## Oklahoma Retail Trade Analysis

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### Retail Pull Factors

Retail trade is the sale and distribution of merchandise to consumers through either a store location or non-store location such as the internet, phone, catalog, or advertising.

Retail trade is one of the key economic indicators of regional economies. The retail strength of a county is a function of the customer base served, the buying power of the customer base, competition, and the quality of the retail environment. Retail pull factors measure retail sales in eight sectors captured by counties across Oklahoma.

In 2018, according to the National Retail Federation (2020), 429,300 employees worked in the retail sector at 56,100 establishments across Oklahoma. Employees in the retail sector earned an average wage of $27,253 accounting to $11.7 billion in direct labor income.

In 2021, as illustrated in Figure 1, in terms of percentage of retail sales by industry, the greatest amount of retail sales was in general merchandise (29%), followed by eating and drinking places (19%). Automobile and gasoline accounted for 16%, building materials comprised of 11%, and miscellaneous retail added up to 10% of retail sales. While food comprised 9% of retail sales, apparel and accessories accounted for 3% of retail sales, and home furniture accounted for remaining retail sales (3%) in Oklahoma.

### Program Overview

CREATE BRIDGES (Celebrating REtail, Accommodations, Tourism, and Entertainment by Building Rural Innovations and Developing Growth Economies) is a pilot project designed for multi-county regions to raise the awareness of the role retail, accommodations, tourism, and entertainment businesses play in the local economy; determine challenges, barriers, and opportunities related to those businesses; and develop and implement strategies to strengthen the retail, accommodations, tourism, and entertainment sectors within a region. CREATE BRIDGES is a collaborative partnership between the Southern Rural Development Center, the University of Arkansas, The University of Illinois, the University of Kentucky, New Mexico State University, North Carolina State University and Oklahoma State University. It is currently active in eight regions throughout the six partner states.
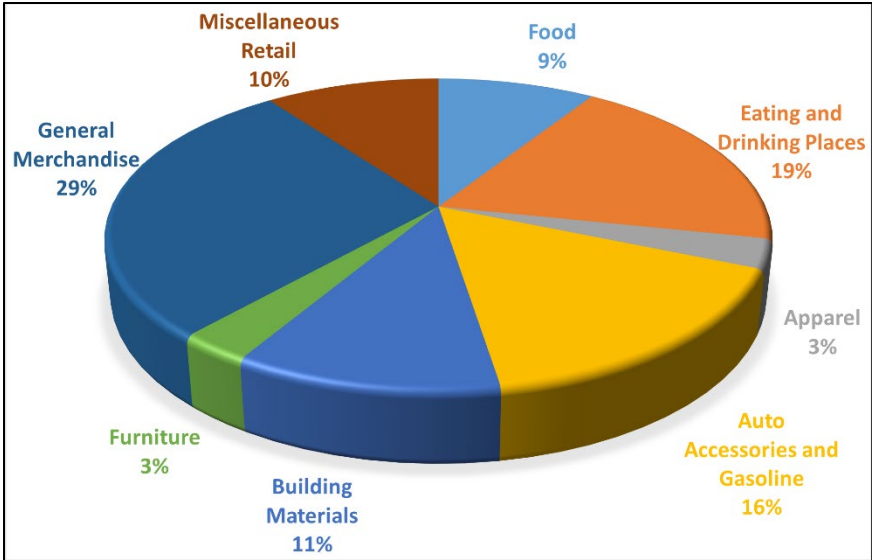
*Figure 1. Percent Retail Sales in Oklahoma by Detailed Industry, 2021*

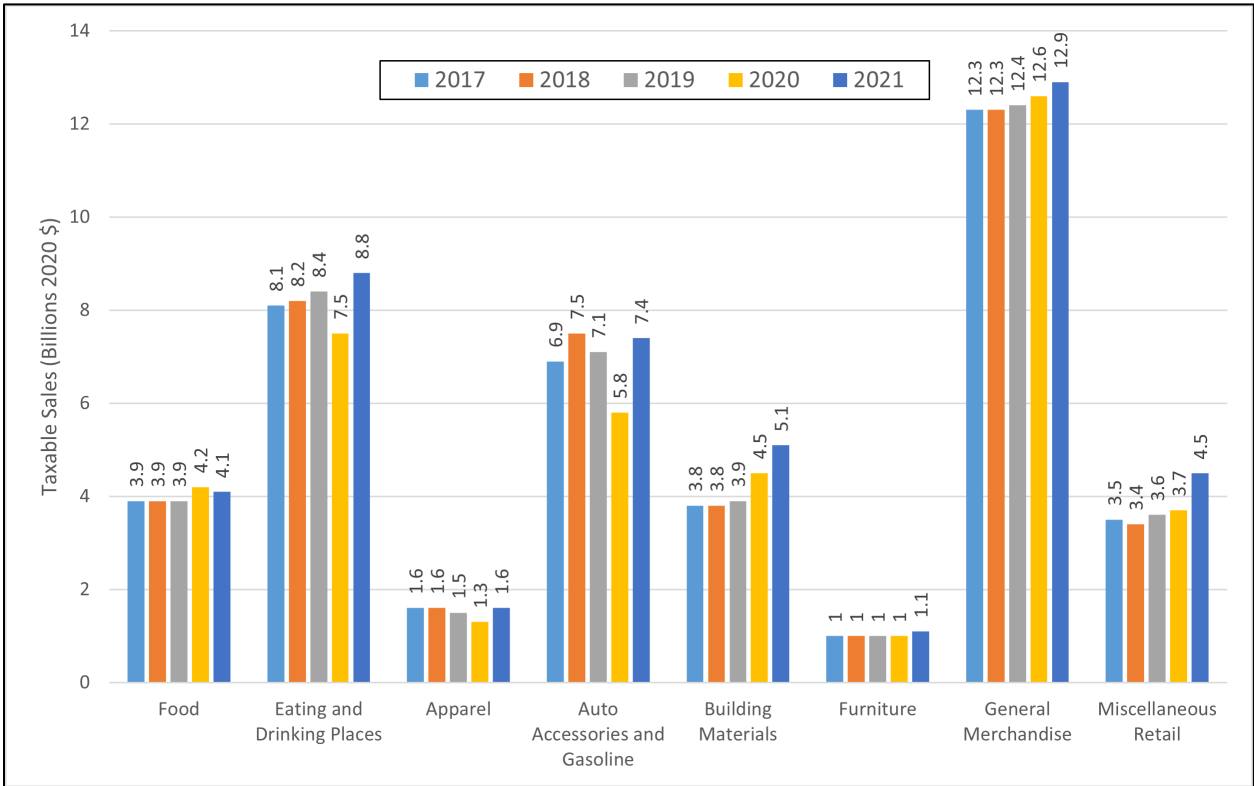*Source: Oklahoma Business Bulletin, 2022*



*Figure 2. Comparison of Taxable Sales by Detailed Industry in Oklahoma, 2017-2021*

*Source: Oklahoma Business Bulletin, 2022*

In terms of retail sales trends over the last five years (Figure 2), Oklahoma residents spent the most (over $12 billion) in general merchandise followed by eating and drinking places

(over $7 billion). Retail expenditures ranged from $5-$7 billion in automobiles, accessories, and gasoline services. Building materials expenditures increased from $3.8 to $5.1 billion and miscellaneous retail increased from $3.5 to $4.5 billion over recent years. Food expenditures remained fairly stable and increased slightly from $3.9 to over $4 billion. Apparel and accessories expenditures ranged from $1.3 to $1.6 billion with slight changes. Retail expenditures on home furnishings was the least among all sectors in the range of $1 to $1.1 billion. All retail sales were adjusted for inflation and presented in 2020 dollars. Retail expenditures in 2020 declined in eating and drinking places as well as automotive sectors but an increase in building materials, general merchandise and miscellaneous retail. Appendix B provides a detail of the retail trade classifications and the sectors or industries included in each category.

## CREATE BRIDGES in New Mexico

In Oklahoma, Celebrating Retail, Accommodations, Tourism, and Entertainment by Building Rural Innovations and Developing Growth Economies (CREATE BRIDGES) counties are found in the Sandstone Hills region (Creek, Osage, and Pawnee counties) and the Crossing Borders region (Adair, Cherokee, Delaware, Mayes, and Sequoyah counties) as presented in Figure 3.
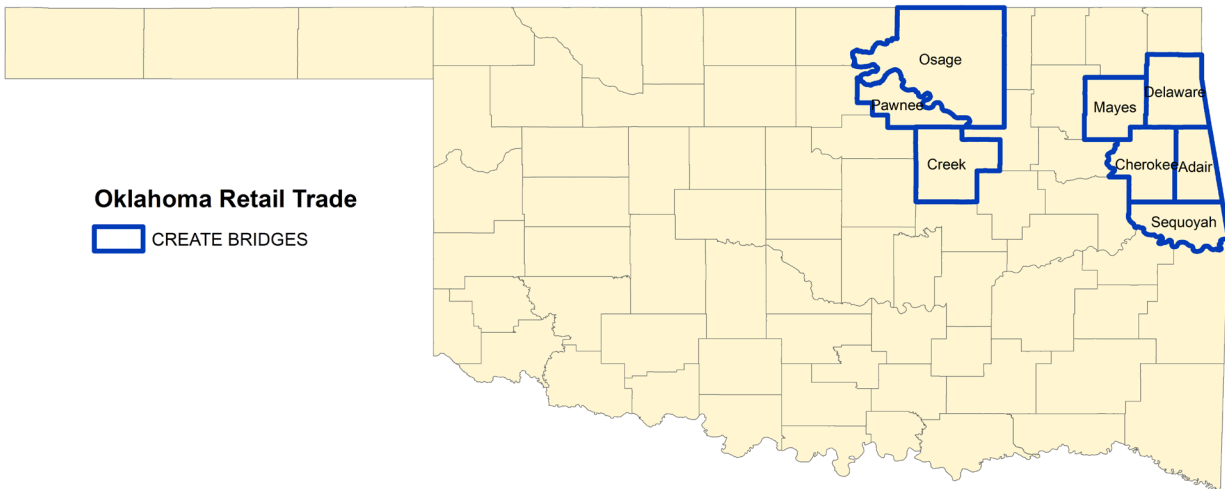


*Figure 3. CREATE BRIDGES counties in Oklahoma*

In Table 1, total retail sales are summarized for three cities Oklahoma CREATE BRIDGES counties from 2017 to 2021. Due to data limitations, data was not readily available at the county level and all prominent cities in each county. During this period, retail sales increased consistently for each county except during the pandemic year of 2020.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Creek County** | | | | | |
| Sapulpa | 211.24 | 218.94 | 223.69 | 227.12 | 248.67 |
| | | | | | |
| **Osage County** | | | | | |
| Pawhuska | 29.22 | 49.99 | 49.35 | 43.13 | 52.50 |
| | | | | | |
| **Cherokee County** | | | | | |
| Tahlequah | 304.49 | 311.55 | 318.85 | 327.74 | 371.57 |

*Table 1. Summary of total retail sales in CREATE BRIDGES counties in Oklahoma (millions 2020$)*

*Source: Oklahoma Business Bulletin, 2022*

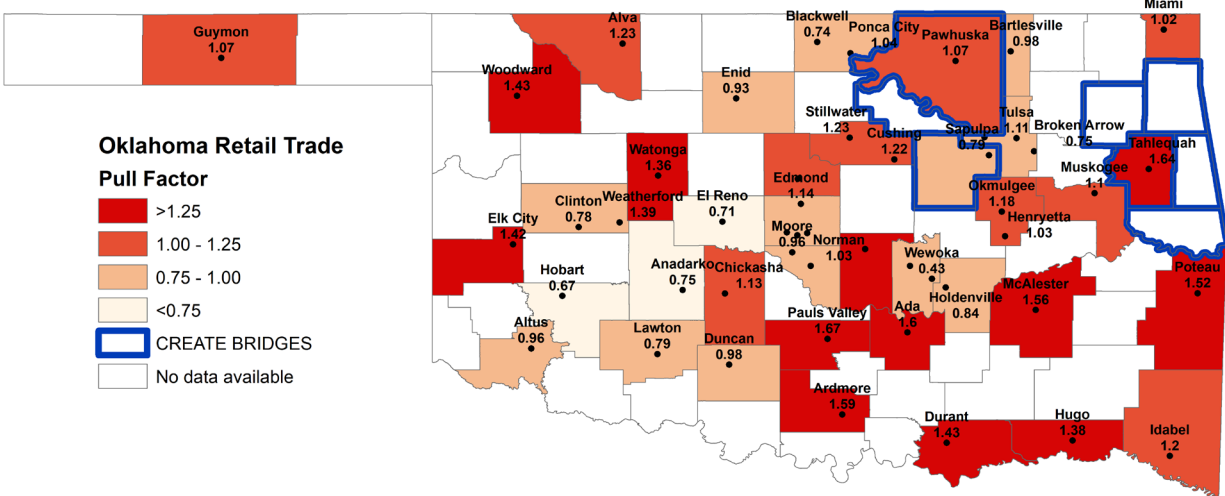## Oklahoma Retail Pull Factors



*Figure 4. Oklahoma City Retail Trade Pull Factors*

*Sources: Oklahoma Business Bulletin, 2022; U.S. Census Bureau, 2022a; U.S. Census Bureau, 2022c*

In 2021, 31 cities in Oklahoma had a retail trade pull factor greater than 1 indicating either a gain in customers from other cities or residents spent more than the state average on retail purchases (Figure 4). On the other hand, 18 cities had a pull factor below 1 indicating residents either spent less than other cities or purchased more goods outside their county. Residents in Taulequah, Pawhuska, Pauls Valley, Ada, Ardmore, McAlester, and Poteau cities spent more than others while Sapulpa, Wewoka, Hobart, and Reno residents spent less than the average on retail goods and services. The equation to compute retail trade pull factor is as follows:

$$Pull\ Factor_{sector} = \frac{Retail\ sales_{city}}{Adjusted\ population_{city}} \div \frac{Retail\ sales_{state}}{Adjusted\ population_{state}}$$

Market share is the percentage of retail trade area captured by a city with respect to the state. In other words, market share is the percent of the total customer base in Oklahoma captured by the city's retail trade. Trade area capture is computed by multiplying the adjusted population with the pull factor for a region. Trade area capture is a measure of the size of customer base. The equation to compute market share is as follows:

$$Market\ share_{sector} = \frac{Trade\ area\ capture_{city}}{Trade\ area\ capture_{state}} = \frac{Adjusted\ population_{city} * PF_{sector}}{Adjusted\ population_{state} * PF_{sector}}$$

In computing the retail trade measures, it was assumed that there are no leakages of retail consumers/sales outside the state of Oklahoma. Both retail pull factors and market share were calculated based on taxable sales report data obtained from the Oklahoma Business Bulletin. Taxable sales data consist of all sales reported by retail establishments. Taxable sales data does not include out-of-state, catalog, internet sales or sales data in counties with fewer than six retail establishments.

Despite these limitations, taxable sales data captures a majority of retail sales and is a good measure of retail activity.

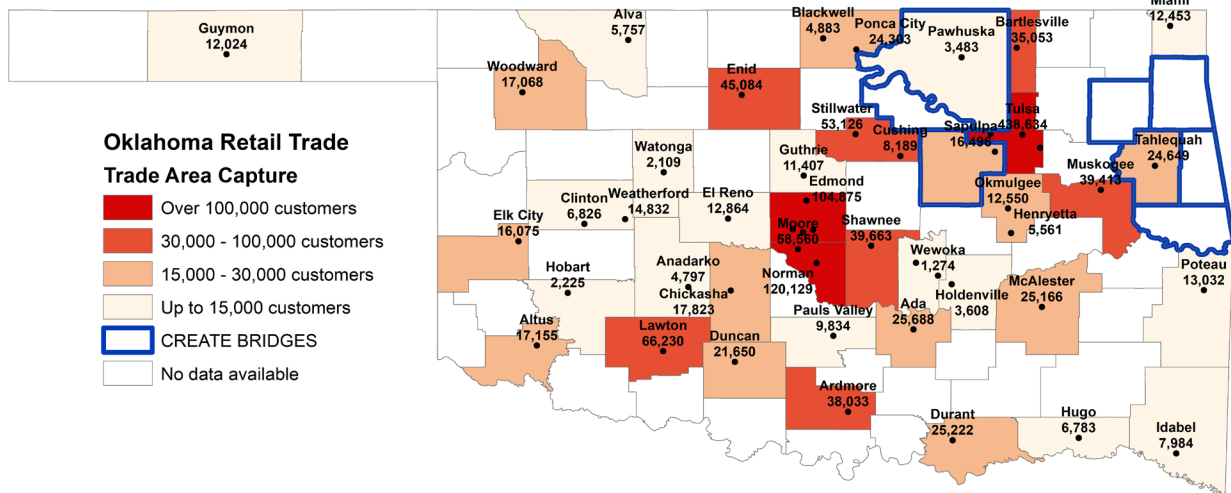## Trade Area Capture of Retail Customers



*Figure 5. Estimated Trade Area Capture of Retail Customers in Oklahoma*

*Source: Oklahoma Business Bulletin, 2022; U.S. Census Bureau, 2022a; U.S. Census Bureau, 2022c*

Retail customers travel across borders to purchase goods and services. The map above (Figure 5) illustrates the number of retail customers purchasing retail goods and services within their city and county. While 18 cities did not capture all the retail customers in the local area, 31 cities attracted outside retail customers to the local area. Oklahoma City,

Tulsa, Norman, and Edmond attracted the most retail customers. The cities and counties adjacent to the metropolitan areas are losing the most retail customers. The cities of Wewoka, Watonga and Hobart captured the least number of retail customers in the local area. Another trend is the loss of retail customers in cities and counties that are neighboring states of Texas, Kansas, and Arkansas.
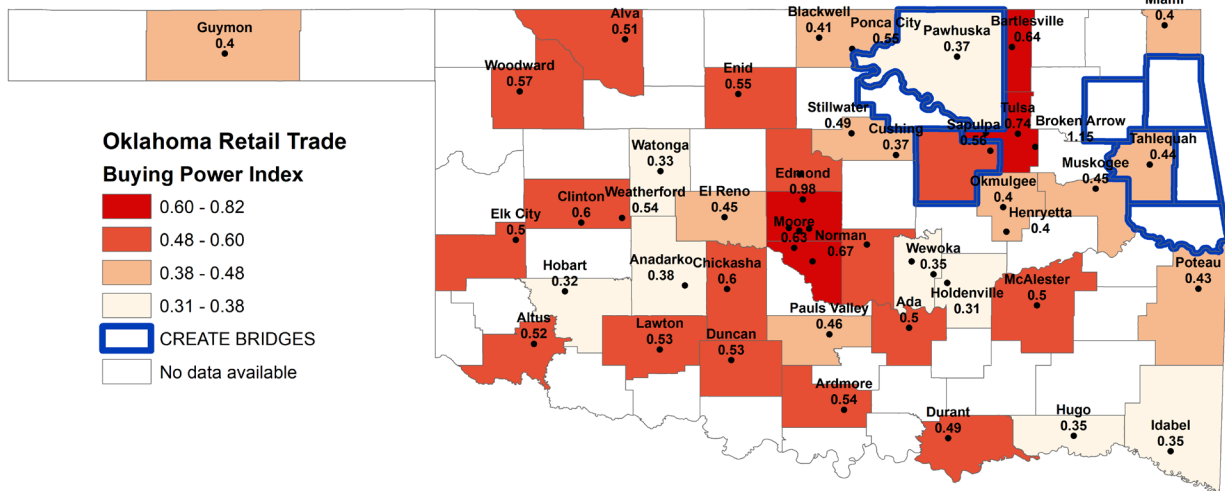
## Buying Power Index



*Figure 6. Buying power index of retail customers in Oklahoma*

*Source: Oklahoma Business Bulletin, 2022; U.S. Census Bureau, 2022b; U.S. Census Bureau, 2022c*

The buying power index is a measure of the capability of the retail customers living in that city to buy retail goods as illustrated in Figure 6. The higher the index, the greater the ability to buy retail goods and support retail activity in the region. The buying power of retail customers (Figure 6) in Broken Arrow, Edmond, Oklahoma City and Tulsa are relatively higher than other cities. Retail customers in Holdenville, Hobart and Watonga had the lowest buying power among all others in Oklahoma. Many communities in the southeastern, western, and eastern regions have a relative low buying power compared to other cities.

The buying power index is calculated by the following equation:

*Buying Power Index = (2* Population %) + (3*Retail Sales %) + (5*Per capita income %)*

*10 (sum of the weights)*

Where Population % is the percentage of city population to that of the state of Oklahoma, Retail Sales % is the percentage of retail sales in the city to that of the state of Oklahoma, and Per capita income % is the percentage of per capita income in the county to that of the state of Oklahoma.

Appendix A provides details on county trade pull factors, trade area capture, market shares, estimated retail customer surplus/leakage and buying power index for all counties in Oklahoma.

## Summary and Conclusions

Retail trade is an important sector for Oklahoma's economy supporting 429,300 employees working in 56,100 establishments across the State. Retail sector has exhibited strong growth over the years particularly in 2021 demonstrating a strong economic recovery from the COVID-19 pandemic. Retail expenditures in the general merchandise, eating and drinking places, and automobiles and parts sectors have been particularly noteworthy over the last five years.

Retail customers spent more than the state average in metropolitan areas in the central region around the Tulsa and Oklahoma City areas. Cities and counties surrounding metropolitan areas have lost retail customers across the state. While Central Oklahoma captured local retail dollars, the northern and western regions could be better served.

One of the limitations of this study in calculating the retail measures is that the economy of the state is considered closed to any out-of-state customers buying retail goods and services. It is also assumed that none of the retail customers within the state shop for retail goods and services outside the state. Of course, there is free movement of retail customers across the borders which is beyond the scope of this study.

Serving rural retail customers and retaining their business is a particular challenge for the retail sector as illustrated through various retail measures. Addressing the needs of low-income consumers and hard to reach areas in specific regions of Oklahoma can provide growth opportunities for the retail industry in Oklahoma.

Retail trade activity in the CREATE BRIDGES region can be improved. The Crossing Borders region is adjacent to Arkansas and the Sandstone Hills region is adjacent to Kansas indicating a potential to attract retail customers across these states. The retail pull factors for cities in the CREATE BRIDGES region are relatively high indicating the ability to attract retail customers to this region. The trade area capture of retail customers is relatively low indicating a lack of anchor retail establishments that cater to the needs of retail customers in this area which also helps in stemming the loss of retail customers outside this region. The buying power of retail customers is relatively high indicating a willingness to pay for retail goods and services in the local area. Proximity to state highways and interstate highways is a strength of these communities which can be leveraged in terms of storage and distribution of retail goods in this region. An in-depth analysis of willingness to pay

for retail goods and understanding the preferences of local retail customers will help in recruiting the appropriate retail outlets to these regions.

The analysis was based on city retail trade data, lack of county level retail trade sales numbers was a major limitation of this study. Access to county level retail sales numbers can significantly improve the analysis and adds more depth to the study. It is worthwhile to invest resources in capturing county wide retail sales for future analysis.

## About the Authors

Dr. Sreedhar Upendram is an Associate Professor in the Department of Agricultural and Resource Economics at University of Tennessee. His primary areas of research are community economics, economic impact analysis, rural development, and natural resource economics.

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## Appendix A

Retail Trade Pull Factor, Trade Area Capture, Market Share, Estimated Retail Customer Surplus or Leakage and Buying Power Index for Counties in Oklahoma

| City | City Trade Pull Factor | Trade Area Capture | Market Share | Retail Customer Surplus/Leakage | Buying Power Index |
|---|---|---|---|---|---|
| Ada | 1.60 | 25,688 | 1.19% | 9,682 | 0.50 |
| Altus | 0.96 | 17,155 | 0.80% | -781 | 0.52 |
| Alva | 1.23 | 5,757 | 0.27% | 1,082 | 0.51 |
| Anadarko | 0.75 | 4,797 | 0.22% | -1,599 | 0.38 |
| Ardmore | 1.59 | 38,033 | 1.76% | 14,070 | 0.54 |
| Bartlesville | 0.98 | 35,053 | 1.62% | -787 | 0.64 |
| Blackwell | 0.74 | 4,883 | 0.23% | -1,692 | 0.41 |
| Broken Arrow | 0.75 | 81,299 | 3.77% | -27,060 | 1.15 |
| Chickasha | 1.13 | 17,823 | 0.83% | 2,101 | 0.60 |
| Clinton | 0.78 | 6,826 | 0.32% | -1,975 | 0.60 |
| Cushing | 1.22 | 8,189 | 0.38% | 1,496 | 0.37 |
| Del City | 0.75 | 16,181 | 0.75% | -5,481 | 0.45 |
| Duncan | 0.98 | 21,650 | 1.00% | -432 | 0.53 |
| Durant | 1.43 | 25,222 | 1.17% | 7,560 | 0.49 |
| Edmond | 1.14 | 104,875 | 4.86% | 13,211 | 0.98 |
| El Reno | 0.71 | 12,864 | 0.60% | -5,248 | 0.45 |
| Elk City | 1.42 | 16,075 | 0.75% | 4,753 | 0.50 |
| Enid | 0.93 | 45,084 | 2.09% | -3,398 | 0.55 |
| Guthrie | 1.11 | 11,407 | 0.53% | 1,110 | 0.55 |
| Guymon | 1.07 | 12,024 | 0.56% | 797 | 0.40 |
| Henryetta | 1.03 | 5,561 | 0.26% | 161 | 0.40 |
| Hobart | 0.67 | 2,225 | 0.10% | -1,119 | 0.32 |
| Holdenville | 0.84 | 3,608 | 0.17% | -710 | 0.31 |
| Hugo | 1.38 | 6,783 | 0.31% | 1,859 | 0.35 |
| Idabel | 1.20 | 7,984 | 0.37% | 1,358 | 0.35 |
| Lawton | 0.79 | 66,230 | 3.07% | -18,091 | 0.53 |
| McAlester | 1.56 | 25,166 | 1.17% | 9,073 | 0.50 |
| Miami | 1.02 | 12,453 | 0.58% | 208 | 0.40 |
| Midwest City | 0.93 | 53,296 | 2.47% | -3,761 | 0.55 |
| Moore | 0.96 | 58,560 | 2.71% | -2,734 | 0.63 |
| Muskogee | 1.10 | 39,413 | 1.83% | 3,472 | 0.45 |
| Norman | 1.03 | 120,129 | 5.57% | 3,865 | 0.67 |
| Oklahoma City | 0.85 | 543,133 | 25.17% | -93,425 | 0.76 |
| Okmulgee | 1.18 | 12,550 | 0.58% | 1,948 | 0.40 |
| Pauls Valley | 1.67 | 9,834 | 0.46% | 3,930 | 0.46 |
| Pawhuska | 1.07 | 3,483 | 0.16% | 223 | 0.37 |

| City | City Trade Pull Factor | Trade Area Capture | Market Share | Retail Customer Surplus/Leakage | Buying Power Index |
|---|---|---|---|---|---|
| Ponca City | 1.04 | 24,303 | 1.13% | 1,027 | 0.55 |
| Poteau | 1.52 | 13,032 | 0.60% | 4,462 | 0.43 |
| Sand Springs | 1.12 | 22,116 | 1.03% | 2,337 | 0.57 |
| Sapulpa | 0.79 | 16,496 | 0.76% | -4,430 | 0.56 |
| Seminole | 1.33 | 9,063 | 0.42% | 2,239 | 0.37 |
| Shawnee | 1.33 | 39,663 | 1.84% | 9,923 | 0.49 |
| Stillwater | 1.23 | 53,126 | 2.46% | 10,004 | 0.49 |
| Tahlequah | 1.64 | 24,649 | 1.14% | 9,581 | 0.44 |
| Tulsa | 1.11 | 438,634 | 20.33% | 43,133 | 0.74 |
| Watonga | 1.36 | 2,109 | 0.10% | 559 | 0.33 |
| Weatherford | 1.39 | 14,832 | 0.69% | 4,124 | 0.54 |
| Wewoka | 0.43 | 1,274 | 0.06% | -1,722 | 0.35 |
| Woodward | 1.43 | 17,068 | 0.79% | 5,097 | 0.57 |

## Appendix B

Retail Trade Classifications and Sectors Included

Apparel retail trade includes retail businesses that sell clothes, accessories, jewelry, luggage, leather and other personal goods for men, women, and children.

Automotive retail trade includes new and used car, recreational vehicle, motorcycle, boat, and other motor vehicle dealers as well as stores selling automotive parts, tires, and accessories. Automobile service stations, gasoline stations combined with convenience stores and car washes are included in this sector.

Building material retail trade includes building material supplies dealers, home centers, stores selling paint, wallpaper, lawn, garden equipment, and outdoor power equipment. Nursery, garden center, and farm supply stores are also included in this sector.

Eating and Drinking retail trade includes restaurants, fast food places, refreshment stands, and drinking places such as bars, pubs, and taverns. The sector includes food courts in malls, hotel owned restaurants as well as bars and restaurants owned by civic, social, and fraternal associations.

Food retail trade includes grocery stores, supermarkets, convenience stores, specialty food stores including meat, fish, seafood, fruit, and vegetable markets. This sector includes bakery goods stores, confectionery and nut stores, and all other specialty food stores. Beer, wine, and liquor stores are also included in this sector.

Furniture retail trade includes stores that sell furniture, upholstery, appliances, and floor covering. Window treatment stores and all other home furnishings are included in this sector. This sector also includes consumer electronics, music, computer software, and musical instrument stores.

Miscellaneous retail trade includes florists, office supplies, stationery, gift, novelty, and souvenir stores. Merchandise, pet supplies, art dealers are also included in this sector. This sector also includes manufactured home dealers, tobacco stores, and other retail stores.

General merchandise retail includes department stores, discount stores, and supercenters. These stores sell dry goods, apparel and accessories, furniture and home furnishings, food, and hardware. Big box retail stores are included in this sector.