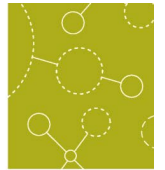




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EXTENSION CENTER FOR COMMUNITY VITALITY

# Local Option Sales Tax Analysis for Moorhead, MN

ESTIMATED CONTRIBUTIONS OF RESIDENTS AND NON-RESIDENTS TO A LOCAL OPTION SALES TAX

Authored by Ryan Pesch



REPORT SPONSOR: CITY OF MOORHEAD, MINNESOTA



# Local Option Sales Tax Analysis for Moorhead

## ESTIMATED CONTRIBUTIONS OF RESIDENTS AND NON-RESIDENTS TO A LOCAL OPTION SALES TAX

**February 2022**

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**Sponsor:**

City of Moorhead

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## SUMMARY OF FINDINGS

University of Minnesota Extension conducted a study to estimate the proportion of sales proceeds attributed to both Moorhead residents and non-residents.

Using the most recent sales and use tax data available from the Minnesota Department of Revenue (MN Revenue), Extension estimated that non-residents account for 30 percent of taxable sales subject to a local option sales tax (LOST).

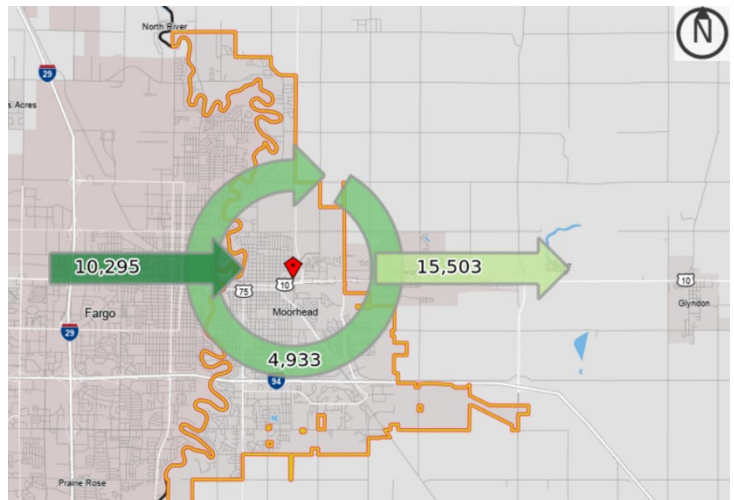
In 2019, total taxable sales in Moorhead were \$319 million. MN Revenue analysts estimate that approximately all \$319 million would be subject to a LOST. With 30 percent of sales derived from non-resident spending, Extension estimated that Moorhead residents spent \$225 million of the total \$319 million in taxable sales subject to a LOST.

If the tax were in place in 2019, a 0.5 percent local option sales tax would have garnered \$1,596,000 in tax proceeds. Moorhead residents would have contributed \$1.13 million in taxes, and non-residents would have contributed \$470 thousand. Based on these estimates, each Moorhead resident would have paid, on average, an additional \$25.49 in sales tax in 2019.

This report is based on a trade area analysis comparing actual taxable sales to potential sales. This is calculated by multiplying the Moorhead population in 2019 (MN Demographic Center) by the Minnesota average per capita sales for each category, and then adjusting for the county's personal income factor. This initial analysis provided an estimate of retail and service purchases made by Moorhead residents. For each merchandise group, the estimates for two types of purchasers—city residents and others—were calculated and adjusted considering the area economy. These adjustments were based on informed estimates and were aimed, in part, at reducing potential overestimates of the sales tax share attributable to non-residents. Assumptions and calculations are included for major retail and service categories so local decision makers can adjust totals if they have more nuanced insight.

Several factors and features of Moorhead's economy helped frame the analysis for the different merchandise categories:

- Fargo is a much larger community and provides a wider retail and service mix than Moorhead. As such, Fargo draws a substantial amount of shoppers both from Moorhead and the greater region.
- Moorhead has a large proportion of its residents leave for work and imports a smaller, but still substantial number of workers (Figure 1). In this dynamic, commuters often shop for goods and services near where they work.



Inflow and outflow of wage earners.

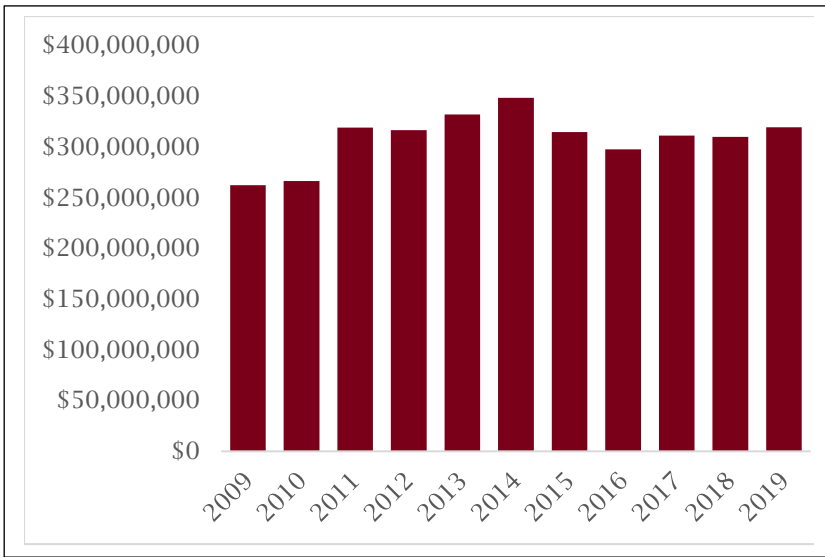
Source: 2019 U.S. Census Bureau On-The-Map

Figure 2 shows the estimated percentage of sales—across all merchandise categories— attributed to both residents and non-residents in 2019. These estimates are based on the adjusted analysis to more accurately reflect the county’s economic and consumption circumstances. Based on these findings, Extension estimates city residents represent 70 percent of all taxable retail and service sales subject to the tax (\$225 million), and the remaining 30 percent (\$94 million) are attributed to non-residents.

**Figure 2: Estimated 2019 Taxable Sales Subject to LOST**

	Taxable Sales	Percent of Sales
City residents	\$225,193,020	70.5%
Non-residents	\$94,073,233	29.5%

**Figure 3: Total taxable sales in Moorhead from 2009-2019**



Source: Minnesota Department of Revenue

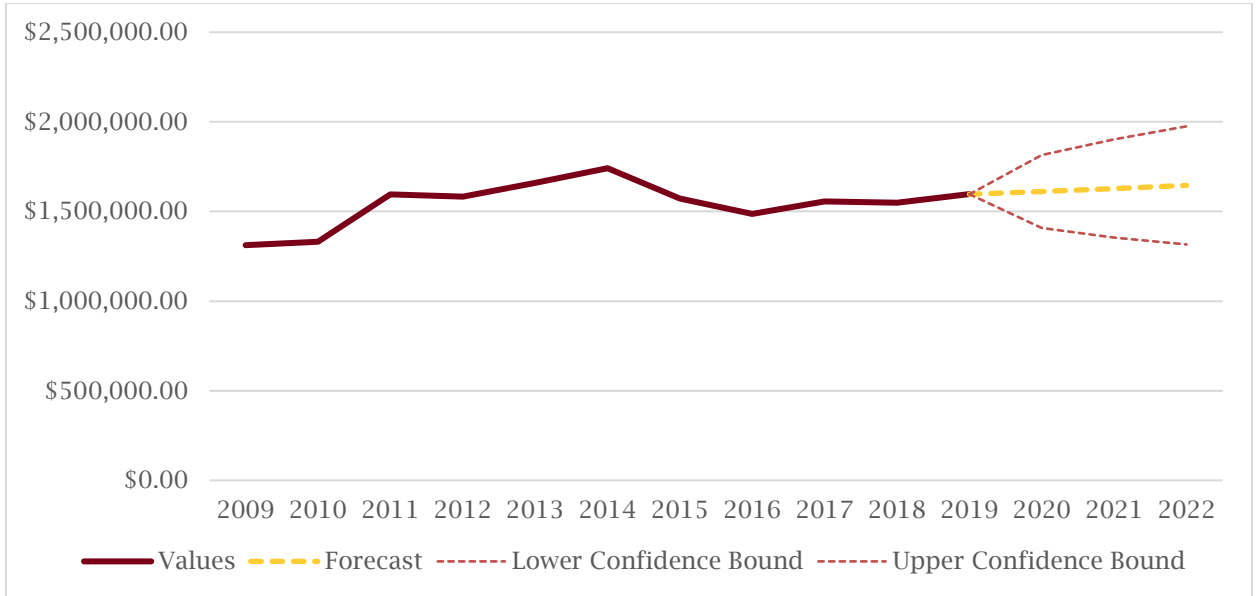
The total taxable sales in the city took a significant step up from 2010 to 2011 and has remained relatively steady near \$315 million over ten years (Figure 3). Total taxable sales were \$318 million in 2009 and \$319 million in 2019. This provides some sense of the stability of a LOST going forward.

Extension forecasted taxable sales subject to the local tax for 2020, 2021, and 2022 using a simple exponential smoothing forecast model that employs a moving weighted average and a 95% confidence interval to

provide an upper and lower bound to the estimate (Figures 4 and 5). This model estimates total tax proceeds in 2020 to be between an upper limit of \$1.8 million and a lower limit of \$1.4 million.

Considering the historic disruption of the pandemic and its uneven effect on business categories, this forecast is an unlikely scenario based only on past trends. National evidence shows that home-focused businesses like food, building materials, general merchandise, and furniture did well through the pandemic, whereas dining, accommodations, and personal services saw record sales decreases. The sharp rebound in sales in 2021 further complicates any forecast.

**Figure 4: Forecast for Tax Proceeds based on Past Trends**



**Figure 5: Forecast with Upper and Lower Bound 2019-22**

	Forecast	Lower Bound	Upper Bound
2019	\$1,596,331	\$1,596,331	\$1,596,331
2020	\$1,610,949	\$1,407,560	\$1,814,338
2021	\$1,628,306	\$1,354,538	\$1,902,073
2022	\$1,645,662	\$1,316,109	\$1,975,216

Use taxes also affect the tax proceeds from a local option sales tax. Use taxes derive from city businesses purchasing products from out-of-state sources and in other Minnesota locations. Use taxes are often less consistent and more difficult to estimate accurately than sales taxes. In 2019, the city received \$507,959 in use (not sales) tax proceeds. It would have garnered \$36,500 for a LOST at the 0.5 percent rate.

Policymakers must also consider the impacts that a LOST may have on consumer purchasing behavior, particularly whether it will result in a loss of consumer purchases to other jurisdictions such as Fargo or West Fargo in this instance. Extension examined records of 11 cities that enacted a local option sales tax between 1999 and 2006 (information available on the Minnesota Department of Revenue website). Records do not indicate a major purchasing change due to the additional sales tax, and most of the jurisdictions have shown continued sales growth (see Appendix A). These communities, however, may not be comparable to Moorhead. All communities included in this analysis are located outside the Twin Cities metro area and may retain more shoppers than communities in the metro area where one can easily switch spending from one jurisdiction to another.

## BACKGROUND AND METHODOLOGY

Community economics educators at University of Minnesota Extension provide applied research and education to help community and business partners make better informed decisions. In recent years, Minnesota has adopted laws enabling local governments to enact a local option sales tax. Extension has assisted these administrations in estimating their potential tax proceeds and the portion of taxes paid by local residents.

This report estimates the proportion of tax proceeds generated by Moorhead residents compared to non-residents. The most recently available state sales tax data (2019) from the Minnesota Department of Revenue (MN Revenue) was used.

### Trade Area Analysis and Calculations

Extension conducted a trade area analysis of retail and service sales in select merchandise categories, estimating the amount of taxable sales subject to sales taxes made by both local residents and non-residents. Use tax is a much smaller portion of the total collection compared to sales tax proceeds. It is also estimated using a different formula.

Extension calculated potential sales for the county in each merchandise category and compared this calculation to actual taxable sales from the Minnesota Department of Revenue sales tax statistics for the same category. Actual sales greater than potential sales indicate the county attracts sales from outside its boundaries, or has sales greater than one would expect from its residents. Extension used the difference between potential and actual sales to set reasonable estimates of spending by residents and non-residents across all categories. These estimates also helped inform adjustments for each category.

Potential sales calculations are based on average statewide spending by merchandise category and the population of the county, then adjusted by the level of income in Moorhead. Specifically, potential sales result from county population, state per capita taxable sales, and the index of income (see sidebar and Appendix B).

The following section details the initial and adjusted trade area calculations for all merchandise categories. The sections labeled “Analysis with Adjustments” lists the final estimate of sales generated by non-residents. A rationale for adjustments and conclusions is also included.

**Potential sales** estimate the dollar amounts for purchases made by local residents *if* local residents spend as much as the average Minnesota resident.

Potential sales are calculated by the following formula:

$$(T \div PMn) \times MG \times (YCC \div YMn) = \text{potential sales}$$

T = Total Minnesota taxable sales for a merchandise category

PMn = 2019 population of Minnesota (5,639,632)

PM = 2019 population of Moorhead (44,167)

YHC = Per capita income of Clay County residents (\$44,023)

YMn = Per capita income of Minnesota residents (\$58,834)



## TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

The following pages provide detailed analysis by merchandise category.

### Vehicles and Parts

#### 5.9 percent of total taxable retail and service sales

The **14 businesses** in this retail category include repair parts, snowmobiles, boats, trailers, and recreational vehicles. *Sales of cars and other on-road vehicles are not included in this category since they are subject to a different tax.*

	(\$Millions)
Actual taxable sales	\$14.31
-Potential sales	\$19.01
= \$ variance	(\$4.70)
= as % of potential	-24.7%

### Unadjusted Trade Area Analysis

Potential taxable sales to residents	\$19.01
Surplus	(\$4.70)
Total	\$14.31
Surplus percentage	-32.9%

### Analysis with Adjustments

Capture rate of Moorhead residents	71%
Residents' \$ share	\$13.59
Non-Residents' \$ share	\$0.72
Total	\$14.31
Non-resident share per group	5.0%

### Analysis for Vehicles and Parts

Extension's trade area analysis estimates that the city falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category. Even some nearby non-residents may likely visit the community for these 14 businesses that supply vehicles and parts due to convenience alone.

## Furniture Stores

### 3.4 percent of total taxable retail and service sales

These **9 stores** sell furniture, beds, carpeting, window coverings, appliances, kitchenware, and wood-burning stoves.

	(\$Millions)
Actual taxable sales	\$8.37
Potential sales	\$8.82
= \$ variance	(\$0.45)
= as % of potential	-5.1%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$8.82
Surplus	(\$0.45)
Total	\$8.37
Non-resident share per group	-5.4%

### Analysis with Adjustments

Capture rate of Moorhead residents	74%
Residents' \$ share	\$6.53
Non-Residents' \$ share	\$1.84
Total	\$8.37
Non-resident share per group	22.0%

### Analysis for Furniture Stores

Furniture stores are a relatively minor category for Moorhead at 3.4 percent of total taxable sales. Extension's analysis suggests the community is near breakeven in this category. The focus group shared that the primary businesses in this category were two popular appliance stores and that the community had no furniture stores. Considering this mix of businesses, Extension set the non-resident spending at 22% to account for the appliance stores' pull and Moorhead residents' spending on furniture outside the community. At 22% non-resident spending, the capture rate of local residents spending in this category at a conservative 74%.

## Electronics and Appliances

0.4 percent of total taxable retail and service sales\*

These **6 establishments** primarily include household-type appliances, sewing machines, cameras, computers, and other electronic goods.

	(\$Millions)
Actual taxable sales	\$1.07
-Potential sales	\$9.69
= \$ variance	(\$8.62)
= as % of potential	-89.0%

## Unadjusted Trade Area Analysis

Potential sales to residents	\$9.69
Surplus	(\$8.62)
Total	\$1.07
Non-resident share per group	-807.2%

## Analysis with Adjustments

Capture rate of Moorhead residents	11%
Residents' \$ share	\$1.05
Non-residents' \$ share	\$0.02
Total	\$1.07
Non-resident share per group	2.0%

## Analysis for Electronics and Appliances

Extension's trade area analysis estimates that the city falls far short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a very modest 2 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.

## Building Materials

### 21.7 percent of total taxable retail and service sales\*

These 13 establishments sell lumber, hardware, paint, wallpaper, tile, hardwood floors, roofing, fencing, ceiling fans, lawn equipment, and garden items.

	(\$Millions)
Actual taxable sales	\$52.84
Potential sales	\$32.78
= \$ variance	\$20.06
= as % of potential	61.2%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$32.78
Surplus	\$20.06
Total	\$52.84
Non-resident share per group	38.0%

### Analysis with Adjustments

Capture rate of Moorhead residents	84%
Residents' \$ share	\$27.48
Non-residents' \$ share	\$25.36
Total	\$52.84
Non-resident share per group	48.0%

### Analysis for Building Materials

At just under 21.7%, Building Materials is by far the largest category of sales and revenue in Moorhead. Extension's analysis suggests that this category captures a large number of Moorhead residents at 84% capture rate. This conclusion is based on the assumption that such a strong building material presence would capture local dollars and bulky a heavy building materials are often best purchased close to home. At this capture rate, non-residents still account for a significant 48% of sales.

## Food and Groceries

### 9.1 percent of total taxable retail and service sales

The **15 stores** in this merchandise group include grocery stores, delis, bakeries, and butcher shops that sell food to be prepared at home. Liquor stores are also included in this group.

	(\$Millions)
Actual taxable sales	\$22.19
- Potential sales	\$24.32
= \$ variance	(\$2.13)
= as % of potential	-8.8%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$24.32
Surplus	(\$2.13)
Total	\$22.19
Non-resident share per group	-9.6%

### Analysis with Adjustments

Capture rate of Moorhead residents	78%
Residents' \$ share	\$18.86
Non-residents' \$ share	\$3.33
Total	\$22.19
Non-resident share per group	15.0%

### Analysis for Food and Groceries

Extension's trade area analysis estimated a slight deficit in the food and liquor category in this significant category (9.1% of sales). Extension set the non-resident share at 15%, primarily to allow for some reasonable portion of out-shopping by Moorhead residents. Considering the competition from Fargo big box retailers and specialty food and liquor establishments, 78% is a reasonable and conservative capture rate of local resident spending.

## Health and Personal Items

### 2.2 percent of total taxable retail and service sales

Stores selling prescription drugs, food supplements, vision supplies, cosmetics, and hearing aids are among the **15 shops** included in this merchandise group.

	(\$Millions)
Actual taxable sales	\$5.31
Potential sales	\$4.17
= \$ variance	\$1.14
= as % of potential	27.3%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$4.17
Surplus	\$1.14
Total	\$5.31
Non-resident share per group	21.4%

### Analysis with Adjustments

Capture rate of Moorhead residents	83%
Residents' \$ share	\$3.45
Non-residents' \$ share	\$1.86
Total	\$5.31
Non-resident share per group	35.0%

### Analysis for Health and Personal Items

This is a minor category in Moorhead, accounting for only 2.2 percent of total taxable sales. Even so, taxable sales are greater than would be expected. Extension assumes a large share of resident spending would be retained within the city and has set the capture rate at 83%. At this rate, the surplus equates to a 35% non-resident share.

## Gas/Convenience Stores

### 4.4 percent of total taxable retail and service sales

This merchandise group covers **13 retailers** selling convenience items at a store that also sells fuel.

	(\$Millions)
Actual taxable sales	\$10.68
-Potential sales	\$8.45
= \$ variance	\$2.23
= as % of potential	26.4%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$8.45
Surplus	\$2.23
Total	\$10.68
Non-resident share per group	20.9%

### Analysis with Adjustments

Capture rate of Moorhead residents	88%
Residents' \$ share	\$7.48
Non-residents' \$ share	\$3.20
Total	\$10.68
Non-resident share per group	30.0%

### Analysis for Gas/Convenience Stores

Moorhead has a sizeable surplus in the gas and convenience store category, netting over \$2 million more than potential sales calculations. In a category with a surplus such as this, Extension set the non-resident share at a larger than expected 30% to account for non-resident spending when traveling through on major thoroughfares and resident spending both when out-commuting and traveling.

## Apparel/Clothing

### 0.8 percent of total taxable retail and service sales

This merchandise group includes **14 stores** selling new clothing and accessories, jewelry, shoes, bridal items, clocks, and luggage.

	(\$Millions)
Actual taxable sales	\$2.04
Potential sales	\$4.84
= \$ variance	(\$2.80)
= as % of potential	-57.9%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$4.84
Surplus	(\$2.80)
Total	\$2.04
Non-resident share per group	-137.4%

### Analysis with Adjustments

Capture rate of Moorhead residents	40%
Residents' \$ share	\$1.94
Non-residents' \$ share	\$0.10
Total	\$2.04
Non-resident share per group	5.0%

### Analysis for Apparel/Clothing

Extension's trade area analysis estimates that the city falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category. Even some nearby non-residents may likely visit the community for these 14 stores.



## Leisure Goods

### 0.6 percent of total taxable retail and service sales

The **20 firms** in this merchandise group sell sporting goods, books, music, hobby items, fabrics, and toys.

	(\$Millions)
Actual taxable sales	\$1.35
Potential sales	\$6.07
= \$ variance	(\$4.73)
= as % of potential	-77.8%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$6.07
Surplus	(\$4.73)
Total	\$1.35
Non-resident share per group	-350.7%

### Analysis with Adjustments

Capture rate of Moorhead residents	21%
Residents' \$ share	\$1.28
Non-Residents' \$ share	\$0.07
Total	\$1.35
Non-resident share per group	5.0%

### Analysis for Leisure Goods

Extension's trade area analysis estimates that the city falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.

## General Merchandise Stores

11.6 percent of total taxable retail and service sales\*

The 5 stores in this category sell general merchandise and are unique because they have the equipment and staff needed to sell a large variety of goods from a single location. This includes department stores, superstores, dollar stores, and variety stores.

	(\$Millions)
Actual taxable sales	\$28.24
potential sales	\$33.06
= \$ variance	(\$4.83)
= as % of potential	-14.6%

## Unadjusted Trade Area Analysis

Potential sales to residents	\$33.06
Surplus	(\$4.83)
Total	\$28.24
Non-resident share per group	-17.1%

## Analysis with Adjustments

Capture rate of Moorhead residents	77%
Residents' \$ share	\$25.41
Non-Residents' \$ share	\$2.82
Total	\$28.24
Non-resident share per group	10.0%

## Analysis for General Merchandise Stores

The five firms in this category account for a large share of taxable sales (11.6%) in Moorhead. Even though the community overall has a deficit, Extension set the non-resident share at 10% to account for the attraction of non-residents to the Moorhead Target, which is conveniently accessible to other nearby Minnesota residents. Also this category, dominated by big-box corporations, lends itself to cross-hauling where Moorhead residents will purchase near their work in Fargo, and, likewise, Fargo residents will purchase near their work in Moorhead. At 10% non-resident share, the capture rate of Moorhead residents stands at a conservative 77%.

## Miscellaneous Retail

### 2.2 percent of total taxable retail and service sales

44 establishments are part of this group, including florists, used merchandise stores, pet supply stores, and other retailers.

	(\$Millions)
Actual taxable sales	\$5.37
Potential sales	\$9.23
= \$ variance	(\$3.87)
= as % of potential	-41.9%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$9.23
Surplus	(\$3.87)
Total	\$5.37
Non-resident share per group	-72.0%

### Analysis with Adjustments

Capture rate of Moorhead residents	55%
Residents' \$ share	\$5.10
Non-residents' \$ share	\$0.27
Total	\$5.37
Non-resident share per group	5.0%

### Analysis for Miscellaneous Retail

Extension's trade area analysis estimates that the city falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.

## Amusement and Recreation

### 2.5 percent of total taxable retail and service sales\*

The 12 establishments in this group include casinos, bowling lanes, water parks, amusement parks, arcades, bingo halls, golf courses, ski slopes, marinas, dance or fitness centers, recreational clubs, ice rinks, swimming pools, roller rinks, etc.

	(\$Millions)
Actual taxable sales	\$6.13
Potential sales	\$10.45
= \$ variance	(\$4.33)
= as % of potential	-41.4%

## Unadjusted Trade Area Analysis

Potential sales to residents	\$10.45
Surplus	(\$4.33)
Total	\$6.13
Non-resident share per group	-70.6%

## Analysis with Adjustments

Capture rate of Moorhead residents	56%
Residents' \$ share	\$5.82
Non-residents' \$ share	\$0.31
Total	\$6.13
Non-resident share per group	5.0%

## Analysis for Amusement and Recreation

Extension's trade area analysis estimates that the city falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.

## Accommodations

### 2.8 percent of total taxable retail and service sales

These **6 businesses** provide lodging or short-term accommodations for travelers, vacationers, and others. Included are hotels, motels, lodges, bed & breakfasts, campgrounds, fraternities, boarding houses, and dormitories.

	(\$Millions)
Actual taxable sales	\$6.87
Potential sales	\$13.86
= \$ variance	(\$6.98)
= as % of potential	-50.4%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$13.86
Surplus	(\$6.98)
Total	\$6.87
Non-resident share per group	-101.6%

### Analysis with Adjustments

Capture rate of Moorhead residents	5%
Residents' \$ share	\$0.69
Non-residents' \$ share	\$6.18
Total	\$6.87
Non-resident share per group	90.0%

### Analysis for Accommodations

Logically, a significant percentage of lodging sales are from non-residents visiting the area or staying overnight for business or vacation. As with previous LOST analyses, Extension set the non-resident share at 90 percent of sales to allow for resident spending related to events, facility charges, and 'staycations.'

## Eating/Drinking Establishments

### 22.3 percent of total taxable retail and service sales

These **63 businesses** sell food at full-service or limited-service establishments. The group includes cafeterias, bagel shops, ice cream parlors, snack bars, food service contractors, caterers, lunch wagons, and street vendors. It also includes bars, taverns, and nightclubs.

	(\$Millions)
Actual taxable sales	\$54.16
Potential sales	\$56.91
= \$ variance	(\$2.75)
= as % of potential	-4.8%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$56.91
Surplus	(\$2.75)
Total	\$54.16
Non-resident share per group	-5.1%

### Analysis with Adjustments

Capture rate of Moorhead residents	76%
Residents' \$ share	\$43.32
Non-residents' \$ share	\$10.83
Total	\$54.16
Non-resident share per group	20.0%

### Analysis for Eating/Drinking Establishments

The eating and drinking category—which includes all bars, restaurants, and other food service—is a significant category with \$54 million in taxable sales, the highest of any category in Moorhead. Based on the potential sales estimates, Moorhead appears to bring in slightly less than expected.

Extension adjusted the non-resident share up to 20 percent, to account for residents dining out when working outside the community and the easy access to other dining and drinking options between Fargo and Moorhead. In the downtown district, for example, it's easy for Moorhead residents to access downtown Fargo restaurants and bars, and vice-versa. Independent Moorhead businesses such as Junkyard Brewing and Rustica have a wide appeal and attract customers from distance. In this context, a Moorhead resident capture rate of 76% and non-resident share of 20% are reasonable.

## Repair and Maintenance

### 3.7 percent of total taxable retail and service sales

The **43 businesses** in this group restore machinery, equipment, and other products. The group does not include plumbing or electrical repair services but does encompass auto repair, cameras, televisions, computers, copiers, appliances, lawn mowers, specialized equipment, small engines, furniture, shoes, guns, etc.

	(\$Millions)
Actual taxable sales	\$9.10
Potential sales	\$9.14
= \$ variance	(\$0.04)
= as % of potential	-0.5%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$9.14
Surplus	(\$0.04)
Total	\$9.10
Non-resident share per group	-0.5%

### Analysis with Adjustments

Capture rate of Moorhead residents	85%
Residents' \$ share	\$7.74
Non-residents' \$ share	\$1.37
Total	\$9.10
Non-resident share per group	15.0%

### Analysis for Repair and Maintenance

At 3.7 percent of total taxable sales, repair and maintenance is a relatively small category in Moorhead. The small deficit that exists in this category and the smaller share of total spending coming from non-residents suggests many non-residents elect to purchase goods and services in this category locally as do Moorhead residents. Extension set the non-resident share at a modest 15 percent of total taxable sales in this category to account for a reasonable portion of non-local sales and allow for resident spending elsewhere. In the context of frequent cross-river shopping, a 15% non-resident share and a 85% Moorhead resident capture rate are conservative assumptions.

## Personal Services/Laundry

### 1.3 percent of total taxable retail and service sales

The **47 stores** in this merchandise group include barber shops and beauty parlors, death care services, laundry and dry-cleaning services, and a wide range of other personal services, such as pet care (except veterinary), photofinishing, temporary parking, and dating services.

	(\$Millions)
Actual taxable sales	\$3.16
Potential Sales	\$5.56
= \$ variance	(\$2.40)
= as % of potential	-43.2%

### Unadjusted Trade Area Analysis

Potential sales to residents	\$5.56
Surplus	(\$2.40)
Total	\$3.16
Non-resident share per group	-75.9%

### Analysis with Adjustments

Capture rate of Moorhead residents	54%
Residents' \$ share	\$3.00
Non-residents' \$ share	\$0.16
Total	\$3.16
Non-resident share per group	5.0%

### Analysis for Personal Services/Laundry

This category includes businesses that typically serve a local market, such as barbers, hair salons, and dry-cleaning operations. Extension's trade area analysis estimates that the city falls significantly short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.



## Retail (Non-Store) and Other Services

This section includes taxable sales attributed to North American Industrial Classification System categories 511-813 released by MN Revenue.

	(\$Millions)
Actual taxable sales	\$12.21
% of total taxable retail and service sales In Moorhead	5.0%

## Analysis with Adjustments

	(\$Millions)
Residents' \$ share	\$7.69
Non-residents' \$ share	\$4.52
Total	\$12.21
Non-resident share per group	37%

## Analysis for Retail and Other Services

This group includes non-store retailers (such as direct selling operations), healthcare, waste management, rental/lease services, administrative support, and the performing arts. Some of these categories serve primarily a local market, whereas categories like 541 (professional and technical services) often serve a non-local market. This mix of business types is too diverse to run a trade area analysis for, but Extension estimated an aggregate 37 percent of these sales are to non-resident customers. The categories of sales are shown below:

Category	Taxable Sales	% non-local	\$ non-local
454 RETL -NONSTORE RETAILERS	\$1,095,313	60%	\$657,188
519 INFO -OTHER SERVICES	\$602,882	60%	\$361,729
531 REAL ESTATE	\$485,276	30%	\$145,583
532 RENTAL, LEASING SERVICES	\$807,751	30%	\$242,325
541 PROF,SCIENTIFIC,TECH SERV	\$3,605,468	50%	\$1,802,734
561 ADMIN, SUPPORT SERVICES	\$1,583,279	20%	\$316,656
611 EDUCATIONAL SERVICES	\$2,384,118	20%	\$476,824
621 HEALTH -AMBULATORY CARE	\$1,000,847	40%	\$400,339
711 PERF ART, SPECTATOR SPRTS	\$70,009	40%	\$28,004
813 RELIGIOUS,CIVIC,PROF ORGS	\$525,768	20%	\$105,154
921 EXEC, LEGISL, OTHER GOVT	\$46,536	20%	\$9,307
Total	\$12,973,478	38%	\$4,928,957

## Construction, Manufacturing, Utilities, Wholesale Operations, Transportation, and Sales Suppressed for Business Confidentiality

A diverse mix of businesses fall into these non-retail categories, and a portion of sales are within a suppressed or non-disclosed subcategory. These industries and services generate \$75.9 million in taxable sales, or 31.2 percent of total taxable sales in Moorhead. A significant portion of this amount would be subject to any new sales taxes, including a local option sales tax.

This category includes utilities that primarily serve a local market and are subject to a local option sales tax. The diversity of firm types included in this category makes it difficult to understand the customer mix of these businesses; however, Extension broke out each known subcategory:

Category	Taxable Sales	% non-local	\$ non-local
CONSTRUCTION	\$451,298	40%	\$180,519
MANUFACTURING	\$1,207,348	80%	\$965,878
TRANSPORTATION	\$766,231	50%	\$383,115.50
WHOLESALE	\$36,638,164	50%	\$18,319,082
UNDESIGNATED/SUPPRESSED	\$36,834,913	30%	\$11,050,474
Total	\$75,897,954	41%	\$30,899,069

Extension estimated that, overall, 41 percent of sales are to non-residents. This analysis assumes that some subcategories, such as manufacturing sell primarily (80 percent) to non-resident customers, whereas subcategories like construction split sales between resident and non-resident customers.

### Analysis with Adjustments

	(\$Millions)
Residents' \$ share	\$44.78
Non-residents \$ share	\$31.12
Total	\$75.90
Non-resident share	41%

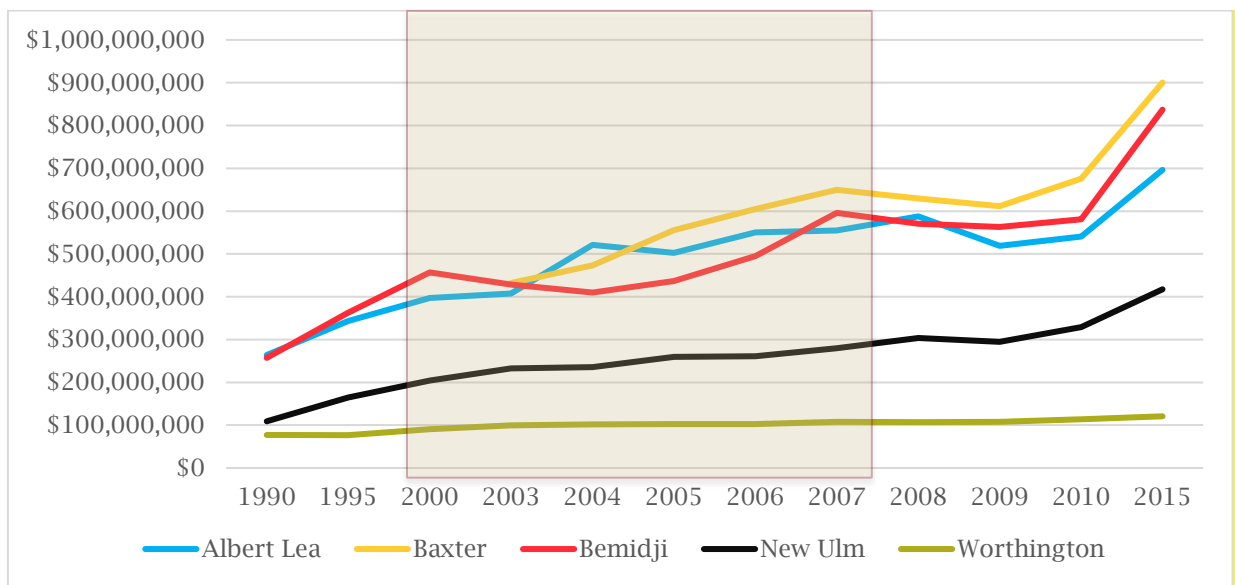
## APPENDIX A: RESEARCH ON THE EFFECTS OF A LOCAL OPTION SALES TAX

Policymakers are often concerned that enacting a local sales tax will result in a loss of consumer purchases to neighboring communities that have not adopted the tax.

The Minnesota Department of Revenue records the tax collected from a set of Minnesota jurisdictions that have had a local sales or use tax in effect for at least eight years. Most of these cities show continued sales growth. A comparison that includes 11 Minnesota cities adopting a 0.5 percent local option sales tax is offered below (refer to Figures 4, 5, 6, and 7).

Policymakers must determine the best allowable method to raise revenue from a variety of options. One option is raising property taxes, which is not directly related to a household's current income and raises the financial burden of low-income or retired homeowners. Sales taxes raise revenues based on household expenditures, which, in Minnesota, excludes the basic necessities of food and clothing. However, since sales tax raises revenues from non-residents who shop in Moorhead, resident contributions to tax revenues are significantly lower than a tax generated exclusively by local residents, such as a property tax. Policymakers must carefully consider these and other factors before making a decision about enacting a local sales tax.

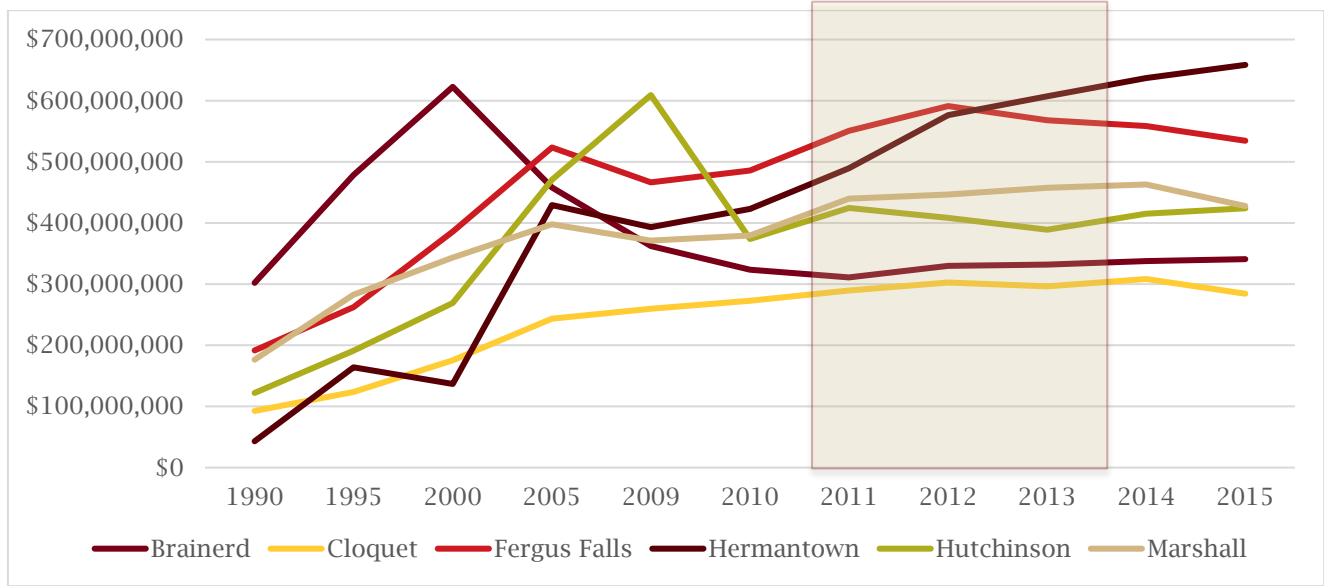
**Figure 4: Taxable retail and service sales by communities that began collecting a local option sales tax from 1999 to 2006**



**Figure 5: Data table for example communities, taxable retail and service sales (in millions)**

Town Name	2015 Population	Year LOST	90	95	00	03	04	05	06	07	08	09	10	15
Albert Lea	18,356	2006	\$264	\$344	\$397	\$407	\$521	\$502	\$551	\$555	\$588	\$519	\$541	\$696
Baxter	8,065	2006				\$432	\$473	\$556	\$605	\$650	\$630	\$612	\$676	\$900
Bemidji	11,917	2005	\$257	\$362	\$457	\$428	\$410	\$437	\$495	\$596	\$570	\$563	\$581	\$837
New Ulm	13,594	1999	\$109	\$165	\$204	\$233	\$236	\$259	\$261	\$280	\$303	\$295	\$329	\$417
Worthington	11,283	2005	\$77	\$77	\$91	\$99	\$102	\$103	\$103	\$108	\$107	\$108	\$114	\$121

**Figure 6: Taxable retail and service sales by communities that began collecting a local option sales tax between 2011- 2012**



**Figure 7: Data table for example communities, taxable retail and service sales (in millions)**

Town Name	2015 Pop	Year LOST	90	95	00	05	09	10	11	12	13	14	15
<i>Brainerd</i>	13,178	2011	\$302	\$479	\$623	\$458	\$362	\$324	\$311	\$330	\$332	\$338	\$341
<i>Cloquet</i>	11,201	2011	\$93	\$124	\$175	\$244	\$260	\$273	\$290	\$303	\$296	\$308	\$284
<i>Fergus Falls</i>	13,471	2011	\$192	\$263	\$386	\$523	\$467	\$486	\$551	\$591	\$568	\$558	\$534
<i>Hermantown</i>	7,448	1996 - increase 2012	\$43	\$164	\$137	\$430	\$393	\$423	\$489	\$576	\$607	\$637	\$659
<i>Hutchinson</i>	13,080	2011	\$122	\$191	\$269	\$471	\$609	\$374	\$425	\$409	\$389	\$415	\$424
<i>Marshall</i>	12,735	2011	\$176	\$283	\$343	\$398	\$371	\$380	\$440	\$447	\$457	\$463	\$428

## **APPENDIX B: DEFINITIONS OF TERMS**

### **Gross sales**

Gross sales include taxable sales and exempt businesses with sales and use tax permits. This is the most inclusive indicator of business activity for reporting jurisdictions, but it can be misleading when used in comparisons. At times, non-taxable commodity items (e.g., gasoline) can have large price variations, creating huge swings in gross sales.

### **Taxable sales**

Taxable sales are 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 the purpose of this study, taxable sales were the focus of the analysis. For more information on what is taxed in Minnesota, see the "Minnesota Sales and Use Tax Instruction Booklet" available at <https://www.revenue.state.mn.us/minnesota-tax-handbooks>

### **Taxable retail and service sales**

In this study and other retail trade analyses conducted by University of Minnesota Extension, the term "taxable retail and service sales" refers to the North American Industry Classification System (NAICS) numbers of 441 to 454 (retail) and 511 to 812 (most service industries) released by the Minnesota Department of Revenue for a geographic area.

### **Current and constant dollar sales**

Current dollar (or "nominal dollar") sales are those 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 according to 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 it still does not take into consideration changes in population or 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.

### **Index of income**

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

### **Potential sales**

Potential sales are an estimate of the amount of money spent on retail goods and services by residents of a county or county. It is the product of county population, state per capita sales, and the index of income (based on the county personal per capita income). Potential sales for counties is similar to expected sales for cities. Potential sales, however, do not utilize a measure of average pulling power (like the typical pull factor used in the expected sales equation).

### **Actual sales**

For this study, the Minnesota Department of Revenue's 2018 sales data for Moorhead provides the actual sales numbers used.

### **Variance between actual and potential sales**

The variance between actual and expected sales is the difference in sales from the “norm” (i.e., the amount above or below the standard established by the expected sales formula). When actual sales exceed expected sales, the county has a “surplus” of retail sales. When actual sales fall short of expected sales, the county has a retail sales “leakage.” Discrepancies between expected and actual sales occur for a variety of reasons. For this study, we use potential sales per merchandise group to create a first-cut estimate of residents’ purchase activities.

### **Cautions**

#### **Gross sales**

Gross sales are a comprehensive measure of business activity, but it should be noted the numbers in this report are self-reported. Furthermore, gross sales are not audited by the state of Minnesota. It is believed that 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. All sales reported by a business is attributed to that selected NAICS category. Regardless of who makes this classification, errors are occasionally made. Also, sometimes a business will start out as one type but evolve over time to a considerably different type. 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 underreport sales in the furniture store category and over-report 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. Sales for suppressed retail categories are placed into the miscellaneous retail category (NAICS 999) and included in total sales but not total sales of a typical retail trade analysis. For this report, however, all taxable sales—including NAICS 999—are part of calculating the amount of special taxes collected.

#### **Consolidated reporting**

Vendors with 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 sales made, tax due, and location by county, and county for each business. Data for 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 sales for a company may be reported for one town or county. Whenever misreporting is discovered, the Minnesota Department of Revenue is contacted to clarify the situation.