## Local Option Sales Tax Analysis for Rochester, MN

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## estimated contributions of residents and non-residents to a local option sales tax

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## SUMMARY OF FINDINGS

University of Minnesota Extension conducted a study to estimate the proportion of sales proceeds attributed to both Rochester 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 $43.3 \%$ of taxable sales subject to a local option sales tax (LOST).

In 2019, total taxable sales in Rochester were $\$ 1.88$ billion and the city collected $\$ 11,785,594$ in sales tax and $\$ 1,142,702$ in use tax proceeds from its $0.5 \%$ local option sales tax. An additional $0.25 \%$ DMC tax brought in $\$ 5,892,797$ in sales tax proceeds and $\$ 571,351$ in use tax proceeds. The DMC tax is not the subject of this report, which focuses solely on the renewal of the current $0.5 \%$ local option sales tax.

With $43 \%$ of sales derived from non-resident spending, Extension estimated that Rochester residents accounted for $\$ 1.06$ billion of the total $\$ 1.88$ billion in taxable sales. Extension estimated that Rochester residents would have contributed $\$ 6.68$ million in sales taxes, and non-residents contributed $\$ 5.11$ million with the remaining $\$ 1.14$ million garnered from businesses paying use tax in 2019. Based on these estimates, each Rochester resident contributed, on average, $\$ 55.66$ 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 Rochester 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 Rochester 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 Rochester's economy helped frame the analysis for the different merchandise categories:

- Rochester is the major regional center in Southeast Minnesota. As such, the city has a large number of stores and store types that retain residents as shoppers and pulls in traffic from the region.
- Due to the strength of Rochester as a shopping center, residents leave the community infrequently for goods and services.
- Rochester pulls in over 45,000 wage earners for work from other communities (Figure 1). Extension assumes that these incommuters often shop for goods and services near where they work.

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


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

Table 1 shows the estimated percentage of sales tax proceeds-across all merchandise categoriesattributed 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 56.7 percent of all 2019 tax proceeds derived from taxable sales, and the remaining 43 percent are attributed to nonresidents.

Table 1: Estimated 2019 Taxable Sales Subject to LOST

|  | Tax Proceeds from <br> Taxable Sales | Percent of Sales |
| :--- | ---: | ---: |
| City residents | $\$ 6,678,051$ | $56.7 \%$ |
| Non-residents | $\$ 5,107,543$ | $43.3 \%$ |

Figure 2: Total taxable sales in Rochester from 2009-2019 (millions)


Source: Minnesota Department of Revenue

The total taxable sales in the city steadily increased from 2009 to 2019 (Figure 2). Total taxable sales were $\$ 1.38$ billion in 2009 and $\$ 1.88$ billion 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 3 and Table 2). This model estimated total tax proceeds at the $0.5 \%$ rate in 2020 to have been between an upper limit of $\$ 11.8$ million and a lower limit of $\$ 12.7$ million. In reality, tax proceeds as reported by MN Revenue were lower at $\$ 11.4$ million, certainly affected by a change in spending due to the pandemic. 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 3: Forecast for Tax Proceeds based on Past Trends


Table 2: Forecast with Upper and Lower Bound 2020-23

|  | Forecast | Lower Bound | Upper Bound |
| :--- | ---: | ---: | ---: |
| 2020 | $\$ 11,785,594$ | $\$ 11,785,594$ | $\$ 11,785,594$ |
| 2021 | $\$ 12,268,830$ | $\$ 11,804,901$ | $\$ 12,732,759$ |
| 2022 | $\$ 12,619,109$ | $\$ 12,140,789$ | $\$ 13,097,428$ |
| 2023 | $\$ 12,969,387$ | $\$ 12,476,987$ | $\$ 13,461,787$ |

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 $\$ 1.14$ million in use (not sales) tax proceeds from its $0.5 \%$ local option sales tax.

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 Rochester.

## 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 Rochester 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 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, and a focus group with the City of Rochester, also helped inform adjustments for each category.

Potential sales calculations are based on average statewide spending by merchandise category and the population of the city, then adjusted by the index of income for Olmstead County. Specifically, potential sales result from city 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

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:
$(\mathrm{T} \div \mathrm{PMn}) \times \mathrm{PR} \times(\mathrm{YO} \div \mathrm{YMn})=$ potential sales
T = Total Minnesota taxable sales for a merchandise category

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

PR $=2019$ population of Rochester $(119,969)$

YO = Per capita income of Olmstead
County residents $(\$ 59,176)$

YMn = Per capita income of Minnesota residents $(\$ 58,834)$ "Analysis with Adjustments" lists the final estimate of sales generated by non-residents. A rationale for adjustments and conclusions is also included.

## TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

The following pages provide detailed analysis by merchandise category.

## Vehicles and Parts

## 5.2 percent of total taxable retail and service sales

The 59 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 | $\$ 83.79$ |
| ---: | ---: |
| -Potential sales | $\$ 68.89$ |
| $=\$$ variance | $\$ 14.90$ |
| $=$ as $\%$ of potential | $21.6 \%$ |

## Unadjusted Trade Area Analysis

Potential taxable sales to residents
\$68.89
Surplus
\$14.90
Total
\$83.79
Surplus percentage
17.8\%

## Analysis with Adjustments

| Capture rate of Rochester residents | $90 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 62.00$ |
| Non-Residents' \$ share | $\$ 21.78$ |
| Total | $\$ 83.79$ |
| Non-resident share per group | $26.0 \%$ |

## Analysis for Vehicles and Parts

Extension's trade area analysis estimates that the city brings in nearly $\$ 15$ million more than expected from the potential sales calculation. The city focus group shared that some bigger ticket vehicle sales such as RVs or trailers are outside of the city limits and would pull some resident traffic out of the city. Extension set the capture rate at $90 \%$ to allow for this out-shopping for destination products outside of the city. At that level, non-residents accounted for $26 \%$ of all sales

## Furniture Stores

## 2.9 percent of total taxable retail and service sales

These 35 stores sell furniture, beds, carpeting, window coverings, appliances, kitchenware, and wood-burning stoves.
(\$Millions)
Actual taxable sales \$46.78
Potential sales $\$ 31.95$
$=\$$ variance $\$ 14.83$
$=$ as $\%$ of potential $46.4 \%$

Unadjusted Trade Area Analysis
Potential sales to residents
\$31.95
Surplus
\$14.83
Total \$46.78
Non-resident share per group 31.7\%

## Analysis with Adjustments

| Capture rate of Rochester residents | $91 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 29.00$ |
| Non-Residents' \$ share | $\$ 17.78$ |
| Total | $\$ 46.78$ |
| Non-resident share per group | $38.0 \%$ |

## Analysis for Furniture Stores

Furniture stores are a relatively minor category for Rochester at 2.9\% of total taxable sales. Extension's analysis suggests that the community certainly pulls in more traffic than expected in this category. Extension set the non-resident spending at $38 \%$, which left the capture rate of local residents spending in this category at a conservative $91 \%$. This is similar many of the other categories with strong surpluses in Rochester. A local capture rate in the low 90's allows for some purchasing outside the community, whether via weekend getaways to the Twin Cities or purchases of goods while traveling.

## Electronics and Appliances

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

These 38 establishments primarily include household-type appliances, sewing machines, cameras, computers, and other electronic goods.
(\$Millions)

| Actual taxable sales | $\$ 55.34$ |
| ---: | ---: |
| -Potential sales | $\$ 35.10$ |
| $=\$$ variance | $\$ 20.24$ |
| $=$ as $\%$ of potential | $57.7 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
Total
\$55.34
Non-resident share per group
36.6\%

## Analysis with Adjustments

| Capture rate of Rochester residents | $91 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 32.10$ |
| Non-residents' \$ share | $\$ 23.24$ |
| Total | $\$ 55.34$ |
| Non-resident share per group | $42.0 \%$ |

## Analysis for Electronics and Appliances

Like furniture stores, electronics and appliance stores are also a relatively minor category for Rochester at $3.4 \%$ of total taxable sales. Also similar to furniture stores, Extension's analysis suggests that the community certainly pulls in significantly more traffic than expected in this category. Extension set the non-resident spending at $42 \%$, which left the capture rate of local residents spending in this category at a conservative $91 \%$. This is similar many of the other categories with strong surpluses in Rochester. A local capture rate in the low 90's allows for some purchasing outside the community, whether via weekend getaways to the Twin Cities or purchases of goods while traveling.

## Building Materials

10.4 percent of total taxable retail and service sales*

These 32 establishments sell lumber, hardware, paint, wallpaper, tile, hardwood floors, roofing, fencing, ceiling fans, lawn equipment, and garden items.
(\$Millions)
Actual taxable sales $\$ 168.58$
Potential sales $\$ 118.79$
$=\$$ variance $\$ 49.79$
$=$ as $\%$ of potential $41.9 \%$

## Unadjusted Trade Area Analysis

Potential sales to residents
\$118.79
Surplus
\$49.79
Total
\$168.58
Non-resident share per group $\quad 29.5 \%$

## Analysis with Adjustments

| Capture rate of Rochester residents | $92 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 109.58$ |
| Non-residents' \$ share | $\$ 59.00$ |
| Total | $\$ 168.58$ |
| Non-resident share per group | $35.0 \%$ |

## Analysis for Building Materials

Like in many communities, building materials is relatively large category of retail sales in Rochester, accounting for over $10 \%$ of all taxable sales. Extension's analysis suggests that this category captures a large number of Rochester residents at $92 \%$ 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 $35 \%$ of sales.

## Food and Groceries

## 6.7 percent of total taxable retail and service sales

The 75 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 | $\$ 108.54$ |
| ---: | ---: |
| - Potential sales | $\$ 88.12$ |
| $=\$$ variance | $\$ 20.42$ |
| $=$ as \% of potential | $23.2 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 88.12$ |
| ---: | ---: |
| Surplus | $\$ 20.42$ |
| Total | $\$ 108.54$ |
| Non-resident share per group | $18.8 \%$ |

## Analysis with Adjustments

| Capture rate of Rochester residents | $91 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 80.32$ |
| Non-residents' \$ share | $\$ 28.22$ |
| Total | $\$ 108.54$ |
| Non-resident share per group | $26.0 \%$ |

## Analysis for Food and Groceries

Extension's trade area analysis estimated a sizable surplus in the food and liquor category (6.7\% of taxable sales). Extension set the non-resident share at $26 \%$, which translates to a $91 \%$ capture rate of Rochester residents.

## Health and Personal Items

1.3 percent of total taxable retail and service sales

Stores selling prescription drugs, food supplements, vision supplies, cosmetics, and hearing aids are among the 53 shops included in this merchandise group.
(\$Millions)

| Actual taxable sales | $\$ 21.53$ |
| ---: | ---: |
| Potential sales | $\$ 15.10$ |
| $=\$$ variance | $\$ 6.43$ |
| $=$ as $\%$ of potential | $42.6 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 15.10$ |
| ---: | ---: |
| Surplus | $\$ 6.43$ |
| Total | $\$ 21.53$ |
| Non-resident share per group | $29.9 \%$ |

Analysis with Adjustments

| Capture rate of Rochester residents | $90 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 13.56$ |
| Non-residents' \$ share | $\$ 7.97$ |
| Total | $\$ 21.53$ |
| Non-resident share per group | $37.0 \%$ |

## Analysis for Health and Personal Items

Surprisingly this is a minor category in Rochester, accounting for only $1.3 \%$ 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 $90 \%$. At this rate, the surplus equates to a $37 \%$ non-resident share.

## Gas/Convenience Stores

## 1.8 percent of total taxable retail and service sales

This merchandise group covers 26 retailers selling convenience items at a store that also sells fuel.
(\$Millions)

| Actual taxable sales | $\$ 29.28$ |
| ---: | ---: |
| -Potential sales | $\$ 30.63$ |
| $=\$$ variance | $(\$ 1.35)$ |
| $=$ as $\%$ of potential | $-4.4 \%$ |

## Unadjusted Trade Area Analysis

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

Analysis with Adjustments

| Capture rate of Rochester residents | $86 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 26.35$ |
| Non-residents' \$ share | $\$ 2.93$ |
| Total | $\$ 29.28$ |
| Non-resident share per group | $10.0 \%$ |

## Analysis for Gas/Convenience Stores

Rochester has a slight deficit in the gas and convenience store category. Sales are $\$ 1.4$ million less than the potential sales calculations. In this category, Extension set the non-resident share a $10 \%$ to account for some amount of non-resident spending when traveling to Rochester for medical services and those traveling through on major thoroughfares. The focus group also suggested that there were large gas and convenience operations outside of the city on highways approaching the city which may be capturing in-commuter and visitor traffic and holding the city back from a surplus.

## Apparel/Clothing

2.0 percent of total taxable retail and service sales

This merchandise group includes $\mathbf{1 0 0}$ stores selling new clothing and accessories, jewelry, shoes, bridal items, clocks, and luggage.
(\$Millions)

| Actual taxable sales | $\$ 31.78$ |
| ---: | ---: |
| Potential sales | $\$ 17.55$ |
| $=\$$ variance | $\$ 14.23$ |
| $=$ as $\%$ of potential | $81.1 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 17.55$ |
| ---: | ---: |
| Surplus | $\$ 14.23$ |
| Total | $\$ 31.78$ |
| Non-resident share per group | $44.8 \%$ |

Analysis with Adjustments

| Capture rate of Rochester residents | $94 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 16.53$ |
| Non-residents' \$ share | $\$ 15.26$ |
| Total | $\$ 31.78$ |
| Non-resident share per group | $48.0 \%$ |

## Analysis for Apparel/Clothing

Extension's trade area analysis estimates that the city is well above potential sales and a large percentage of resident spending is retained at a $94 \%$ capture rate. The rationale is that with 100 stores operating in Rochester, a large product and store mix will greatly retain local shoppers. At this conservative a capture rate, non-residents still account for $48 \%$ of taxable sales.

## Leisure Goods

## 4.0 percent of total taxable retail and service sales

The 63 firms in this merchandise group sell sporting goods, books, music, hobby items, fabrics, and toys.
(\$Millions)

| Actual taxable sales | $\$ 64.26$ |
| ---: | ---: |
| Potential sales | $\$ 22.01$ |
| $=\$$ variance | $\$ 42.25$ |
| $=$ as \% of potential | $192.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 22.01$ |
| ---: | ---: |
| Surplus | $\$ 42.25$ |
| Total | $\$ 64.26$ |
| Non-resident share per group | $65.8 \%$ |

## Analysis with Adjustments

| Capture rate of Rochester residents | $91 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 19.92$ |
| Non-Residents' \$ share | $\$ 44.34$ |
| Total | $\$ 64.26$ |
| Non-resident share per group | $69.0 \%$ |

## Analysis for Leisure Goods

Leisure goods clearly are attracting a large contingent of non-residents to Rochester with $\$ 42$ million more in taxable sales in 2019 than expected by the potential sales calculation. With such a large surplus, Extension set the non-resident share at $69 \%$ of taxable sales in the category.

## General Merchandise Stores

16.9 percent of total taxable retail and service sales

The 21 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 | $\$ 274.21$ |
| ---: | ---: |
| potential sales | $\$ 119.81$ |
| $=\$$ variance | $\$ 154.40$ |
| $=$ as $\%$ of potential | $128.9 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 119.81$ |
| ---: | ---: |
| Surplus | $\$ 154.40$ |
| Total | $\$ 274.21$ |
| Non-resident share per group | $56.3 \%$ |

## Analysis with Adjustments

| Capture rate of Rochester residents | $92 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 109.68$ |
| Non-Residents' \$ share | $\$ 164.53$ |
| Total | $\$ 274.21$ |

Non-resident share per group 60.0\%

## Analysis for General Merchandise Stores

The 21 firms in this category, dominated by big-box stores like Walmart and Target, accounted for a large share of taxable sales (16.9\%) in Rochester. Extension set the non-resident share at $60 \%$. At this proportion of non-resident spending, the capture rate of Rochester residents stands at $92 \%$. This is similar many of the other categories with strong surpluses in Rochester. A local capture rate in the low 90's allows for some purchasing outside the community, whether via weekend getaways to the Twin Cities or purchases of goods while traveling.

## Miscellaneous Retail

## 3.3 percent of total taxable retail and service sales

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

| Actual taxable sales | $\$ 53.66$ |
| ---: | ---: |
| Potential sales | $\$ 33.45$ |
| $=\$$ variance | $\$ 20.21$ |
| $=$ as $\%$ of potential | $60.4 \%$ |

Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 33.45$ |
| ---: | ---: |
| Surplus | $\$ 20.21$ |
| Total | $\$ 53.66$ |
| Non-resident share per group | $37.7 \%$ |

## Analysis with Adjustments

| Capture rate of Rochester residents | $90 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 30.05$ |
| Non-residents' \$ share | $\$ 23.61$ |
| Total | $\$ 53.66$ |
| Non-resident share per group | $44.0 \%$ |

## Analysis for Miscellaneous Retail

Miscellaneous retail is also clearly attracting a large contingent of non-residents to Rochester with $\$ 20.2$ million more in taxable sales in 2019 than expected by the potential sales calculation. With such a large surplus, Extension set the non-resident share at $44 \%$ of taxable sales in the category.

## Amusement and Recreation

## 1.7 percent of total taxable retail and service sales

The 40 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 | $\$ 27.91$ |
| Potential sales | $\$ 37.87$ |
| $=\$$ variance | $(\$ 9.97)$ |
| $=$ as $\%$ of potential | $-26.3 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
Total
\$27.91
Non-resident share per group $-35.7 \%$

Analysis with Adjustments

| Capture rate of Rochester residents | $69 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 25.95$ |
| Non-residents' \$ share | $\$ 1.95$ |
| Total | $\$ 27.91$ |
| Non-resident share per group | $7.0 \%$ |

## 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 7\%. 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

## 8.5 percent of total taxable retail and service sales

These 61 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 | $\$ 137.43$ |
| ---: | ---: |
| Potential sales | $\$ 50.21$ |
| $=\$$ variance | $\$ 87.22$ |
| $=$ as $\%$ of potential | $173.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 50.21$ |
| ---: | ---: |
| Surplus | $\$ 87.22$ |
| Total | $\$ 137.43$ |

Non-resident share per group 63.5\%
Analysis with Adjustments

| Capture rate of Rochester residents | $11 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 5.50$ |
| Non-residents' \$ share | $\$ 131.94$ |
| Total | $\$ 137.43$ |
| Non-resident share per group | $96.0 \%$ |

## 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 $96 \%$ of sales to allow for resident and local business spending related to events, business meeting expenses, facility charges, and 'staycations.'

## Eating/Drinking Establishments

## 19.6 percent of total taxable retail and service sales

These 289 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.

| Actual taxable sales | $\$ 317.97$ |
| ---: | ---: |
| Potential sales | $\$ 206.23$ |
| $=\$$ variance | $\$ 111.75$ |
| $=$ as $\%$ of potential | $54.2 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
\$206.23
Surplus
\$111.75
Total
\$317.97
Non-resident share per group
35.1\%

## Analysis with Adjustments

| Capture rate of Rochester residents | $91 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 187.60$ |
| Non-residents' \$ share | $\$ 130.37$ |
| Total | $\$ 317.97$ |

Non-resident share per group
41.0\%

## Analysis for Eating/Drinking Establishments

The eating and drinking category-which includes all bars, restaurants, and other food serviceaccounted for $\$ 318$ million in taxable sales, the highest of any category in Rochester. Based on the potential sales estimates, Rochester appears to bring in over $\$ 100$ million more than expected. Extension adjusted the non-resident share up to $41 \%$, to account for residents dining out when traveling or for weekend getaways. In this context, a Rochester resident capture rate of $91 \%$ stands to reason.

## Repair and Maintenance

## 2.1 percent of total taxable retail and service sales

The 111 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 | $\$ 33.96$ |
| ---: | ---: |
| Potential sales | $\$ 33.13$ |
| $=\$$ variance | $\$ 0.82$ |
| $=$ as $\%$ of potential | $2.5 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 33.13$ |
| ---: | ---: |
| Surplus | $\$ 0.82$ |
| Total | $\$ 33.96$ |

Non-resident share per group $\quad 2.4 \%$

## Analysis with Adjustments

| Capture rate of Rochester residents | $88 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 29.20$ |
| Non-residents' \$ share | $\$ 4.75$ |
| Total | $\$ 33.96$ |
| Non-resident share per group | $14.0 \%$ |

## Analysis for Repair and Maintenance

At 2.1\% of total taxable sales, repair and maintenance is a relatively small category in Rochester. The small surplus that exists in this category suggests some small amount of non-residents elect to purchase goods and services in this category. Extension set the non-resident share at a modest 14\% of total taxable sales in this category, which translates to an $88 \%$ Rochester resident capture rate.

## Personal Services/Laundry

1.0 percent of total taxable retail and service sales

The 219 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 | $\$ 16.34$ |
| ---: | ---: |
| Potential Sales | $\$ 20.13$ |
| $=\$$ variance | $(\$ 3.79)$ |
| $=$ as $\%$ of potential | $-18.8 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents
Surplus
Total

Non-resident share per group
Non-resident share per group

## Analysis with Adjustments

Capture rate of Rochester residents

| Residents' \$ share | $\$ 15.52$ |
| ---: | ---: |
| Non-residents' \$ share | $\$ 0.82$ |
| Total | $\$ 16.34$ |
| 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 $5 \%$. 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 \% of total taxable retail and service sales In Rochester

## Analysis with Adjustments

| Residents' \$ share | $\$ 94.19$ |
| ---: | ---: |
| Non-residents' \$ share | $\$ 58.01$ |
| Total | $\$ 152.2$ |
| Non-resident share per group | $38 \%$ |

## 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 $38 \%$ 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 | $\$ 4,963,887$ | $40 \%$ | $\$ 1,985,555$ |
| 511 INFO -PUBLISHING INDUSTRY | $\$ 10,214$ | $50 \%$ | $\$ 5,107$ |
| 512 INFO -MOVIES, MUSIC IND | $\$ 9,747,273$ | $60 \%$ | $\$ 5,848,364$ |
| 517 INFO -TELECOMMUNICATIONS | $\$ 15,701,979$ | $10 \%$ | $\$ 1,570,198$ |
| 519 INFO -OTHER SERVICES | $\$ 3,035,271$ | $30 \%$ | $\$ 910,581$ |
| 522 CREDIT INTERMEDIATION | $\$ 391,616$ | $20 \%$ | $\$ 78,323$ |
| 523 SECURITIES, COMMODITIES | $\$ 10,837$ | $40 \%$ | $\$ 4,335$ |
| 524 INSURANCE CARRIERS | $\$ 0$ | $10 \%$ | $\$ 0$ |
| 531 REAL ESTATE | $\$ 14,366,474$ | $40 \%$ | $\$ 5,746,590$ |
| 532 RENTAL, LEASING SERVICES | $\$ 23,139,583$ | $50 \%$ | $\$ 11,569,792$ |
| 541 PROF,SCIENTIFIC,TECH SERV | $\$ 19,934,940$ | $60 \%$ | $\$ 11,960,964$ |
| 561 ADMIN, SUPPORT SERVICES | $\$ 38,922,641$ | $10 \%$ | $\$ 3,892,264$ |
| 611 EDUCATIONAL SERVICES | $\$ 964,422$ | $20 \%$ | $\$ 192,884$ |
| 621 HEALTH -AMBULATORY CARE | $\$ 10,953,044$ | $80 \%$ | $\$ 8,762,435$ |
| 622 HEALTH -HOSPITALS | $\$ 4,354,518$ | $80 \%$ | $\$ 3,483,614$ |
| 623 HEALTH -NURSING,HOME CARE | $\$ 206,121$ | $10 \%$ | $\$ 20,612$ |
| 624 HEALTH -SOCIAL ASSISTANCE | $\$ 771,091$ | $20 \%$ | $\$ 154,218$ |
| 711 PERF ART, SPECTATOR SPRTS | $\$ 1,028,967$ | $40 \%$ | $\$ 411,587$ |
| Total | $\$ 148,502,878$ | $38 \%$ | $\$ 56,597,423$ |

## 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 $\$ 253.8$ million in taxable sales, or $15.6 \%$ of total taxable sales in Rochester. 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 | $\$ 8,494,290$ | $50 \%$ | $\$ 4,247,145$ |
| MANUFACTURING | $\$ 39,980,273$ | $80 \%$ | $\$ 31,984,218$ |
| TRANSPORTATION | $\$ 98,186,025$ | $30 \%$ | $\$ 29,455,808$ |
| WHOLESALE | $\$ 2,337,819$ | $40 \%$ | $\$ 935,128$ |
| UNDESIGNATED/SUPPRESSED | $\$ 104,799,898$ | $10 \%$ | $\$ 10,479,990$ |
| Total | $\$ 253,798,305$ | $30 \%$ | $\$ 77,102,288$ |

Extension estimated that, overall, $30 \%$ 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
Non-residents \$ share
Total
\$167.70

Non-resident share
$\$ 77.10$
\$253.80
30\%

## 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 $0.5 \%$ local option sales tax is offered below (refer to Figures A1 and A2 and Tables A1 and A2).

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 Rochester, 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 A1: Taxable retail and service sales by communities that began collecting a local option sales tax from 1999 to 2006


Table A1: 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 A2: Taxable retail and service sales by communities that began collecting a local option sales tax between 2011-2012


Table A2: Data table for example communities, taxable retail and service sales (in millions)

| Town Name | 2015 <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). 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 Rochester 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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