro	0.11	34
Waterford Twp	0.66	18	Wattsburg Boro	0.09	35
Wattsburg Boro	0.09	35	McKean Boro	0.08	36
Wayne Twp	0.29	27	Mill Village Boro	0.08	37
Wesleyville Boro	1.17	10	Elgin Boro	0.03	38
TOTAL for the County	100.00 %		TOTAL for the County	100.00 %	

Figure 6
Each Erie County Municipality's Share
of Total New Sales Tax Revenues



B. Estimates of Revenue by Recipient

Applying these percentages to the \$25 million of new revenue estimated in the previous section yields the following forecasts for tax revenues:

\$12.50 million	- Erie County Regional Assets (50%)
6.25 million	- Erie County Government (25%)
<u>6.25 million</u>	- 38 municipalities in Erie County.(25%)
\$25.00 million	- Total (100%)

New municipal tax revenue would amount to 18% of property taxes paid to municipalities in 2002.

The \$6.25 million allocated to municipalities amounts to 18.2% of the \$34.4 million in property taxes paid in all municipalities in 2002. If this portion of the new tax revenues were only used to reduce property taxes, there could be approximately an 18% reduction in total property taxes paid at the municipal level, based on 2002 values.

Table 11 shows how the \$6.25 million would be split among the county's 38 municipalities, if Erie County chooses to use the same formula applied in Allegheny County.

Individual municipalities could receive from \$2,100 to \$3.8 million from a 1% sales tax increase.

**Table 11
Split of \$6.25 Million of New Tax Revenue
Among Erie County's 38 Municipalities**

Municipality	New Revenue	Municipality	New Revenue
Albion Boro	\$26,574	McKean Twp	\$50,232
Amity Twp	13,616	McKean Boro	5,034
Concord Twp	14,213	Mill Village Boro	4,975
Conneaut Twp	32,722	Millcreek Twp	669,235
Corry City	187,322	North East Boro	92,398
Cranesville Boro	7,971	North East Twp	102,524
Edinboro Boro	173,502	Platea Boro	7,106
Elgin Boro	2,098	Springfield Twp	24,828
Elk Creek Twp	17,504	Summit Twp	47,430
Erie City	3,815,096	Union City Boro	71,960
Fairview Twp	74,677	Union Twp	15,518
Franklin Twp	19,337	Venango Twp	25,539
Girard Boro	35,861	Washington Twp	52,132
Girard Twp	49,861	Waterford Boro	21,052
Greene Twp	61,115	Waterford Twp	40,973
Greenfield Twp	28,249	Wattsburg Boro	5,534
Harborcreek Twp	223,262	Wayne Twp	18,330
Lake City Boro	45,775	Wesleyville Boro	73,130
Lawrence Park Twp	78,997		
Le Boeuf Twp	14,317	Total	\$6,250,000

How important would these new revenues be, relative to current funding for the individual municipalities? Table 12 presents information about tax revenues of the 38 municipalities in 2002, and calculates the new revenue as a percentage of: 1) property tax revenue, 2) total tax revenue, and 3) total revenue of all types (including non-tax revenues).

**Table 12
New Revenues Compared to 2002 Tax Revenues
For 38 Erie County Municipalities**

	Estimated New Revenues	New Revenues per capita	2002 Total Taxes	New Revs as % of 2002 Total Taxes	2002 Real Estate Taxes	New Revs as % of Real Est Taxes	Real Est Tax as % of Total Taxes	2002 Total Revenues	Taxes as % of Total Revenues	Real Est Tax as % of Total Revenues
Albion Boro	\$26,574	\$16.54	\$198,302	13.4	\$89,154	29.8	45.0	\$1,795,020	11.0	5.0
Amity Twp	13,616	11.94	118,362	11.5	47,799	28.5	40.4	365,121	32.4	13.1
Concord Twp	14,213	10.44	129,644	11.0	9,862	144.1	7.6	245,084	52.9	4.0
Conneaut Twp	32,722	8.37	128,960	25.4	21,415	152.8	16.6	429,119	30.1	5.0
Corry City	187,322	27.41	1,548,860	12.1	1,060,643	17.7	68.5	5,165,263	30.0	20.5
Cranesville Boro	7,971	13.28	53,269	15.0	18,135	44.0	34.0	287,681	18.5	6.3
Edinboro Boro	173,502	24.96	1,164,127	14.9	321,251	54.0	27.6	4,097,396	28.4	7.8
Elgin Boro	2,098	8.89	14,381	14.6	4,022	52.2	28.0	29,508	48.7	13.6
Elk Creek Twp	17,504	9.72	167,885	10.4	65,455	26.7	39.0	372,086	45.1	17.6
Erie City	3,815,096	36.78	30,322,723	12.6	22,891,290	16.7	75.5	128,278,104	23.6	17.8
Fairview Twp	74,677	7.36	1,399,792	5.3	527,394	14.2	37.7	1,981,564	70.6	26.6
Franklin Twp	19,337	12.02	210,217	9.2	80,280	24.1	38.2	522,523	40.2	15.4
Girard Boro	35,861	11.33	376,878	9.5	132,749	27.0	35.2	5,943,869	6.3	2.2
Girard Twp	49,861	9.71	550,560	9.1	180,144	27.7	32.7	943,942	58.3	19.1
Greene Twp	61,115	12.82	670,016	9.1	221,901	27.5	33.1	1,100,608	60.9	20.2
Greenfield Twp	28,249	14.80	287,079	9.8	128,656	22.0	44.8	460,310	62.4	27.9
Harborcreek Twp	223,262	14.71	2,724,247	8.2	713,910	31.3	26.2	5,802,842	46.9	12.3
Lake City Boro	45,775	16.28	439,255	10.4	216,450	21.1	49.3	1,183,000	37.1	18.3
Lawrence Park Twp	78,997	19.52	859,542	9.2	260,812	30.3	30.3	2,246,439	38.3	11.6
Le Boeuf Twp	14,317	8.52	144,051	9.9	27,744	51.6	19.3	295,006	48.8	9.4
McKean Twp	50,232	10.88	584,043	8.6	174,884	28.7	29.9	874,166	66.8	20.0
McKean Boro	5,034	12.94	50,977	9.9	18,912	26.6	37.1	89,285	57.1	21.2
Mill Village Boro	4,975	12.07	34,775	14.3	9,878	50.4	28.4	59,341	58.6	16.6
Millcreek Twp	669,235	12.84	11,063,263	6.0	5,060,217	13.2	45.7	21,548,385	51.3	23.5
North East Boro	92,398	20.08	814,457	11.3	297,885	31.0	36.6	5,307,575	15.3	5.6
North East Twp	102,524	13.31	1,177,980	8.7	350,230	29.3	29.7	4,037,241	29.2	8.7
Platea Boro	7,106	14.99	61,395	11.6	19,071	37.3	31.1	93,160	65.9	20.5
Springfield Twp	24,828	7.35	235,434	10.5	54,564	45.5	23.2	455,404	51.7	12.0
Summit Twp	47,430	8.58	1,067,276	4.4	299,844	15.8	28.1	2,966,545	36.0	10.1
Union City Boro	71,960	20.78	427,193	16.8	240,378	29.9	56.3	700,348	61.0	34.3
Union Twp	15,518	9.33	162,783	9.5	47,901	32.4	29.4	295,069	55.2	16.2
Venango Twp	25,539	11.22	253,658	10.1	83,174	30.7	32.8	597,707	42.4	13.9
Washington Twp	54,217	11.98	720,692	7.5	181,806	29.8	25.2	1,889,392	38.1	9.6
Waterford Boro	21,052	14.53	184,942	11.4	66,103	31.8	35.7	276,228	67.0	23.9
Waterford Twp	40,973	10.57	399,399	10.3	101,169	40.5	25.3	693,462	57.6	14.6
Wattsburg Boro	5,534	14.64	31,532	17.6	5,900	93.8	18.7	85,084	37.1	6.9
Wayne Twp	18,330	10.38	190,785	9.6	67,767	27.0	35.5	436,589	43.7	15.5
Wesleyville Boro	73,130	20.22	471,445	15.5	257,833	28.4	54.7	1,364,623	34.5	18.9
Erie County	\$6,250,000	22.25	\$59,440,179	10.5	\$34,356,582	18.2	57.8	\$203,314,089	29.2	16.9
Average	164,529	14.00	1,564,215	11.2	904,121	38.6	35.1	5,350,371	43.7	14.9
Maximum	3,815,096	36.78	30,322,723	25.4	22,891,290	152.8	75.5	128,278,104	70.6	34.3
Minimum	2,098	7.35	14,381	4.4	4,022	13.2	7.6	29,508	6.3	2.2

The column headed "New Revenues as a % of Real Estate Taxes" gives an indication of the amount by which property taxes could conceivably be reduced in each municipality. The new revenues would be sufficient to reduce property taxes significantly in every municipality. In two cases, Concord and Conneaut Townships, the new revenues would be more than the total of all 2002 property taxes paid, implying that these Townships could eliminate their property taxes and have new revenues left over. Even in the municipality where the new revenues have the least relative effect, Millcreek Township, it would be possible to cut property taxes by a little over 13% of their 2002 values. The average property tax reduction across all 38 municipalities would be nearly 39% of their 2002 values.²²

Property taxes could be reduced by 13% to 100% in various Erie County municipalities.

Given these magnitudes, it would be possible for local municipalities to provide significant property tax reductions for all taxpayers, and/or decide to provide greater tax relief for senior citizens, should that be

²² The average reduction could be 38.6%, averaging the rates across all 38 municipalities, but the new revenues raised from the 1% additional sales tax would amount to 18.2% of the total of real estate taxes paid to municipalities in 2002. The difference between these two numbers arises from the fact that the simple average (38.6%) counts each municipality equally, while the overall number (18.2%) automatically takes account of the relative sizes of the municipalities.

the voters' choice. This report does not deal explicitly with how the municipalities might choose to deal with special support for seniors, but it would be possible to turn to Allegheny County to find one approach to dealing with that issue.

We should note, however, that local municipalities do not get all—or even the majority—of their revenues from property taxes. The last column of Table 12 shows that real estate taxes ranged from 2.2% to 34.3% of the individual municipalities' total revenues in 2002, averaging 14.9% across the 38 municipalities, and accounting for 16.9% of all municipalities' revenues in total. The \$6.25 million in potential new revenue from a 1% increase in the sales tax would amount to 3.1% of total municipalities' revenues (\$203.3 million) in 2002.

We should also explicitly point out that this portion of the study has focused on municipal property taxes, and does not deal with the portion of property taxes that go to Erie County, to school districts, or to other special purpose tax districts. The municipal rates are often only a small part of the total property taxes paid on any particular parcel in the county.

C. But Who Pays?

A final question might be “who pays the increased tax?”

Going back to basics, we must remember that there's no such thing as a free lunch—especially when it comes to tax revenues. If an increase in the sales tax generates \$25 million in revenue for local projects, the money isn't appearing out of the air; it's coming out of taxpayer's wallets and purses. If some of that is used to cut other (i.e., property) taxes, say 25%, that leaves a net impact on taxpayers of \$18.75 million of new taxes. If taxpayers get \$18.75 million or more worth of services from the regional assets and other programs that are funded by the tax revenues, it may be a good deal for them, looking at the big picture.

There's no such thing as free tax revenue.

But we must also recognize that those who pay the sales tax are a somewhat different group from those who pay the property tax, and this leads to a very interesting impact from the potential sales tax increase. In its very nature, the property tax is paid by those with property in Erie County—typically Erie County residents and businesses. The sales tax, on the other hand, is paid by anyone who purchases taxable items in Erie County. This includes non-residents as well as residents. To the extent that visitors buy taxable goods and services in the county, they will be helping to pay the taxes that were previously paid by Erie County residents. This makes it possible to “export” part of the tax, having it paid by those from outside the county's borders. When visitors pay more in taxes than they use in local services while they're visiting, that's a good deal for Erie residents. The greater the share of local taxes that come from sales taxes, the greater the “contributions” by visitors to our government tax bills. That's about as close to a free lunch as we get, when it comes to taxes.

But it may be possible to export part of the tax.

How large an effect might this tax exporting be? As mentioned in footnote 12, we know of no good database that measures the share of local sales that are accounted for by visitors to the county. But the indirect data detailed in footnote 12 certainly suggest that Erie is a regional retail center for surrounding areas, attracting visitors who spend their dollars here. And we've all had anecdotal experiences relating to this issue, noting the cars and buses from other states at the Mall around the holidays, or the traffic jam on Peninsula Drive during the summer. While we've tended to think of these visitors as taking up our parking spaces and jamming up Peach Street and Peninsula Drive, we also need to think of them as helping to pay our taxes!

For Pittsburgh, Turner cites an estimate that “about 25 percent of the total revenue collections of the new tax come from individuals located outside of Allegheny County...”²³ Philadelphia officials have cited the same number, so it seems reasonable to use this figure to calculate some estimates. If 25% of the new tax revenue is paid by those outside the county, this means that visitors will be contributing \$6.25 million to fund Erie County activities. To the extent that a change in the tax system shifts from a property tax to a sales tax, it allows for this kind of tax exporting, which is a net benefit to Erie County residents.

Estimated amount of new sales tax that may be exported: 25% or \$6.25 million

It might also be useful to convert the aggregate tax numbers for the county and municipalities to more intuitive, household levels. How much would a family pay in new sales taxes, as a result of an increase of 1% in the rate?

It is difficult to create estimates to answer these questions. Since the sales tax only applies to selected items, not to all income or even all purchases, we would need to have data on consumers' expenditures on taxable items in order to generate an estimate of the increased tax. Unfortunately, we are not aware of such data.

But Table 5 above provides some estimates of the total sales tax revenue for Erie County in FY 2002-03. These range from \$135 million to \$173 million. Dividing these amounts by Erie's estimated 2002-03 population²⁴, we can estimate that the typical resident of Erie County paid somewhere between \$481 and \$619, with a midpoint of \$550. This is at the statewide sales tax rate of 6%, so an additional 1% tax would add 1/6 to that, or \$80 to \$103, with a midpoint of \$92. If we factor in the 25% export factor explained above, this amount drops to \$69 of extra tax paid per Erie County resident. Of course, some Erie residents will pay much more and some much less than this amount depending on their income and consumption patterns.

Estimated sales tax paid per capita in 2002: \$550. Extra tax per capita from another 1%: \$92 or \$69 if 25% of the tax is exported.

We might also generate some estimates of the impacts on families at different income levels, if we use data published by the Institute on Taxation and Economic Policy (ITEP).²⁵ They estimate the impact of various taxes on non-elderly couples and individuals at different income levels, at the state level. We can use their estimates for Pennsylvania as a whole to create some estimates for Erie County.

ITEP gives estimates of the percent of income paid by Pennsylvanians for general sales tax for seven income categories in 2000. Applying the ITEP tax percentages to the average income for each group gives us an estimate of the number of dollars paid by a typical member of the income group. Table 13 shows these estimates. The table shows that a family in the lowest income quintile in Pennsylvania had an average income of \$9,100 in 2000 and paid 2.4% of their income in general sales tax, implying that they paid \$218 in sales tax. An increase in the sales tax of 1% would presumably increase the amount of tax paid by 1/6, since the current tax rate is 6%, resulting in that family paying an additional \$36, as shown in the last column of the table. For those in the top 1% of Pennsylvania income earners, the average income was \$897,000 and they paid \$3,588 in general sales taxes, which would increase by

²³ Turner (1995), p. 21.

²⁴ The Census Bureau reports estimated Erie County population of 280,427 for 2002 and 279,966 for 2003. These average 280,197 which is the value used for these estimates to better fit the government's fiscal year data. Population data are available at: <http://www.census.gov/popest/cities/tables/SUB-EST2003-05-42.xls>. This approach also ignores the fact that a portion of the sales tax is paid by businesses and by visitors.

²⁵ According to their website, ITEP is “is a non-profit, non-partisan research and education organization that works on government taxation and spending policy issues.” We note that its funding sources include the Ben and Jerry Foundation, the Public Welfare Foundation, the Streisand Foundation, the NEA, the Ford Foundation, and the Rockefeller Foundation, among others, and “ITEP is governed by a group of leaders from academia, labor, and the policy community.” More on ITEP can be found at: <http://www.ctj.org/itep/itepdesc01.htm>.

\$598 if there were a 1% increase in the sales tax rate.²⁶ These estimates use Pennsylvania average income as the base for calculations, and in 2000 Erie income was 17% below the statewide average (\$24,541 per capita in Erie and \$29,697 for Pennsylvania), implying that the taxes paid locally should be lower than the estimates given above.

Table 13
Estimate of Sales Tax Paid by Income Level of Household

Income group	Average Income	% of Families	General Sales Tax		
			% Paid in Sales Tax	Amount Paid in Sales Tax	Additional Cost
Lowest quintile	\$9,100	20	2.4	\$218	\$36
Second lowest	21,900	20	2.2	482	80
Middle quintile	36,200	20	1.9	688	115
Second highest quintile	56,400	20	1.6	902	150
Next 15%	92,900	15	1.2	1,115	186
Next 4%	191,000	4	0.8	1,528	255
Top 1%	897,000	1	0.4	3,588	598
		100%			

Unfortunately, ITEP does not split the property tax into portions paid to individual levels of government, so we cannot do similar analysis with changes in the municipal property tax rates.



²⁶ We must mention, in all candor, that these estimates are very approximate, since they do not take account of complications that would surely occur—such as changes in behavior resulting from the tax changes.

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ECONOMIC RESEARCH INSTITUTE OF ERIE

The purpose of Penn State-Erie's **Economic Research Institute of Erie (ERIE)** is to collect, analyze, interpret and disseminate data and information on the Erie regional (Erie County) economy. Another important goal of ERIE is to provide our undergraduates with relevant experience with applied economic research and data analysis. Established in late 1982, the Institute is an applied research unit of Penn State-Erie's Black School of Business.

We do not wish to duplicate the activities of other Erie-area organizations. Rather, we seek to use our collective training and experience in the areas of data manipulation and technical analysis to provide support to those whose expertise falls in different fields.

ERIE's continuing research program helps the local community better understand the regional economy and its linkages to the national economy. ERIE provides a source of information for local leaders and media who have questions about the local, national and international economies. ERIE compiles data on the local economy from a range of sources, and helps local users access and evaluate these data.

Some of the studies that ERIE has undertaken include:

- estimates of productivity of Erie's workers through time and across industries, compared to the nation;
- estimates of brain drain and brain gain for Penn State graduates, from Erie County;
- creation of a sophisticated model to forecast total Erie employment, as well as employment in durables and nondurables manufacturing, total manufacturing, and non-manufacturing industries;
- three studies of philanthropic giving in the Erie area sponsored by leading non-profit agencies;
- a model to estimate the cost of living in all 67 counties of Pennsylvania for a state government agency; and
- an examination of the effect of Erie's changing industrial structure on the severity of its business cycle.

With the support of the Erie Regional Chamber and Growth Partnership, ERIE has created www.ERIEdata.org, a free website with hundreds of thousands of data points for the Erie and national economies, along with copies of ERIE and other research reports on the local economy, all easily available for free downloading.

ERIE staff have made numerous presentations in the local community, speaking to audiences at the Manufacturer's Association of Northwest Pennsylvania, the Erie Community Foundation, the Erie Chapter of the National Association of Purchasing Management, the Erie Conference on Community Development, and all eleven Leadership Erie classes, among others. ERIE regularly provides information for the print and electronic media in the community. In addition, ERIE's work has resulted in an enhanced awareness of the Erie regional economy among national and international audiences. This stems from the nearly 90 technical paper presentations made by Institute staff members at national and international conferences and over 30 articles in refereed professional journals. And more than three dozen students have had the chance to do meaningful research with ERIE, often with funding from contracts and grants.

We would be happy to discuss potential projects with members of the Erie community, and welcome all to attend our annual economic conference. Contact Dr. Kurre at k12@psu.edu or (814) 898-6266.