## RETAIL_MARKET ANALYSIS Shelby County, Ohio


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The Center for Urban \& Regional Analysis
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## PREFACE

The retail market analysis for Shelby County, Ohio compares this county to its broader Market Region (center of Map 1, page 2). This regional approach is used to understand the retail economy of Shelby County. Recognizing that the residents of Shelby County purchase retail goods in retail centers or areas other than Shelby County, a larger Market Region was developed.

The larger Market Region that was developed (Map 2, page 3) extends into the cities of Wapakoneta, Bellefontaine, Piqua, Troy, Tipp City, and Greenville. Map 4 (page 12) shows the entire Market Region, the study cities and their competing market centers.

For the purpose of this report, competing Market Centers were defined as retail centers that were identified by Mike Dodds, Sidney-Shelby Economic Partnership Director and Ohio State University Extension, Community Development. The area around the center from which that center "pulls" its customers is referred to as the Retail Market Area. The larger Market Region is comprised of Market Areas and Market Centers which compete with Shelby

Finally, sales are examined in the city of Sidney to provide a picture of the contribution of the business district to the larger Shelby market area.

## Map 1: Shelby County Area Reference Map




## NTRODUCTION

Retail market analysis is a tool for identifying retail market trends within a local community. While the analysis focuses specifically on the performance of local retail markets, information on the broader demographic and economic trends within the region is critical to understanding current and future changes in these retail markets. Changes in population, the age and income distributions of the population, and the number of people employed by different industrial sectors will change the demand for retail goods within a local community and therefore are important factors to be considered in an analysis of retail market trends.

Of primary importance is an understanding of the pattern of retail spending within the local community relative to spending in neighboring areas. Retail sales leakages could reflect that the local demand for a particular product is not being met within the local community, whereas retail sales surpluses may indicate that the local community serves a regional market that pulls consumers in from outside the local area. Estimation of retail surpluses and leakages by specific retail sectors provides a means to identify the relative strengths and weaknesses of an area's retail markets and thereby inform economic development strategies for local communities. A retail market analysis is not a detailed plan of action, but rather provides facts and analysis for input into the community's decision-making process about future economic development ${ }^{1}$.

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## DEMOGRAPHIC \& ECONOMIC TRENDS

Consumer characteristics influence consumers' lifestyles and their demand for different retail goods. For example, characteristics such as age, income, and family structure provide insights on consumers’ stage of life and therefore into local shopping habits. For example, young, single people are more focused on non-durable goods such as clothing and entertainment, while married couples with young children are focused more on durable goods such as furniture and home furnishings. For a market area overall, population and income are the two major factors that drive retail demand/purchasing power. Income is highly correlated with age and education. Furthermore, the movement of people from places of work to residences greatly affects the probability of "out shopping," meaning the probability for residents to shop outside of their market area.

The following are several key economic and demographic indicators derived from Tables 1-4 (pages 6-10) that demonstrate notable trends in the Sidney Retail Market Area.

- The population for the Region has grown slightly between 2000 and 2010. In 2000, the population was 365,960 and in 2010, the population was 369,449; an increase of 3,489 individuals, or a growth rate of $1 \%$.
- In 2010, home ownership rates in the Shelby County Market Area (66\%) were slightly lower than the State of Ohio's average of 67.9\%. High rates of home ownership are a positive force in increasing retail health.
- Median household income in the Shelby County Market Area experienced an increase of 15\% between 2000 and 2010.
- Shelby County Market Area has a greater percentage of high school graduates ( $46 \%$ in 2010) than the Region (44\% in 2010). The Region, as a whole, shares similar graduation rates for post-secondary education (44\%).
- Shelby County Market Area has a higher percentage of family households (73\% in 2010) than the Region (70\% in 2010), which may indicate stronger demand for certain stores within retail sectors, such as home goods or children stores, as families tend to spend more within the retail sector.
- Shelby County Market Area has a slightly higher percentage of population ranging in age from $25-44(25 \%$ in 2010) than the entire Region (24\%
in 2010). Individuals within this age range have a higher demand for shopping at retail sectors as they move from young adulthood to establishing a family.
- The core data for Shelby County as a component of the region is on a comparable basis over the period.
- For commuting from Shelby County to other counties, Miami County is the largest destination in 1990, 2000, and 2010. For commuting from other counties to Shelby County, in 1990, 2000, Auglaize County is the largest contributor and Miami County is the second contributor.


## Socioeconomic Trends 2000-2010

Table 1: Household Characteristics

|  | 2000 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Area (km²) | 1,064 | 27 | 7,460 | 1,064 | 31 | 7,460 |
| Population | 47,910 | 20,211 | 365,960 | 49,423 | 21,229 | 369,449 |
| Population in Group Quarters | 665 | 263 | 5,862 | 589 | 306 | 4,368 |
| Households | 17,636 | 7,981 | 139,467 | 18,467 | 8,344 | 144,743 |
| Average Household Size | 2.68 | 2.50 | 2.58 | 2.64 | 2.51 | 2.52 |
| Families | 13,083 | 5,374 | 101,392 | 13,409 | 5,577 | 101,767 |
| Average Family Size | 3.13 | 3.03 | 3.06 | 3.09 | 3.01 | 3.01 |
| Housing Units | 18,682 | 8,557 | 150,376 | 20,173 | 9,265 | 161,457 |
| Owner Occupied Housing Units | 70\% | 58\% | 70\% | 66\% | 53\% | 66\% |
| Renter Occupied Housing Units | 24\% | 35\% | 23\% | 25\% | 37\% | 24\% |
| Vacant Housing Units | 6\% | 7\% | 7\% | 8\% | 10\% | 10\% |

Table 1.1: Income Characteristics

|  | 2000 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Median Household Income | \$44,507 | \$38,663 | ** | \$51,159 | \$44,024 | ** |
| Median Home Value | \$97,900 | \$86,600 | ** | \$122,700 | \$104,300 | ** |
| Per Capital Income | \$20,255 | \$19,075 | \$20,061 | \$22,919 | \$20,345 | \$24,187 |
| Household Income Base | 17,696 | 8,002 | 139,588 | 18,287 | 8,226 | 145,077 |
| < \$15,000 | 11\% | 14\% | 13\% | 9\% | 13\% | 11\% |
| \$15,000-\$24,999 | 12\% | 14\% | 13\% | 12\% | 14\% | 12\% |
| \$25,000-\$34,999 | 14\% | 16\% | 14\% | 12\% | 14\% | 12\% |
| \$35,000 - \$49,999 | 21\% | 20\% | 20\% | 15\% | 17\% | 16\% |
| \$50,000-\$74,999 | 23\% | 19\% | 23\% | 22\% | 21\% | 22\% |
| \$75,000-\$99,999 | 11\% | 9\% | 10\% | 15\% | 13\% | 14\% |
| \$100,000-\$149,999 | 6\% | 5\% | 6\% | 9\% | 6\% | 10\% |
| \$150,000-\$199,999 | 1\% | 1\% | 1\% | 3\% | 2\% | 3\% |
| \$200,000+ | 1\% | 1\% | 1\% | 2\% | 1\% | 2\% |
| Average Household Income | \$53,471 | \$47,913 | \$51,774 | \$61,071 | \$51,527 | \$60,792 |

Table 2: Population by Age

|  | 2000 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Median Age | 35 | 34 | ** | 38 | 36 | ** |
|  |  |  |  |  |  |  |
| Population by Age | Shelby County | Sidney City | Region | Shelby County | Sidney City | Region |
| Total | 47,910 | 20,211 | 365,960 | 49,423 | 21,229 | 369,449 |
| 0-4 | 8\% | 8\% | 7\% | 7\% | 8\% | 7\% |
| 5-9 | 8\% | 8\% | 8\% | 8\% | 8\% | 7\% |
| 10-14 | 8\% | 7\% | 8\% | 8\% | 7\% | 7\% |
| 15-24 | 13\% | 13\% | 13\% | 12\% | 13\% | 12\% |
| 25-34 | 13\% | 15\% | 13\% | 12\% | 13\% | 11\% |
| 35-44 | 16\% | 15\% | 16\% | 13\% | 13\% | 13\% |
| 45-54 | 13\% | 13\% | 14\% | 15\% | 14\% | 15\% |
| 55-64 | 8\% | 8\% | 9\% | 12\% | 12\% | 13\% |
| 65-74 | 6\% | 6\% | 7\% | 7\% | 7\% | 8\% |
| 75-84 | 4\% | 4\% | 5\% | 4\% | 4\% | 5\% |
| 85+ | 2\% | 1\% | 2\% | 2\% | 1\% | 2\% |
| 18+ | 71\% | 72\% | 73\% | 73\% | 73\% | 75\% |

Table 2.1: Households by Type, 2000, 2010

|  | 2000 |  |  | 2010 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Household by Type | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Total | 17,636 | 7,981 | 139,467 | 18,467 | 8,344 | 144,743 |
| Family Households | $74 \%$ | $67 \%$ | $73 \%$ | $73 \%$ | $67 \%$ | $70 \%$ |
| Married-couple** | $61 \%$ | $50 \%$ | $60 \%$ | $57 \%$ | $46 \%$ | $56 \%$ |
| With Relate Children | $28 \%$ | $23 \%$ | $26 \%$ | $23 \%$ | $18 \%$ | $21 \%$ |
| Nonfamily Households | $26 \%$ | $33 \%$ | $27 \%$ | $27 \%$ | $33 \%$ | $30 \%$ |
| Householder living alone | $22 \%$ | $27 \%$ | $24 \%$ | $23 \%$ | $28 \%$ | $25 \%$ |
| Households with Persons 65+ | $22 \%$ | $22 \%$ | $24 \%$ | $24 \%$ | $23 \%$ | $27 \%$ |

Table 3: Educational Attainment, 2000, 2010

|  | 2000 |  |  | $\mathbf{2 0 1 0}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Total | 30,280 | 12,835 | 238,382 | 32,224 | 13,847 | 248,511 |
| Less Than 9th Grade | $4 \%$ | $6 \%$ | $4 \%$ | $3 \%$ | $4 \%$ | $3 \%$ |
| 9th to 12th Grade | $14 \%$ | $16 \%$ | $13 \%$ | $10 \%$ | $12 \%$ | $9 \%$ |
| High School Graduate | $45 \%$ | $40 \%$ | $46 \%$ | $46 \%$ | $46 \%$ | $44 \%$ |
| College, No Degree | $16 \%$ | $17 \%$ | $18 \%$ | $19 \%$ | $21 \%$ | $20 \%$ |
| Associate Degree | $7 \%$ | $7 \%$ | $7 \%$ | $8 \%$ | $7 \%$ | $8 \%$ |
| Bachelor's Degree | $9 \%$ | $9 \%$ | $9 \%$ | $8 \%$ | $6 \%$ | $10 \%$ |
| Master's/Prof/Doctorate Degree | $4 \%$ | $4 \%$ | $5 \%$ | $5 \%$ | $5 \%$ | $6 \%$ |

## Table 3.1: Employment Status 2000, 2010

|  | 2000 |  |  | 2010 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Shelby Co. | Sidney City | Region | Shelby Co. | Sidney City | Region |
| Total | 35,730 | 15,161 | 278,799 | 37,664 | 16,315 | 287,563 |
| In Labor Force | $69 \%$ | $67 \%$ | $68 \%$ | $66 \%$ | $64 \%$ | $65 \%$ |
| Civilian Employed | $67 \%$ | $65 \%$ | $66 \%$ | $60 \%$ | $58 \%$ | $60 \%$ |
| Civilian Unemployed | $2 \%$ | $3 \%$ | $2 \%$ | $6 \%$ | $6 \%$ | $6 \%$ |
| In Armed Forces | $0.1 \%$ | $0.1 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.1 \%$ |
| Not In Labor Force | $31 \%$ | $33 \%$ | $32 \%$ | $34 \%$ | $36 \%$ | $35 \%$ |

Table 3.2: Employment by Occupation 2000, 2010

|  | 2000 |  |  | 2010 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Employed Pop. 16+ by Occupation |  |  |  |  |  |  |
|  | Shelby <br> County | Sidney City | Region | Shelby <br> County | Sidney City | Region |
| Total | 23,949 | 9,800 | 182,781 | 22,709 | 9,453 | 171,860 |
| Management/Business/Science/Arts | $25 \%$ | $25 \%$ | $26 \%$ | $27 \%$ | $22 \%$ | $29 \%$ |
| Service | $13 \%$ | $14 \%$ | $13 \%$ | $17 \%$ | $20 \%$ | $16 \%$ |
| Sales/Office | $20 \%$ | $19 \%$ | $23 \%$ | $19 \%$ | $19 \%$ | $21 \%$ |
| Natural Res./Construction/Maintenance** | $10 \%$ | $8 \%$ | $10 \%$ | $9 \%$ | $7 \%$ | $10 \%$ |
| Production/Transport/Material Moving | $32 \%$ | $33 \%$ | $28 \%$ | $28 \%$ | $31 \%$ | $24 \%$ |

Table 3.3: Employment by Industry 2000, 2010

|  | 2000 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employed Population 16+ by Industry |  |  |  |  |  |  |
|  | Shelby County | Sidney City | Region | Shelby County | Sidney City | Region |
| Total | 23,949 | 9,800 | 182,781 | 22,709 | 9,453 | 171,860 |
| Agriculture/Mining | 2\% | 1\% | 3\% | 2\% | 0\% | 3\% |
| Construction | 5\% | 4\% | 6\% | 6\% | 3\% | 6\% |
| Manufacturing | 42\% | 44\% | 32\% | 33\% | 34\% | 27\% |
| Wholesale Trade | 3\% | 3\% | 4\% | 3\% | 5\% | 3\% |
| Retail Trade | 7\% | 6\% | 10\% | 8\% | 9\% | 10\% |
| Transportation/Warehousing | 4\% | 2\% | 5\% | 4\% | 3\% | 5\% |
| Information | 1\% | 2\% | 1\% | 1\% | 1\% | 1\% |
| Finance/Insurance/Real Estate | 3\% | 4\% | 4\% | 4\% | 4\% | 4\% |
| Public Administration | 3\% | 3\% | 3\% | 3\% | 3\% | 3\% |
| Professional/Scientific/Administrative Services | 5\% | 6\% | 5\% | 6\% | 7\% | 7\% |
| Education/Health/Social Assistance | 14\% | 14\% | 16\% | 18\% | 16\% | 20\% |
| Arts/Entertainment/Recreation/Accommodation/Food | 7\% | 9\% | 6\% | 8\% | 11\% | 7\% |
| Other (Except Public Administration) | 4\% | 4\% | 5\% | 5\% | 4\% | 5\% |

* Source: U.S. Census Bureau, 2000\&2010 Census Demographic Profile Summary File 1.
**no data
***"Married-couple Family" category is replaced by "Husband-Wife families" in 2010 summary file


## Map 3: Combined Statistical Areas (CSA)


"Combined statistical areas of the United States and Puerto Rico 2013" by Bureau of the Census, U.S. Department of Commerce - Licensed under Public Domain via Wikimedia Commons

## Table 4: Commuting Patterns 1990-2010

|  | 1990 | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | \%Change 1990-2000 | \%Change 2000-2010 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total Workers | 21,195 | 23,582 | 22,956 | $11 \%$ | $-3 \%$ |
| Commuting Out of County <br> (Total) | 4,255 | 5,395 | 6,189 | $27 \%$ | $15 \%$ |
| \%Commuting Out of County | $20 \%$ | $23 \%$ | $27 \%$ | $14 \%$ | $18 \%$ |
| Largest Destination: Miami <br> Co. | 1,857 | 1,902 | 2,270 | $2 \%$ | $19 \%$ |
| Commuting from other <br> Counties into Shelby Co. | 7,157 | 10,982 | 11,944 | $53 \%$ | $9 \%$ |
| Contributor: Auglaize Co. | 1707 | 3,002 | 3,060 | $76 \%$ | $2 \%$ |
| Contributor: Miami Co. | 1583 | 2,438 | 3,190 | $54 \%$ | $31 \%$ |
| Largest Contributor | Auglaize Co. | Auglaize Co. | Miami Co. |  |  |

Note: For commuting from Shelby County to other counties, Miami County is the largest destination in 1990, 2000, and 2010. For commuting from other counties to Shelby County, in 1990, 2000, Auglaize County is the largest contributor and Miami County is the second contributor.

## ESTIMATED <br> SURPLUS/LEAKAGE RESULTS

As indicated earlier, the Shelby Market Region is comprised of businesses located within Shelby County and surrounding areas including (See Map 4, page 12):

- Wapakoneta
- Bellefontaine
- Piqua
- Troy
- Tipp City
- Greenville

This Market Region was determined by local leaders who provided input regarding the average maximum distance traveled by local residents for retail shopping. For the purpose of this report, competing Market Centers are defined as retail centers also identified by representatives from the community. The area around the center from which that center "pulls" its customers is that center's retail Market Area.

Table 5 (Page 12) illustrates the differences in estimated Market Area population and per capita income. Per capita income is another way of saying average income per person in the respective Market Area. Again, population and income are the two most important indicators of retail demand.

## Map 4: Sidney and Surrounding Towns



Table 5: Estimated Market Area Population and Per Capita Income, 2010

|  | POPULATION | Average Per capita income |
| :--- | ---: | ---: |
| Bellefontaine | 47,716 | $\$ 22,961$ |
| Greenville | 43,943 | $\$ 21,972$ |
| Piqua | 38,005 | $\$ 21,953$ |
| Sidney | 51,352 | $\$ 22,888$ |
| Tipp City | 15,926 | $\$ 28,877$ |
| Troy | 71,822 | $\$ 26,176$ |
| Wapakoneta | 20,933 | $\$ 27,209$ |
|  |  | $\$ 24,576$ |
| Regional | 289,697 |  |

The markets are centered on the regional subdivisions shown in Map 2 (page 6).
*Footnote: Sidney City is a small component of the Shelby County total population, so the number reported here includes the entire trade sub-area centered on Sidney. We are combining all the urban and rural population within the trade area - as defined by the map. The area labeled "SIDNEY" on the charts/tables is not just Sidney City.

Since we have a relatively small number of underlying detailed census tracts in this predominantly rural area, the overlay of an arbitrary slice of land to cover a trade area is used as the basis to get an "area weighted" estimate for the population numbers.

## Retail Sales by Market Area

Table 6 and 6A

Of the seven Market Areas in the Market Region, The Tipp City area ranked highest in estimated retail sales per person at $\$ 37,053$ and Per Capita Surplus at $\$ 22,657$, one of only two areas, including Piqua, with a positive per capita surplus in retail sales. Piqua also had the largest number of surplus sectors (32 out of 57), compared to the next highest, Greenville with 27 surplus sectors. At $257 \%$ of potential retail sales in the Market Region, the Tipp City area represents the greatest surplus of retail spending. This is a strong indication that this market area has been the most successful at attracting retail shoppers from outside its market area. Piqua also exceeds the average potential at 108\%, but all other Market Areas show potential for market share. The Sidney area, with $90 \%$ of potential, ranks fourth behind Greenville at $94 \%$, indicating excess potential for drawing retail shoppers.

A key indicator of retail health is the diversity of retail sectors recording a surplus. Local economies which enjoy a large number of surplus sectors may be more stable in terms of dealing with fluctuations in the local and national economies. For example, a community with a large aggregate retail sales surplus that is based primarily in motor vehicle sales would be much more sensitive to a national decline in auto sales than a community with a smaller aggregate surplus that was distributed across many retail sectors.

## Table 6: Retail Sales by Market Area

| AREA | Stores | Observed <br> (actual) sales <br> from INFOUSA | Observed <br> estimate of <br> per capita <br> sales | SURPLUS <br> (= actual - <br> potential; <br> positive is good) | Per Capita <br> Surplus | \% OF <br> PO- <br> TEN- <br> TIAL | SURPLUS <br> SECTORS <br> 2014 (sec- <br> tor with <br> local sales <br> exceeding <br> expecta- <br> tions) |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Bellefontaine | 178 | $\$ 413,535,000$ | $\$ 8,666.56$ | $\$(132,634,874)$ | $\$(2,779.66)$ | $76 \%$ | 16 | 47716 |
| Greenville | 218 | $\$ 454,556,000$ | $\$ 10,344.29$ | $\$(26,748,397)$ | $\$(608.71)$ | $94 \%$ | 27 | 43943 |
| Piqua | 217 | $\$ 450,239,000$ | $\$ 11,846.86$ | $\$ 34,327,284$ | $\$ 903.23$ | $108 \%$ | 32 | 38005 |
| Sidney | 187 | $\$ 529,745,000$ | $\$ 10,315.98$ | $\$(56,159,598)$ | $\$(1,093.62)$ | $90 \%$ | 17 | 51352 |
| Tipp City | 116 | $\$ 590,098,000$ | $\$ 37,052.71$ | $\$ 360,841,772$ | $\$ 22,657.54$ | $257 \%$ | 23 | 15926 |
| Troy | 253 | $\$ 797,621,000$ | $\$ 11,105.55$ | $\$(139,594,086)$ | $\$(1,943.62)$ | $85 \%$ | 11 | 71822 |
| Wapakoneta | 125 | $\$ 243,902,000$ | $\$ 11,651.32$ | $\$(40,032,116)$ | $\$(1,912.35)$ | $86 \%$ |  | 21 |
| Regional | 1294 | $\$ 3,479,696,000$ |  |  |  |  | $100 \%$ | 20933 |

Table 6A: Retail Sales by Market Area

| AREA | Stores | Observed (actual) <br> sales from INFOUSA | \# of active <br> sectors <br> (max. 57) | Sectors <br> above <br> potential | \% of active <br> sectors <br> above <br> potential | Range of <br> service from <br> max of 57: <br> closer to 100 <br> is better | POTENTIAL <br> SALES |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Bellefontaine | 178 | $\$ 413,535,000$ | 39 | 16 | $41.03 \%$ | $68.42 \%$ | $\$ 546,169,874$ |
| Greenville | 218 | $\$ 454,556,000$ | 44 | 27 | $61.36 \%$ | $77.19 \%$ | $\$ 481,304,397$ |
| Piqua | 217 | $\$ 450,239,000$ | 43 | 32 | $74.42 \%$ | $75.44 \%$ | $\$ 415,911,716$ |
| Sidney | 187 | $\$ 529,745,000$ | 43 | 17 | $39.53 \%$ | $75.44 \%$ | $\$ 585,904,598$ |
| Tipp City | 116 | $\$ 590,098,000$ |  | 31 | 23 | $74.19 \%$ | $54.39 \%$ |
| Troy | 253 | $\$ 797,621,000$ | 44 | 11 | $25.00 \%$ | $77.19 \%$ | $\$ 229,256,228$ |
| Wapakoneta | 125 | $\$ 243,902,000$ | 36 | 21 | $58,33 \%$ | $63,16 \%$ | $\$ 283,934,116$ |
| Regional | 1294 | $\$ 3,479,696,000$ | 57 |  |  |  |  |

- Of 57 retail sectors studied, Sidney contained 17 sectors with a retail sales surplus. Two other Market Areas (Troy and Bellefontaine) had a lower number of sectors with a retail sales surplus while four Market Areas (Piqua, Greenville, Tipp City and Wapakoneta) had a greater number of sectors with retail sales surplus than Sidney.
- Sidney's market area represents 43 out of 57 active retail sectors. Sidney ties for second with Piqua after Greenville and Troy with 44 out of 57 active retail sectors, indicating a strong showing in the diversity of retail options.
- The non-active sectors are fruit and vegetable markets, candy, nut and confectionery stores boat dealers, recreational vehicle dealers, men's and boy's clothing stores, women's accessory and


## SOURCE

Stores from INFO USA geocoded data. Actual sales from INFO USA geocoded data through 2014. Potential sales from model with control total to mirror actual regional total. Percentage of potential $=$ (Actual $/$ Potential) as a percentage, so $>100 \%$ means actual exceeds potential

## NOTES

Excludes gasoline sales. Answers here are consistent with previous detail. Per capita sales is found by dividing actual market area sales by local population. Regional potential sales are the sum of the sales in each of the sectors. Sectorial potential sales $=($ POP SHARE * INCOME CORRECTION * TOTAL SALES) modified to ensure that the sum is the same for both the actual and the potential regional total. Surplus = actual - potential (positive if more local sales)
specialty stores, children's and infants' wear stores, family clothing stores, record and pre-recorded tape stores, book stores, camera and photographic supply stores, sewing, needlework and piece goods stores, catalog and mail-order houses, and liquefied petroleum gas dealers, some of which are considered not essential to the daily shopping needs of residents.

- The Sidney Market Area accounted for 15\% of the total actual retail sales per person in the Market Region, ranking only behind Troy and Tipp City.
- Appendix A (page 27) illustrates total estimated retail surpluses/leakages by Market Area


## Footnote to Table 6A

This table has the aggregate sales in each market area with estimates of potential sales and comparisons to actual results. This table is supplemented in the new version with a summary of the number of active retail sectors. (Explanation: although there are as many of 57 distinct lines of business, not every town / market has a complete line of services.)

It is important to note how many of the actual active sectors are above or below expectations, and we do this in this table for each sub market area.

## Estimated Retail Sales Surplus/Leakage (Table 7, pages 16-17):

Retail sales surpluses and leakages were estimated for each retail sector within each Market Area by comparing the actual retail sales in that sector with "potential" sales. Potential sales are estimated based on the population of the Market Area and the per capita income of the residents living in the Market Area relative to the whole region. Potential sales are the annual sales that a Market Area could achieve if all the residents shopped locally. A surplus results if actual sales are greater than potential sales, and vice versa, a leakage results if actual sales are less than potential sales. The total actual sales for Sidney is $\$ 529,749,000$, while the potential sales are $\$ 585,904,598$ meaning that Sidney has a combined overall leakage of retail sales in the amount of just over $\$ 56$ million $(\$ 56,159,598)$

By summing all surpluses and leakages across all retail sectors, a total retail sales surplus/leakage estimate is calculated. This number indicates if there is a net surplus or leakage of total retail dollars for each of the Market Areas.

## For Sidney:

## Top ten sectors with the greatest percentage of retail sales surplus (in rank order) were:

1. Dairy products stores: $494 \%$
2. *Misc. general merchandise stores: $287 \%$
3. *Misc. apparel and accessory stores: 283\%
4. Automatic merchandising machine operators: $276 \%$
5. Retail bakeries: 209\%
6. Mobile home dealers: 197\%
7. News dealers and newsstands: $197 \%$
8. Computer and computer software stores: $151 \%$
9. Optical goods stores: $131 \%$
10. Lumber and other building materials dealers: $102 \%$

## Top ten sectors with the greatest percentage of retail sales leakages (other than non-represented sectors and in rank order) were:

1. Retail nurseries, lawn \& garden supply stores: -99\%
2. Household appliance stores: -93\%
3. Motorcycle dealers: -70\%
4. Gift, novelty, and souvenir shops: -63\%
5. Misc. retail stores, not elsewhere classified: -59\%
6. Miscellaneous food stores: $-57 \%$
7. Used merchandise stores: -55\%
8. Sporting goods stores and bicycle shops: -54\%
9. Drinking places (alcoholic beverages): -52\%
10. Shoe stores: -50\%

Other potentially significant sectors with leakages over 25\% included:

- Paint, glass and wallpaper stores: $-49 \%$
- Hardware stores: -38\%
- Motor vehicle dealers: -36\%
- Drug stores: -34\%
- Radio/T.V., and consumer electronics stores: -33\%
- Women's clothing stores: -27\%
- Grocery stores: -27\%
*footnote: Where certain sectors are non-existent, they may be actually included within these larger sectors

Table 7: Surplus/Leakage for Sidney Market Area

| Original | Detail | POTENTIAL SALES | ACTUAL SALES (SIDNEY) | Surplus or Leakage (actualpotential) | Surplus | \# of markets w/ surplus (from 7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5211 | Lumber \& Other Building Materials Dealers | \$65,793,405 | \$133,102,000 | \$67,308,595 | 102\% | 2 |
| 5231 | Paint, Glass, and Wallpaper Stores | \$9,257,596 | \$4,686,000 | \$(4,571,596) | -49\% | 2 |
| 5251 | Hardware Stores | \$2,954,362 | \$1,828,000 | $(1,126,362)$ | -38\% | 4 |
| 5261 | Retail Nurseries, Lawn \& Garden Supply | \$34,384,997 | \$474,000 | $(33,910,997)$ | -99\% | 2 |
| 5271 | Mobile Home Dealers | \$282,202 | \$838,000 | \$555,798 | 197\% | 2 |
| 5311 | Department Stores | \$90,030,591 | \$84,663,000 | $(5,367,591)$ | -6\% | 3 |
| 5331 | Variety Stores | \$5,933,307 | \$4,898,000 | $(1,035,307)$ | -17\% | 3 |
| 5399 | Misc. General Merchandise Stores | \$896,445 | \$3,472,000 | \$2,575,555 | 287\% | 3 |
| 5411 | Grocery Stores | \$109,886,578 | \$80,431,000 | (29,455,578) | -27\% | 1 |
| 5421 | Meat and Fish (Seafood) Markets | \$1,023,402 | \$980,000 | $(43,402)$ | -4\% | 4 |
| 5431 | Fruit and Vegetable Markets | \$3,909,066 |  | $(3,909,066)$ | -100\% | 1 |
| 5441 | Candy, Nut, and Confectionery Stores | \$5,371,430 |  | $(5,371,430)$ | -100\% | 2 |
| 5451 | Dairy Products Stores | \$62,468 | \$371,000 | \$308,532 | 494\% | 1 |
| 5461 | Retail Bakeries | \$1,908,734 | \$5,900,000 | \$3,991,266 | 209\% | 2 |
| 5499 | Miscellaneous Food Stores | \$988,043 | \$426,000 | $(562,043)$ | -57\% | 3 |
| 5511 | Motor Vehicle Dealers (New and Used) | \$101,166,108 | \$65,077,000 | $(36,089,108)$ | -36\% | 3 |
| 5531 | Auto and Home Supply Stores | \$11,968,315 | \$11,874,000 | $(94,315)$ | -1\% | 3 |
| 5551 | Boat Dealers | \$66,173 |  | $(66,173)$ | -100\% | 1 |
| 5561 | Recreational Vehicle Dealers | \$245,159 |  | $(245,159)$ | -100\% | 1 |
| 5571 | Motorcycle Dealers | \$4,760,049 | \$1,431,000 | $(3,329,049)$ | -70\% | 3 |
| 5611 | Men's \& Boys' Clothing/Accessory Stores | \$190,436 |  | $(190,436)$ | -100\% | 1 |
| 5621 | Women's Clothing Stores | \$1,042,597 | \$758,000 | $(284,597)$ | -27\% | 3 |
| 5632 | Women's Accessory and Specialty Stores | \$214,177 |  | $(214,177)$ | -100\% | 2 |
| 5641 | Children's and Infants' Wear Stores | \$69,372 |  | $(69,372)$ | -100\% | 1 |
| 5651 | Family Clothing Stores | \$2,202,217 |  | (2,202,217) | -100\% | 3 |
| 5661 | Shoe Stores | \$1,655,325 | \$831,000 | $(824,325)$ | -50\% | 2 |
| 5699 | Miscellaneous Apparel/Accessory Stores | \$4,427,165 | \$16,943,000 | \$12,515,835 | 283\% | 2 |
| 5712 | Furniture Stores | \$9,613,884 | \$10,663,000 | \$1,049,116 | 11\% | 2 |
| 5713 | Floor Covering Stores | \$2,080,817 | \$2,832,000 | \$751,183 | 36\% | 3 |
| 5714 | Drapery, Curtain, and Upholstery Stores | \$150,362 | \$198,000 | \$47,638 | 32\% | 3 |
| 5719 | Miscellaneous home furnishings Stores | \$182,690 | \$155,000 | $(27,690)$ | -15\% | 3 |
| 5722 | Household Appliance Stores | \$3,839,694 | \$271,000 | $(3,568,694)$ | -93\% | 3 |
| 5731 | Radio, T.V., \& Consumer Electronics Stores | \$1,459,501 | \$985,000 | $(474,501)$ | -33\% | 3 |
| 5734 | Computer and Computer Software Stores | \$2,799,623 | \$7,027,000 | \$4,227,377 | 151\% | 3 |
| 5735 | Record and Prerecorded Tape Stores | \$201,212 |  | \$(201,212) | -100\% | 2 |
| 5736 | Musical Instrument Stores | \$120,559 | \$179,000 | \$58,441 | 48\% | 3 |

Table 7: Surplus/Leakage for Sidney Market Area (Cont.)

| Original | Detail | POTENTIAL SALES | ACTUAL SALES (SIDNEY) | Surplus or Leakage (actualpotential) | $\begin{array}{r} \text { \% } \\ \text { Surplus } \end{array}$ | \# of markets w/ surplus (from 7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5812 | Eating Places | \$41,582,992 | \$38,889,000 | \$(2,693,992) | -6\% | 4 |
| 5813 | Drinking Places (alcoholi) | \$962,281 | \$460,000 | \$(502,281) | -52\% | 3 |
| 5912 | Drug Stores and Proprietary Stores | \$12,620,444 | \$8,358,000 | \$(4,262,444) | -34\% | 5 |
| 5921 | Liquor Stores | \$5,794,227 | \$5,315,000 | \$(479,227) | -8\% | 4 |
| 5932 | Used Merchandise Stores | \$2,403,766 | \$1,079,000 | \$(1,324,766) | -55\% | 5 |
| 5941 | Sporting Goods Stores and Bicycle Shops | \$3,644,881 | \$1,690,000 | \$(1,954,881) | -54\% | 3 |
| 5942 | Book Stores | \$717,627 |  | \$(717,627) | -100\% | 3 |
| 5943 | Stationery Stores | \$2,559,347 | \$4,407,000 | \$1,847,653 | 72\% | 3 |
| 5944 | Jewelry Stores | \$2,788,846 | \$3,476,000 | \$687,154 | 25\% | 4 |
| 5945 | Hobby, Toy, and Game Shops | \$1,224,782 | \$1,254,000 | \$29,218 | 2\% | 3 |
| 5946 | Camera \& Photo Supply Stores | \$199,696 |  | \$(199,696) | -100\% | 1 |
| 5947 | Gift, Novelty, and Souvenir Shops | \$1,456,471 | \$546,000 | \$ $(910,471)$ | -63\% | 3 |
| 5949 | Sewing, Needlework, \& Piece Stores | \$252,399 |  | \$(252,399) | -100\% | 2 |
| 5961 | Catalog and Mail-Order Houses | \$570,465 |  | \$(570,465) | -100\% | 2 |
| 5962 | Automatic Merchandising Machine Operators | \$2,268,390 | \$8,533,000 | \$6,264,610 | 276\% | 2 |
| 5984 | Liquefied Petro. Gas (Bottled Gas) Dealers | \$1,283,715 |  | \$(1,283,715) | -100\% | 1 |
| 5992 | Florists | \$1,036,704 | \$869,000 | \$(167,704) | -16\% | 4 |
| 5993 | Tobacco Stores and Stands | \$1,285,230 | \$1,174,000 | \$(111,230) | -9\% | 3 |
| 5994 | News Dealers and Newsstands | \$88,230 | \$262,000 | \$173,770 | 197\% | 2 |
| 5995 | Optical Goods Stores | \$1,614,914 | \$3,738,000 | \$2,123,086 | 131\% | 2 |
| 5999 | Miscellaneous Retail Stores, Not Elsewhere Classified | \$20,411,130 | \$8,402,000 | \$(12,009,130) | -59\% | 3 |
|  |  |  |  |  |  |  |
|  | Total (potential and actual) | \$585,904,598 | \$529,745,000 | \$(56,159,598) |  |  |

## Footnote to Table 7

Potential and actual sales; defines surplus as ACTUAL - POTENTIAL by each Retail sector for the particular case of the focal market area we are studying.

Percent surplus is the (surplus / potential) expressed as a percentage.
This result can be negative if the actual sales fall short of the potential. I believe it aligns with intuition in that "negative" is a less favorable result and the signs reverse if the sales exceed expectations. It can be negative $100 \%$ if the place has zero actual sales.

## Retail Hierarchy of the City of Sidney (Figure 1, page 19)

Figure 1 (page 19) lists the retail sectors that are analyzed in this report according to their place in the hierarchy of retail goods from convenience to specialty sectors and sales. The items at the bottom of the hierarchy are labeled convenience or "everyday" items that people buy frequently and that they are most likely to buy locally. Stores that sell these items, including grocery stores and gas stations, are found in almost all towns.

As Figure 1 indicates, towns with only these basic retail services are labeled minimum convenience places. On the other hand, the items at the top of the hierarchy are specialty items that are not bought on a frequent basis, including hobby goods, optical goods, books, and cameras. Stores specializing in goods such as these are usually found in larger towns and cities. A complete shopping place is one that has all of the retail sectors considered here.

- Of the minimum convenience sectors, all three (hardware stores, drug stores and grocery stores) have a combined retail sales leakage of approximately $\$ 35$ million in potential sales.
- Of the full convenience sectors (excluding the minimum convenience), the greatest retail sales leakages are from: motor vehicle dealers (\$36 million), miscellaneous retail not elsewhere classified (\$12 million), household appliance stores (\$3.6 million), eating places (\$2.7 million), used merchandise stores ( $\$ 1.3$ million), and variety stores (\$1 million).
- Of the partial shopping sectors (excluding the previous sectors), Retail nurseries lawn and garden supply stores had the largest leakage (\$34 million)
- Of the complete shopping market sectors (excluding the previous sectors), retail surpluses were found in all four sectors (Automatic Merchandising Machine Operators, and News Dealers and Newstands, Optical Good Stores, and Game Shops).

Figure 1: Hierarchy of Retail Sales for Sidney Market Area*
*Highlighted cells indicate a surp/us



In the analysis thus far, Sidney is included in the larger Shelby Market Area. The economic interdependence between Sidney and the larger Market Area is significant. However, to better understand the role of Sidney, it can be useful to consider the proportion of retail sales in the Shelby Market Area that are attributed to Sidney retailers. Map 5 (page 21) demonstrates the boundaries, in brown, of the Sidney study area. The dots on the map indicate all businesses within the city of Sidney. Such an analysis provides an indication of retail activity in Sidney relative to the larger Shelby Market Area.

The following are several key economic trends derived from Table 8 (page 22-23) that demonstrate notable developments in Sidney.

- Of the 57 sectors reviewed, 13 are not present in the Sidney City Area. Economic development professionals could consider those sectors not present as potential businesses to move into Shelby.


An event being held in front of the Shelby County Courthouse in Downtown Sidney

- Sidney has seven businesses in the Lumber and Other Building Materials Dealers with \$132,102,000 in sales. This sector also has 34\% share of all sales within the seven Market Areas. Consideration from Economic development professionals to locate compatible companies could further increase the percentage shares of sales.
- Retail Bakeries and Eating Places have a very high percentage of sales and stores for the Market Area.
- Economic Development professionals should consider conducting a consumer survey to better gauge the shopping habits and opinions about desirable stores for the community


## Map 5: City of Sidney



Table 8: Sidney Market Area Retail Sales

| Row <br> Labels | Sector | Count of ACTUAL SALES VOLUME | Sum of ACTUAL SALES VOLUME | Share of region stores | Share of region sales | Total <br> Count (Region) | Total Sales (Region) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5211 | Lumber \& Bldg. Materials Dealers | 7 | \$133,102,000 | 17.5\% | 34.1\% | 40 | \$390,748,000 |
| 5231 | Paint, Glass, and Wallpaper Stores | 3 | \$4,686,000 | 20.0\% | 8.5\% | 15 | \$54,981,000 |
| 5251 | Hardware Stores | 2 | \$1,828,000 | 14.3\% | 10.4\% | 14 | \$17,546,000 |
| 5261 | Retail Nurseries, Lawn \& Garden | 3 | \$948,000 | 9.7\% | 0.5\% | 31 | \$204,213,000 |
| 5271 | Mobile Home Dealers | 1 | \$838,000 | 50.0\% | 50.0\% | 2 | \$1,676,000 |
| 5311 | Department Stores | 2 | \$84,663,000 | 11.1\% | 15.8\% | 18 | \$534,693,000 |
| 5331 | Variety Stores | 4 | \$4,898,000 | 16.0\% | 13.9\% | 25 | \$35,238,000 |
| 5399 | Misc. General Merchandise Stores | 1 | \$3,472,000 | 20.0\% | 65.2\% | 5 | \$5,324,000 |
| 5411 | Grocery Stores | 11 | \$80,431,000 | 16.7\% | 12.3\% | 66 | \$652,618,000 |
| 5421 | Meat and Fish (Seafood) Markets, Including Freezer Provisioners | 1 | \$980,000 | 16.7\% | 16.1\% | 6 | \$6,078,000 |
| 5451 | Dairy Products Stores | 1 | \$371,000 | 100.0\% | 100.0\% | 1 | \$371,000 |
| 5461 | Retail Bakeries | 5 | \$5,900,000 | 22.7\% | 52.0\% | 22 | \$11,336,000 |
| 5499 | Miscellaneous Food Stores | 2 | \$426,000 | 11.8\% | 7.3\% | 17 | \$5,868,000 |
| 5511 | Motor Vehicle Dealers (New/ Used) | 12 | \$65,077,000 | 14.3\% | 10.8\% | 84 | \$600,827,000 |
| 5531 | Auto and Home Supply Stores | 10 | \$11,874,000 | 16.1\% | 16.7\% | 62 | \$71,080,000 |
| 5571 | Motorcycle Dealers | 1 | \$1,431,000 | 8.3\% | 5.1\% | 12 | \$28,270,000 |
| 5621 | Women's Clothing Stores | 1 | \$758,000 | 10.0\% | 12.2\% | 10 | \$6,192,000 |
| 5661 | Shoe Stores | 1 | \$831,000 | 7.1\% | 8.5\% | 14 | \$9,831,000 |
| 5699 | Misc. Apparel \& Accessory Stores | 5 | \$16,943,000 | 27.8\% | 64.4\% | 18 | \$26,293,000 |
| 5712 | Furniture Stores | 10 | \$10,663,000 | 30.3\% | 18.7\% | 33 | \$57,097,000 |
| 5713 | Floor Covering Stores | 2 | \$2,832,000 | 22.2\% | 22.9\% | 9 | \$12,358,000 |
| 5714 | Drapery, Curtain, \& Upholstery | 1 | \$198,000 | 33.3\% | 22.2\% | 3 | \$893,000 |
| 5719 | Misc. home furnishings Stores | 1 | \$155,000 | 20.0\% | 14.3\% | 5 | \$1,085,000 |
| 5722 | Household Appliance Stores | 1 | \$271,000 | 7.7\% | 1.2\% | 13 | \$22,804,000 |
| 5731 | Radio/T.V., Consumer Electronics | 1 | \$985,000 | 8.3\% | 11.4\% | 12 | \$8,668,000 |
| 5734 | Computer \& Software Stores | 3 | \$7,027,000 | 21.4\% | 42.3\% | 14 | \$16,627,000 |

Table 8: Sidney Market Area Retail Sales (Cont.)

| Row <br> Labels | Sector | Count of ACTUAL SALES VOLUME | Sum of ACTUAL SALES VOLUME | Share of region stores | Share of region sales | Total <br> Count (Region) | Total Sales (Region) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5736 | Musical Instrument Stores | 1 | \$179,000 | 33.3\% | 25.0\% | 3 | \$716,000 |
| 5812 | Eating Places | 46 | \$38,889,000 | 14.5\% | 15.7\% | 317 | \$246,962,000 |
| 5813 | Drinking Places (alcoholic) | 4 | \$460,000 | 16.0\% | 8.0\% | 25 | \$5,715,000 |
| 5912 | Drug Stores \&Proprietary Stores | 3 | \$8,358,000 | 13.0\% | 11.2\% | 23 | \$74,953,000 |
| 5921 | Liquor Stores | 4 | \$5,315,000 | 16.7\% | 15.4\% | 24 | \$34,412,000 |
| 5932 | Used Merchandise Stores | 4 | \$1,079,000 | 7.4\% | 7.6\% | 54 | \$14,276,000 |
| 5941 | Sporting Goods \& Bicycle Shops | 6 | \$1,690,000 | 18.2\% | 7.8\% | 33 | \$21,647,000 |
| 5943 | Stationery Stores | 1 | \$4,407,000 | 11.1\% | 29.0\% | 9 | \$15,200,000 |
| 5944 | Jewelry Stores | 3 | \$3,476,000 | 15.8\% | 21.0\% | 19 | \$16,563,000 |
| 5945 | Hobby, Toy, and Game Shops | 2 | \$1,254,000 | 13.3\% | 17.2\% | 15 | \$7,274,000 |
| 5947 | Gift, Novelty, and Souvenir Shops | 3 | \$546,000 | 11.1\% | 6.3\% | 27 | \$8,650,000 |
| 5962 | Automatic Merchandising Machine Operators | 1 | \$8,533,000 | 20.0\% | 63.3\% | 5 | \$13,472,000 |
| 5992 | Florists | 3 | \$869,000 | 13.6\% | 14.1\% | 22 | \$6,157,000 |
| 5993 | Tobacco Stores and Stands | 2 | \$1,174,000 | 18.2\% | 15.4\% | 11 | \$7,633,000 |
| 5994 | News Dealers and Newsstands | 1 | \$262,000 | 50.0\% | 50.0\% | 2 | \$524,000 |
| 5995 | Optical Goods Stores | 1 | \$3,738,000 | 10.0\% | 39.0\% | 10 | \$9,591,000 |
| 5999 | Misc. Retail Stores, Not Classified | 11 | \$8,402,000 | 12.0\% | 6.9\% | 92 | \$121,222,000 |
| Grand <br> Total |  | 188 | \$530,219,000 | 14.5\% | 15.2\% | 1294 | \$3,479,696,000 |

## DEFINITION OF TERMS

## Market Center:

A downtown or regional shopping district. In the case of the Shelby County, Ohio retail market analysis, the primary Market Center of interest is Sidney, Ohio and the neighboring Market Centers are identified as: Tipp City, Greenville, Wapakoneta, Bellefontaine, Troy, and Piqua.

## Market Area:

A geographic area that contains most of the customers that primarily shop in the retail center. The local Market Area is defined as the primary area in which the majority of customers live who shop in the local Market Center. The Market Area boundaries are estimated based on the amount of sales in the retail center and distance from this center. See the Methodology section for a more detailed description of this calculation.

## Market Region:

The larger geographic area that includes all the Market Areas of interest (see Map 2, page 3, for an illustration).

## Potential sales:

An estimate of sales that could be achieved in a Market Area if all the population living within the Market Area shopped within the Market Area. See the Methodology section for a more detailed description of this calculation.

## Surplus:

The positive difference between actual and potential sales. If actual retail sales within a Market Area are greater than the potential sales, then there is a sales surplus. A surplus implies either that people from outside the Market Area shop there or that people living within the Market Area consume more than the average person living within the region. This number may be expressed either in terms of dollars or as a percentage of potential sales.

## Leakage:

The negative difference between actual and potential sales. If actual retail sales within a Market Area are less than the potential sales, then there is a sales leakage. A leakage implies either that people living within the Market Area shop outside the Market Area or that people living within the Market Area consume less than the average person living within the region. A leakage does not imply that businesses within this sector are failing-on the contrary, these businesses may be doing quite well. A leakage simply means that the total sales within the local area are not as much as they could be based on the local area's population and income. In other words, a leakage suggests that there is a potential opportunity for local businesses to capture additional local retail dollars.

## Estimated Actual Sales vs. Surplus/Leakage of Sales

A Market Area may have a large amount of actual sales within a certain sector, but still experience a leakage. Vice versa, the amount of actual sales of a particular sector may be small, but the Market Area has a surplus of sales. This is because surpluses and leakages take into account the average consumption of shoppers within the region. As a result, if the average consumer buys a large amount and if the population within the Market Area is large, then the potential sales within this sector will be high and may be greater than the actual sales, even if actual sales are high.

## METHODOLOGY

## Determining the Market Region

The definition of the relevant Market Region for each of the study areas is very important in analyzing regional retail market trends. The region should include all surrounding areas that either help (i.e. are complementary) or hinder (i.e. are competitive) retail sales activity within the local Market Areas. The relevant regions shown in Maps 1 and 2 were identified for this study working with the Shelby/Sidney project leaders. The Market Region is considered to represent a reasonable distance within which Shelby/Sidney residents would do most of their shopping.

## Defining Market Area Boundaries

The boundaries for each of the Market Areas were determined based on three main factors: (1) sales for 2014 in each Market Center, (2) distance to the Market Center, and (3) input from the project officials. In general, the larger the Market Center, the larger the Market Area that corresponds to the center. Initial boundaries are determined using geographic information systems and then are modified according to feedback from the local taskforce.

## Calculating Estimated Actual Retail Sales

Data on retail sales is available for all businesses (See Data Sources). Once the Market Areas were determined using the procedure outlined above, sales for each retail sector within each Market Area were calculated by summing up the sales for all businesses that fall within that Market Area.

## Estimating Surplus/Leakages

Surplus and leakage calculations were performed for each retail sector within each Market Area. For the purposes of this report, potential sales of retail sector $R$ in Market Area A is defined as:

- Potential Sales $=($ Population of Market Area A) $\times$ (Income ratio of Market Area A) $\times($ Regional per capita consumption of retail good R)

The income ratio is the ratio of per capita income in Market Area A to the regional per capita income. This ratio gives an indication of the relative spending power of residents in Market Area A. A correction factor was used to ensure potential and actual sales are equal in aggregate for the region.

The regional per capita consumption of retail good $R$ is the total regional sales in retail sector R divided by the population of the region. Because these values are dependent on the geographic extent of the regional boundary, they are relative measures that are specific to each study region*.

Surplus/leakage numbers are reported in dollars as well as in percentage form. The percentage term is the percentage of the potential sales for the Market Area, which indicates the size of actual sales relative to the estimated potential sales. For example, a $50 \%$ surplus implies that the actual sales are $50 \%$ larger than the estimated potential sales and vice versa, a - $50 \%$ surplus (i.e. a leakage) implies that actual sales are $50 \%$ less than potential sales. A $-100 \%$ surplus results if actual sales are zero.

* In other words, the region is defined with the locale of interest as the central point. A study in which one of the other Market Areas was the focus would generate a different study region with that market area as the Center. As a result, surplus and leakage estimates for the same market area will vary according to the study region that has been defined.


Estimated retail sales data are compiled by InfoUSA, a private market research company that compiles estimates of retail sales data. These data are then geo-coded and extracted using ESRI's ArcMap. These data are estimated for 2014, using one sales quarter in 2014 to estimate for the whole year. Several variables are available, including four digit Standard Industry Codes (SIC) and sales.

Census data on population, housing, income, commuting, and labor force characteristics are from the U.S. Census Bureau's decennial census of housing and population. These data can be accessed at: http://www.census. gov. The 2010 estimates are provided by ESRI.

For an explanation of the retail sectors that comprised this study, please visit: http://www.osha.gov/pls/imis/ sic_manual.html.

U.S. Census Bureau Website


Occupational Safety \& Health Administration

in focus


## 4,405 workers died on the job in 2013

12/17/2014 ND: Eighteen workers hospitalized for carbon monoxide exposure.

Fatality Reports

- 4
"No one should have to sacrifice their life for their livelihood, because a nation built on the dignity of wo must provide safe working conditions for its people." - Secretary of Labor Thomas E. Perez
U.S. Department of Labor

Occupational Safety \& Health Administration Web Site

## Appendix A: Total Estimated Retail Surplus/Leakages by Market Area

| SECTOR | Sidney | Bellefontaine | Greenville | Piqua | Tipp City | Troy | Wapakoneta | \#of markets w/ surplus (from 7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lumber and Other Building Materials Dealers | \$67,308,595 | \$(21,077,446) | \$(10,565,460) | \$(6,186,273) | \$27,729,966 | \$(51,769,366) | \$(5,440,017) | 2 |
| Paint, Glass, and Wallpaper Stores | \$ $4,571,596$ ) | \$12,613,233 | \$(108,859) | \$11,235,379 | \$(3,622,367) | \$(11,059,484) | \$ $(4,486,306)$ | 2 |
| Hardware Stores | \$(1,126,362) | \$(2,145,004) | \$3,671,073 | \$1,713,809 | \$844,000 | \$(3,049,808) | \$92,292 | 4 |
| Retail Nurseries, Lawn \& Garden Supply Stores | \$(33,910,997) | \$(29,920,084) | \$(7,104,322) | \$3,163,379 | \$134,738,634 | \$(47,415,364) | \$(9,551,248) | 2 |
| Mobile Home Dealers | \$555,798 | \$574,937 | \$(231,821) | \$(200,324) | \$(110,422) | \$(451,411) | \$(136,757) | 2 |
| Department Stores | \$(5,367,591) | \$31,974,080 | \$(8,201,636) | \$55,275,658 | \$(35,227,704) | \$(46,402,255) | \$7,949,446 | 3 |
| Variety Stores | \$(1,035,307) | \$1,580,076 | \$(2,188,048) | \$5,586,167 | \$(1,531,620) | \$(4,276,940) | \$1,865,671 | 3 |
| Miscellaneous General Merchandise Stores | \$2,575,555 | \$(835,650) | \$(273,405) | \$(636,353) | \$112,234 | \$(970,957) | \$28,575 | 3 |
| Grocery Stores | \$(29,455,578) | \$(38,621,319) | \$(42,106,780) | \$(35,622,364) | \$199,515,928 | \$(23,816,963) | \$(29,892,926) |  |
| Meat and Fish (Seafood) Markets | \$(43,402) | \$(953,997) | \$139,304 | \$253,525 | \$(400,443) | \$127,962 | \$877,051 | 4 |
| Fruit and Vegetable Markets | \$(3,909,066) | \$ $3,643,962$ ) | \$(3,211,189) | \$(2,774,899) | \$ $1,529,563$ ) | \$16,963,044 | \$(1,894,365) | 1 |
| Candy, Nut, and Confectionery Stores | \$( $5,371,430)$ | \$(5,007,152) | \$(2,750,481) | \$( $3,812,977)$ | \$15,668,235 | \$3,876,842 | \$(2,603,038) | 2 |
| Dairy Products Stores | \$308,532 | \$(58,232) | \$(51,316) | \$ $(44,344)$ | \$(24,443) | \$(99,924) | \$(30,273) | 1 |
| Retail Bakeries | \$3,991,266 | \$ 6588,288$)$ | \$(1,401,972) | \$98,061 | \$(373,861) | \$(1,019,218) | \$(635,988) | 2 |
| Miscellaneous Food Stores | \$(562,043) | \$573,964 | \$682,350 | \$(167, 374) | \$(67,607) | \$(940,477) | \$481,187 | 3 |
| Motor Vehicle Dealers (New and Used) | \$(36,089,108) | \$(37,117,252) | \$21,415,845 | \$(43,556,029) | \$(800,875) | \$91,925,332 | \$4,222,084 | 3 |
| Auto and Home Supply Stores | \$(94,315) | \$(1,235,651) | \$(72,639) | \$4,843,142 | \$194,967 | \$(5,969,560) | \$2,334,057 | 3 |
| Boat Dealers | \$(66,173) | \$(61,685) | \$(54,359) | \$(46,973) | \$(25,892) | \$ 105,850 ) | \$360,932 |  |
| Recreational Vehicle Dealers | \$ 245,159 | \$ 2228,532 ) | \$(201,391) | \$(174,029) | \$(95,927) | \$ 392,56 ) | \$1,337,194 | 1 |
| Motorcycle Dealers | \$(3,329,049) | \$572,767 | \$(1,407,248) | \$3,064,020 | \$4,936,460 | \$(2,245,191) | \$(1,591,758) | 3 |
| Men's and Boys' Clothing and Accessory Stores | \$(190,436) | \$(177,521) | \$(156,438) | \$995,817 | \$(74,515) | \$(304,622) | \$(92,287) |  |
| Women's Clothing Stores | \$(284,597) | \$(592,891) | \$406,535 | \$902,899 | \$(407,954) | \$(150,742) | \$126,749 | 3 |
| Women's Accessory and Specialty Stores | \$(214,77) | \$(199,652) | \$78,060 | \$865,964 | \$(83,804) | \$(342,598) | \$(103,792) | 2 |
| Children's and Infants' Wear Stores | \$(69,372) | \$(64,667) | \$(56,987) | \$(49,244) | \$(27,144) | \$301,033 | \$(33,618) | 1 |
| Family Clothing Stores | \$(2,202,217) | \$1,074,132 | \$891,940 | \$4,693,729 | \$(435,697) | \$(3,238,674) | \$(783,212) | 3 |
| Shoe Stores | \$(824,325) | \$ 2977,065 ) | \$717,196 | \$2,840,947 | \$(647,705) | \$ $1,263,864$ ) | \$(525,184) | 2 |
| Miscellaneous Apparel and Accessory Stores | \$12,515,835 | \$(3,496,925) | \$(3,258,794) | \$4,569,321 | \$(1,732,288) | \$(6,829,710) | \$(1,767,440) | 2 |
| Furniture Stores | \$1,049,116 | \$(4,295,892) | \$(4,120,540) | \$(1,492,536) | \$(1,319,778) | \$12,174,596 | \$(1,994,966) | 2 |
| Floor Covering Stores | \$751,183 | \$(137,700) | \$3,182,667 | \$(1,477,094) | \$1,760,806 | \$ $(3,071,482)$ | \$(1,008,381) | 3 |
| Drapery, Curtain, and Upholstery Stores | \$47,638 | \$(140,164) | \$174,482 | \$(106,736) | \$(58,834) | \$156,481 | \$(72,866) | 3 |
| Miscellaneous home furnishings Stores | \$(27,690) | \$294,699 | \$4,925 | \$180,315 | \$(71,484) | \$(292,232) | \$(88,533) | 3 |
| Household Appliance Stores | \$ $3,568,694$ ) | \$(2,493,295) | \$4,718,798 | \$7,048,345 | \$(1,502,418) | \$ $4,241,989)$ | \$39,253 | 3 |
| Radio, TV, and Consumer Electronics Stores | \$(474,501) | \$(375,521) | \$(213,940) | \$1,130,955 | \$807,918 | \$(955,624) | \$80,714 | 3 |
| Computer and Computer Software Stores | \$4,227,377 | \$(2,609,759) | \$511,188 | \$(1,285,347) | \$1,948,547 | \$(1,435,286) | \$(1,356,720) | 3 |
| Record and Prerecorded Tape Stores | \$(201,212) | \$ 187,566 ) | \$(165,290) | \$920,167 | \$53,269 | \$(321,859) | \$(97,509) | 2 |
| Musical Instrument Stores | \$58,441 | \$66,617 | \$(99,036) | \$272,420 | \$(47,173) | \$(192,846) | \$(58,424) | 3 |
| Eating Places | \$(2,693,992) | \$(9,829,928) | \$158,724 | \$5,331,792 | \$6,882,160 | \$(967,303) | \$1,118,545 | 4 |
| Drinking Places (alcoholic Beverages) | \$(502,281) | \$(621,021) | \$1,608,513 | \$975,913 | \$ 376,527$)$ | \$(1,263,268) | \$178,671 | 3 |
| Drug Stores and Proprietary Stores | \$ $(4,262,444)$ | \$3,873,446 | \$6,077,655 | \$7,489,220 | \$1,262,798 | \$(15,334,707) | \$894,031 | 5 |
| Liquor Stores | \$(479,227) | \$(2,324,276) | \$556,203 | \$3,440,895 | \$810,800 | \$(4,233,466) | \$2,229,071 | 4 |
| Used Merchandise Stores | \$(1,324,766) | \$664,252 | \$432,373 | \$1,281,657 | \$470,440 | \$(2,766,072) | \$1,242,116 | 5 |
| Sporting Goods Stores and Bicycle Shops | \$(1,954,881) | \$1,339,307 | \$1,233,831 | \$( 389,364 ) | \$1,449,809 | \$(1,264,364) | \$(414,339) | 3 |
| Book Stores | \$(717,627) | \$752,040 | \$(73,511) | \$(509,417) | \$364,202 | \$532,081 | \$(347,768) | 3 |
| Stationery Stores | \$1,847,653 | \$(2,385,778) | \$2,742,567 | \$(1,816,785) | \$(120,437) | \$973,059 | \$(1,240,280) | 3 |
| Jewelry Stores | \$687,154 | \$(963,713) | \$1,389,040 | \$65,302 | \$(1,091,236) | \$446,951 | \$(533,498) | 4 |
| Hobby, Toy, and Game Shops | \$29,218 | \$614,280 | \$(2,125) | \$635,573 | \$(228,240) | \$(580,166) | \$(468,539) | 3 |
| Camera and Photographic Supply Stores | \$(199,696) | \$(186,153) | \$1,021,955 | \$(141,757) | \$(78,138) | \$(319,435) | \$(96,775) | 1 |
| Gift, Novelty, and Souvenir Shops | \$(910,471) | \$(264,696) | \$1,262,550 | \$878,106 | \$1,251,104 | \$(1,510,776) | \$(705,817) | 3 |
| Sewing, Needlework, and Piece Goods Stores | \$(252,399) | \$646,718 | \$(207,339) | \$85,832 | \$(98,760) | \$(51,738) | \$(122,314) | 2 |
| Catalog and Mail-Order Houses | \$(570,465) | \$(531,777) | \$(468,621) | \$950,048 | \$ $(223,215)$ | \$1,120,482 | \$ 276,452 ) | 2 |
| Automatic Merchandising Machine Operators | \$6,264,610 | \$(1,815,553) | \$1,429,581 | \$(712,245) | \$ 888,589$)$ | \$ $3,628,524$ ) | \$(650,280) | 2 |
| Liquefied Petroleum Gas (Bottled Gas) Dealers | \$(1,283,715) | \$(1,196,656) | \$(1,054,536) | \$(911,261) | \$(502,299) | \$(2,053,434) | \$7,001,901 | - |
| Florists | \$(167,704) | \$(96,397) | \$162,376 | \$133,083 | \$318,352 | \$(1,079,315) | \$729,605 | 4 |
| Tobacco Stores and Stands | \$(111,230) | \$269,931 | \$(468,781) | \$(32,337) | \$84,108 | \$(293,859) | \$552,67 | 3 |
| News Dealers and Newsstands | \$173,770 | \$(82,247) | \$(72,479) | \$(62,631) | \$227,477 | \$(141,133) | \$(42,757) | 2 |
| Optical Goods Stores | \$2,123,086 | \$(882,395) | \$1,662,393 | \$ 274,367 ) | \$(631,893) | (1,587,223) | \$(409,601) | 2 |
| Misc. Retail Stores, Not Elsewhere Classified | \$(12,009,130) | \$(12,305,893) | \$17,268,822 | \$5,888,904 | \$13,867,412 | \$(8,490,716) | \$(4,219,399) | 3 |
|  |  |  |  |  |  |  |  |  |
| Under/over | -56159597.86 | -132634873.9 | 26748396.52 | 34327284.15 | 360841771.7 | -139594085.8 | -40032116.47 |  |
| Total regional market |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Number of sectors + in market | 17 | 16 | 27 | 32 | 23 | 11 | 21 | total 147 |
|  |  |  |  |  |  |  |  |  |

The Ohio State University Extension, Community Development The Center for Urban \& Regional Analysis The Ohio Sea Grant College Program


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## The Ohio State University


[^0]:    Important note: This report centers on presenting findings. The report presents a very limited interpretation of the findings in the form of bulleted items. The interpretation provided serves as an example of the type of analysis that could be conducted with the findings.

    1 This report uses a number of project-specific terms, including market area, potential sales and retail sales surplus and leakage. For definitions of these terms please see page 24 .

