2022 Retail Trade Analysis: Becker County

A Tool Used to Measure the Economic Health of the Local Retail Economy

Authored by Kathryn Leys and Fernando Quijano, University of Minnesota Extension Educators

Becker County Fair

2022 Retail Trade Analysis: Becker County

A Tool Used to Measure the Economic Health of the Local Retail Economy

November 27, 2024

Authored by Kathryn Leys and Fernando Quijano, University of Minnesota Extension Educators

Table of Contents

Becker County Retail Trade Overview

Total Taxable and Gross Retail Sales

The table below presents gross and taxable retail and services sales for Becker County from 2011 through 2022. Without inflation adjustments, taxable sales in Becker County increased 35.9 percent from 2016 to 2022, while the number of firms fell 3.2 percent. Statewide, taxable sales increased 32.6 percent over the same time period and the number of firms fell 3.7 percent. The per capita sales and pull factor data in this table are based on taxable sales, the more verified sales measure.

| Year | Estimated Population | Current Dollars | | Constant 2022 Dollars | | Number of Firms | Per Capita Sales | Pull Factor |
		Gross Sales* ($millions)	Taxable Sales ($millions)	Gross Sales* ($millions)	Taxable Sales ($millions)			
2011	32,770	$548.65	$233.96	$714.52	$304.69	777	$7,139.53	0.89
2012	32,973	$587.65	$250.32	$749.53	$319.27	782	$7,591.66	0.92
2013	33,167	$629.32	$260.72	$778.89	$322.69	806	$7,860.88	0.92
2014	33,272	$670.92	$284.25	$830.07	$351.67	813	$8,543.16	0.98
2015	33,567	$714.10	$279.19	$887.14	$346.84	813	$8,317.37	0.93
2016	33,766	$663.12	$297.04	$815.83	$365.45	808	$8,797.14	0.97
2017	34,103	$682.69	$300.92	$822.43	$362.51	794	$8,823.71	0.95
2018	34,420	$694.18	$305.81	$815.48	$359.25	798	$8,884.77	0.93
2019	34,545	$743.75	$310.44	$859.43	$358.72	792	$8,986.48	0.93
2020	35,183	$749.08	$325.77	$855.20	$371.92	725	$9,259.21	0.99
2021	35,307	$876.75	$380.35	$950.96	$412.54	756	$10,772.65	0.99
2022	35,738	$939.14	$403.81	$939.14	$403.81	782	$11,299.08	0.98
7 yr Change '16 to '22	5.8%	41.6%	35.9%	15.1%	10.5%	-3.2%	28.4%	1.6%
3 yr Change '19 to '22	1.6%	25.4%	24.0%	9.8%	8.6%	7.9%	22.0%	-1.0%

*Gross sales figures are self-reported by firms and not audited by the Department of Revenue for accuracy

Retail Sales in Constant Dollars

The table also presents sales data in constant 2022 dollars. These figures have been adjusted for inflation to reflect their value in 2022. For example, in 2011, taxable sales in Becker County totaled $233.96 million, an amount worth $304.69 million in 2022 dollars. In constant dollars, gross sales grew 15.1 percent between 2016 and 2022. Constant dollar taxable sales increased 10.5 percent over the same time period.
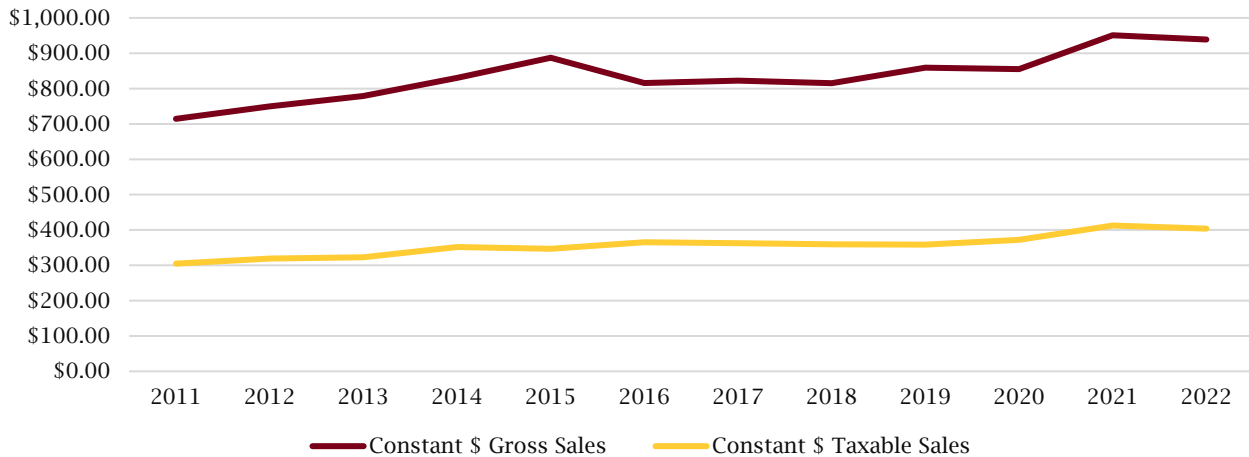
Becker County Selected Components of Change*, 2021 to 2022

Merchandise Category	Taxable Sales 2021	Taxable Sales 2022	Dollar Change	Percent Change	Dollar Change (millions)
Vehicles & Parts	$49,100,963	$56,497,727	+$7,396,764	+15.06%	+$7.40
Building Materials	$105,436,028	$108,046,927	+$2,610,899	+2.48%	+$2.61
Food & Beverages	$24,582,821	$25,910,383	+$1,327,562	+5.40%	+$1.33
Furniture, Electronics, & Appliances	$11,812,151	$11,588,312	-$223,839	-1.89%	-$0.22
General Merchandise	$53,981,555	$56,889,351	+$2,907,796	+5.39%	+$2.91
Health & Personal	$2,225,519	$2,294,142	+$68,623	+3.08%	+$0.07
Gas & Convenience	$12,137,024	$15,802,446	+$3,665,422	+30.20%	+$3.67
Clothing & Accessories	$3,199,436	$2,528,433	-$671,003	-20.97%	-$0.67
Leisure Goods & Misc. Stores	$9,969,538	$9,761,720	-$207,818	-2.08%	-$0.21
Amusement	$4,591,345	$5,153,393	+$562,048	+12.24%	+$0.56
Lodging	$15,805,508	$16,412,351	+$606,843	+3.84%	+$0.61
Eating & Drinking	$52,154,254	$54,671,272	+$2,517,018	+4.83%	+$2.52
Repair Services	$14,913,537	$18,468,173	+$3,554,636	+23.83%	+$3.55
Personal Services	$1,683,530	$1,934,461	+$250,931	+14.91%	+$0.25
Total Taxable Retail & Services	**$380,349,893**	**$403,806,503**	**+$23,456,610**	**+6.17%**	**+$23.46**

*Figures not adjusted for inflation

Taxable Sales Changes by Merchandise Category, 2021 to 2022
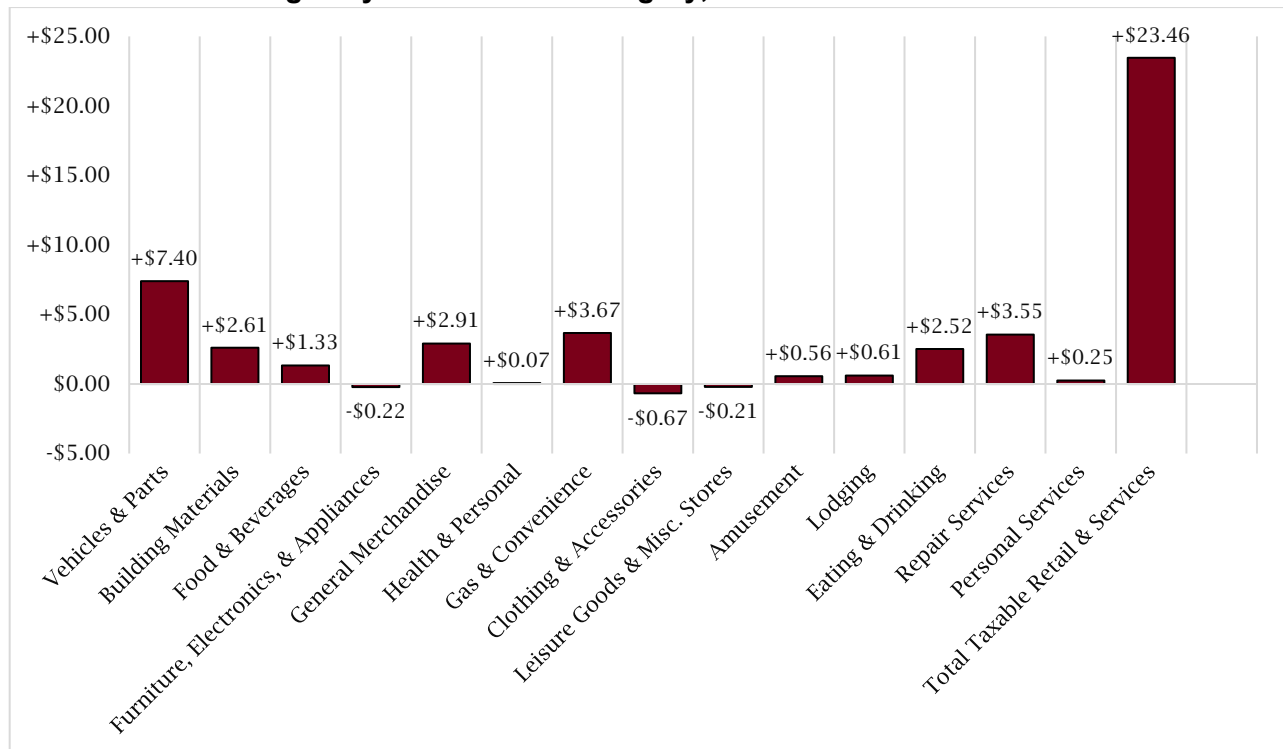
Recent Trends By Merchandise Category: Becker County
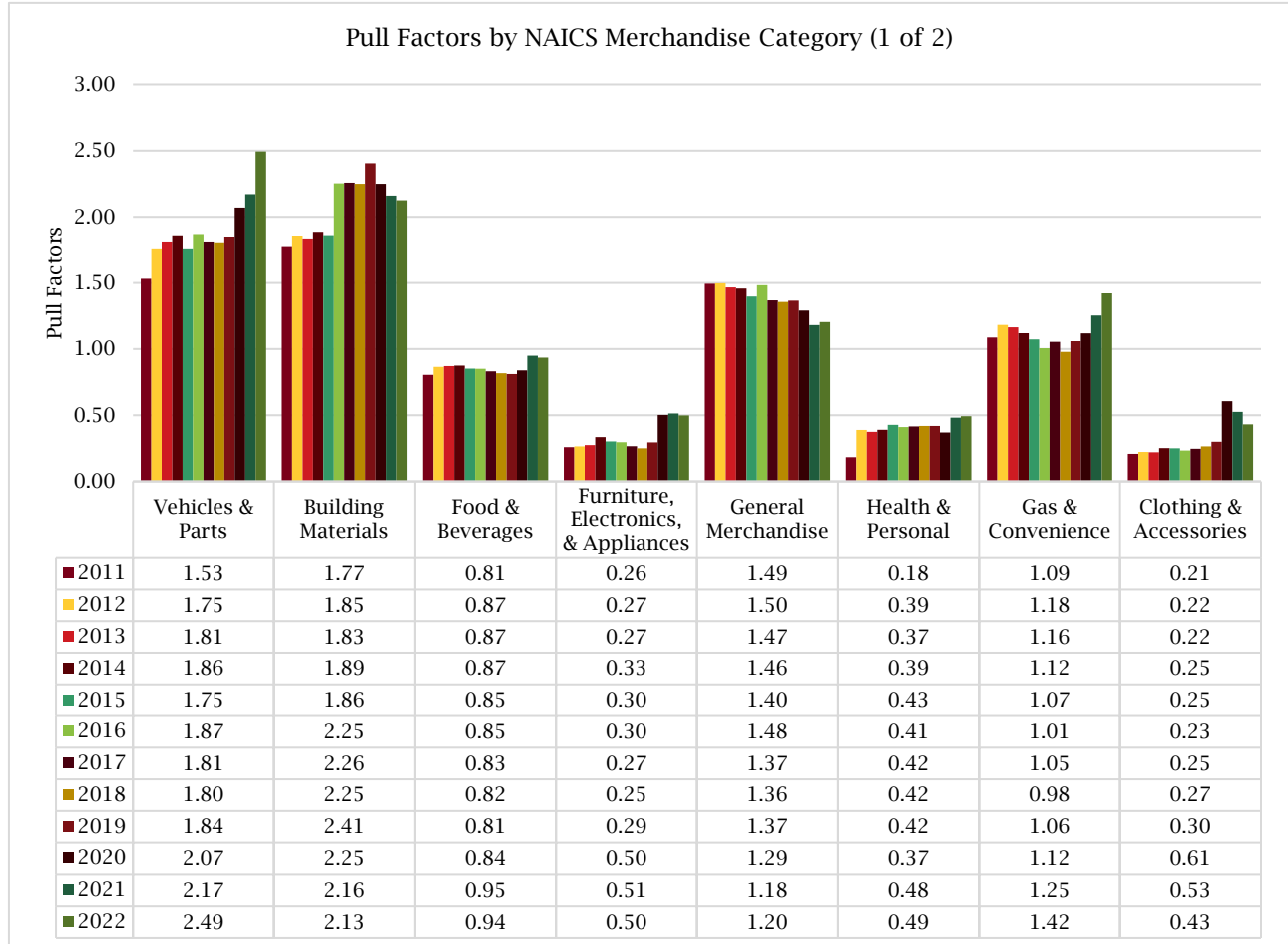
The following tables and charts depict pull factors in Becker County from 2011 to 2022 by merchandise category. Pull factors are a measure of trade area size that provide a useful measure of change over time because they account for changes in population and state-wide industry trends.

Pull Factors by NAICS Merchandise Category (1 of 2)

	Vehicles & Parts	Building Materials	Food & Beverages	Furniture, Electronics, & Appliances	General Merchandise	Health & Personal	Gas & Convenience	Clothing & Accessories
2011	1.53	1.77	0.81	0.26	1.49	0.18	1.09	0.21
2012	1.75	1.85	0.87	0.27	1.50	0.39	1.18	0.22
2013	1.81	1.83	0.87	0.27	1.47	0.37	1.16	0.22
2014	1.86	1.89	0.87	0.33	1.46	0.39	1.12	0.25
2015	1.75	1.86	0.85	0.30	1.40	0.43	1.07	0.25
2016	1.87	2.25	0.85	0.30	1.48	0.41	1.01	0.23
2017	1.81	2.26	0.83	0.27	1.37	0.42	1.05	0.25
2018	1.80	2.25	0.82	0.25	1.36	0.42	0.98	0.27
2019	1.84	2.41	0.81	0.29	1.37	0.42	1.06	0.30
2020	2.07	2.25	0.84	0.50	1.29	0.37	1.12	0.61
2021	2.17	2.16	0.95	0.51	1.18	0.48	1.25	0.53
2022	2.49	2.13	0.94	0.50	1.20	0.49	1.42	0.43

NAICS Category Descriptions

Motor Vehicles & Parts: Establishments that sell new & used autos, boats, motorcycles, golf carts, RV's, campers, snowmobiles, trailers, tires, and parts.
Furniture: Stores that sell furniture, beds, carpeting, window coverings, lamps, china, kitchenware, & woodburning stoves.
Electronics: Establishments primarily engaged in retailing household-type appliances, sewing machines, cameras, computers, and other electronic goods.
Building Materials: Establishments that sell lumber, hardware, paint, wallpaper, tile, hardwood floors, roofing, fencing, ceiling fans, lawn equipment, and garden centers.
Food: Grocery stores, deli's, bakery, & butcher shops that sell food to be prepared at home. Liquor stores.
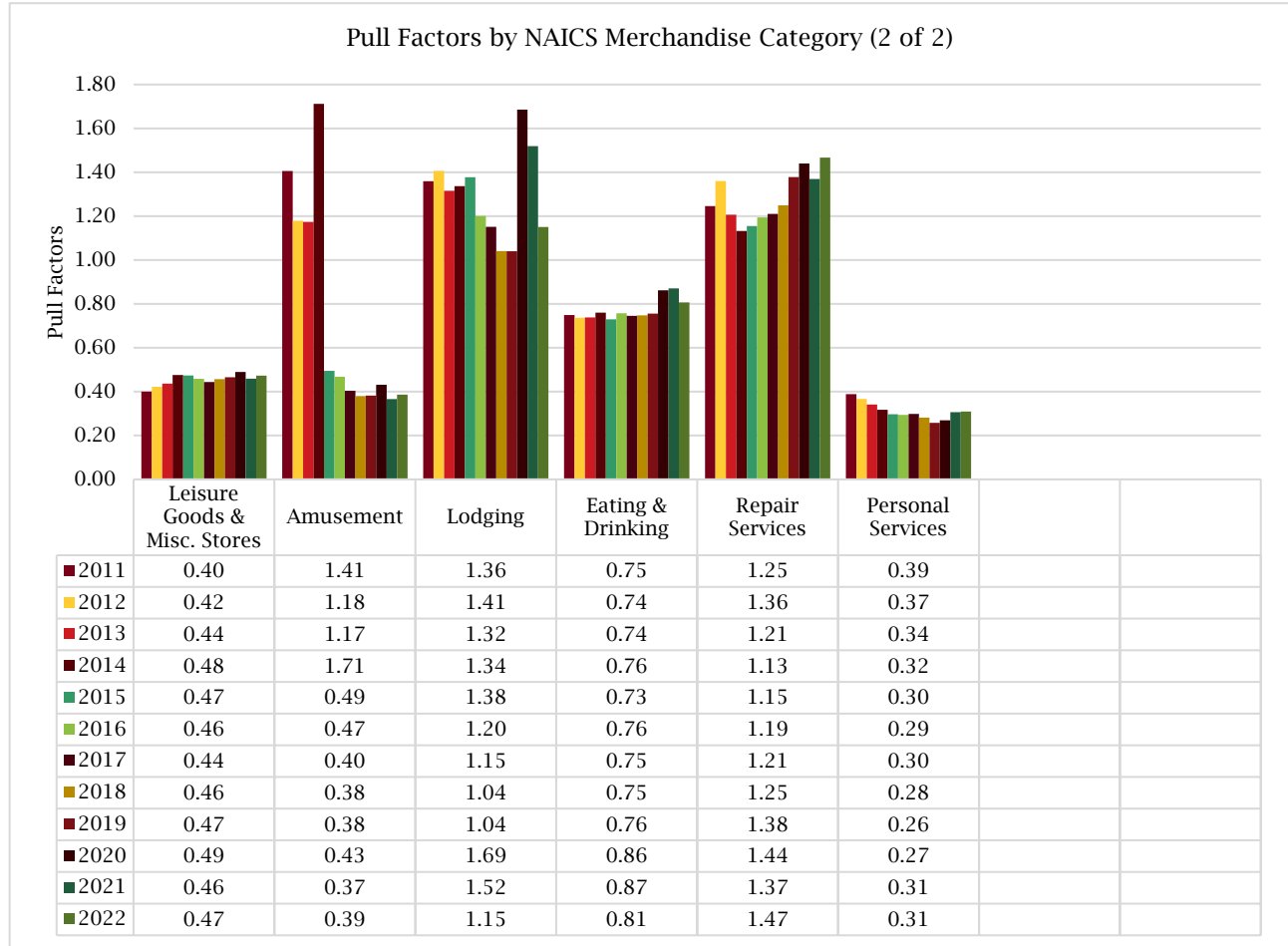**Health & Personal:** Pharmacies, food supplements, vision supplies, cosmetics, & hearing aid stores.
Gas Stations/Convenience Store: Retailers that sell fuel along with convenience store items.
Leisure Goods: Sporting goods, books, music, hobby stores, fabric shops, and toy stores.

Recent Trends By Merchandise Category: Becker County

The following tables and charts depict pull factors in Becker County from 2011 to 2022 by merchandise category. Pull factors are a measure of trade area size that provide a useful measure of change over time because they account for changes in population and state-wide industry trends.

Pull Factors by NAICS Merchandise Category (2 of 2)

	Leisure Goods & Misc. Stores	Amusement	Lodging	Eating & Drinking	Repair Services	Personal Services		
2011	0.40	1.41	1.36	0.75	1.25	0.39		
2012	0.42	1.18	1.41	0.74	1.36	0.37		
2013	0.44	1.17	1.32	0.74	1.21	0.34		
2014	0.48	1.71	1.34	0.76	1.13	0.32		
2015	0.47	0.49	1.38	0.73	1.15	0.30		
2016	0.46	0.47	1.20	0.76	1.19	0.29		
2017	0.44	0.40	1.15	0.75	1.21	0.30		
2018	0.46	0.38	1.04	0.75	1.25	0.28		
2019	0.47	0.38	1.04	0.76	1.38	0.26		
2020	0.49	0.43	1.69	0.86	1.44	0.27		
2021	0.46	0.37	1.52	0.87	1.37	0.31		
2022	0.47	0.39	1.15	0.81	1.47	0.31		

NAICS Category Descriptions

General Merchandise: Establishments that sell a mixed line of goods. Examples are department stores, supercenters, and dollar stores.

Miscellaneous Store Retailers: Stores not covered in other categories such as florists, office supplies, pets, antiques, tobacco, art, used merchandise, and trophies. (see Suppressed Data in Cautions section)

Non-Store Retail: Retailers that do not use stores. This includes mail order, internet selling, bazaars, vending machines, fuel oil dealers, firewood dealers, door-to-door sales, and produce stands.

Amusement: Establishments such as golf courses, bowling lanes, marinas, amusement parks, water parks, shooting ranges, pool halls, horseback riding, ballrooms, health club facilities, ski hills, and casinos.
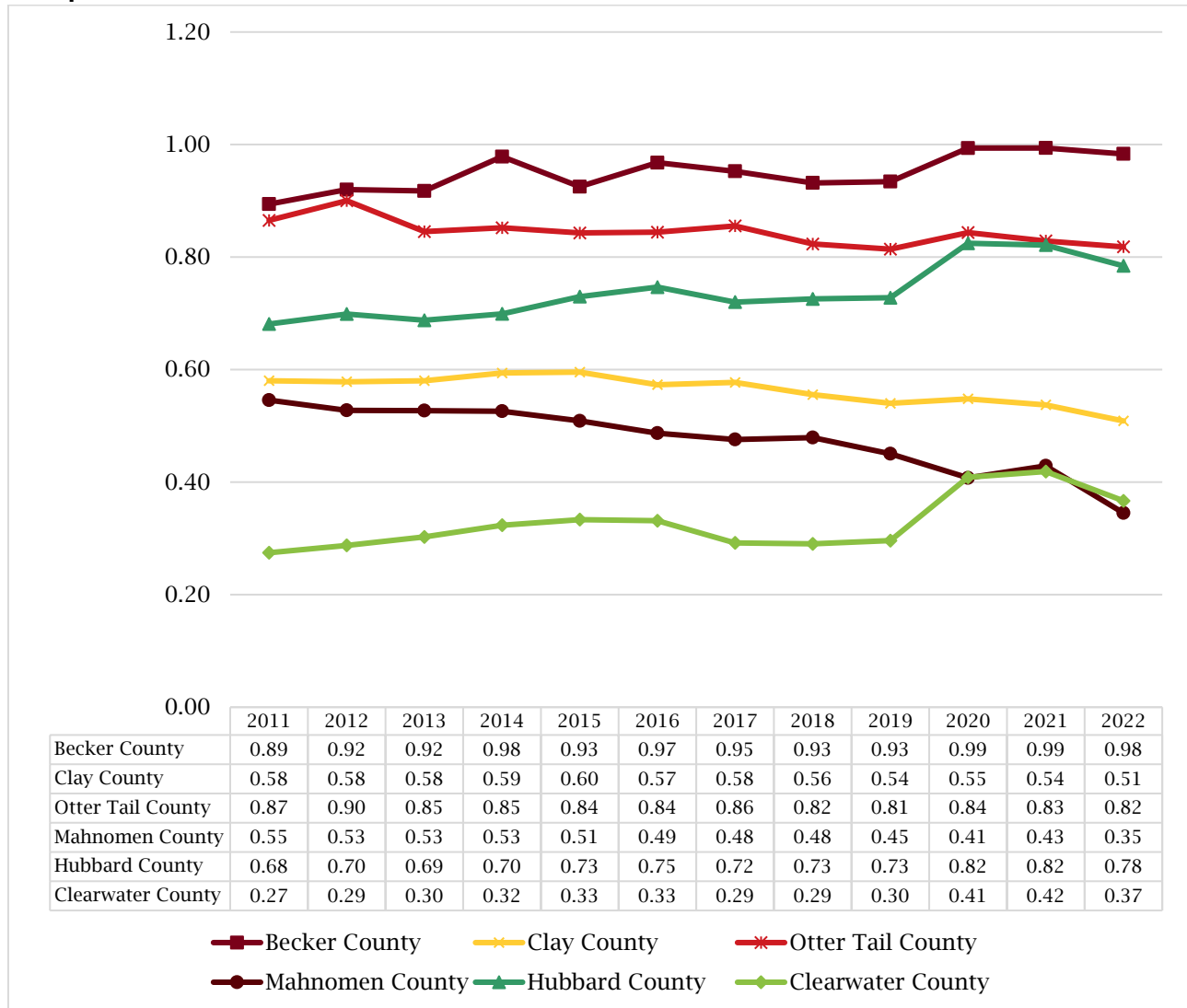
Lodging: Seasonal resorts, hotels, boarding houses, bed & breakfast, campgrounds, and RV parks.

Eating & Drinking: Restaurants, donut shops, coffee house, cafeteria, caterers, taverns, and nightclubs.

Repair: Businesses that return items to working order. Examples: cars, lawnmowers, small engines, knives, shoes, computers, furniture, and appliances.

Comparison with Neighboring Counties

Comparison of Pull Factors Over Time

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Becker County	0.89	0.92	0.92	0.98	0.93	0.97	0.95	0.93	0.93	0.99	0.99	0.98
Clay County	0.58	0.58	0.58	0.59	0.60	0.57	0.58	0.56	0.54	0.55	0.54	0.51
Otter Tail County	0.87	0.90	0.85	0.85	0.84	0.84	0.86	0.82	0.81	0.84	0.83	0.82
Mahnomen County	0.55	0.53	0.53	0.53	0.51	0.49	0.48	0.48	0.45	0.41	0.43	0.35
Hubbard County	0.68	0.70	0.69	0.70	0.73	0.75	0.72	0.73	0.73	0.82	0.82	0.78
Clearwater County	0.27	0.29	0.30	0.32	0.33	0.33	0.29	0.29	0.30	0.41	0.42	0.37

Legend: ■ Becker County ✕ Clay County ✳ Otter Tail County ● Mahnomen County ▲ Hubbard County ◆ Clearwater County

Comparison with Neighboring Counties, 2022

Town	Population	Gross Sales ($millions)	Taxable Sales ($millions)	Number of Firms	Per Capita Taxable Sales	Pull Factor (Taxable Sales)
Becker County	35,738	$939.14	$403.81	782	$11,299.08	0.98
Clay County	67,814	$1,215.60	$396.40	862	$5,845.47	0.51
Otter Tail County	60,555	$1,437.98	$569.26	1,493	$9,400.72	0.82
Mahnomen County	5,400	$49.34	$21.42	57	$3,966.73	0.35
Hubbard County	22,431	$494.77	$202.17	598	$9,012.79	0.78
Clearwater County	8,721	$105.57	$36.75	161	$4,213.97	0.37

Trade Area Analysis of Retail Sales: Becker County

The following table provides information on retail sales by merchandise category. Potential sales is a standard to which actual performance is compared. When calculating potential sales, population and income characteristics are taken into account. Potential sales can be used as a guideline or "par value" when analyzing retail strength.

Deviations from these norms can be analyzed to first judge whether they should be considered relevant. If the differences appear to be significant (whether in dollar amounts or relatively with percentages, additional consideration is merited. Categories with undesirable performance may be further examined for potential corrective action. It is also important to determine whether or not the situation is relatively uncontrollable due to external or extenuating circumstances. In cases of favorable differences from expectations, positive aspects can be identified and built upon.

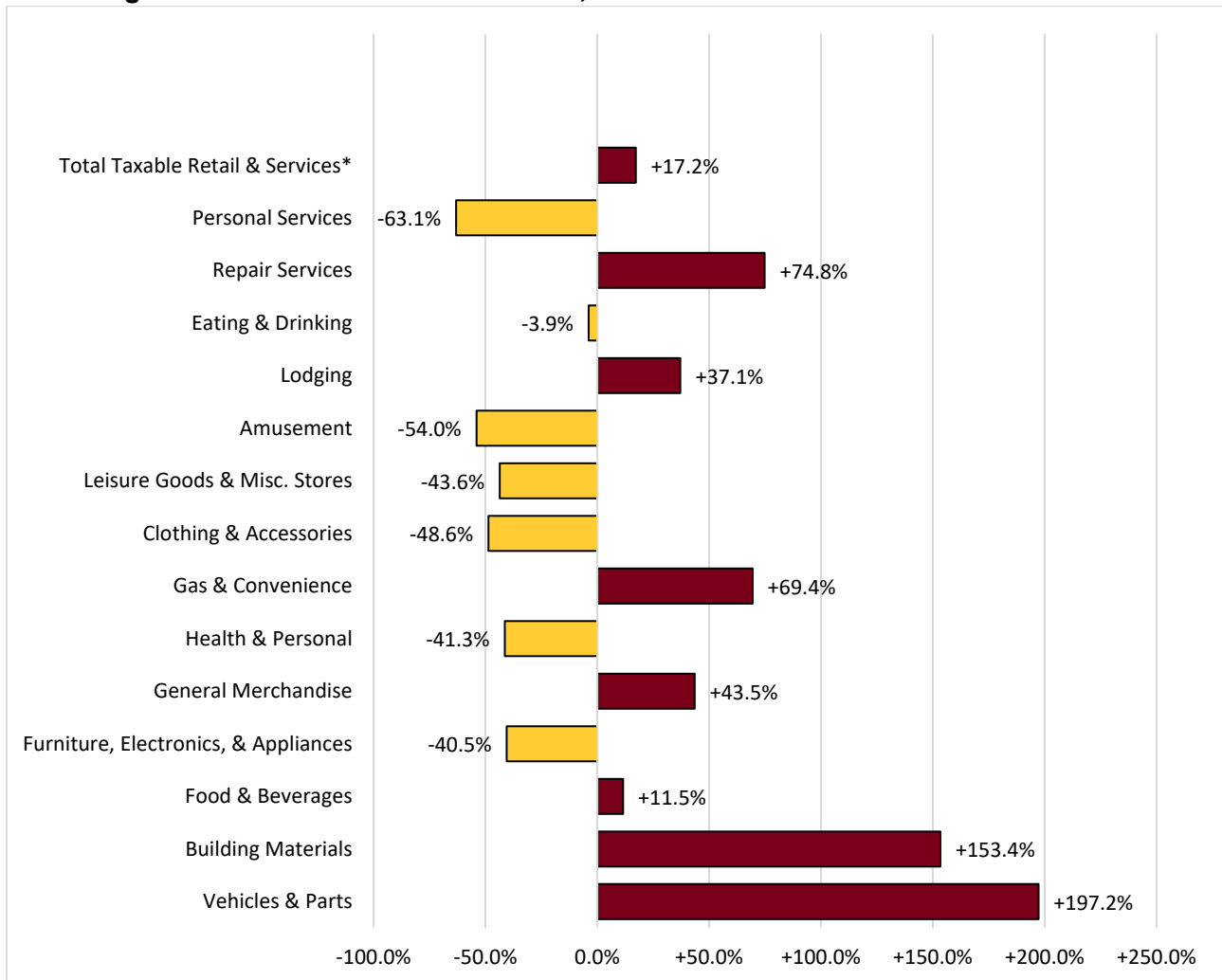## Trade Area Analysis by Merchandise Category, 2022

Merchandise Category	Expected Sales ($millions)	Actual Sales ($millions)	Variance Between Actual & Expected		Trade Area Pop. Gain or Loss	Number of Firms	Percent of Total Sales
			In Dollars (millions)	As % of Expected			
Vehicles & Parts	$9.18	$28.86	+$19.67	+214.3%	+21,685	11	10.1%
Building Materials	$36.40	$101.01	+$64.60	+177.5%	+17,960	9	35.5%
Food & Beverages	$10.24	$16.35	+$6.11	+59.6%	+6,034	8	5.7%
Furniture, Electronics, & Appliances	$6.44	$5.67	-$0.78	-12.1%	-1,221	11	2.0%
General Merchandise	$41.28	$49.69	+$8.42	+20.4%	+2,063	7	17.5%
Health & Personal	$1.40	$2.24	+$0.84	+59.7%	+6,037	8	0.8%
Gas & Convenience	$5.15	$7.45	+$2.30	+44.6%	+4,510	10	2.6%
Clothing & Accessories	$0.93	$2.51	+$1.58	+169.9%	+17,189	9	0.9%
Leisure Goods & Misc. Stores	$3.53	$6.72	+$3.19	+90.5%	+9,160	32	2.4%
Amusement	$1.08	$0.64	-$0.44	-40.6%	-4,112	6	0.2%
Lodging	$4.94	$9.62	+$4.67	+94.6%	+9,572	9	3.4%
Eating & Drinking	$18.93	$39.42	+$20.49	+108.2%	+10,949	41	13.9%
Repair Services	$3.35	$9.80	+$6.45	+192.8%	+19,506	21	3.4%
Personal Services	$0.52	$1.43	+$0.92	+178.0%	+18,016	43	0.5%
Total Taxable Retail & Services*	$105.49	$284.58	+$179.09	+169.8%	+137,349	317	100.0%

Retail Trade Performance in Percentages: Becker County

The chart below depicts the percentage amount of Becker County's actual sales that were above or below potential sales in 2022 by merchandise group. Of the 14 merchandise categories with reported data, sales in 8 of the categories were above what would be potential sales, based on the county's population and income characteristics, as well as statewide spending patterns. The strongest merchandise group by this standard is the Vehicles & Parts category, which has a 197.2 percent surplus. Overall, Becker County had a retail sales surplus of 17.2 percent in 2022.

It is important to note that variations in a county's relative retail performance may occur for a variety of reasons, some of which are beyond the control of local policy. Proximity to larger population centers and transportation patterns, as well as the individual retailer's management and marketing, can cause the retail sales of a particular county to deviate substantially from potential sales. It is important that decision-makers consider these influences when constructing policies, plans, or projects.

Percentage Above or Below Potential Sales, 2022

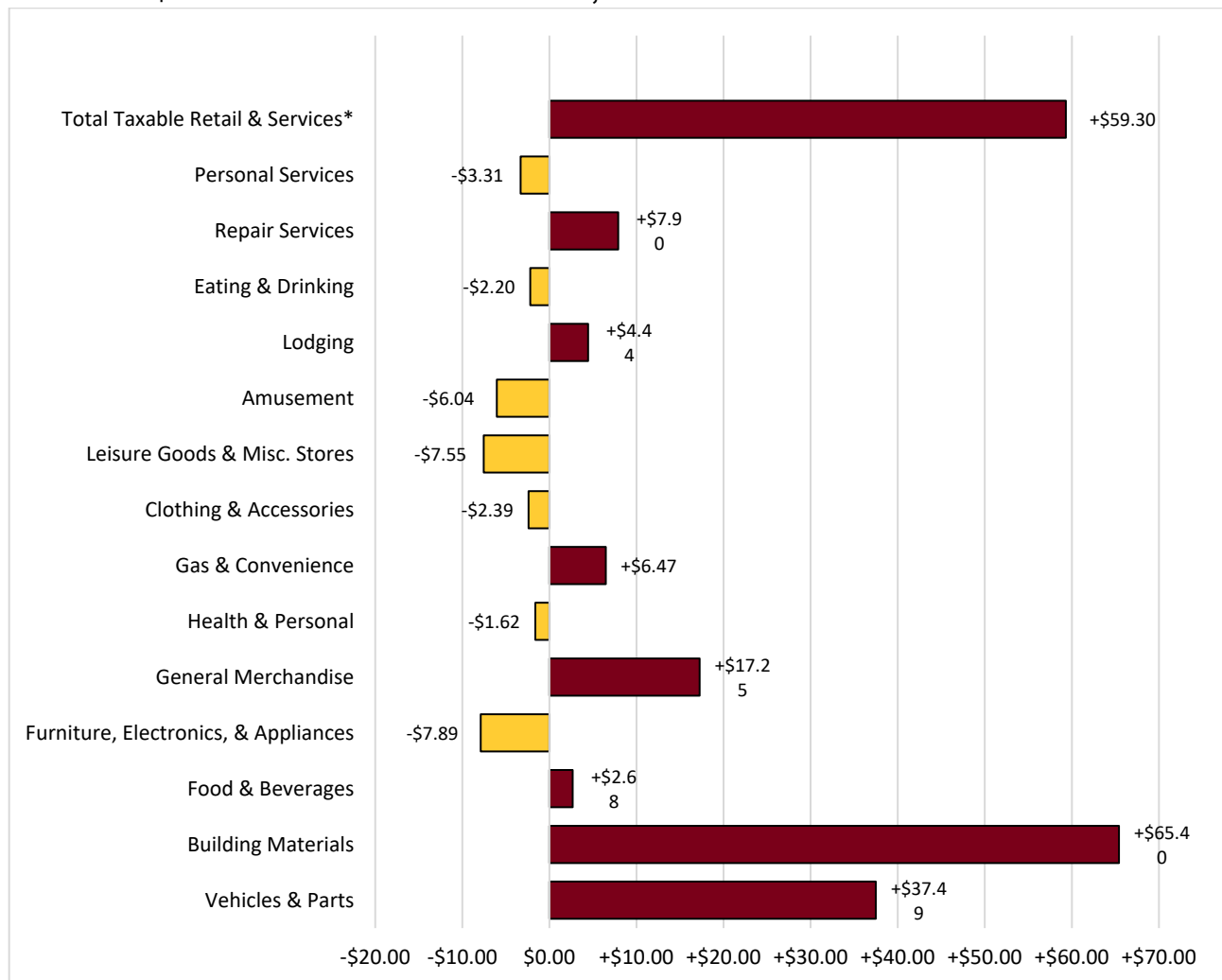| Category	Percentage
Total Taxable Retail & Services*	+17.2%
Personal Services	-63.1%
Repair Services	+74.8%
Eating & Drinking	-3.9%
Lodging	+37.1%
Amusement	-54.0%
Leisure Goods & Misc. Stores	-43.6%
Clothing & Accessories	-48.6%
Gas & Convenience	+69.4%
Health & Personal	-41.3%
General Merchandise	+43.5%
Furniture, Electronics, & Appliances	-40.5%
Food & Beverages	+11.5%
Building Materials	+153.4%
Vehicles & Parts	+197.2%

Retail Trade Performance in Dollars: Becker County

The chart below depicts the dollar amount of Becker County's actual sales that were above or below potential sales in 2022 by merchandise group. Of the 14 merchandise categories with reported data, sales in 8 of the categories were above calculated potential. The strongest merchandise group by this standard is the Vehicles & Parts category, which has a $65.4 million surplus. Overall, Becker County had a retail surplus of $59.3 million in 2022.

It is important to note that variations in a county's relative retail performance may occur for a variety of reasons, some of which are beyond the control of local policy. Proximity to larger population centers and transportation patterns, as well as the individual retailer's management and marketing, can cause the retail sales of a particular county to deviate substantially from potential sales. It is important that decision-makers consider these influences when constructing policies, plans, or projects.

Millions of $ Above or Below Potential Sales, 2022

Category	Value
Total Taxable Retail & Services*	+$59.30
Personal Services	-$3.31
Repair Services	+$7.90
Eating & Drinking	-$2.20
Lodging	+$4.44
Amusement	-$6.04
Leisure Goods & Misc. Stores	-$7.55
Clothing & Accessories	-$2.39
Gas & Convenience	+$6.47
Health & Personal	-$1.62
General Merchandise	+$17.25
Furniture, Electronics, & Appliances	-$7.89
Food & Beverages	+$2.68
Building Materials	+$65.40
Vehicles & Parts	+$37.49

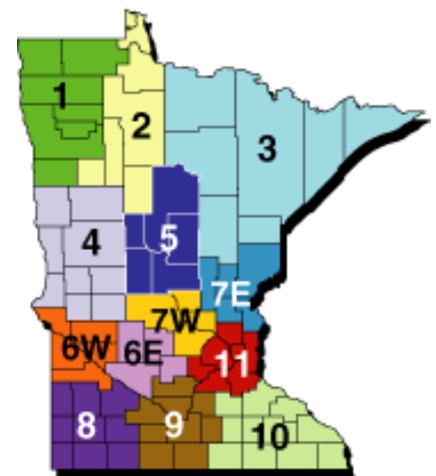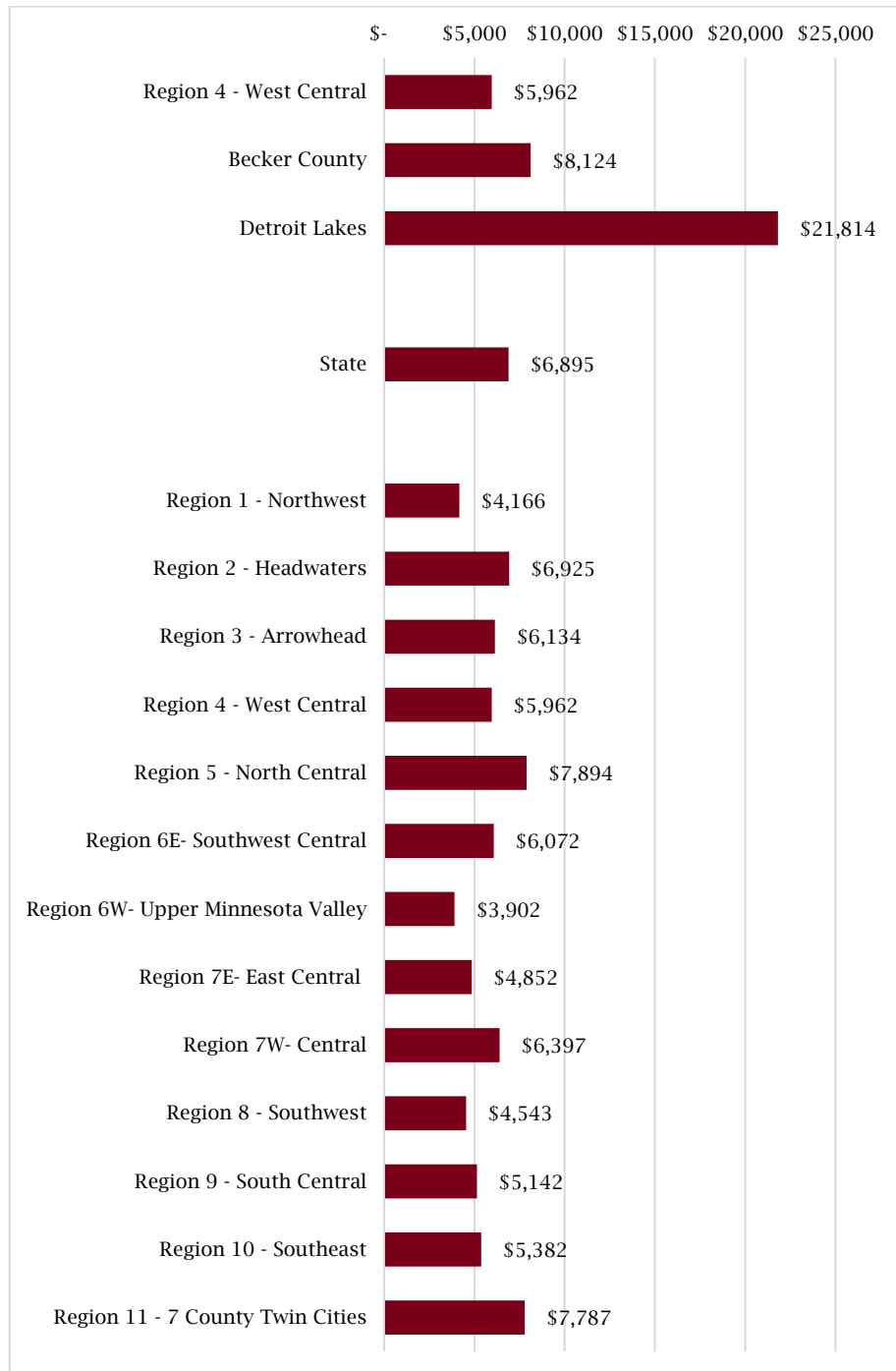# Retail Trade Surplus or Leakage: Becker County

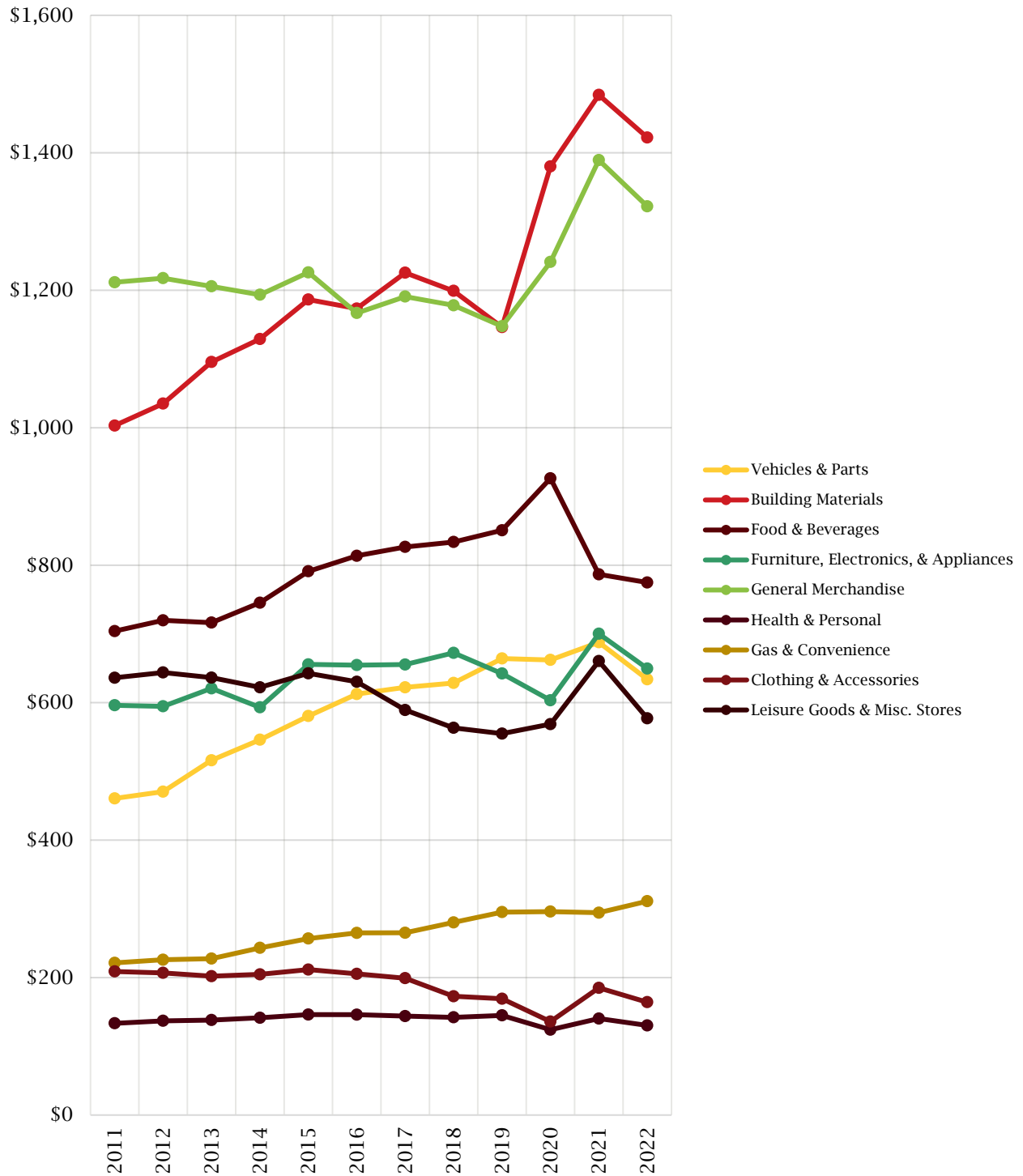## County Surplus or Leakage as a Percentage of Potential
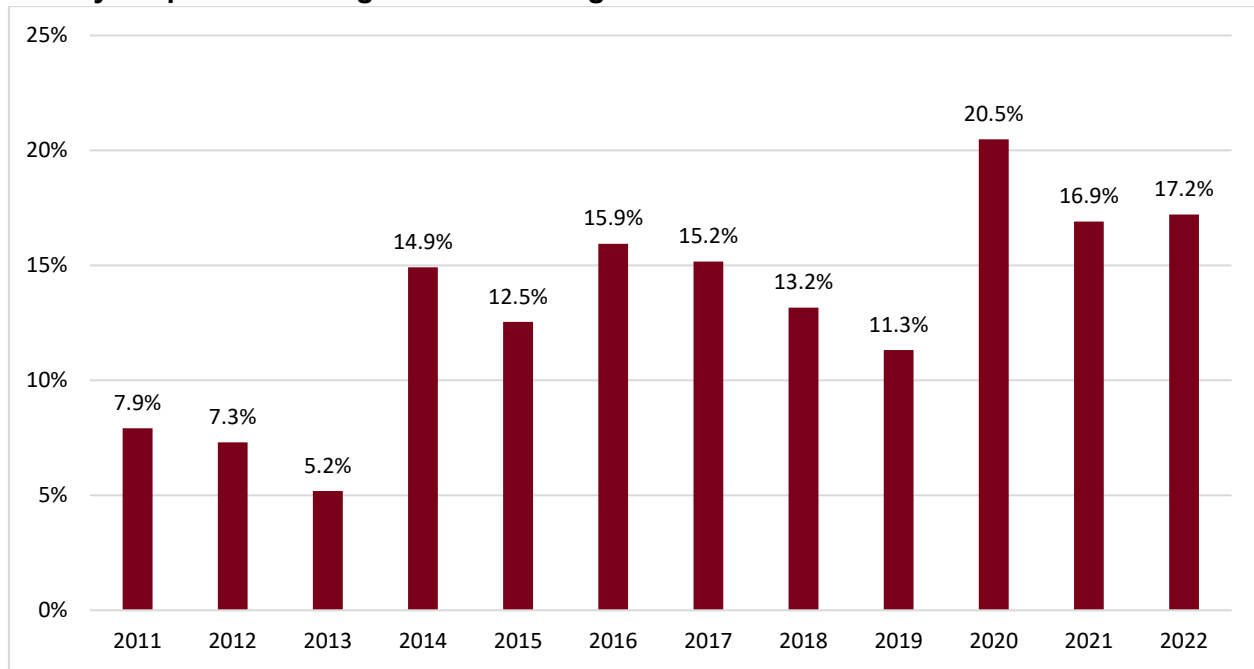
Fiscal Year	Population Estimate	Index of Income	Potential Sales (in millions)	Actual Sales (in millions)	Surplus or Leakage (in millions)	Surplus or Leakage as % of Potential	Trade Area Population Gain or Loss
2011	32,770	0.83	$216.8	$234.0	+$17.2	7.9%	2,594
2012	32,973	0.86	$233.3	$250.3	+$17.0	7.3%	2,408
2013	33,167	0.87	$247.9	$260.7	+$12.9	5.2%	1,721
2014	33,272	0.85	$247.4	$284.2	+$36.9	14.9%	4,963
2015	33,567	0.82	$248.1	$279.2	+$31.1	12.5%	4,209
2016	33,766	0.83	$256.2	$297.0	+$40.8	15.9%	5,381
2017	34,103	0.83	$261.3	$300.9	+$39.6	15.2%	5,172
2018	34,420	0.82	$270.2	$305.8	+$35.6	13.2%	4,530
2019	34,545	0.84	$278.9	$310.4	+$31.6	11.3%	3,911
2020	35,183	0.82	$270.4	$325.8	+$55.4	20.5%	7,206
2021	35,307	0.85	$325.4	$380.3	+$55.0	16.9%	5,968
2022	35,738	0.84	$344.5	$403.8	+$59.3	17.2%	6,152

Compare the County to the State Regions

Earlier in this report, we compared communities using a combination of retail sector and service sectors. The information on this page only includes businesses in the retail trade and does not include the service sector. The retail trade sector includes the following: building materials, motor vehicles and parts, clothing, food stores, electronics, convenience stores, leisure goods, health store, furniture, general merchandise, non-store retail, and miscellaneous stores.

	Value
Region 4 - West Central	$5,962
Becker County	$8,124
Detroit Lakes	$21,814
State	$6,895
Region 1 - Northwest	$4,166
Region 2 - Headwaters	$6,925
Region 3 - Arrowhead	$6,134
Region 4 - West Central	$5,962
Region 5 - North Central	$7,894
Region 6E- Southwest Central	$6,072
Region 6W- Upper Minnesota Valley	$3,902
Region 7E- East Central	$4,852
Region 7W- Central	$6,397
Region 8 - Southwest	$4,543
Region 9 - South Central	$5,142
Region 10 - Southeast	$5,382
Region 11 - 7 County Twin Cities	$7,787

Minnesota Taxable Sales Per Capita, 2011 to 2022

Legend:
- Vehicles & Parts
- Building Materials
- Food & Beverages
- Furniture, Electronics, & Appliances
- General Merchandise
- Health & Personal
- Gas & Convenience
- Clothing & Accessories
- Leisure Goods & Misc. Stores

Appendix: Data Sources and Definitions

The University of Minnesota Extension has developed this retail trade analysis program to assist in the economic development of Minnesota towns and cities. These reports are available for all Minnesota counties, for most cities above 5,000 populations and for a few cities smaller than 5,000 population. The retail sector of each jurisdiction can be evaluated by comparing its trends to those of other similar jurisdictions. Business people and economic development officials can use measures such as pull factors and leakages to determine the need and feasibility of new retail businesses.

Data Sources

Most of the data in the analysis are based on annual reports of Minnesota retail and use tax, published by the Minnesota Department of Revenue. The Department of Revenue published an annual report of sales and use tax by jurisdiction until 1996, at which time the reports were released biannually due to budget constraints. This analysis uses the available reports from 1990-1996, 1998, 2000, and 2003 through 2012. The reports interpolate data for the years in which data are not available. See https://www.revenue.state.mn.us/sales-and-use-tax-statistics-and-annual-reports. The income data in this report are obtained from reports by Bureau of Economic Analysis (BEA). (See http://www.bea.gov/iTable/index_regional.cfm) Population data after 2009 are derived from the state demographic center. (See http://mn.gov/admin/demography/data-by-topic/population-data/our-estimates/index.jsp)

Sales and use tax permit holders file returns and remit taxes on a monthly, quarterly or annual basis. Large businesses such as discount department stores whose tax is more than $500 per month are required to file on a monthly basis, while medium-sized businesses whose sales tax collections are less than $500 per month, are required to file on a quarterly basis and small businesses with sales tax collections less than $100 per month would most likely file on an annual basis.

Definition of Terms

Gross Sales

Gross sales include taxable sales and exempt sales for businesses holding sales and use tax permits. This is the most inclusive indicator of business activity for the reporting jurisdictions but it can be misleading when used in comparisons. At times commodity items (like gasoline) that are not taxable can have large price variations, creating huge swings in gross sales.

Taxable Sales

Taxable sales are the amount of sales subject to sales tax. Taxable sales exclude exempt items, items sold for resale, items sold for exempt purposes and items sold to exempt organizations. For more information on what is taxed in Minnesota, see "Minnesota Sales and Use Tax Business Guide" available on the web at https://www.revenue.state.mn.us/guide/minnesota-sales-and-use-tax-business-guide

Current and Constant Dollar Sales

Current dollar (or "nominal dollar") sales are sales as reported by the state. No adjustment has been made for price inflation. In general this measure of sales is not satisfactory for comparisons over long periods of time since it does not account for changes in population, inflation, or the state's economy. Constant dollar (or "real dollar") sales reflect changes in price inflation by adjusting current dollar sales with the Consumer Price Index (CPI). Constant dollar sales indicate the real sales level with respect to a base year. This is a more realistic method of evaluating sales over time than current dollar comparisons, but still does not take into consideration changes in population or changes in the state's economy.

Number of Businesses

The number of sales and use tax permit holders who filed one or more tax returns for the year are reported as the number of businesses.

Reporting Period

The reporting periods though 2005 in this report are calendar years. For example, the sales reported for the year 2000 are for the period, January 1, 2000 to December 31, 2000. The Sales and Use Tax Statistics reports for 2006 and 2007 use a slightly different methodology than in previous years. Rather than basing the report on the year in which sales were made (as was true in earlier reports), the 2006 and 2007 reports were based on when returns were processed. Starting in 2008, the reports are again based on the calendar year when the sales occurred.

Per Capita Sales

Per capita (or "per person") sales are calculated by dividing current dollar sales by the population estimate. In areas where population is subject to substantial change, this is a more satisfactory measure of sales activity than sales alone. However, it still does not reflect changes in the state economy.

Number of Businesses

The number of sales and use tax permit holders who filed one or more tax returns for the year are reported as the number of businesses.

Pull Factor

The pull factor was developed by Dr. Ken Stone, an economist from Iowa State University Extension Service, to provide a precise measure of sales activity in a locality. It is derived by dividing the per capita current dollar sales of a city or county by the per capita sales for the state. For example, if a city's per capita sales are $20,000 per year and the state per capita sales are $10,000 per year, the pull factor is 2.0 ($20,000 ÷ $10,000). The interpretation is that the city is selling to 200 percent of the city population. Worth noting that local consumption patterns or local average prices may skew pull factors. As example, a city may not have enough people willing to buy $35 steak dinners to support restaurants that typically carry expensive selections.

Pull factors are good measures of sales activity because they reflect changes in population, inflation, and the state economy. Pull factors are available through the University of Minnesota Extension for total taxable sales for all cities with reported sales (generally, cities with a population of 5,000 or more) since 1990. The pull factors listed in this report are not adjusted for differing income levels in different communities; they are simply the ratio of local per person sales to the state average. Income levels are accounted for in the expected sales and potential sales formulas, described below.

Typical Pull Factor

The typical pull factor is a pull factor that represents the "norm" for cities within a population group. It is an average for cities within a population group excluding some of the outliers in the group.

Personal Income

Personal income is defined as the income received by, or on behalf of, all the residents of the county (state) from all sources. Personal income is the estimated sum of wage and salary earnings, supplements to wages and salaries (e.g.. contributions to retirement funds, health plans, life insurance policies), proprietors' income, rental income, personal dividend income, personal interest income, and personal current transfer receipts to persons (e.g. receipts of Social Security, disability, worker's compensation, Medicare/Medicaid, food stamps, etc.) less contributions for government social insurance (e.g. Social Security, Medicare).

Index of Income

This index provides a measure of income, relative to the state, which is calculated by dividing local per capita income by state per capita income. The base is 1.00. For example, an index of income of 1.20 indicates that per capita income in the area is 20 percent above the state average.

Expected Sales

Expected sales are a retail performance benchmark. It is an estimate of the sales level a city would achieve if it were performing on par with Minnesota cities of a similar size. In addition to population and income variables, expected sales incorporate the typical strength of comparable communities via the typical pull factor. Expected sales are the product of city population, state per capita sales, the index of income and the typical pull factor. For example, if a city has a population of 5,000, the state per capita sales are $9,000, the typical pull factor is 1.30, and the index of income is 1.03, expected sales are approximately $60 million per year (5,000 x $9,000 x 1.30 x 1.03). This provides a means of comparing what is expected for a city of a certain size to what is actually happening.

Potential Sales

Potential sales are an estimate of the amount of money that is spent on retail goods and services by residents of a county. It is the product of county population, state per capita sales and the index of income. The potential sales concept for counties is similar to the expected sales calculations for cities. However, potential sales do not utilize a measure of average pulling power (like the typical pull factor that is used in the expected sales equation). Since a county is a relatively large region within which retail business takes place, counties are compared without adjustments for trade area size.

Variance between Actual and Expected Sales (Surplus or Leakage)

The variance between actual and expected sales is how much retail sales differ from the "norm" (i.e., the amount above or below the standard established by the expected sales formula). When actual sales exceed expected sales, we say the city has a "surplus" of retail sales. When actual sales fall short of expected sales, we say the city has a retail sales "leakage". The set of similarly-sized cities in Minnesota is the peer group to which the comparison is being made. Discrepancies between expected and actual sales occur for a variety of reasons.

Trade Area Population Gain or Loss

The trade area population gain or loss translates the percentage amount of surplus or leakage of retail sales into an estimate of the number of customers gained or lost in the trade area. It is calculated by multiplying the percent surplus or leakage by the population estimate for the city or county. For example, if a city with 10,000 residents had a retail sales surplus of 20%, the trade area population gain would be 2,000. Adding this number to the city's population gives an estimate of the population size of the city's trade area.

Calculating Expected Sales Using Comparisons with Other Rural Cities

Beginning in the middle of 2013, Retail Trade Analysis reports for cities outside of the 7-county Twin Cities area contained new Rural Community Trade Area Analysis pages. The earlier paragraph of how Expected Sales are calculated explained that a typical pull factor of similar-sized cities was used in the formula. These new pages for rural communities only use similar cities that meet the following three criteria: 1) within approximately 30% of similar population; 2) located outside of the 7-county metro area; 3) have a similar location on the trade-center hierarchy scale. Cities with a similar trade center hierarchy have a history of similar total taxable retail and service sales. This

method will keep the pull factors from metro cities like Mendota Heights and Little Canada being used in calculations for rural cities like Fairmont and Grand Rapids. More information on trade center hierarchy can be found in the article Trade-Center Hierarchy in Greater Minnesota authored by Craig and Schwartau at http://www.cura.umn.edu/publications/catalog/reporter-41-3-4-2. This article noted there was little relative movement in any one city's hierarchy ranking with just a few exceptions where dramatic economic changes occurred.

Cautions

Gross Sales

Gross sales are a comprehensive measure of business activity, but readers should be aware that the numbers in this report are self-reported by holders of sales and use tax reports. Furthermore, the gross sales are not audited by the State of Minnesota. It is believed that the gross sales figures are generally reliable, but there is the possibility of distortions, especially in smaller cities where misreporting may have occurred.

Misclassification

Holders of sales and use tax permits select the North American Industry Classification System (NAICS) category that best fits their business. Regardless of who makes this classification, errors are occasionally made. Also, sometimes a business will start out as one type of business, but may evolve over time to a considerably different type of business. Misclassifications can distort sales among business categories, especially in smaller cities. For example, a furniture store that is classified as a general merchandise store, will under-report the sales in the furniture store category and over-report the sales in the general merchandise category.

Suppressed Data

The sales data for merchandise categories that have less than four reporting firms are not reported. This is a measure taken by most states to protect the confidentiality of sales tax permit holders. The sales for suppressed retail categories are placed into the miscellaneous category and are included in total sales. The sales for suppressed service categories are placed into the NAICS 999 category and are not included in total sales.

Consolidated Reporting

Vendors doing business at more than one location in Minnesota have the option of filing a separate return for each location or filing one consolidated return for all locations. The consolidated return shows, for each business establishment, the sales made, tax due and location by city and county.

Data for the establishments of consolidated filers are combined with data for single-location filers to produce the figures in this report. Occasionally consolidated reports may not be properly deconstructed and all the sales for a company may be reported for one city. Whenever misreporting is discovered, contacts are made by the Minnesota Revenue Department to clarify the situation.

Changes between 2000 and 2003

For fiscal year 2003, the Minnesota Department of Revenue implemented two major changes to improve their reporting of sales and use tax data. First, they adopted a geo-coding system, which accurately identifies the location of all business reporting sales and use tax to the state rather than relying on the businesses' postal addresses. One effect of this change is a movement of sales between neighboring cities (and in some cases, counties) in the year 2003. Thus, in several of the suburbs of Minneapolis and St.Paul and in cities such as Hermantown, which is adjacent to Duluth, the data show large increases in retail sales between 2000 and 2003, a substantial portion of which

is due to the re-coding of business location and not to actual growth in sales.

The second change implemented by the Department of Revenue in 2003 was a shift from the Standard Industrial Classification system (SIC codes) to the 2002 North American Industry Classification System (NAICS codes). This switch does affect the comparability of the data series prior to 2000 with that of 2003 (and beyond), especially for merchandise categories. Overall retail and services sales are highly comparable over time. In many cases, the merchandise categories for the data prior to 2003 are very closely related to the new categories. For example, approximately 97% of the 2003 statewide sales in the general merchandise category were accounted for by firms also classified as general merchandise under the SIC system. In other cases, the correspondence is less straightforward. For example, only 56% of 2003 statewide sales in the Food and Beverage store category were accounted for by firms classified as Food Stores under the older classification system; 41% of 2003 Food store sales were accounted for by firms previously categorized as Miscellaneous Retail.

The 2002 NAICS system does provide greater detail and introduces some new sectors, such as Retail Electronics. Over time, these changes will improve the information available for retail trade analysis.