

1-24-2017

# Nebraska Retailing Activity Changes Since 1990 and The Effect of the Great Recession by Town/ City Size Classes

Anil Giri

*University of Central Missouri*

Bruce Johnson

*University of Nebraska-Lincoln*

Follow this and additional works at: [http://digitalcommons.unl.edu/agecon\\_cornhusker](http://digitalcommons.unl.edu/agecon_cornhusker)

---

Giri, Anil and Johnson, Bruce, "Nebraska Retailing Activity Changes Since 1990 and The Effect of the Great Recession by Town/City Size Classes" (2017). *Cornhusker Economics*. 749.

[http://digitalcommons.unl.edu/agecon\\_cornhusker/749](http://digitalcommons.unl.edu/agecon_cornhusker/749)

This Article is brought to you for free and open access by the Agricultural Economics Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Cornhusker Economics by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

# Cornhusker Economics

## Nebraska Retailing Activity Changes Since 1990 and The Effect of the Great Recession by Town/City Size Classes

Market Report	Year Ago	4 Wks Ago	1-20-17
<b>Livestock and Products,</b>			
<b>Weekly Average</b>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight. . . . .	132.00	*	122.00
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb. . . . .	198.24	145.49	158.79
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb. . . . .	165.76	137.76	137.56
Choice Boxed Beef, 600-750 lb. Carcass. . . . .	226.24	192.05	191.65
Western Corn Belt Base Hog Price Carcass, Negotiated . . . . .	51.55	53.21	63.79
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean. . . . .	69.65	76.42	78.99
Slaughter Lambs, woolled and shorn, 135-165 lb. National. . . . .	143.71	138.63	141.93
National Carcass Lamb Cutout FOB. . . . .	359.79	350.69	347.75
<b>Crops,</b>			
<b>Daily Spot Prices</b>			
Wheat, No. 1, H.W. Imperial, bu. . . . .	3.93	2.72	3.07
Corn, No. 2, Yellow Columbus, bu. . . . .	3.33	3.06	3.26
Soybeans, No. 1, Yellow Columbus, bu. . . . .	8.21	9.29	9.67
Grain Sorghum, No.2, Yellow Dorchester, cwt. . . . .	5.48	4.70	5.03
Oats, No. 2, Heavy Minneapolis, Mn, bu. . . . .	2.66	2.97	2.90
<b>Feed</b>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton. . . . .	250.00	*	145.00
Alfalfa, Large Rounds, Good Platte Valley, ton. . . . .	82.50	67.50	70.00
Grass Hay, Large Rounds, Good Nebraska, ton. . . . .	85.00	65.00	85.00
Dried Distillers Grains, 10% Moisture Nebraska Average. . . . .	134.50	110.00	107.25
110.00W107.25et Distillers Grains, 65- 70% Moisture, Nebraska Average. . . . .	51.50	43.50	43.50
* No Market			

Retailing is an important sector of our state's economy and is watched carefully as an indicator of overall economic performance. This retailing activity, however, is not evenly distributed across different town/city size classes. Large cities and towns serve as retail centers for larger geographic areas as well as for some nearby small towns. In other words, small trade centers experience trade leakage relative to their population and large centers experience retail gain relative to their population. Relative retail activity can be measured and hence compared using Pull Factor (PF) as a metric.

In essence, PF measures the relative market share of retailing by a specific geographic area over a specific time period. In this analysis, it is calculated by dividing the total annual per capita taxable retail sales for the local geographic area by the state average per capita sales which have occurred over the same time period.

Mathematically,

$$\text{Pull Factor (PF)} = \frac{\text{Local Per Capita Taxable Retail Sales}}{\text{State Average Per Capita Taxable Retail Sales}}$$

Using taxable retail sales for individual Nebraska towns and cities, municipalities were grouped into eight population size classes and average pull factors were calculated for selected years up through 2015. From Table 1, for the 263 municipalities with populations of less than 500, the average pull factor has

Detailed list of all the towns and cities along with their pull factors will be published in the forthcoming report: "Retail Sales Patterns and Trends Across Nebraska Coun-

**Table 1: Weighted average pull factors by Nebraska town/city population size class for selected years and percentage changes**

Town/City Population class	Average pull factors of taxable retail sales activity for selected years:					Percentage changes in pull factors			
	1990	2000	2005	2010	2015	1990 to 2000	2000 to 2005	2005 to 2010	2010 to 2015
	-----Pull Factors-----								
Less than 500	0.55	0.51	0.50	0.60	0.57	-8.35%	-0.99%	20.00%	-5.00%
500-999	0.73	0.59	0.67	0.68	0.63	-18.41%	12.96%	1.34%	-7.35%
1,000-2,499	0.96	0.75	0.79	0.91	0.84	-21.56%	5.31%	14.75%	-7.69%
2,500-4,999	1.18	1.12	1.10	1.00	1.15	-5.01%	-1.52%	-9.17%	15.00%
5,000-9,999	1.10	1.08	1.03	1.11	1.24	-1.45%	-5.07%	7.87%	11.71%
10,000-19,999	1.29	1.19	1.21	1.41	1.60	-7.61%	2.02%	16.24%	13.48%
20,000-99,999	1.26	1.35	1.19	1.39	1.38	6.97%	-11.93%	16.90%	-0.72%
100,000 and over	1.40	1.58	1.47	1.48	1.41	12.33%	-7.04%	1.02%	-4.73%

Based on taxable retail sales as reported to the Nebraska Department of Revenue

risen slightly from .51 in 2000 to .57 in 2015; implying that even while they are improving slightly in their trade; their trade loss has been equivalent to more than 40 percent of their resident population equivalent. However, their median pull factor (that level where half the pull factors are below and half are above) for this size group is nearly the same, .365 in 2000; .380 for 2005; .039 for 2010 and 0.37 for 2015; suggesting that an even greater trade leakage predominates.

For the 85 municipalities with populations of 500 to 999 in 2015, the mean and median pull factors were .63 and .56 respectively, meaning the trade loss was slightly more than 35 percent of their population equivalents. The long-term trend of trade loss, indicated by the pull factor average, has been fairly stable for this class.

There are 60 municipalities with populations of 1,000 to 2,499 and this size group experienced some increase in average retail pull factor between 2005 and 2015; however, the average pull factor was still lower compared to its highest of .96 in 1990. The recent trend from 2010 to 2015 shows a decrease in average pull factor by almost 8%. The average and median were .84 and .77 respectively for 2015.

For the 17 towns of 2,500 to 4,999, a fairly consistent trade pattern well above a pull factor of one is evident from 1990 onward. The average and median pull factor for the most recent year, 2015, is 1.15 and .96 respectively. Given that the median pull factor for this class is less than 1.0, this is evidence that the modest trade capture is not being distributed evenly across these towns.

For the 15 towns of 5,000 to 9,999, some increase in trade pattern is evident since 2005. On average in 2015 they were basically capturing the trade of their population equivalent plus nearly 25 percent more. Also, their median pull factor in that year was greater than 1 at 1.04 which suggests that the trade capture is more predominant across these towns.

Six towns of 10,000 to 19,999 clearly can perform a more comprehensive retailing role than their smaller counterparts. Their average and median pull factors for the most recent year was 1.60 and 1.20 respectively. On average they are capturing retail sales of more than 50 percent of their population equivalent. For the 8 cities with population between 20,000 and 99,999 the average and median pull factor were 1.38 and 1.51 in 2015. All but one of these cities exhibit very strong retail capture operating as essentially regional trade hubs. And, when combined with quality health, educational and financial services, they become ever more robust in retail activity. It appears that their trade capture has levelled off as there was little change in average pull factor from 2010 to 2015. Finally, in the two cities of the state with a population greater than 100,000, the average pull factor was 1.41. Omaha remains, by far, the dominant retail center of the state, with a pull factor of 1.62 in 2015. In fact, in 2015 with nearly \$8.8 billion taxable retail sales, it accounted for 38% of the state total.

In summary, the evidence is substantial that the larger cities of the state command a dominant retail role; and while changes can and do occur over time, it is quite unlikely that pattern will subside in the future.

Annual growth of retail dollar volume in Nebraska slowed significantly between the 2005 and 2010 period relative to both the pre-and post-time periods. That correlates with the recession which began in the last quarter of 2007 and was still in early stage of recovery by 2010. Rising unemployment and income stagnation during a recession create reduced buying power and rising uncertainty among consumers which tend to throttle back consumer spending.

From Table 1, recession impacts did not appear to be uniform across the town/city size classes of Nebraska communities. In fact, the smallest class of towns of less than 500 people saw a pull factor increase of 20 percent from 2005 to 2010. This may be explained by the fact that in these smallest of communities the retailing services are almost entirely for basic goods and services that people need whatever the economic climate and the individual's economic condition. Also, contributing to a relative uptick in retail performance in these small towns was the significant spike in gasoline prices at the time, which likely further reduced customer incentives to travel greater distances to larger trade centers for their basic needs. Furthermore, to the extent that many of these smaller communities are often serving a local agricultural economy, the relative robustness of the agricultural sector at the time may well have spared them from the full brunt of the national recession. Similarly, those municipalities in the 20,000 to 99,999 population size saw their trade capture measured by pull factor actually grow between 2005 and 2010. In contrast, the largest population class experienced almost no change in their pull factor – one possible reason being that higher-cost retail goods and services tend to be concentrated in those centers, and hence, total buyer sales volume fell off relatively more.

## References and Data sources

- Johnson, Bruce B. and Blomendahl, Ben. Retail Sales Trends Across Nebraska Counties and Localities, Department of Agricultural Economics, Report No. 182, May 2007.
- U.S. Census Bureau, Nebraska: 2012 Economic Census, Retail Trade, Geographic Area Series, 2012.
- Nebraska Department of Revenue, Current Local Sales and Use Tax Rates, Effective January 1, 2017.
- Nebraska Department of Revenue, Sales Tax Data Series 1990-2015.

Anil Giri  
Assistant Professor  
University of Central Missouri  
[giri@ucmo.edu](mailto:giri@ucmo.edu)

Bruce Johnson  
Professor Emeritus  
Department of Agricultural Economics  
University of Nebraska-Lincoln  
[bjohnson2@unl.edu](mailto:bjohnson2@unl.edu)