## Local Option Sales Tax Analysis for Beltrami County, MN

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

Authored by Eric King

## est. <br>  BELTRAMI county

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

## January 2023

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Beltrami County

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## SUMMARY OF FINDINGS

University of Minnesota Extension conducted a study to estimate the proportion of sales proceeds attributed to both Beltrami County 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 50 percent of taxable sales subject to a local option sales tax (LOST).

In 2019, total taxable sales in Beltrami County were $\$ 607$ million. MN Revenue analysts estimate that approximately all $\$ 607$ million would be subject to a LOST. With 50 percent of sales derived from non-resident spending, Extension estimated that Beltrami County residents spent $\$ 303$ million of the total $\$ 607$ million in taxable sales subject to a LOST.

If the tax were in place in 2019, an additional $0.5 \%$ would garner $\$ 3.47$ million in tax proceeds, equal to the $0.5 \%$ local tax already in place. Based on these estimates, each Beltrami County resident would have paid, on average, an additional $\$ 37.41$ 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 Beltrami County 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 Beltrami County residents. For each merchandise group, the estimates for two types of purchaserscounty 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 Beltrami County's economy helped frame the analysis for the different merchandise categories:

- Beltrami County has a sizeable portion of visitors and second homeowners who buy goods and services in the county.
According to US Census, 27\% of all housing units are seasonal (American Community Survey, 2020)
- Beltrami County has a significant proportion of its residents leave for work and also imports a substantial number of workers at almost a 1:1 exchange (Figure 1). In this dynamic, commuters often shop for goods and services near where they work.

Figure 1: Beltrami County worker in-flow and out-flow


Inflow and outflow of wage earners. Source: 2019 U.S. Census Bureau On-The-Map

Figure 2 shows the estimated percentage of sales-across all merchandise categories- attributed to both residents and non-residents in 2019. These estimates are based on the adjusted analysis to more accurately reflect the county's economic and consumption circumstances. Based on these findings, Extension estimates county residents represent 50 percent of all taxable retail and service sales subject to the tax (\$303 million), and the remaining 50 percent ( $\$ 304$ million) are attributed to non-residents.

Figure 2: Estimated 2019 Taxable Sales Subject to LOST

|  | Taxable Sales | Percent of Sales |
| :--- | ---: | ---: |
| County residents | $\$ 303,104,787.25$ | $49.9 \%$ |
| Non-residents | $\$ 304,209,336.75$ | $50.1 \%$ |

Figure 3: Total taxable sales in Beltrami County from 2010-2019


Source: Minnesota Department of Revenue

The total taxable sales in the county have steadily grown over the past 10 years (Figure 3). Total taxable sales were $\$ 414$ million in 2010 and $\$ 607$ million in 2019. This provides some sense of the stability of a LOST going forward.

Extension forecasted taxable sales subject to the local tax for 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 4 and 5). This model estimates total tax proceeds in 2022 to be between an upper limit of $\$ 4.5$ million and a lower limit of $\$ 4.2$ 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 for Tax Proceeds based on Past Trends


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

|  | Forecast | Lower Bound | Upper Bound |
| :--- | ---: | ---: | ---: |
| 2021 | $\$ 4,255,764$ | $\$ 4,255,764$ | $\$ 4,255,764$ |
| 2022 | $\$ 4,353,935$ | $\$ 4,180,270$ | $\$ 4,527,600$ |
| 2023 | $\$ 4,567,610$ | $\$ 4,388,558$ | $\$ 4,746,661$ |
| 2024 | $\$ 4,781,285$ | $\$ 4,596,962$ | $\$ 4,965,607$ |

Use taxes also affect the tax proceeds from a local option sales tax. Use taxes derive from businesses located in the city 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 2021, the county received $\$ 4,964,667$ in use (not sales) tax proceeds. It would have garnered $\$ 361,067$ for a LOST at the 1.0 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).

## 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 Beltrami County 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 Beltrami County. Specifically, potential sales result from county population, state per capita taxable sales, and the index of income (see sidebar and Appendix B).

The following section details the initial and adjusted trade area calculations for all merchandise categories. The sections labeled "Analysis with Adjustments" lists the final estimate of sales generated by non-residents. A rationale for adjustments and conclusions is also included.
Potential sales estimate the dollar
amounts for purchases made by local
residents if local residents spend as much
as the average Minnesota resident.
Potential sales are calculated by the
following formula:
(T $\div$ PMn) x MG x (YCC $\div$ YMn) = potential
sales
T = Total Minnesota taxable sales for a
merchandise category
PMn = 2019 population of Minnesota
(5,639,632)
PM = 2019 population of Beltrami County
(45,203)
YHC = Per capita income of Beltrami
County residents (\$46,020)
YMn = Per capita income of Minnesota
residents (\$58,834)

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

Potential sales are calculated by the following formula:
$(T \div P M n) \times M G \times(Y C C \div Y M n)=$ potential sales

T = Total Minnesota taxable sales for a merchandise category

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

PM $=2019$ population of Beltrami County $(45,203)$

YHC = Per capita income of Beltrami County residents $(\$ 46,020)$
residents $(\$ 58,834)$

## TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

The following pages provide detailed analysis by merchandise category.

## Vehicles and Parts

## 8.9 percent of total taxable retail and service sales

The 37 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 | $\$ 43.22$ |
| ---: | ---: |
| -Potential sales | $\$ 19.60$ |
| $=\$$ variance | $\$ 23.62$ |
| $=$ as \% of potential | $120.5 \%$ |

## Unadjusted Trade Area Analysis

| Potential taxable sales to residents | $\$ 19.60$ |
| ---: | ---: |
| Surplus | $\$ 23.62$ |
| Total | $\$ 43.22$ |
| Non-resident share per group | $54.6 \%$ |

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $88 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 17.29$ |
| Non-Residents' \$ share | $\$ 25.93$ |
| Total | $\$ 43.22$ |
| Non-resident share per group | $60.0 \%$ |

## Analysis for Vehicles and Parts

At $8.9 \%$ of total taxable sales, vehicles and parts are a significant category for Beltrami and one that is clearly brining in sales from outside the county with over $\$ 20$ million more than expected over potential sales. Extension estimates that $60 \%$ of sales come from non-residents. The local business community of the county verified that there a number of these types of dealers operating throughout the county during a preliminary review of LOST Analysis results.

## Furniture Stores

## 2.1 percent of total taxable retail and service sales

These 15 businesses sell furniture, beds, carpeting, window coverings, appliances, kitchenware, and wood-burning stoves.
(\$Millions)

| Actual taxable sales | $\$ 10.37$ |
| ---: | ---: |
| Potential sales | $\$ 9.09$ |
| $=\$$ variance | $\$ 1.28$ |
| $=$ as $\%$ of potential | $14.1 \%$ |

Unadjusted Trade Area Analysis
Potential sales to residents $\$ 9.09$
Surplus \$1.28
Total \$10.37
Non-resident share per group $12.3 \%$

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $88 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 7.99$ |
| Non-Residents' \$ share | $\$ 2.39$ |
| Total | $\$ 10.37$ |
| Non-resident share per group | $23.0 \%$ |

## Analysis for Furniture Stores

Furniture stores are a relatively minor category for Beltrami County at 2.1 percent of total taxable sales. Extension's analysis suggests the community is near breakeven in this category with a slight surplus. Extension set the non-resident spending at $23 \%$ to account for Beltrami County residents' spending on furniture outside the community since furniture is a destination good. With $23 \%$ of sales going to non-residents, the capture rate of local residents spending in this category is just under 90\%. The local business community verified that in general local residents of Bemidji may travel to larger communities like St. Cloud, Moorhead/Fargo, and the Twin Cities to make this type of purchase.

## Electronics and Appliances

1.0 percent of total taxable retail and service sales*

These 13 businesses primarily include household-type appliances, sewing machines, cameras, computers, and other electronic goods.
(\$Millions)

| Actual taxable sales | $\$ 4.99$ |
| ---: | ---: |
| -Potential sales | $\$ 9.99$ |
| $=\$$ variance | $(\$ 4.99)$ |
| $=$ as $\%$ of potential | $-50.0 \%$ |

## Unadjusted Trade Area Analysis

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

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $47 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 4.74$ |
| Non-residents' \$ share | $\$ 0.25$ |
| Total | $\$ 4.99$ |

Non-resident share per group $5.0 \%$

## Analysis for Electronics and Appliances

Extension's trade area analysis estimates that the county falls far short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category. As a micropolitan hub for North Central Minnesota, Beltrami County may be drawing a limited number of regional residents who reside in adjacent counties who would qualify as nonresidents.

## Building Materials

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

These 20 businesses sell lumber, hardware, paint, wallpaper, tile, hardwood floors, roofing, fencing, ceiling fans, lawn equipment, and garden items.
(\$Millions)

| Actual taxable sales | $\$ 94.46$ |
| ---: | ---: |
| Potential sales | $\$ 33.80$ |
| $=\$$ variance | $\$ 60.66$ |
| $=$ as $\%$ of potential | $179.5 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 33.80$ |
| ---: | ---: |
| Surplus | $\$ 60.66$ |
| Total | $\$ 94.46$ |

$$
\text { Non-resident share per group } \quad 64.2 \%
$$

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 30.23$ |
| Non-residents' \$ share | $\$ 64.24$ |
| Total | $\$ 94.46$ |

$$
\text { Non-resident share per group } \quad 68.0 \%
$$

## Analysis for Building Materials

At just over 19\%, Building Materials is the largest category of sales and revenue in Beltrami County. Extension's analysis suggests that this category captures a large number of Beltrami County residents at $89 \%$ capture rate. This conclusion is based on the assumption that such a strong building material presence would capture local dollars and bulky heavy building materials are often best purchased close to home. At this capture rate, non-residents still account for a significant $68 \%$ of sales to account for such a large surplus.

## Food and Groceries

## 6.4 percent of total taxable retail and service sales

The 32 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 | $\$ 30.99$ |
| ---: | ---: |
| Potential sales | $\$ 25.08$ |
| $=\$$ variance | $\$ 5.91$ |
| $=$ as $\%$ of potential | $23.6 \%$ |

Unadjusted Trade Area Analysis
Potential sales to residents
\$25.08
Surplus $\$ 5.91$
Total
\$30.99
Non-resident share per group
19.1\%

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $90 \%$ |
| ---: | ---: |
| Residents' $\$$ share | $\$ 22.62$ |
| Non-residents' $\$$ share | $\$ 8.37$ |
| Total | $\$ 30.99$ |
| Non-resident share per group | $27.0 \%$ |

## Analysis for Food and Groceries

Extension's trade area analysis estimated a surplus in the food and liquor category in this category. Extension set the non-resident share at $27 \%$, primarily to allow for some reasonable portion of outshopping by Beltrami County residents; $90 \%$ is a reasonable and conservative capture rate of local resident spending. As a micropolitan hub for North Central Minnesota, Beltrami County may be drawing a limited number of regional residents who reside in adjacent counties who would qualify as non-residents, but work in Bemidji or other communities located in the county.

## Health and Personal Items

## 1.4 percent of total taxable retail and service sales

Stores selling prescription drugs, food supplements, vision supplies, cosmetics, and hearing aids are among the 23 businesses included in this merchandise group.
(\$Millions)

| Actual taxable sales | $\$ 6.66$ |
| ---: | ---: |
| Potential sales | $\$ 4.30$ |
| $=\$$ variance | $\$ 2.36$ |
| $=$ as $\%$ of potential | $54.9 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 4.30$ |
| ---: | ---: |
| Surplus | $\$ 2.36$ |
| Total | $\$ 6.66$ |

Analysis with Adjustments

| Capture rate of Beltrami County residents | $87 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 3.73$ |
| Non-residents' \$ share | $\$ 2.93$ |
| Total | $\$ 6.66$ |
| Non-resident share per group | $44.0 \%$ |

## Analysis for Health and Personal Items

This is a minor category in Beltrami County, accounting for 1.4 percent of total taxable sales. Extension set the non-resident capture rate at $44 \%$ as a result of this surplus and to allow for some shopping outside of the community by residents. The assumption is that it is unrealistic to think that there would be no residents that shopped outside of the community for goods in this category even considering these types of goods are generally purchased close to home.

## Gas/Convenience Stores

## 3.0 percent of total taxable retail and service sales

This merchandise group covers 17 businesses selling convenience items at a store that also sells fuel.
(\$Millions)
Actual taxable sales $\quad \$ 14.74$
-Potential sales $\quad \$ 8.72$
$=\$$ variance $\quad \$ 6.02$
$=$ as $\%$ of potential $69.1 \%$

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 8.72$ |
| ---: | ---: |
| Surplus | $\$ 6.02$ |
| Total | $\$ 14.74$ |

Non-resident share per group 40.9\%

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $90 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 7.81$ |
| Non-residents' \$ share | $\$ 6.93$ |
| Total | $\$ 14.74$ |
| Non-resident share per group | $47.0 \%$ |

## Analysis for Gas/Convenience Stores

Beltrami County has a sizeable surplus in the gas and convenience store category, netting nearly $\$ 6$ million more than potential sales calculations. In a category with a surplus such as this, Extension set the non-resident share at a larger than expected $47 \%$ to account for non-resident spending when traveling through on major thoroughfares and resident spending both when commuting outside of the community for work and when traveling.

## Apparel/Clothing

## 1.7 percent of total taxable retail and service sales

This merchandise group includes 31 businesses selling new clothing and accessories, jewelry, shoes, bridal items, clocks, and luggage.
(\$Millions)

| Actual taxable sales | $\$ 8.07$ |
| ---: | ---: |
| Potential sales | $\$ 4.99$ |
| $=\$$ variance | $\$ 3.08$ |
| $=$ as $\%$ of potential | $61.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 4.99$ |
| ---: | ---: |
| Surplus | $\$ 3.08$ |
| Total | $\$ 8.07$ |
| Non-resident share per group | $38.1 \%$ |

Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 4.44$ |
| Non-residents' \$ share | $\$ 3.63$ |
| Total | $\$ 8.07$ |
| Non-resident share per group | $45.0 \%$ |

## Analysis for Apparel/Clothing

Extension's trade area analysis estimates that the county has a moderate surplus in this category and capture rate of $89 \%$ for local resident spending. Non-resident spending was set at $45 \%$ to account for the large surplus in this category while still allowing some spending by regional adjacent county residents living outside Beltrami county. .

## Leisure Goods

## 1.2 percent of total taxable retail and service sales

The 26 businesses in this merchandise group sell sporting goods, books, music, hobby items, fabrics, and toys.
(\$Millions)

| Actual taxable sales | $\$ 5.89$ |
| ---: | ---: |
| Potential sales | $\$ 6.26$ |
| $=\$$ variance | $(\$ 0.37)$ |
| $=$ as $\%$ of potential | $-6.0 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 6.26$ |
| ---: | ---: |
| Surplus | $(\$ 0.37)$ |
| Total | $\$ 5.89$ |
| Non-resident share per group | $-6.3 \%$ |

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 5.60$ |
| Non-Residents' \$ share | $\$ 0.29$ |
| Total | $\$ 5.89$ |
| Non-resident share per group | $5.0 \%$ |

## Analysis for Leisure Goods

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

## General Merchandise Stores

16.3 percent of total taxable retail and service sales*

The $\mathbf{1 2}$ 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)

$$
\begin{array}{rr}
\text { Actual taxable sales } & \$ 79.12 \\
\text { potential sales } & \$ 34.09 \\
=\$ \text { variance } & \$ 45.03 \\
=\text { as } \% \text { of potential } & 132.1 \%
\end{array}
$$

Unadjusted Trade Area Analysis
Potential sales to residents
Surplus
\$45.03
Total
\$79.12
Non-resident share per group $56.9 \%$

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $88 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 30.07$ |
| Non-Residents' \$ share | $\$ 49.06$ |
| Total | $\$ 79.12$ |
| Non-resident share per group | $62.0 \%$ |

## Analysis for General Merchandise Stores

The 12 firms in this category account for a large share of taxable sales ( $16.3 \%$ ) in Beltrami County. Like building materials, the category also has a significant surplus, clearly drawing in sales from outside the county (surplus of over $\$ 45$ million in taxable sales). Extension set the non-resident share at $62 \%$. At this proportion, the capture rate of Beltrami County residents stands at a conservative88\%, which allows for some portion of out-shopping at big box stores not in the county in communities like Brainerd, Grand Rapids, St. Cloud, and Fargo/Moorehead.

## Miscellaneous Retail

## 3.6 percent of total taxable retail and service sales

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

| Actual taxable sales | $\$ 17.58$ |
| ---: | ---: |
| Potential sales | $\$ 9.52$ |
| $=\$$ variance | $\$ 8.06$ |
| $=$ as $\%$ of potential | $84.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 9.52$ |
| ---: | ---: |
| Surplus | $\$ 8.06$ |
| Total | $\$ 17.58$ |
| Non-resident share per group | $45.9 \%$ |

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 8.44$ |
| Non-residents' \$ share | $\$ 9.14$ |
| Total | $\$ 17.58$ |
| Non-resident share per group | $52.0 \%$ |

## Analysis for Miscellaneous Retail

Extension's trade area analysis estimates that the category has a significant surplus, clearly drawing in sales from outside the county (surplus of over $\$ 8$ million in taxable sales). Extension set the nonresident share at $52 \%$. At this proportion, the capture rate of Beltrami County residents stands at a conservative $89 \%$, which allows for some portion of out-shopping at big box stores not in the county.

## Amusement and Recreation

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

The 22 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 | $\$ 5.58$ |
| ---: | ---: |
| Potential sales | $\$ 10.78$ |
| $=\$$ variance | $(\$ 5.20)$ |
| $=$ as $\%$ of potential | $-48.2 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 10.78$ |
| ---: | ---: |
| Surplus | $(\$ 5.20)$ |
| Total | $\$ 5.58$ |
| Non-resident share per group | $-93.1 \%$ |

Analysis with Adjustments

| Capture rate of Beltrami County residents | $49 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 5.30$ |
| Non-residents' \$ share | $\$ 0.28$ |
| Total | $\$ 5.58$ |
| Non-resident share per group | $5.0 \%$ |

## Analysis for Amusement and Recreation

Extension's trade area analysis estimates that the county falls short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category. At a 49\% capture rate for residents, a significant amount of local spending is spent outside the community.

## Accommodations

## 5.0 percent of total taxable retail and service sales

These $\mathbf{5 7}$ 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 | $\$ 24.10$ |
| ---: | ---: |
| Potential sales | $\$ 14.29$ |
| $=\$$ variance | $\$ 9.81$ |
| $=$ as $\%$ of potential | $68.7 \%$ |

## Unadjusted Trade Area Analysis

| Potential sales to residents | $\$ 14.29$ |
| ---: | ---: |
| Surplus | $\$ 9.81$ |
| Total | $\$ 24.10$ |
| Non-resident share per group | $40.7 \%$ |

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $17 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 2.41$ |
| Non-residents' \$ share | $\$ 21.69$ |
| Total | $\$ 24.10$ |
| 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. Extension set the non-resident share at 90 percent of sales to allow for some resident spending related to events, facility charges, and 'staycations.'

## Eating/Drinking Establishments

## 18.1 percent of total taxable retail and service sales

These 81 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 | $\$ 88.08$ |
| ---: | ---: |
| Potential sales | $\$ 58.68$ |
| $=\$$ variance | $\$ 29.39$ |
| $=$ as $\%$ of potential | $50.1 \%$ |

Unadjusted Trade Area Analysis
Potential sales to residents
\$58.68
Surplus
\$29.39
Total
\$88.08
Non-resident share per group
33.4\%

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 51.97$ |
| Non-residents' \$ share | $\$ 36.11$ |
| Total | $\$ 88.08$ |

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 service-is a significant category with $\$ 88.08$ million in taxable sales. Based on the potential sales estimates, Beltrami County has a rather significant surplus in this category of almost $\$ 30$ million. Extension adjusted the non-resident share up to 41 percent, to account for residents dining out when working outside the community. Also, some sizeable portion of dining sales must be driven by visitors and second homeowners. In this context, a Beltrami County resident capture rate of $89 \%$ appears reasonable.

## Repair and Maintenance

## 3.8 percent of total taxable retail and service sales

The $\mathbf{1 0 0}$ 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 | $\$ 18.65$ |
| ---: | ---: |
| Potential sales | $\$ 9.43$ |
| $=\$$ variance | $\$ 9.22$ |
| $=$ as \% of potential | $97.7 \%$ |

## Unadjusted Trade Area Analysis

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

## Analysis with Adjustments

| Capture rate of Beltrami County residents | $89 \%$ |
| ---: | ---: |
| Residents' \$ share | $\$ 8.39$ |
| Non-residents' \$ share | $\$ 10.25$ |
| Total | $\$ 18.65$ |
| Non-resident share per group | $55.0 \%$ |

## Analysis for Repair and Maintenance

At 3.8 percent of total taxable sales, repair and maintenance is a relatively small category in Beltrami County. The surplus that exists in this category suggests many non-residents elect to purchase goods and services in this category locally as do Beltrami County residents. Considering the large surplus in this category, Extension set the non-resident share at 55 percent of total taxable sales in this category to account for a reasonable portion of non-local sales and allow for resident spending elsewhere.

## Personal Services/Laundry

0.4 percent of total taxable retail and service sales

The 61 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 | $\$ 1.89$ |
| Potential Sales | $\$ 5.73$ |
| $=\$$ variance | $(\$ 3.84)$ |
| $=$ as $\%$ of potential | $-67.1 \%$ |

## Unadjusted Trade Area Analysis

Potential sales to residents

| Surplus | $(\$ 3.84)$ |
| ---: | ---: |
| Total | $\$ 1.89$ |
| Non-resident share per group | $-203.8 \%$ |

## Analysis with Adjustments

Capture rate of Beltrami County residents
Residents' \$ share \$1.79
Non-residents' \$ share \$0.09
Total \$1.89
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. Despite having 61 businesses operating in this category, Extension's trade area analysis estimates that the county falls significantly short of potential sales. Yet, even in a category with a deficit, Extension attributes some portion of sales to non-residents. In this case, Extension set the non-resident share at a modest 5 percent. The assumption is that it is unrealistic to think that there would be no non-residents that shopped in the community for goods in this category.

## Retail (Non-Store) and Other Services

This section includes taxable sales attributed to North American Industrial Classification System categories 511-813 released by MN Revenue.
(\$Millions)
Actual taxable sales
$\$ 31.07$
\% of total taxable retail and service sales In Beltrami County
6.4\%

## Analysis with Adjustments

|  | (\$Millions) |
| ---: | ---: |
| Residents' \$ share | $\$ 22.06$ |
| Non-residents' \$ share | $\$ 9.01$ |
| Total | $\$ 31.07$ |
| Non | $29 \%$ |

## 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 non-store retail often serve a nonlocal market. This mix of business types is too diverse to run a trade area analysis for, but Extension estimated an aggregate 28 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 | $\$ 6,859,983$ | $70 \%$ | $\$ 4,801,988.10$ |
| INFO -TELECOMMUNICATIONS | $\$ 29,399,760$ | $20 \%$ | $\$ 5,879,952.00$ |
| INFO -DATA PROCESSING | $\$ 2,293$ | $20 \%$ | $\$ 458.60$ |
| CREDIT INTERMEDIATION | $\$ 344,320$ | $20 \%$ | $\$ 68,864.00$ |
| REAL ESTATE | $\$ 380,077$ | $20 \%$ | $\$ 76,015.40$ |
| RENTAL, LEASING SERVICES | $\$ 4,078,102$ | $20 \%$ | $\$ 815,620.40$ |
| PROF,SCIENTIFIC,TECH SERV | $\$ 2,444,790$ | $70 \%$ | $\$ 1,711,353.00$ |
| ADMIN, SUPPORT SERVICES | $\$ 2,887,943$ | $10 \%$ | $\$ 288,794.30$ |
| EDUCATIONAL SERVICES | $\$ 640,631$ | $10 \%$ | $\$ 64,063.10$ |
| HEALTH -AMBULATORY CARE | $\$ 349,654$ | $20 \%$ | $\$ 69,930.80$ |
| HEALTH -NURSING,HOME CARE | $\$ 9,263$ | $20 \%$ | $\$ 1,852.60$ |
| PERF ART, SPECTATOR SPRTS | $\$ 2,548,746$ | $40 \%$ | $\$ 1,019,498.40$ |
| RELIGIOUS,CIVIC,PROF ORGS | $\$ 1,578,661$ | $20 \%$ | $\$ 315,732.20$ |
| EXEC, LEGISL, OTHER GOVT | $\$ 171,689$ | $15 \%$ | $\$ 25,753.35$ |
| TOTAL | $\$ 51,695,912$ | $29 \%$ | $\$ 15,139,876.25$ |

## 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 $\$ 53.7$ million in taxable sales, or 15.2 percent of total taxable sales in Beltrami County. 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 |
| :--- | ---: | ---: | ---: |
| AG | $\$ 222,024$ | $70 \%$ | $\$ 722,768$ |
| CONSTRUCTION | $\$ 7,104,193$ | $50 \%$ | $\$ 2,599,488$ |
| MANUFACTURING | $\$ 27,422,218$ | $80 \%$ | $\$ 2,791,622$ |
| WHOLESALE | $\$ 17,128,165$ | $40 \%$ | $\$ 9,025,988$ |
| UNDESIGNATED/SUPPRESSED | $\$ 49,321,187$ | $25 \%$ | $\$ 884,310$ |
| TRANSPORTATION | $\$ 14,572$ | $50 \%$ | $\$ 50,011$ |
| Total | $\$ 101,212,359$ | $30 \%$ | $\$ 16,074,187$ |

Extension estimated that, overall, 30 percent of sales are to non-residents. This analysis assumes that some subcategories, such as manufacturing sell primarily ( 80 percent) to non-resident customers, whereas subcategories like construction split sales between resident and non-resident customers.

## Analysis with Adjustments

(\$Millions)
Residents' \$ share
$\$ 70.85$

Non-residents \$ share
$\$ 30.36$

Total
\$101.21
Non-resident share
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 percent local option sales tax is offered below (refer to Figures 4, 5, 6, and 7).

Policymakers must determine the best allowable method to raise revenue from a variety of options. One option is raising property taxes, which is not directly related to a household's current income and raises the financial burden of low-income or retired homeowners. Sales taxes raise revenues based on household expenditures, which, in Minnesota, excludes the basic necessities of food and clothing. However, since sales tax raises revenues from non-residents who shop in Beltrami County, 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). 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 Beltrami County 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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