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## A Trade Area Analysis of Wisconsin Retall and SERVICE MARKETS: UpDATED FOR 2014

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## A Trade Area Analysis of Wisconsin Retail and Service Markets: Updated for 2014


#### Abstract

For updated Trade Area Analysis (TAA) of Wisconsin counties we use the sales tax data as reported by the Wisconsin Department of Revenue for 2014. Only those counties that have elected to collect the optional county sales tax are included in the analysis. Because sales tax data are used one must keep in mind that the analysis focuses only on taxable sales and may not reflect the total level of activity in the county. Using Pull Factors and measures of Surplus and Leakage the relative strengths, and weaknesses, of local retail markets are identified. An example of how to explore changes in Pull Factors over time to identify strengths, weaknesses opportunities and potential threats is also provided.


## Introduction ${ }^{1}$

When a community is exploring economic development options one area of interest is local retail and service markets. Communities naturally ask "are local retail businesses reaching their fullest potential or are there weaknesses that need to be addressed?" In order to address these basic questions communities need to have basic insights into the relative strengths and weaknesses local retail and service markets. One approach to identify these local strengths and weaknesses is to examine patterns in current sales activities using the tools of Trade Area Analysis.

The power of Trade Area Analysis (TAA) is the simplicity of the tools and the ease of interpretation. Community economic development practitioners have found that this simplicity has led to community leaders, businesses and concern citizens to adopt the tools and insights gained from TAA. The tools of Trade Area Analysis have proven to be a powerful foundation upon which to build a conversation about community economic development options. Indeed, some businesses have found these tools to be useful in developing business feasibility plans and have been accepted by a number of bank loan officers.

[^0]The weakness of Trade Area Analysis is the lack of geographic detail. The data, in the case of Wisconsin, are provided at the county level (and only for counties that have implemented the county option sales tax) which may or may not reflect the true geographic economic market area. In our case here, from a purely economic perspective, the county is an arbitrary political boundary that may or may not reflect local retail and service markets.

Because the TAA reported here ignores the geographical or spatial element of the community's markets, local knowledge of shopping opportunities and behavior is extremely important. There may be very sensible reasons why TAA identifies a particular weakness or strength. For example, one community may be found to have large weaknesses in motor vehicle sales suggesting a market potential. But it may be the case that a neighboring community has a large concentration of automobile dealerships (a strength for that community) and hence easily explains the initial weakness for the community of interest. Knowledge of the condition of surrounding markets is vital to interpreting the results of the analysis presented here. The key is that TAA can serve as a foundation for a conversation about local retail and service markets.

What we will do in the following few pages is to review the tools of Trade Area Analysis and some of the simplifying assumptions that allows the analysis to move forward. Initially, residents in the local market or trade area of interest (e.g., the county) have the same tastes and preferences across the state. This assumption allows the community practitioner to compare the local market to a state average. We then show methods of estimating demand with unique trade area characteristics. As described above, the trade area is defined by the availability of data and the geographic area that the data are reported.

For this particular study we will use sales tax data reported by the Wisconsin Department of Revenue at the county level. Specifically, counties that have imposed the local option sales tax are included in this analysis. Because the data is drawn from tax sales receipts only taxable sales are considered. If a particular item is not included in the tax base, then no data is available. Hence care must be taken and one must keep in mind that the analysis is of "taxable sales". Still, the analysis provides one set of information that can be used to develop a picture of the local retail market.

## Trade Area Analysis

Sales retention is an indirect measure of locally available goods and services, assuming people buy locally if possible. While measurement of actual sales is relatively easy, measurement of the sales potential presents some difficulty. This assumes that not only that tastes and preferences are identical but also the local trade area is demographically similar to the state. Local potential sales can be estimated by statewide average sales per capita adjusted by the ratio of local to state per capita income (Deller, et.al. 1991; Hustedde, Shaffer \& Pulver 1993; Shaffer, Deller \& Marcouiller 2004; Stone \& McConnen 1983):

$$
\begin{equation*}
P S_{s}^{i}=P_{s} * P C S_{\text {state }}^{i} * \frac{P C I_{s}}{P C I_{\text {state }}} \tag{1}
\end{equation*}
$$

where $P S_{s}^{i}$ is potential sales in community $s$ for sector $i, P$ is population, $P C S$ is per capita sales, $P C I$ is per capita income.

Care must be used in accepting the computed potential sales from equation (1). It ignores all of the shopping area and consumer characteristics that are located within the immediate and surrounding shopping areas. The potential sales provided from equation (1) assume no differences in local consumption patterns except adjusting by relative local income. For example, the approach of Trade Area Analysis used here does not account for differences in the socioeconomic characteristics of the region, other than income. But this readily calculated estimate represents a realistic initial estimate.

One way to estimate the sales retention is just divide actual sales by sales potential. Actual sales can be obtained from a variety of sources, including census of business, sales tax data, and the merchants themselves. Another approach to sales potential estimates the number of people buying from local merchants (Hustedde, Shaffer \& Pulver, 1993; Stone \& McConnen, 1983). The Trade Area Capture estimates the customer equivalents. Trade Area Capture used in conjunction with the Pull Factor permits the community to measure the extent to which it attracts nonresidents (e.g., tourists and nonlocal shoppers) and differences in local demand patterns.

Trade Area Capture estimates the number of customers a community's retailers sell to. Most trade area models consider market area as the function of population and distance. Trade Area Capture incorporates income and expenditure factors with the underlying assumption that local tastes and preferences are similar to the tastes and preferences of the state. The verbiage here can become somewhat confusing in that the phrase trade area discussed above has a definite spatial meaning, but Trade Area Capture is aspatial. Thus, the Trade Area Capture estimate suffers from the same caveats enumerated for Potential Sales estimated:

$$
\begin{equation*}
T A C_{s}^{i}=\frac{A S_{s}^{i}}{P C S_{\text {state }}^{i} * \frac{P C I_{s}}{P C I_{\text {state }}}} \tag{2}
\end{equation*}
$$

where notation remains the same with the addition of TAC is Trade Area Capture and AS is actual sales.

The number calculated from equation (2) is the number of people purchased for, not the people sold to or actual customers in the store (i.e., if one person buys food for a family of four, all four are counted). If Trade Area Capture exceeds the trade area population then the community is capturing outside trade or local residents have higher spending patterns than the state average. If the Trade Area Capture is less than the trade area population the community is losing potential trade or local residents have a lower spending pattern than the statewide average. Further analysis is required to determine which cause is more important. Comparison of the Trade Area Capture estimates for specific retail or service categories to the total allows for additional insight about which local trade sectors are attracting customers to the community. It is important to make Trade Area Capture comparisons over time to identify trends.

Trade Area Capture measures purchases by both residents and nonresidents. The Pull Factor makes explicit the proportion of consumers that a community (the primary market) draws from outside its boundaries (the secondary market, including residents in neighboring areas or tourists). The Pull Factor is the ratio of Trade Area Capture to municipal, in our case here county, population. The Pull Factor measures the community's drawing power. Over time,
this ratio removes the influence of changes in municipal population when determining changes in drawing power. The Pull Factor is computed as:

$$
\begin{equation*}
P F_{s}^{i}=\frac{T A C_{s}^{i}}{P_{s}} \tag{3}
\end{equation*}
$$

A Pull Factor (PF) greater than one implies that the local market is drawing or pulling in customers from surrounding areas. A Pull Factor less than one implies that the local market is losing customers to competing markets. The Pull Factor, much like percent sales retention estimate, can also be loosely interpreted like a location quotient. Pull Factors significantly greater than one often indicates an area of specialization for the local market. For example, tourist areas tend to have high Pull Factors and location quotients for restaurants, hotels and miscellaneous retail stores. The use of any tool by itself can often lead to erroneous conclusions. One must use a variety of tools to gain a clearer understanding of the local economy.

An alternative way to think about sales retention is to compute local Surplus or Leakage by looking at the difference between actual sales (AS) with Potential Sales (PS):

$$
\begin{equation*}
S / L_{s}^{i}=A S_{s}^{i}-P S_{s}^{i} \tag{4}
\end{equation*}
$$

If actual sales (AS) is larger than Potential Sales (PS) and equation (4) is positive then there is said to be a Surplus, or the local market is performing better than one would expect. One could reasonably interpret a Surplus as the dollar value of the Pull Factor being greater than one. If actual sales (AS) is smaller than Potential Sales (PS) and equation (4) is negative then there is said to be a Leakage, or the local market is performing below what one would expect. Again, one could reasonably argue that a Leakage is the dollar value of the Pull Factor being less than one.

## Core Data for Analysis

Before turning to the Trade Area Analysis for Wisconsin counties that have sales tax data, two core pieces of information are required. The first is the Index of Income and the second are per capita expenditure levels for the state. The Index of Income is reported in Table 1 along with the county population and per capita income. For this analysis 62 counties have imposed a sales tax from which the data are derived.

Table 1: County Index of Income 2014

|  | Per Capita Income | Population | Index of Income |  | Per Capita Income | Population | Index of Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adams | 39,628 | 20,480 | 0.944 | Lincoln | 36,564 | 28,684 | 0.871 |
| Ashland | 36,391 | 16,016 | 0.867 | Marathon | 40,454 | 135,416 | 0.964 |
| Barron | 38,597 | 45,676 | 0.920 | Marinette | 39,178 | 41,610 | 0.934 |
| Bayfield | 37,850 | 15,156 | 0.902 | Marquette | 33,836 | 15,176 | 0.806 |
| Buffalo | 44,853 | 13,357 | 1.069 | Milwaukee | 41,017 | 956,023 | 0.978 |
| Burnett | 39,340 | 15,333 | 0.938 | Monroe | 36,269 | 45,298 | 0.864 |
| Chippewa | 38,250 | 63,132 | 0.912 | Oconto | 40,603 | 37,318 | 0.968 |
| Clark | 34,041 | 34,615 | 0.811 | Oneida | 42,524 | 35,689 | 1.013 |
| Columbia | 44,988 | 56,653 | 1.072 | Ozaukee | 66,164 | 87,054 | 1.577 |
| Crawford | 37,018 | 16,397 | 0.882 | Pepin | 40,279 | 7,360 | 0.960 |
| Dane | 51,341 | 509,939 | 1.224 | Pierce | 36,788 | 40,976 | 0.877 |
| Dodge | 39,189 | 88,344 | 0.934 | Polk | 38,021 | 43,476 | 0.906 |
| Door | 47,300 | 27,896 | 1.127 | Portage | 40,167 | 70,380 | 0.957 |
| Douglas | 34,363 | 43,887 | 0.819 | Price | 38,287 | 13,802 | 0.912 |
| Dunn | 36,332 | 44,122 | 0.866 | Richland | 36,998 | 17,717 | 0.882 |
| Eau Claire | 40,925 | 101,438 | 0.975 | Rock | 38,054 | 160,739 | 0.907 |
| Florence | 39,186 | 4,520 | 0.934 | Rusk | 31,733 | 14,395 | 0.756 |
| Fond du Lac | 40,873 | 101,798 | 0.974 | Sauk | 40,524 | 63,162 | 0.966 |
| Forest | 36,299 | 9,126 | 0.865 | Sawyer | 39,673 | 16,513 | 0.945 |
| Grant | 38,351 | 51,069 | 0.914 | Shawano | 36,325 | 41,643 | 0.866 |
| Green | 42,136 | 37,090 | 1.004 | St. Croix | 42,950 | 85,930 | 1.024 |
| Green Lake | 43,915 | 18,959 | 1.047 | Taylor | 31,678 | 20,610 | 0.755 |
| Iowa | 43,238 | 23,749 | 1.030 | Trempealeau | 38,649 | 29,582 | 0.921 |
| Iron | 43,750 | 5,886 | 1.043 | Vernon | 33,317 | 30,329 | 0.794 |
| Jackson | 38,669 | 20,644 | 0.922 | Vilas | 41,147 | 21,368 | 0.981 |
| Jefferson | 37,950 | 84,509 | 0.904 | Walworth | 38,566 | 102,945 | 0.919 |
| Juneau | 34,288 | 26,547 | 0.817 | Washburn | 39,134 | 15,686 | 0.933 |
| Kenosha | 38,382 | 167,757 | 0.915 | Washington | 48,935 | 132,739 | 1.166 |
| La Crosse | 41,681 | 116,713 | 0.993 | Waupaca | 40,523 | 52,285 | 0.966 |
| Lafayette | 41,000 | 16,766 | 0.977 | Waushara | 36,301 | 24,329 | 0.865 |
| Langlade | 39,397 | 19,575 | 0.939 | Wood | 42,252 | 73,959 | 1.007 |

Forty-nine of the 62 have an Index of Income below one and Rusk and Taylor Counties having a per capita income close to below 75 percent (Index of Income below 0.750 ) of the Wisconsin average. Here, the Wisconsin average is defined as including only those counties that have a county sales tax. Because of the relatively low income levels we would not expect spending in these counties to be on par with the state average and these averages are adjusted downward as described above. At the same time one would expect counties that have higher income levels (e.g., Dane, Ozaukee and Washington) to have higher spending levels than the state average and thus are adjusted upward.

The second set of data is the state per capita expenditure levels. It is vital to recall that the data are drawn from taxable sales, not total sales. As a result the estimated potential sales

Table 2: Per Capita Expenditures: 2014

| Taxable Sales | Wisconsin |
| :---: | :---: |
| Services |  |
| Personal and Laundry Services | 301.31 |
| Food Services and Drinking Places | 1,332.65 |
| Repair and Maintenance | 333.04 |
| Accommodation | 326.15 |
| Amusement, Gambling, and Recreation Industries | 91.47 |
| Administrative and Support Services | 113.26 |
| Professional, Scientific, and Technical Services | 381.34 |
| Rental and Leasing Services | 274.02 |
| Telecommunications | 1,092.01 |
| Credit Intermediation and Related Activities | 53.08 |
| Retail |  |
| Nonstore Retailers | 317.23 |
| Miscellaneous Store Retailers | 869.14 |
| General Merchandise Stores | 1,162.68 |
| Sporting Goods, Hobby, Book, and Music Stores | 203.25 |
| Clothing and Clothing Accessories Stores | 387.81 |
| Gasoline Stations | 348.01 |
| Dealers | 889.25 |
| Motor Vehicle and Parts Dealers | 1,775.82 |
| Furniture and Home Furnishings Stores | 215.90 |
| Electronics and Appliance Stores | 197.82 |
| Food and Beverage Stores | 442.48 |

as well as surplus/leakage levels are conservative.

The largest single category of expenditures is motor vehicle and parts dealers with a state-wide per capita expenditure level of $\$ 1,775.82$ in 2014. This result is largely attributed to the expensiveness of automobiles. The second largest single category of expenditures is food services and drinking places (restaurants and taverns/bars) at $\$ 1,332.65$. The third largest is general merchandise with per capita spending of
$\$ 1,162.88$. There are two potential reasons why this category is as large as it is: (1) the growing popularity of "big-box" stores such as Wal-Mart and Target is drawing a larger share of consumer dollars and (2) many of the "super" stores have expanded into carrying groceries which is in direct competition to more traditional food stores. Many of these "super stores" have become one-stop centers where customers can purchase food, clothing, hardware, toys, electronics, and even have prescriptions filled in one store.

## Trade Area Analysis Results

In addition to the tabular presentation of the results for Trade Area Captured, Pull Factors, Potential Sales and Surplus/Leakage We have presented the Pull Factors in map form. It is important to note that there are at least two reasons why there may be no data for a particular category for any given county. First, there are 10 counties in Wisconsin that do not impose the local option sales tax and hence there is no data available. The second is that there are no businesses within the particular category that are reporting taxable sales.

The volume of results prevents a discussion of all of the results and we have left it to the reader to draw the relevant information for their own purposes. For brevity we have reported only the key variables of interest: Pull Factors and the Surplus/Leakage that is tied to those Pull Factors. The reader must keep in mind to consider both Leakages as well as Surpluses when developing strategies to build local retail and service markets. Naturally, the tendency is to want to focus on addressing weaknesses in the markets, but there may be solid reasons why such weaknesses exist ranging from lack of market size (small populations such as in Florence county may be a real barrier to the creation of certain types of businesses) to spatial competition from neighboring communities. But focusing attention on sectors that have a revealed strength (i.e., large Pull Factors and Surpluses) can build on existing markets. For example, a community that has a strong tourism and recreation sector may find that the further promotion of tourism and recreation can have strong positive impacts. In other words, it can be just as valuable to build on existing strengths as it is to address weaknesses.

A four step process then comes to light when considering the analysis presented here.

1. Determine which sectors are strengths and weaknesses based on the relative size of the Pull Factor.
2. This determination should first be based on the county in isolation then in comparison to similar counties.
3. Determine the dollar value of the strength or weaknesses based on the Surplus or Leakage.
4. Identify strategies to build on strengths and address weaknesses.

One must also consider the relative size of any Leakage before considering it as a business opportunity. For example, is the Leakage may not be sufficiently large to justify new business enterprises. Rather, a viable alternative to new business formation is for existing businesses within the sector to rethink their business strategies.

The challenge here is to use the analysis as an "excuse" or "reason" to engage the community in a conversation about the strengths and weaknesses of local retail and service markets and strategies that can be pursued to build on those strengths and address the weaknesses.

## Trade Area Analysis Clusters

One of the advantages of using the country sales tax as a means to conduct a Trade Area Analysis is that the tax has been in place in numerous counties for a number of years. ${ }^{2}$ This allows us to track the performance of local retail and service markets over time. There is,

[^1]however, a problem: the Wisconsin Department of Revenue has not been consistent in how the data are reported. ${ }^{3}$ Staffing limitations have hindered the timeliness of the releases and changes in the industrial classification systems have changed how the data has been grouped. This latter problem is most evident in the classification of the service sectors. But for retail the ability to compare over time can add an important dimension to community discussions.

There are numerous approaches to conduct comparisons over time but given the range of different metrics developed through Trade Area Analysis it is possible to overwhelm the discussion with too much data. One method to present a significant amount of data in a relatively easy to interpret visual representation is to build on the simple economic cluster analysis offered by Harvard business economist Michael Porter. But rather than looking at location quotient over time and industry sizes we can substitute Pull Factors and size metrics such as Trade Area Captured or Potential Sales. Consider the outline in Figure 1 where we plot the current value of the Pull Factor (horizontal axis) and the Change in the Pull Factor over time (vertical axis).

| Figure 1: Cluster Analysis using the Tools of Trade Area Analysis |  |
| :--- | :--- |
| Change in Pull Factor |  |
| Weakness but <br> Growing | Strength and <br> Growing |
| Weakness and <br> Declining | Current Pull Factor <br> Strength but <br> Declining |

${ }^{3}$ Over the past few years there has been more consistency in the reporting of these data and in time, if the current reporting system remains in place, this problem will be minimized.

There are four possible combinations: (1) the Pull Factor is less than one and declining which is the lower left hand quadrant and retail sectors falling into this category could be considered a "weakness and declining"; (2) the Pull Factor is less than one but is increasing over time which is the upper left hand quadrant and could interpreted as a "weakness but growing"; (3) the Pull Factor is great than one, hence a strength, but is declining over time, the lower right hand side quadrant; and finally (4) the Pull Factor is greater than one and increasing over time, retail sectors falling into this category would be considered a strength and growing.

Consider, for example, the retail market of Kenosha County (Figure 2 and Table 3). Here the relative size of the market is based on potential sales (eq.(1)); the larger the "bubble" the greater the potential sales. There are a handful of retail sectors are identified as a "strength and growing" including clothing and accessories stores, sporting goods, hobby, book and music stores, general merchandise as well as food and beverage stores. There is one "strength but declining" sector, electronics and appliance stores. Particularly of interest is the lack of any sectors that are classified as "weaknesses and declining". This result, coupled with the observation that ten of eleven sectors are classified as "growing" (Pull Factors are growing in size over the 2011 to 2014 study period), suggests that the retail market in Kenosha County is performing well. It could also be that the Kenosha County retail market is recovering from the Great Recession at a faster pace than the rest of Wisconsin.

## Strategies for Enhancing Retail and Service Markets

Individual business owners do not want to "bet the farm" based on a simple Pull Factor and corresponding measure of Leakage or Surplus. Rather, these tools can be powerful in the initial identification of market ideas and concepts. In a sense, these tools can be used in the "plan-to-plan" stage of the business planning process and can provide useful insights.

Beyond aiding businesses in the initial planning stages there exists a wide range of potential strategies can put in place to build on strengths of the local retail markets and address potential gaps. A detailed discussion of the vast range of potential strategies is not the intent of this study. Rather, the intent here is to introduce the reader to a broad range of ideas. The two broad classifications of strategies include: (a) increasing the flow of dollars into the

Figure 2:Retail Cluster Analysis Kenosha County 2014


Table 3: Retail Cluster Aanalysis for Kenosha County 2014

|  | Pull Factor 2014 | Change in <br> Pull Factor <br> 2011 to 2014 | Potential <br> Sales (000\$) |
| :---: | :---: | :---: | :---: |
| Strength and Growing |  |  |  |
| Furniture and Home Furnishings Stores | 1.121 | 0.235 | 33,130.0 |
| Food and Beverage Stores | 1.284 | 0.017 | 67,899.2 |
| Clothing and Clothing Accessories Stores | 2.958 | 0.049 | 59,509.5 |
| Sporting Goods, Hobby, Book, and Music Stores | 1.432 | 0.173 | 31,188.7 |
| General Merchandise Stores | 1.150 | 0.174 | 178,415.4 |
| Weakness but Growing |  |  |  |
| Miscellaneous Store Retailers | 0.840 | 0.023 | 133,370.8 |
| Nonstore Retailers | 0.761 | 0.237 | 48,678.7 |
| Motor Vehicle and Parts Dealers | 0.869 | 0.051 | 272,501.3 |
| Building Material and Garden Equipment and Supplies Dealers | 0.889 | 0.074 | 136,457.2 |
| Gasoline Stations | 0.962 | 0.145 | 53,403.2 |
| Strength but Declining |  |  |  |
| Electronics and Appliance Stores | 1.182 | -0.092 | 30,355.3 |
| Weakness and Declining |  |  |  |
| N.A. |  |  |  |

community (e.g., build on Surpluses) and (b) increasing the re-circulation of dollars within the community (e.g., plug Leakages). Increasing the flow of dollars into the community means that the community is essentially injecting new money into the local economy by attracting consumers from surrounding communities or by capturing the dollars of visitors to the community. Consumers are both individuals as well as businesses. In each case the community is bringing more money into the community. Increasing the re-circulation of dollars in the community means that the community is plugging Leakages of money out of the local community's economy. In other words, the community is actively seeking ways to get people and businesses to spend more locally.

One can almost think of these as broad approaches to address "gaps" and "disconnects" within the local market. Gaps describe the case where a particular good or service is not available at a sufficient level for purchase in the local community. Disconnects are when the goods and services are available but local customers, both residents and businesses, are not making local purchases.

Because these are broad approaches and specific strategies will be applicable to both we will suggest several possible specific strategies across both approaches. For a more focused discussion see the newsletter Lets Talk Business produced by the Center for Community Economic Development at the University of Wisconsin-Extension ${ }^{4}$ as well as the collection of resources at the USDA National Rural Resource Library and the references therein. ${ }^{5}$

Examples of specific activities a community can undertake to increase the inflow or recirculation of dollars include:

1. Develop marketing information to help retail and service businesses in identifying market potentials and formulate business plans.
2. Develop community and regional facilities necessary to attract new retail and service businesses.
3. Expand purchases by non-local people through appropriate advertising and promotions.
a. Coordinated advertising can build on economies of size and scope.

[^2]b. Coordinate business hours.
c. Sponsor downtown activities such as sidewalk sales or art fairs.
d. Organize farmers markets to attract customers downtown.
e. Providing convenient parking or public transit.
4. Ensure that key public services (e.g., fire and police, water and sewer, general administration) are more than satisfactory.
5. Aid businesses in developing employee-training programs to improve quality of service.
6. Work to ensure that retail development policies aim at complementary growth where local firms are harmonized and not competitive.
7. Recognize the important role of transfers such as retirement benefits, and unemployment compensation as a flow of funds into the community.
8. Encourage collective action through the formation of organizations such as Chamber of Commerce or Merchants Association.

These broad based strategies are clearly not exhaustive and are meant to only introduce the notion that strategies can range from the simplistic to the complex. It is also important that there is no one single strategy that effective development of the retail and service sectors require a multi-prong approach with overlapping strategies. Finally, strategies need to be constantly evaluated and adjusted to reflect changing markets.

While the tools of Trade Area Analysis are a powerful indicator of retail market strengths and weaknesses, they should not be substituted for detailed business feasibility studies. While businesses have found measures of Surplus/Leakage to be a reasonable first approximation of potential revenues more detailed market analysis is required before specific business investments are made. Again, these tools are most appropriate in the business "plan-to-plan" phase of business planning.

## Conclusions

The intent of this applied research project is to: (1) introduce one set of tools, specifically Trade Area Analysis and market threshold analysis, to community development
practitioners; (2) apply the tools to a set of data for Wisconsin counties; and (3) outline a set of simple strategies to help build on Surpluses and address Leakages. The tools offered here as well as the analysis should be considered one step in developing a complete understanding of the local retail market. The tools can be used to stimulate discussions within the community about the strengths and weaknesses of the local retail markets as well as a simple set of tools that potential businesses can use in the initial planning, or "plan-to-plan", stages in business development.

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Table 5: Service Sector Surplus or Leakage 2014 (000\$)

Table 5 （cont）：Service Sector Surplus or Leakage 2014

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Table 6: Retail Sector Pull Factor 2014

|  | Nonstore Retailers | Miscellaneous Store Retailers | General Merchandise Stores | Sporting Goods, Hobby, Book, and Music Stores | Clothing and Clothing <br> Accessories Stores | Gasoline Stations | Building <br> Material and Garden <br> Equipment and Supplies Dealers | Motor Vehicle and Parts Dealers | Furniture and <br> Home Furnishings Stores | Electronics and Appliance Stores | Food and <br> Beverage Stores |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adams | 1.75 | 0.85 | 0.31 | 0.23 | 0.11 | 1.73 | 0.56 | 0.70 | 0.31 | - | - |
| Ashland | 1.10 | 0.88 | - | 0.51 | 0.77 | 1.02 | 1.04 | 1.10 | 0.32 | - | 1.52 |
| Barron | 1.73 | 1.73 | 2.32 | 0.77 | 0.56 | 1.51 | 2.16 | 1.37 | 0.59 | 0.75 | 1.40 |
| Bayfield | 0.78 | 0.74 | 0.12 | 0.42 | 0.34 | 1.28 | 1.42 | 0.92 | - | - | 1.31 |
| Buffalo | 1.03 | 0.72 | - | - | - | - | 0.76 | 0.80 | - | - | - |
| Burnett | 0.90 | 0.82 | 0.35 | 0.55 | - | - | 0.97 | 0.83 | 0.23 | 0.34 | - |
| Chippewa | 1.01 | 1.41 | 1.55 | 1.47 | 0.25 | 1.47 | 0.64 | 1.43 | 0.57 | 1.76 | 1.16 |
| Clark | 0.93 | 0.95 | 0.18 | 0.20 | 0.12 | 1.50 | 1.01 | 1.13 | 0.57 | 2.31 | 0.63 |
| Columbia | 0.74 | 0.98 | - | 0.28 | 0.36 | 1.93 | 0.54 | 1.19 | 0.65 | 0.47 | 0.80 |
| Crawford | 7.74 | 1.20 | - | - | 0.63 | 1.24 | 0.58 | 0.99 | 0.38 | 0.60 | - |
| Dane | 0.98 | 1.00 | 0.97 | 1.48 | 1.27 | 0.68 | 0.98 | 0.96 | 1.48 | 1.24 | 1.24 |
| Dodge | 0.89 | 0.79 | 0.88 | 0.92 | 0.15 | 1.34 | 0.83 | 1.09 | 0.74 | 0.22 | 0.85 |
| Door | 1.09 | 1.77 | 1.43 | 1.33 | 1.56 | 1.39 | 1.27 | 1.29 | 1.34 | 0.57 | 1.59 |
| Douglas | 0.75 | 1.22 | 1.79 | 0.73 | 0.20 | 1.68 | 1.88 | 1.02 | 0.49 | 0.53 | 1.27 |
| Dunn | 0.73 | 0.94 | 1.39 | 0.81 | 0.26 | 1.40 | 0.57 | 1.06 | 0.56 | 0.73 | 0.89 |
| Eau Claire | 0.84 | 1.41 | 1.86 | 3.63 | 1.80 | 0.86 | - | 0.99 | 0.96 | 3.78 | 0.78 |
| Florence | 1.20 | 0.54 | - | - | - | - | - | 0.64 | - | - | - |
| Fond du Lac | 0.75 | 0.81 | 1.31 | 0.68 | 0.69 | 1.08 | 1.04 | 0.81 | 1.17 | 0.97 | 0.90 |
| Forest | 1.34 | 0.77 | - | - | 0.24 | - | 1.46 | 1.24 | - | - | - |
| Grant | 0.67 | 0.92 | - | 0.56 | 0.37 | 1.16 | 1.86 | 1.00 | 0.22 | 0.35 | 0.95 |
| Green | 1.03 | 1.15 | - | 0.27 | 0.43 | 0.60 | 1.10 | 1.13 | 0.72 | 0.54 | 0.85 |
| Green Lake | 0.64 | 0.76 | - | 0.87 | 0.16 | 0.85 | 0.79 | 1.09 | 1.52 | 0.69 | - |
| lowa | 2.60 | 0.68 | - | 0.16 | 0.12 | 1.39 | 1.01 | 1.19 | 0.65 | 0.78 | 0.60 |
| Iron | 0.78 | 0.91 | - | - | - | - | 0.63 | 0.76 | - | - | - |
| Jackson | 0.81 | 0.93 | 1.83 | - | 0.11 | - | 0.61 | 1.06 | 0.19 | 0.41 | 0.77 |
| Jefferson | 0.82 | 0.89 | - | 0.42 | 2.38 | 1.54 | 1.13 | 1.04 | 0.77 | 0.52 | 0.63 |
| Juneau | 0.87 | 0.73 | 0.60 | 0.49 | 0.15 | 3.68 | 0.60 | 1.30 | 0.31 | 0.30 | 0.92 |
| Kenosha | 0.76 | 0.84 | 1.15 | 1.43 | 2.96 | 0.96 | 0.89 | 0.87 | 1.12 | 1.18 | 1.28 |
| La Crosse | 1.01 | 1.55 | 2.03 | 1.69 | 1.67 | - | 1.67 | 1.06 | 1.02 | 3.19 | 1.53 |
| Lafayette | 0.61 | 0.52 | 0.44 | - | 0.07 | - | 0.74 | 1.19 | - | - | - |
| Langlade | 1.04 | 0.66 | 2.57 | 0.94 | 0.26 | 1.16 | 2.25 | 1.44 | 0.46 | - | 0.41 |


|  | Nonstore Retailers | Miscellaneous Store Retailers | General Merchandise Stores | Sporting Goods, Hobby, Book, and Music Stores | Clothing and Clothing Accessories Stores | Gasoline Stations | Building Material and Garden Equipment and Supplies Dealers | Motor Vehicle and Parts Dealers | Furniture and Home Furnishings Stores | Electronics and Appliance Stores | Food and Beverage Stores |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lincoln | 1.55 | 0.75 | - | 1.34 | 0.13 | 1.62 | 0.75 | 1.44 | 0.83 | - | 1.37 |
| Marathon | 0.96 | 1.10 | 1.73 | 1.54 | 1.20 | 1.25 | 1.58 | 1.21 | 1.22 | 1.34 | 0.69 |
| Marinette | 0.74 | 1.22 | 1.30 | 0.86 | 0.34 | 1.26 | 1.52 | 1.21 | 0.44 | 0.90 | 1.74 |
| Marquette | 0.85 | 0.88 | 0.13 | - | - | 1.57 | 0.40 | 1.27 | 0.53 | - | 1.11 |
| Milwaukee | 0.81 | 0.96 | 1.00 | 0.84 | 1.39 | 0.69 | 0.66 | 0.82 | 1.09 | 0.94 | 0.98 |
| Monroe | 1.03 | 0.90 | - | 0.54 | 0.23 | 2.47 | 0.94 | 1.11 | 0.54 | 0.50 | 0.76 |
| Oconto | 0.94 | 0.53 | 0.17 | 0.44 | 0.07 | 1.36 | 0.68 | 1.04 | 0.32 | 0.57 | 0.74 |
| Oneida | 1.31 | 1.14 | - | 1.34 | 0.82 | 0.65 | 2.81 | 1.57 | 1.97 | - | 2.19 |
| Ozaukee | 0.70 | 0.76 | 0.95 | 0.79 | 0.42 | 0.56 | 0.63 | 0.81 | 1.28 | 0.83 | 0.76 |
| Pepin | 0.80 | 1.41 | - | - | - | - | 1.39 | 1.06 | 0.75 | - | - |
| Pierce | 0.81 | 0.87 | 0.13 | 0.37 | 0.16 | 1.27 | 0.56 | 0.75 | 0.37 | 0.42 | 0.98 |
| Polk | 0.94 | 0.88 | - | 0.49 | 0.10 | 1.17 | 1.98 | 0.87 | 0.69 | 0.42 | 1.29 |
| Portage | 2.66 | 0.91 | 1.39 | 1.13 | 0.65 | 1.42 | 1.43 | 1.18 | 1.41 | 1.61 | 0.64 |
| Price | 0.87 | 0.97 | 0.31 | 0.59 | - | 1.60 | 1.00 | 1.10 | 0.63 | - | - |
| Richland | 0.67 | 1.06 | - | - | 0.21 | 1.60 | 0.47 | 1.12 | 0.47 | 0.77 | 0.78 |
| Rock | 0.75 | 0.93 | 1.48 | 1.14 | 0.86 | 1.41 | 1.20 | 1.06 | 0.80 | 1.16 | 1.57 |
| Rusk | 0.93 | 1.44 | - | - | - | - | 1.64 | 1.24 | - | - | - |
| Sauk | 1.33 | 1.06 | 1.66 | 1.63 | 3.09 | 1.37 | 2.66 | 1.19 | 1.06 | 0.46 | 0.93 |
| Sawyer | 0.76 | 0.96 | 3.03 | 0.89 | 0.86 | 1.45 | 1.52 | 1.66 | 1.55 | 0.77 | 1.12 |
| Shawano | 0.67 | 0.93 | - | 0.39 | 0.24 | 0.94 | 0.86 | 1.32 | 0.32 | 0.72 | 0.75 |
| St. Croix | 0.98 | 0.86 | 1.07 | 0.45 | 0.28 | 1.80 | 1.44 | 0.92 | 0.54 | 0.37 | 1.27 |
| Taylor | 0.87 | 0.74 | 1.73 | 0.69 | 0.19 | 1.53 | 1.46 | 1.38 | 0.41 | 2.44 | - |
| Trempealeau | 1.41 | 1.38 | 0.21 | 0.36 | 0.14 | 2.12 | 1.19 | 0.92 | - | 0.85 | 0.51 |
| Vernon | 1.83 | 0.96 | 1.09 | 0.32 | 0.18 | - | 0.60 | 1.09 | 0.69 | 1.05 | 0.62 |
| Vilas | 1.00 | 1.16 | 0.18 | 2.01 | 0.45 | 1.88 | 1.20 | 1.52 | 2.39 | - | 2.12 |
| Walworth | 0.83 | 0.88 | 1.36 | 0.87 | 0.70 | 1.34 | 1.28 | 1.17 | 0.86 | 1.25 | 0.95 |
| Washburn | 1.39 | 1.48 | 0.22 | 1.49 | 0.30 | 1.62 | 1.37 | 1.49 | 0.63 | 0.68 | - |
| Washington | 1.83 | 1.00 | 1.03 | 0.69 | 0.48 | 1.01 | 1.13 | 0.93 | 1.29 | 0.53 | 0.72 |
| Waupaca | 0.87 | 1.03 | 0.75 | 0.26 | 0.22 | 1.56 | 0.44 | 1.15 | 0.56 | 0.59 | 1.03 |
| Waushara | 0.62 | 1.03 | 0.09 | 0.65 | 0.12 | 1.43 | 0.52 | 1.03 | 0.75 | 0.26 | 0.68 |
| Wood | 1.15 | 1.39 | 1.36 | 0.68 | 0.30 | 1.06 | 0.84 | 1.09 | 1.20 | 0.57 | 0.90 |

Table 7: Retail Sector Surplus or Leakage 2014 (000\$)

|  | Nonstore Retailers | Miscellaneous Store Retailers | General Merchandise Stores | Sporting Goods, Hobby, Book, and Music Stores | Clothing and Clothing Accessories Stores | Gasoline Stations | Building <br> Material and Garden Equipment and Supplies Dealers | Motor Vehicle and Parts Dealers | Furniture and Home Furnishings Stores | Electronics and Appliance Stores | Food and Beverage Stores |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adams | 4,594.1 | $(2,497.7)$ | $(15,519.5)$ | $(3,016.5)$ | (6,663.7) | 4,932.7 | $(7,609.3)$ | (10,270.2) | $(2,893.3)$ | $(3,826.1)$ | $(8,558.3)$ |
| Ashland | 461.2 | $(1,507.5)$ | $(16,149.9)$ | $(1,372.0)$ | $(1,235.6)$ | 112.3 | 447.9 | 2,468.1 | $(2,036.1)$ | $(2,747.7)$ | 3,207.0 |
| Barron | 9,723.2 | 26,836.6 | 64,324.2 | $(1,967.0)$ | $(7,179.4)$ | 7,406.0 | 43,386.5 | 27,351.5 | $(3,673.8)$ | $(2,093.2)$ | 7,466.4 |
| Bayfield | (934.7) | $(3,121.1)$ | $(14,046.4)$ | $(1,601.4)$ | $(3,514.4)$ | 1,342.4 | 5,152.1 | $(1,987.9)$ | $(2,951.7)$ | $(2,704.4)$ | 1,870.4 |
| Buffalo | 151.6 | $(3,429.7)$ | $(16,600.5)$ | $(2,901.9)$ | $(5,537.0)$ | $(4,968.9)$ | $(3,042.1)$ | $(5,124.2)$ | $(3,082.6)$ | $(2,824.4)$ | $(6,317.6)$ |
| Burnett | (451.1) | $(2,228.4)$ | $(10,871.8)$ | $(1,322.3)$ | $(5,574.9)$ | $(5,002.9)$ | (413.8) | $(4,362.2)$ | $(2,401.4)$ | $(1,875.1)$ | $(6,360.9)$ |
| Chippewa | 106.5 | 20,340.8 | 36,922.3 | 5,463.5 | $(16,678.9)$ | 9,318.8 | $(18,312.7)$ | 43,668.7 | $(5,353.6)$ | 8,678.0 | 3,964.2 |
| Clark | (606.0) | $(1,162.0)$ | $(26,741.7)$ | $(4,537.7)$ | $(9,592.8)$ | 4,919.7 | 260.9 | 6,363.7 | $(2,595.4)$ | 7,304.5 | $(4,605.0)$ |
| Columbia | $(4,913.7)$ | $(1,310.5)$ | $(70,622.6)$ | $(8,917.4)$ | $(15,151.8)$ | 19,581.5 | $(24,742.7)$ | 20,317.3 | $(4,544.1)$ | $(6,426.2)$ | $(5,342.0)$ |
| Crawford | 30,926.9 | 2,567.3 | $(16,819.0)$ | $(2,940.1)$ | $(2,100.9)$ | 1,219.0 | $(5,348.1)$ | (243.3) | $(1,923.8)$ | $(1,156.7)$ | $(6,400.8)$ |
| Dane | $(3,193.9)$ | 1,301.2 | $(20,580.9)$ | 60,767.1 | 65,573.2 | $(70,435.6)$ | $(13,847.3)$ | $(48,673.8)$ | 64,781.3 | 30,219.5 | 65,549.1 |
| Dodge | $(2,946.0)$ | $(15,116.6)$ | $(11,929.8)$ | $(1,378.7)$ | $(27,263.2)$ | 9,713.8 | $(12,576.1)$ | 13,645.2 | $(4,720.1)$ | $(12,723.0)$ | $(5,478.8)$ |
| Door | 904.3 | 20,986.0 | 15,678.3 | 2,116.8 | 6,859.9 | 4,271.8 | 7,626.0 | 16,206.4 | 2,288.0 | $(2,656.4)$ | 8,148.2 |
| Douglas | $(2,863.4)$ | 6,960.3 | 33,141.8 | $(2,001.8)$ | $(11,087.4)$ | 8,484.4 | 28,082.1 | 1,586.8 | $(3,938.4)$ | $(3,365.9)$ | 4,247.6 |
| Dunn | $(3,289.1)$ | $(1,912.5)$ | 17,372.3 | $(1,450.6)$ | $(10,987.3)$ | 5,375.1 | $(14,708.7)$ | 3,766.8 | $(3,606.7)$ | $(2,018.6)$ | $(1,862.4)$ |
| Eau Claire | $(5,099.0)$ | 35,190.5 | 98,718.4 | 52,924.7 | 30,833.1 | $(4,723.1)$ | $(87,977.5)$ | $(1,916.0)$ | (923.8) | 54,312.5 | (9,742.3) |
| Florence | 267.7 | $(1,693.0)$ | $(4,907.9)$ | (857.9) | $(1,637.0)$ | $(1,469.0)$ | $(3,753.7)$ | $(2,716.0)$ | (911.3) | (835.0) | $(1,867.8)$ |
| Fond du Lac | $(7,826.2)$ | $(16,554.9)$ | 35,952.4 | $(6,523.0)$ | $(11,983.6)$ | 2,883.1 | 3,599.0 | $(33,654.6)$ | 3,646.8 | (561.8) | $(4,318.3)$ |
| Forest | 860.7 | $(1,547.0)$ | $(9,179.1)$ | $(1,604.6)$ | $(2,323.7)$ | $(2,747.5)$ | 3,199.1 | 3,385.8 | $(1,704.5)$ | $(1,561.7)$ | $(3,493.3)$ |
| Grant | $(4,885.0)$ | $(3,201.9)$ | $(54,269.3)$ | $(4,212.5)$ | $(11,418.1)$ | 2,628.3 | 35,647.0 | 3.0 | $(7,836.2)$ | $(6,042.1)$ | (982.0) |
| Green | 409.5 | 4,743.5 | $(43,304.5)$ | $(5,547.3)$ | $(8,299.3)$ | $(5,141.8)$ | 3,356.5 | 8,609.7 | $(2,285.5)$ | $(3,412.0)$ | $(2,451.5)$ |
| Green Lake | $(2,239.5)$ | $(4,201.2)$ | $(23,070.3)$ | (543.7) | $(6,451.6)$ | $(1,070.2)$ | $(3,691.8)$ | 3,017.9 | 2,231.2 | $(1,214.3)$ | $(8,779.8)$ |
| lowa | 12,421.4 | $(6,808.1)$ | $(28,453.1)$ | $(4,159.1)$ | $(8,325.1)$ | 3,304.0 | 185.3 | 8,469.4 | $(1,868.1)$ | $(1,076.2)$ | $(4,332.5)$ |
| Iron | (420.2) | (457.1) | $(7,135.5)$ | $(1,247.3)$ | $(2,380.0)$ | $(2,135.8)$ | $(2,043.9)$ | $(2,587.2)$ | $(1,325.0)$ | $(1,214.0)$ | $(2,715.5)$ |
| Jackson | $(1,128.2)$ | $(1,135.5)$ | 18,296.3 | $(3,866.7)$ | $(6,542.6)$ | $(6,620.8)$ | $(6,620.4)$ | 2,131.7 | $(3,313.2)$ | $(2,230.3)$ | $(1,902.0)$ |
| Jefferson | $(4,384.4)$ | $(7,463.8)$ | $(88,866.9)$ | $(8,935.8)$ | 40,974.1 | 14,452.6 | 8,732.0 | 5,487.6 | $(3,740.3)$ | $(7,215.0)$ | (12,472.0) |
| Juneau | (872.3) | $(5,167.1)$ | $(10,071.0)$ | $(2,241.4)$ | $(7,139.8)$ | 20,262.9 | $(7,785.5)$ | 11,513.9 | $(3,224.5)$ | $(3,005.0)$ | (750.2) |
| Kenosha | $(11,639.3)$ | $(21,294.7)$ | 26,717.6 | 13,463.7 | 116,492.2 | $(2,030.4)$ | $(15,167.8)$ | $(35,647.3)$ | 4,004.9 | 5,523.7 | 19,283.8 |
| La Crosse | 307.7 | 55,550.7 | 138,937.8 | 16,360.2 | 29,924.6 | (40,347.4) | 68,985.3 | 13,286.4 | 465.8 | 50,249.9 | 27,188.7 |
| Lafayette | $(2,041.2)$ | $(6,764.2)$ | $(10,678.2)$ | $(3,329.7)$ | $(5,893.6)$ | $(5,701.2)$ | $(3,834.4)$ | 5,638.1 | $(3,536.9)$ | $(3,240.7)$ | $(7,248.8)$ |
| Langlade | 245.9 | $(5,393.8)$ | 33,559.6 | (213.3) | $(5,257.2)$ | 999.6 | 20,376.3 | 14,467.1 | $(2,135.1)$ | $(3,635.7)$ | $(4,806.4)$ |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lincoln | 4,394.0 | (5,369.3) | (29,061.5) | 1,743.6 | $(8,417.0)$ | 5,409.5 | $(5,456.2)$ | 19,723.8 | (934.2) | $(4,944.5)$ | 4,044.4 |
| Marathon | $(1,860.1)$ | 11,444.9 | 111,158.3 | 14,314.0 | 10,274.9 | 11,572.3 | 66,830.6 | 48,878.4 | 6,246.3 | 8,850.2 | $(17,876.8)$ |
| Marinette | $(3,153.4)$ | 7,283.0 | 13,379.9 | $(1,089.5)$ | $(10,006.6)$ | 3,459.1 | 18,047.1 | 14,381.1 | $(4,690.1)$ | (769.7) | 12,788.1 |
| Marquette | (578.6) | $(1,298.8)$ | $(12,383.2)$ | $(2,487.3)$ | $(4,745.8)$ | 2,425.7 | $(6,582.4)$ | 5,925.8 | $(1,242.6)$ | $(2,420.8)$ | 596.7 |
| Milwaukee | $(55,267.7)$ | $(35,409.2)$ | 1,212.9 | $(30,004.6)$ | 140,789.3 | $(101,563.7)$ | $(279,963.1)$ | $(303,247.2)$ | 18,271.3 | $(11,354.8)$ | $(7,449.2)$ |
| Monroe | 334.3 | $(3,503.4)$ | $(45,523.8)$ | $(3,681.5)$ | $(11,714.3)$ | 20,069.5 | $(2,164.8)$ | 7,550.7 | $(3,890.4)$ | $(3,901.1)$ | $(4,213.7)$ |
| Oconto | (723.9) | $(14,800.6)$ | $(34,798.7)$ | $(4,124.5)$ | $(13,056.1)$ | 4,476.6 | $(10,169.4)$ | 2,684.7 | $(5,311.6)$ | $(3,089.4)$ | $(4,137.8)$ |
| Oneida | 3,575.1 | 4,303.4 | $(42,052.3)$ | 2,534.7 | $(2,586.2)$ | $(4,369.4)$ | 58,270.9 | 36,584.5 | 7,567.5 | $(7,154.7)$ | 19,013.1 |
| Ozaukee | $(13,108.0)$ | $(28,792.7)$ | $(8,092.9)$ | $(5,967.7)$ | $(30,715.2)$ | $(20,916.6)$ | $(44,730.7)$ | $(47,181.7)$ | 8,274.4 | $(4,665.6)$ | $(14,378.1)$ |
| Pepin | (439.9) | 2,520.4 | $(8,214.5)$ | $(1,436.0)$ | $(2,739.9)$ | $(2,458.7)$ | 2,462.6 | 711.3 | (381.0) | $(1,397.6)$ | $(3,126.2)$ |
| Pierce | $(2,124.4)$ | $(3,994.1)$ | $(36,473.6)$ | $(4,591.2)$ | $(11,714.4)$ | 3,389.9 | $(14,081.3)$ | $(16,142.4)$ | $(4,863.4)$ | $(4,106.8)$ | (362.1) |
| Polk | (748.2) | $(4,005.0)$ | $(45,802.7)$ | $(4,110.2)$ | $(13,678.6)$ | 2,313.2 | 34,205.6 | $(8,905.2)$ | $(2,625.6)$ | $(4,530.0)$ | 5,134.3 |
| Portage | 35,539.5 | $(5,522.1)$ | 30,372.4 | 1,792.8 | $(9,232.6)$ | 9,943.5 | 25,774.5 | 21,880.6 | 5,956.2 | 8,154.8 | $(10,611.1)$ |
| Price | (518.3) | (277.6) | $(10,126.6)$ | $(1,056.5)$ | $(4,883.9)$ | 2,614.3 | 54.0 | 2,156.8 | $(1,009.3)$ | $(2,491.2)$ | $(5,572.4)$ |
| Richland | $(1,628.7)$ | 762.3 | $(18,163.1)$ | $(3,175.1)$ | $(4,774.0)$ | 3,267.1 | $(7,321.1)$ | 3,320.4 | $(1,790.7)$ | (695.7) | $(1,533.7)$ |
| Rock | $(11,355.2)$ | $(8,794.3)$ | 81,029.0 | 4,154.2 | $(7,739.9)$ | 20,673.8 | 26,275.4 | 15,877.0 | $(6,254.4)$ | 4,666.4 | 37,084.5 |
| Rusk | (237.8) | 4,131.5 | $(12,657.2)$ | $(2,212.6)$ | $(4,221.8)$ | $(3,788.6)$ | 6,154.5 | 4,668.6 | $(2,350.3)$ | $(2,153.5)$ | $(4,816.9)$ |
| Sauk | 6,410.7 | 3,015.8 | 46,745.1 | 7,830.1 | 49,458.5 | 7,763.1 | 90,164.0 | 20,996.1 | 744.5 | $(6,512.9)$ | $(1,814.7)$ |
| Sawyer | $(1,183.6)$ | (586.0) | 36,855.3 | (350.8) | (853.6) | 2,439.7 | 7,237.3 | 18,195.9 | 1,869.0 | (716.7) | 799.0 |
| Shawano | $(3,802.5)$ | $(2,117.2)$ | $(41,914.8)$ | $(4,474.1)$ | $(10,562.1)$ | (778.8) | $(4,427.6)$ | 20,372.9 | $(5,314.4)$ | $(1,998.0)$ | $(3,915.4)$ |
| St. Croix | (640.4) | $(10,581.5)$ | 7,304.9 | $(9,817.4)$ | $(24,608.6)$ | 24,542.8 | 34,791.4 | $(12,880.7)$ | $(8,683.9)$ | (10,971.3) | 10,460.0 |
| Taylor | (649.0) | $(3,549.7)$ | 13,258.6 | (975.4) | $(4,880.9)$ | 2,859.8 | 6,410.7 | 10,495.6 | $(1,973.6)$ | 4,432.5 | $(6,884.7)$ |
| Trempealeau | 3,562.5 | 8,936.9 | $(25,071.0)$ | $(3,543.2)$ | $(9,081.0)$ | 10,648.3 | 4,656.3 | $(3,738.8)$ | $(5,882.7)$ | (788.2) | $(5,955.0)$ |
| Vernon | 6,324.8 | (812.2) | 2,570.8 | $(3,311.4)$ | $(7,673.3)$ | $(8,380.6)$ | $(8,515.9)$ | 4,016.2 | $(1,621.8)$ | 234.9 | $(4,101.6)$ |
| Vilas | 18.2 | 2,941.5 | $(19,953.7)$ | 4,295.6 | $(4,470.0)$ | 6,399.4 | 3,738.0 | 19,412.9 | 6,302.5 | $(4,145.0)$ | 10,339.1 |
| Walworth | $(5,188.6)$ | $(9,605.3)$ | 39,356.4 | $(2,505.2)$ | $(11,005.9)$ | 11,143.6 | 23,450.3 | 29,093.2 | $(2,923.1)$ | 4,696.2 | $(2,110.3)$ |
| Washburn | 1,809.5 | 6,162.5 | $(13,244.4)$ | 1,459.8 | $(3,961.5)$ | 3,138.6 | 4,779.4 | 12,719.6 | $(1,156.5)$ | (934.4) | $(6,473.2)$ |
| Washington | 40,719.8 | (644.2) | 6,213.1 | $(9,779.4)$ | $(31,022.9)$ | 327.8 | 17,594.1 | $(18,267.7)$ | 9,544.2 | $(14,357.3)$ | $(19,229.0)$ |
| Waupaca | $(2,107.4)$ | 1,463.4 | $(14,716.2)$ | $(7,575.4)$ | $(15,209.5)$ | 9,892.3 | $(25,307.7)$ | 13,884.9 | $(4,807.3)$ | $(4,134.0)$ | 561.1 |
| Waushara | $(2,543.0)$ | 624.5 | $(22,250.9)$ | $(1,488.3)$ | $(7,187.9)$ | 3,175.1 | $(9,058.3)$ | 1,191.2 | $(1,120.0)$ | $(3,091.3)$ | $(3,008.9)$ |
| Wood | 3,522.7 | 25,564.5 | 31,241.4 | $(4,773.7)$ | $(20,217.7)$ | 1,498.0 | $(10,678.8)$ | 11,439.5 | 3,158.2 | $(6,337.5)$ | $(3,387.2)$ |


[^0]:    ${ }^{1}$ For a more detailed discussion of alternative methods to analyze local retail and service markets, see the UWExtension, Cooperative Extension program entitled "Downtown and Business District Market Analysis" by Bill Ryan and Matt Kures at http://fyi.uwex.edu/downtown-market-analysis/

[^1]:    ${ }^{2}$ This includes an analysis of: $2013 \mathrm{www} . a a e . w i s c . e d u / p u b s / \mathrm{misc} /$ docs/deller.trade\%20area\%20analysis\%20WI\%20retail\%20markets\%20update\%2008.14.pdf 2012 http://www.aae.wisc.edu/pubs/misc/docs/deller.trade\%20area\%20analysis\%20WI\%20retail\%20markets\%2008.13.pdf 2011 www.aae.wisc.edu/pubs/sps/pdf/stpap567.pdf 2010 http://www.aae.wisc.edu/pubs/sps/pdf/stpap550.pdf 2009 http://www.aae.wisc.edu/pubs/sps/pdf/stpap550.pdf 2006 http://www.aae.wisc.edu/pubs/sps/pdf/stpap512.pdf 2005 http://www.aae.wisc.edu/pubs/sps/pdf/stpap503.pdf 2004 http://www.aae.wisc.edu/pubs/misc/docs/deller.TAAcounty.\%202006.pdf 1999 http://www.aae.wisc.edu/pubs/sps/pdf/stpap428.pdf

    Inconsistency in the release of the data by the Department of Revenue has limited the ability to conduct the analysis on a consistent timely annual basis. The data can also be obtained by contacting the author.

[^2]:    ${ }^{4}$ http://www.uwex.edu/ces/cced/publicat/letstalk.html
    ${ }^{5}$ http://www.nal.usda.gov/ric/ricpubs/downtown.html

