## Retail Trade Analysis Fiscal Year 2019

### **Johnson County**

# Iowa State University Department of Economics

### Overview

This report examines local retail sales and related economic trends using a variety of historical and peer-based performance measures.

The retail measures are based on sales of goods and services that are subject to Iowa's statewide sales tax, as reported in the Iowa Department of Revenue Annual Sales and Use Tax Report.

Retail sales data have been adjusted for inflation and are stated in Fiscal Year 2019 dollar equivalents, unless otherwise noted. The 2019 fiscal year began July 1, 2018, and ended June 30, 2019.

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Data sources, definitions, business group and peer group listings, and frequently asked questions

Table 1. Johnson County Key Retail Indicators

	FY2018	FY2019	% Change
Real total taxable sales (\$)	1,917,321,052	1,902,316,146	-0.8%
Number of reporting firms (annualized)	2,978	3,080	3.4%
Population	149,937	150,845	0.6%
Average sales per capita (\$)	12,788	12,611	-1.4%
Average sales per firm (\$)	643,774	617,735	-4.0% <b>▼</b>

No distinctions are made among residents of households, educational institutions, nursing homes, or other group quarters in the calculation of per capita sales and related indicators.

## 10-Year Summary of Taxable Retail Sales Statistics

Figure 1 shows the average number of business establishments filing sales tax returns during the year, serving as a rough estimate for the number of local retail establishments.

Figure 1. Number of Reporting Establishments



Figure 2 shows the total real, or inflationadjusted, value of taxable retail sales reported by local businesses.

Figure 2. Real Total Taxable Sales

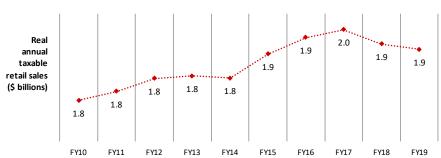
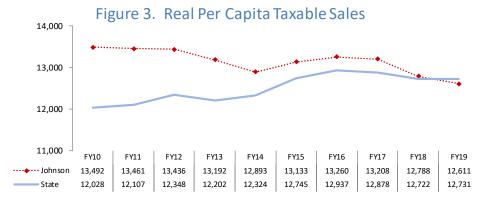


Figure 3 compares local retail sales on a per capita basis to the statewide per capita average.



## Historical Trends in Taxable Retail Sales

Table 2. Historical Statistics for Johnson County:

			axable Sales (\$)		age Sales (\$)		eal Average (\$)
Fiscal Year	Reporting Firms	Nominal	Real	Per Firm	Per Capita	Per Firm	Per Capita
1976	1,388	205,261,834	763,498,649	549,972	9,815	389,965	11,069
1977	1,441	240,714,894	846,537,852	587,567	10,699	402,043	11,721
1978	1,574	268,594,780	885,803,108	562,772	11,165	396,235	11,985
1979	1,650	289,910,718	887,399,922	537,818	11,030	401,923	12,523
1980	1,714	312,659,473	867,899,881	506,359	10,613	394,146	12,485
1981	1,787	330,529,220	832,441,626	465,897	10,039	350,472	11,327
1982	1,787	354,494,374	834,464,242	467,094	9,915	336,721	10,893
1983	1,856	391,592,974	879,118,850	473,791	10,303	327,385	10,769
1984	1,890	424,457,513	916,002,926	484,658	10,569	320,763	10,683
1985	1,914	441,736,690	920,968,075	481,300	10,474	317,278	10,660
1986	1,964	456,819,025	924,503,222	470,845	10,391	311,144	10,648
1987	2,003	502,854,090	996,137,173	497,447	11,074	329,120	11,110
1988	1,994	519,389,963	992,620,690	497,929	10,845	330,896	11,178
1989	2,046	570,841,197	1,044,801,135	510,718	11,178	336,241	11,275
1990	2,108	613,172,110	1,078,766,137	511,749	11,298	340,333	11,379
1991	2,136	642,077,010	1,082,741,345	507,020	11,158	341,663	11,308
1992	2,185	673,408,165	1,105,437,652	505,979	11,231	342,012	11,402
1993	2,225	717,876,037	1,148,077,133	515,990	11,463	342,314	11,543
1994	2,248	772,370,350	1,208,889,252	537,702	11,853	349,574	11,793
1995	2,300	823,495,973	1,260,908,280	548,340	12,151	356,788	12,029
1996	2,334	861,676,382	1,293,536,171	554,333	12,329	357,708	12,294
1997	2,374	906,771,258	1,332,883,765	561,569	12,581	376,016	12,495
1998	2,417	931,763,719	1,354,291,787	560,319	12,636	378,426	12,710
1999	2,437	1,109,473,172	1,596,735,900	655,340	14,674	404,875	13,239
2000	2,448	1,202,338,269	1,694,371,018	692,145	15,315	412,564	13,298
2001	2,506	1,266,080,631	1,742,111,750	695,315	15,485	413,506	13,339
2002	2,441	1,275,762,928	1,734,237,928	710,462	15,180	415,051	13,184
2003	2,311	1,307,586,279	1,744,616,606	754,837	15,064	433,650	13,035
2004	2,353	1,445,692,621	1,890,136,243	803,459	16,048	441,149	12,906
2005	2,361	1,486,208,625	1,892,997,332	801,863	15,828	439,335	12,830
2006	2,422	1,547,811,205	1,912,286,673	789,712	15,770	450,918	12,925
2007	2,628	1,621,152,715	1,957,089,788	744,636	15,862	442,237	12,773
2008	2,709	1,692,334,795	1,982,498,358	731,954	15,756	442,954	12,887
2009	2,866	1,725,364,609	1,998,349,600	697,200	15,553	434,644	12,850
2010	2,862	1,538,475,640	1,762,062,309	615,729	13,492	417,088	12,028
2011	2,811	1,587,451,852	1,786,439,072	635,574	13,461	432,600	12,107
2012	2,860	1,659,266,775	1,821,884,464	636,967	13,436	441,036	12,348
2013	2,944	1,690,889,383	1,828,807,034	621,304	13,192	435,402	12,202
2014	2,918	1,710,398,839	1,823,567,727	624,884	12,893	452,587	12,324
2015	2,921	1,785,444,961	1,888,982,077	646,690	13,133	471,222	12,745
2016	2,942	1,838,348,468	1,935,120,252	657,869	13,260	478,872	12,743
2010	2,942 2,945	1,886,970,411	1,956,508,672	664,293	13,208	478,872	12,937
2017	2,943 2,978	1,884,610,706	1,917,321,052	643,774	12,788	475,534	12,722
2018	3,080	1,902,316,146	1,902,316,146	617,735	12,611	468,399	12,722
2013	3,000	1,302,310,140	1,302,310,140	017,733	12,011	<del>-</del> 00,333	12,731

## Local Economic Trends

### **Population**

Population change is a key factor influencing local retail sales performance. Population gains or losses from year to year directly impact the number of potential shoppers in the region.

In the longer term, population trends also reflect the region's general economic climate. Population growth or stability suggest a more favorable retail environment than population decline, which may signify erosion in the region's economic vitality.

Figure 4 shows annual population estimates for the county and state, expressed as percentages of baseline values from ten years ago.

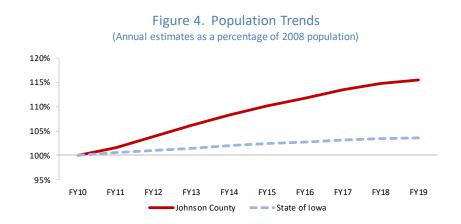
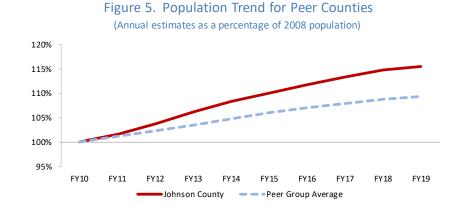


Figure 5 compares the local population trend to the average experience for similarly-sized counties in lowa. See Pages 23-24 for a listing of lowa counties by peer group.



## Local Economic Trends (continued)

### **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. Figure 6 shows recent county and state employment trends

Rising or persistently high levels of unemployment may contribute to household economic stress within the region and may ultimately reduce aggregate household spending levels. Figure 7 illustrates recent unemployment rates for the county and state.

Figure 6 shows the 10-year trend in county wage and salary employment on a place of work basis. Each year's employment, which counts full-time and part-time jobs equally, is expressed as a percentage of baseline year employment.

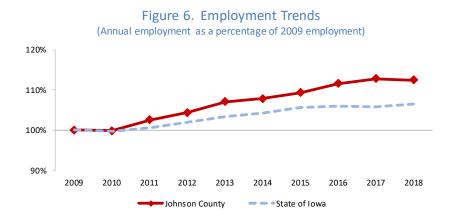
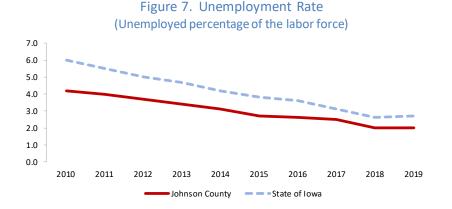


Figure 7 shows recent county and statewide unemployment rate trends. The unemployment rate is defined as the percentage of the resident labor force that is unemployed but actively seeking work.



## Local Economic Trends (continued)

### Personal Income

Local income levels influence the amounts and types of retail goods and services that area residents demand. Wages and salaries typically comprise the largest portion of local personal income. Other major sources include proprietors' income, investment income, and transfer payments from governments.

Social Security, food assistance, and other government transfers help to stabilize local income levels. A comparatively high dependence on transfer payments, however, suggests that households with low or fixed incomes comprise a larger than average share of the local customer base.

Figure 8 compares recent average earnings per wage and salary job in the county and the state. The dollar values have been adjusted for inflation.

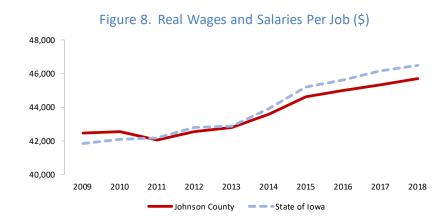
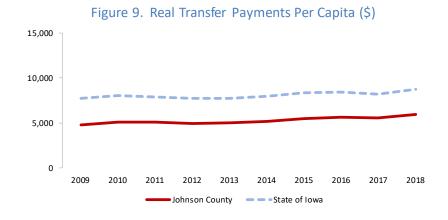


Figure 9 shows average transfer payment receipts by county and state residents. These payments include Social Security, Medicare, Medicaid, unemployment insurance, food assistance, and other income supports.



## Local Economic Trends (continued)

### Income and Age Distributions

Consumer spending behaviors tend to vary by age, income, and other personal characteristics. If the distribution of local residents by income or age deviate strongly from statewide averages, one might expect local spending patterns to differ from the typical spending patterns of lowa residents.

Table 3 shows the county's median household income level and estimated poverty rate compared to the state. In counties with a lower median income level, a higher poverty rate, or both, lower-than-average household spending levels may be anticipated locally.

Table 3. Johnson County Income and Poverty

Median Household Income (\$)	Johnson		State of Iowa
Estimate	64,387	>	60,071
90% Confidence Interval	59,940 - 68,830		59,230 - 60,920

Poverty Rate (%)	Johnson		State of Iowa
Estimate	15.8	>	11.2
90% Confidence Interval	14.3 - 17.3		10.9 - 11.5

**Table 4** illustrates the percentage distribution of the county's population by age group, 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 4. Johnson County Age Distribution

Population (% of total)	Johnson		State of Iowa
Under 5 years	5.8%	<	6.3%
Age 5 to 17	14.1%	<	16.9%
Age 18 to 24	21.2%	>	10.1%
Age 65 years and over	11.7%	<	17.1%
Median age	30.2	>	0.0

- > Higher than state
- < Lower than state

### Retail Performance Measures

### **Peer Group Comparisons**

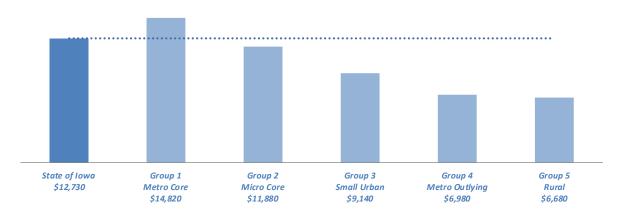
lowa's 99 counties and their trade centers vary in the level and types of retail activity they can support. In general, retail sector size and diversity tend to increase with community size. Other determining factors include the proximity and size of competing trade centers in neighboring counties and the overall population density in the region. Counties that are similar across these dimensions serve as useful benchmarks for gauging local retail performance.

This report assigns all counties in Iowa to peer groups based on their population size and urbanization characteristics. **Table 5** contains peer group definitions. The relevant peer group for the county is highlighted in blue (see Pages 23-24 for a complete list of counties by peer group). **Figure 10** compares the average sales performance of all county peer groups during the most recent fiscal year.

Table 5. Peer Group Definitions

Group	Metropolitan or Micropolitan Status	Number of Counties	% of State Taxable Sales
Group 1	Core county of a metropolitan statistical area	10	64.8%
Group 2	Core county of a micropolitan statistical area	17	13.7%
Group 3	Non-metro county whose largest city is between 2,500 to 9,999 in population	41	14.5%
Group 4	Outlying (non-core) county in a metropolitan statistical area	11	4.3%
Group 5	Non-metro county whose largest city is less than 2,500 in population	20	2.8%

Figure 10. Average Sales Per Capita by County Peer Group, FY2019



This section illustrates how the county's recent per capita sales levels compare to typical and top values among counties in its peer group.

### **Expected Range for Local Sales Per Capita**

Figure 11 compares county sales levels to a range of "expected," or typical, values for peer group counties. The blue rectangles illustrate the range of expected values, defined as any value between the 25th to the 75th percentile for the peer group in each year. The red dashes show the actual local per capita sales performance.



### Peer Group Rankings

Table 6 identifies the top performers in the county's peer group, as measured by sales per capita. Statewide and peer group averages are also provided, along with the county's ranking among its peers.

See pages 23-24 for a listing of all counties in the peer group.

Table 6. Per Capita Sales Comparisons

FV2010

Area Name	FY2019
State of Iowa	\$12,731
Peer group average	14,819
Johnson (#9/10 in peer group)	12,611
Peer Group Top 10	
Polk	17,957
Linn	17,499
Woodbury	16,613
Scott	15,691
Black Hawk	14,611
Dallas	14,202
Dubuque	13,934
Pottawattamie	13,929
Johnson	12,611
Story	11,144

Araa Nama

This section introduces three related retail performance measures that are based on a hypothetical "self-sufficiency," or "break-even" level of sales at which the county satisfies all of the retail needs of its own residents (see definition on Page 17). At the break-even level, any sales lost from residents' shopping elsewhere are exactly offset by local sales to non-residents.

### Trade Surplus or Leakage

Trade surplus or leakage measures the dollar difference between the county's actual sales and its breakeven sales target. **Table 7** shows inflation-adjusted estimates of sales surplus or leakage in \$ millions.

Johnson County	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Johnson County	112010	112011	112012	112013	112014	112013	112010	112017	112010	112013
Statewide average spending per person (\$)	12,028	12,107	12,348	12,202	12,324	12,745	12,937	12,878	12,722	12,731
x local income adjustment	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
= Annual retail needs of local residents (\$)	12,348	12,430	12,678	12,530	12,657	13,090	13,288	13,229	13,070	13,081
x County population estimate	130,601	132,712	135,595	138,627	141,441	143,837	145,936	148,127	149,937	150,845
Breakeven sales target (\$ millions)	1,612.6	1,649.6	1,719.1	1,737.0	1,790.2	1,882.8	1,939.2	1,959.6	1,959.7	1,973.1
County actual sales (\$ millions)	1,762.1	1,786.4	1,821.9	1,828.8	1,823.6	1,889.0	1,935.1	1,956.5	1,917.3	1,902.3
Estimated surplus (+) or leakage (-)	+149.5	+136.9	+102.8	+91.8	+33.4	+6.2	-4.1	-3.1	-42.4	-70.8

Table 7. Breakeven Analysis

### Trade Area Capture

The extent of a county's "trade area" can be approximated by converting its sales from dollars into annual customer equivalents. If the customer metric exceeds the resident population, the county's geographic trade area likely extends beyond its borders. If below, the trade area likely overlaps or is subsumed by that of a nearby county. **Figure 12** illustrates the county's estimated trade area capture (TAC) relative to its population size (POP).

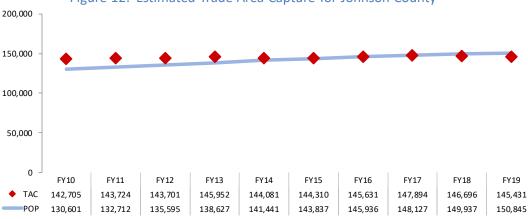


Figure 12. Estimated Trade Area Capture for Johnson County

#### The Pull Factor Ratio

A pull factor ratio describes the size of a city's retail customer base in relation to its own population size. The ratio is derived by dividing the estimated trade area capture value by the number of county residents.

Pull factors can vary widely from one county to the next, but they should be somewhat comparable among peer counties. **Figure 13** shows recent trends in pull factor ratios for the county and its peer group. The county's pull factor values are indicated with red circles. The blue dashes indicate the median pull factor for the peer group in each year.

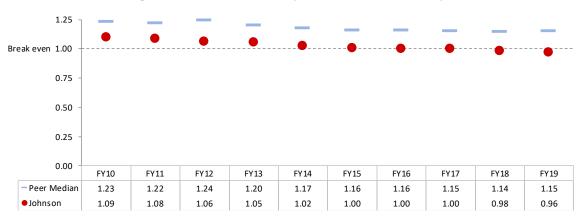


Figure 13. Pull Factor Comparison With Peer Group

### **Interpreting Pull Factors**

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

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

A high pull factor may send a false signal of retail strength. Pull factors may be inflated by the presence of one or more businesses that serve as a regional draw in a particular sales category, even if substantial sales leakage is occurring in other local retail segments.

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

< 1.0 A low pull factor does not necessarily indicate untapped sales potential in the local retail sector. Most smaller counties should expect to lose at least some fraction of their residents' spending to larger regional and metropolitan trade centers.

> 1.0

### Sales Performance by Business Group

Areas of strength or weakness in the local retail sector may be evident from the sales levels in specific types of businesses. This section examines county-level sales across 12 broad categories of retail firms (see Table 11 on Pages 21-22 for business group definitions).

To avoid misinterpreting the data, readers should note the following:

- The tabulations by business group reflect the type of *firm* where a retail transaction occurred, but do not necessarily identify the specific type of *merchandise* that was sold.
- Sales for the Food Dealers group exclude most foods purchased for home consumption. Firms in this group include grocery stores, specialty grocers, and convenience stores. Gasoline stations with convenience stores are also included; however, their gasoline sales are excluded.
- The Automotive group includes auto parts stores, recreational and other motorized vehicle dealers, and new and used car dealers. Sales data for this group exclude automobile sales, which are taxed separately via registration fees.
- The Wholesale group includes wholesale firms that also engage in retail sales. Sales data for this group describe only their retail transactions.

**Figure 14** compares per capita sales in the county to a group median value for all of lowa's metropolitan or non-metropolitan counties, whichever applies. The county's data are suppressed for any business groups that did not meet a minimum threshold for number of reporting firms.

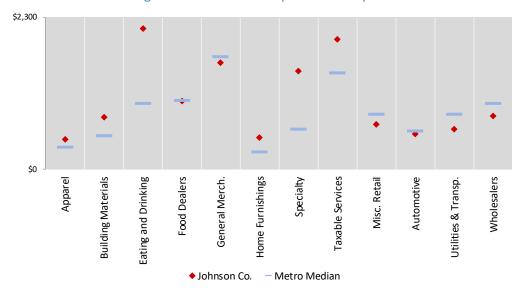


Figure 14. Business Group Sales Per Capita

### **Business Group Summary**

**Table 8** provides multiple measures of county sales by business group, including total taxable sales, the annualized number of reporting firms, and annual averages for sales per firm and sales per person. Benchmark values for the state and peer counties are also provided.

County data are suppressed for any business groups that did not meet a minimum threshold for number of reporting firms.

Table 8. Johnson County Taxable Sales Summary by Business Group

Business Group Totals and Averages	Johnson Cour	nty FY19 Totals	Average S	Gales Per Firm (\$)
	<b>Total Taxable</b>	Reporting	Johnson	State of
Type of Firm	Sales (\$)	Firms	County	lowa
Apparel Stores	68,564,902	92	749,343	602,183
Building Materials Stores	119,040,472	39	3,072,012	2,140,463
Eating and Drinking Establishments	321,641,931	400	804,105	580,536
Food Stores (excluding non-taxable food items)	156,451,866	120	1,303,766	1,181,511
General Merchandise Stores	243,740,268	19	12,999,481	5,845,838
Home Furnishings Stores	72,682,219	48	1,506,367	880,390
Specialty Retail Stores	224,962,262	536	419,902	218,700
Service Establishments	297,151,266	1181	251,663	179,277
Miscellaneous Retail Firms	102,744,962	384	267,565	269,736
Automotive and Related Stores	81,194,761	66	1,234,901	899,706
Utilities and Transportation Services	92,315,183	93	998,002	996,708
Retail Sales by Wholesale Firms	121,783,677	99	1,230,138	942,326

Per Capita Comparisons	Johnson County	Averages (\$)	FY19 Benchmark Values (\$)		
	real average		Metropolitan	State of	
Type of Firm	FY16 - FY18	FY19	Median	lowa	
Apparel Stores	528	455	326	313	
Building Materials Stores	798	789	501	930	
Eating and Drinking Establishments	2,125	2,132	992	1,436	
Food Stores (excluding non-taxable food items)	1,017	1,037	1,037	1,154	
General Merchandise Stores	1,829	1,616	1,696	1,464	
Home Furnishings Stores	572	482	256	374	
Specialty Retail Stores	1,529	1,491	599	979	
Service Establishments	2,043	1,970	1,456	1,850	
Miscellaneous Retail Firms	731	681	830	1,078	
Automotive and Related Stores	498	538	571	649	
Utilities and Transportation Services	661	612	825	1,261	
Retail Sales by Wholesale Firms	754	807	992	1,242	

Note: **Table 11** on Pages 21-22 lists the specific types of firms in each business group and provides the statewide distribution of tax returns, total sales, and per capita sales by detailed business type.

## **Regional Competition**

This section explores some of the competitive forces at work within the region. First described is the county's role as a trade center within the state. Next, broader regional trade patterns are illustrated using comparative sales measures in nearby counties. Finally, commuting data help to identify sources and destinations of local workers.

### **County Shares**

Figure 15 illustrates the county's contributions as a trade, population, and employment center within the state. The county's percentage share of statewide taxable sales is contrasted with its shares of population and jobs.

**Table 9** lists cities within the county that reported taxable sales activity during the most recent fiscal year.

Values for unincorporated areas and for cities with 10 or fewer sales tax permitholders are suppressed; however, sales data for those localities are included within the county totals.

Values for any cities marked with an asterisk (\*) include neighboring county residents and retailers who fall within the city limits; consequently, the sum of values for all cities listed in Table 7 may exceed reported totals for the county.

Figure 15. Johnson County Shares of State Totals

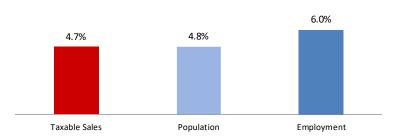


Table 9. Reporting Jurisdictions in Johnson County

		Average	Sales
Area Name	Population	# Filers	\$millions
Johnson Total	150,845	3,080	1,902.3
Coralville	21,968	702	829.1
Hills	807	20	5.2
Iowa City	75,413	1,495	866.4
Lone Tree	1,383	45	4.3
North Liberty	19,356	373	129.5
Oxford	798	60	6.5
Solon	2,682	147	23.9
Swisher	960	90	10.2
Tiffin	3,906	50	13.4

## Regional Competition (continued)

### **Neighboring Area Sales**

Regional shopping patterns may be inferred from relative trade levels in surrounding counties.

Figure 16 compares county per capita sales to averages in neighboring counties.

The comparison group includes the five nearest counties as measured from their geographic midpoints. The counties are listed in descending order by their average per capita sales. Population sizes for each county, as of the 2010 Census, are also indicated.

Linn (pop. 211,230)

Johnson (pop. 130,880)

lowa (pop. 16,360)

Muscatine (pop. 42,750)

Washington (pop. 21,700)

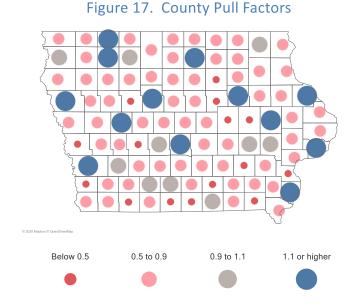
Cedar (pop. 18,500)

17,499

12,611

10,699

Figure 17 illustrates county retail pull factors (see Page 11 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.



## Regional Competition (continued)

### **Commuting Patterns**

The daily exchange of workers with surrounding areas add or subtracts to the county's potential retail customer base. The sources and destinations of commuting flows can reveal regional economic dependencies that influence local retail conditions.

Figure 18 summarizes the estimated daily worker flows to and from the county.

All commuting estimates on this page describe flows of workers in wage and salary positions only. Self-employed workers are excluded.

Figure 18. Commuting Inflows and Outflows:

Johnson County

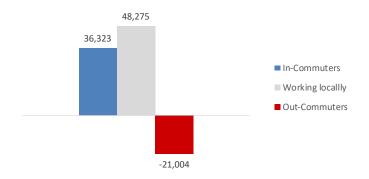


Table 10 shows commuting probabilities for local residents and workers. The table also identifies the top workplace destination for local residents and top county supplying workers to local employers.

Average commuting rates in peer counties are included for comparison.

Table 10. Johnson County Commuting Probabilities

			Peer
	Number	% of total	average
Workplaces of Johnson County residents:			
Working within the county	48,275	69.7%	68.3%
Working elsewhere:	21,004	30.3%	31.7%
in Linn Co.	9,171	13.2%	
in all other areas	11,833	17.1%	
Sources for Johnson County workers:			
Living within the county	48,275	57.1%	58.9%
Commuting from elsewhere:	36,323	42.9%	41.1%
from Linn Co.	8,634	10.2%	

### **Data Notes**

## Iowa's Retail Sales Tax Reporting

The state of lowa imposes a six percent tax on the gross receipts from sales of taxable tangible personal property and taxable services.

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.

The state's reporting does not include retail transactions that are exempt from the statewide sales tax. Consequently, this report describes only taxable, not total, retail sales. Several types of exempt activity are listed on the following page.

Occasional anomalies may arise in retail sales data reported at the local level. For example, the locations of specific firms may not precisely align with the administrative jurisdictions used for tax reporting purposes. Such discrepancies may result in under-statement or overstatement of actual local retail sales activity.

When analyzing trends, users should note that changes in lowa's retail sales tax laws or changes in administrative or accounting practices may affect the comparability of taxable sales data over time.

Other cautions for using taxable sales data to analyze local retail performance are listed at right. Users seeking more detailed information are encouraged to consult the Iowa Department of Revenue's website at <a href="https://tax.iowa.gov/">https://tax.iowa.gov/</a>.

# Cautions and Limitations for Interpreting Reported Sales Data

- Non-Taxable Goods & Services.
   Because certain goods and services are exempt from the statewide sales tax, the sales information presented in this report provides only a partial picture of retail and service sector activity in lowa's communities.
- E-commerce Sales. Neither the volume of e-commerce purchases by lowa residents nor e-commerce sales by lowa retailers are currently measurable.
- 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. Sales levels in some cities may be inflated by the administrative presence of firms serving a much larger geographic service territory, such as rural telecommunications and other cable or internet service providers.
- Non-Disclosure Rules. To avoid disclosing information traceable to specific firms, the lowa Department of Revenue only reports data from localities with 10 or more tax returns filed per quarter or 40 returns per year. Sales data for areas below this threshold are grouped into a "remainder of county" value.

### Notable Exclusions from Iowa's Retail Sales Tax

The retail data analyzed for this report only capture transactions that are subject to lowa's statewide sales tax. In general, merchandise goods are taxable unless specifically exempted, whereas services are exempted from the tax unless specifically enumerated by the state.

Following are several types of sales activity that are **not** covered by this report.

**Exempt or Excluded Goods.** Some of the goods not subject to the sales tax include:

- Certain foods for home consumption
- Prescription drugs and medical devices
- New or used cars and other vehicles, as they are taxed separately under the state's one-time registration fee.
- Gasoline, which is subject to a separate fuel tax

**Exempt Services.** Unlike tangible goods, services are exempt from tax unless specifically enumerated. Many professional services such as medical and legal services are exempt from the sales tax.

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 fundraising activities are exempt from sales tax if the proceeds are used for educational, religious, or charitable purposes.

Internet/Catalog Sales. Prior to 2019, many outof-state purchases by lowa residents were untaxed. Iowa implemented regulatory changes on July 1, 2019, to require collection of sales taxes on residents' purchases from firms without a physical presence in Iowa but who generate \$100,000 or more in gross revenues from Iowa sales.

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

**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. This phase-out was completed by 2006. Specific exemptions for utilities may also apply to certain businesses and industries.

Sales to Manufacturing and Other Industries. The state exempts sales of many goods and services that are used as inputs to industrial processes. 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 Iowa Department of Revenue Web site for more detailed information.

More detailed information about Iowa's sales tax is available from the Iowa Department of Revenue at <a href="https://tax.iowa.gov/iowa-sales-and-use-tax-guide">https://tax.iowa.gov/iowa-sales-and-use-tax-guide</a>

### **Definitions of Retail Measures**

**Retail Sales**. This term refers to the reported sales of goods and services that are subject to lowa's retail sales tax. lowa's current sales tax rate is 6 percent.

**Fiscal Year**. Iowa's annual sales tax reports reflect a July 1 - June 30 fiscal year period.

**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.

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

**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.

**Business Group Sales.** The state reports county-level taxable sales data for 12 business groups. The data reflect the business classification of the firms making the sales, not the specific goods and services that they sold.

**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. No distinctions are made among residents of households, educational institutions, nursing homes, or other group quarters in the calculation of per capita sales and related indicators.

**Expected Per Capita Spending**. An expected value for residents' average spending on taxable retail goods and services provides the basis for breakeven sales, trade surplus and leakage, trade area capture, and pull factor values. This measure is sensitive to local income levels. For more information about its derivation, please contact the author.

### Self-Sufficiency (or Breakeven) Level of Sales.

This hypothetical value describes the amount of sales that would be generated if the county's retailers (1) served only local residents and (2) satisfied all of those residents' retail needs. It is equivalent to the total estimated spending by residents on taxable goods and services purchased anywhere within lowa. To derive this value, 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 county's population size.

**Trade Surplus or Leakage**. Trade surplus or leakage measures the dollar difference between the county's actual sales and its breakeven sales level.

**Trade Area Capture**. Trade area capture translates local retail sales from dollars to annual customer equivalents. It is estimated by dividing the county's actual total sales by the expected per capita average spending of residents.

**Pull Factor Ratio**. A county's pull factor ratio is calculated by dividing its trade area capture measure by its resident population.

### Other Data Sources and Notes

**Population**: Population values in this report describe the estimated, average number of residents during a given fiscal year. The estimates are based on data released annually through the Population Estimates Program, U.S. Census Bureau. The Census Bureau's published estimates, which reflect the population on July 1<sup>st</sup> of each year, may differ from the average values appearing in this report.

With each of its annual data releases, the U.S. Census Bureau may revise its estimates from prior years. This report incorporates the most recently available estimates and revisions. As a consequence, 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.

City-to-County Assignments: The incorporated territory of many lowa 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 . Self-employed individuals such as
sole proprietors and partners are excluded
from these data.

**Employment**: U.S. Bureau of Economic Analysis (annual) and U.S. Bureau of Labor Statistics (monthly). Employment includes full-time and part-time wage and salary jobs, with all jobs counted equally.

**Unemployment**: Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics.

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

**Transfer Payments per Capita:** U.S. Bureau of Economic Analysis.

Median Household Income and Poverty: Small Area Income and Poverty Estimates, U.S. Census Bureau.

**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.

Table 11. Business Group Definitions (page 1 of 2)

Business Group	Number of Returns	Percent of Returns	Taxable Sales	Per Capita Sales
Apparel Group				
Clothing and Clothing Accessories Stores	5,699	1.7	\$832,931,221	\$264
Shoe Stores	853	0.3	\$153,445,151	\$49
Group Totals	6,552	1.9	\$986,376,372	\$313
<b>Building Materials Group</b>				
Building Material Dealers	1,610	0.5	\$2,123,851,271	\$674
Garden Supply Stores	1,998	0.6	\$413,652,008	\$131
Hardware Stores	1,167	0.3	\$275,998,598	\$88
Mobile Home Dealers	167	0.1	\$6,185,666	\$2
Paint and Glass Stores	535	0.2	\$111,141,666	\$35
Group Totals	5,477	1.6	\$2,930,829,209	\$930
Eating and Drinking Group				
Restaurants, Taverns, and Bars	31,196	9.1	\$4,527,601,584	\$1,436
Group Totals	31,196	8.8	\$4,527,601,584	\$1,436
Food Dealers Group				
Gas Stations/Convenience Stores Selling Gas	6,784	2.0	\$1,752,135,115	\$556
Grocery Stores and Convenience Stores	3,943	1.2	\$1,828,509,396	\$580
Specialized Groceries	1,590	0.5	\$57,522,673	\$18
Group Totals	12,317	3.6	\$3,638,167,184	\$1,154
General Merchandise Group				
Department Stores	648	0.2	\$2,899,566,505	\$920
Miscellaneous Merchandise Stores	2,280	0.7	\$1,701,209,150	\$540
Variety Stores	229 3.157	0.1	\$13,051,913	\$4
Group Totals	3,157	0.9	\$4,613,827,568	\$1,464
Home Furnishings And Appliances Group	0.000		0.457.500.740	04.45
Appliances and Entertainment Equipment	2,099	0.6	\$457,528,710	\$145
Furniture Stores	1,523	0.4	\$427,743,342	\$136
Home Furnishing Stores	1,738	0.5 1.6	\$294,450,210	\$93
Group Totals	5,360	1.0	\$1,179,722,262	\$374
Miscellaneous Group	44.050	4.0	<b>#</b> 400.075.057	<b>0450</b>
Agricultural Production and Services	14,350	4.2	\$498,975,057	\$158
Apparel and Textile Manufacturers	90	0.0	\$4,682,672	\$1 *45
Carpentry Contractors Electrical Contractors	1,452 3,399	0.4 1.0	\$48,745,963 \$170,662,242	\$15 \$54
Food Manufacturers	1,001	0.3	\$170,662,243 \$110,801,520	\$54 \$35
Furniture, Wood and Paper Manufacturers	1,167	0.3	\$161,209,518	\$55 \$51
General Contractors	5,355	1.6	\$210,022,341	\$67
Industrial Equipment Manufacturers	1,624	0.5	\$398,292,759	\$126
Mining	1,286	0.4	\$197,678,682	\$63
Miscellaneous Manufacturers	2,456	0.7	\$143,299,551	\$45
Non-Metallic Product Manufacturers	1,859	0.5	\$427,390,054	\$136
Other Special Trade Contractors	4,590	1.3	\$325,574,195	\$103
Painting Contractors	2,468	0.7	\$35,623,371	\$11
Plumbing and Heating Contractors	5,150	1.5	\$475,089,413	\$151
Publishers Of Books and Newspapers and Commercial Printers	1,224	0.4	\$76,845,599	\$24
Unclassified	2,936	0.9	\$114,255,295	\$36
Group Totals	50,407	14.7	\$3,399,148,233	\$1,078
Motor Vehicle Group				
Automotive Parts and Accessories	4,810	1.4	\$726,778,297	\$231
New and Used Car Dealers	2,934	0.9	\$1,050,213,464	\$333
Recreational and All Other Motorized Vehicles	1,345	0.4	\$267,365,159	\$85
Group Totals	9,089	2.7	\$2,044,356,920	\$649

Table 11. Business Group Definitions (page 2 of 2)

Business Group	Number of Returns	Percent of Returns	Taxable Sales	Per Capita Sales
Services Group				
Arts and Entertainment	9,287	2.7	\$588,013,185	\$187
Auto Rental and Storage	4,588	1.3	\$363,910,933	\$115
Auto Repair	16,924	4.9	\$1,188,977,539	\$377
Beauty/Barber Shops	26,597	7.8	\$431,857,871	\$137
Education and Athletic Events	1,595	0.5	\$93,381,121	\$30
Electronic and Precision Equipment Repair and Maintenance	1,726	0.5	\$68,393,437	\$22
Employment Services	516	0.2	\$31,618,871	\$10
Finance, Insurance, Real Estate and Leasing	4,756	1.4	\$129,630,650	\$41
Footwear and Leather Repair	119	0.0	\$2,583,168	\$1
Funeral Service and Crematories	1,308	0.4	\$60,651,730	\$19
Hotels and All Other Lodging Places	8,394	2.4	\$1,091,324,582	\$346
Laundry and Floor Cleaning	2,222	0.6	\$111,191,763	\$35
Miscellaneous Repairs	7,700	2.2	\$208,564,402	\$66
Motion Picture and Video Industries	3,168	0.9	\$222,194,199	\$70
Other Business Services	16,221	4.7	\$803,048,154	\$255
Other Personal Services	10,630	3.1	\$280,797,275	\$89
Other Services	8,334	2.4	\$100,880,643	\$32
Photographic Studios	5,125	1.5	\$46,223,501	\$15
Upholstery and Furniture Repair	760	0.2	\$5,715,996	\$2
Watch, Clock, Jewelry Repair	119	0.0	\$1,532,411	\$0
Group Totals	130,089	38.0	\$5,830,491,431	\$1,850
Specialty Retail Stores Group				
Beauty and Health (Includes Pharmacies and Drug Stores)	3,341	1.0	\$507,631,493	\$161
Book and Stationery Stores	1,345	0.4	\$143,675,957	\$46
Direct Sellers	3,921	1.1	\$125,320,447	\$40
Electronic Shopping and Mail Order Houses	950	0.3	\$8,747,952	\$3
Florists	1,410	0.4	\$43,340,942	\$14
Fuel and Ice Dealers	97	0.0	\$7,088,601	\$2
Hobby and Toy	6,767	2.0	\$192,624,816	\$61
Jewelry	1,850	0.5	\$179,477,462	\$57
Liquor Stores	876	0.3	\$81,893,997	\$26
Other Specialty	24,028	7.0	\$1,080,529,487	\$343
Sporting Goods	4,715	1.4	\$519,996,903	\$165
Stationery, Gift, Novelty	2,097	0.6	\$58,036,931	\$18
Used Merchandise Stores	4,086	1.2	\$77,614,478	\$25
Vending Machine Operators	979	0.3	\$61,079,745	\$19
Group Totals	56,462	16.5	\$3,087,059,211	\$979
Utilities and Transportation Group				
Communications	3,999	1.2	\$1,389,786,930	\$441
Electric and Gas	1,483	0.4	\$1,554,356,922	\$493
Transportation and Warehousing	3,698	1.1	\$219,506,021	\$70
Water and Sanitation	6,774	2.0	\$811,721,475	\$258
Group Totals	15,954	4.7	\$3,975,371,348	\$1,261
Whalasala Caada Craye				
Wholesale Goods Group	50	0.0	\$76E 027	<b>*</b> 0
Apparel, Piece Goods	59	0.0	\$765,837	\$0 \$5.46
Construction Materials Farm and Garden Equipment	3,380 5,297	1.0	\$1,720,950,477 \$1,323,204,283	\$546 \$420
· •	5,297	1.5	\$1,323,204,283	\$420 \$26
Furniture and Home Furnishings Groceries and Farm Products	176	0.1	\$83,117,679 \$74,268,333	\$26 \$24
Miscellaneous Durable Goods	601 676	0.2		\$24 \$25
Miscellaneous Non-Durable Goods	676 5 921	0.2 1.7	\$78,105,117 \$564,003,205	\$25 \$170
Motor Vehicle Parts and Supplies	5,921 505	0.1	\$564,903,295 \$68,870,161	\$179 \$22
Group Totals	16,615	4.8	\$68,870,161 \$3,914,185,182	\$22 \$1,242
·				
State Totals	342,675	100.0	\$40,127,136,504	\$12,731

Table 12. Peer County Groupings and 2010 Population Sizes (page 1 of 2)

	2010	Population	Metropolitan or Micropolitan Area
	Black Hawk	131,090	Waterloo-Cedar Falls, IA Metropolitan Statistical Area
	Dallas	66,135	Des Moines-West Des Moines, IA Metropolitan Statistical Area
	Dubuque	93,653	Dubuque, IA Metropolitan Statistical Area
	Johnson	130,882	Iowa City, IA Metropolitan Statistical Area
_	Linn	211,226	Cedar Rapids, IA Metropolitan Statistical Area
1	Polk	430,640	Des Moines-West Des Moines, IA Metropolitan Statistical Area
	Pottawattamie	93,158	Omaha-Council Bluffs, NE-IA Metropolitan Statistical Area
	Scott	165,224	Davenport-Moline-Rock Island, IA-IL Metropolitan Statistical Area
	Story	89,542	Ames, IA Metropolitan Statistical Area
	Woodbury	102,172	Sioux City, IA-NE-SD Metropolitan Statistical Area
	,	,	,
	Boone	26,306	Boone, IA Micropolitan Statistical Area
	Buena Vista	20,260	Storm Lake, IA Micropolitan Statistical Area
	Carroll	20,816	Carroll, IA Micropolitan Statistical Area
	Cerro Gordo	44,151	Mason City, IA Micropolitan Statistical Area
	Clay	16,667	Spencer, IA Micropolitan Statistical Area
	Clinton	49,116	Clinton, IA Micropolitan Statistical Area
	Des Moines	40,325	Burlington, IA-IL Micropolitan Statistical Area
	Dickinson	16,667	Spirit Lake, IA Micropolitan Statistical Area
2	Jasper	36,842	Newton, IA Micropolitan Statistical Area
	Jefferson	16,843	Fairfield, IA Micropolitan Statistical Area
	Lee	35,862	Fort Madison-Keokuk, IA-IL-MO Micropolitan Statistical Area
	Mahaska	22,381	Oskaloosa, IA Micropolitan Statistical Area
	Marion	33,309	Pella, IA Micropolitan Statistical Area
	Marshall	40,648	Marshalltown, IA Micropolitan Statistical Area
	Muscatine	42,745	Muscatine, IA Micropolitan Statistical Area
	Wapello	35,625	Ottumwa, IA Micropolitan Statistical Area
	Webster	38,013	Fort Dodge, IA Micropolitan Statistical Area
	Allamakee	14,330	None (not part of a metropolitan or micropolitan area)
	Appanoose	12,887	None
	Buchanan	20,958	None
	Cass	13,956	None
	Cedar	18,499	None
	Cherokee	12,072	None
	Chickasaw	12,439	None
	Clarke	9,286	None
	Crawford	17,096	None
	Delaware	17,764	None
3	Emmet	10,302	None
(continued	Fayette	20,880	None
next page)	Floyd	16,303	None
	Franklin	10,680	None
	Greene	9,336	None
	Hamilton	15,673	None
	Hancock	11,341	None
	Hardin	17,534	None
	Henry	20,145	None
	Howard	9,566	None
	Humboldt	9,815	None
	lowa	16,355	None

Table 12. Peer City Groupings and 2010 Population Sizes (page 2 of 2)

		2010 Population	Metropolitan or Micropolitan Area
	Jackson	•	None
Kossuth Lucas Mitchell Monona	Kossuth	15,543	None
	Lucas	-	None
	Mitchell		None
	Monona	-	None
	Monroe		None
	Montgomery	-	None
	O'Brien	-	None
3	Osceola	,	None
(continued	Page	•	None
from previous	Palo Alto		None
page)	Poweshiek		None
Page/	Shelby		None
	Sioux	•	None
	Tama	,	None
	Union	-	None
	Winnebago	•	None
	Winneshiek		None
	Wright	•	None
		-,	
	Benton	26,076	Cedar Rapids, IA Metropolitan Statistical Area
6	Bremer	24,276	Waterloo-Cedar Falls, IA Metropolitan Statistical Area
	Grundy	12,453	Waterloo-Cedar Falls, IA Metropolitan Statistical Area
	Guthrie	. 10,954	Des Moines-West Des Moines, IA Metropolitan Statistical Area
	Harrison	14,928	Omaha-Council Bluffs, NE-IA Metropolitan Statistical Area
1	Jones	20,638	Cedar Rapids, IA Metropolitan Statistical Area
T	Madison	15,679	Des Moines-West Des Moines, IA Metropolitan Statistical Area
	Mills	15,059	Omaha-Council Bluffs, NE-IA Metropolitan Statistical Area
	Plymouth	24,986	Sioux City, IA-NE-SD Metropolitan Statistical Area
	Warren	. 46,225	Des Moines-West Des Moines, IA Metropolitan Statistical Area
	Washington	21,704	Iowa City, IA Metropolitan Statistical Area
	Adair	,	None
	Adams	,	None
	Audubon	•	None
	Butler	•	None
	Calhoun	•	None
	Clayton		None
	Davis	-,	Ottumwa, IA Micropolitan Statistical Area
	Decatur	•	None
	Fremont	,	None
E	Ida	•	None
)	Keokuk	- / -	None
	Louisa	•	None
	Lyon		None
	Pocahontas	,	None
	Ringgold		None
	Sac		None
	Taylor		None
	Van Buren	•	None
	Wayne	. 6,403	None
	Worth		Mason City, IA Micropolitan Statistical Area

## Iowa State University Department of Economics

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### **Frequently Asked Questions**

Are business group sales data available at the city level? Subject to disclosure limitations to protect the confidentiality of local firms, city-level data for up to 12 business groups may be available upon request from the lowa Department of Revenue.

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? No. Changes to lowa's statewide sales tax laws have redefined the mix of goods and services comprising taxable sales transactions over time.

At the local level, changes in the geographic or business group assignments of specific firms may also complicate trend analysis. Notably, the lowa Department of Revenue in FY2014 reassigned more than 10 percent of lowa's retailers to different business class codes that better reflect their business focus. A significant change was the reclassification of gasoline stations with convenience stores from the automotive and related group to the food dealers group. These reclassifications should be considered 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. Contact the author for more detailed information about the methodology used for income adjustments.

### Acknowledgements

This project was supported with funding from the Iowa Agriculture and Home Economics Experiment Station, the research program directed by the College of Agriculture and Life Sciences at Iowa State University.

In producing this report, we acknowledge the pioneering work of Kenneth E. Stone, now Professor Emeritus, in applied analysis of retail trade patterns in Iowa's cities and counties.

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