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Cornhusker Economics

How Have Retail Sales Changed Across Nebraska Counties since 1990?

Market Report	Year Ago	4 Wks Ago	9-30-16
Livestock and Products.			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	117.28	105.37	100.21
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	213.50	145.42	143.09
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	192.97	138.69	141.27
Choice Boxed Beef, 600-750 lb. Carcass.	208.44	189.47	188.63
Western Corn Belt Base Hog Price Carcass, Negotiated	71.24	57.82	48.53
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	84.59	80.24	75.24
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	155.04	165.13	158.36
National Carcass Lamb Cutout FOB.	359.40	361.80	353.14
Crops.			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	4.27	2.81	2.64
Corn, No. 2, Yellow Nebraska City, bu.	3.54	2.95	*
Soybeans, No. 1, Yellow Nebraska City, bu.	8.07	9.14	*
Grain Sorghum, No.2, Yellow Dorchester, cwt.	6.00	4.54	4.66
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.45	2.25	2.51
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	180.00	147.50	160.00
Alfalfa, Large Rounds, Good Platte Valley, ton.	75.00	65.00	68.75
Grass Hay, Large Rounds, Good Nebraska, ton.	80.00	*	70.00
Dried Distillers Grains, 10% Moisture Nebraska Average.	125.00	120.50	112.50
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	50.00	34.25	40.50
* No Market			

Retailing is an important sector of our state's economy and is watched carefully as an indicator of overall economic performance. Since the metropolitan areas serve as retail centers for larger geographic areas, the volume of retail activity generated is certainly an important metric to those places. But this is also true in the smaller towns and cities across the state, which are constantly competing against the large super stores and outlets found in the larger cities/towns within acceptable drive time. Moreover, the trend towards greater online retail sales due to offering of a wide variety of goods and services with efficient delivery to the buyer's door is a challenge to location-based retailers everywhere. Increasingly, both metro and non-metro Nebraskans are accessing a global network of retail providers without entering a brick-and-mortar building. This has resulted in substantial changes in retail sales patterns for large and small Nebraska communities alike.

The primary source of taxable non-vehicle retail sales data¹ is the Nebraska Department of Revenue. We use 2015 data, the most recent year, as well as earlier annual sales data for trend analysis. The Nebraska Department of Revenue maintains the data

¹For this study, non-Nebraska taxable sales, which are also part of total retail taxable sales of the state, are not included in the analysis as they are not differentiated by any geographic level. Non-Nebraska sales are predominantly sales made by large retailers which have headquarters outside the state and stores via mail, internet, etc.

series for all years. These data are available at various geographic levels: city, town, county and state. This information is filed as part of a collection of state and local sales tax revenues.

The primary unit of measurement used to assess the retail strength is the *Pull Factor* (PF). The PF is widely used to identify and measure leakage and/or capture of retail trade across political boundaries as well as identifying trends over time.

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.

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

Interpreting the PF is straight-forward. If it is greater than 1.0, then the retail sales activity of that area has exceeded its own population in terms of customer equivalents. That geographic area has experienced some *retail capture* beyond the level inferred by its population base. And the greater the area's PF exceeds 1.0, the more viable is its retailing activity in relative terms. Conversely, if the PF for the area is less than 1.0, that area is losing potential retail activity to other places and is experiencing *trade leakage*, with the PF falling as leakage grows greater.

County-level Retailing Patterns

The relative performance of the county classes for the period, 1990-2015 (Table 1) shows that the majority of the taxable retail sales has always been captured by Metro counties. This has been consistently true for more than two decades. Six counties out of the 93 counties in the state are in this category and capture (and have been capturing) almost two thirds of the state's total retail sales (57.2% in 1990, 65.5 % in 2000, 64% in 2005, 62.3% in 2005 and 64.1% in 2015). The metro counties nominal taxable retail sales have also been increasing by almost 20% every five years since 1990 except for the period, 2005-2010 (a modest 3% growth) which was largely due to the Great Recession of 2007-09. These counties also have an average PF of more than 1 for the time period which means that they have been able to capture more retail sales than their population equivalent share. One primary reason is

population growth at an increasing rate in these counties, often even at the expense of other counties in the state. But, the Large Trade Center county class has also shown resiliency in retail trade when analyzed using percentage of sales by county class and pull factors. Both taxable retail sales as a percent of state's retail trade volume and pull factors have remained almost constant over time. These counties account for about one fourth of total state taxable sales. The taxable retail sale for these counties for 2015 was \$5.6 billion. The average PF has been about 1.1 over the 25-year time period indicating that this group has been able, on average, to operate as trade-capture counties.

The nominal taxable retail sales for the Small Trade Center County class for 2015 were nearly \$1.7 billion. The small trade counties on average show a trade leakage, measured by a PF consistently less than one for the entire period. For the class, the average PF of .64 for 2015 suggests a retail leakage of more than a third of their trade potential. All but three counties, Cherry, Cheyenne and Keith, in this class had a PF of less than one². A notable mention in this county class is Cheyenne County (home to Cabela's headquarters) which had a 2015 PF of 1.22, similar to that of previous years. Cheyenne was able to hold to its advantage in retail sales in large measure because of the trade volume captured by the Cabela's retail outlet marketing primarily to customers traveling on Interstate 80.

For 2015, the nominal taxable retail sales for the Rural Counties were \$1.1 billion. The rural counties had a similar story to that of the small trade counties -- virtually all of the counties are experiencing severe trade leakage. For 2015, the trade leakage was more than half of their trade potential just as in previous years. This county class has shown slight progress in the PF in the recent years and stands at .48 for 2015. All but two counties, Brown (1.05) and Hooker (1.12), had pull factors less than one in this county class.

²Specific county and municipality details are included in a forthcoming report: "Retail Sales Patterns and Trends Across Nebraska Counties and Localities".

Table 1. Patterns of nominal taxable retail sales by County classes, selected years, 1990-2015

Year and Item	Non- metropolitan Counties				All Counties
	Metropolitan Counties	Large Trade	Small Trade	Rural Counties	
		Center Counties	Center Counties		
1990 Taxable Sales:					
Total (Mill \$)	5,699.40	2,415.70	1,122.80	730.1	9,968
% of Total Sales	57.2%	24.2%	11.3%	7.3%	100.0%
Avg. Per Capita (\$)	7,281	7,044	4,682	3,528	6339
Avg. Pull Factor	1.15	1.11	0.74	0.56	1.00
2000 Taxable Sales:					
Total (Mill \$)	9,760.60	3,756.20	1,392.60	7,10.4	14,909.40
% of Total Sales	65.5%	25.2%	9.3%	4.8%	100.0%
Avg. Per Capita (\$)	10,847	9,898	5,565	3,580	9,128
Avg. Pull Factor	1.19	1.08	0.61	0.39	1.00
2005 Taxable Sales:					
Total (Mill \$)	12,039.20	4,517.70	1,383.80	884.5	18,825.20
% of Total Sales	64.0%	24.0%	7.4%	4.7%	100.0%
Avg. Per Capita (\$)	12,581	11,533	6,357	4,597	10,704
Avg. Pull Factor	1.18	1.08	0.59	0.43	1.00
2010 Taxable Sales:					
Total (Mill \$)	12,408.57	4,959.65	1,526.40	1,021.77	19,916.40
% of Total Sales	62.3%	24.9%	7.7%	5.1%	100.0%
Avg. Per Capita (\$)	12,072	12,531	7,081	5,020	10,905
Avg. Pull Factor	1.11	1.15	0.65	0.46	1.00
2015 Taxable Sales:					
Total (Mill \$)	14,821.85	5,573.44	1,672.70	1,064.09	23,132.08
% of Total Sales	64.1%	24.1%	7.2%	4.6%	100.0%
Avg. Per Capita (\$)	13,490	13,920	7,779	5,847	12,199
Avg. Pull Factor	1.11	1.14	0.64	0.48	1.00

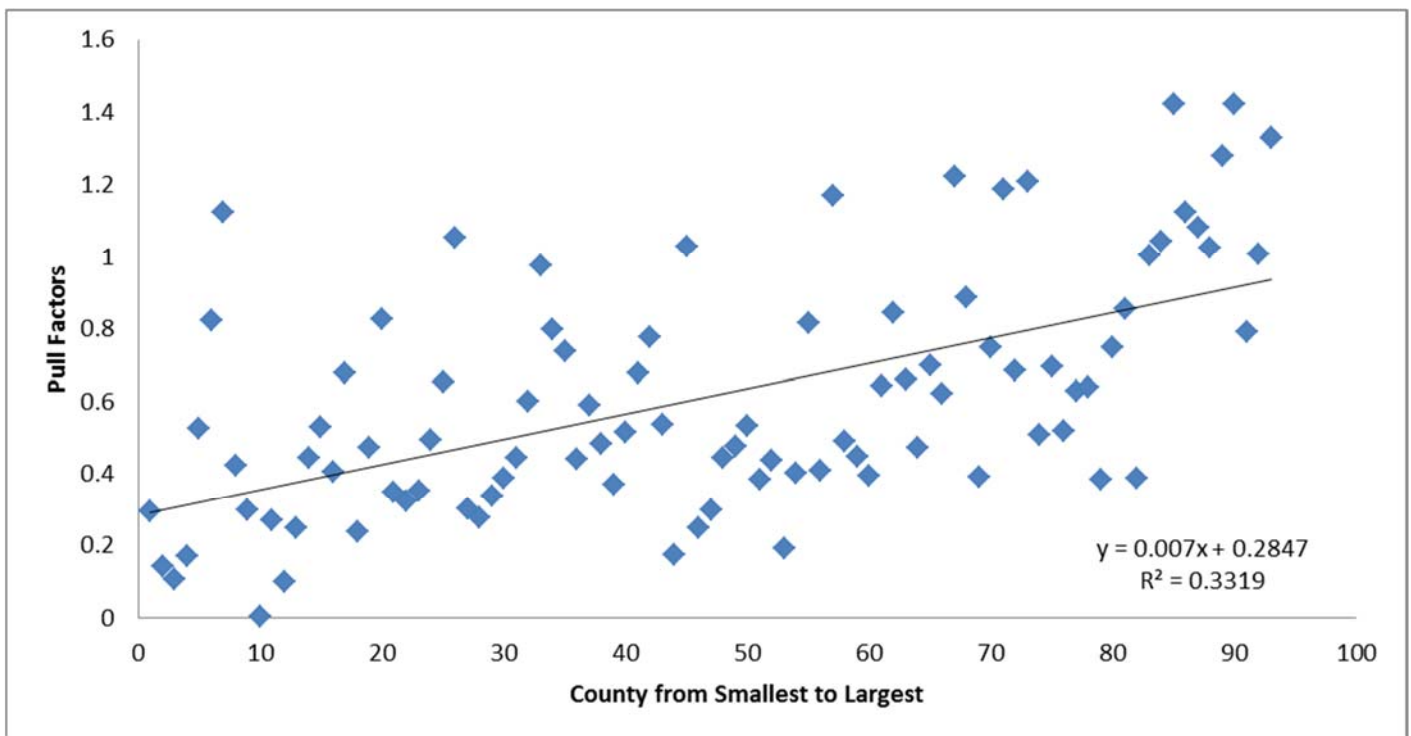
Based on taxable retail sales as reported to the Nebraska Department of Revenue

County population tends to be the single largest factor that affects retailing and the corollary PF for that county. In this analysis, counties were cardinally ranked from one to 93, based on their relative population size and the pattern was analyzed. As seen on Figure 1, the pull factors do increase as the county population size increases. The trend line in the graph suggests that the larger the county population, the higher the county pull factors tend to be. However, it should be noted, that the figure also suggests the vast predominance of county pull factors are far below one; in other words, trade-leakage occurs in many counties,

even when relative county population levels are towards the upward end of the size distribution.

In summary, retail volume over the past quarter century continues to evolve towards the urban and larger population centers of the state—no doubt being driven by decisions on both the supply and demand sides of the retail sector. Yet, despite these ongoing trends, there remain trade center communities across the complete size continuum that continue to be viable retail centers, albeit with an evolving mix of retail activity.

Figure 1: 2015 County Pull Factors from Smallest to Largest Population



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