Sales Tax Disparities in Ohio Counties:

A study for Greater Ohio

By Thomas Wisemiller

This analysis was conducted by Greater Ohio intern Tom Wisemiller, a graduate student in Cornell University's City and Regional Planning program. In pursuance of his graduate thesis, Mr. Wisemiller will conduct additional research in the fall of 2004, and with the assistance of Cornell faculty, he plans to develop an economic model for assessing imbalances between county revenues and services in Ohio.

EXECUTIVE SUMMARY:

More than two-thirds of Ohio's 88 county governments are losing retail sales tax revenues generated from within their own county borders. This report converts decades of disparate county sales tax data into uniform, easily comparable sales tax ratios, normalized for county-to-county differences in population, sales tax rate, per capita income, inflation, and economic fluctuations. A sales tax ratio of 1.00 describes a county that is "breaking even" on retail activity: as many shoppers are entering the market area as are leaving it. Most counties have sales tax ratios that are significantly higher (destination counties) or significantly lower (donor counties) than 1.00. Some destination counties have sales tax ratios above 1.30, whereas some donor counties have ratios below 0.60. As local administrative agents of state government, counties manage a variety of state-mandated programs, including under-appreciated services like sheriff's departments, court systems, and family & health services. To pay for these programs, county governments generate most of their revenues from local fees and taxes, receiving about one-third of their general revenues from county sales taxes.

Like cities and townships, counties have begun to assume more fiscal responsibilities in recent decades; however widening revenue disparities are creating possible revenue-service imbalances as counties struggle to provide ever increasing service levels. This research points to the need for a systematic, comprehensive review of county revenue capacities versus service obligations. Unlike the tangible, high-demand, "pay as you go" services typically provided by other branches of local government (for example, water or sewer), counties services tend to be in demand from people who can least afford to support the county tax base. For that reason, there is no efficient, built-in market mechanism that allows revenues to be distributed where they are needed most. This examination of county sales tax discrepancies highlights some important discoveries and recommendations:

- A declining retail base hurts more than county agencies: counties lose sales and real estate tax revenues; at the same time, municipalities collect less property and income tax revenue while school districts collect less inventory and property tax revenue.
- Ohio's 7 major urban-core counties typically have above average sales tax ratios because specialized retailers cluster in densely populated markets, giving cities, and a few selected suburbs, a diverse retail base; however, exurban growth patterns are beginning to push

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retail centers beyond the boundaries of urban-core counties, which could undermine their long-range tax base needed to pay for their disproportionately high service obligations.

- Many of Ohio's rural counties, especially in the Appalachian region, are also at-risk. Some rural counties have high poverty and crime rates, a lot of long-distance commuters, and high percentages of school-age children (all indicators of local service costs), but very weak sales tax capacities.

- In rapidly growing counties on the exurban fringes, revenue-service imbalances more directly impact township and municipal governments; nevertheless, where commercial growth is not keeping pace with residential development, all levels of local government will struggle to satisfy rising public service demands.

- Until a more efficient revenue sharing system is in place that allows counties to better fulfill their state-mandated obligations, the state legislature should make every effort to preserve and restore the Local Government Funds (LGFs)—the closest thing Ohio has to an equity fund for local governments. Also, the state should explore more creative investment tools for Ohio's rural communities and downtown commercial districts.

1992 & 2002 SALES TAX COLLECTION RATIOS FOR OHIO COUNTIES,
ADJUSTED FOR COUNTY POPULATION, PER CAPITA INCOME, AND COUNTY SALES TAX RATE

	1992	2002		1992	2002		1992	2002
Adams	0.79	0.74	**Hamilton**	1.33	1.22	**Muskingum**	1.04	1.09
Allen	1.22	1.23	**Hancock**	1.29	1.26	**Noble**	0.54	0.50
Ashland	0.81	0.83	**Hardin**	0.68	0.70	**Ottawa**	0.99	1.03
Ashtabula	0.82	0.81	**Harrison**	0.52	0.50	**Paulding**	0.53	0.53
Athens	0.81	0.74	**Henry**	0.76	0.78	**Perry**	0.50	0.52
Auglaize	0.82	0.76	**Highland**	0.77	0.76	**Pickaway**	0.78	0.71
Belmont	1.12	1.13	**Hocking**	0.58	0.77	**Pike**	0.89	0.80
Brown	0.55	0.57	**Holmes**	1.06	1.09	**Portage**	0.71	0.81
Butler	--	0.92	**Huron**	0.80	0.80	**Preble**	0.60	0.62
Carroll	0.62	0.57	**Jackson**	0.86	0.88	**Putnam**	0.66	0.66
Champaign	0.68	0.66	**Jefferson**	0.87	0.82	**Richland**	1.14	1.15
Clark	0.87	0.85	**Knox**	0.80	0.79	**Ross**	0.96	0.97
Clermont	1.01	1.00	**Lake**	1.17	1.16	**Sandusky**	0.82	0.95
Clinton	0.91	0.96	**Lawrence**	0.75	0.76	**Scioto**	0.83	0.77
Columbiana	0.72	0.68	**Licking**	0.94	0.97	**Seneca**	0.77	0.79
Coshocton	0.74	0.73	**Logan**	0.96	0.98	**Shelby**	0.87	0.93
Crawford	0.71	0.70	**Lorain**	0.96	0.93	**Stark**	1.09	--
Cuyahoga	1.02	1.00	**Lucas**	1.09	1.14	**Summit**	1.17	1.11
Darke	0.77	0.81	**Madison**	0.64	0.72	**Trumbull**	--	0.99
Defiance	0.95	1.18	**Mahoning**	1.00	1.02	**Tuscarawas**	1.01	1.00
Delaware	0.68	1.28	**Marion**	0.94	0.97	**Union**	1.00	1.30
Erie	1.33	1.27	**Medina**	0.96	0.95	**Van Wert**	0.76	0.74
Fairfield	0.94	0.98	**Meigs**	0.66	0.54	**Vinton**	0.49	0.43
Fayette	0.92	1.52	**Mercer**	0.89	0.77	**Warren**	0.93	1.08

Franklin	1.41	1.30	Miami	0.95	0.93	Washington	0.97	0.92
Fulton	0.80	0.90	Monroe	0.78	0.57	Wayne	0.86	0.92
Gallia	0.92	0.92	Montgomery	1.14	1.05	Williams	0.86	0.78
Geauga	0.75	0.78	Morgan	0.60	0.50	Wood	0.94	1.03
Greene	0.77	1.13	Morrow	0.49	0.50	Wyandot	0.67	0.73
Guernsey	0.88	0.93						

I. INTRODUCTION:

It is no accident that the *DeRolf* case declaring school funding in Ohio unconstitutional was born in rural Perry County, Ohio. Located in the western edge of Ohio's Appalachian region, Perry has scenic forests and farmlands, but a scarcity of jobs. Many of the county's 35,000 residents commute long-distances to work, where they generally earn modest incomes. Perry's workers often shop in other counties too, which cuts into the retail inventory taxes paid to local school districts. The county has many homeowners but relatively low property values, which further handicaps the local property tax millage. Perry County has tight-knit communities but more school-aged children than it can afford to educate. Communities there have weak tax capacities but heavy service obligations. In short, Perry County was ripe for "revolt."

Was the *DeRolf* case merely one broadside in a gathering season of discontent? Perry County typified school funding inequities in Ohio, but the county also typifies inequities in county-level finances. Disparities in local public finances extend well beyond the matter of rich-versus-poor school districts. Throughout Ohio, a cross-section of jurisdictions—school districts, cities and villages, townships, and counties—are struggling to satisfy rising service demands. Meanwhile, Ohio's economy has been sluggish, ranking 49 out of 50 states in a recent economic momentum index.[1] In 2005, the state legislature will be forced to either reduce spending or raise taxes to reconcile an anticipated shortfall. As the state struggles to balance its budget, local governments will be asked to assume their share of the burden. In this potentially volatile state of affairs, policymakers must chart a course for the future that does not unduly burden local jurisdictions already at risk.

In a market-based economy, disparities in local tax revenues are inevitable. Some localities have inherent advantages, such as proximity to a major city, or a highway

interchange. Others have benefited from strong civic and business leadership. A taxing structure that attempted to achieve absolute parity would not only be unrealistic but unadvisable because some jurisdictions have greater service obligations than others. However, many Ohioans are becoming increasingly aware that existing tax policies, and the prevailing land use patterns linked to those policies, must be reassessed. In recent decades, the state's economic and demographic base has transformed, yet institutions designed to govern those transformations have not kept pace with those changes.

In recent decades, the nature of local governance in Ohio has evolved, with cities, townships, and counties assuming greater fiscal responsibilities. Recently, Myron Orfield and Thomas Luce examined local revenue-service imbalances within the context of metropolitan growth patterns in Ohio.[2] Other studies have looked at how townships are dealing with rising public service demands in growing exurban areas. However, in the ongoing dialogue concerning the relationship between urban change and local public finance, the role of county government has been largely ignored.

II. THE EVOLVING PURPOSE OF COUNTY GOVERNANCE:

For two centuries, Ohio's counties have served as the local administrative arms of state government. Beginning in the 19th century, they collected the state's taxes, maintained its roads, and tried most of its court cases. Today, counties perform a variety of state-mandated functions. They record deeds, access the value of real property, and operate Sheriff's departments; they deliver state-supervised but county-administered programs such as family and health services. They are also authorized to pass property tax levies to fund mental retardation and developmental disabilities programs, and they have discretionary authority to provide optional services to local governments (for example, landfill operations). The county system allows the state to better manage its local responsibilities while providing services to a broader population than cities and townships could serve themselves.

In recent decades, counties have begun to assume responsibilities once the purview of state and federal agencies. In the 1980s, the federal government ended federal revenue sharing and began devolving powers to state and local governments. Proponents of the "new federalism" argued that states and localities could better satisfy local demands, and that competition between jurisdictions would spur greater efficiencies; however, opponents accused the federal government of abdicating its responsibilities without adequately funding those authorities expected to pick up the slack. For better or worse, "devolution" has forced local governments in Ohio to find creative ways of providing more intensive services in spite of limited budgets. Responsibilities such as welfare reform, environmental management, and economic development have gradually shifted to the counties, in particular to large Metro counties.[3] At the same time, residential flight from declining urban, suburban, and rural

jurisdictions to the rapidly expanding exurban fringes have further stretched the capacities of Ohio's local governments to manage their evolving functions.

III. THE IMPORTANCE OF COUNTY SALES TAXES:

The state sales tax was introduced in Ohio in the 1930s. The counties collected the tax and passed it along to the state, but no tallies remain of what each county collected. At the time, it was irrelevant to state revenue agents where a taxable good or service was purchased. As long as the item was bought (or used) in Ohio, the state would collect its percentage. Beginning in the late 1960s, however, counties were authorized to charge their own sales tax rates (county sales taxes were referred to as "piggyback" taxes because each county's rate was added to the state's base sales tax).[4] Thenceforward, the origin of retail purchases became a matter of interest to county tax collectors. When residents of Cuyahoga County shopped in Lake County, it meant that Cuyahoga officials had less revenue to spend on vital public services.

Ironically, by the time counties were authorized to charge sales taxes, this revenue instrument was no longer as reliable as it would have been when they did not authorization for it. The 1920s were the "golden age" of road building—a time when automobiles rose in popularity; nevertheless, most counties maintained a strong retail base because consumers still made most of their purchases within five miles of home. A preliminary review of U.S. Census records from 1930-1950 reveal that per capita retail employment was more highly concentrated in urbanized counties like Cuyahoga, Hamilton, and Franklin.[5] Big-city department stores and specialty shops were very attractive to customers from rural counties, especially during holiday seasons;

moreover, historians suggest that rural consumers were more likely than urban consumers to order from catalogs. It was not until the 1950s, however, that interstates began to crisscross the landscape. Many county governments did not authorize sales taxes until the mid 1980s and by then, Ohioans had become far more mobile. Post-World War II suburbanization and automobile-dependency not only increased decentralization and mobility, it dealt a serious blow to traditional downtown retail. Between 1970 and 1990, the gulf between retail-rich and retail-poor counties steadily widened, evidenced by increasing concentrations of per capita income from retail employment in "winning" counties compared to decreasing concentrations in "losing" counties [Appendix B].

At first, retail disparities were probably not a major fiscal blow to county governments. The new "piggyback" sales taxes generated monies not previously in the coffers. But in the past two decades, sales taxes have become an entrenched source of revenue for almost every county in the state. Today, Ohio's 88 counties typically raise more than a third of their general revenues from sales taxes. For example, Franklin County is projected to receive 36 percent of its general revenues from the county sales tax in fiscal year 2004, which represents almost two-thirds of all county tax revenues [Table 1]. For that reason, sales tax revenues are generally a good barometer for a county's total revenue flows. [i]

Table 1: Franklin County General Fund Revenues by Source, 2004 (Projected)			
	Rev. by Source	% of Gen. Rev.	% of Tax Rev.
County Sales Tax	**$80,846,730**	**36.87**	**65.69**
Real Estate Tax	$32,723,233	14.92	26.59
Conveyance Tax	$5,767,698	2.63	4.69
Personal Property Tax	$3,412,565	1.56	2.77
Other Tax Collections	$321,545	0.15	0.26
TOTAL: ALL TAXES	$123,071,771	56.12	100.00
	Rev. by Source	% of Gen. Rev.	% of Non-tax Rev.
Other Intergovernmental Revenue	$6,386,879	2.91	9.15
Investment Earnings	$12,050,771	5.50	17.26
Licenses and Permits	$556,500	0.25	0.80
Interfund Services and Charges	$5,023,981	2.29	7.20
Prisoner Housing	$13,221,514	6.03	18.94
Assessment Fees	$5,680,522	2.59	8.14
Other Service Fees and Charges	$21,802,846	9.94	31.23
Fines and Forfeitures	$227,804	0.10	0.33
Reimbursement and Refunds	$571,137	0.26	0.82
Prior Years Refunds	$1,600	0.00	0.00
Miscellaneous Revenue	$4,282,580	1.95	6.13
TOTAL: ALL NON-TAX REV.	$69,806,134	31.83	100.00
Local Gov't Fund	*$26,408,894*	*12.04*	
TOTAL: ALL GEN. REV.	$219,286,799	100.00	

Source: 2004 Franklin County Online Budget, Franklin County Ohio official website, http://www.franklincountyohio.gov/fc/index.cfm?CFID=108508&CFTOKEN=59405071

State and county sales taxes apply to all retail sales of tangible property not specifically exempted by state law. In 2003, exempted items included: food; take-out meals; newspapers; utilities; and most services in which tangible personal property was an inconsequential element. Sales tax is charged on automobile purchases, but the county tax is applied to purchaser's county of residency; consequently, a county cannot "capture" sales tax revenue from other counties by having a high concentration of automobile dealerships. For many retail goods and services, however, counties can

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[i] For Metro counties like Franklin County, the non-general revenue pool is actually larger than general revenues; however, for most counties in Ohio, special fees and other non-traditional revenue sources do not generate nearly as much activity per capita as they do in Franklin County.

"capture" sales tax revenue and other economic benefits by attracting high concentrations of retailers.

When counties struggle to attract and retain retail establishments, on the other hand, they face a vicious cycle: not only do they lose sales tax revenue, the abandonment of retail properties lowers real estate values and therefore real estate taxes—another key source of revenue for counties—while further eroding the retail market. Municipalities and school districts also feel the impacts: when retailers go out of business or relocate to other jurisdictions, cities lose income tax revenues, while school districts lose inventory tax revenues. Worse yet, the lack of revenues make it increasingly difficult for localities to invest in projects that might attract new businesses, bleeding communities of tax revenue and jobs even as demands for public services rise.

Before we review disparities in county sales tax revenues, we might keep in mind two principles:

1). When counties struggle to attract retail bases sufficient to fund their mandated programs, not only are communities at risk, faith in state government is undermined: counties are mere instruments of the state, so if revenue/service needs are out of balance, the state ultimately fails to take care of its responsibilities. The traditional purpose of county government was to create intermediate jurisdictions that functioned as local administrative units, allowing the state to better manage its multiplicity of functions. Over the years, county government has assumed a more quasi-local status. That does not mean, however, that state government can disregard potential county-level revenue/service imbalances as by-products of local competition.

2). Disparities in county sales tax revenues both reflect, and are exacerbated by, prevailing land use management and policy in Ohio. To compensate for revenue disparities, localities compete against each other to lure retail centers and big-box strip malls, which tend to locate on greenfield sites. These developments allow counties (sales and real estate taxes) and municipalities (real estate and income taxes) to "capture" consumer dollars from neighboring jurisdictions by taking advantage of Ohioans' ever-increasing auto-mobility; but they also exacerbate traffic problems, reinforce sprawling residential development, and put local officials and planners in the position of having to choose between lower revenues or sprawl. Too often, state and local policies have encouraged localities to engage in destructive inter-jurisdictional competitions for resources and development.

III. MEASURING THE DISPARITIES—WHAT ARE SALES TAX RATIOS?

The next two sections address the problem of county public finance in Ohio: Section IV looks at disparities in county sales tax revenue, and by extension, disparities in the county retail bases that generate many of those revenues; Section V identifies potential at-risk counties by comparing disparities in county sales tax capacity with demographic characteristics that could be likely indicators of high county service

demands. The best way to locate disparities in county sales tax capacity across the state is to use sales tax ratios; however, the use of sales tax ratios requires some explanation.

Sales tax ratios are designed to convert decades of disparate county sales tax data into uniform, easily comparable numbers. In the 2000 census, the Ohio county populations ranged from 1,393,978 in Cuyahoga County to 12,806 in Vinton County. In 2003, counties charged a variety of sales tax rates: 26 counties charged 1.5 percent; 10 charged 1.25 percent; 40 charged 1.0 percent; 3 charged 0.75; 8 charged 0.5; and one county—Stark County—charged no sales tax at all. Furthermore, per capita income also varies widely from county-to-county.

Sales tax ratios normalize for all these differences—adjusting for population, sales tax rate, and per capita income. The strength of a county's past retail tax capacity is measured by a constant yardstick: any ratio above 1.00 was above the statewide standard; any ratio below 1.00 was below the statewide standard. The ratios tend to range from 0.5 (very low) to 1.40 (very high), with a few exceptions.

Theoretically, a county would capture its share of sales taxes, and only its share, if its residents conducted all of their retail purchases within the county and no shoppers from outside the county entered the market. In reality, consumers are constantly traveling to adjacent counties, or even states, to make purchases. And since some counties are better than others at attracting retail consumers, there are naturally "winners" and "losers." A sales tax ratio of 1.00 describes a county that is collecting its share of sales tax revenue from its own residents but no additional revenue from outside residents. A county with a sales tax ratio of 1.20 is also collecting its share of sales taxes but is also collecting an additional twenty percent from outside the county $(1.0 + 0.20 = 1.20)$. We might refer to these counties as "destination counties." On the other hand, a county with a sales tax ratio of 0.80 is collecting twenty percent less than its share. We might refer to these counties as "donor counties." Because the ratios are adjusted to reflect differences in county per capita income, a prosperous metro-area county would have to collect higher per capita sales tax revenue than a relatively poor rural county for the wealthier county to "break even."

SALES TAX RATIO "SCALE"	
If the sales tax ratio for an urban county is . . .	
> 1.50	=exceptionally high
1.20 – 1.50	=very strong
1.10 – 1.20	=strong
0.80 – 1.10	=low
< 0.80	=very low
If the sales tax ratio for a rural or moderately populated county is . . .	
> 1.30	=exceptionally high
1.00 – 1.30	=very strong
0.80 – 1.00	=strong
.65 - .80	=low
< 0.65	=very low

Sales tax ratios are also less sensitive to economic fluctuations than year-by-year per capita revenues. The ratio is calculated against all other counties in the same year, instead of against a previous year's revenues—when retail might have been either booming or slumping. Looking at year-by-year revenues can be a mess, given inflationary and economic cycles. Finally, sales tax ratios provide a better measurement of a county's *potential tax-capacity/retail-base* than direct comparisons of past revenue collections. Since 1990, Mahoning County has changed its sales tax *rate* four times, but the county's sales tax *ratio* has remained relatively constant.

Once county sales tax data is converted into uniform sales tax ratios, it is easier to locate prevailing patterns within the context of Ohio's changing fiscal and geographic terrain. From the point of view of service providers, this may seem like an abstract pursuit. If insufficient funds in 2002 necessitated cuts in specific programs or services, county officials might not be consoled to know that their county collected as much sales tax revenue as might be expected given the limited per capita income of its residents. But for policymakers evaluating the long-term viability of existing tax policies, sales tax ratios can be a useful tool. (for a detailed explanation of the methodology used to calculate county sales tax ratios, see: Appendix A)

IV. DISPARITIES IN COUNTY SALES TAX RATIOS:

One pattern that quickly emerges from an analysis of sales tax ratios is that urban-core counties typically have above average sales tax ratios. Below are sales tax ratios for seven counties with major cities that have charged sales tax (the ratios are listed in reverse order):

TABLE 2: SALES TAX RATIOS FOR 7 URBAN COUNTIES IN OHIO (2002-1990)													
	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
Franklin (Columbus)	**1.30**	1.36	1.41	1.39	1.36	1.42	1.41	1.41	1.41	1.39	1.41	1.39	1.34
Hamilton (Cincinnati)	**1.22**	1.23	1.25	1.25	1.22	1.25	1.02	1.27	1.33	1.33	1.33	1.35	1.29
Lucas (Toledo)	**1.14**	1.14	1.15	1.14	1.11	1.15	1.14	1.15	1.18	1.11	1.09	1.17	1.14
Summit (Akron)	**1.11**	1.10	1.13	1.06	1.08	1.12	1.12	0.86	1.15	1.08	1.17	1.20	1.15
Montgomery (Dayton)	**1.05**	1.08	1.09	1.07	1.06	1.10	1.11	1.14	1.20	1.22	1.14	1.17	1.15
Mahoning (Youngstown)	**1.02**	1.01	0.95	0.99	1.10	1.01	0.99	0.99	1.01	1.01	1.00	0.98	1.01
Cuyahoga (Cleveland)	**1.00**	1.02	1.04	0.98	0.99	1.01	1.01	1.02	1.03	1.01	1.02	1.02	1.00

Retail diversity allows urban-core counties to outperform less populated counties on a per person basis. Small villages can support retailers that sell "everyday" convenience items like groceries, gasoline, or prescription drugs. Other towns can support furniture stores, nurseries, and jewelers, yet cannot support large department stores. Large cities can support the full spectrum of retail sectors. Retailers selling "once a year" specialized items like computers or eyeglasses must locate in densely populated markets to pull from the widest customer base possible. Furthermore, more specialized retailers prefer to locate in the vicinity of other complimentary retailers, preferably close to a "magnet store" in a regional shopping center.

Despite decades of decentralization, and in many cases depopulation (with the exception of Franklin County), urban-core counties are still a desirable location for regional shopping centers—at least for the moment. In the last seven years, three regional shopping centers have opened in central Ohio: The Mall at Tuttle Crossing (1997); Easton Town Center (2000), and Polaris Fashion Place (2001). The Tuttle and

Easton malls fortified the Franklin County retail base; however, they probably simultaneously accelerated the decline of City Center Mall in downtown Columbus.

These two projects exemplify the trend toward retail expansion at the suburban and exurban periphery that began in the 1960s. For the last twelve years, Franklin County has maintained a strong retail base, but it could lose its advantage in coming decades, if the metropolitan retail base eventually expands beyond its jurisdiction. Between 2000 and 2002, the county's sales tax ratio dropped from 1.41 to 1.30, perhaps due in part to the 2001 opening of Polaris Fashion Place. Polaris is located in the city of Columbus, but in the county of Delaware. Thus the city collects income taxes from Polaris retail workers, but Delaware County gets the sales tax revenue.

For the other six urban-core counties, the signs are even less promising. In 2002, Hamilton County had a relatively high sales tax ratio (1.22), but it has experienced gradual decline since the early 1990s. The retail base in Lucas County has been consistent but unspectacular. Summit County's sales tax ratio was erratic between 1990 and 1999, but appears to have leveled off. Montgomery County's sales tax ratios have declined steadily since the early 1990s. Retail activity in Mahoning and Cuyahoga counties has kept pace with the statewide average, but these counties cannot afford to merely keep pace with the rest of Ohio. Local service demands in Cuyahoga and Mahoning counties are very high (the issue of public service demands will be addressed in the next section).

TABLE 5: 10 HIGHEST COUNTY SALES TAX RATIOS IN 2002

	Ratio	5 Yr. % Real Growth	+/- all counties ave	10 Yr. % Real Growth	+/- all counties ave
Fayette	**1.52**	52.7%	24.5%	51.6%	22.7%
Franklin	**1.30**	21.9%	-6.2%	17.0%	-11.9%
Union	**1.30**	72.7%	44.6%	45.8%	16.9%
Delaware	**1.28**	41.1%	13.0%	126.5%	97.6%
Erie	**1.27**	33.6%	5.5%	40.9%	12.0%
Hancock	**1.26**	24.4%	-3.7%	-1.3%	-30.2%
Allen	**1.23**	19.6%	-8.5%	18.7%	-10.2%
Hamilton	**1.22**	15.6%	-12.5%	14.4%	-14.5%
Defiance	**1.18**	54.5%	26.3%	41.7%	12.8%
Lake	**1.16**	40.0%	11.9%	35.8%	6.9%
		28.1%	<--All Ohio Counties-->	28.9%	

10 LOWEST COUNTY SALES TAX RATIOS IN 2002

|	Ratio	5 Yr. % Real Growth	+/- all counties ave	10 Yr. % Real Growth	+/- all counties ave
Vinton	**0.43**	16.3%	-7.69%	10.2%	-15.84%
Morgan	**0.50**	2.8%	-21.21%	-7.6%	-33.56%
Harrison	**0.50**	18.1%	-5.84%	31.9%	5.94%
Morrow	**0.50**	23.5%	-0.49%	32.3%	6.29%
Noble	**0.50**	0.3%	-23.65%	5.6%	-20.44%
Perry	**0.52**	22.0%	-1.94%	22.6%	-3.36%
Paulding	**0.53**	24.0%	0.00%	26.0%	0.00%
Meigs	**0.54**	29.4%	5.44%	24.8%	-1.19%
Monroe	**0.57**	23.8%	-0.14%	10.4%	-15.58%
Brown	**0.57**	3.6%	-20.35%	-19.6%	-45.56%
		28.1%	<--All Ohio Counties-->	28.9%	

Sources: sales tax ratios and 5 & 10 Yr real growth percentages were derived from 2002 County Sales Tax records, Ohio Department of Taxation website.

Because they can support a diversity of retail sectors, Ohio's urban-core counties still attract a strong retail base; however metropolitan growth has begun to extend beyond their boundaries. Since the 1960s and '70s, urban civic leaders have lamented the decline of downtown shopping centers; but from the point of view of urban-core county officials, at least the new suburban malls were still within their jurisdictions. More recently, however, the metropolitan retail base has expanded into rapidly growing counties at the exurban fringes. Between April 2000 and July 2003, Delaware County was the 12th fastest growing county in the United States. In the 1990s, sales tax ratios in Delaware rose steadily from 0.68 to 1.03.

After Polaris Fashion Place opened in 2001, the sales tax ratio quickly jumped to 1.28 the following year. Whereas residential growth has been modest in Union County, it has experienced tremendous growth in sales tax revenue, most likely in support of the strong manufacturing base (the purchase of temporary employment services is not exempt from sales tax, which might contribute to Union County's high sales tax ratios). Delaware and Union are two of three counties with rapidly growing sales tax ratios in central Ohio. The other is Fayette, a rural county with two regional outlet malls [see:

RETAIL GROWTH: Delaware, Fayette, and Union Counties
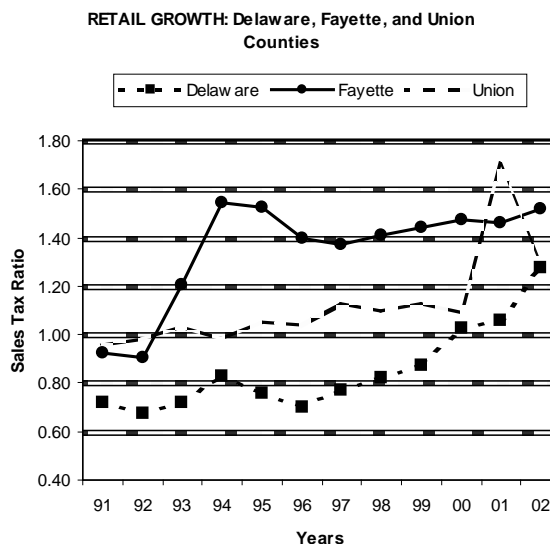
graph on this page]. In the Cincinnati metro-area, Warren County's population rose 39 percent between 1990 and 2000. Since then, the county's sales tax ratios have approximated 1.10. Exurban growth in the Cleveland metro-area began decades before the other metro-areas; not surprisingly, sales tax ratios in suburban Lake County have approximated 1.16 for most years 1990-2002. Sales tax ratios for Greene County in the Dayton/Springfield metro-area have steadily increased from 0.76 to 1.13 since 1991, due in part to the 1994 opening of The Mall at Fairfield Commons.

Another indicator of county retail strength is the presence of an interstate highway. Every county along the I-71 corridor has a sales tax ratio above 0.90 except for Madison and Morrow counties. Madison is virtually surrounded by counties with high sales tax ratios: Fayette (1.52); Greene (1.13); Union (1.30); and Franklin (1.30). Likewise, Morrow competes with Delaware (1.28) and Richland (1.15). On the I-90 corridor, which runs along the northern/Lake Erie counties, only Williams County (0.78) and Ashtabula County (0.81) have relatively low ratios. Williams is located at the sparsely populated western edge of Ohio, while Ashtabula is located at the moderately populated eastern edge. On the I-75 corridor, the trends are much the same. Serving as regional retail centers for rural northwestern Ohio, Hancock County (1.26) and Allen County (1.23) have very high sales tax ratios given their profiles: moderately populated counties with medium-sized cities (Lima is the county seat of Allen County; and

Findlay is the county seat of Hancock County). Counties in Ohio's Appalachian region have low sales tax ratios, in general. The few that have managed to build up a modest retail base are all traversed by highways. Along the east/west I-70 corridor, Muskingum (1.09), Guernsey (0.93), and Belmont (1.13) have three of the highest sales tax ratios in the region. The north/south I-77 corridor runs through Tuscarawas County (1.00) and Guernsey County, before crossing the West Virginia border in Washington County (0.92). Other Appalachian counties also holding their own are Holmes (1.09) and Ross (0.97). With over 170,000 residents, Clermont is in the Cincinnati metro-area. Similarly, Holmes County is adjacent to the extended Canton/Akron/Cleveland metropolis. The city of Chillicothe in Ross County is located at the junction of state routes 23, 35, and 50. Like Lima and Findlay, Chillicothe is a regional retail hub.

The rest of Ohio's Appalachian counties are struggling to attract retail because of declining disposable income. Those counties that are without benefit of a highway junction or close proximity to a major metropolitan area tend to have either low, or very low, sales tax ratios. Many of these counties were struggling long before interstate and state highways were laid out. Appalachian regions throughout the United States have been beset by a variety of social and economic hardships. Nevertheless, the lack of transportation infrastructure in some counties probably made an already challenging situation even worse. If we consider the overall retail situation in the region, the 2002 sales tax ratios for Gallia (0.92), Jackson (0.88), and Jefferson (0.82) counties are better than they look on paper. At the same time, Brown, Harrison, Meigs, Morgan, Noble, Perry, and Vinton have all struggled to maintain viable retail bases [Table 3].

TABLE 3: 2002 SALES TAX RATIOS OF APPALACHIAN COUNTIES NOT TRAVERSED BY PRIMARY HIGHWAYS

	92	93	94	95	96	97	98	99	00	01	02
Adams	0.78	0.71	0.71	0.68	0.62	0.65	0.92	0.71	0.70	0.69	0.74
Brown	0.53	0.55	0.53	0.53	0.54	0.50	0.53	0.53	0.54	0.58	0.57
Gallia	0.90	0.92	0.91	0.82	0.80	0.82	0.87	0.90	0.88	0.89	0.92
Harrison	0.51	0.51	0.51	0.49	0.49	0.44	0.44	0.48	0.48	0.49	0.50
Highland	0.75	0.72	0.74	0.75	0.73	0.74	0.71	0.73	0.75	0.75	0.76
Jackson	0.84	0.70	0.98	0.89	0.83	0.86	0.79	0.83	0.88	0.89	0.88
Jefferson	0.85	0.84	0.87	0.80	0.79	0.75	0.75	0.77	0.79	0.79	0.82
Lawrence	0.75	0.72	0.75	0.76	0.74	0.71	0.66	0.71	0.72	0.72	0.76
Meigs	0.65	0.60	0.60	0.59	0.57	0.55	0.55	0.57	0.57	0.56	0.54
Monroe	0.76	0.73	0.69	0.78	0.79	0.66	0.59	0.60	0.64	0.65	0.57
Morgan	0.59	0.62	0.56	0.52	0.53	0.52	0.50	0.50	0.49	0.49	0.50
Perry	0.49	0.51	0.52	0.49	0.49	0.48	0.48	0.50	0.51	0.49	0.52
Vinton	0.48	0.47	0.44	0.44	0.44	0.44	0.43	0.42	0.43	0.43	0.43
AVE											0.67

In the same way that retail dollars "leak" from one market area to the next, retail dollars appear to be leaking from the entire Appalachian region to other regions in Ohio and bordering states (most likely to Parkersburg, West Virginia and Pittsburgh, Pennsylvania). Among the counties in Ohio with the highest percentage of residents who commute more than 30 minutes to work every day, 9 of the top 10 are located in the Appalachian region. Workers leave the region in search of better jobs and end up spending their paychecks in other counties, as well. When 2002 sales tax revenues are sketched-out a map of Ohio, it is surprising to see that the Appalachian region had such

low ratios.[ii] However, an analysis of state retail employment distribution indicates that there is less per capita retail activity in the Appalachian region than the rest of the state; in fact, employment distribution mirrors the distribution of the sales tax ratios.

Unfortunately for the Appalachian region, retail dollars are most likely flowing northeastward—both through the region and out of the region altogether. For example, residents of counties adjacent to Muskingum might travel to Zanesville (Muskingum County) to shop at Colony Square Mall; but residents of Zanesville might turn around and shop in Columbus for specialty items. Despite a population of 85,185, Muskingum County only has one toy store and two bookstores listed in the local directory. Per capita income in Muskingum County is lower than statewide per capita income, but the demand for computer equipment in the market area probably surpasses the 19 vendors currently advertising in the yellow pages.[iii]

Rural counties with low sales tax ratios are not confined to the Appalachian region. Other rural counties with struggling retail bases include: Champaign (0.66); Morrow (0.50), Preble (0.62), and Putnam (0.66). Rural counties have always had modest retail bases compared to urban counties, but U.S. census data indicate that per capita retail employment gradually declined in Ohio's rural counties between 1930 and 1990. In the last 10-15 years, the decline in rural sales tax ratios has finally leveled off. However, this respite is due in part to the proliferation of big-box retail establishments, which might stabilize county revenues yet hurt smaller downtown retailers in the process.

TABLE 4: 20 OHIO COUNTIES WITH HIGHEST PERCENT RESIDENTS WITH OVER 30 MINUTE COMMUTE TIME		
	2002 sales tax ratio	PERCENT COMMUTING
		30-45 min	>45 min
Brown	0.57	21.0	34.2
Vinton	0.43	22.6	29.9
Perry	0.52	20.4	30.4
Morrow	0.50	24.5	24.0
Clermont	1.00	29.4	17.8
Morgan	0.50	15.8	30.9
Adams	0.74	15.9	30.8
Hocking	0.77	16.8	29.0
Meigs	0.54	25.3	19.9
Monroe	0.57	19.6	24.5
Geauga	0.78	25.9	17.6
Carroll	0.57	22.7	20.7
Harrison	0.50	21.8	21.5
Pickaway	0.71	24.0	18.5
Fairfield	0.98	22.4	19.7
Medina	0.95	23.6	16.6
Delaware	1.28	26.6	13.6
Madison	0.72	25.4	14.2
Highland	0.76	18.3	21.3
Preble	0.62	20.2	17.9
OHIO		17.8	10.4

Source: sales tax ratios derived from data compiled by Ohio Dept. Taxation, Revenue Accounting Division; Sample Characteristics: Bur. Of Census, <http://factfinder.census.gov/servlet/BasicFactsServlet>.

[ii] One limitation to using a "straight-line" income adjustment for calculating sales tax ratios is the very real possibility of under-adjusting for retail activity in poor counties because low-income persons tend to spend a high percentage of income on nontaxable items (food, shelter, and health care). This is not a problem in terms of assessing potential sales tax revenue because if residents in poor counties are spending a lot of their incomes on nontaxable food items, it is unlikely that county officials will ever capture that potential revenue; however, it could lead to an under-estimation of retail activity in general.

[iii] There are definite advantages for retailers to locate in particular market areas; however, marketing analysts who dissuade specialty retailers from locating in poorer counties may tend to overemphasize the importance of locating in an affluent market area. To evaluate market potential in a community or region, analysts use a formula that heavily adjusts for per capita income despite numerous studies showing that communities with higher concentrations of lower and moderate income consumers can support a variety of retail establishments. Obviously, only market areas with concentrations of wealthier consumers can support upscale shops/boutiques. However, another factor is that retailers, themselves, tend to locate where they will be most comfortable; furthermore they might be predisposed to think that a market area is "undesirable" even when that market area is capable of supporting the business.

V. IDENTIFYING "AT-RISK" COUNTIES—A PRELIMINARY ANALYSIS OF COUNTY SERVICE DEMANDS:

Disparities in county sales tax revenues might be creating systemic imbalances between county revenues and public service demands. Ultimately, citizens and policymakers should engage in a public dialogue to address the effectiveness of local public finance in Ohio. A preliminary analysis of county sales tax revenues versus local public service indicators reveals several areas of concern.

Communities that require more intensive county-level services are less likely to support those services with a strong retail tax base. Whereas municipal and township services tend to be universally demanded services like roads and water, county services often fall into the category of social/legal services. Counties spend much of their revenues on court systems, sheriff's departments, and family and health services. Counties with higher poverty rates are more likely to face correspondingly higher service obligations: poverty is closely correlated with crime, illness, and family disruptions. In turn, lower-income families have less disposable income to spend on taxable goods and services; furthermore, when lower-income families do purchase taxables, they frequently have to leave their communities, or the county jurisdiction altogether, to find stores that sell what they need. In short, the county revenue/service balance is prone to yet another vicious cycle: the more likely county residents are to place burdens on services, the less likely they are to support one of the county's primary revenue instruments (sales taxes).

In 2002, the 20 Ohio counties with the highest percentage of residents below the poverty level typically had low sales tax ratios to support their high service obligations [Table 5]. In the Appalachian region, Vinton, Meigs, Morgan, Monroe, and Harrison counties all had high poverty rates and weak retail bases (The high concentration of university students in Athens County could be driving up poverty levels there). Historically, rural communities have placed fewer demands on local and state agencies to provide infrastructure and public works projects in their jurisdictions. However, poor rural communities have placed high per capita demands on county agencies to provide social/legal services. In August 2002, a Vinton County judge ruled out the possibility of the death penalty in a criminal case because he alleged the county court system would not have enough money to ensure a murder

SALES TAX RATIOS FOR 20 COUNTIES WITH HIGHEST PERCENT RESIDENTS BELOW POVERTY LEVEL

	Sales tax ratios	% below poverty	% on public asst.	Median yr. house built
Athens	0.74	**27.4**	4.8	1970
Vinton	0.43	**20.0**	7.1	1974
Meigs	0.54	**19.8**	7.3	1970
Scioto	0.77	**19.3**	5.5	1959
Lawrence	0.76	**18.9**	5.9	1969
Pike	0.80	**18.6**	7.0	1974
Morgan	0.50	**18.4**	4.3	1965
Gallia	0.92	**18.1**	5.7	1973
Adams	0.74	**17.4**	4.4	1974
Jackson	0.88	**16.5**	4.4	1968
Guernsey	0.93	**16.0**	3.5	1965
Jefferson	0.82	**15.1**	4.5	1955
Belmont	1.13	**14.6**	4.6	1954
Monroe	0.57	**13.9**	3.5	1963
Lucas	1.14	**13.9**	4.4	1957
Hocking	0.77	**13.5**	3.2	1970
Harrison	0.50	**13.3**	2.7	1958
Hardin	0.70	**13.2**	1.9	1956
Cuyahoga	1.00	**13.1**	5.3	1954
Muskingum	1.09	**12.9**	4.7	1962
OHIO		**10.6**	3.2	1962

source: sales tax ratios derived from data compiled by Ohio Dept. Taxation, Revenue Accounting Division; Sample Characteristics: 2000. Census Summary File 3 (Sf 3), Bur. of Census, <http://factfinder.census.gov/servlet/BasicFactsServlet>.

suspect a fair trial. Two months later, Meigs County was forced to layoff 13 deputies and five other employees, leaving one sheriff to patrol 429 square miles of territory.[6]

The 20 Ohio counties with the highest poverty rates also include two urban-core counties with sales tax ratios above 1.00. Large cities with only marginally strong retail bases but high service obligations are also at risk. Since the early 1990s, Sales tax ratios for Cuyahoga County have been flat, yet Cuyahoga probably has the highest service obligations in Ohio. The exodus of affluent residents from Cleveland's central city and inner-ring suburbs to outlying suburbs has pushed the urban periphery well beyond Cuyahoga to neighboring counties, leaving behind a population which places relatively high demands on municipal and county services, yet also tends to have less disposable income to spend on taxable goods and services. Likewise, urban-core Lucas County (1.14) has an above-average retail base but disproportionately high service costs. Like Cleveland, Toledo has relatively high municipal service obligations. Furthermore, the median housing stock in Cuyahoga and Lucas counties is 1954 and 1957, respectively; an older housing stock is an indicator of aging, expensive to maintain infrastructure.

Another at-risk category includes counties that are experiencing an upsurge in residential development without proportional growth in the retail base. A chart of the 20 fastest growing counties in Ohio (1980-2000) reveals that not all rapidly growing counties are enjoying the same degree of retail expansion as are Delaware and Warren counties [Table 6]. Again, four Appalachian counties appear in the list: Brown, Noble, Highland, and Pike. Brown County lies at the eastern edge of the Cincinnati metro-area; comprised primarily of developing, low-density, single-family residential communities, the county has a weak property tax base, relatively low per capita income, and school districts with low tax capacities.[7] In the 2002 census, over 34 percent of Brown County residents estimated that their commute to work lasted longer than 45 minutes. Brown county workers are spending considerable shares of their paychecks in Cincinnati's other metro-area jurisdictions (including northern Kentucky). Another rapidly growing county in the Cincinnati metro-area is Butler. In 1997, Union Centre Boulevard opened in West Chester Township (formerly Union township). The successful retail corridor boosted sales tax ratios in the county from the lower 0.80s to the lower 0.90s. However, the school districts of Hamilton and the adjacent suburbs of Edgewood and New Miami have low tax capacities and high service costs.[8] If middle-income residents begin to leave those districts for school districts in other counties, county agencies will be left with moderate to high service demands and a declining retail base.

TABLE 7: 20 COUNTIES WITH HIGHEST CONCENTRATION OF SCHOOL-AGE CHILDREN AS PERCENT OF COUNTY POPULATION

	2002 Sales Tax Ratio	% School-age		2002 Sales Tax Ratio	% School-age
Holmes	1.09	41.7	Perry	0.52	33.3
Athens	0.74	40.5	Huron	0.80	33.3
Wood	1.03	35.6	Portage	0.81	33.2
Putnam	0.66	35.0	Knox	0.79	33.1
Hardin	0.70	34.8	Delaware	1.28	33.1
Mercer	0.77	34.4	Ashland	0.83	33.0
Butler	0.92	33.8	Clinton	0.96	33.0
Wayne	0.92	33.7	Fulton	0.90	33.0
Shelby	0.93	33.4	Clermont	1.00	32.8
Greene	1.13	33.4	Seneca	0.79	32.7

OHIO AVE = 31.4% school-age children

Source: sales tax ratios derived from data compiled by Ohio Dept. Taxation, Revenue Accounting Division; General Population Characteristics: 2000. Census Summary File 1 (SF-1), Bureau of the Census, <http://factfinder.census.gov/servlet/BasicFactsServlet>.

2000 Pop.		Population growth 1980-2000	SALES TAX RATIOS, 1995-2002								% School-Age	% below Poverty	PERCENT COMMUTING	
			1995	1996	1997	1998	1999	2000	2001	2002			30-45 min	>45 min
109989	Delaware	104.3	0.76	0.70	0.77	0.82	0.87	1.03	1.06	1.28	33.1	3.8	26.6	13.6
158383	Warren	59.5	0.97	0.98	0.98	1.03	1.04	1.08	1.10	1.08	31.7	4.2	23.3	10.5
177977	Clermont	38.5	0.99	1.00	0.95	0.92	0.92	0.96	0.99	1.00	32.8	7.1	29.4	17.8
40909	Union	38.5	1.05	1.04	1.13	1.10	1.13	1.09	1.70	1.30	31.9	4.6	19.0	11.5
151095	Medina	33.5	0.90	0.90	0.89	0.87	0.89	0.92	0.92	0.95	31.7	4.6	23.6	16.6
42285	Brown	32.5	0.53	0.54	0.50	0.53	0.53	0.54	0.58	0.57	32.5	11.6	21.0	34.2
38943	Holmes	32.4	1.06	1.03	1.03	1.04	1.04	1.07	1.03	1.09	41.7	12.9	15.3	11.2
122759	Fairfield	31.0	0.87	0.89	0.86	0.88	0.95	0.97	0.94	0.98	31.6	5.9	22.4	19.7
332807	Butler	28.6	0.67	0.84	0.81	0.81	0.82	0.91	0.92	0.92	33.8	8.7	20.1	10.7
14058	Noble	24.3	0.53	0.54	0.54	0.48	0.50	0.49	0.51	0.50	29.1	11.4	21.0	15.2
1068978	Franklin	23.0	1.41	1.41	1.42	1.36	1.39	1.41	1.36	1.30	31.6	11.6	18.1	6.9
40875	Highland	22.1	0.75	0.73	0.74	0.71	0.73	0.75	0.75	0.76	32.1	11.8	18.3	21.3
90895	Geauga	22.0	0.71	0.72	0.70	0.75	0.72	0.75	0.75	0.78	32.4	4.6	25.9	17.6
40213	Madison	21.8	0.65	0.63	0.65	0.64	0.64	0.74	0.70	0.72	30.0	7.8	25.4	14.2
27695	Pike	21.5	1.07	0.78	0.75	0.82	0.86	0.82	0.76	0.80	32.3	18.6	16.9	18.9
52727	Pickaway	20.8	0.76	0.73	0.64	0.66	0.68	0.69	0.65	0.71	29.4	9.5	24.0	18.5
145491	Licking	20.3	0.90	0.88	0.88	0.87	0.91	0.96	0.98	0.97	31.7	7.5	20.2	15.7
31628	Morrow	19.4	--	0.48	0.46	0.46	0.48	0.50	0.51	0.50	32.0	9.0	24.5	24.0
54500	Knox	17.7	0.79	0.76	0.76	0.74	0.77	0.79	0.77	0.79	33.1	10.1	12.5	19.5
46005	Logan	17.5	0.91	0.92	0.86	0.89	0.86	0.94	0.98	0.98	31.4	9.3	15.3	10.2
	OHIO										32.3	10.6	17.8	10.4

Another county "typology" that might warrant concern are counties that are experiencing tremendous residential growth with only modest growth in retail base. growing counties at the exurban fringe In other rapidly growing counties, service pressures have fallen more on the shoulders of township governments. Last month, the *Columbus Dispatch* reported that townships in traditionally rural counties on the expanding urban fringes are being asked to provide unprecedented levels of public services. Recent homebuyers are looking for open space and low property taxes but also demand suburban-style subdivisions and intensive public services; imbalances between tax revenue and service demands strap the capacities of local governments accustomed to providing rural-level services. In the past, modest revenues were probably sufficient to provide for modest service demands, but in recent years, many rural counties are beginning to experience the first stages of suburban-style residential development. If counties that provided relatively low levels of services 10 years ago will be asked in the future to provide services at significantly higher levels, we must ensure that revenue generating mechanisms will allow them to keep pace, regardless of their size.

Some competition between jurisdictions may be healthy, but a county's ability to attract a strong retail base is frequently driven by factors beyond the control of local civic and business leaders—for instance, whether a county has a major highway interchange. Furthermore, inter-jurisdictional competition can become

counterproductive. Localities compete against each other to lure retail centers and big-box strip malls, which tend to locate on greenfield sites. These developments allow counties (sales and real estate taxes) and municipalities (real estate and income taxes) to "capture" consumer dollars from neighboring jurisdictions by taking advantage of Ohioans' ever-increasing auto-mobility; but they also exacerbate traffic problems, reinforce sprawling development patterns, and put local planners and policymakers in the position of having to choose between lower revenues or sprawl. Too often, state and local policies have encouraged localities to engage in destructive inter-jurisdictional competition for resources and development.

VI. SHORT-TERM RESPONSES:

Policymakers have suggested several "short-term" responses to the problem of county revenue disparities. Unfortunately, none of these responses are likely to improve the welfare of counties struggling to attract a strong retail base.

In light of the state's anticipated fiscal crisis, one proposed solution is to eliminate the Local Government Funds, and raise the maximum county sales tax rate by an additional 1.0 percent (the maximum is currently 1.5 percent). According to an analysis conducted by Douglas Putnam of the County Commissioner Association of Ohio, this approach would exacerbate existing revenue disparities. If it were politically feasible for all counties to raise their current sales tax rates by 1.0 percent, projected revenue would replace the revenue lost from the LGFs. However, counties with high sales tax ratios would benefit under the new system; conversely, counties with low sales tax ratios would be hurt. It is unclear whether sales tax increases have any effect on consumer behavior, but it is clear that counties with strong retail bases fare much better with sales tax rate increases than counties with weak retail bases.

To increase state sales tax revenue yet avoid raising the state sales tax rate any further, the legislature expanded the sales tax base; however, base expansion will also help retail-rich counties more than retail-poor counties because the former are much more likely to have the retail diversity needed to capture the full benefit of base expansion (How does it help Preble County to include dry cleaning services, if there is only one dry cleaning establishment in the entire jurisdiction?).

Furthermore, amendments to the state tax law that will utilize "destination sourcing" should in theory decrease the rewards of inter-jurisdictional retail "poaching" (beginning January 1, 2005, Ohio vendors must charge the sales tax rate of the receiving-county, rather than the sending-county, when merchandise is delivered or shipped to a customer in another Ohio county). Again, though, it will probably help retail-rich counties more than retail-poor counties. The retailers at the outlet malls in Fayette County tend sell lightweight goods like clothing, gifts, and foodstuffs. On the other hand, Holmes County, which has relatively little sprawl and a wealth of

cultural/heritage resources, is likely to see diminished revenues because local retailers rely on a lot of out-of-county deliveries.

VIII. LONG-TERM RECOMMENDATIONS:

1). Citizens and policymakers should engage in a dialogue that addresses local revenue-service imbalances, as well as the relationship between local public finance, prevailing land use development patterns, and inter-jurisdictional competition for resources.

2). Elected officials should preserve the Local Government Funds, which are the closest thing the state has to a local equity fund; Local Government Funds should remain as the foundation of a more comprehensive county revenue sharing system.

3) Enhance Ohio's main street redevelopment programs by implementing creative solutions such as tax credits for rehabilitation.

Greater Ohio mission statement:

"The purpose of the Campaign is to support – through research, public education and grassroots advocacy – public policy in Ohio to grow our economy and improve our quality of life through intelligent land use. To this end, Greater Ohio will work to support redevelopment of existing communities, strengthen regional cooperation and protect the countryside and Ohio's natural resources."

APPENDIX A: CALCULATING COUNTY SALES TAX RATIOS:

Step #1: The most straightforward way of assessing revenue disparities is to simply divide each county's *total revenues* (taxes, fees, and all other funds) by its population in a given year and compare the results. This "raw" per capita method is limited but practical: it tells us how much revenue each county collected per resident for the year; conversely it tells us how much revenue per resident each county had to spend for that year on administration and provision of public services. Let's assume momentarily that per capita *costs* of providing public services were the same everywhere in Ohio—that citizens living in county-X were no more likely to demand services than citizens living in county-Y. Thus, in the absence of complete revenue records for all counties, a quick calculation of per capita sales tax revenues would give us a good one-year "snapshot" of the relative fiscal well-being of each county in Ohio (as mentioned above, sales taxes generate more than a third of general revenues). The table below lists "raw" per capita sales tax revenues for all counties that charged sales tax in 2002:

County	Amount	County	Amount	County	Amount
Adams	$98.57	Guernsey	$128.93	Morrow	$70.40
Allen	$121.48	Hamilton	$143.94	Muskingum	$159.89
Ashland	$98.18	Hancock	$66.89	Noble	$63.16
Ashtabula	$77.55	Hardin	$63.57	Ottawa	$110.38
Athens	$82.15	Harrison	$69.96	Paulding	$75.43
Auglaize	$117.87	Henry	$77.17	Perry	$45.50
Belmont	$162.27	Highland	$69.61	Pickaway	$101.24
Brown	$67.05	Hocking	$88.34	Pike	$72.90
Butler	$48.92	Holmes	$96.59	Portage	$82.03
Carroll	$54.05	Huron	$116.44	Preble	$89.16
Champaign	$65.89	Jackson	$118.65	Putnam	$83.51
Clark	$120.62	Jefferson	$118.53	Richland	$141.74
Clermont	$106.48	Knox	$75.79	Ross	$138.00
Clinton	$95.45	Lake	$63.24	Sandusky	$93.05
Columbiana	$74.98	Lawrence	$102.60	Scioto	$105.47
Coshocton	$69.23	Licking	$100.04	Seneca	$76.05
Crawford	$100.25	Logan	$147.77	Shelby	$142.03
Cuyahoga	$114.06	Lorain	$71.18	Summit	$60.57
Darke	$80.88	Lucas	$150.04	Trumbull	$48.65
Defiance	$118.82	Madison	$90.85	Tuscarawas	$94.87
Delaware	$207.26	Mahoning	$102.14	Union	$133.22
Erie	$136.95	Marion	$93.40	Van Wert	$108.01
Fairfield	$77.37	Medina	$51.39	Vinton	$56.52
Fayette	$149.13	Meigs	$48.32	Warren	$117.39
Franklin	$73.42	Mercer	$77.12	Washington	$136.63
Fulton	$92.15	Miami	$96.51	Wayne	$67.67
Gallia	$111.12	Monroe	$76.77	Williams	$77.60
Geauga	$47.33	Montgomery	$113.82	Wood	$106.78
Greene	$121.34	Morgan	$66.69	Wyandot	$71.29

The above calculations[9] might be straightforward, but they also misleading. Compare 2002 per capita revenues for Auglaize and Franklin counties. Based on these

raw calculations, we might assume that retail was considerably stronger in Auglaize County than in Franklin County. In 2002, Auglaize collected $117.87 on retail taxable goods and services per resident, whereas Franklin collected only $73.37. Yet many Ohioans know that the retail market is considerably stronger in Franklin County than it is in Auglaize County. The raw calculations do not account for variations in county tax rates. In 2002, Franklin charged 0.5 cents for every dollar spent on taxable goods and services, while Auglaize charged 1.5 cents. It would be better to compare Auglaize County to other jurisdictions that also charged 1.5 cents. In 2002, Delaware County collected $207.26 per resident, almost a hundred dollars per head more than Auglaize County. Harrison County collected only $69.96 per resident. We could compare all the counties that charged 1.5 cents in 2002, but that would limit our assessment to a little more than a quarter of Ohio's 88 counties.

Step #2: Better yet, we could artificially adjust the data to reflect a standard tax rate. In 2002, almost half of the counties in Ohio charged a 1.0 cent rate, which makes for a tidy standard. We can adjust all county tax data to reflect a 1.0 cent standard by dividing county sales tax revenues by the rate charged. If a county charged 1.5 cents, we divide tax revenues by 1.5; if it charged 0.5 cents we divide revenues by 0.5; and so forth. Tax data for counties that charged 1.0 cent already reflect the standard.

Adjusted 2002 per capita sales tax revenue for Auglaize County falls from $117.87 per resident to $78.58; meanwhile Franklin County's $73.37 is doubled to $146.85. These figures more accurately reflect the retail markets in the two counties and therefore provide a better assessment of future tax capacities. If Franklin County raises the tax rate in 2005 to 1.0 cent, the county could collect roughly twice the revenue it did in 2002. In contrast, Auglaize County is already charging the maximum rate allowable under state law. Unless the tax code is revised, the only way Auglaize will experience significant growth in sales tax revenue is if the county's retail market grows.

Step # 3: Even with the rate adjustment, however, per capita revenue calculations can still be misleading. In 2002, Franklin County did not *really* collect $146.85 per resident; likewise, Auglaize County did not *really* collect $73.37. Yet when readers see dollar signs, they tend to forget they are looking at numbers artificially adjusted for the sake of analysis. Besides, the dollar loses value over time. To compare tax revenues for the last 10-15 years, we must adjust for inflation, as well. We could eliminate these problems altogether by calculating sales tax ratios.

To calculate Auglaize County's 2002 sales tax ratio, we divide its adjusted per capita sales tax revenue ($73.37) by the adjusted per capita sales tax revenue for *all counties* in Ohio ($112.40). The quotient of $73.37 divided by $112.40 is 0.70. For Franklin County, it is 1.30 ($146.85 divided by $112.40). The advantages to this method are twofold. First, it produces uniform ratios that allow for easy comparisons. A county's per capita retail base (and therefore its *sales tax capacity*) is keeping pace with the statewide average if its ratio is 1.00. Thus Franklin County's retail tax capacity was 0.30 (or 30 percent) above the statewide capacity in 2002. Second, sales tax ratios normalize changes over time, making it easier to spot long-term patterns. In 1995, for

example, Auglaize County was still charging a 1.0 cent rate (the county subsequently raised the rate in 1996); the consumer price index in 1995 averaged only 85 percent of the 2002 average; despite these variables, 1995 sales tax ratios for Auglaize and Franklin counties (0.64 and 1.21, respectively) were close to what they would be in 2002. Between 1995 and 2002, then, retail activity in these counties experienced only slight change; Auglaize County increased its per capita revenues by raising its tax rate, but its retail base remained consistently weaker than Franklin County's.

The retail base determines a county's *capacity* to generate sales tax revenue in the future. Assume that three years from now the state legislature authorizes counties to charge up to 2.0 cents per retail dollar purchased; and that Auglaize and Franklin counties both authorize the new rate. Based on 2002 revenues, Auglaize could collect more than $150.00 (in 2002 dollars) per resident in the fiscal year; however, Franklin County could collect more than $300.00 per resident!

Step #4: Sales tax ratios are even more useful if they account for differences in county per capita income. In 2002, the estimated per capita income of Franklin County residents was $33,705; in Auglaize County, it was $28,288.[10] As long as higher per capita housing costs, taxes, or other expenses in Franklin County did not cancel out the difference, Franklin County residents would have more money to spend on taxable goods and services than Auglaize County residents. Thus if we are assessing the strength of retail in Franklin and Auglaize counties, we must also account for differences in disposable income.

Let's pretend that every county in Ohio had an impenetrable wall around its borders; and that consumers behaved similarly regardless of their county of residence. Theoretically, every county in Ohio would have a sales tax ratio of 1.00 because consumers would purchase all items within their own jurisdictions. In reality, however, consumers are constantly traveling to adjacent counties, or even states, to make purchases. Naturally, the retail options in some counties are more attractive than in others. When more consumers enter a county (or market area) than leave it, the county is "capturing" retail activity from other jurisdictions; conversely, when more consumers leave the county (or market area) than enter it, the county is "leaking" retail activity. But how would we know which counties were capturing retail activity without knowing how much money consumers in each county had to spend? A wealthy county might leak retail activity and yet collect relatively high per capita tax revenue because when the locals did shop in the county, they spent more money than average consumers.
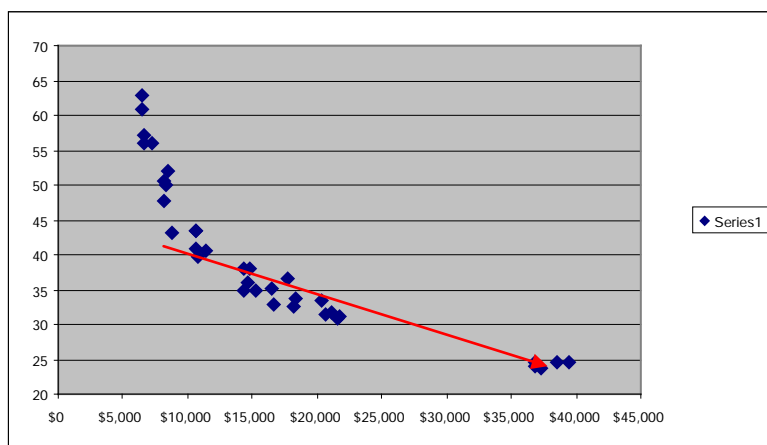
In 2002, per capita income for Delaware County residents was $42,419. Statewide per capita income was $29,195. Delaware County residents earned an estimated $13,224 more per capita annual income than statewide per capita income (note: per capita income is derived by dividing aggregate personal income by total residents including unemployed, children, and retired persons). To simplify the adjusted formula, we will ignore the possibility that costs of living are also higher in Delaware County. Taxes and housing values are probably higher in Delaware County but high rates of homeownership rates might minimize the net financial burden. Furthermore, it

is irrelevant for our purposes if taxable goods are more expensive in Delaware County: it would be illogical to propose that consumers will have less money to spend on taxables because they already spent a disproportionately high percentage of their incomes on taxables). But even if we assume that a "typical" Delaware resident has an additional $13,224 of income *available* to spend on taxable items, how much of it will the resident *actually* spend?

Every year, the Bureau of Labor Statistics releases the Consumer Expenditure Survey, which asks families from different market areas in the United States to keep track of monthly household purchases. Participants also provide demographic information, including estimated household income, which allows researchers to analyze consumption patterns by different income classifications. The data reveal what economists have always known: sales taxes are regressive because lower-income people spend a higher percentage of their incomes on taxable goods and services than higher-income people. Some lower-income consumers might spend more than 70 percent of their *reported incomes*[iv] on taxable goods and services alone, whereas higher-income consumers might spend less than 20 percent.

If we plot all five years of survey data on a graph (X-axis = per capita income; Y-axis = percent of income spent on taxables) for all nine income classifications, the result is a downward sloping curve: at the lowest ends of the income spectra, the curve slopes sharply up and to the left as it approaches the Y-axis. However, for lower-middle to upper income survey classifications, the "curve"

NOTE: the red line on graph is for illustrative purposes; it is not intended to reflect the actual slope line.

begins to fits a straight line. These latter classifications represent almost 90-percent of survey participants (the dots on the graph can be misleading: they depict yearly averages for each classification group, not individuals or equal-sized populations; the dots depicting middle and upper classification groups actually represent significantly larger populations per dot; consequently, the red line above captures 90-percent of consumer behavior, if only approximately). Because it is much easier to work with a line than a

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[iv] Lower-income participants in the Consumer Expenditure Surveys frequently report annual expenses well above their estimated incomes; these apparent discrepancies might be explained by several phenomena: first, all survey participants tend to underestimate their household incomes; second, lower income households may borrow money from friends and family who are part of their subsistence network, so in an economically difficult year, the household might have expenses well in excess of its reported income; third, studies indicate that low income consumers might rely more on short-term, high-interest, "easy-credit" vendors for a variety of taxable goods and services.

curve, the income adjustment used in this analysis will be based on that 90-percent of consumer behavior.

We can then use that 90 percent of survey data to estimate what economists refer to as the *marginal propensity to consume* (MPC). The marginal propensity to consume is the increase or decrease in   that results from an incremental increase or decrease in income (MPC = change in consumption divided by change in disposable income). Roughly speaking, had survey participants lived and shopped in Ohio, for every additional per capita dollar of income they earned, 18 cents of it would have been spent on taxable goods and services (automobiles were not counted as "taxables" because the county sales tax applies to purchaser's county of residence). In other words, the Marginal Propensity to Consume Taxables (MPCT) in Ohio is about $0.18 for every $1.00 of additional income.[v] If state per capita income is $30,000 per year, but residents in county-X earn $40,000 per capita, county-X residents have an additional $10,000 to invest or spend compared to state residents; assuming that Ohio residents have consumption patterns similar to survey participants, we would expect county-X residents to spend $1,800 of it on taxable goods and services.

We can use the MPCT to adjust sales tax ratios accordingly. If Delaware County residents earned an estimated $13,224 per person more than all Ohio residents in 2002, we multiply the difference by 0.18 to estimate how much of that "extra" income theoretically would have been spent on taxables. Using this formula, Delaware consumers would have spent $2,380.32 per person more than all Ohio residents on taxables ($13,224 x 0.18 = $2,380.32). Delaware County charged a 1.5 cents sales tax rate, so the county ought to have collected an additional $35.70 per resident in revenue ($2,380.32 x $0.015 = $35.70). If the county failed to do so, it was leaking retail activity even if per capita sales tax revenue was above the statewide level.

Sales tax ratio of county-X = [Tc/(ts+((Ts+((ic-is)*$MPCT$))/(Ts)]/Pc

     Tc = county sales tax revenue (total)
     ts = state per capita sales tax revenue
     Ts = state per capita sales on taxable services/items.
     ic = county per capita income
     is = state per capita income
     MPCT = marginal propensity to consumer Ohio "taxables" = 0.18
     PC = county population

In essence, sales tax ratios raise the bar for wealthier counties. Delaware's sales tax ratio would equal 1.00 if per capita revenue not only keeps pace with statewide per capita revenue but also collects an additional $35.70 per resident.[vi] Likewise, the

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[v] The MPCT seems very low, but according to the self-reporting data, survey participants in the lower and middle income classifications are to varying degrees spending well beyond their means, whereas the upper income classifications appear to be models of fiscal constraint.

[vi] The MPCT is quite low, however, so the income adjustment is relatively modest. In market area analyses, for example, the income adjustment is much stronger.

income adjustment lowers the bar for counties with per capita incomes below the statewide level. For counties with high concentrations of residents at or below the poverty line, however, the "straight-line" income adjustment might not lower the bar enough. If a sizable percentage of residents in those counties fall to the left of the 90-percentile line, the sales tax ratio could under-adjust for per capita income. People with limited means might spend a lot of their income on nontaxable items like food, shelter, and health care. Furthermore, consumers in traditionally rural communities might also be less inclined to over-commit household resources to non-essential consumer items. An income adjustment derived from multiple-regression analysis might compensate for these possibilities.

For purposes of this analysis, however, the "straight-line" income adjustment was useful but imperfect. The present sales tax ratios give an accurate picture of retail consumption for most Ohio counties. In any case, they are intended as an improvement over income adjustments used by retail trade area analyses, which may tend to over-adjust for differences between retail trade-area and state per capita income.

APPENDIX B: GENERAL TABLES

Includes 2002 county sales tax revenues, per capita (unadjusted); table with sales tax ratios 1990-2002 with demographic service-demand indicators; 2002 Retail Capture and "Pull Factors" (i.e. sales tax ratios); Example of Ohio Dept. of Taxation 2002 county sales tax collections table; 2001-1991 retail capture and pull-factor/sales tax ratios tables.

Please see electronic (attached) spreadsheets.

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[1] "Index of State Economic Momentum," *State and Local Sourcebook 2004,* (*Governing: Source Book* is a monthly supplement to *Governing* magazine*),* page 6.

[2] Orfield, Myron and Thomas Luce, "Ohio Metropatterns: A Regional Agenda for Community and Stability," (December 2002).

[3] See: Educational Site, Franklin County Board of Commissioners, Franklin County, Ohio, website, http://www.co.franklin.oh.us/fc/index.cfm?CFID+102835&CFTOKEN=38558145.

[4] Beginning in late 1960's [explain very brief 'history' of county sales taxes here].

[5] U.S. Census: need citations.

[6] *Columbus Dispatch,* August 14, 2002; *Columbus Dispatch,* October 2, 2002.

[7] Orfield and Luce, "Ohio Metropatterns," pg 11-15..

[8] Orfield.

[9] All county tax data used to calculate per capita revenue and county sales tax ratios were compiled by Ohio Department of Taxation, Revenue Accounting Division.

[10] Regional Economic Information System (REIS), Bureau of Economic Analysis, Table CA1-3, May 2004. see: BEA website, http://www.bea.doc.gov/bea/regional/reis/