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EXTENSION CENTER FOR COMMUNITY VITALITY

## Local Option Sales Tax Analysis for Maple Grove, MN

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

Authored by Ryan Pesch and Eric King


REPORT SPONSOR: CITY OF MAPLE GROVE, MINNESOTA

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## December 2020

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## SUMMARY OF FINDINGS

University of Minnesota Extension conducted a study to estimate the proportion of sales proceeds attributed to both Maple Grove 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 55 percent of taxable sales subject to a local option sales tax (LOST).

In 2019, total taxable sales in Maple Grove were $\$ 1.28$ billion. However, MN Revenue analysts estimate that approximately $\$ 1.16$ billion would be subject to a LOST. With 55 percent of sales derived from non-resident spending, Extension estimated that Maple Grove residents spent \$523 million of the total $\$ 1.16$ billion 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 $\$ 5,800,000$ in tax proceeds. Maple Grove residents would have contributed $\$ 2.6$ million in taxes, and nonresidents would have contributed $\$ 3.2$ million. Based on these estimates, each Maple Grove resident would have paid, on average, an additional $\$ 38.40$ 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 Maple Grove population by the Minnesota average per capita sales for each category, and then adjusting for the county's income factor. This initial analysis provided an estimate of retail and service purchases made by Maple Grove 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 nonresidents. 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 Maple Grove's economy helped frame the analysis for the different merchandise categories:

- The retail strength of Maple Grove attracts both residents of nearby communities and visitors from a wide area. As a metropolitan community adjacent to many other communities, residents can conveniently shop in those locations with more choice.
- Maple Grove has a large proportion of its residents leave for work and imports an equally large number of workers (Figure 1). In this dynamic, commuters often shop for goods and services near where they work.

Figure 1: Maple Grove worker in-flow and out-flow


Source: 2018 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 45 percent of all taxable retail and service sales subject to the tax ( $\$ 524$ million), and the remaining 55 percent ( $\$ 635$ million) are attributed to non-residents.

Figure 2: Estimated 2019 Taxable Sales Subject to LOST

|  | Taxable Sales | Percent of Sales |
| :--- | ---: | ---: |
| City residents | $\$ 524,343,320$ | $45.2 \%$ |
| Non-residents | $\$ 635,656,680$ | $54.8 \%$ |

The total taxable sales in the city increased significantly over ten years (Figure 3). Total taxable sales were $\$ 863$ million in 2010 and $\$ 1.28$ billion in 2018 , increasing approximately by $\$ 416$ million, or 48 percent, during this time period. This fact provides some sense of the stability of a LOST going forward.

Figure 3: Total taxable sales in Maple Grove from 2009-2019


[^1]
## 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 Maple Grove 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 Maple Grove. 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:
$(\mathrm{T} \div \mathrm{PMn}) \times \mathrm{MG} \times(\mathrm{YHC} \div \mathrm{YMn})=$ potential sales

T = Total Minnesota taxable sales for a merchandise category

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

MG = 2019 population of Maple Grove $(68,101)$

YHC = Per capita income of Hennepin County resident $(\$ 44,096)$

YMn = Per capita income of Minnesota resident $(\$ 76,552)$

## FORECAST OF TAX PROCEEDS

Extension forecasted sales tax proceeds 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 2022 to be between an upper limit of $\$ 6.8$ million and a lower limit of $\$ 5.8$ 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 homefocused 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 of tax proceeds of local option sales tax at $0.5 \%$


Figure 5: Forecast of local option sales tax proceeds with upper and lower bound at 95\% confidence interval

|  | Forecast |  | Lower Bound |  | Upper Bound |  |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| 2019 | $\$$ | $5,800,000$ | $\$$ | $5,800,000$ | $\$$ | $5,800,000$ |
| 2020 | $\$$ | $5,954,154$ | $\$$ | $5,618,276$ | $\$$ | $6,290,031$ |
| 2021 | $\$$ | $6,139,965$ | $\$$ | $5,719,916$ | $\$$ | $6,560,014$ |
| 2022 | $\$$ | $6,325,777$ | $\$$ | $5,835,637$ | $\$$ | $6,815,918$ |

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 $\$ 3,336,521$ in use (not sales) tax proceeds. The city would have garnered an additional $\$ 243,000$ in use taxes in 2019 if the location option sales tax were in place at a 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 Maple Grove. 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.

## TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

The following pages provide detailed analysis by merchandise category.

## Vehicles and Parts

0.8 percent of total taxable retail and service sales

The twelve 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 | $\$ 7.71$ |
| ---: | ---: |
| -Potential sales | $\$ 50.39$ |
| $=\$$ variance | $(\$ 42.68)$ |
| $=$ as $\%$ of potential | $-84.7 \%$ |

Unadjusted Trade Area Analysis
Potential taxable sales to residents

Surplus percentage

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $14 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 6.94$ |
| Non-Residents' \$ share | $\$ 0.77$ |
| Total | $\$ 7.71$ |
| Non-resident share per group | $10.0 \%$ |

## 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 10 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 ten businesses that supply vehicle and parts due to convenience alone.

## Furniture Stores

## 3.8 percent of total taxable retail and service sales

These 25 stores sell furniture, beds, carpeting, window coverings, lamps, china, kitchenware, and wood-burning stoves.
(\$Millions)

| Actual taxable sales | $\$ 38.25$ |
| ---: | ---: |
| Potential sales | $\$ 23.37$ |
| $=\$$ variance | $\$ 14.88$ |
| $=$ as $\%$ of potential | $63.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 23.37$ |
| ---: | ---: |
| Surplus | $\$ 14.88$ |
| Total | $\$ 38.25$ |
| Non-resident share per group | $38.9 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $61 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 14.15$ |
| Non-Residents' \$ share | $\$ 24.10$ |
| Total | $\$ 38.25$ |
| Non-resident share per group | $63.0 \%$ |

## Analysis for Furniture Stores

Furniture stores are a relatively minor category for Maple Grove at 3.8 percent of total taxable sales. Extension's analysis suggests there is a surplus in this category and that a substantial inflow of nonresident shoppers purchase furniture in Maple Grove. Extension assumes that a fairly large share of residents in Maple Grove also purchase goods in this category in the city as well, setting the capture rate of local residents spending in this category at a conservative $61 \%$..

## Electronics and Appliances

6.8 percent of total taxable retail and service sales*

These 18 establishments primarily include household-type appliances, sewing machines, cameras, computers, and other electronic goods.
(\$Millions)

| Actual taxable sales | $\$ 68.17$ |
| ---: | ---: |
| -Potential sales | $\$ 25.67$ |
| $=\$$ variance | $\$ 42.50$ |
| $=$ as $\%$ of potential | $165.5 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 25.67$ |
| ---: | ---: |
| Surplus | $\$ 42.50$ |
| Total | $\$ 68.17$ |
| Non-resident share per group | $62.3 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $66 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 17.04$ |
| Non-residents' \$ share | $\$ 51.13$ |
| Total | $\$ 68.17$ |
| Non-resident share per group | $75.0 \%$ |

## Analysis for Electronics and Appliances

Electronics and Appliances account for a moderate amount of sales tax in Maple Grove, capturing a large number of non-resident shoppers in this category. Similar to Furniture Sales, these categories include large-ticket items often purchased at larger retailer and big-box shops. This category also has the second largest difference between actual and potential sales, with a $\$ 42.50$ million dollar surplus.

## Building Materials

## 9.2 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 | $\$ 92.36$ |
| ---: | ---: |
| Potential sales | $\$ 86.89$ |
| $=\$$ variance | $\$ 5.47$ |
| $=$ as $\%$ of potential | $6.3 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to resident
\$86.89
Surplus
\$5.47
Total
$\$ 92.36$
Non-resident share per group $\quad 5.9 \%$

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $80 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 69.27$ |
| Non-residents' \$ share | $\$ 23.09$ |
| Total | $\$ 92.36$ |
| Non-resident share per group | $25.0 \%$ |

## Analysis for Building Materials

At just under 10\%, Building Materials are another major category of sales and revenue in Maple Grove, having the fourth most total sales of all categories. Extension's analysis suggests that this category captures a large number of Maple Grove residents. 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.

## Food and Groceries

## 14.5 percent of total taxable retail and service sales

The $\mathbf{1 6}$ 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 | $\$ 145.01$ |
| ---: | ---: |
| - Potential sales | $\$ 64.46$ |
| $=\$$ variance | $\$ 80.56$ |
| $=$ as $\%$ of potential | $125.0 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
\$64.46
Surplus
\$80.56
Total
\$145.01
Non-resident share per group
55.6\%

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $79 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 50.76$ |
| Non-residents' \$ share | $\$ 94.26$ |
| Total | $\$ 145.01$ |
| Non-resident share per group | $65.0 \%$ |

## Analysis for Food and Groceries

Extension's trade area analysis estimated an $\$ 80.6$ million surplus in the food and liquor category, the largest of any category in Maple Grove and also the largest percent of potential sales. This large cluster of fifteen stores primarily serves both the local and non-local residential market; however, one would reasonably conclude that some portion of residents leave the community for food and liquor in this competitive market. Also, considering the large number of in-commuters who may reasonably buy convenience goods like groceries near where they work, Extension increased the nonresident share to 65 percent.

## Health and Personal Items

## 1.9 percent of total taxable retail and service sales

Stores selling prescription drugs, food supplements, vision supplies, cosmetics, and hearing aids are among the $\mathbf{3 1}$ shops included in this merchandise group.

| (\$Millions) |  |
| ---: | ---: |
| Actual taxable sales | $\$ 19.33$ |
| Potential sales | $\$ 11.05$ |
| $=\$$ variance | $\$ 8.29$ |
| $=$ as $\%$ of potential | $75.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 11.05$ |
| ---: | ---: |
| Surplus | $\$ 8.29$ |
| Total | $\$ 19.33$ |
| Non-resident share per group | $42.9 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $84 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 9.28$ |
| Non-residents' \$ share | $\$ 10.05$ |
| Total | $\$ 19.33$ |
| Non-resident share per group | $52.0 \%$ |

## Analysis for Health and Personal Items

This is a minor category in Maple Grove, accounting for only 1.9 percent of total taxable sales. Even so, total sales are significantly above what would be expected. Extension assumes a large share of residents will purchase items within the city and has set the capture rate at $84 \%$ accordingly. In a situation where many non-residents commute into the community for work and a sizeable proportion of residents out-commute, Extension set the non-resident share at just above 50 percent.

## Gas/Convenience Stores

## 0.9 percent of total taxable retail and service sales

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

| Actual taxable sales | $\$ 9.49$ |
| ---: | ---: |
| -Potential sales | $\$ 22.41$ |
| $=\$$ variance | $(\$ 12.91)$ |
| $=$ as $\%$ of potential | $-57.6 \%$ |

## Unadjusted Trade Area Analysis

$$
\begin{array}{rr}
\text { Potential sales to residents } & \$ 22.41 \\
\text { Surplus } & (\$ 12.91) \\
\text { Total } & \$ 9.49 \\
\text { Non-resident share per group } & -136.1 \%
\end{array}
$$

Analysis with Adjustments

| Capture rate of Maple Grove residents | $36 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 8.07$ |
| Non-residents' \$ share | $\$ 1.42$ |
| Total | $\$ 9.49$ |
| Non-resident share per group | $15.0 \%$ |

## Analysis for Gas/Convenience Stores

Maple Grove has a sizeable deficit in the gas and convenience store category, netting almost \$13 million less than potential sales calculations. In a category with a deficit such as this, Extension set the non-resident share at a larger than expected $15 \%$ to account for a portion of spending of travels through and shoppers to the city, two types of consumers clearly within Maple Grove according to the evidence of in-shopping.

## Apparel/Clothing

## 2.7 percent of total taxable retail and service sales

This merchandise group includes 67 stores selling new clothing and accessories, jewelry, shoes, bridal items, clocks, and luggage.
(\$Millions)

| Actual taxable sales | $\$ 27.09$ |
| ---: | ---: |
| Potential sales | $\$ 12.84$ |
| $=\$$ variance | $\$ 14.25$ |
| $=$ as $\%$ of potential | $111.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 12.84$ |
| ---: | ---: |
| Surplus | $\$ 14.25$ |
| Total | $\$ 27.09$ |
| Non-resident share per group | $52.6 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $68 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 8.67$ |
| Non-residents' \$ share | $\$ 18.42$ |
| Total | $\$ 27.09$ |
| Non-resident share per group | $68.0 \%$ |

## Analysis for Apparel/Clothing

Clothing and apparel is a smaller category ( 2.7 percent of taxable sales) but was also a category with a substantial surplus as a percentage of potential sales and large number of stores (67 establishments).

While potential sales were $\$ 12.84$ million, actual taxable sales were $\$ 27.09$ million. Extension assumes that in a category that is competitive as apparel and clothing, a reasonable number of residents would spend their dollars outside of the city, setting the capture rate at modest $68 \%$.

## Leisure Goods

## 2.9 percent of total taxable retail and service sales

The 38 firms in this merchandise group sell sporting goods, books, music, hobby items, fabrics, and toys.
(\$Millions)

| Actual taxable sales | $\$ 29.38$ |
| ---: | ---: |
| Potential sales | $\$ 16.10$ |
| $=\$$ variance | $\$ 13.28$ |
| $=$ as $\%$ of potential | $82.5 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 16.10$ |
| ---: | ---: |
| Surplus | $\$ 13.28$ |
| Total | $\$ 29.38$ |
| Non-resident share per group | $45.2 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $80 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 12.93$ |
| Non-Residents' \$ share | $\$ 16.45$ |
| Total | $\$ 29.38$ |
| Non-resident share per group | $56.0 \%$ |

## Analysis for Leisure Goods

Like the clothing category, leisure goods is performing far above expectations. The city is home to a number of specialty shops that reasonably pull in non-residents and residents alike with 38 firms. Like the clothing category, Extension set the non-resident share at over 50 percent ( $56.0 \%$ ), which highlights that the majority of spending in both clothing and leisure goods are from non-resident spending.

## General Merchandise Stores

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

The ten 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 | $\$ 114.67$ |
| ---: | ---: |
| potential sales | $\$ 87.64$ |
| $=\$$ variance | $\$ 27.03$ |
| $=$ as $\%$ of potential | $30.8 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
Total
Non-resident share per group
\$87.64
\$114.67
23.6\%

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $79 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 68.80$ |
| Non-Residents' \$ share | $\$ 45.87$ |
| Total | $\$ 114.67$ |
| Non-resident share per group | $40.0 \%$ |

## Analysis for General Merchandise Stores

The 10 firms in this category account for a large share of taxable sales (11.4\%) in Maple Grove. With a large surplus, one can expect a large number of non-residents commute into the city to purchase goods in this category, as do a large share of residents living in the community. The capture rate has been set at $79 \%$ accordingly, and Extension's analysis suggests non-residents account for $40 \%$ of total spending in this category.

## Miscellaneous Retail

## 2.7 percent of total taxable retail and service sales

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

| Actual taxable sales | $\$ 26.73$ |
| ---: | ---: |
| Potential sales | $\$ 24.47$ |
| $=\$$ variance | $\$ 2.26$ |
| $=$ as $\%$ of potential | $9.2 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 24.47$ |
| ---: | ---: |
| Surplus | $\$ 2.26$ |
| Total | $\$ 26.73$ |

Non-resident share per group 8.5\%

Analysis with Adjustments

| Capture rate of Maple Grove residents | $79 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 19.25$ |
| Non-residents' \$ share | $\$ 7.48$ |
| Total | $\$ 26.73$ |
| Non-resident share per group | $28.0 \%$ |

## Analysis for Miscellaneous Retail

This mix of retail that does not fall in other categories pulled in more traffic than it lost. With clear evidence of non-residents shopping in the community, Extension set the non-resident share at $28 \%$, which equated to the $79 \%$ capture rate of residents' shopping in this category..

## Amusement and Recreation

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

The 23 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 | $\$ 20.31$ |
| Potential sales | $\$ 27.70$ |
| $=\$$ variance | $(\$ 7.40)$ |
| $=$ as $\%$ of potential | $-26.7 \%$ |

Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 27.70$ |
| ---: | ---: |
| Surplus | $(\$ 7.40)$ |
| Total | $\$ 20.31$ |
| Non-resident share per group | $-36.4 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $62 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 17.26$ |
| Non-residents' \$ share | $\$ 3.05$ |
| Total | $\$ 20.31$ |
| Non-resident share per group | $15.0 \%$ |

## Analysis for Amusement and Recreation

Sales in this category account for a relatively minor of total taxable sales at $2.0 \%$ and is also one of the few categories in Maple Grove with a deficit. Non-resident spending was adjusted to $15.0 \%$ based on the assumption that residents in the community would purchase goods and services in this category based on convenience and proximity.

## Accommodations

## 2.0 percent of total taxable retail and service sales

These thirteen 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 | $\$ 20.19$ |
| ---: | ---: |
| Potential sales | $\$ 36.73$ |
| $=\$$ variance | $(\$ 16.54)$ |
| $=$ as $\%$ of potential | $-45.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 36.73$ |
| ---: | ---: |
| Surplus | $(\$ 16.54)$ |
| Total | $\$ 20.19$ |
| Non-resident share per group | $-81.9 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $5 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 2.02$ |
| Non-residents' \$ share | $\$ 18.17$ |
| Total | $\$ 20.19$ |
| 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

## 19.7 percent of total taxable retail and service sales

These 128 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 | $\$ 197.43$ |
| ---: | ---: |
| Potential sales | $\$ 150.85$ |
| $=\$$ variance | $\$ 46.58$ |
| $=$ as $\%$ of potential | $30.9 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
\$150.85
Surplus
\$46.58
Total
\$197.43
Non-resident share per group
23.6\%

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $65 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 98.71$ |
| Non-residents' \$ share | $\$ 98.71$ |
| Total | $\$ 197.43$ |

Non-resident share per group
50.0\%

## Analysis for Eating/Drinking Establishments

The eating and drinking category-which includes all bars, restaurants, and other food service-is a significant category with $\$ 197$ million in taxable sales, the highest of any category in Maple Grove. Based on the potential sales estimates, Maple Grove appears to bring in $30.9 \%$ more than expected. Extension significantly adjusted the non-resident share to 50 percent, to account for residents visiting Maple Grove for shopping, recreation and dining specifically. Furthermore, with such a large percentage of the population entering the city for work, it's reasonable to increase the non-resident share with the assumption that in-commuters for work will buy lunch while in town. The large cluster of 128 firms suggests a wide variety of options for residents as well, with a capture rate of $65 \%$. Residents who work and travel out of town for events and shopping would be expected to spend a significant number of their dollars outside the community as well.

## Repair and Maintenance

## 2.0 percent of total taxable retail and service sales

The 58 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 | $\$ 20.20$ |
| ---: | ---: |
| Potential sales | $\$ 24.24$ |
| $=\$$ variance | $(\$ 4.04)$ |
| $=$ as $\%$ of potential | $-16.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 24.24$ |
| ---: | ---: |
| Surplus | $(\$ 4.04)$ |
| Total | $\$ 20.20$ |
| Non-resident share per group | $-20.0 \%$ |

## Analysis with Adjustments

| Capture rate of Maple Grove residents | $75 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 18.18$ |
| Non-residents' \$ share | $\$ 2.02$ |
| Total | $\$ 20.20$ |

Non-resident share per group $\quad 10.0 \%$

## Analysis for Repair and Maintenance

At 2.0 percent of total taxable sales, repair and maintenance is a relatively small category in Maple Grove. 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 Maple Grove residents. Extension set the non-resident share at a modest 10 percent of total taxable sales in this category to account for some small portion of non-local sales.

## Personal Services/Laundry

1.3 percent of total taxable retail and service sales

The 131 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 | $\$ 12.87$ |
| ---: | ---: |
| Potential Sales | $\$ 14.72$ |
| $=\$$ variance | $(\$ 1.86)$ |
| $=$ as $\%$ of potential | $-12.6 \%$ |

Unadjusted Trade Area Analysis
\$14.72
Potential sales to residents
Surplus
Total

Non-resident share per group

## Analysis with Adjustments

Capture rate of Maple Grove residents

| Residents' \$ share | $\$ 11.58$ |
| ---: | ---: |
| Non-residents' \$ share | $\$ 1.29$ |
| Total | $\$ 12.87$ |

Non-resident share per group

## Analysis for Personal Services/Laundry

This category includes businesses that typically serve a local market, such as barbers, hair salons, and dry-cleaning operations. With a small deficit, Extension set the non-resident share at a modest 10 percent to account for nearby non-residents who use the services in this small category. This equates to a $79 \%$ capture rate for Maple Grove residents.

## 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 \% of total taxable retail and service sales

In Maple Grove
$\$ 153.1$
15.3\%

Analysis with Adjustments

|  | (\$Millions) |
| ---: | ---: |
| Residents' \$ share | $\$ 56.65$ |
| Non-residents' \$ share | $\$ 96.46$ |
| Total | $\$ 153.11$ |
| Non-resident share per group | $63 \%$ |

## 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 63 percent of these sales are to non-resident customers. The categories of sales are shown below:

| Category | Taxable Sales | \% non-local | \$ non-local |
| :--- | ---: | ---: | ---: |
| NONSTORE RETAILERS | $\$ 2,231,607$ | $90 \%$ | $\$ 2,008,446$ |
| INFO - PUBLISHING TO DATA PROCESSING | $\$ 20,431,439$ | $90 \%$ | $\$ 18,388,295$ |
| CREDIT INTERMEDIATION | $\$ 8,511$ | $60 \%$ | $\$ 5,107$ |
| INSURANCE CARRIERS | $\$ 233,123$ | $90 \%$ | $\$ 209,811$ |
| REAL ESTATE AND RENTAL SERVICES | $\$ 86,717,077$ | $60 \%$ | $\$ 52,030,246$ |
| PROF,SCIENTIFIC,TECH SERV | $\$ 15,786,908$ | $80 \%$ | $\$ 12,629,526$ |
| ADMIN, SUPPORT SERVICES | $\$ 23,989,099$ | $40 \%$ | $\$ 9,595,640$ |
| EDUCATIONAL SERVICES | $\$ 616,318$ | $25 \%$ | $\$ 154,080$ |
| HEALTH -AMBULATORY CARE + OTHERS | $\$ 2,740,847$ | $30 \%$ | $\$ 822,254$ |
| PERF ART, SPECTATOR SPRTS | $\$ 190,862$ | $50 \%$ | $\$ 95,431$ |
| RELIGIOUS,CIVIC,PROF ORGS | $\$ 162,829$ | $30 \%$ | $\$ 48,849$ |
| Total | $\$ 153,108,620$ | $63 \%$ | $\$ 95,987,684$ |

## 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 $\$ 274$ million in taxable sales, or about 27.6 percent of total taxable sales in Maple Grove. 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 |
| :--- | ---: | ---: | ---: |
| AGRICULTURE | $\$ 2,121,019$ | $90 \%$ | $\$ 1,908,917$ |
| CONSTRUCTION | $\$ 5,273,951$ | $60 \%$ | $\$ 3,164,371$ |
| MANUFACTURING | $\$ 53,318,495$ | $90 \%$ | $\$ 47,986,646$ |
| WHOLESALE | $\$ 31,625,432$ | $80 \%$ | $\$ 25,300,346$ |
| UNDESIGNATED/SUPPRESSED | $\$ 184,086,058$ | $60 \%$ | $\$ 110,451,635$ |
| Total | $\$ 274,303,936$ | $68 \%$ | $\$ 186,902,997$ |

Extension estimated that, overall, 68 percent of sales are to non-residents. This analysis assumes that some subcategories, such as manufacturing sell primarily ( 90 percent) to non-resident customers, whereas subcategories like construction split sales between resident and non-resident customers.

## Analysis with Adjustments

(\$Millions)
Residents' \$ share
\$88.46
Non-residents \$ share
\$187.97
Total
\$276.42
Non-resident share
68\%

## 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 A, B, C, and D). None of the example communities are in the Twin Cities metro, however, which limits the comparison value.

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 excludes the basic necessities of food and clothing. However, since a sales tax raises revenues from non-residents who shop in Maple Grove, 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 A: Taxable retail and service sales by communities that began collecting a local option sales tax between 1999-2006


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


Figure D: 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.

## 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. It is the product of local 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 Maple Grove 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 overreport 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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[^1]:    Source: Minnesota Department of Revenue

