This report examines local retail sales and related economic trends in Milo, Iowa, using a variety of comparative performance measures. The retail analysis is based on state-reported sales of goods and services that are subject to Iowa’s statewide sales tax. Please refer to the Data Notes section for detailed information about the types of retail activity included in taxable sales. The data notes also include definitions and guidelines for interpreting retail measures and other indicators in this report.

Except where otherwise noted, retail sales data for preceding years have been adjusted for inflation and are stated in Fiscal Year 2017 dollar equivalents. The 2017 fiscal year began on July 1, 2016, and ended on June 30, 2017.

### Overview

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Except where otherwise noted, retail sales data for preceding years have been adjusted for inflation and are stated in Fiscal Year 2017 dollar equivalents. The 2017 fiscal year began on July 1, 2016, and ended on June 30, 2017.

### Key Retail Indicators for Milo

<table>
<thead>
<tr>
<th>Indicator</th>
<th>FY2016</th>
<th>FY2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real total taxable sales ($)</td>
<td>4,000,787</td>
<td>3,885,186</td>
<td>-2.9% ▼</td>
</tr>
<tr>
<td>Number of reporting firms (annualized)</td>
<td>32</td>
<td>30</td>
<td>-6.3% ▼</td>
</tr>
<tr>
<td>Population</td>
<td>784</td>
<td>787</td>
<td>0.4% ▲</td>
</tr>
<tr>
<td>Average sales per capita ($)</td>
<td>5,103</td>
<td>4,937</td>
<td>-3.3% ▼</td>
</tr>
<tr>
<td>Average sales per firm ($)</td>
<td>126,009</td>
<td>129,506</td>
<td>2.8% ▲</td>
</tr>
</tbody>
</table>

Issued March, 2018
10-Year Summary Retail Sales Tax Statistics

Real Total Taxable Sales in Milo

Annualized Number of Reporting Firms in Milo

Taxable Retail Sales Per Capita
Local Economic Trends

Population
Population change is a key factor influencing local retail sales performance. From one year to the next, area population gains or losses alter the number of potential shoppers in the region. In the longer term, population trends reflect the general economic climate of the region. Population growth suggests a more favorable retail environment, while population decline may be an indication of area economic stress.

The top chart at right shows annual population estimates for Milo, Warren County and the state indexed to baseline values from ten years ago. The population in any given year is expressed in percentage terms compared to the base year population.

The middle chart at right compares population change in Milo to the trend for similarly-sized cities in Iowa. See Pages 20-22 for a list of cities included in the peer group for Milo.

Average Wages
The local demand for retail goods and services also depends on the income level of area residents. Major sources of personal income include wages and salaries, returns to proprietors, investment income, and government transfer payments. Wages and salaries comprise the majority of personal income and provide the most stable indicator of local conditions. The chart at right illustrates recent, inflation-adjusted average earnings per wage and salary job in Warren County and the state.

<table>
<thead>
<tr>
<th>Population Trends</th>
<th>(Annual estimates as a percentage of 2008 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY08</td>
<td>FY09</td>
</tr>
<tr>
<td>Milo</td>
<td>Warren County</td>
</tr>
<tr>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Trend for Peer Cities</th>
<th>(Annual estimates as a percentage of 2008 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY08</td>
<td>FY09</td>
</tr>
<tr>
<td>Milo</td>
<td>Peer Group Average</td>
</tr>
<tr>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Real Wages and Salaries Per Job ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Warren County</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000</td>
<td>34,000</td>
</tr>
</tbody>
</table>
Employment

Area job growth creates earnings opportunities for current residents and also helps to attract new residents to the region. Conversely, lagging employment growth rates may indicate a decline in the region’s competitive strength.

The chart at top right shows the 10-year trend in wage and salary employment in Warren County. Each year’s employment, which counts full-time and part-time jobs equally, is expressed as a percentage of baseline year employment. The statewide trend is included for comparison.

The middle chart shows more recent job gains and losses in Warren County. The chart illustrates the percentage gain or loss in jobs during Fiscal Year 2017 on a month-by-month basis, with each month’s employment compared to the same month in the prior fiscal year.

Unemployment

Rising or persistently high levels of unemployment may contribute to household economic stress within the region and may ultimately reduce aggregate household spending levels.

The chart at right shows recent Warren County and statewide unemployment rate trends. The unemployment rate is defined as the percentage of the labor force that is unemployed but actively seeking work.
Iowa’s 946 cities vary in the level and types of retail activity they can support. A given city’s retail prospects depend not only on its own population size, but also on the urbanization patterns and competitive characteristics of the surrounding area. With no two of Iowa’s cities exactly alike in these respects, how might a particular community benchmark its own retail performance? Peer group analysis, which involves comparisons among a group of cities sharing similar characteristics, can provide a reasonable basis for evaluating local retail performance.

In general, retail sector size and diversity tends to increase with community size and population density of the surrounding area. Metropolitan cities, for example, have access to a large pool of potential customers living within a geographically concentrated area, allowing them to offer a wider range of retail goods and services than most smaller communities can support. The diversity of their retail offerings tends to attract non-resident shoppers from a broad geographic area, often at the expense of smaller communities in outlying areas. In contrast, small communities located in remote, rural locations tend to have retail sectors that serve primarily local markets.

This retail analysis report assigns all cities in Iowa to peer groups based on their population size and the urbanization characteristics of their host county. The peer groups are listed in the following table, with the relevant peer group for Milo highlighted in blue (see Pages 20-22 for a complete list of member cities by peer group). The chart at the bottom of this page illustrates the comparative sales performance for all of the city peer groups during Fiscal Year 2017.

### Peer Group Definitions

<table>
<thead>
<tr>
<th>Peer Group</th>
<th>City Population Size</th>
<th>Metropolitan Status of the County</th>
<th>Number of Cities</th>
<th>% of State Taxable Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>10,000 or greater</td>
<td>Core county of a metropolitan statistical area (MSA)</td>
<td>21</td>
<td>60.1%</td>
</tr>
<tr>
<td>Group 2</td>
<td>10,000 or greater</td>
<td>Non-core MSA county or non-metropolitan county</td>
<td>17</td>
<td>12.5%</td>
</tr>
<tr>
<td>Group 3</td>
<td>2,500 to 9,999</td>
<td>Non-metropolitan county</td>
<td>62</td>
<td>11.8%</td>
</tr>
<tr>
<td>Group 4</td>
<td>2,500 to 9,999</td>
<td>Metropolitan county</td>
<td>33</td>
<td>5.2%</td>
</tr>
<tr>
<td>Group 5N</td>
<td>500 to 2,499</td>
<td>Non-metropolitan county, not adjacent to a MSA</td>
<td>102</td>
<td>2.7%</td>
</tr>
<tr>
<td>Group 5A</td>
<td>500 to 2,499</td>
<td>Non-metropolitan county, adjacent to a MSA</td>
<td>117</td>
<td>2.7%</td>
</tr>
<tr>
<td>Group 6</td>
<td>500 to 2,499</td>
<td>Metropolitan county</td>
<td>105</td>
<td>2.6%</td>
</tr>
<tr>
<td>Group 7</td>
<td>250 to 499</td>
<td>Any county</td>
<td>176</td>
<td>1.0%</td>
</tr>
<tr>
<td>Rest of State</td>
<td>250 to 499</td>
<td>Any county</td>
<td></td>
<td>1.5%</td>
</tr>
</tbody>
</table>

### Average Sales Per Capita by City Peer Group, FY 2017

![Average Sales Per Capita Chart]

- State of Iowa: $12,410
- Group 1: $18,420
- Group 2: $16,550
- Group 3: $15,310
- Group 4: $16,180
- Group 5N: $9,900
- Group 5A: $8,030
- Group 6: $7,950
- Group 7: $7,060
- Rest of State: $830
Expected Range for Local Sales Per Capita

The chart at right compares sales levels in Milo to a range of “expected,” or typical, values for cities in its peer group.

The blue rectangles illustrate the range of expected values, defined as any value between the 25th to the 75th percentile values for the peer group in each year.

The red dashes show the actual per capita sales performance by Milo.

In Fiscal Year 2017, per capita sales in Milo were within the expected range.

Top 10 Peer Group Cities Ranked by Sales Per Capita

Among the 103 peer cities reporting data in the most recent fiscal year, Milo ranked number 74 in per capita sales.

The peer group’s top performers, measured by their average sales per capita in Fiscal Year 2017, are listed in the chart at right.

Sales levels in some cities may be inflated by the presence of a regional utility or other regional retail anomaly that may not be replicable in other communities. In general, values exceeding the peer group average by two or more standard deviations should be viewed with caution. Any such cities are indicated at right with an asterisk (*).

See Pages 20-22 for a complete listing of cities by peer group.
Pull Factor Analysis

This section introduces three related measures for assessing retail sales performance: trade surplus or leakage, trade area capture, and the pull factor ratio. All three measures are based on a hypothetical “self-sufficiency” level of sales at which the city’s retail sector satisfies all of the retail needs of its own residents. This hypothetical sales value might also be viewed as “break-even” level where any sales lost from non-local spending by residents are exactly offset by sales to non-residents.

Trade Surplus or Leakage

Trade surplus or leakage measures the dollar difference between the city’s actual sales and the total sales it could generate if residents satisfied all their retail needs locally, i.e. its self-sufficiency or breakeven sales level. Sales above the breakeven level imply a net surplus arising from sales to non-residents. Leakage, or sales below the breakeven level, suggests that local residents’ spending outside the city exceeds local firms’ sales to non-residents.

Below are trade surplus or leakage estimates for Milo. To estimate the breakeven level of sales, the dollar amount of statewide average per capita spending on taxable goods and services is adjusted up or down by a factor that reflects local income characteristics, and is then multiplied by the city’s population size. The breakeven sales target represents an estimate of Milo residents’ total spending on taxable goods and services that are purchased anywhere within Iowa.

### Milo Breakeven Analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide average per capita spending ($)</td>
<td>12,453</td>
<td>12,408</td>
<td>11,626</td>
<td>11,709</td>
<td>11,951</td>
<td>11,809</td>
<td>11,935</td>
<td>12,331</td>
<td>12,490</td>
<td>12,413</td>
</tr>
<tr>
<td>$x$ Local income adjustment</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
</tr>
<tr>
<td>= Average spending (anywhere) by residents ($)</td>
<td>12,217</td>
<td>12,171</td>
<td>11,402</td>
<td>11,482</td>
<td>11,717</td>
<td>11,698</td>
<td>12,085</td>
<td>12,239</td>
<td>12,162</td>
<td></td>
</tr>
<tr>
<td>$x$ City population estimate</td>
<td>792</td>
<td>785</td>
<td>779</td>
<td>778</td>
<td>777</td>
<td>776</td>
<td>780</td>
<td>782</td>
<td>784</td>
<td>787</td>
</tr>
<tr>
<td>= Breakeven sales target ($000s)</td>
<td>9,676</td>
<td>9,555</td>
<td>8,883</td>
<td>8,933</td>
<td>9,104</td>
<td>8,984</td>
<td>9,124</td>
<td>9,450</td>
<td>9,595</td>
<td>9,571</td>
</tr>
<tr>
<td>City actual sales ($000s)</td>
<td>3,630</td>
<td>3,858</td>
<td>3,661</td>
<td>3,667</td>
<td>3,397</td>
<td>3,344</td>
<td>3,524</td>
<td>3,623</td>
<td>3,401</td>
<td>3,885</td>
</tr>
<tr>
<td>Surplus estimate ($000s)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Leakage estimate ($000s)</td>
<td>(6,046)</td>
<td>(5,697)</td>
<td>(5,222)</td>
<td>(5,267)</td>
<td>(5,707)</td>
<td>(5,639)</td>
<td>(5,601)</td>
<td>(5,827)</td>
<td>(5,595)</td>
<td>(5,686)</td>
</tr>
</tbody>
</table>

Trade Area Capture

The extent of a city’s “trade area” can be approximated by estimating the number of customers whose annual retail needs it satisfies. If that number exceeds the resident population, the city’s geographic trade area likely extends beyond its borders. If below, the city’s trade area likely overlaps or is subsumed by that of a nearby community.

Trade area capture is estimated by dividing the city’s actual total sales by the expected average, annual retail requirements of its residents. The chart at right illustrates the city’s trade area capture in relation to its population size.
The Pull Factor Ratio

A city's pull factor ratio is calculated by dividing its trade area capture measure by its resident population.

A pull factor ratio equal to 1.0 suggests that the city's merchants are just satisfying the retail demands of local residents. This is equivalent to the “break even” sales level where the city is experiencing neither a surplus or leakage of sales.

A pull factor ratio greater than 1.0 suggests that the city’s merchants are attracting shoppers from outside the city. For example, a city whose retail customer base is 25 percent larger than its population would have a pull factor of 1.25.

A pull factor ratio less than 1.0 indicates that the city’s retail sector cannot satisfy all of the retail needs of its own residents.

Pull factor ratios may vary widely from one city to the next, even among cities in the same peer group. For any particular city, a comparison with the peer group’s median pull factor value provides a reasonable performance benchmark.

The chart below shows recent trends in pull factor ratios for Milo and its peer group. The city’s pull factor values are indicated with red circles.

The blue dashes indicate the median pull factor for the peer group in each year. If the city’s pull factor exceeds the group median, it ranks among the top half of its peer group. If its pull factor is below the median value, then it ranks among the bottom half of cities in its peer group.

Caution is urged in the interpretation of pull factors, especially for smaller communities.

For example, a high pull factor doesn’t necessarily indicate retail self-sufficiency across all categories of retail sales. A city’s pull factor could be inflated by the presence of one or more retail establishments that serve as a regional draw in a particular sales category, even if the city is experiencing substantial leakage of sales in other retail categories.

Similarly, a low pull factor does not necessarily suggest untapped sales potential in the local retail sector. Most small cities should expect to lose at least a fraction of their residents’ spending to larger trade centers.

### Pull Factor Comparison With Peer Group

<table>
<thead>
<tr>
<th></th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Median</td>
<td>0.52</td>
<td>0.53</td>
<td>0.55</td>
<td>0.53</td>
<td>0.52</td>
<td>0.53</td>
<td>0.52</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53</td>
</tr>
<tr>
<td>Milo</td>
<td>0.38</td>
<td>0.40</td>
<td>0.41</td>
<td>0.41</td>
<td>0.37</td>
<td>0.37</td>
<td>0.39</td>
<td>0.38</td>
<td>0.42</td>
<td>0.41</td>
</tr>
</tbody>
</table>
Communities within a region compete with each other for shares of overall regional economic activity. This section explores some of the competitive forces at work in the area surrounding Milo. First, the distribution of trade among cities in Warren County is assessed. Next, important interactions with surrounding cities and counties are examined using data on worker commuting flows. Finally, retail trade patterns in the broader region are illustrated by comparing average per capita sales and pull factor ratios for nearby cities and counties.

### Role Within the County

The relative contributions of Milo as a trade and population center within Warren County are illustrated at right. The left-most chart shows the percentage of Warren County taxable sales occurring within the city of Milo. The right-most chart displays the percentage of Warren County residents who live within Milo.

### Other Trade and Population Centers Within the County

The table at right lists cities in Warren County with reported taxable sales activity during Fiscal Year 2017. Data for cities with 10 or fewer permit-holders filing sales tax returns are suppressed. Sales amounts for those smaller jurisdictions are included within the “other areas in county” values.

Amounts shown for each city reflect the population and reported sales for the city as a whole, regardless of whether it crosses into a neighboring county. Any cities with reporting firms that fall within a neighboring county are indicated with an asterisk (*), and the neighboring county’s portion of sales, if any, are noted below the table.

<table>
<thead>
<tr>
<th>Area Name</th>
<th>Population</th>
<th>Average # Filers</th>
<th>Sales $millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warren Total</td>
<td>49,753</td>
<td>1,020</td>
<td>317.6</td>
</tr>
<tr>
<td>Carlisle*</td>
<td>4,311</td>
<td>135</td>
<td>25.4</td>
</tr>
<tr>
<td>Cumming</td>
<td>413</td>
<td>32</td>
<td>8.5</td>
</tr>
<tr>
<td>Hartford</td>
<td>775</td>
<td>15</td>
<td>2.2</td>
</tr>
<tr>
<td>Indianola</td>
<td>15,892</td>
<td>508</td>
<td>205.7</td>
</tr>
<tr>
<td>Lacona</td>
<td>370</td>
<td>18</td>
<td>1.5</td>
</tr>
<tr>
<td>Martensdale</td>
<td>481</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>Milo</td>
<td>787</td>
<td>30</td>
<td>3.9</td>
</tr>
<tr>
<td>New Virginia</td>
<td>494</td>
<td>46</td>
<td>4.5</td>
</tr>
<tr>
<td>Norwalk</td>
<td>10,442</td>
<td>184</td>
<td>60.9</td>
</tr>
<tr>
<td>Other areas in Warren County</td>
<td>66</td>
<td>8.7</td>
<td></td>
</tr>
</tbody>
</table>

*Neighboring county portions (24) (5.1)
Commuting Patterns

Regional commuting flows represent possible sources of sales surplus or leakage for the local retail sector. Worker inflows from neighboring communities help to expand the potential customer base. When residents commute elsewhere for work, the likelihood that they will shop locally, especially during traditional business hours, decreases.

Milo Commuting Summary, 2015

The figure at right compares the relative magnitude of worker flows into and from Milo in 2015. The city had an estimated net commuting flow of -235 wage and salary workers. The net flow is the difference between inflows of people employed in Milo but living elsewhere and outflows of Milo residents who are employed in some other city or county.

The likelihood of a given resident out-commuting from Milo was 96.7% in 2015. The average rate for similarly-sized cities was 93.7%. Those out-commuting rates represent the percentage of residents in wage and salary jobs who commute to work somewhere outside their residence city.

Key Commuting Relationships for Milo: Top 3 Sources and Destinations of Workers

Worker commuting patterns also reveal broader regional relationships that influence local economic conditions.

The chart at right identifies the top three workplace destinations for Milo residents and the top three cities supplying the greatest number of Milo workers in 2015. The chart measures these flows as percentages of the city’s total workforce size and total employment, respectively.

NOTE: The commuting charts on this page are based on 2015 worker commuting flow data published by the U.S. Census Bureau. In cases of small place-to-place commuting flows, the Census Bureau masks the data in order to protect the confidentiality of individual workers and/or business firms. Therefore, the actual size and destinations of the city’s commuting flows may differ slightly from those shown here.
Regional Trade Patterns

Regional shopping patterns may be inferred from relative trade levels in surrounding counties and cities. The graphics on this page illustrate which counties and cities in the region serve as regional magnets for retail trade activity.

The map at right illustrates county retail pull factors for Fiscal Year 2017 (see Page 8 for a definition of pull factors). The counties with a pull factor exceeding 1.0, identified in the map with large blue dots, are likely exerting a strong retail influence on trade centers in neighboring counties. Counties with pull factors below 1.0 are leaking sales on a county-wide basis, but might still contain one or more strong local trade centers.

The bar graph below compares Fiscal Year 2017 per capita sales in Milo to average sales in neighboring communities with 500 or more residents. The comparison group includes the ten communities nearest to Milo, as measured from the center of each city. The cities are listed from left to right in descending order by their average per capita sales. Population sizes for each city, as of the 2010 Census, are also indicated.
Historical Trends in Taxable Sales

Historical retail sales statistics for Milo and the State of Iowa are presented below. Real total taxable sales and real average sales per firm and per capita have been adjusted for inflation and are shown in Fiscal Year 2017-equivalent dollars.

**NOTE: Values for Fiscal Year 2009 and later measure retail activity during a July 1-June 30 fiscal year period. Values for Fiscal Years 2008 and earlier were compiled on an April 1-March 31 fiscal year basis.

Historical Statistics for Milo:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Reporting Firms</th>
<th>Total Taxable Sales ($)</th>
<th>Real Average Sales ($)</th>
<th>Statewide Real Average ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal</td>
<td>Per Firm</td>
<td>Per Capita</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Real</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>23</td>
<td>766,604</td>
<td>2,747,297</td>
<td>375,717</td>
</tr>
<tr>
<td>1977</td>
<td>20</td>
<td>706,805</td>
<td>2,394,923</td>
<td>387,365</td>
</tr>
<tr>
<td>1978</td>
<td>19</td>
<td>743,468</td>
<td>2,361,638</td>
<td>381,649</td>
</tr>
<tr>
<td>1979</td>
<td>22</td>
<td>1,026,510</td>
<td>3,025,944</td>
<td>387,066</td>
</tr>
<tr>
<td>1980</td>
<td>22</td>
<td>1,216,110</td>
<td>3,251,839</td>
<td>379,678</td>
</tr>
<tr>
<td>1981</td>
<td>24</td>
<td>1,220,032</td>
<td>2,962,307</td>
<td>337,884</td>
</tr>
<tr>
<td>1982</td>
<td>24</td>
<td>1,186,975</td>
<td>2,695,944</td>
<td>324,893</td>
</tr>
<tr>
<td>1983</td>
<td>22</td>
<td>1,018,617</td>
<td>2,206,043</td>
<td>315,827</td>
</tr>
<tr>
<td>1984</td>
<td>22</td>
<td>926,680</td>
<td>1,928,612</td>
<td>309,341</td>
</tr>
<tr>
<td>1985</td>
<td>21</td>
<td>762,455</td>
<td>1,532,630</td>
<td>305,902</td>
</tr>
<tr>
<td>1986</td>
<td>19</td>
<td>814,670</td>
<td>1,589,020</td>
<td>299,878</td>
</tr>
<tr>
<td>1987</td>
<td>18</td>
<td>603,659</td>
<td>1,152,201</td>
<td>317,113</td>
</tr>
<tr>
<td>1988</td>
<td>18</td>
<td>606,192</td>
<td>1,115,658</td>
<td>318,657</td>
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<tr>
<td>1989</td>
<td>21</td>
<td>751,374</td>
<td>1,324,748</td>
<td>337,328</td>
</tr>
<tr>
<td>1990</td>
<td>24</td>
<td>784,885</td>
<td>1,331,085</td>
<td>328,064</td>
</tr>
<tr>
<td>1991</td>
<td>28</td>
<td>904,634</td>
<td>1,471,402</td>
<td>329,548</td>
</tr>
<tr>
<td>1992</td>
<td>27</td>
<td>997,788</td>
<td>1,580,505</td>
<td>330,022</td>
</tr>
<tr>
<td>1993</td>
<td>32</td>
<td>1,164,314</td>
<td>1,796,841</td>
<td>330,326</td>
</tr>
<tr>
<td>1994</td>
<td>38</td>
<td>1,544,949</td>
<td>2,333,395</td>
<td>337,328</td>
</tr>
<tr>
<td>1995</td>
<td>37</td>
<td>1,507,761</td>
<td>2,228,127</td>
<td>344,346</td>
</tr>
<tr>
<td>1996</td>
<td>37</td>
<td>1,770,939</td>
<td>2,556,441</td>
<td>345,320</td>
</tr>
<tr>
<td>1997</td>
<td>38</td>
<td>2,009,373</td>
<td>2,851,564</td>
<td>363,023</td>
</tr>
<tr>
<td>1998</td>
<td>38</td>
<td>2,094,502</td>
<td>2,939,758</td>
<td>365,431</td>
</tr>
<tr>
<td>1999</td>
<td>42</td>
<td>2,194,243</td>
<td>3,050,284</td>
<td>391,075</td>
</tr>
<tr>
<td>2000</td>
<td>39</td>
<td>2,554,028</td>
<td>3,476,894</td>
<td>398,544</td>
</tr>
<tr>
<td>2001</td>
<td>41</td>
<td>2,981,460</td>
<td>3,962,699</td>
<td>399,420</td>
</tr>
<tr>
<td>2002</td>
<td>38</td>
<td>3,189,022</td>
<td>4,186,510</td>
<td>400,827</td>
</tr>
<tr>
<td>2003</td>
<td>34</td>
<td>2,911,762</td>
<td>3,750,543</td>
<td>418,647</td>
</tr>
<tr>
<td>2004</td>
<td>32</td>
<td>2,913,065</td>
<td>3,677,980</td>
<td>426,018</td>
</tr>
<tr>
<td>2005</td>
<td>33</td>
<td>3,215,791</td>
<td>3,956,014</td>
<td>424,322</td>
</tr>
<tr>
<td>2006</td>
<td>30</td>
<td>3,206,776</td>
<td>3,826,388</td>
<td>435,494</td>
</tr>
<tr>
<td>2007</td>
<td>33</td>
<td>3,142,584</td>
<td>3,666,467</td>
<td>427,394</td>
</tr>
<tr>
<td>2008</td>
<td>36</td>
<td>3,206,985</td>
<td>3,630,340</td>
<td>428,039</td>
</tr>
<tr>
<td>2009**</td>
<td>36</td>
<td>3,449,749</td>
<td>3,858,065</td>
<td>419,687</td>
</tr>
<tr>
<td>2010</td>
<td>36</td>
<td>3,306,776</td>
<td>3,660,534</td>
<td>403,123</td>
</tr>
<tr>
<td>2011</td>
<td>37</td>
<td>3,370,590</td>
<td>3,666,669</td>
<td>418,182</td>
</tr>
<tr>
<td>2012</td>
<td>39</td>
<td>3,199,236</td>
<td>3,397,380</td>
<td>426,547</td>
</tr>
<tr>
<td>2013</td>
<td>38</td>
<td>3,197,607</td>
<td>3,344,395</td>
<td>421,047</td>
</tr>
<tr>
<td>2014</td>
<td>35</td>
<td>3,416,938</td>
<td>3,523,925</td>
<td>437,791</td>
</tr>
<tr>
<td>2015</td>
<td>35</td>
<td>3,543,370</td>
<td>3,623,455</td>
<td>455,460</td>
</tr>
<tr>
<td>2016</td>
<td>32</td>
<td>3,938,395</td>
<td>4,000,787</td>
<td>462,131</td>
</tr>
<tr>
<td>2017</td>
<td>30</td>
<td>3,885,186</td>
<td>3,885,186</td>
<td>461,850</td>
</tr>
</tbody>
</table>
Areas of strength or weakness in the local retail sector may be revealed through a comparative analysis of sales by specific types of businesses. The following table presents taxable sales statistics by business group for Warren County. NOTE: Sales data by business group are not available for individual cities (see Page 23 for more information).

The top section shows the annualized number of reporting firms (average returns filed per quarter), taxable sales, and average sales per firm in 12 types of retail businesses. The bottom section shows sales by business group on a per capita basis. Real averages for the prior 3-year period are provided to identify areas of recent growth or decline. Median values for similar counties and statewide averages for the current fiscal year are also provided for benchmarking purposes. County data are suppressed for business groups that did not meet a minimum threshold for number of reporting firms.

Sales by business group should not be confused with sales by merchandise category. The business group sales data reflect the broad business classification of the firms making the sales, not the specific goods and services that were sold. See Page 15 for a more detailed list of the types of firms included within each business group.

## Warren County Taxable Sales Summary by Business Group

### Total Sales and Average Sales Per Firm

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Warren County FY17 Totals</th>
<th>Average Sales Per Firm ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reporting Firms</td>
<td>Total Sales ($)</td>
</tr>
<tr>
<td>Apparel Stores</td>
<td>11</td>
<td>1,055,525</td>
</tr>
<tr>
<td>Building Materials Stores</td>
<td>18</td>
<td>3,857,814</td>
</tr>
<tr>
<td>Eating and Drinking Establishments</td>
<td>82</td>
<td>31,933,827</td>
</tr>
<tr>
<td>Food Stores (excluding non-taxable food items)</td>
<td>39</td>
<td>47,378,152</td>
</tr>
<tr>
<td>General Merchandise Stores</td>
<td>9</td>
<td>51,754,707</td>
</tr>
<tr>
<td>Home Furnishings Stores</td>
<td>14</td>
<td>5,998,249</td>
</tr>
<tr>
<td>Specialty Retail Stores</td>
<td>185</td>
<td>14,295,810</td>
</tr>
<tr>
<td>Service Establishments</td>
<td>399</td>
<td>41,612,540</td>
</tr>
<tr>
<td>Miscellaneous Retail Firms</td>
<td>163</td>
<td>36,576,913</td>
</tr>
<tr>
<td>Automotive and Related Stores</td>
<td>31</td>
<td>30,932,556</td>
</tr>
<tr>
<td>Utilities and Transportation Services</td>
<td>36</td>
<td>27,809,213</td>
</tr>
<tr>
<td>Retail Sales by Wholesale Firms</td>
<td>35</td>
<td>24,403,923</td>
</tr>
</tbody>
</table>

### Real Sales Per Capita ($)

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Warren County Trends</th>
<th>FY17 Benchmark Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY14 - FY16</td>
<td>FY17</td>
</tr>
<tr>
<td>Apparel Stores</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>Building Materials Stores</td>
<td>61</td>
<td>77</td>
</tr>
<tr>
<td>Eating and Drinking Establishments</td>
<td>587</td>
<td>640</td>
</tr>
<tr>
<td>Food Stores (excluding non-taxable food items)</td>
<td>902</td>
<td>949</td>
</tr>
<tr>
<td>General Merchandise Stores</td>
<td>1,026</td>
<td>1,037</td>
</tr>
<tr>
<td>Home Furnishings Stores</td>
<td>122</td>
<td>120</td>
</tr>
<tr>
<td>Specialty Retail Stores</td>
<td>236</td>
<td>286</td>
</tr>
<tr>
<td>Service Establishments</td>
<td>787</td>
<td>834</td>
</tr>
<tr>
<td>Miscellaneous Retail Firms</td>
<td>600</td>
<td>733</td>
</tr>
<tr>
<td>Automotive and Related Stores</td>
<td>517</td>
<td>620</td>
</tr>
<tr>
<td>Utilities and Transportation Services</td>
<td>575</td>
<td>557</td>
</tr>
<tr>
<td>Retail Sales by Wholesale Firms</td>
<td>516</td>
<td>489</td>
</tr>
</tbody>
</table>
Per Capita Sales by Business Group

The chart below compares per capita sales by business group in Warren County with the median value for all 21 metropolitan counties in Iowa (see table on previous page for underlying data). Warren County per capita values are shown with red dots. The metropolitan median values appear as blue dashes. County data are suppressed for any business groups that did not meet a minimum threshold for number of reporting firms.

Note: Sales values for the Wholesalers group reflect only the retail portion of sales by wholesale firms.

Distribution of Taxable Sales by Business Group

The following charts illustrate the percentage distribution of Warren County and statewide total taxable sales across the major retail business groups. County data are suppressed for any business groups that did not meet a minimum threshold for number of reporting firms. Sales in suppressed categories are aggregated into a single percentage value and labeled with an asterisk (*).
### Statewide Average Per Capita Sales by Detailed Business Type, FY 2017

#### Business Type and Per Capita Sales ($)

<table>
<thead>
<tr>
<th>Business Type and Per Capita Sales ($)</th>
<th>Services Group</th>
<th>Miscellaneous Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel Group $327</td>
<td>Auto Repair 347</td>
<td>$995</td>
</tr>
<tr>
<td>Clothing and Clothing Accessories Stores 278</td>
<td>Hotels and All Other Lodging Places 309</td>
<td>Plumbing and Heating Contractors 151</td>
</tr>
<tr>
<td>Shoe Stores 48</td>
<td>Other Business Services 225</td>
<td>General Contractors 141</td>
</tr>
<tr>
<td>Automotive and Related Firms $607</td>
<td>Arts and Entertainment 196</td>
<td>Agricultural Production and Services 136</td>
</tr>
<tr>
<td>New and Used Car Dealers 306</td>
<td>Beauty/Barber Shops 131</td>
<td>Other Special Trade Contractors 107</td>
</tr>
<tr>
<td>Automotive Parts and Accessories 216</td>
<td>Miscellaneous Repairs 107</td>
<td>Industrial Equipment Manufacturers 92</td>
</tr>
<tr>
<td>Recreational and All Other Motorized Vehicles 85</td>
<td>Other Personal Services 82</td>
<td>Miscellaneous Manufacturers 56</td>
</tr>
<tr>
<td>Building Materials Group $912</td>
<td>Auto Rental and Storage 60</td>
<td>Food Manufacturers 55</td>
</tr>
<tr>
<td>Building Material Dealers 665</td>
<td>Motion Picture and Video Industries 50</td>
<td>Fishing and Hunting Contractors 54</td>
</tr>
<tr>
<td>Hardware Stores 127</td>
<td>Laundry and Floor Cleaning 41</td>
<td>Non-Metallic Product Manufacturers 54</td>
</tr>
<tr>
<td>Garden Supply Stores 82</td>
<td>Finance, Insurance, Real Estate and Leasing 40</td>
<td>Furniture, Wood and Paper Manufacturers 38</td>
</tr>
<tr>
<td>Paint and Glass Stores 36</td>
<td>Electronic and Precision Equipment Repair &amp; Maintenance 38</td>
<td>Publishers Of Books &amp; Newspapers and Commercial Printers 33</td>
</tr>
<tr>
<td>Mobile Home Dealers 2</td>
<td>Other Services 29</td>
<td>Carpenter Contractors 27</td>
</tr>
<tr>
<td>Eating and Drinking Places Group $1,372</td>
<td>Funeral Service and Crematories 22</td>
<td>Unclassified 25</td>
</tr>
<tr>
<td>Restaurants, Taverns, and Bars 1,372</td>
<td>Education and Athletic Events 20</td>
<td>Mining 13</td>
</tr>
<tr>
<td>Food Dealers Group $1,122</td>
<td>Photographic Studios 14</td>
<td>Painting Contractors 11</td>
</tr>
<tr>
<td>Grocery Stores and Convenience Stores 563</td>
<td>Employment Services 10</td>
<td>Apparel and Textile Manufacturers 1</td>
</tr>
<tr>
<td>Gas Stations/Convenience Stores With Gas 542</td>
<td>Upholstery and Furniture Repair 2</td>
<td>Wholesale Goods Group $1,239</td>
</tr>
<tr>
<td>Specialized Groceries 17</td>
<td>Watch, Clock, Jewelry Repair 0</td>
<td>(retail sales by wholesale firms) 1,239</td>
</tr>
<tr>
<td>General Merchandise Group $1,490</td>
<td>Footwear and Leather Repair 0</td>
<td>Utilities and Transportation Group $1,252</td>
</tr>
<tr>
<td>Department Stores 955</td>
<td></td>
<td>Electric and Gas 502</td>
</tr>
<tr>
<td>Miscellaneous Merchandise Stores 530</td>
<td></td>
<td>Communications 481</td>
</tr>
<tr>
<td>Variety Stores 5</td>
<td></td>
<td>Water and Sanitation 202</td>
</tr>
<tr>
<td>Home Furnishings And Appliances Group $391</td>
<td></td>
<td>Transportation and Warehousing 67</td>
</tr>
<tr>
<td>Appliances and Entertainment Equipment 150</td>
<td></td>
<td>All Business Groups $12,413</td>
</tr>
<tr>
<td>Furniture Stores 143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Furnishing Stores 98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty Retail Stores Group $982</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Specialty 302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sporting Goods 176</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beauty and Health (Includes Pharmacies &amp; Drug Stores) 166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Sellers 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hobby and Toy 61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewelry 56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book and Stationery Stores 42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used Merchandise Stores 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stationery, Gift, Novelty 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vending Machine Operators 21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquor Stores 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Florists 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel and Ice Dealers 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Shopping and Mail Order Houses 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Shopping and Mail Order Houses 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FY 2017 Retail Trade Analysis Report
U.S. Consumer Spending Patterns by Income and Age

Consumer spending patterns vary with age, income level, and other consumer characteristics. The chart at right illustrates differences in U.S. consumer spending on a selected bundle of goods and services that are taxable in Iowa: food away from home, telecommunications services, household supplies and furnishings, apparel, entertainment, automobile repair and maintenance, and personal services.

In the chart, average annual spending levels of consumers within each group are expressed as percentages of the all-consumer average. Differences are most apparent by income level, with persons in the highest household income quintile spending more than twice the average of persons in the lowest income quintile. Per person spending also tends to increase with householder age. Spending is lower on average in rural households than urban households.

Local Income and Age Distributions

Recent county-level statistics may be used to profile the income and age distributions of area residents. If the county deviates strongly from statewide averages on these measures, one might expect some differences in local residents’ spending compared to the average spending levels by all Iowa residents.

The table at right shows the county’s median household income level and estimated poverty rate compared to the state. A lower median income level, a higher poverty rate, or both suggest that the percentage of county residents in low income brackets exceeds the statewide average. In these cases, comparatively lower retail spending levels may be anticipated locally.

The bottom half of the table illustrates the percentage distribution of the county’s population by age group in years, relative to the comparable statewide percentages. Strong differences in the regional age distribution likely affect both the mix and levels of retail goods and services demanded by area residents.

<table>
<thead>
<tr>
<th>Median Household Income ($)</th>
<th>Warren</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>74,031</td>
<td>56,354</td>
</tr>
<tr>
<td>90% Confidence Interval</td>
<td>68,800 - 79,260</td>
<td>55,680 - 57,030</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poverty Rate (%)</th>
<th>Warren</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>6.8</td>
<td>11.7</td>
</tr>
<tr>
<td>90% Confidence Interval</td>
<td>5.5 - 8.1</td>
<td>11.4 - 12.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population (% of total)</th>
<th>Warren</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5 years</td>
<td>6.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Age 5 to 17</td>
<td>18.8%</td>
<td>16.9%</td>
</tr>
<tr>
<td>Age 18 to 24</td>
<td>9.5%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Age 25 to 44</td>
<td>23.7%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Age 45 to 64</td>
<td>26.3%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Age 65 years and over</td>
<td>15.6%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Median age</td>
<td>38.3</td>
<td>38.0</td>
</tr>
</tbody>
</table>

◆ Higher than state  
◆ Lower than state
Other Factors Influencing Retail Sales

Inflation

The rate of inflation measures changes over time in the purchasing power of the dollar. When price levels rise faster than earnings and other income, consumers may have to reduce or reallocate their spending.

The pace of U.S. inflation during the last 10 years is illustrated at right. This chart shows quarterly changes in the Midwest Consumer Price Index for All Urban Consumers, using first quarter of 2008 as the benchmark period.

Consumer Confidence

Consumer confidence refers to how favorably consumers view prospects for the economy and their own financial situation. Pessimism about the economy can have a dampening effect on household discretionary purchases, while optimism can boost the likelihood of purchases.

The chart at right illustrates a quarterly index of consumer confidence benchmarked to the first quarter of 2008. Source data were obtained from the Index of Consumer Sentiment, University of Michigan Surveys of Consumers, via the Federal Reserve Bank of St. Louis.

Internet and Catalog Sales

E-commerce represents a rapidly-growing share of retail activity in the United States. While presenting a potential sales growth channel for many retailers, e-commerce also poses a threat as yet another source of sales leakage from Iowa’s communities.

The chart at right shows the growing share of total U.S. retail sales that are transacted through e-commerce. E-commerce, which includes internet and catalog sales, describes transactions in which an order is placed and/or price and terms of sale are negotiated over an internet or other online system.
Iowa’s Retail Sales Tax Reporting

The state of Iowa imposes a tax on the gross receipts from sales of taxable tangible personal property and taxable services. In general, merchandise goods are taxable unless specifically exempted and services are taxable if specifically enumerated by the state.

Retailers file sales tax returns to the Iowa Department of Revenue on a semi-monthly, monthly, quarterly, or annual basis depending on their amount of sales.

The Department of Revenue compiles the data from sales tax returns and publishes quarterly and annual retail sales tax reports that provide the primary source of data for this report.

Iowa’s sales tax reporting process may lead to occasional anomalies in retail sales data reported at the local level. The state compiles these data primarily for fiscal management purposes, and only secondarily for analytical purposes.

Certain accounting and other administrative constraints may result in the under-reporting or no reporting of sales activity for individual communities.

Confidentiality. In order to protect the confidentiality of individual filers, the Iowa Department of Revenue only reports data from localities with a minimum of 10 tax returns filed for a quarter or 40 returns per year. Sales data for localities not meeting this threshold level are reported for the county in which they are located.

Recent changes in the administration of Iowa’s sales tax include the following:

- July 1, 2004. Iowa revised its sales tax laws to meet Streamlined Sales Tax Project (SSTP) requirements. SSTP improves uniformity in sales tax laws across states, thereby encouraging businesses to collect and remit sales tax in every state in which they make taxable sales.
- January 1, 2006. The tax on certain types of energy was reduced to 0% after a 4-year phased decline.
- July 1, 2008. Iowa’s sales tax rate increased from 5% to 6%.
- July 1, 2008. The Iowa Department of Revenue adopted a new fiscal year reporting period to align with the state fiscal year that runs from July 1 through June 30 of each year.
- July 1, 2013. The Iowa Department of Revenue changed the business class assignment for approximately 12 percent of Iowa’s retailers.
- July 1, 2013. Taxable sales in the Convenience Stores and Gas Stations business class were reclassified from the Automotive and Related Group to the Food Dealers Group.

Notable Exemptions and Exclusions from Iowa’s Retail Sales Tax

Many retail transactions, because they are exempt or otherwise excluded from the state’s sales tax, are not included in the taxable sales values reported in this report. Following are some notable exemptions from Iowa’s sales tax. More detailed documentation is available from the Iowa Department of Revenue.

Exempt or Excluded Goods. Goods that are exempt from the sales tax include certain foods used for home consumption, prescription drugs, and medical devices. Sales of gasoline, subject to a separate fuel tax, are excluded from taxable retail sales. Taxable retail sales also exclude the sale or lease of new or used vehicles that are subject to registration. Vehicle purchases are taxed separately under the state’s one-time registration fee.

Exempt Services. Unlike tangible goods, services are exempt from tax unless specifically enumerated. Professional services such as medical and legal services are not subject to the sales tax.

Utilities. The state has phased out taxes on sales of metered gas, electricity, and fuel used as energy in residential dwellings, apartment units and condominiums. Specific exemptions may also apply to certain businesses and industries.

Sales to Agriculture, Manufacturing, and Other Industries. The state exempts sales of many goods and services that are used as inputs to agriculture and other industrial processes.

Sales tax exemptions for agriculture apply to the purchase of feed, seed, fertilizer, farm machinery and equipment, fuels and utilities, and some services.

Exemptions to manufacturing include purchases of tangible inputs that become an integral part of manufactured goods ultimately sold at retail; fuels, chemicals, and other inputs that are consumed during production processes; industrial machinery, equipment, and some computer equipment; and many services.

The state has created additional exemptions targeted toward specific industries such as wind energy and information technology. See the Department of Revenue Web site for more detailed information about exempt sales to industry and business.

Sales to Tax-Exempt Organizations. Local and state government entities are exempt from the sales tax. Sales to private nonprofit educational institutions for educational purposes are also exempt. Sales from fund-raising activities are exempt from sales tax if the proceeds are used for educational, religious, or charitable purposes.
Cautions for Interpreting Reported Sales Data

Non-Taxable Goods & Services. The sales information presented in this report provides only a partial picture of retail and service sector activity in Iowa’s communities, due in part to the data reporting practices and sales tax exemptions listed on the previous page.

Large Public Institutions. The presence of large public institutions such as correctional facilities or universities may distort local sales measures, as their institutional purchases are excluded from taxable sales but their residents are included in local population estimates.

Sales or Service Territories. Some cities’ reported sales values may appear inflated if they are home to the business office or headquarters of a firm with a broad, geographically-defined service territory such as a rural telecommunications or cable television provider.

Definitions of Retail Measures

Retail Sales. This term refers to the reported sales of goods and services that are subject to Iowa’s retail sales tax.

Reporting Firms. This value reflects the average number of tax returns filed each quarter during the year, and it serves as a proxy for the number of local retail firms.

Real Sales. “Real” dollar values have been standardized to reflect the purchasing power of a dollar in the current fiscal year, thus removing the effects of price inflation.

Nominal Sales. Nominal sales are the dollar amounts reported in the year the transactions actually took place. These values have not been adjusted for inflation.

Sales Per Firm. Per firm sales are calculated by dividing the annual dollar value of sales by the average number of reporting firms in that year.

Sales Per Capita. Per capita (or “per person”) sales are calculated by dividing the dollar value of sales by the estimated population for the subject place, including group quarters residents.

Expected Per Capita Spending. An expected value for residents’ average spending on taxable retail goods and services is used in the calculation of trade surplus and leakage, trade area capture, and pull factor values. This measure is sensitive to local income levels. For more information on the derivation of this measure, please contact the author.

Sales by Business Group. Sales tabulations by business group describe the types of firms where retail transactions occurred. They do not describe the type of merchandise that was sold.

Other Data Notes

City-to-County Assignments: The incorporated territory of many Iowa cities crosses the boundaries of two or more counties. For this report, all cities are assigned to the county that contained the greatest percentage of its population in the 2010 Census.

Commuting Flows: Local Employment Dynamics Program, U.S. Census Bureau. These commuting flows describe the place of work and place of residence of wage and salary workers in 2015. Self-employed individuals such as sole proprietors and partners are excluded from these data.


Consumer Sentiment: Surveys of Consumers, University of Michigan, University of Michigan: Consumer Sentiment©, retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/UMCSENT, 03/01/18.

E-commerce Sales: US. Bureau of the Census, E-Commerce Retail Sales as a Percent of Total Sales, retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/ECOMPCTSA, 03/01/18.


Average Wages and Salaries per Job: U.S. Bureau of Economic Analysis.

Population: Iowa State University estimates, based on data released through the Population Estimates Program, U.S. Census Bureau. With each annual data release, the U.S. Census Bureau may revise its estimates from prior years. This report incorporates the most recently available estimates and revisions. Population-based statistics published in this report may not reconcile with those appearing in earlier retail trade analysis reports. In most cases, the discrepancies are minor.

Price Deflators: Except where otherwise noted in this report, the dollar values for all retail sales and personal income data have been adjusted for inflation using the Implicit Price Deflator for Personal Consumption Expenditures published by the U.S. Bureau of Economic Analysis.

### Peer Group 1-4 Cities and Their 2010 Census Population Size

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FY 2017 Retail Trade Analysis Report Page 21
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**Table continued...**
Frequently-Asked Questions

Following are some of the most frequently-asked questions about the content of this report:

**What happened to the detailed business group sales data for cities?** Long-time users of the Iowa State University (ISU) Retail Trade Analysis reports may notice the absence of city-level sales data by type of business. Beginning in Fiscal Year 2009, the Iowa Department of Revenue ceased publication of detailed business group data at the individual city level in its Annual Retail Sales and Use Tax Report. As a consequence, the ISU Retail Trade Analysis reports now provide analysis of business group sales at the county and state levels only. Subject to strict disclosure limitations, the Iowa Department of Revenue may provide detailed categorical sales data for individual cities upon request.

**Why do historical data in this report differ from previously-published ISU retail reports?** The underlying population and income data used in this report are subject to backward revision by the U.S. Census Bureau and sister agencies, meaning that historical data are revised as new information becomes available. Any revisions to population and income estimates may result in re-statement of per capita retail sales, pull factors, and related measures for prior years. This report incorporates the most recently-revised statistics, and no effort is made to reconcile the historical data with prior versions of the ISU Retail Trade Analysis reports.

**Are the retail sales statistics fully comparable over time?** Users should note that retail statistics in this report describe only taxable, not total, retail sales. Changes to Iowa’s sales tax laws have rede fined the mix of goods and services included within taxable sales transactions over time. Changes in sales tax reporting practices may also complicate analysis of historical trends at the local or statewide level. Notable recent changes include the following:

- Iowa Department of Revenue reassigned more than 10 percent of Iowa’s retailers to different business class codes that better reflect their business focus (FY 2014).
- Iowa Department of Revenue reclassified gasoline stations with convenience stores from the automotive and related group to the food dealers group (FY 2014).

These reclassifications should be noted when comparing sales by business group before and after FY 2014.

**Are the pull factors and other retail measures adjusted for differences in local income?** Yes. In calculating local pull factor ratios and estimating trade surplus/leakage values, this report incorporates small area income data available from the American Community Survey (ACS), U.S. Census Bureau. The ACS income estimates are spatially-smoothed, then used to derive pull factor and related retail measures that account for variations in local income levels. Contact the author for more detailed information about the methodologies used for income adjustments.

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