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EXTENSION CENTER FOR COMMUNITY VITALITY

## Local Option Sales Tax Analysis for Marshall, MN

Authored by Eric King

# Local Option Sales Tax Analysis for Marshall 

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

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Authored by Eric King, Extension Educator, University of Minnesota Extension Center for Community Vitality

## Report Reviewers:

Kathryn Leys, Extension Educator, University of Minnesota Extension, Center for Community Vitality

## Sponsor:

City of Marshall

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## SUMMARY OF FINDINGS

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

Using 2021 sales and use tax data available from the Minnesota Department of Revenue (MN Revenue), Extension estimated that non-residents account for 65.5 percent of taxable sales subject to a local option sales tax (LOST).

In 2021, total taxable sales in Marshall were $\$ 333.89$ million. MN Revenue analysts estimate that all taxable sales would be subject to a LOST. With 65.5 percent of sales derived from nonresident spending, Extension estimated that Marshall residents spent $\$ 115.2$ million of the total $\$ 333.89$ million in taxable sales subject to a LOST.

If the tax were in place in 2021, a 0.5 percent local option sales tax would have garnered $\$ 1,800,000$ million in tax proceeds according to MN Department of Revenue analysts, which adjusts the total taxable sales from $\$ 333.89$ up to $\$ 360$ million. Marshall residents would have contributed $\$ 621,000$ in taxes, and non-residents would have contributed $\$ 1.18$ million. Based on these estimates, each Marshall resident would have paid, on average, an additional $\$ 45.60$ in sales tax in 2021.

This report is based on a trade area analysis comparing actual taxable sales to potential sales. Potential sales is calculated by multiplying the Marshall population in 2021 (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 Marshall 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 Marshall's economy helped frame the analysis for the different merchandise categories:

- Residents of nearby communities can easily access Marshall businesses. For this analysis, cross-hauling has the net effect of increasing nonresident spending as Marshall is a central shopping hub in the region
- Marshall has more workers entering the city for employment than residents who leave for work (Figure 1). In this dynamic, commuters often shop for goods and services near where they work and those commuting into the city purchase in the city.

Figure 1: Marshall worker in-flow and out-flow


Inflow and outflow of wage earners.
Source: 2021 U.S. Census Bureau On-The-Map

Figure 2 shows the estimated percentage of sales-across all merchandise categoriesattributed to both residents and non-residents in 2021. These estimates are based on the adjusted analysis to more accurately reflect the city's economic and consumption circumstances. Based on these findings, Extension estimates city residents represent 34.5 percent of all taxable retail and service sales subject to the tax

Figure 2: Estimated 2021 Taxable Sales Subject to LOST

|  | Taxable Sales | Percent of Sales |
| :--- | ---: | ---: |
| City residents | $\$ 115,191,594$ | $34.5 \%$ |
| Non-residents | $\$ 218,697,085$ | $65.5 \%$ | (\$115 million), and the remaining 65.5 percent ( $\$ 219$ million) are attributed to non-residents.

Figure 3: Total taxable sales in Marshall from 2012-2021


Source: Minnesota Department of Revenue

The total taxable sales in the city decreased slightly from 2012 to 2016, after which sales have consistently grown, even through the pandemic in 2020 (Figure 3). Total sales increased from \$292 million during the pandemic to just over \$333 million in 2021. This provides some sense of the stability of a LOST going forward.

Extension forecasted taxable sales subject to the local tax for 2022, 2023, and 2024 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 5 and 6). This model estimates total tax proceeds in 2022 to be between an upper limit of $\$ 2.02$ million and a lower limit of $\$ 1.62$ 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, furniture, and general merchandise did well through the pandemic, whereas dining, accommodations, and amusement saw record sales decreases. The sharp rebound in sales in 2021 further complicates any forecast.

Figure 5: Forecast for Tax Proceeds based on Past Trends 2012 to 2021


Figure 6: Forecast with Upper and Lower Bound 2022-25

|  | Forecast | Lower Bound | Upper Bound |
| :--- | ---: | ---: | ---: |
| 2022 | $\$ 1,822,628$ | $\$ 1,621,133$ | $\$ 2,024,122$ |
| 2023 | $\$ 1,845,255$ | $\$ 1,574,037$ | $\$ 2,116,473$ |
| 2024 | $\$ 1,867,883$ | $\$ 1,541,399$ | $\$ 2,194,367$ |
| 2025 | $\$ 1,890,510$ | $\$ 1,516,750$ | $\$ 2,264,271$ |

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 $\$ 1,550,302$ in use (not sales) tax proceeds. It would have garnered $\$ 114,837$ 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. 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 Marshall. 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 Marshall residents compared to non-residents. The most recently available state sales tax data (2021) 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 city 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 Marshall. 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:
( $\mathrm{T} \div \mathrm{PMn}$ ) $\times \mathrm{PO} \times(\mathrm{YWC} \div \mathrm{YMn})=$ potential sales

T = Total Minnesota taxable sales for a merchandise category

PMn $=2021$ population of Minnesota $(5,742,036)$
$\mathrm{PO}=2021$ population of Marshall $(13,618)$

YWC = Per capita income of Lyons County residents $(\$ 58,433)$

YMn = Per capita income of Minnesota residents $(\$ 66,280)$

## TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

The following pages provide detailed analysis by merchandise category.

## Vehicles and Parts

7.0 percent of total taxable retail and service sales

The 12 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 | $\$ 17.74$ |
| ---: | ---: |
| -Potential sales | $\$ 8.07$ |
| $=$ \$ variance | $\$ 9.67$ |
| $=$ as $\%$ of potential | $119.9 \%$ |

## Unadjusted Trade Area Analysis

| Potential taxable sales to residents | $\$ 8.07$ |
| ---: | ---: |
| Surplus | $\$ 9.67$ |
| Total | $\$ 17.74$ |
| Surplus percentage | $54.5 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $84 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 6.74$ |
| Non-Residents' \$ share | $\$ 11.00$ |
| Total | $\$ 17.74$ |
| Non-resident share per group | $62.0 \%$ |

## Analysis for Vehicles and Parts

Extension's trade area analysis illustrates a robust surplus of sales in this category which accounts for 7 percent of total sales overall. With the surplus being considerable, Extension estimated that 62 percent of the sales are attributed to non-residents, while still capturing around 84 percent of Marshall resident spending in this category to allow for some leakage of more specialized purchases and repairs needed. The data suggests this is a thriving retail category.

## Furniture Stores

4.0 percent of total taxable retail and service sales

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

(\$Millions)<br>Actual taxable sales $\$ 10.10$<br>Potential sales $\$ 4.74$<br>$=\$$ variance $\$ 5.36$<br>$=$ as $\%$ of potential $113.0 \%$

## Unadjusted Trade Area Analysis

Surplus \$5.36
Total \$10.10
Non-resident share per group 53.0\%

## Analysis with Adjustments

| Capture rate of Marshall residents | $81 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 3.84$ |
| Non-Residents' \$ share | $\$ 6.26$ |
| Total | $\$ 10.10$ |
| Non-resident share per group | $62.0 \%$ |

## Analysis for Furniture Stores

At 4 percent of total sales, furniture stores are a moderately sized category in Marshall. Extension estimates residents' spending contributing $\$ 3.84$ million, and non-residents' spending contributing $\$ 6.26$ million to the total sales of $\$ 10.10$ million. The non-resident share per group was adjusted to 62 percent. A conservative capture rate of 81 percent is estimated for local spending within the community.

## Electronics and Appliances

1.2 percent of total taxable retail and service sales*

These 4 businesses primarily include household-type appliances, sewing machines, cameras, computers, and other electronic goods.
(\$Millions)

| Actual taxable sales | $\$ 3.11$ |
| ---: | ---: |
| -Potential sales | $\$ 4.59$ |
| $=$ \$ variance | $(\$ 1.48)$ |
| $=$ as $\%$ of potential | $-32.3 \%$ |

Unadjusted Trade Area Analysis
Potential sales to residents
Surplus
Total
Non-resident share per group
-47.7\%

## Analysis with Adjustments

| Capture rate of Marshall residents | $49 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 2.27$ |
| Non-residents' \$ share | $\$ 0.84$ |
| Total | $\$ 3.11$ |
| Non-resident share per group | $27.0 \%$ |

## Analysis for Electronics and Appliances

Taxable sales are lower than expected in the electronics and appliances category, resulting in a deficit of around 32 percent in this category. Accounting for 1.2 percent of all retail and service taxable sales totaling $\$ 3.11$ million, it is a smaller category within the Marshall retail landscape. A modest 27 percent non-resident spending was estimated in this category, resulting in a capture rate of approximately 50 percent of local spending.

## Building Materials

## 33.1 percent of total taxable retail and service sales*

These 8 businesses sell lumber, hardware, paint, wallpaper, tile, hardwood floors, roofing, fencing, ceiling fans, lawn equipment, and garden items.
(\$Millions)

| Actual taxable sales | $\$ 83.39$ |
| ---: | ---: |
| Potential sales | $\$ 17.26$ |
| $=\$$ variance | $\$ 66.12$ |
| $=$ as $\%$ of potential | $383.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 17.26$ |
| ---: | ---: |
| Surplus | $\$ 66.12$ |
| Total | $\$ 83.39$ |

Non-resident share per group $\quad 79.3 \%$

## Analysis with Adjustments

| Capture rate of Marshall residents | $87 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 15.01$ |
| Non-residents' \$ share | $\$ 68.38$ |
| Total | $\$ 83.39$ |
| Non-resident share per group | $82.0 \%$ |

## Analysis for Building Materials

Building materials is the largest category in Marshall, accounting for 33.1 percent of all retail and service taxable sales. Actual sales far exceeded potential sales estimates, equating to a $\$ 66$ million surplus. Extension set the non-resident share of taxable sales at $82 \%$ to account for some portion of resident spending to leak outside of the community, with a local capture rate of 87 percent.

## Food and Groceries

## 6.5 percent of total taxable retail and service sales

The 10 businesses 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 | $\$ 16.46$ |
| ---: | ---: |
| - Potential sales | $\$ 8.87$ |
| $=\$$ variance | $\$ 7.59$ |
| $=$ as \% of potential | $85.6 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
\$7.59
Total
Non-resident share per group
46.1\%

## Analysis with Adjustments

| Capture rate of Marshall residents | $84 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 7.40$ |
| Non-residents' \$ share | $\$ 9.05$ |
| Total | $\$ 16.46$ |
| Non-resident share per group | $55.0 \%$ |

## Analysis for Food and Groceries

Extension's trade area analysis estimated a moderate surplus in the food and liquor category. Extension set the non-resident share at 55 percent, primarily to allow for some reasonable portion of out-shopping by Marshall residents. The Marshall capture rate remains at a conservative 84 percent in this category to allow for some purchasing outside of the city for travel, work, etc.

## Health and Personal Items

## 0.1 percent of total taxable retail and service sales

Stores selling prescription drugs, food supplements, vision supplies, cosmetics, and hearing aids are among the $\mathbf{1 1}$ businesses included in this merchandise group.
(\$Millions)

| Actual taxable sales | $\$ 0.22$ |
| ---: | ---: |
| Potential sales | $\$ 2.17$ |
| $=$ \$ variance | $(\$ 1.95)$ |
| $=$ as $\%$ of potential | $-89.7 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to resident
\$2.17
Surplus
(\$1.95)
Tota
\$0.22
Non-resident share per group -871.5\%

## Analysis with Adjustments

| Capture rate of Marshall residents | $10 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 0.21$ |
| Non-residents' \$ share | $\$ 0.01$ |
| Total | $\$ 0.22$ |
| Non-resident share per group | $5.0 \%$ |

## Analysis for Health and Personal Items

The category accounts for just 0.1 percent of taxable retail and service sales in Marshall. Taxable sales are significantly less than would be expected for the size of the community with an almost $\$ 2$ million deficit. Extension set the non-resident share at a modest 5 percent, which translates into a 10 percent capture rate of local resident spending. The large deficit of almost 90 percent suggests underperformance in this category and either leakage or competition from larger big-box retailers pulling activity away from smaller specialized stores.

## Gas/Convenience Stores

2.4 percent of total taxable retail and service sales

This merchandise group covers 8 businesses selling convenience items at a store that also sells fuel.
(\$Millions)

| Actual taxable sales | $\$ 6.13$ |
| ---: | ---: |
| -Potential sales | $\$ 3.32$ |
| $=\$$ variance | $\$ 2.81$ |
| $=$ as $\%$ of potential | $84.4 \%$ |

Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 3.32$ |
| ---: | ---: |
| Surplus | $\$ 2.81$ |
| Total | $\$ 6.13$ |
| Non-resident share per group | $45.8 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $83 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 2.76$ |
| Non-residents' \$ share | $\$ 3.37$ |
| Total | $\$ 6.13$ |
| Non-resident share per group | $55.0 \%$ |

## Analysis for Gas/Convenience Stores

Marshall has a sizeable surplus in the gas and convenience store category, netting \$2.81 million more than potential sales calculations. Extension set the non-resident share at a conservative 55 percent to account for non-resident spending when traveling along major thoroughfares. A capture rate of 83 percent for residents of Marshall was estimated in a category where work, travel and entertainment can pull dollars from the community.

## Apparel/Clothing

0.9 percent of total taxable retail and service sales

This merchandise group includes 12 businesses selling new clothing and accessories, jewelry, shoes, bridal items, clocks, and luggage.
(\$Millions)

| Actual taxable sales | $\$ 2.19$ |
| ---: | ---: |
| Potential sales | $\$ 2.30$ |
| $=\$$ variance | $(\$ 0.11)$ |
| $=$ as \% of potential | $-4.8 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 2.30$ |
| ---: | ---: |
| Surplus | $(\$ 0.11)$ |
| Total | $\$ 2.19$ |
| Non-resident share per group | $-5.0 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $65 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 1.49$ |
| Non-residents' \$ share | $\$ 0.70$ |
| Total | $\$ 2.19$ |
| Non-resident share per group | $32.0 \%$ |

## Analysis for Apparel/Clothing

Extension's trade area analysis estimates that the expected and actual sales in this category are about equal. Extension adjusted the non-resident share to 32 percent, resulting in a local capture rate of 65 percent to allow for some leakage outside of the community as well. It is difficult to determine how much online shopping impacts the shopping habits of residents in this category when purchasing more specialized or niche items.

## Leisure Goods

## 1.9 percent of total taxable retail and service sales

The 10 businesses in this merchandise group sell sporting goods, books, music, hobby items, fabrics, and toys.
(\$Millions)
Actual taxable sales $\quad \$ 4.75$
Potential sales $\$ 3.57$
$=\$$ variance $\quad \$ 1.18$
$=$ as $\%$ of potential $33.0 \%$

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 3.57$ |
| ---: | ---: |
| Surplus | $\$ 1.18$ |
| Total | $\$ 4.75$ |
| Non-resident share per group | $24.8 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $80 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 2.85$ |
| Non-Residents' \$ share | $\$ 1.90$ |
| Total | $\$ 4.75$ |

## Analysis for Leisure Goods

Extension's trade area analysis estimates that the city has a $\$ 1.18$ million surplus in this category which is focused on specialized retail. Extension set the non-resident share at 40 percent and a capture rate of $8 \underline{0}$ percent for Marshall residents. The surplus in this category suggests that people are coming from outside of Marshall to purchase goods within the city.

## General Merchandise Stores

16.7 percent of total taxable retail and service sales*

The 5 businesses 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 | $\$ 42.07$ |
| ---: | ---: |
| potential sales | $\$ 16.41$ |
| $=\$$ variance | $\$ 25.66$ |
| $=$ as $\%$ of potential | $156.4 \%$ |

Unadjusted Trade Area Analysis
Potential sales to residents
Surplus
Total
Non-resident share per group

## Analysis with Adjustments

| Capture rate of Marshall residents | $87 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 14.30$ |
| Non-Residents' \$ share | $\$ 27.77$ |
| Total | $\$ 42.07$ |

Non-resident share per group 66.0\%

## Analysis for General Merchandise Stores

Extension estimates a large surplus in this relatively large category, which accounts for 16.7 percent of all retail sales in Marshall. Extension estimated 66 percent of sales in this category come from non-residents based on this surplus and commuting patterns. A capture rate of 87 percent for residents was estimated to allow for some leakage into other communities with specialized stores such as Costco, etc.

## Miscellaneous Retail

## 0.8 percent of total taxable retail and service sales

17 businesses are part of this group, including florists, used merchandise stores, pet supply stores, and other retailers.
(\$Millions)

| Actual taxable sales | $\$ 1.98$ |
| ---: | ---: |
| Potential sales | $\$ 4.88$ |
| $=\$$ variance | $(\$ 2.90)$ |
| $=$ as $\%$ of potential | $-59.4 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 4.88$ |
| ---: | ---: |
| Surplus | $(\$ 2.90)$ |
| Total | $\$ 1.98$ |
| Non-resident share per group | $-146.4 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $39 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 1.88$ |
| Non-residents' \$ share | $\$ 0.10$ |
| Total | $\$ 1.98$ |
| Non-resident share per group | $5.0 \%$ |

## Analysis for Miscellaneous Retail

Extension's trade area analysis estimates that Marshall had a $\$ 2.9$ million deficit in the miscellaneous retail category. Extension set the non-resident share to a very conservative 5 percent considering this deficit, resulting in a capture rate of 39 percent of Marshall resident spending.

## Amusement and Recreation

## 1.0 percent of total taxable retail and service sales*

The 5 businesses 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 | $\$ 2.42$ |
| Potential sales | $\$ 4.31$ |
| $=\$$ variance | $(\$ 1.89)$ |
| $=$ as $\%$ of potential | $-43.9 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 4.31$ |
| ---: | ---: |
| Surplus | $(\$ 1.89)$ |
| Total | $\$ 2.42$ |
| Non-resident share per group | $-78.3 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $31 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 1.33$ |
| Non-residents' \$ share | $\$ 1.09$ |
| Total | $\$ 2.42$ |
| Non-resident share per group | $45.0 \%$ |

## Analysis for Amusement and Recreation

Extension's trade area analysis estimates that the city has a deficit of potential sales in this category. Marshall is home to some regional attractions to draw in non-residents and visitors. In this case, even despite the deficit, Extension set the non-resident share at 45 percent and a local capture rate of 31 percent.

## Accommodations

## 1.9 percent of total taxable retail and service sales

These $\mathbf{7}$ 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 | $\$ 4.69$ |
| ---: | ---: |
| Potential sales | $\$ 3.76$ |
| $=\$$ variance | $\$ 0.93$ |
| $=$ as $\%$ of potential | $24.6 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 3.76$ |
| ---: | ---: |
| Surplus | $\$ 0.93$ |
| Total | $\$ 4.69$ |
| Non-resident share per group | $19.8 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $12 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 0.47$ |
| Non-residents' \$ share | $\$ 4.22$ |
| Total | $\$ 4.69$ |
| 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.' A capture rate of 12 percent of Marshall resident spending in this category was estimated.

## Eating/Drinking Establishments

## 16.8 percent of total taxable retail and service sales

These 43 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 | $\$ 42.35$ |
| ---: | ---: |
| Potential sales | $\$ 20.49$ |
| $=$ \$ variance | $\$ 21.87$ |
| $=$ as $\%$ of potential | $106.7 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents $\$ 20.49$
Surplus
\$21.87
Total
\$42.35
Non-resident share per group 51.6\%

## Analysis with Adjustments

| Capture rate of Marshall residents | $79 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 16.09$ |
| Non-residents' \$ share | $\$ 26.26$ |
| Total | $\$ 42.35$ |
| Non-resident share per group | $62.0 \%$ |

## Analysis for Eating/Drinking Establishments

The eating and drinking category-which includes all bars, restaurants, and other food service-is a significant category with $\$ 42$ million in taxable sales and has a significant surplus of $\$ 21.87$ million. Many well-respected dining establishments that draw non-residents to the community as well as retain in-commuters who work in Marshall. However, not unlike the general merchandise category, competition for other dining options, traveling and commuting all draw money from Marshall residents outside of the community. In this context, Extension set the non-resident share to a conservative 62 percent and a local capture rate of 79 percent for Marshall resident spending.

## Repair and Maintenance

## 2.1 percent of total taxable retail and service sales

The 18 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.

| Actual taxable sales | $\$ 5.28$ |
| ---: | ---: |
| Potential sales | $\$ 3.85$ |
| $=\$$ variance | $\$ 1.44$ |
| $=$ as $\%$ of potential | $37.4 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
Total
Non-resident share per group

## Analysis with Adjustments

| Capture rate of Marshall residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 3.43$ |
| Non-residents' \$ share | $\$ 1.85$ |
| Total | $\$ 5.28$ |
| Non-resident share per group | $35.0 \%$ |

## Analysis for Repair and Maintenance

At 2.1 percent of total taxable sales, repair and maintenance is a relatively small category in Marshall. The moderate surplus that exists in this category suggests that a good share of sales are coming from outside the city. A conservative 35 percent non-resident share was estimated by Extension, resulting in a capture rate of 89 percent local spending.

## Personal Services/Laundry

## 0.3 percent of total taxable retail and service sales

The 44 businesses 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 | $\$ 0.84$ |
| Potential Sales | $\$ 2.08$ |
| $=\$$ variance | $(\$ 1.24)$ |
| $=$ as $\%$ of potential | $-59.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 2.08$ |
| ---: | ---: |
| Surplus | $(\$ 1.24)$ |
| Total | $\$ 0.84$ |
| Non-resident share per group | $-148.0 \%$ |

## Analysis with Adjustments

| Capture rate of Marshall residents | $38 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 0.80$ |
| Non-residents' \$ share | $\$ 0.04$ |
| Total | $\$ 0.84$ |
| 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. At 0.3 percent of total sales, this category is not significant in terms of total taxable sales and had a moderate deficit as well. Extension set the non-resident share at 5 percent, which translates into a 38 percent capture rate of local spending.

## 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

## Analysis with Adjustments

|  | (\$Millions) |
| ---: | ---: |
| Residents' \$ share | $\$ 5.72$ |
| Non-residents' \$ share | $\$ 2.69$ |
| Total | $\$ 8.42$ |

Non-resident share per group 32\%

## 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 32 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 | $\$ 167,248$ | $50 \%$ | $\$ 83,624$ |
| 484 TRANSPORTATION -TRUCK | $\$ 469,861$ | $40 \%$ | $\$ 187,944$ |
| 519 INFO -OTHER SERVICES | $\$ 12,125$ | $30 \%$ | $\$ 3,638$ |
| 532 RENTAL, LEASING SERVICES | $\$ 4,127,612$ | $30 \%$ | $\$ 1,238,284$ |
| 541 PROF,SCIENTIFIC,TECH SERV | $\$ 448,304$ | $40 \%$ | $\$ 179,322$ |
| 561 ADMIN, SUPPORT SERVICES | $\$ 1,730,293$ | $30 \%$ | $\$ 519,088$ |
| 611 EDUCATIONAL SERVICES | $\$ 275,864$ | $20 \%$ | $\$ 55,173$ |
| 621 HEALTH -AMBULATORY CARE | $\$ 573,899$ | $40 \%$ | $\$ 229,560$ |
| 624 HEALTH -SOCIAL ASSISTANCE | $\$ 182,964$ | $20 \%$ | $\$ 36,593$ |
| 813 RELIGIOUS,CIVIC,PROF ORGS | $\$ 428,904$ | $40 \%$ | $\$ 171,562$ |
| TOTAL | $\$ 8,417,074$ | $\mathbf{3 2 \%}$ | $\$ 2,704,786$ |

## 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 $\$ 81.76$ million in taxable sales, or 24.5 percent of total taxable sales in Marshall. 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 with an assumption of whether customers paying the taxable sales were nonlocal:

| Category | Taxable Sales | \% non-local | \$ non-local |
| :--- | ---: | ---: | ---: |
| CONSTRUCTION | $\$ 645,393$ | $60 \%$ | $\$ 387,235.80$ |
| MANUFACTURING | $\$ 581,948$ | $90 \%$ | $\$ 523,753.20$ |
| WHOLESALE | $\$ 40,267,601$ | $80 \%$ | $\$ 32,214,080.80$ |
| UNDESIGNATED/SUPPRESSED | $\$ 40,260,542$ | $50 \%$ | $\$ 20,130,271.00$ |
| Total | $\$ 81,755,484$ | $65 \%$ | $\$ 53,255,340$ |

Extension estimated that, overall, 65 percent of sales are to non-residents. This analysis assumes that some subcategories, such as manufacturing sell primarily ( 90 percent) to nonresident customers, whereas subcategories like construction split sales between resident and non-resident customers.

## Analysis with Adjustments

(\$Millions)
Residents' \$ share
\$28.61
Non-residents \$ share
$\$ 53.14$
Total
$\$ 81.76$
Non-resident share 65\%

## 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 nonresidents who shop in Marshall, 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 | $\mathbf{2 0 1 5}$ <br> Population | Year <br> LOST | $\mathbf{9 0}$ | $\mathbf{9 5}$ | $\mathbf{0 0}$ | $\mathbf{0 3}$ | $\mathbf{0 4}$ | $\mathbf{0 5}$ | $\mathbf{0 6}$ | $\mathbf{0 7}$ | $\mathbf{0 8}$ | $\mathbf{0 9}$ | $\mathbf{1 0}$ | $\mathbf{1 5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\mathbf{2 0 1 5}$ <br> Pop | Year <br> LOST | $\mathbf{9 0}$ | $\mathbf{9 5}$ | $\mathbf{0 0}$ | $\mathbf{0 5}$ | $\mathbf{0 9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brainerd | 13,178 | 2011 | $\$ 302$ | $\$ 479$ | $\$ 623$ | $\$ 458$ | $\$ 362$ | $\$ 324$ | $\$ 311$ | $\$ 330$ | $\$ 332$ | $\$ 338$ | $\$ 341$ |
| Cloquet | 11,201 | 2011 | $\$ 93$ | $\$ 124$ | $\$ 175$ | $\$ 244$ | $\$ 260$ | $\$ 273$ | $\$ 290$ | $\$ 303$ | $\$ 296$ | $\$ 308$ | $\$ 284$ |
| Fergus Falls | 13,471 | 2011 | $\$ 192$ | $\$ 263$ | $\$ 386$ | $\$ 523$ | $\$ 467$ | $\$ 486$ | $\$ 551$ | $\$ 591$ | $\$ 568$ | $\$ 558$ | $\$ 534$ |
| Hermantown | 7,448 | $1996-$ <br> increase <br> 2012 | $\$ 43$ | $\$ 164$ | $\$ 137$ | $\$ 430$ | $\$ 393$ | $\$ 423$ | $\$ 489$ | $\$ 576$ | $\$ 607$ | $\$ 637$ | $\$ 659$ |
| Hutchinson | 13,080 | 2011 | $\$ 122$ | $\$ 191$ | $\$ 269$ | $\$ 471$ | $\$ 609$ | $\$ 374$ | $\$ 425$ | $\$ 409$ | $\$ 389$ | $\$ 415$ | $\$ 424$ |
| Marshall | 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).

## Actual sales

For this study, the Minnesota Department of Revenue's 2019 sales data for Marshall 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.


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