

Illinois Retail Trade Analysis

Dr. Sreedhar Upendram, University of Tennessee Dr. James Mingie, University of Tennessee

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, and the quality of the retail environment. Retail pull factors measure retail sales captured by counties across Illinois in eight sectors.

In 2018, according to the National Retail Federation (2020), 1.2 million employees worked in the retail sector at 144,200 establishments across Illinois. Employees in the retail sector earned an average wage of \$36,192 accounting to \$38.8 billion in direct labor income..

In 2021, as illustrated in Figure 1, in terms of percentage of retail sales by sectors, the greatest amount of retail expenditure was in the motor vehicles and parts sector (30%), followed by miscellaneous retail (22%). While retail expenditure at drinking and eating places was 15%, general merchandise accounted for 9%. Building materials and garden supplies accounted for 8%, and food comprised 7% of retail sales. Lastly, home furniture as well as furnishings accounted for 5% and apparel/accessories expenditures amounted to 4% of retail sales in Illinois.



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. Retail Sales Breakdown in Illinois by Detailed Industry, 2021

Source: Illinois Department of Revenue, 2022



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

Source: Illinois Department of Revenue, 2022

In terms of retail sales trends over the last five years (Figure 2), Illinois residents spent the most (over \$2 billion) on motor vehicles and parts followed by drinking and eating places (over \$1 billion). Retail expenditures ranged from less than a billion to a little over \$1 billion in miscellaneous retail over the last few years, with the biggest increase in 2021. General merchandise expenditures declined over the years from \$0.73 billion (2017) to \$0.67 billion (2021). Building materials and supplies as well as food expenditures showed modest increases over the past five years. Retail expenditures for most sectors rebounded well in 2021 after declines in 2020 due to the pandemic. All of the retail sales were adjusted for inflation and presented in 2020 dollars. Appendix B provides a detail of the retail trade classifications and the sectors or industries included in each category.

CREATE BRIDGES in Illinois

In Illinois, Celebrating REtail, Accommodations, Tourism, and Entertainment by Building Rural Innovations and Developing Growth Economies (CREATE BRIDGES) counties are found in the Southern Five region (Alexander, Johnson, Massac, Pulaski, and Union counties) as presented in Figure 3.



Figure 3. CREATE BRIDGES counties in Illinois

In Table 1, total retail sales are summarized for Illinois CREATE BRIDGES counties from 2017 to 2021. From 2017 to 2019, retail sales generally remained stable for each county. Retail sales dropped for each county except Union County during the 2020 pandemic year, and sales increased considerably for each county in 2021.

	2017	2018	2019	2020	2021
Alexander	0.94	0.86	0.88	0.80	1.02
Johnson	3.10	3.11	2.99	2.89	4.00
Massac	5.86	6.29	6.16	5.38	7.78
Pulaski	1.25	1.23	1.27	1.12	1.43
Union	6.52	6.65	6.57	6.96	8.19

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

Source: Illinois Department of Revenue, 2022



Illinois County Retail Pull Factors

Figure 4. Illinois County Retail Trade Pull Factors

Sources: Illinois Department of Revenue, 2022; U.S. Census Bureau, 2022a; U.S. Census Bureau, 2022c

In 2021, 25 counties in Illinois had a retail trade pull factor greater than 1 indicating either significant purchases from customers who live outside the county or residents spent more than the state average on retail purchases (Figure 4). On the other hand, 77 counties had a pull factor below 1 indicating residents either spent less on average on retail purchases than other counties or purchased more goods outside their county. Residents in Putnam, Effingham, Grundy, and Kankakee counties spent more than the state average while Alexander, Hardin, and Gallatin County residents spent less than the state average on retail purchases. The equation to compute retail trade pull factor is as follows:

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

Market share is the percentage of retail trade area captured by a county with respect to the state. In other words, market share is the percent of the total customer base in Illinois captured by the county'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:

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

Trade area capture estimates the population of Illinois residents and does not capture loss of customers across state borders. 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 the counties in Illinois.

Commuting Patterns of Retail Customers



Figure 5. Estimated Retail Trade Customer Surplus/Leakage in Illinois Sources: Illinois Department of Revenue, 2022; U.S. Census Bureau, 2022a; U.S. Census Bureau, 2022c

Retail customers travel across county borders to purchase goods and services. The map above (Figure 5) illustrates the number of retail customers either coming into a county or leaving a county for retail purchases. While 25 counties in Illinois displayed a net incommuting pattern whereas all the other counties (77 counties) displayed a net outcommuting pattern. Dupage, Lake, Will, Kankakee and Grundy counties around Chicago metropolitan area gained the most retail customers followed by Sangamon, Effingham, and Tazewell counties in central Illinois. Cook, Kane, and McHenry lost the most retail customers who shopped outside their counties for retail goods and services. Another trend is the loss of retail customers in counties that are neighboring states of Missouri, lowa, Indiana, and Kentucky.

The estimated retail customer surplus or leakage is calculated as follows:

Estimated Customers_{county} = Trade Area Capture_{county}* Adjusted Population_{county}



Buying Power Index

Figure 6. Buying power index of retail customers in Illinois

Sources: Illinois Department of Revenue, 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 county 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 in Cook, Lake, Dupage, and Monroe are relatively higher given their higher incomes as well as proximity to Chicago and suburbs of the St. Louis metropolitan area. Buying power of rural retail customers in Alexander, Pulaski, and Brown Counties were the least among other counties.

The buying power index is calculated by the following equation:

BPI = (2* Population %) + (3*Retail Sales %) + (5*Per capita income %) 10 (sum of the weights) Where Population % is the percentage of county population to that of the state of Illinois, Retail Sales % is the percentage of retail sales in the county to that of the state of Illinois, and Per capita income % is the percentage of per capita income in the county to that of the state of Illinois.

Summary and Conclusions

Retail trade is an important sector for Illinois' economy supporting 1.2 million employees working in 144,200 establishments across the state. The retail sector has exhibited steady growth over the years particularly in 2021 demonstrating a strong economic recovery from the COVID-19 pandemic. Retail expenditures on automobiles and parts and miscellaneous retail sectors have been particularly noteworthy over the last five years.

Retail customers spent more than the state average in metropolitan areas of Chicago, central Illinois, and suburbs of St. Louis, MO. Counties surrounding metropolitan areas have lost retail customers across the state. While Central and northeastern Illinois regions are gaining retail customers, retail goods and services for residents along the eastern, western, and southern region 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 Illinois can provide growth opportunities for the retail industry in Illinois.

Retail trade activity in the CREATE BRIDGES region in Illinois can be improved. The counties in this region border Missouri and Kentucky indicating a potential to attract retail customers from these states. The retail pull factors for counties in the CREATE BRIDGES region are relatively high but below 1 indicating a lack of anchor retail establishments that cater to the needs of retail customers in this area which also help in stemming the loss of retail customers outside this region. The buying power of retail customers is relatively low indicating a demographic of low-income customers in this region. Proximity to multiple 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 this region.

About the Authors

<u>Dr. Sreedhar Upendram</u> 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.

Dr. James Mingie is a Research Specialist in the Department of Agricultural and Resource Economics at the University of Tennessee. His primary areas of research include natural resource economics, ecosystem services, and rural development.

Funder Acknowledgement

Funding for CREATE BRIDGES is provided by Walmart.

This work is supported by the Southern Rural Development Center through grant no. 2023-38811-39019, from the U.S. Department of Agriculture, National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy.

References

Illinois Department of Revenue. (2022). Taxable sales data, 2017-2021. Retrieved November 28, 2022, from: <u>https://www.revenue.state.il.us/app/kob/index.jsp</u>

- National Retail Federation. (2020). Retail's impact in Illinois. Retrieved November 28, 2022, from: Retrieved from: <u>https://nrf.com/retails-impact/illinois</u>
- U.S. Census Bureau (Census Bureau). (2022). Illinois group quarters population. 2020 Decennial Census. Retrieved November 28, 2022, from: <u>https://data.census.gov/table?q=group+quarters&g=040XX00US17\$050000&ti</u> <u>d=DECENNIALPL2020.P5</u>
- U.S. Census Bureau (Census Bureau). (2022). Illinois 2016-2020 5-year estimates, per capita income. *American Community Survey 2020*. Retrieved November 28, 2022, from:

https://data.census.gov/table?q=B19301&g=040XX00US17\$0500000&tid=ACSD T5Y2020.B19301

U.S. Census Bureau (Census Bureau). (2022). Illinois 2016-2020 5-year estimates, total population. *American Community Survey 2020*. Retrieved November 28, 2022, from:

https://data.census.gov/table?q=Population+Total&g=040XX00US17\$050000&tid=ACSDT5Y2020.B01003

Appendix A

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

County	County Trade Pull Factors	Trade Area Capture	Market Share	Retail Customer Surplus/Leakage	Buying Power Index
Adams	1.14	73,530	0.59%	9,258	0.52
Alexander	0.24	1,416	0.01%	-4,439	0.34
Bond	0.59	8,690	0.07%	-6,043	0.45
Boone	0.68	35,986	0.29%	-16,952	0.54
Brown	0.87	4,115	0.03%	-628	0.38
Bureau	0.68	22,220	0.18%	-10,222	0.49
Calhoun	0.55	2,579	0.02%	-2,079	0.50
Carroll	0.72	9,901	0.08%	-3,918	0.50
Cass	0.65	7,887	0.06%	-4,277	0.44
Champaign	0.97	189,050	1.52%	-5,526	0.53
Christian	0.89	27,544	0.22%	-3,453	0.48
Clark	0.74	11,421	0.09%	-3,978	0.51
Clay	0.75	9,611	0.08%	-3,253	0.50
Clinton	1.07	37,742	0.30%	2,401	0.55
Coles	1.20	56,714	0.46%	9,604	0.47
Cook	0.90	4,558,679	36.71%	-518,856	0.84
Crawford	0.85	13,925	0.11%	-2,513	0.45
Cumberland	0.39	4,202	0.03%	-6,460	0.49
DeKalb	1.01	101,497	0.82%	1,446	0.50
De Witt	0.86	13,380	0.11%	-2,111	0.51
Douglas	0.94	18,293	0.15%	-1,072	0.47
DuPage	1.56	1,421,702	11.45%	508,783	0.84
Edgar	0.63	10,709	0.09%	-6,210	0.46
Edwards	0.57	3,642	0.03%	-2,740	0.46
Effingham	1.86	62,511	0.50%	28,857	0.55
Fayette	0.84	16,759	0.13%	-3,080	0.40
Ford	0.70	8,905	0.07%	-3,860	0.49
Franklin	0.65	24,657	0.20%	-13,528	0.41
Fulton	0.61	19,586	0.16%	-12,640	0.50
Gallatin	0.30	1,486	0.01%	-3,489	0.53
Greene	0.52	6,586	0.05%	-6,121	0.45
Grundy	1.63	81,976	0.66%	31,569	0.59
Hamilton	0.50	4,039	0.03%	-4,000	0.46

County	County Trade	Trade Area	Market	Retail Customer	Buying Power
	Pull Factors	Capture	Share	Surplus/Leakage	Index
Hancock	0.52	9,181	0.07%	-8,379	0.50
Hardin	0.26	1,000	0.01%	-2,781	0.46
Henderson	0.34	2,283	0.02%	-4,401	0.52
Henry	0.74	35,900	0.29%	-12,425	0.53
Iroquois	0.77	20,795	0.17%	-6,185	0.48
Jackson	0.87	46,733	0.38%	-6,855	0.44
Jasper	0.89	8,420	0.07%	-1,054	0.46
Jefferson	1.34	47,614	0.38%	12,026	0.44
Jersey	0.76	15,854	0.13%	-4,925	0.54
Jo Daviess	1.15	24,425	0.20%	3,199	0.58
Johnson	0.55	5,579	0.04%	-4,575	0.39
Kane	0.93	487,815	3.93%	-38,506	0.64
Kankakee	1.60	167,207	1.35%	62,786	0.48
Kendall	0.88	112,214	0.90%	-15,033	0.61
Кпох	0.97	44,462	0.36%	-1,224	0.41
Lake	1.21	823,530	6.63%	142,480	0.81
LaSalle	1.10	116,131	0.94%	10,471	0.52
Lawrence	0.47	6,299	0.05%	-7,158	0.44
Lee	0.86	26,495	0.21%	-4,379	0.49
Livingston	1.00	33,605	0.27%	71	0.49
Logan	0.80	19,910	0.16%	-4,918	0.49
McDonough	0.80	21,585	0.17%	-5,304	0.42
McHenry	0.93	283,253	2.28%	-22,148	0.68
McLean	1.08	177,214	1.43%	13,319	0.58
Macon	0.92	92,742	0.75%	-8,332	0.51
Macoupin	0.61	27,031	0.22%	-17,324	0.48
Madison	1.06	275,137	2.22%	16,155	0.57
Marion	0.69	25,490	0.21%	-11,286	0.45
Marshall	0.51	5,736	0.05%	-5,545	0.49
Mason	0.56	7,428	0.06%	-5,824	0.50
Massac	0.79	10,845	0.09%	-2,869	0.41
Menard	0.45	5,428	0.04%	-6,709	0.65
Mercer	0.52	8,010	0.06%	-7,276	0.51
Monroe	0.90	30,819	0.25%	-3,381	0.72
Montgomery	1.01	25,844	0.21%	258	0.46
Morgan	1.02	31,425	0.25%	563	0.48
Moultrie	0.95	13,550	0.11%	-659	0.51
Ogle	0.66	33,364	0.27%	-16,828	0.53
Peoria	1.01	178,261	1.44%	2,464	0.54
Perry	0.63	11,711	0.09%	-6,744	0.41

County	County Trade Pull Factors	Trade Area Capture	Market Share	Retail Customer Surplus/Leakage	Buying Power Index
Piatt	0.54	. 8,871	0.07%	-7,459	0.58
Pike	0.63	9,553	0.08%	-5,582	0.43
Роре	0.34	1,346	0.01%	-2,603	0.38
Pulaski	0.37	1,986	0.02%	-3,385	0.35
Putnam	1.98	11,321	0.09%	5,606	0.55
Randolph	0.92	25,971	0.21%	-2,150	0.45
Richland	0.80	12,325	0.10%	-3,045	0.47
Rock Island	0.90	124,137	1.00%	-13,811	0.51
St. Clair	0.95	245,075	1.97%	-12,393	0.53
Saline	0.94	21,748	0.18%	-1,509	0.46
Sangamon	1.16	222,214	1.79%	30,387	0.60
Schuyler	0.54	3,271	0.03%	-2,809	0.44
Scott	0.43	2,138	0.02%	-2,793	0.48
Shelby	0.54	11,514	0.09%	-9,894	0.47
Stark	0.41	2,179	0.02%	-3,117	0.48
Stephenson	0.87	38,250	0.31%	-5,644	0.48
Tazewell	1.18	152,748	1.23%	22,847	0.57
Union	0.70	11,412	0.09%	-4,942	0.46
Vermilion	0.79	58,792	0.47%	-15,244	0.42
Wabash	0.71	8,024	0.06%	-3,274	0.49
Warren	0.65	10,227	0.08%	-5,610	0.46
Washington	1.09	14,993	0.12%	1,281	0.54
Wayne	0.79	12,785	0.10%	-3,451	0.44
White	0.89	11,791	0.09%	-1,524	0.46
Whiteside	0.90	48,904	0.39%	-5,604	0.52
Will	1.12	760,421	6.12%	79,997	0.66
Williamson	1.25	81,298	0.65%	16,468	0.49
Winnebago	1.01	281,597	2.27%	2,247	0.51
Woodford	0.89	33,204	0.27%	-4,223	0.63

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.