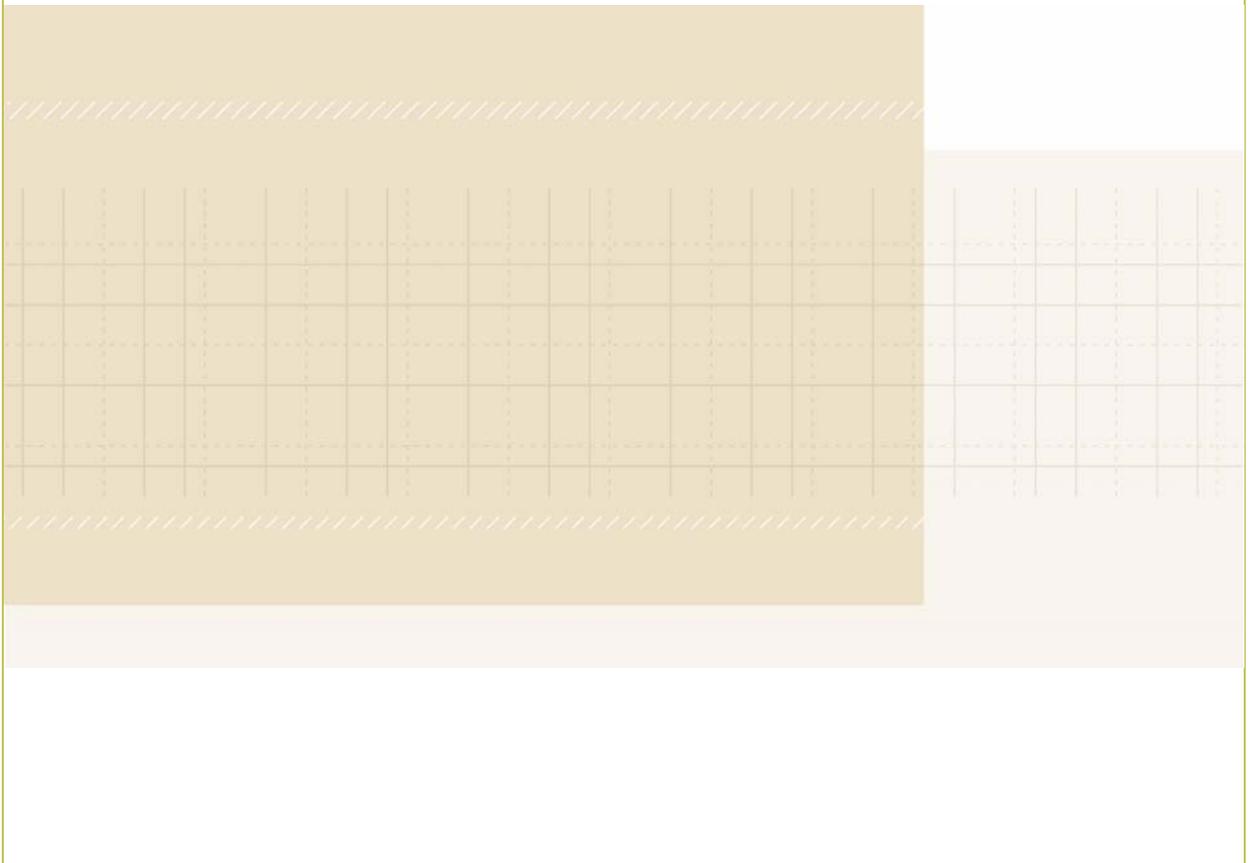




# 2013 Retail Trade Analysis Murray County

**A TOOL USED TO MEASURE THE ECONOMIC HEALTH OF THE LOCAL RETAIL ECONOMY**

Authored by Bruce W. Schwartau, University of Minnesota Extension Educator



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**June 12, 2015**

Authored by Bruce W. Schwartau, University of Minnesota Extension Educator

**Editors:**

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# Murray County Retail Trade Overview

## Total Taxable and Gross Retail Sales

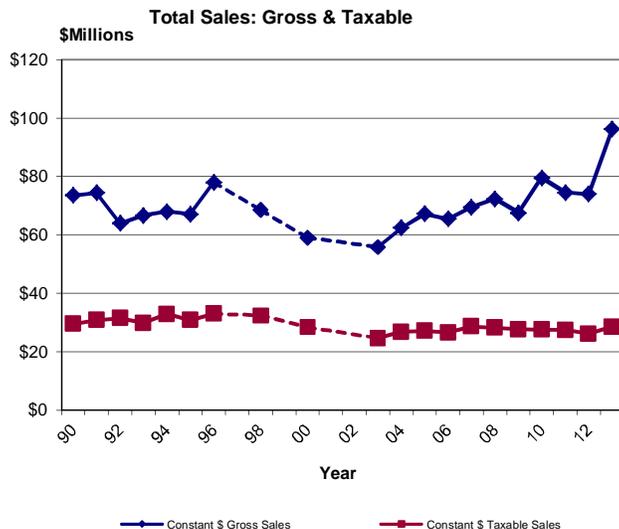
The table below presents gross and taxable retail and services sales for Murray County from 1990 through 2013. Taxable sales in Murray County increased 25 percent from 2006 to 2013, while the number of firms fell 2.9 percent. Statewide, taxable sales increased 8.7 percent over the same time period and the number of firms increased 1.4 percent. The per capita sales and pull factor data in this table are based on taxable sales, the more verified sales measure.

The table also presents sales data in constant 2013 dollars. These figures have been adjusted for inflation to reflect their value 2013. For example, in 1990, taxable sales in Murray County totaled \$16.51 million, an amount worth \$29.47 million in 2013 dollars. In constant dollars, gross sales grew 47 percent between 2006 and 2013. Constant dollar taxable sales increased 7.5 percent over the same time period.

Year	Estimated Population	Current Dollars		Constant 2013 Dollars		Number of Firms	Per Capita Sales	Pull Factor
		Gross Sales* (\$millions)	Taxable Sales (\$millions)	Gross Sales* (\$millions)	Taxable Sales (\$millions)			
1990	9,660	\$41.15	\$16.51	\$73.48	\$29.47	250	\$1,709	0.39
1995	9,553	\$43.55	\$20.04	\$67.01	\$30.83	253	\$2,097	0.37
2000	9,165	\$43.67	\$21.00	\$59.01	\$28.38	229	\$2,291	0.30
2003	8,981	\$43.51	\$19.19	\$55.78	\$24.60	261	\$2,137	0.24
2004	8,995	\$49.90	\$21.37	\$62.37	\$26.71	252	\$2,376	0.26
2005	8,852	\$55.76	\$22.50	\$67.19	\$27.11	272	\$2,542	0.27
2006	8,778	\$56.30	\$22.81	\$65.46	\$26.53	240	\$2,599	0.27
2007	8,511	\$61.13	\$25.15	\$69.46	\$28.58	253	\$2,955	0.30
2008	8,389	\$66.47	\$25.93	\$72.25	\$28.19	253	\$3,091	0.32
2009	8,416	\$61.47	\$25.18	\$67.54	\$27.67	256	\$2,991	0.33
2010	8,698	\$73.90	\$25.63	\$79.46	\$27.55	244	\$2,946	0.33
2011	8,640	\$72.19	\$26.57	\$74.43	\$27.39	233	\$3,075	0.33
2012	8,573	\$73.17	\$25.82	\$73.91	\$26.08	212	\$3,012	0.31
2013	8,536	\$96.19	\$28.52	\$96.19	\$28.52	233	\$3,342	0.39
7 yr Change '06 to '13	-2.8%	70.9%	25.0%	47.0%	7.5%	-2.9%	28.6%	43.3%
3 yr Change '10 to '13	-1.9%	30.2%	11.3%	21.1%	3.5%	-4.5%	13.4%	18.7%

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

### Murray County: Retail/Service Sales in Constant Dollars

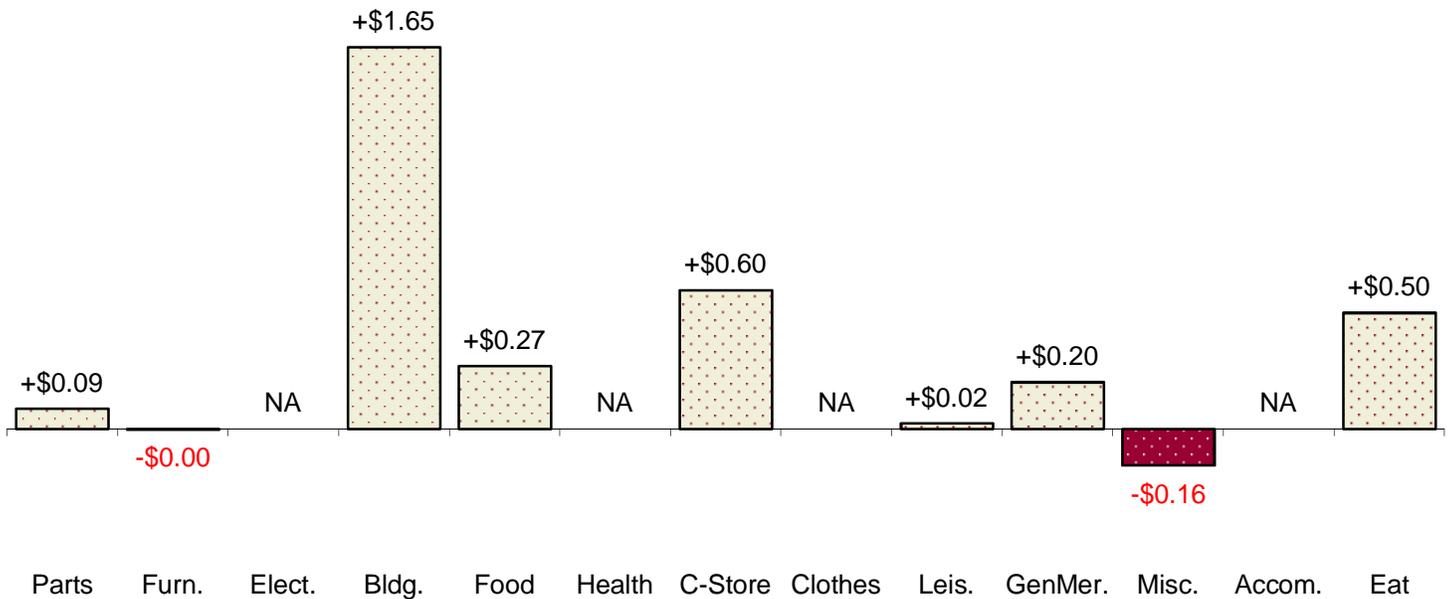


## Murray County Selected Components of Change\*, 2010 to 2013

Category	Taxable Sales 2010	Taxable Sales 2013	Dollar Change	Percent Change
Vehicles & Parts	\$1,324,155	\$1,412,260	+\$88,105	+6.65%
Furniture Stores	\$570,490	\$569,662	-\$828	-0.15%
Electronics	NA	NA	NA	NA
Building Materials	\$4,619,278	\$6,272,602	+\$1,653,324	+35.79%
Food, Groceries	\$2,637,862	\$2,911,160	+\$273,298	+10.36%
Health, Personal Stores	NA	NA	NA	NA
Gas/Convenience Store	\$1,479,503	\$2,080,926	+\$601,423	+40.65%
Clothing	NA	NA	NA	NA
Leisure Goods	\$195,354	\$219,572	+\$24,218	+12.40%
General Merchandise Stores	\$2,268,342	\$2,470,720	+\$202,378	+8.92%
Miscellaneous Retail	\$1,839,087	\$1,680,510	-\$158,577	-8.62%
Accommodations	\$323,992	NA	NA	NA
Eating & Drinking Places	\$4,790,982	\$5,293,441	+\$502,459	+10.49%
<b>Total Retail and Services Sales</b>	<b>\$25,626,013</b>	<b>\$28,524,702</b>	<b>+\$2,898,689</b>	<b>+11.31%</b>

\* Figures not adjusted for inflation.

### Dollar Changes by Category (in Millions) 2010 - 2013

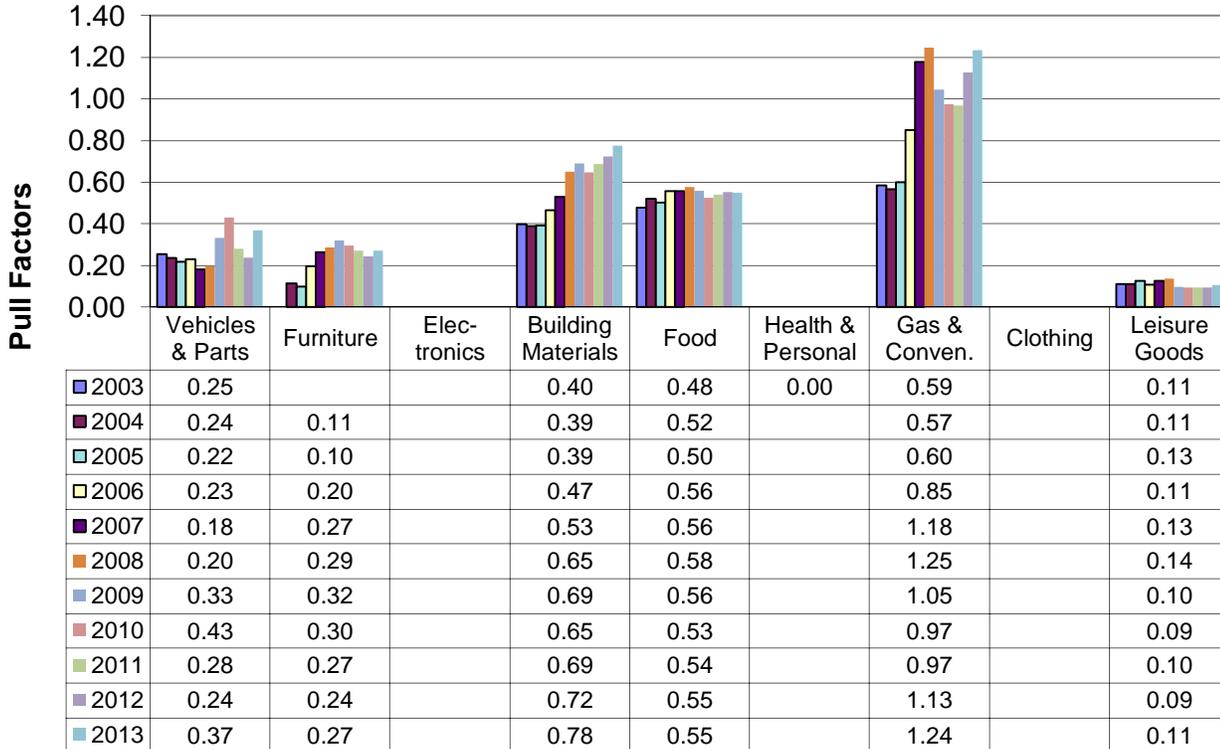


# Pull Factors By Merchandise Category

## Murray County

The following tables and charts depict pull factors in Murray County from 2003 to 2013\* by merchandise category. Pull factors are a measure of trade area size that provide a useful measure of changes over time because they account for changes in population and state-wide industry trends.

### Pull Factors by NAICS Merchandise Category (1 of 2)



#### NAICS Category Descriptions

**Motor Vehicles & Parts:** Establishments that sell new & used autos, boats, motorcycles, golf carts, RV's, campers, 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 and Convenience Store:** Retailers that sell fuel along with convenience store items.

**Apparel:** New clothing and accessories, jewelry, shoes, bridal shops, clock shops, and luggage stores.

**Leisure Goods:** Sporting goods, books, music, hobby stores, fabric shops, and toy stores.

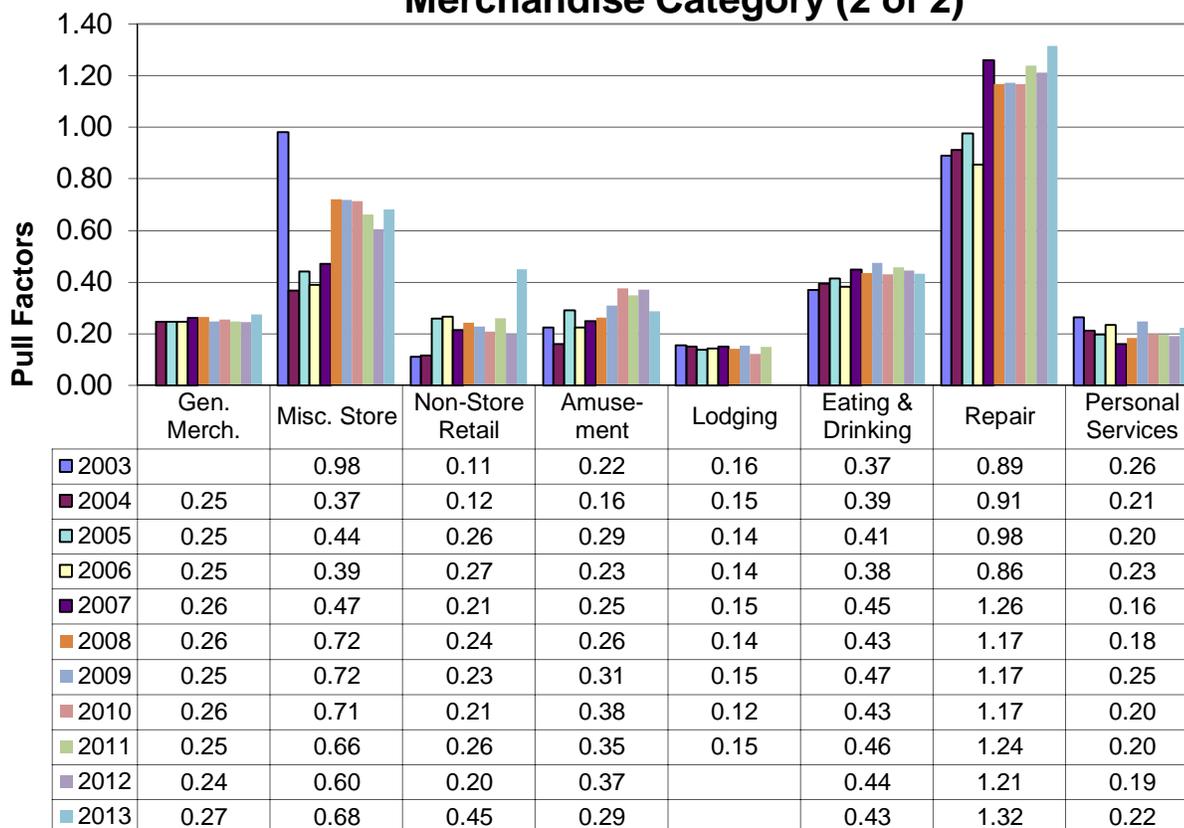
\*Caution should be used when comparing pull factors before 2003 to those in later years due to the switch from SIC to NAICS.

# Recent Trends By Merchandise Category

## Murray County

The following tables and charts depict pull factors in Murray County from 2003 to 2013\* by merchandise category. Pull factors are a measure of trade area size that provide a useful measure of changes over time because they account for changes in population and state-wide industry trends.

**Pull Factors by NAICS  
Merchandise Category (2 of 2)**



### 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.

**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.

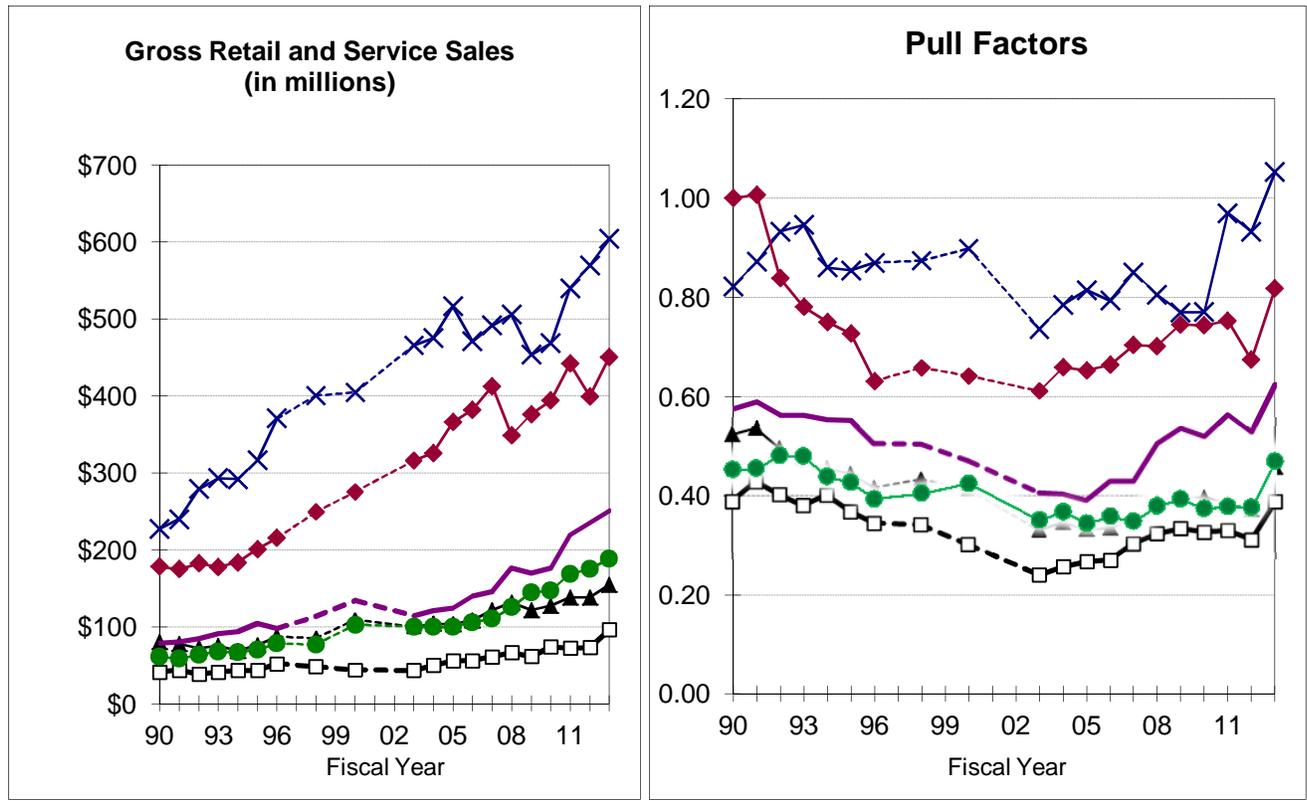
**Repair:** Businesses that return equipment to working order. Examples: cars, lawnmowers, small engines, knives, shoes, computers, furniture, and appliances.

**Personal Services:** Barbers, beauty salons, tanning facilities, funeral homes, laundromats, dry cleaners, pet groomers, and kennels.

\*Caution should be used when comparing pull factors before 2003 to those in later years due to the switch from SIC to NAICS.

# Comparison with Neighboring Counties

## Murray County



- Murray County
- ▲ Cottonwood County
- ✕ Lyon County
- ◆ Nobles County
- Pipestone County
- Rock County

### Comparison with Neighboring Counties, 2013

Town	Population	Gross Sales (\$millions)	Taxable Sales (\$millions)	Number of Firms	Per Capita Taxable Sales	Pull Factor (Taxable Sales)
Murray County	8,536	\$96.19	\$28.52	233	\$3,342	0.39
Cottonwood County	11,610	\$154.69	\$45.74	295	\$3,939	0.46
Lyon County	25,648	\$603.92	\$232.58	650	\$9,068	1.05
Nobles County	21,593	\$450.69	\$152.10	475	\$7,044	0.82
Pipestone County	9,306	\$250.91	\$49.98	239	\$5,371	0.62
Rock County	9,524	\$188.42	\$38.58	212	\$4,051	0.47

# Trade Area Analysis of Retail Sales

## Murray County

The following tables provide information on retail sales by merchandise category. "Potential sales" is a standard to which actual performance is compared. In calculating potential sales, population and income characteristics are taken into account. Potential sales can be used as a guideline or "par value" in 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, the positive aspects should be identified and built upon.

### Trade Area Analysis by Merchandise Category, 2013

Merchandise Group	Potential Sales (\$millions)	Actual Sales (\$millions)	Variance Between Actual & Potential		Trade Area Pop. Gain or Loss	Number of Firms	Percent of Total Sales
			In Dollars (millions)	As % of Potential			
Vehicles & Parts	\$4.09	\$1.41	-\$2.68	-65.5%	-5,589	8	5.0%
Furniture Stores	\$2.24	\$0.57	-\$1.67	-74.6%	-6,364	5	2.0%
Electronics	\$2.71	NA	NA	NA	NA	NA	NA
Building Materials	\$8.67	\$6.27	-\$2.40	-27.7%	-2,363	5	22.0%
Food, Groceries	\$5.67	\$2.91	-\$2.76	-48.7%	-4,154	10	10.2%
Health, Personal Stores	\$1.11	NA	NA	NA	NA	NA	NA
Gas/Convenience Store	\$1.81	\$2.08	+\$0.28	+15.3%	1,305	7	7.3%
Clothing	\$1.60	NA	NA	NA	NA	NA	NA
Leisure Goods	\$2.20	\$0.22	-\$1.98	-90.0%	-7,684	8	0.8%
General Merchandise Stores	\$9.67	\$2.47	-\$7.20	-74.4%	-6,355	6	8.7%
Miscellaneous Retail	\$2.65	\$1.68	-\$0.97	-36.5%	-3,119	42	5.9%
Amusement & Recreation	\$2.67	\$0.72	-\$1.95	-73.1%	-6,244	12	2.5%
Accommodations	\$3.20	NA	NA	NA	NA	NA	NA
Eating & Drinking Places	\$13.11	\$5.29	-\$7.82	-59.6%	-5,090	20	18.6%
Repair, Maintenance	\$2.23	\$2.73	+\$0.51	+22.8%	1,944	33	9.6%
Personal Services, Laundry	\$1.33	\$0.28	-\$1.05	-79.1%	-6,755	22	1.0%
<b>Total Taxable Retail &amp; Service*</b>	<b>\$78.85</b>	<b>\$28.52</b>	<b>-\$50.32</b>	<b>-63.8%</b>	<b>-5,448</b>	<b>233</b>	<b>100.0%</b>

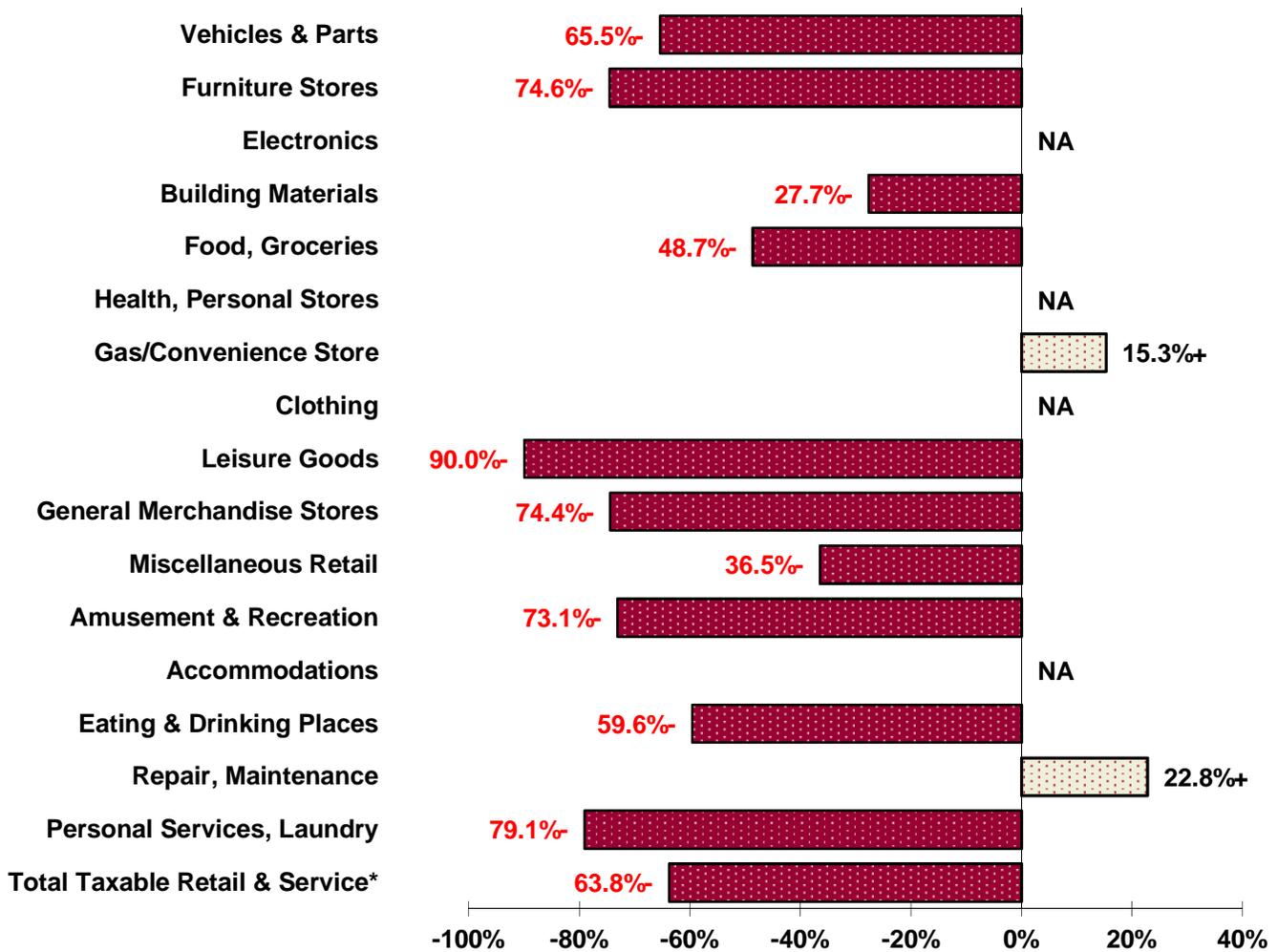
\*All retail and service categories are included in Total Sales, including some categories not shown. Therefore, the merchandise groups shown here generally will not sum to Total Sales.

# Murray County Retail Trade Performance in Percentages

The chart below depicts the percentage amount Murray County's actual sales were above or below potential sales in 2013 by merchandise group. Of the 12 merchandise categories with reported data, sales in 2 of the categories were above what would be expected based on the county's population and income characteristics as well as statewide spending patterns. The strongest merchandise group by this standard is the Repair, Maintenance category, which has a 22.8 percent surplus. Overall, Murray County had a retail sales leakage of 63.8 percent.

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, 2013**

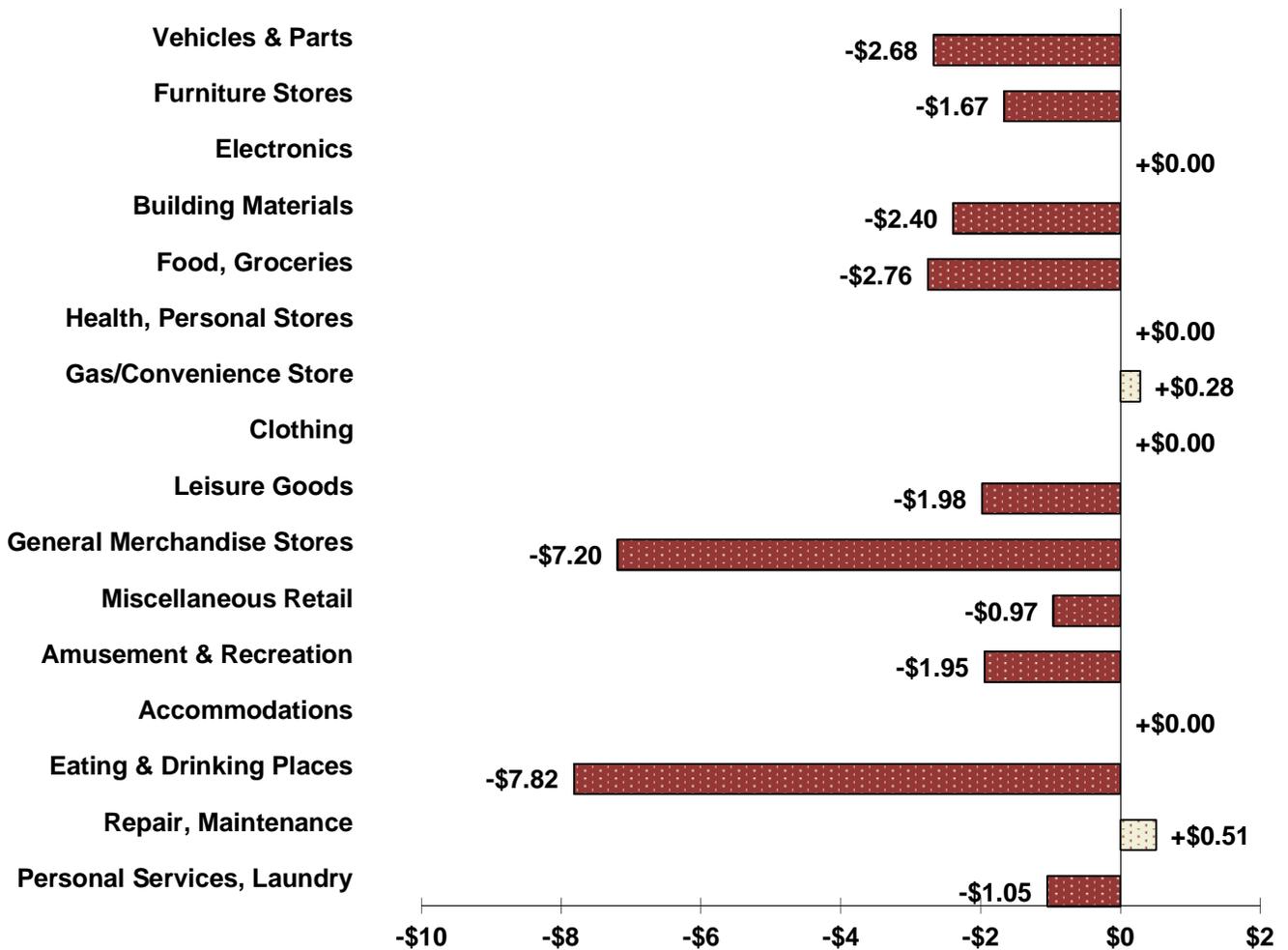


# Murray County Retail Trade Performance in Dollars

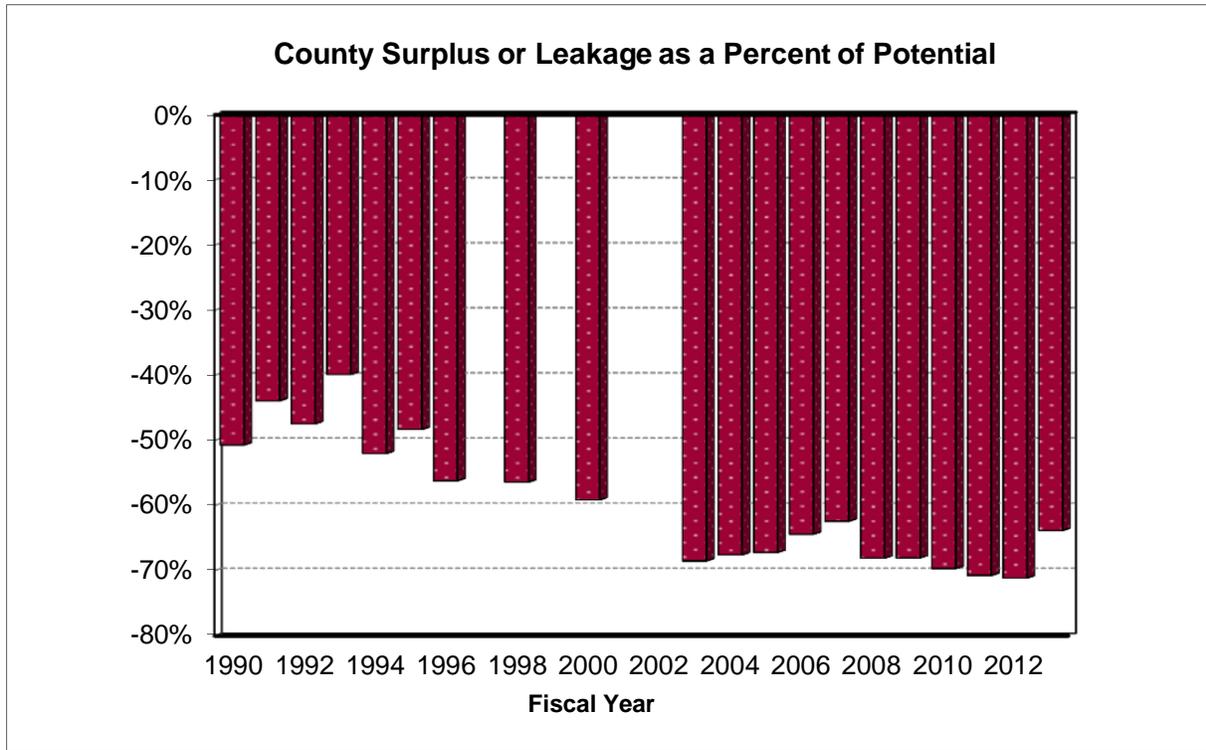
The chart below depicts the dollar amount Murray County's actual sales were above or below potential sales in 2013 by merchandise group. Of the 12 merchandise categories with reported data, sales in 2 of the categories were above the calculated potential. The strongest merchandise group by this standard is the Repair, Maintenance category, which has a \$0.5 million surplus. Overall, Murray County had a retail sales leakage of \$50.3 million in 2013.

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, management, marketing, and transportation patterns are just a few factors that 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, 2013**



# Murray County Retail Trade Surplus or Leakage



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
1990	9,660	0.79	\$33.5	\$16.5	-\$17.0	-50.7%	-4,898
1991	9,667	0.76	\$32.4	\$18.2	-\$14.2	-43.9%	-4,245
1992	9,706	0.76	\$35.9	\$18.9	-\$17.0	-47.4%	-4,604
1993	9,651	0.63	\$30.7	\$18.5	-\$12.2	-39.9%	-3,847
1994	9,593	0.84	\$43.9	\$21.1	-\$22.8	-52.0%	-4,989
1995	9,553	0.71	\$38.8	\$20.0	-\$18.7	-48.3%	-4,614
1996	9,565	0.79	\$50.4	\$22.1	-\$28.3	-56.2%	-5,375
1997	9,555	0.76	NA	NA	NA	NA	NA
1998	9,531	0.78	\$52.0	\$22.7	-\$29.3	-56.4%	-5,374
1999	9,519	0.73	NA	NA	NA	NA	NA
2000	9,165	0.74	\$51.4	\$21.0	-\$30.4	-59.1%	-5,418
2001	9,076	0.74	NA	NA	NA	NA	NA
2002	9,008	0.73	NA	NA	NA	NA	NA
2003	8,981	0.76	\$60.9	\$19.2	-\$41.7	-68.5%	-6,152
2004	8,995	0.79	\$65.9	\$21.4	-\$44.5	-67.6%	-6,077
2005	8,852	0.81	\$68.6	\$22.5	-\$46.1	-67.2%	-5,948
2006	8,778	0.76	\$64.1	\$22.8	-\$41.3	-64.4%	-5,654
2007	8,511	0.81	\$66.9	\$25.2	-\$41.8	-62.4%	-5,311
2008	8,389	1.01	\$81.2	\$25.9	-\$55.3	-68.1%	-5,710
2009	8,416	1.04	\$78.7	\$25.2	-\$53.6	-68.0%	-5,725
2010	8,698	1.08	\$84.5	\$25.6	-\$58.9	-69.7%	-6,060
2011	8,640	1.13	\$90.8	\$26.6	-\$64.2	-70.7%	-6,111
2012	8,573	1.08	\$89.4	\$25.8	-\$63.6	-71.1%	-6,098
2013	8,536	1.07	\$78.8	\$28.5	-\$50.3	-63.8%	-5,448

## State of Minnesota Per Capita Taxable Retail Sales & Threshold Levels for Selected Goods and Services 2013

*Threshold level refers to the number of people per business, which can be used as a general guide for determining the "critical mass" necessary to support a business. These are broad averages for the state as a whole and do not reflect differences in income, tourism, agglomeration, establishment, etc. Further, the business counts are based on the number of sales tax returns filed and are converted to "full-time equivalents." Multiplying people per business by sales per capita yields average sales per firm. In addition to state averages, averages for the non-metropolitan regions were calculated by excluding the seven county Minneapolis-St. Paul metropolitan region.*

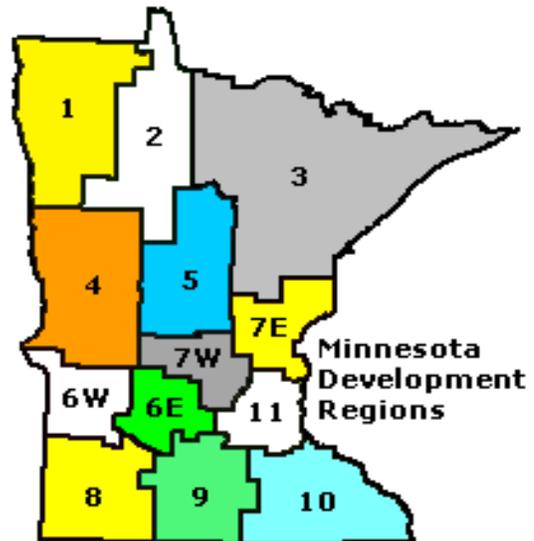
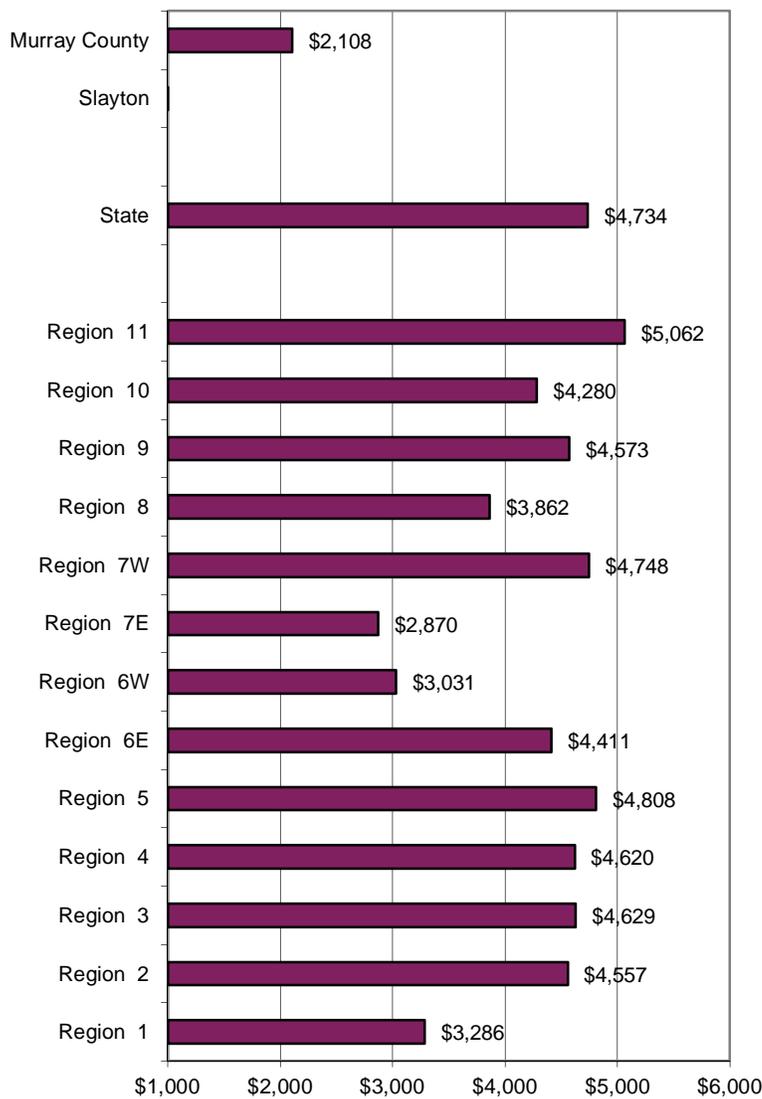
Business Activity / Store Type NAICS	People Per Business		Sales Per Capita	
	State	Non-Metro	State	Non-Metro
<b>RETAIL TRADE</b>				
441 Vehicles, Parts	1,970	1,421	\$447.06	\$448.88
442 Furniture Stores	3,018	2,889	\$244.64	\$166.36
443 Electronics	3,915	4,011	\$296.62	\$185.89
444 Building Materials	2,687	1,801	\$947.91	\$1,029.43
445 Food and Beverage Stores	1,567	1,383	\$619.84	\$514.84
446 Health, Personal Stores	3,304	3,484	\$121.18	\$78.90
447 Gas/Convenience Stores	2,634	1,941	\$197.28	\$238.05
448 Clothing & Accessory Stores	1,573	1,788	\$175.11	\$87.18
451 Leisure Goods	1,470	1,307	\$240.57	\$173.38
452 General Merchandise	4,939	3,655	\$1,056.87	\$1,119.90
453 Miscellaneous Merchandise	480	407	\$289.40	\$209.26
454 Non-store Retail	973	930	\$98.26	\$91.02
Retail Total			\$4,734.73	\$4,343.10
<b>INFORMATION</b>				
511 Publishing Industry	10,520	13,335	\$3.88	\$1.41
512 Movie & Recording Industry	11,907	21,452	\$32.92	\$21.12
515 Broadcasting	45,149	30,085	\$12.07	\$7.55
516 Info -Internet Publ/Brcst	235,558	205,579	\$0.02	\$0.00
517 Telecommunications	9,472	8,906	\$351.37	\$241.20
518 Internet Service	12,341	23,721	\$15.96	\$1.48
519 Other Information Services	4,907	5,129	\$96.02	\$39.98
<b>FINANCE AND INSURANCE</b>				
522 Credit Intermediation	8,400	6,632	\$27.47	\$6.96
523 Securities, Commodities	22,114	41,813	\$2.07	\$0.53
524 Insurance Carriers	10,967	15,614	\$1.05	\$0.78
525 Funds, Trusts	180,595	189,766	\$0.42	\$0.60
<b>REAL ESTATE AND RENTAL AND LEASING</b>				
531 Real Estate	2,850	3,644	\$33.11	\$26.23
532 Rental, Leasing Services	3,706	3,534	\$152.45	\$59.97
533 Lessors Nonfinancial Assets	416,757	308,369	\$0.42	\$0.77
<b>PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES</b>				
541 Prof, Scientific, Technical Services	492	736	\$169.71	\$73.98
551 Mgmt Of Companies	26,821	50,346	\$29.88	\$4.55
<b>ADMINISTRATIVE &amp; SUPPORT; WASTE MGMT &amp; REMEDIATION SVCS</b>				
561 Admin, Support Services	568	594	\$263.07	\$132.24
562 Waste Mgmt, Remediation	13,647	9,599	\$1.59	\$1.27
<b>EDUCATIONAL SVCS; HEALTH &amp; SOCIAL ASSISTANCE</b>				
611 Educational Services	4,463	4,726	\$17.11	\$16.02
621 Health -Ambulatory Care	1,090	1,342	\$15.78	\$10.37
622 Health -Hospitals	36,361	24,919	\$14.70	\$14.54
623 Health -Nursing,Residential Care	11,454	8,626	\$2.59	\$2.70
624 Health -Social Assistance	12,369	12,523	\$3.13	\$4.20
<b>ARTS, ENTERTAINMENT &amp; RECREATION</b>				
711 Performing Art, Spectator Sports	2,519	2,926	\$65.12	\$11.70
712 Museums, Historical Sites	30,959	20,558	\$3.91	\$1.34
713 Amusement, Gambling, Recr	2,378	1,906	\$291.38	\$137.81
<b>ACCOMMODATION &amp; FOOD SERVICES</b>				
721 Accommodation	2,146	1,193	\$349.88	\$335.54
722 Food Services, Drinking Places	483	461	\$1,433.26	\$1,071.90
<b>OTHER SERVICES</b>				
811 Repair, Maintenance	624	448	\$243.40	\$255.44
812 Personal, Laundry Service	632	552	\$145.10	\$51.75
813 Religious, Civic, Professional Orgs	2,634	2,138	\$32.37	\$36.28
814 Private Households	83,351	102,790	\$0.17	\$0.12
921 Exec., Legisla., Other Govt	7,341	4,275	\$71.22	\$72.18
<b>TOTAL RETAIL AND SERVICES</b>			\$8,617.31	\$7,104.90

# Compare the Community to the Region

## Slayton and Murray County

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

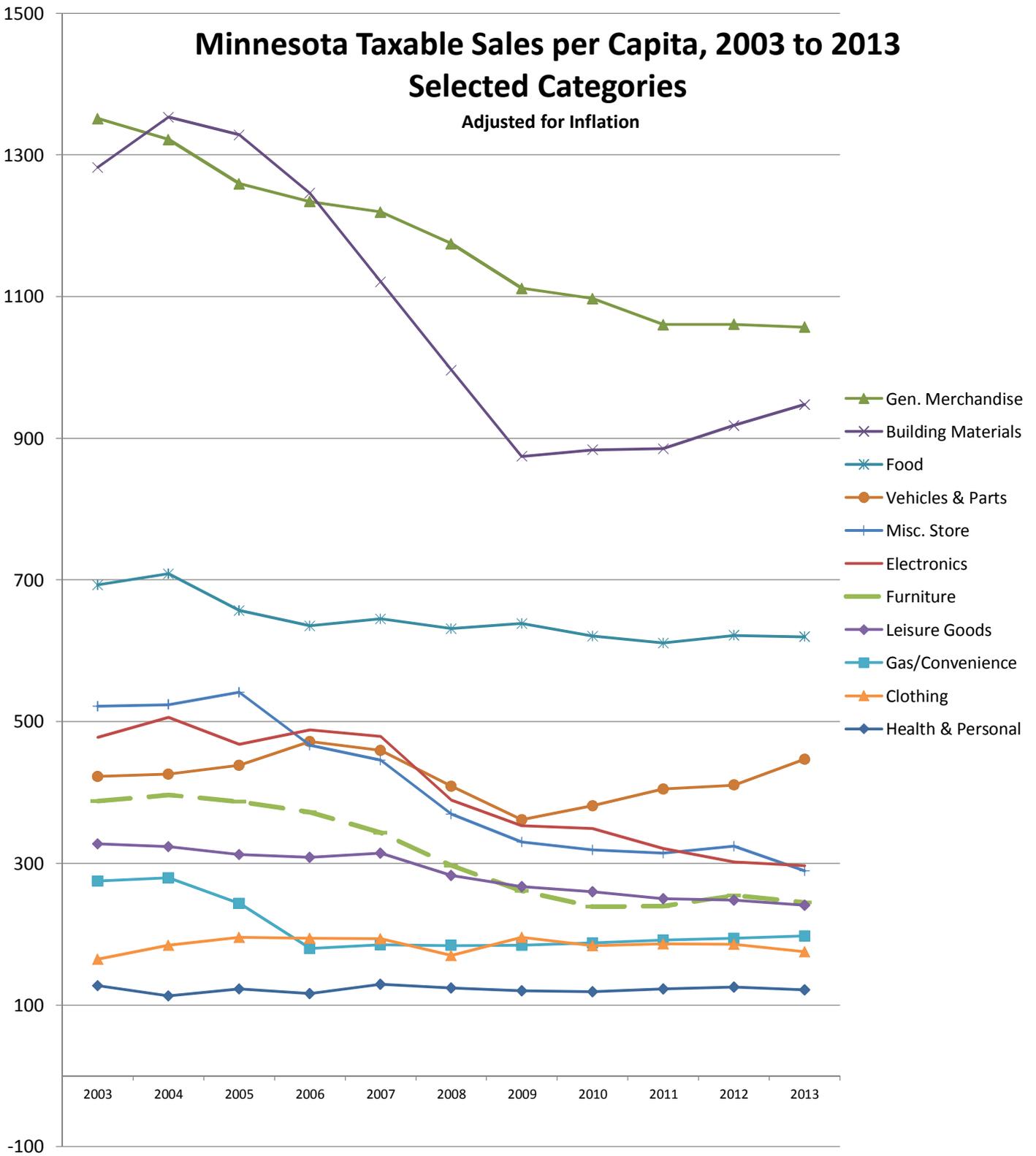
### 2013 Retail Sales per capita



# Minnesota Taxable Sales per Capita, 2003 to 2013

## Selected Categories

Adjusted for Inflation



# 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 2013. The reports interpolate data for the years in which data are not available. See [http://www.revenue.state.mn.us/research\\_stats/Pages/Sales-and-Use-Tax-Statistics-and-Annual-Reports.aspx](http://www.revenue.state.mn.us/research_stats/Pages/Sales-and-Use-Tax-Statistics-and-Annual-Reports.aspx) . 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](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 Instruction Booklet" available on the web at

[http://www.revenue.state.mn.us/Forms\\_and\\_Instructions/sales\\_tax\\_booklet.pdf](http://www.revenue.state.mn.us/Forms_and_Instructions/sales_tax_booklet.pdf).

### **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 ( $\$20,000 \div \$10,000$ ). 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 ( $5,000 \times \$9,000 \times 1.30 \times 1.03$ ). 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.

## Pull Factor Changes in 2013 Data

The calculation for pull factor, as described on Definitions page 2, uses the divisor “state sales per capita.” Prior to 2013, the state taxable sales amount was obtained from the Minnesota Department of Revenue “Statewide by 3-Digit Industrial Code” sales tax report. However, certain retail and service categories have a large portion of their sales occurring from businesses outside of Minnesota. These include non-store retailers and the information service NAICS categories (telecommunications, publications, and broadcasting). Beginning with the 2013 data, the Minnesota sales from out-of-state businesses are no longer included in the calculation for the pull factor. While the individual retail and service sector pull factors in this report are not greatly affected by this change (except for non-store retail), the overall pull factor for the city may be increased by 8 to 14% depending on the amount of internet, mail order, and phone sales each year.