

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Historical Materials from University of  
Nebraska-Lincoln Extension

Extension

---

1999

## EC99-828 Retailing Patterns & Trends Across Nebraska

Bruce B. Johnson

*University of Nebraska - Lincoln*, [bjohnson2@unl.edu](mailto:bjohnson2@unl.edu)

Brandon G.Y. Raddatz

*University of Nebraska - Lincoln*

Follow this and additional works at: <https://digitalcommons.unl.edu/extensionhist>



Part of the [Agriculture Commons](#), and the [Curriculum and Instruction Commons](#)

---

Johnson, Bruce B. and Raddatz, Brandon G.Y., "EC99-828 Retailing Patterns & Trends Across Nebraska" (1999). *Historical Materials from University of Nebraska-Lincoln Extension*. 387.  
<https://digitalcommons.unl.edu/extensionhist/387>

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



# 1970 - 1998

By Bruce B. Johnson  
and  
Brandon G.Y. Raddatz



# **Retailing Patterns and Trends Across Nebraska, 1970 - 1998**

**by**

**Bruce B. Johnson\***  
**and**  
**Brandon G. Y. Raddatz\*\***

---

\* Professor, Department of Agricultural Economics, University of Nebraska, Phone: (402) 472-1794; e-mail: bjohanson2@unl.edu

\*\* Student Research Assistant, Department of Agricultural Economics, University of Nebraska-Lincoln

**\*\*\*\*\***

This information is also available through the Internet. The Web site address is:

**<http://www.ianr.unl.edu/agecon/retailpatterns>**



# Table of Contents

	Page
List of Tables and Appendix Tables .....	ii
List of Figures .....	ii
Executive Summary .....	iv
Introduction .....	1
Data Sources .....	1
Methodology .....	2
County and City Classification.....	3
The Findings .....	3
County-level Retailing Patterns.....	3
County Retail Patterns By Specific Function .....	7
Town/City Retail Patterns .....	9
High Retail Performance Towns/Cities.....	11
Conclusions and Implications .....	13
References .....	15
Appendix .....	17

# List of Tables

	<b>Page</b>
1. Characteristics of Taxable Sales by County Classes in Nebraska, Selected Years, 1970-1998 .....	4
2. Weighted Average Pull Factors By Nebraska Town/City Population Size Class For Selected Years and Percent Changes .....	10
3. Towns/Cities With Highest 1998 Retail Pull Factors By Selected Population Size Classes .....	11
4. Towns/Cities With Highest Decline of Pull Factor Percentage Change from 1990-98 by Population Size Classes .....	12

# List of Appendix Tables

	<b>Page</b>
1. Estimated County Retail Pull Factors By County Classes, Selected Years, 1970-1998 .....	18
2. Estimated Town/City Retail Pull Factors By Size Classes, Selected Years, 1970-1998.....	20

# List of Figures

	<b>Page</b>
1. 1998 Retail Pull Factors by County Classes in Nebraska .....	5
2. 1998 Retail Pull Factors for Nebraska Counties .....	5
3. 1998 Pull Factors by Smallest to Largest Population .....	6
4. 1990-98 Changes in Population and Pull Factors by County Population and Pull Factors .....	7
5. Comparisons of Pull Factors for Size Classes on Various Retailing Activities, 1992.....	7
6. Various Retailing Activity Trends for Rural Size Class From 1982-1992.....	8
7. Percent Total Volume of Automobile Sales by County Class, 1992.....	8
8. Percent Total Volume of Food Sales by County Size Classes, 1992 .....	8
9. Mean and Median Pull Factors by Town/City Size Classes, 1998.....	10

# Retailing Patterns and Trends Across Nebraska 1970-1998

## Executive Summary

In this report, we present retailing patterns across the state over time and assess historical trends and current conditions. By detailing the analysis down to county and municipality level, we hope to provide business and community leaders a basis for: (1) understanding the general trends underway, (2) performing relevant comparative analysis with other communities, and (3) identifying strategies which may contribute to retail viability in their areas.

Using the taxable retail sales data from the Nebraska Department of Revenue and data from the U.S. Census of Retailing, comparisons can be made and analyzed using a unit of measure referred to as the *retail pull factor*. The pull factor is simply the annual per capita sales rate at the local level relative to the average for the state.

Major findings were:

- ❖ Dramatic changes in retailing activity have occurred across Nebraska in recent years, with a growing share of retailing volume moving toward the state's larger population centers.
- ❖ Nebraska's metro counties are continuing to capture more of the state's retail sales. As of 1998, the state's six metro counties were capturing 63 percent of total taxable retail sales in Nebraska.
- ❖ The rural counties' average retail pull factor has decreased from .696 in 1980 to .419 in 1998. These 52 counties were capturing only five percent of Nebraska's taxable retail sales in 1998.
- ❖ Small trade counties also have experienced some decline in retail pull factor since 1980, while large trade counties have remained relatively stable in retail performance over the past 20 years.
- ❖ Ten of Nebraska's 93 counties recorded pull factors at or greater than one in 1998 implying they are drawing trade from other areas. They were Douglas (1.51), Red Willow (1.45), Hall (1.42), Madison (1.27), Buffalo (1.20), Lancaster (1.20), Cheyenne (1.17), York (1.09), Adams (1.02) and Keith (1.00).
- ❖ As for municipalities, Lincoln and Omaha constitute about 35 percent of state's population but captured more than \$0.56 of every taxable retail dollar in 1998. Their growth in the 1990s has been phenomenal.
- ❖ Some municipalities across the state continue to show strong retailing viability as evidenced by high pull factors for 1998.

Even though a community is small doesn't mean it can't be a viable retail outlet, as numerous examples across the state represent. The key seems to be recognizing one's appropriate retailing role in today's economic environment, and then capitalizing on the opportunities to perform that role well. Moreover, advances in technology, such as electronic commerce via the Internet, now allows communities of all sizes and geographic location to operate in a vast retail market. If current trends continue, electronic commerce will significantly influence Nebraska's retailing picture in the years ahead with unique retailing opportunities for virtually all communities.





# Retailing Patterns and Trends Across Nebraska, 1970-1998

## Introduction

Nebraska's retail landscape has changed significantly in recent years. Both the level and type of retail activity has shifted markedly across geographic areas, becoming more concentrated in the larger trade centers.

Maintaining an appropriate degree of retailing viability is a major challenge facing virtually every smaller community in the state. For many, it is an uphill battle. While economic forces reduce the number and loyalty of their clientele, these communities also must compete with larger trade centers which are continually "raising the competitive bar" (Weaver, 1998). Yet, retailing activity, albeit in ever changing form, remains critical to the business and commerce of the community, as well as to the quality of life its residents experience (Harris, 1998).

In this report, we present and analyze retailing patterns across geographic areas and over time in order to provide a realistic assessment of historical trends and current conditions. By detailing the analysis down to county and town/city level, we hope to provide business and community leaders a basis for: (1) understanding the general trends underway; (2) performing relevant comparative analysis with other communities; and (3) identifying strategies which may contribute to retail viability in their areas.

## Data Sources

### Taxable Retail Sales

The primary data source is the taxable nonvehicle retail sales data series maintained by the Nebraska Department of Revenue. Motor vehicle sales are not included in this analysis since sales tax on motor vehicles is collected by the county treasurer in the county where the vehicle is registered, which is not necessarily the county where the vehicle is purchased.

The nonvehicle taxable retail sales series is a valuable data base because it provides a timely and geographic-specific measure of actual retailing volume. Monthly sales activity is published by the Nebraska Department of Revenue with no more than a two to three month time lag; therefore, it can be used to identify retailing changes quickly (the monthly data series of net taxable sales for Nebraska counties and selected cities is sent free to anyone upon request). City and village taxable sales

for every incorporated municipality in the state are published yearly in the Nebraska Department of Revenue Annual Report which becomes available midyear. This annual measure is particularly useful for assessing the longer-run trends.

Moreover, because the series provides geographic detail down to the municipality level, it represents a particularly robust data series for comparative analysis across geographic areas and municipal size classes. Relative performance levels can be measured and assessed in the context of the what the greater retail trade area is doing. Likewise, a community can be compared against other communities of similar size and/or other characteristics to assess retail performance.

Despite the analytical qualities the taxable sales series provides, be aware that it also has some limitations, which need to be noted at the outset.

First, the omission of motor vehicle sales from the series could be viewed as a significant deficit in retail activity measurement since vehicle purchases typically represent the consumer's largest dollar outlays for a specific retail item, and therefore a significant aspect of his/her retail perspective. Moreover, with the long-run trend towards fewer and larger automobile dealerships (reflecting size economies) and concentration of dealerships in relatively close geographic proximity (reflecting agglomeration economies), the omission of vehicle sales from this data series and thus from the retailing analysis may lead to substantial under-measurement of the larger trade communities' share of the state's "retail pie."

Second, sales tax law in the state has changed over time which can limit analysis of retailing activity over extended periods. For example, in late 1983, Nebraska sales tax law was changed to exempt food items for home consumption. This led to a sizable volume of grocery and supermarket sales being dropped from the series. Likewise, in 1993, sales of new and used farm equipment also were made exempt from sales tax. The latter change was particularly influenced the rural/urban distribution of taxable sales, since rural communities have been the primary locations for farm implement dealerships. Because of these tax changes, the historical pattern of total dollar volume of taxable retail sales is not an entirely accurate indicator of actual retail sales activity over time.

Finally, the retail sector includes a variety of consumer services which are not subject to sales tax and therefore are excluded from measurement

using this data series. These services constitute a significant and growing outlay of consumers' disposable income, accounting for more than 25 percent in 1996 (Darling, 1998). Among these are medical/dental care; legal services, accounting, and other professional services; licensed day care services; and labor services associated with construction, maintenance, and repairs. Generally, the level of service activity will parallel the level of retail volume of taxable goods sold in a particular community since both are a function of population levels and the size of the trade community. For example, in a community having a particularly strong medical center, people coming to that community for medical care will often be the same people purchasing retail goods in that community's retail center. However, exceptions to the above can exist. It is possible that a community may have a relatively low volume of taxable retail sales while still retaining very viable service-oriented businesses and functions, and therefore, be much more economically viable than suggested by taxable retail sales. Consequently, each community must be analyzed carefully before making inferences from the analysis of taxable retail sales.

### **U.S. Census of Retailing**

In addition to taxable retail sales, other data sources were used to broaden this analysis. The U. S. Department of Commerce's Census of Retailing is conducted at five-year intervals and details the various segments which make up the retailing sector. In this source, county-level data and data by major municipality (at least 2,500 population) within each county is available for the nine major retail categories. In addition to sales volume estimates, the Census of Retailing provides data on the number of establishments, and at least partial information on annual payroll in retailing. Consequently, it is possible to assess in greater detail the configuration of the local retail economy and identify the relative strengths and economic contributions of the various components to the local economy. For example, the 1992 Census of Retailing (the latest available published for Nebraska at this writing) provides county-level detail on the number of automotive dealerships and their sales volume. In the analysis to follow, this information will be used to supplement the taxable retail sales which do not record motor vehicle sales.

However, just as the data series on taxable sales, the Census of Retailing has limitations — only more so. Its primary limitation is that the Census provides a benchmark at five-year intervals. Moreover, there is considerable lag time before published results become available for public use thus, compounding the problem of dated information. At

best, the data base from this source is four years old or older, which limits its potential use in analyzing dynamic changes.

Secondly, the estimates within the Census of Retailing are broken down only to the county level and communities of 2,500 or larger, and therefore do not provide important information regarding smaller municipalities. Comparative analysis is limited. Moreover, detailed information for smaller counties often is suppressed for reasons of disclosure of information pertaining to specific firms. This, too, limits the richness of the data base for economic analysis of the lower-populated counties of the state.

## **Methodology**

### **Unit of Measure**

In the analysis to follow, the primary unit of measurement is the pull factor. It is frequently used in retail trade analysis to measure leakage and capture of retail trade across political boundaries (Darling, 1997, Johnson, et al., 1994, Shaffer, 1989). In brief, the pull factor measures the relative market share of retailing captured by a specific geographic area over a specific time period. It is calculated by dividing the per capita taxable retail sales for the local geographic unit by the state average per capita sales which have occurred over the same time period.

$$\text{Pull Factor} = \frac{\text{Local per capita retail sales}}{\text{state per capita retail sales}}$$

The interpretation of the pull factor is straightforward. If the pull factor is greater than 1.0, then the retail sales activity of that substate area exceeds its population in terms of customer equivalents. In essence, it is capturing retail activity beyond the level inferred by its population base. Conversely, if the pull factor for an area is less than 1.0, the area is losing potential retail activity to other places, and is experiencing trade leakage. So, the higher the pull factor of a substate area relative to other areas, the more viable is its retailing activity in relative terms.

The value of using the pull factor measure rather than actual dollar volume of sales is that comparative analysis can be done over time even if there have been changes in sales tax policy. For example, when Nebraska shifted home-prepared food items to exempt status in 1983, the total taxable sales level was reduced accordingly from that year forward. Thus, total volume of taxable sales cannot be used directly as a good trend indicator of

retailing over time. But by converting to the pull factor unit of measurement, the tax shift is essentially negated in the analysis, and relative changes in retail viability over time can be more accurately analyzed for counties and municipalities.

## County and City Classification

For purposes of analysis, we classified Nebraska counties into several categories based on the latest (1998) population levels and size of the largest municipality in the county. The groupings were:

**Rural Counties:** Fifty-two Nebraska counties which have no town larger than 2,500 people. This definition is the same as that used by the Bureau of the Census, U.S. Department of Commerce. Population in this class runs from less than 500 in Arthur County to 9,650 in Cedar County.

**Small Trade Counties:** Twenty-three non-metropolitan counties with the largest town being between 2,500 and 7,500 population. Counties in this class run in size from Cherry County of about 6,325 to Dawson County with a 1998 population estimate of nearly 23,200.

**Large Trade Counties:** Twelve nonmetropolitan counties with a city of at least 7,500 people. For this class, the population range is from 11,255 in Red Willow County to 51,850 in Hall County.

**Metro Counties:** Six Nebraska counties which are currently classified as Standard Metropolitan Areas (SMA's) as defined by the Bureau of the Census, U.S. Department of Commerce. SMA's are those counties having all or a portion of a metropolitan center of 50,000 or more people. The range of county population size is extreme for this group of six, ranging from less than 19,000 in Washington County (adjacent to Omaha) and in Dakota County (adjacent to Sioux City, Iowa) to nearly 444,000 people living in Douglas County.

An alphabetized list of counties within each of these classes can be seen in the county-level tables included in the Appendix.

In addition to classifying counties, this analysis of retailing also classified Nebraska's 415 municipalities according to population size classes on the basis of 1996 population estimates (the latest measures available at this writing).

**Population under 500:** These incorporated municipalities totaled 216 and represented about 52 percent of the state's municipalities. Studies in other states, such as North Dakota, have referred to this group as hamlets in which only the most basic of retailing functions occur (Bangson, et.al., 1995).

**Population of 500 to 999:** A total of 86 Nebraska communities (one in five municipalities) fell into this population category. Towns of this size class normally function as minimum convenience centers for retailing, although exceptions can and do exist where their role is somewhat greater.

**Population of 1,000 to 2,500:** Sixty-five Nebraska municipalities fall into this size grouping. Because of their somewhat larger size, these towns will tend to offer more retailing functions and typically be classified as full convenience.

**Population of 2,500 to 4,999:** This group of 17 Nebraska communities are often county seats and/or serve as larger trade centers for the immediate area. Their size allows them to function with more retailing responsibility and essentially serve as partial shopping centers. Their relative retail viability, however, can vary greatly from one municipality to the next.

**Population of 5,000 to 9,999:** Nebraska has 15 communities in this size class. Depending on their proximity to larger trade centers and other factors, some operate more as complete shopping centers than as partial retail shopping centers.

**Population of 10,000 to 19,999:** There are six Nebraska municipalities in this size grouping, all of which tend to represent complete shopping centers that serve essentially all consumer needs.

**Population of 20,000 to 99,999:** The eight municipalities in this class are of a size where many of them tend to serve as significant trade centers for their substate region. In this capacity, they will tend to move into the role of being secondary wholesale-retail centers.

**Population of 100,000 or more:** Nebraska's two largest municipalities, Omaha and Lincoln, can be classified as primary wholesale-retail centers, offering the complete range of retail functions. In this role, their trade areas can reach several hundred miles for the more specialized retail goods and services. In essence, they are both central cities (Darling, 1997).

## The Findings

### County-level Retailing Patterns

Using taxable retail sales data, the relative performance of the county classes is traced over the period, 1970-1998 (*Table I*). The trend is obvious.

**Table I. Characteristics of taxable sales by county classes in Nebraska, selected years, 1970-1998<sup>1,2</sup>**

Year and Item	Metropolitan counties  (N=6)	Non-metropolitan counties			All counties  (N=93)
		Large trade center counties (N=12)	Small trade center counties (N=23)	Rural counties (N=52)	
<b>1970 Taxable Sales:</b>					
Total (Mill \$)	1,501.3	717.1	430.5	316.1	2,964.9
% of Total Sales	50.6%	24.2%	14.5%	10.7%	100.0%
Ave Per Capita (\$)	2,247	2,234	1,685	1,313	1,996
Ave Pull Factor	1.126	1.119	.844	.658	1.000
<b>1980 Taxable Sales:</b>					
Total (Mill \$)	3,700.9	2,021.0	1,098.6	784.9	7,605.4
% of Total Sales	48.7%	26.6%	14.4%	10.3%	100.0%
Ave Per Capita (\$)	5,076	5,781	4,252	3,371	4,844
Ave Pull Factor	1.048	1.193	.878	.696	1.000
<b>1990 Taxable Sales:</b>					
Total (Mill \$)	5,699.4	2,415.7	1,122.8	730.1	9,968.0
% of Total Sales	57.2%	24.2%	11.3%	7.3%	100.0%
Ave Per Capita (\$)	7,281	7,044	4,682	3,528	6,339
Ave Pull Factor	1.149	1.111	.739	.557	1.000
<b>1998 Taxable Sales:</b>					
Total (Mill \$)	9,025.3	3,347.0	1,323.6	728.6	14,424.5
% of Total Sales	62.6%	23.2%	9.2%	5.0%	100.0%
Ave Per Capita (\$)	10,469	9,470	5,366	3,634	8,675
Ave Pull Factor	1.207	1.092	.619	.419	1.000

<sup>1</sup>Based on taxable retail sales as reported to the Nebraska Department of Revenue. Does not include nonresident taxable sales.

<sup>2</sup>County classification as follows: Rural, no town of larger than 2,500; small trade center, largest town between 2,500 and 7,500; large trade center, largest city at least 7,500 and no metro; and metro, having all or a portion of a city of 50,000+ population and classified by U.S. Bureau of Census as Standard Metropolitan Area (SMA).

The metro counties have always captured a sizable share of the state's retail sales, but their share has grown considerably since 1980. As of 1998, these six counties accounted for nearly 63 percent of total resident retail sales in Nebraska. Not only was this due to rapid population growth, which these counties have tended to experience, but also because of the increasing trade capture they have enjoyed as evidenced by the increasing pull factor for this group. For 1998, the Metro counties captured nearly \$1.5 billion of retail sales beyond their population equivalent, a level that is almost twice the magnitude of total retail sales in Nebraska's 52 rural counties. Just eight years earlier, in 1990, the metro counties' dollar volume of trade capture was only \$739 million ( $\$5,699.4 - [\$5,699.4 / 1.149] = \$739.1$ ).

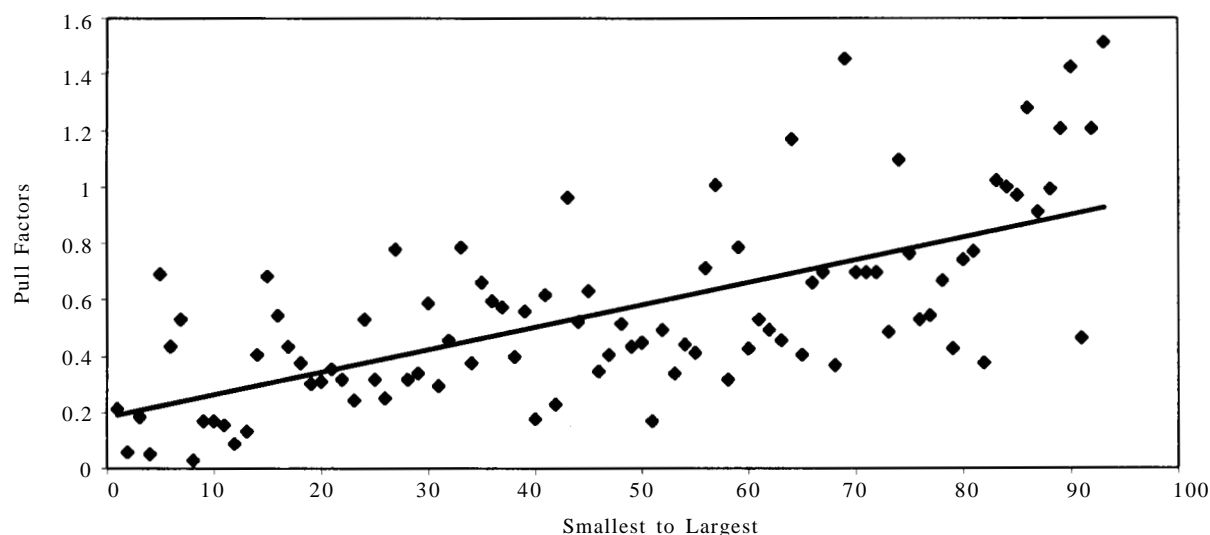
While the metro county class has grown in retail dominance, the rural county class has experienced erosion of their retailing function since 1980. Their average pull factor has fallen from .696 in 1980 to .419 in 1998. In other words, while they were capturing nearly 70 cents of every potential retail dollar in 1980, by 1998 this group was capturing less than 42 cents of every retail dollar of their population base (a retail leakage of nearly 60 percent). This decline has pervaded over the past two decades, irrespective of how well or how poorly the rural economy is performing. In fact, the retail declines experienced during the 1990s have been

even more dramatic than those of the 1980s, even though general economic conditions in rural areas have been relatively stronger throughout most of the 1990s.

The small trade center counties also have experienced declining retailing competitiveness over the past two decades with the average pull factor falling from .878 in 1980 to .619 in 1998. Their share of the state's residential retailing pie fell from 14.4 percent to 9.2 percent over that time period. Apparently, even counties with municipalities as large as 7,500 are not maintaining their retailing competitiveness in recent years.

As for the large trade counties, the historical trend has been one of more consistent performance over time. Following retail gains during the 1970s, this class of counties returned to a trade capture level that has remained relatively stable for the past 10 to 15 years. These counties, with small cities serving as regional satellite cities, are maintaining retail competitiveness with the large metro areas. Their size affords them the opportunity to achieve both size and agglomeration economies in retailing, thus providing the retail customer a wide selection of goods and services at competitive prices. In addition, these smaller cities often serve as regional hubs for a variety of key educational, medical, governmental and other professional services. The presence of these services makes these small cities





**Figure 3. 1998 Pull Factors by Smallest to Largest Population.**

The second and third highest county pull factors in 1998 occurred in Red Willow and Hall Counties, both regional trade hub counties with strong retailing historically. Likewise, Madison and Buffalo Counties continue to perform as major retailing counties. Lancaster County, the state's second largest metropolitan county, has experienced particular growth in retailing during the 1990s, and currently ranks sixth in pull factor level.

As for the two counties from the small trade county class, Cheyenne and Keith, both are somewhat unique in retailing function in that they are located on the Interstate and have important draws for recreation and tourism. Lake McConaughy in Keith County has historically contributed to area retailing, although the historical pull factor pattern suggests this draw may be subsiding. In contrast, Cheyenne County has benefitted greatly from the home office and major retail center of Cabela's, which, in recent years, has grown into a major national catalog distributor of sporting equipment and outfitting supplies. In turn, Cheyenne County's retailing activity has improved substantially during the 1990s, albeit due primarily to a single retailer.

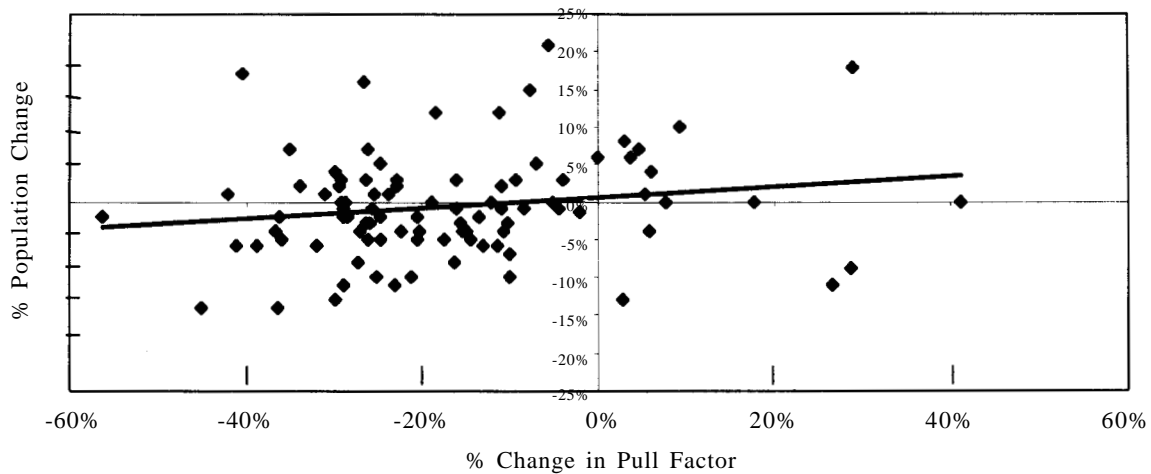
For the counties classified as rural, trade leakage has intensified during the 1990s in 50 of the 52 counties. Only Deuel and Hooker Counties experienced growing pull factors of 29 percent and 27 percent respectively. While the decade percentage change in average pull factor for the class has been 25 percent, 10 of the counties have experienced more substantial declines of 35 percent or more in their pull factor over the nine-year period. Alphabetically, these were: Blaine, 36 percent; Fillmore, 36 percent; Greeley, 36 percent; Howard, 35 percent; Keya Paha, 38 percent; Loup, 56 percent; Morrill, 42 percent; Nance, 37 percent; Pawnee, 41 percent; and Rock, 45 percent.

As of 1998, only two of the rural counties were able to capture at least 75 percent of their potential retail market Brown and Chase Counties with pull factors of .780 and .787 respectively. Both of these counties are relatively isolated from larger trading centers; and, as a result, their smaller communities of less than 2,500 population still carry on relatively important retailing activity for the area population.

While numerous factors enter into county retailing performance patterns, population levels and trends seem to be particularly significant. For example, in *Figure 3*, counties are arrayed from smallest to largest population and their 1998 pull factors plotted. As the linear regression line fitted to these plotted points suggests, the larger the county population, the higher the county pull factor tends to be.

Similarly, population change tends to be directly correlated with changes in retail viability as evident in *Figure 4*, which plots 1990-98 changes in retail pull factors against population change over the same time period. While some counties experienced further deterioration of retail pull factors in spite of some population growth, the more typical pattern for nearly half of the state's counties was one of simultaneous decline in both population and retail pull factor.

The implications to the above are obvious. Given historical declines in population for many Nebraska counties and the likelihood of continuing declines, maintaining viable retailing within those localities will be an ever increasing challenge. Alternative paradigms of retailing access will be needed to meet the needs and wants of consumers residing in those areas.



\*Based on taxable sales and populations reported to The Nebraska Department of Revenue.

**Figure 4. 1990-98 changes in population and pull factors by county and pull factors.**

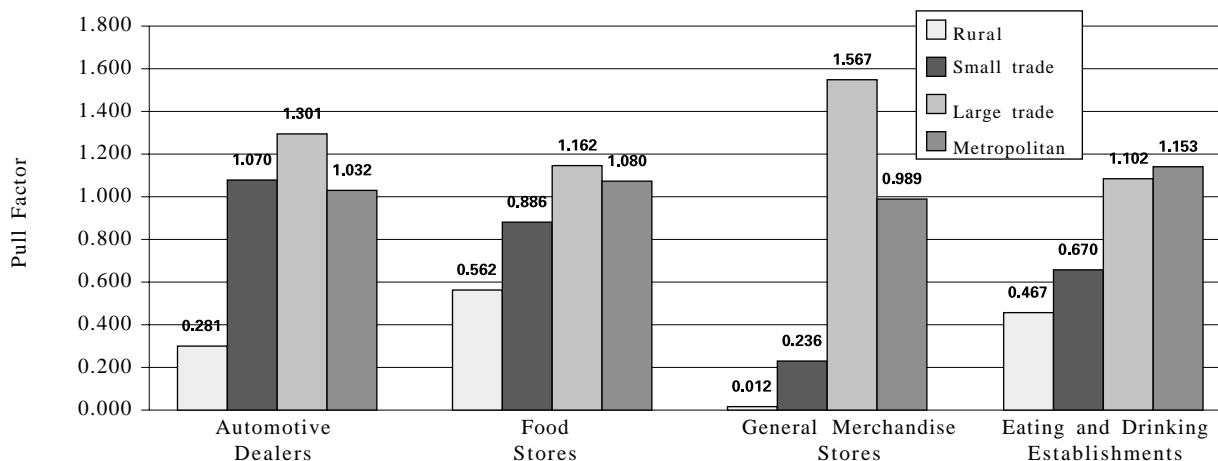
### County Retail Patterns By Specific Function

As noted previously, the periodic U.S. Department of Commerce Census of Retailing can provide addition insight into retailing by specific function. Using the latest available 1992 Census of Retailing for Nebraska, distribution of total sales activity were made across the respective county classes and pull factors calculated. Even though the data is somewhat dated, interesting patterns are evident.

These patterns were analyzed by producing comparisons of the top four retailing activities in Nebraska. These activities/businesses are Automotive Dealers, Food Stores, General Merchandise Stores, and Eating and Drinking Establishments. Total sales were recorded in every county along with pull factors calculated. As shown in *Figure 5*, there are major differences between the size classes.

The results of Automotive Dealers in *Figure 5* can be easily explained. Most people prefer to purchase big ticket items such as vehicles at larger, more advertised outlets. In order to do this, they may have to drive 40, 60, or even as far as 100 miles or more to their larger destination. Also, the convenience of shopping for all items in one city is growing in popularity among all people, particularly since the advent of large discount stores located in these larger trade centers (Stone, 1997).

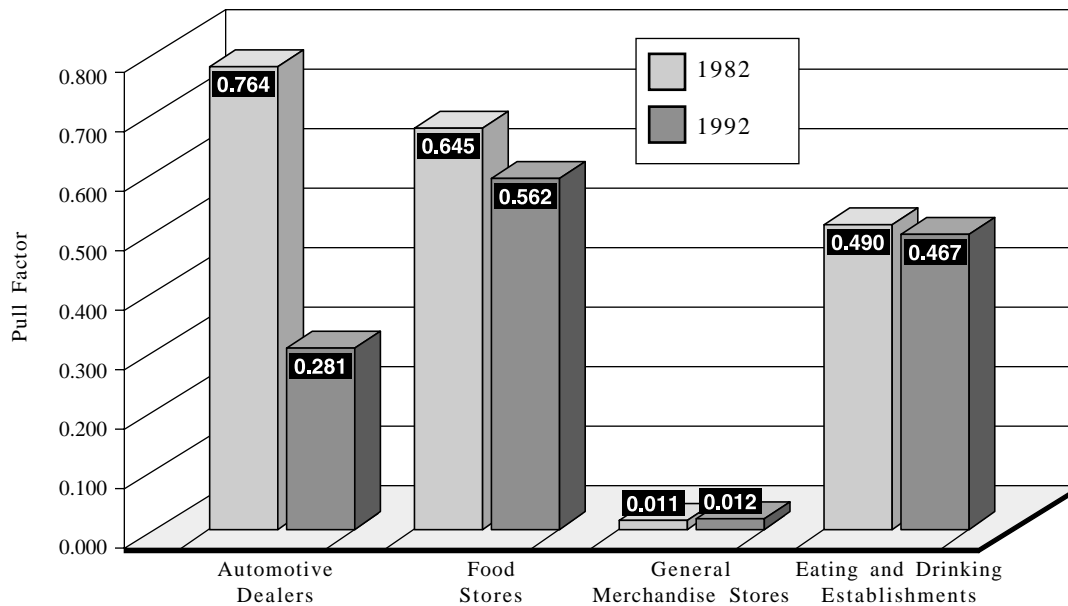
In automobile sales, the small trade areas experienced the largest pull factor increases from 1982 to 1992. The largest increase occurred in Saline County with the emergence of a very large automotive dealership which changed their pull factor from 0.360 in 1982 to 4.850 in 1992. Cherry County also sustained a considerable increase in the same period going from 1.080 to 1.551.



\*Based on figures from U.S. Department of Commerce Census of Retailing, 1992.

**Figure 5. Comparisons of pull factors for size classes on various retailing activities, 1992\*.**





\*Based on figures from U.S. Department of Commerce Census of Retailing, 1982 and 1992.

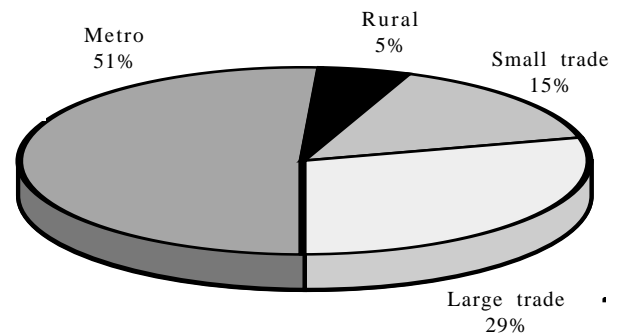
**Figure 6. Various retailing activity trends for rural size class from 1982-1992\*.**

As shown in *Figure 6*, there has been a major drop in pull factor for automotive dealers in the rural class of counties from 1982 to 1992. This may be partially explained by the fact that people no longer feel inconvenienced by a trip outside their own county. They also may be influenced by advertising from dealerships in large trade centers which may influence them to travel further to shop for vehicles. This is proven when you look at the trend of their automobile sales pull factor. Rural counties were capturing just over 76 cents of every potential retail dollar in 1982 but decreased to 28 cents of every potential retail dollar in 1992. This was a 63 percent drop.

The rural class has 12 percent of the population but only accounts for 4.8 percent of the total automobile sales. This is not the case in the large and metro classes, however. The large trade and metro classes combined have 73 percent of the total population and account for 80 percent of the total automobile sales (*Figure 7*). This may be influenced by the fact that there are more people concentrated around the metro areas.

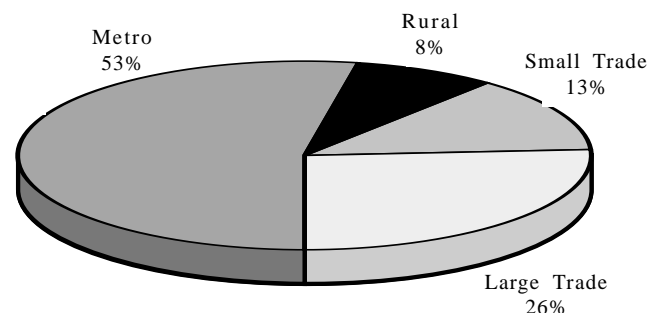
The trend in automobile sales also occurs in total sales by food stores. The rural class, which again accounts for 12 percent of the population, only accounts for 7.6 percent of total food sales in the state while the large and metro classes account for 73 percent of the population and 79 percent of the total volume of food sales (*Figure 8*). Particularly the large trade center county class seems to capture food retailing, typically drawing from a commuting range of 40 to 60 miles.

The decreasing trend in the rural centers that we outlined above also is evident in other retail



Source: U.S. Department of Commerce Census of Retailing, 1992.

**Figure 7. Percent total volume of automobile sales by county class, 1992.**



\*Source: U.S. Department of Commerce Census of Retailing, 1992.

**Figure 8. Percent total volume of food sales by county size classes, 1992\*.**

activities. The most evident trend in rural centers is the lack of general merchandising stores. Rural centers don't have general merchandising stores. This is because of the trend that discount stores are taking. The recent trend in these stores is to be larger, more convenient, and located in a large trade center that has enough labor and customers to support them. With these factors, the stores typically pull in customers from well outside the local area. People will drive longer distances to be able to do a variety of shopping in just one store. This has evolved to be explained as the "Wal-Mart" effect (Stone, 1998). Large discount shopping stores get built and they immediately pull customers from the smaller, family run shopping stores around their area. It is the trend of having fewer stores with larger sales volumes.

The older established rural retail centers do not like seeing a Wal-Mart store go up in their area. Many businesses may rally together in order to protest the stores' arrival. Usually, it is only a matter of time until different retailers compete for consumer dollars, and the bigger store's advertising, lower prices and more variety wins. It is what one could compare to "survival of the fittest" (Sternquist, et al, 1997).

These discount stores have evolved and developed in large trade centers as shown in *Figure 5*. Large trade centers have a dominance in general merchandise with a 1992 pull factor of 1.567 which is 58 percent more than the metro's pull factor of .989. This can be explained because of the large trade centers' convenient locations across the state. One county that proves this is Hall. The centrally located center draws in people from all parts of central Nebraska and has grown from a pull factor in 1982 of 2.084 to a pull factor in 1992 of 2.437, which is an increase of 17 percent. The same is true in Madison County where they draw in people from northeast Nebraska and have made a very large jump from a pull factor of 1.045 in 1982 to a pull factor of 2.051 in 1992. This was a jump of 96 percent.

Automotive dealers, food stores, and eating and drinking establishments notice this shift in shopping, and they capitalize on it. These businesses will pick up their existing stores and try to relocate as close to these new retailing stores as possible. This can be seen especially in automotive dealerships and general merchandise stores. Both retailing activities feed off each other because it is known that people will drive from long distances in order to shop for vehicles and discount goods. The more people they can pull into their area, the better the chance of increased sales.

When analyzing the sale of food and existence of food stores, it is shown in *Figure 5* that the size classes are much more even than other retail activi-

ties. This shows that people do not have as much of a tendency to drive to a larger center for their grocery needs. However, since the large trade centers again have a dominance in food stores pull factor, it can be said that this is reflecting the recent boom of super discount stores with additional grocery departments making it a real one-stop-shopping store.

These major discount stores even can be found in some major remote trade centers located in remote areas in the northern and western part of Nebraska which have been able to increase those area pull factors during the 10 year period. Examples of these are Cherry County in the northern part of the state and Scotts Bluff County in the Panhandle.

### **Town/City Retail Patterns**

Using taxable retail sales for individual towns and cities, we have grouped municipalities into eight population size classes and calculated average pull factors for selected years. Significant patterns as well as trends are evident from this analysis. Clearly, the larger the municipality, the more viable its retailing function is likely to be. Moreover, this pattern has continued to grow more pronounced right up to the present.

As noted in *Table II*, the two smallest size classes of municipalities have experienced continual decline in their retail pull factors since 1970 when they were basically capturing the equivalent of their population in retail trade. The decline was particularly pronounced during the 1980s, and has not been reversed during this decade. As of 1998, trade leakage was exceeding 50 percent for the towns of less than 500 (pull factor of less than .500) and approaching 40 percent for towns of 500 to 999 (pull factor of .628) (*Figure 9* and *Appendix Table II*). While they may once have served as broad-based retail centers, their role has generally diminished to being minimum convenience centers today. Potential business volume is simply insufficient for large order goods; therefore, only the more basic goods and services for which consumers want convenience and frequent access are still available.

For Nebraska's 65 municipalities in the 1,000 to 2,499 population range, their size affords them the opportunity to offer a wider variety of retail goods and services, thus, can usually be regarded as full convenience retail centers. However, even in this size class, there has been a declining retailing role (as evidenced by falling pull factors) over the past two decades. Many of these municipalities are county seats and the largest community in the county. In that capacity, they once served as more extensive retail hubs, and were capturing retail trade even as recently as 1980. Nevertheless, it has

**Table II. Weighted average pull factors by Nebraska town/city population size class for selected years and percent changes.\***

Town/city population class	Average pull factors of taxable retail sales activity for selected years:				Percent change in pull factors from:		
	1970	1980	1990	1998	1970 to 1980	1980 to 1990	1990 to 1998
	----- Pull Factor -----				----- Percent -----		
Less than 500	1.079	.907	.551	.479	-16	-39	-13
500-999	1.015	.941	.728	.628	-7	-23	-14
1,000-2,499	1.327	1.364	.960	.826	+3	-30	-14
2,500-4,999	1.589	1.623	1.177	1.117	+3	-27	-5
5,000-9,999	1.494	1.561	1.100	1.172	+5	-30	+7
10,000-19,999	1.698	1.797	1.287	1.202	+6	-28	-7
20,000-99,999	1.508	1.651	1.262	1.339	+9	-24	+6
100,000 and over	1.356	1.415	1.403	1.633	+3	-1	+16

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

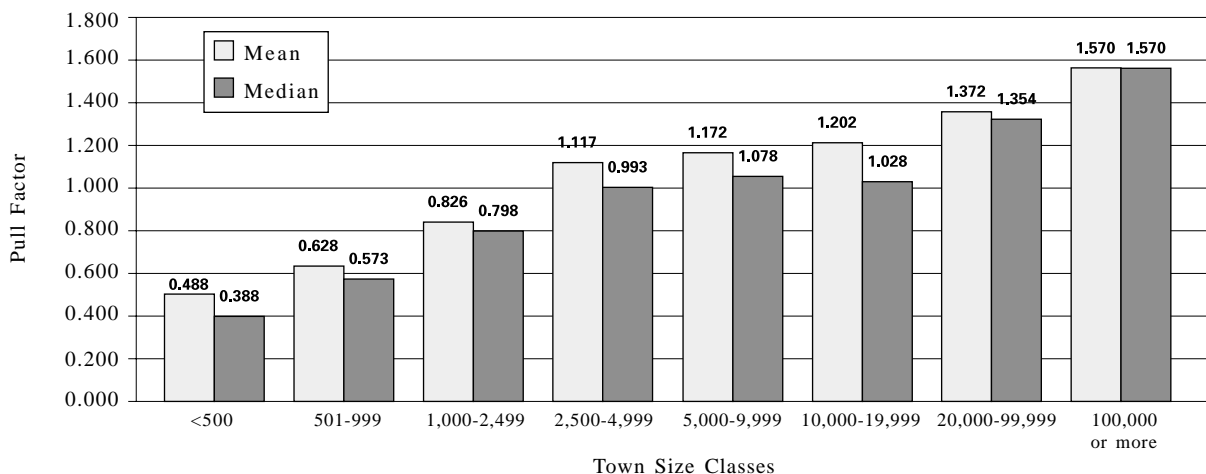
been increasingly difficult for them to maintain their retailing viability beyond those functions typical of full convenience centers. There has been a structural shift from role of partial shopping center to that of full convenience, and with that has come retail leakage from this size class as we enter the 21st century.

Trade capture begins to become more evident among towns of 2,500 to 4,999. Depending on their location and degree of isolation from larger municipalities, these towns, today, will range from partial to complete shopping centers. Twelve of the 17 municipalities are county seats, which tend to enhance retailing activity as people travel there for various governmental services. However, this influence may be subsiding as citizen access to governmental services is increasingly carried on without site visitation. Moreover, other factors can be much more influential, such as increasing retail competition from larger trade centers nearby or substantial population and associated cultural shifts which can be adversely affecting a county seat retailing.

By present population levels, 15 Nebraska municipalities fall into the 5,000 to 9,999 category,

and essentially represent complete retail shopping centers. As a result, some of these communities are particularly strong retail performers. While they experienced serious retail slippage during the 1980s, as a group they have tended to at least maintain if not expand their retail performance during the 1990s. However, considerable variation in retailing levels and trends exists within this municipal size class. For example, Gering, which is in the shadow of the strong retail center Scottsbluff, shows considerable decline in pull factor during the 1990s; while another western Nebraska community, Sidney, has experienced substantial retail growth, due largely to the expansion of a single retailer with a nationally based clientele following.

Municipalities of 10,000 to 19,999 also tend to be complete shopping centers, and their retailing performance as a group parallels that of the next smaller class. The pull factor trend as indicated in *Table II* is somewhat misleading because of the changing configuration of cities in this class over time. More specifically, the addition of two of municipalities to this group after 1990 has tended to distort the performance changes during the



\*Based on taxable sales as reported to The Nebraska Department of Revenue.

**Figure 9. Mean and median pull factors by town/city size classes, 1998\*.**

**Table III. Towns/cities with highest 1998 retail pull factors by selected population size classes.**

<i>Town/city population class</i>	<i>Number of incorporated towns/cities</i>	<i>Highest ranking town/cities by 1998 pull factor</i>		
		<i>1st</i>	<i>2nd</i>	<i>3rd</i>
500-999	86	Ceresco (2.000)	Doniphan (1.915)	Humphrey (1.481)
1,000-2,499	65	Hebron (1.567)	Ainsworth (1.415)	Hartington (1.402)
2,500-4,999	17	Valentine (2.004)	Gretna (1.670)	O'Neill (1.586)
5,000-9,999	15	McCook (2.001)	York (1.749)	Sidney (1.739)
10,000-19,999	6	Scottsbluff (1.999)	Beatrice (1.209)	La Vista (1.061)
20,000-99,999	8	Norfolk (1.749)	Grand Island (1.722)	Kearney (1.632)
100,000 and more	2	Omaha (1.804)	Lincoln (1.335)	**

\*\*There are only two Nebraska cities in this population size class.

\*\*\*Towns with fewer than 500 were not ranked due to their extreme variability.

1990s. In actuality, two the three municipalities which were in this size class prior to 1990 have experienced pull factor growth during the 1990s.

It is within the 20,000 to 99,999 population class of cities that retailing strength becomes particularly pronounced. With the exception of Bellevue, which lies adjacent to Omaha and therefore has a somewhat limited retail function relative to its population size, the other municipalities serve as major regional retail centers to multicounty trade areas. In many instances, they have evolved into serving as wholesale/retail centers for their respective areas of the state, covering all but the very highest order of goods and services. Generally, their retailing performance has improved during the 1990s as consumers continue to travel farther and with greater frequency to access these more complete retail centers. As of 1998, this size class of cities accounted for \$.18 of every taxable retail dollar spent in the state.

At the top end of the size scale, Lincoln and Omaha serve as the primary wholesale/retail centers of the state. And while their own populations constitute 35 percent of the state's population, the retail volume they captured in 1998 was 57 cents of every taxable retail dollar. The growth of retailing in both of these cities during the 1990s has been phenomenal. Lincoln particularly shows rapid growth with its pull factor increasing nearly 23 percent since 1990. Omaha has always been a strong retail player; but here also, substantial growth has occurred on top of an already large retail base.

In total, an analysis of retailing activity across Nebraska's towns and cities points to a very pronounced trend towards increasing concentration in the major trade centers of the state. This trend has already proceeded to the point where, as of 1998, 75

percent of Nebraska's taxable retail sales are accounted for by its 10 largest municipalities (those of at least 20,000 population). There is no evidence to suggest that this percentage will not continue to increase.

For the more than 400 other smaller retail centers across the state, this trend implies a major structural change in retailing that must be carefully heeded. Both the role and the process of retailing within the respective municipality must be crafted to fit within a retailing paradigm where larger centers dominate.

### **High Retail Performance Towns/Cities**

Within each size class of municipality there are trade center communities which have relatively strong retail activity and/or are experiencing significant retail growth during the 1990s. It is important to analyze these communities for understanding the factors which tend to contribute to strong retailing performance.

At the top of the size scale, Omaha has a dominant presence in the state, not only by sheer population numbers but also because of major trade capture with a pull factor of 1.804 for 1998 (*Table III*). This infers that Omaha is accounting for the retailing activity of more than 657,000 people in 1998, about 41 percent of Nebraska's total taxable retail sales. That represents a considerable increase from 1990 levels when Omaha's sales volume was the equivalent of about 543,000 people or 34 percent of the state's retail pie. Obviously, Omaha is drawing from the heavily populated and rapidly growing surrounding metropolitan area, but its trade area influence stretches hundreds of miles in all directions.

**Table IV. Towns/cities with highest pull factor percentage increase from 1990-98 by population size classes.**

Town/city population class	Number of incorporated towns/cities	Highest percentage change in pull factor between 1990-98		
		1st	2nd	3rd
500-999	86	Doniphan (+ 98)	Kenesaw (+ 94)	Ansley (+ 47)
1,000-2,499	65	Springfield (+222)	Eagle (+ 77)	Dakota City (+ 26)
2,500-4,999	17	Gretna (+ 261)	Elkhorn (+ 21)	Valentine (+ 19)
5,000-9,999	15	Sidney (+ 57)	Nebraska City (+ 30)	Chadron (+ 27)
10,000-19,999	6	La Vista (+ 117)	Papillion (+ 37)	Beatrice (+ 8)
20,000-99,999	8	Kearney (+15)	Grand Island (+ 15)	Norfolk (+ 11)
100,000 and more	2	Lincoln (+ 23)	Omaha (+ 14)	**

\*\*There are only two Nebraska cities in this population size class.

\*\*\*Towns with fewer than 500 population were not ranked due to their extreme variability.

Lincoln's role as a major retailing center is considerably smaller than that of Omaha, but has experienced rapid growth during the 1990s (*Tables III and IV*). After more than a decade of relative decline in retailing performance, Lincoln was essentially serving its own population equivalent by 1990 with a pull factor of just 1.087. By 1998, Lincoln's pull factor had increased nearly 23 percent to 1.335; and the city was capturing the retail equivalent of more than 279,000 people, or 17 percent of the state's total taxable sales.

In summary, the Omaha and Lincoln metropolitan areas are growing rapidly in terms of population and economic activity and, likewise, in terms of their retailing volume. Together, they are closing in on capturing nearly 60 cents of every dollar of Nebraska taxable retail sales by the year 2000.

As for Nebraska's largest regional trade centers of under 100,000 population, Norfolk and Grand Island rank at the top in terms of 1998 pull factors. And while both have historically been strong retail centers, albeit with some declines in the 1980s, they each have experienced considerable retailing growth during the 1990s. By 1998, Grand Island was capturing the retail equivalent of some 71,000 people with a trade area spanning the central part of the state. Norfolk serves as the primary regional trade area for northeast Nebraska, with a capture of nearly 41,000 people. Kearney's 1998 retail pull factor ranks third within this size group, capitalizing on its relatively strong local economy and its centralized location on Interstate 80.

For those smaller regional trade centers in the 10,000 to 19,999 size group, Scottsbluff ranks at the very top with one of the highest 1998 pull factors of any of the state's municipalities, 1.999 (*Table III*). It has essentially held its relative retailing

performance during the 1990s, serving as an important regional trade hub for the western part of the state. Beatrice ranks second, with some growth occurring during the 1990s. It continues to serve as an important smaller retail center for the southeastern area of the state, even though it must compete with Lincoln just 40 miles to the north on a divided highway. LaVista is one of three municipalities in this size class which are part of greater metropolitan areas, and therefore are not particularly strong in terms of retailing performance. However, LaVista has experienced more than a doubling of its retail pull factor during the 1990s as considerable population growth has occurred within its immediate trade radius.

Of cities in the 5,000 to 9,999 size class, McCook historically has been a very strong retail trade center for southwest Nebraska, and that has continued up to the present (*Table III*). In 1998, with one of the highest municipal pull factors in the state, McCook captured the trade equivalent of nearly 16,000 people. Being fairly remote from the competition of larger trade areas, McCook serves a relatively large trade area which even dips into Kansas. Within this size class, York and Sidney essentially tied for second place in terms of 1998 pull factors. Sidney experienced rapid retail expansion during the 1990s, led largely by the growth of a single retailer. In contrast, York has experienced broad-based growth in recent years, keying on a robust local economy and its geographic location on major highway networks. While their 1998 pull factors are somewhat lower, both Nebraska City and Chadron have had sizable growth in retailing performance since 1990, with their pull factors rising 30 percent and 27 percent respectively (*Table IV*).

The 2,500 to 4,999 class of cities is led by Valentine, which is a strong retail community in north central Nebraska. Due in part to its relatively isolated location from larger trade centers, it tends to offer a more diverse and comprehensive offering of retail goods and services than typical of this size of community. Besides the rather expansive trade area it serves, Valentine also capitalizes on tourism which makes this part of Nebraska a destination point. The development of tourism in recent years may explain some of the growth in retailing performance that Valentine has experienced during the 1990s.

Gretna ranks second in pull factor performance in this size class, but for entirely different reasons. Its proximity to the interstate and the opening of a factory outlet mall adjacent to the interstate since 1990 explains much of the phenomenal retail growth it has experienced. Moreover, the rapid urban sprawl and "filling-in" occurring in the nearby surrounding areas has also expanded the retail activity of this once relatively quiet farming community. This same urban transition explains the retailing growth in Elkhorn in recent years, as the Omaha metropolitan area has encompassed it.

O'Neill ranks third in retailing performance, despite the fact that it has experienced some decline in its pull factor since 1990. However, in this size class of community and smaller, the pull factor change may not be so much a general decline as it is the removal of farm implements from taxable retail sales in 1993. Therefore, a 1990 to 1998 comparison may not be a realistic measure of change.

Of the 65 municipalities in the 1,000 to 2,499 population group, Hebron, Ainsworth, and Hartington had the highest pull factors for 1998 (*Table III*). All three are county seats that basically serve a surrounding agricultural area. They have generally maintained their retail viability during the 1990s, capturing some of the trade from smaller communities nearby. However, municipalities in this class showing the largest percentage growth during the 1990s show a far different pattern. Springfield, Eagle and Dakota City all represent smaller "bedroom communities" of larger metro areas, whose retailing function has shifted to more of a convenience center mode for the expanding population nearby.

As one moves downward into the smaller communities of less than 1,000 population, retailing performance becomes increasingly sporadic. Most have experienced serious erosion of their retailing function over many years at the expense of larger trade centers. However, here also there are noticeable exceptions. In the 500 to 999 class of municipalities, Ceresco continued to capture considerable retail trade for a town of its size, primarily by the presence of a large furniture and appliance retailer

who competes for the nearby metropolitan markets. The small town of Doniphan, situated between the two regional trade centers of Grand Island and Hastings, has experienced phenomenal growth in retail volume during the 1990s, drawing on its emerging role as a bedroom community. Humphrey has always been one of the highest retail performers in its size class, largely serving a farm-based retail function; the presence of two large implement dealerships is a particular influence.

A few of the communities of less than 500 have experienced increases of pull factors. Roca, a town of 80 people, has the largest pull factor in 1998 of 7.692. This can be partially explained because of a successful rock quarry business that provides their product for many building projects around the area. This shows that a business can find a niche and be very successful in a small town.

## Conclusions and Implications

Dramatic changes in retailing activity have occurred across Nebraska over the past decade, and these changes largely continue unabated. With each year, it appears that more and more of total retailing volume moves toward the state's larger population centers. On the demand side, consumer preferences and mobility have led to a retail consumer with less geographic loyalty and greater interests in greater variety and competitive pricing. Concurrently, on the supply side, the retailer has been forced to operate with larger volume outlets in order to capture economies of size and scale. Thus, gravitation of retailing towards the larger centers has demonstrated both push and pull effects.

For the smaller trade centers scattered across the state, these trends have had serious repercussions, as the small town main street has all but abandoned its role of earlier times. In essence, most smaller trade centers have experienced downsizing in both volume and diversity of retail function, simply because of insufficient "critical mass" for maintaining retailing viability. If it once operated as a full shopping center, it is likely a partial shopping center today. Likewise, a full convenience center of a generation ago may now be more appropriately classified as a partial convenience center, as some of its previous functions are now being served instead by the larger trade centers with which it is competing. In sum, for all but the largest of centers, retailing trade centers have tended to move down the retailing class hierarchy over time.

There are a number of implications to the above. First, there is the issue of quality of life impacted by the level of access to retailing goods and services. At first glance, it may appear that quality of life for many rural Nebraskans has

diminished as a result of declining retailing activity in their home communities. However, that may not necessarily be the case as long as large-order retail goods and services are available within a reasonable commuting range. The point being: access to goods and services does not necessarily all need to be provided by a single retail center in order for quality of life, either real or perceived, to be high.

To the extent that large trade centers are geographically situated across the state, virtually all citizens have ready access to a full range of retailing goods and services, albeit with some travel costs. Moreover, relying on these regional centers by the nonmetropolitan population will, in all likelihood, increase in the future. These regional trade centers will continue to grow as key satellite cities, not only for retailing function, but for a host of other services including medical, educational, cultural and governmental (Aryes, et al. 1992 and Bhuyan, 1996).

Second, for the smaller retailing center, recognizing its changing role over time is the first step towards adapting successfully to a new function. Then, with a good dose of reality, community leaders can move towards being a viable and sustainable retail center (Olsen, et al., 1998). For example, recognizing that access to the more basic (convenience) retail items will always be demanded by the local consumer base, the retail community should make a concerted effort to assure that quality of delivery of those services be second to none. Even the most basic retail center could initiate such things as more convenient store hours for commuting customers, 24-hour a day credit card gas pumps, full service banking ATMs, more personalized service, etc. In other words, whatever the hierarchy level a retail center is playing in today's dynamic retailing environment, it should take positive steps to serve in that role with excellence. Even though the volume of taxable sales and pull factor may be modest for a smaller community, it can add much to the viability of the local economy and the quality of life if firms and households can conveniently access high quality basic retail services.

Third, it is important to note that there are retail centers of virtually every size which operate as very successful retailing centers by capitalizing on some unique opportunities. For some it is their relative isolation from larger trade centers which allows them to compete more effectively in a larger-order of goods and services. For others, it is just the opposite — being in close proximity to larger population centers which increases their potential customer base. There are also those who are tying into national/international markets, using telecommunications technology to negate spacial limitations, while some are keying on market niches for which

the larger retail centers are not serving. Offering quality, "high touch" service, meeting specific and often unique needs of the consumer can often be a retailer's profit niche in a world where merchandising has often become overly standardized in form and function (Will, 1997).

There is more hope for small trade centers. The fact that the world is evolving to computers and the World Wide Web for their business means there is no boundaries or set physical locations in which to have a successful business. There are some sources that suggest that by the year 2005, 70 percent of U.S. households will have computers. There have also been suggestions that the figure may be closer to 98 percent because of free computers with Internet services or free Internet services with every computer purchase. With all of these computers, it will make it possible for people to live in one country and earn money in another (Reynolds, 1999). Just because you live in a small community in the Sandhills does not mean that you cannot be a viable retailer on the Internet. Providing a unique service or product and being able to merchandise it around the world with a click of a mouse or a push of a button is one significant trend in today's retail environment.

Current data suggests the boom in electronic commerce is just the beginning. According to research done for *Response TV* magazine by ActivMedia Research, "web shopping sites experienced a 300 percent growth in monthly revenues from December 1997 to December 1998." Moreover, a study done by Nielsen Media Research and CommerceNet noted that "the number of people who made purchases (on-line) doubled over the last year" (Electronic Retailing Association).

The potential opportunities for retailers in electronic commerce is virtually unlimited. For example, there is an automobile recycling dealer near a small town in eastern Nebraska that specializes in merchandising parts via the Internet. On one occasion, a man who had an old motorcycle frame brought it to this dealer thinking that he was getting rid of some "junk." The dealer checked on the Internet for any possible connections and found one. So instead of getting a small "junk" price for the old frame, the man received a sizable payment for the frame, and the dealer was able to resell the motorcycle frame for a profit as well. This dealer has found a niche and uses it.

The point is this: The "retail road" is a two-way street for which retailing opportunity exists for virtually all trade centers regardless of size. Success is largely a function of creativity and commitment of the individual retailer and of the local community of retailers to which he/she belongs.

## References

- Ayres, Janet S., F. Larry Leistritz, and Kenneth Stone. "Revitalizing the Retail Trade Sector in Rural Communities: Lessons From Three Midwestern States." North Central Regional Center for Rural Development, Iowa State University, RRD 162, 1992.
- Bangsund, Dean A., F. Larry Leistritz, Holly E. Bastow-Shoop, and Ronald Anderson. "Community Trade Analysis Handbook: A Guide to Using and Interpreting Information Available to Rural Businesses and Communities." Extension Report No. 24, NDSU Extension Service, May 1995.
- Bhuyan, Sanjib. "Trade Analysis of Retail and Service Industries in North Dakota for Planning Local Economic Development." Agricultural Economics Report No. 363, October 1996.
- Darling, David L. "Analyzing Local Markets." CD Practice, Community Development Society, 1997.
- Darling, David L. "Building a Healthy Retail Community: Lessons From Little Giants in Kansas." *Leadership for Healthy Communities*, Department of Agricultural Economics, Kansas State University, April 1998.
- Electronic Retailing Association. "What are the Growing Trends in Internet Commerce?" World Wide Web (<http://www.nima.org/research/research.html>), Viewed October 4, 1999.
- Harris, Thomas R. "Interdependence of Retail Businesses." *Western Wire*, Western Rural Development Center, Oregon State University, Fall 1998.
- Johnson, Bruce, and Nathan Gengenbach. "Retailing Patterns Across Nebraska's Counties and Communities." Department of Agricultural Economics, University of Nebraska-Lincoln, Report No. 173, 1994.
- Olsen, Duane A. and Alan Corr. "Consumer Preferences and Economic Leakage: Assessing Factors That Affect Consumer Attitudes About Shopping in Your Community." Department of Agricultural Economics, University of Nebraska-Lincoln, July 1998.
- Reynolds, Alan. "The Coming E-Commerce Boom." Internet. *American Outlook*, Spring 1999. [http://www.hudson.org/American\\_Outlook/articles\\_sp99/reynolds.htm](http://www.hudson.org/American_Outlook/articles_sp99/reynolds.htm).
- Shaffer, Ron. "Community Economics: Economic Structure and Change in Smaller Communities." Iowa State University Press, 1989.
- Sternquist, Brenda, Laura Jolly, Larry Leistritz, Rita Kean, Holly Bastow-Shoop, Cynthia Jasper, LuAnn Gaskill. "Rural Retailers: Using a Bankruptcy Model to Predict High Profit Versus Low Profit Firms." *Journal of Small Business and Entrepreneurship*. Vol #13, Spring 1997, pp 9-24.
- Stone, Kenneth E. "Impact of the Wal-Mart Phenomenon on Rural Communities." Increasing Understanding of Public Problems and Policies, *Farm Foundation*, 1997.
- Weaver, Rubert Vance. "Structural Marketing Changes in U.S. Retailing, 1987-1997: Foundation For the Future." Department of Agricultural, Resource, and Managerial Economics, Cornell University, Report No. R.B. 98-09, November 1998.
- Will, George. "The Homogenized Consumer." *Lincoln Journal Star*, June 22, 1997.





# **Appendix**

**Appendix Table I. Estimated county retail pull factors by county classes, selected years, 1970-1998.**

<i>County &amp; county grouping</i>	<i>1998 population</i>	<i>Pull factor for:</i>			
		<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
<b>Rural:</b>					
Antelope	7,181	0.664	0.705	0.598	0.447
Arthur	428	0.272	0.309	0.234	0.211
Banner	878	0.037	0.052	0.041	0.029
Blaine	578	0.412	0.408	0.288	0.183
Boone	6,377	0.803	0.865	0.710	0.518
Boyd	2,565	0.573	0.538	0.391	0.308
Brown	3,553	0.979	1.125	0.868	0.780
Burt	7,998	0.730	0.750	0.574	0.443
Cedar	9,650	0.598	0.696	0.546	0.404
Chase	4,248	0.991	1.210	1.069	0.787
Clay	7,147	0.659	0.747	0.602	0.430
Deuel	2,029	0.817	0.736	0.533	0.686
Dixon	6,300	0.419	0.348	0.272	0.228
Dundy	2,302	0.667	0.730	0.522	0.371
Fillmore	6,929	0.831	0.891	0.806	0.515
Franklin	3,730	0.707	0.690	0.399	0.317
Frontier	3,082	0.448	0.478	0.346	0.317
Furnas	5,381	0.765	0.776	0.680	0.573
Garden	2,138	0.656	0.633	0.423	0.434
Garfield	2,039	0.808	0.926	0.720	0.542
Gosper	2,329	0.545	0.799	0.319	0.301
Grant	763	0.764	0.729	0.517	0.434
Greeley	2,850	0.591	0.570	0.545	0.350
Harlan	3,748	0.705	0.712	0.474	0.339
Hayes	1,069	0.111	0.135	0.124	0.087
Hitchcock	3,442	0.461	0.429	0.343	0.249
Hooker	702	0.798	0.691	0.547	0.692
Howard	6,458	0.592	0.635	0.529	0.343
Johnson	4,564	0.657	0.668	0.524	0.372
Keya Paha	972	0.300	0.282	0.249	0.152
Knox	9,216	0.638	0.686	0.577	0.427
Logan	880	0.414	0.260	0.212	0.171
Loup	666	0.249	0.210	0.114	0.050
McPherson	563	0.119	0.058	0.079	0.061
Morrill	5,455	0.765	0.927	0.679	0.393
Nance	4,099	0.504	0.538	0.468	0.297
Nuckolls	5,226	0.841	0.928	0.660	0.594
Pawnee	3,131	0.488	0.490	0.410	0.242
Perkins	3,171	0.880	1.032	0.779	0.531
Pierce	7,914	0.519	0.576	0.487	0.335
Polk	5,631	0.559	0.677	0.750	0.557
Rock	1,743	0.908	1.206	0.732	0.402
Sheridan	6,454	1.020	1.105	0.791	0.630
Sherman	3,432	0.598	0.565	0.374	0.313
Sioux	1,486	0.178	0.211	0.154	0.130
Stanton	6,215	0.325	0.245	0.199	0.175
Thayer	6,277	0.800	0.800	0.748	0.616
Thomas	797	0.768	0.707	0.609	0.529
Thurston	7,181	0.496	0.324	0.241	0.169
Valley	4,602	0.957	0.914	0.864	0.664
Webster	4,019	0.667	0.627	0.515	0.456
Wheeler	925	0.223	0.378	0.226	0.170
<b>Rural Totals</b>	<b>202,511</b>	<b>0.658</b>	<b>0.696</b>	<b>0.557</b>	<b>0.419</b>

**Appendix Table I. (continued)**

<i>County &amp; county grouping</i>	<i>1998 population</i>	<i>1970</i>	<i>Pull factor for:</i>		<i>1998</i>
			<i>1980</i>	<i>1990</i>	
<b>Small Trade:</b>					
Butler	8,680	0.583	0.570	0.421	0.314
Cherry	6,326	0.838	0.936	0.893	0.962
Cheyenne	9,476	0.901	0.898	0.827	1.167
Colfax	10,716	0.843	0.842	0.617	0.367
Cuming	9,993	0.686	0.840	0.786	0.700
Custer	12,026	0.849	0.887	0.705	0.560
Dawes	8,979	0.822	0.914	0.666	0.784
Dawson	23,183	1.065	1.100	1.055	0.774
Hamilton	9,471	0.682	0.742	0.611	0.452
Holt	12,042	0.818	1.027	0.894	0.694
Jefferson	8,378	0.981	0.913	0.798	0.712
Kearney	6,853	0.721	0.786	0.547	0.403
Keith	8,665	1.152	1.271	1.319	1.004
Kimball	4,082	1.121	1.502	0.827	0.588
Merrick	8,052	0.738	0.682	0.578	0.409
Nemaha	7,697	0.764	0.676	0.577	0.491
Otoe	14,787	0.945	0.914	0.718	0.761
Phelps	9,908	1.146	1.315	0.994	0.658
Richardson	9,420	0.847	0.775	0.579	0.495
Saline	12,966	0.836	0.848	0.691	0.487
Saunders	19,245	0.696	0.569	0.456	0.424
Seward	16,299	0.756	0.715	0.706	0.531
Wayne	9,400	0.609	0.776	0.649	0.527
<b>Small Trade Totals</b>	<b>246,644</b>	<b>0.844</b>	<b>0.878</b>	<b>0.739</b>	<b>0.619</b>
<b>Large Trade:</b>					
Adams	29,464	1.187	1.187	1.071	1.023
Box Butte	12,832	0.991	1.059	0.806	0.696
Buffalo	40,596	1.013	1.172	1.167	1.201
Dodge	35,333	1.094	1.077	1.027	0.913
Gage	22,666	0.801	0.854	0.755	0.740
Hall	51,851	1.339	1.540	1.375	1.425
Lincoln	33,515	1.120	1.053	1.009	0.968
Madison	34,585	1.239	1.298	1.275	1.274
Platte	30,737	1.080	1.166	1.101	0.997
Red Willow	11,255	1.337	1.386	1.371	1.451
Scotts Bluff	36,109	1.059	1.170	1.042	0.989
York	14,512	1.076	1.186	1.036	1.092
<b>Large Trade Totals</b>	<b>353,455</b>	<b>1.119</b>	<b>1.193</b>	<b>1.111</b>	<b>1.092</b>
<b>Metro:</b>					
Cass	24,486	0.544	0.453	0.407	0.376
Dakota	18,792	0.937	0.624	0.817	0.667
Douglas	443,794	1.305	1.259	1.442	1.510
Lancaster	235,589	1.096	1.056	1.097	1.200
Sarpy	120,785	0.413	0.343	0.358	0.462
Washington	18,661	0.764	0.668	0.610	0.541
<b>Metro Totals</b>	<b>862,107</b>	<b>1.126</b>	<b>1.048</b>	<b>1.149</b>	<b>1.207</b>
<b>STATE TOTALS</b>	<b>1,664,717</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>

**Appendix Table II. Estimated town/city retail pull factors by size class, selected years, 1970-1998.**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
<b>&lt; 500</b>					
Adams	476	0.978	1.498	0.443	0.526
Alvo	189			0.042	0.028
Alexandria	137		0.471	0.217	0.114
Allen	333	1.320	0.696	0.297	0.225
Amherst	224	0.659	1.404	0.405	0.242
Anselmo	178		0.751	0.305	0.331
Arcadia	364	1.062	1.181	0.957	0.640
Arthur	120	0.942	1.278	0.767	0.751
Ashton	238		0.584	0.447	0.467
Avoca	289	0.611	0.413	0.236	0.250
Bancroft	493	1.074	0.972	0.816	0.730
Barnston	121		0.445	0.233	0.207
Bartlett	129		1.907	0.566	0.504
Bartley	333	1.326	1.274	0.291	0.307
Beaver Crossing	442	0.842	0.678	0.198	0.123
Bee	213			0.138	0.153
Belden	146		0.681	0.300	0.322
Belgrade	160		0.474	0.256	0.348
Bellwood	412	1.001	0.863	0.509	0.257
Big Springs	459	1.425	1.497	1.062	1.667
Bloomington	128		0.726	0.235	0.086
Blue Springs	411	0.152	0.118	0.164	0.121
Bradshaw	343		0.544	0.377	0.364
Brady	332	1.046	0.640	0.481	0.532
Brainard	298	1.010	1.565	0.626	0.703
Brock				0.103	0.073
Brownville	147	3.909	0.602	0.627	0.597
Brule	405	0.986	0.831	0.307	0.341
Bruning	324	1.448	1.484	1.290	0.723
Bruno	122		0.310	0.191	0.223
Brunswick	170	0.627	1.034	0.659	0.829
Burchard	95		0.494	0.454	0.600
Burr	75		1.026		0.561
Bushnell	115	0.598	0.139	0.057	0.155
Butte	404	1.221	0.966	0.623	0.438
Byron	142		2.482	0.357	0.455
Campbell	421	0.552	0.496	0.333	0.275
Carleton	143		1.231	0.721	0.454
Cedar Creek	335			0.144	0.126
Cedar Rapids	411	1.603	0.964	0.495	0.624
Center	157		1.215	0.423	0.312
Chambers	330	0.984	0.724	0.498	0.495
Chester	329	0.732	0.566	0.511	0.320
Clarks	360	0.916	1.231	0.998	0.887
Clatonia	301		0.421	0.218	0.158
Clearwater	375	1.287	1.244	0.496	0.643
Cody	180	1.060	1.286	0.626	0.510
Colon	125		0.450	0.250	0.213
Comstock	126	0.621	0.482	0.246	0.203
Concord	162			0.076	0.202
Cook	333	1.019	0.900	0.401	0.310
Cordova	142		0.684	0.326	0.215

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
Cortland	378	0.482	0.627	0.281	0.235
Craig	222	0.687	0.726	0.243	0.177
Creston	208		1.011	0.647	0.252
Dalton	282	0.831	0.801	0.548	0.509
Danbury	107		0.553	0.370	0.467
Dannebrog	338		0.991	0.508	0.556
Davenport	353	1.473	1.227	0.752	0.583
Davey	166		0.397	0.338	0.785
Dawson	155		0.468	0.552	0.584
Daykin	187		1.449	0.841	0.933
Denton	199		0.769	0.843	0.502
Deweese	79		1.188	0.597	0.353
Diller	297	0.625	0.590	0.393	1.092
Dix	232		0.511	0.127	0.219
Dixon	114			0.287	0.086
Douglas	201		0.844	0.535	0.453
DuBois	120		0.478	0.840	0.332
Dunbar	173			0.079	0.367
Duncan	372			0.119	0.149
Dunning	125		1.474	0.996	0.460
Dwight	232	1.119	0.621	0.268	0.258
Elba	226		1.204	0.763	0.390
Endicott	165		0.216	0.615	
Ericson	113		0.956	1.079	0.814
Eustis	461	1.412	1.185	0.776	0.732
Ewing	423	1.040	1.896	0.941	0.947
Fairfield	492	1.027	1.383	1.443	0.775
Farnam	201	0.843	0.687	0.325	0.234
Farwell	159		1.462	1.125	0.807
Filley	161		1.091	0.857	0.616
Fordyce	186		1.172	0.592	0.485
Garland	255		0.520	0.539	0.239
Giltner	373	0.388	0.950	0.722	0.035
Glenvil	271	0.380	0.246	0.231	0.181
Goehner	192			0.179	
Gresham	245	0.963	0.976	0.234	0.265
Guide Rock	263	0.808	0.581	0.383	0.352
Gurley	201				0.259
Haigler	214	0.979	0.438	0.159	0.090
Hallam	308	0.562	0.356	0.183	0.201
Hampton	418	1.579	1.644	0.971	0.706
Hardy	199		0.414	0.524	0.227
Harrison	282		1.080	0.743	0.683
Herman	249	1.312	0.897	0.831	0.630
Hildreth	361	1.545	1.602	0.503	0.369
Holbrook	241		0.494	0.319	0.385
Holstein	198		0.536	0.304	0.488
Hoskins	307		0.387		0.255
Hubbell	53				0.777
Hyannis	205		1.050	0.860	1.020
Inman	147				
Jackson	246		2.222	1.275	2.021
Jansen	140	2.607	2.054	1.925	1.249
Johnson	333	0.890	0.844	0.564	0.356

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
Johnstown	47		0.269	0.311	0.271
Kilgore	80		1.091	1.626	1.463
Lawrence	318	1.194	1.786	0.689	0.544
Lebanon	72		0.463	0.247	0.236
Leigh	499	1.702	1.142	0.563	0.448
Lewellen	282	0.873	0.834	0.734	0.758
Lindsay	316	3.296	2.237	0.999	0.941
Linwood	93			0.170	0.140
Litchfield	301		0.601	0.242	0.207
Lodgepole	362	0.724	0.387	0.276	0.228
Long Pine	393		0.397	0.335	0.319
Loomis	379	1.597	1.248	0.355	0.305
Lyman	446	0.704	0.285	0.138	0.124
Lynch	263	0.974	0.876	0.648	0.648
Madrid	263	0.445	0.679	0.772	0.677
Magnet	67	0.000		0.238	
Malcolm	451		0.130	0.555	0.139
Malmo	112			0.111	0.162
Marquette	291	0.496	0.254	0.153	0.096
Mason City	160	0.513	0.395	0.308	0.265
Maxwell	292	0.592	0.354	0.276	0.258
Maywood	333	0.852	0.598	0.346	0.365
McCool Junction	388	1.225	0.822	0.293	0.272
Meadow Grove	326	0.604	0.425	0.302	0.237
Merna	386	0.493	1.981	0.781	0.407
Merriman	156		1.261	0.507	0.420
Milligan	325	1.237	1.096	0.526	0.501
Monroe	295	0.749	0.830	0.427	0.819
Morse Bluff	126		0.839	0.859	0.920
Murdock	305	0.374	0.500	0.236	0.241
Murray	425	0.804	1.026	0.915	0.463
Naper	130		0.980	0.747	0.472
Naponee	93		0.449	0.297	0.408
Nehawka	263	1.082	0.889	0.536	0.442
Newcastle	284	1.403	0.686	0.318	0.232
Niobrara	387	0.848	1.118	0.614	0.808
Oakdale	331		0.201	0.116	0.084
Oconto	151		0.402	0.517	0.458
Odell	293	0.865	0.909	0.641	0.476
Ohiowa	144		0.538		0.055
Orchard	401	1.116	1.015	0.628	0.487
Orleans	461	0.790	0.734	0.307	0.178
Page	182		0.983	0.235	0.163
Palisade	349	1.338	1.096	1.007	0.909
Palmer	427	1.522	1.084	0.336	0.364
Panama	222		1.428	0.913	0.509
Petersberg	362	1.213	1.027	0.478	0.442
Phillips	332		0.687	0.316	0.209
Pickrell	205	1.900	1.742	1.420	1.791
Pilger	340	1.055	1.038	0.731	0.540
Platte Center	367	0.728	1.719	0.782	0.409
Pleasant Dale	250	0.693	0.505	0.272	0.607
Pleasanton	380	1.868	0.874	0.724	0.615
Plymouth	425	1.838	1.805	1.517	1.172
Polk	335	0.984	0.740	0.925	0.585
Potter	385	0.645	0.891	0.533	0.334

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
Prague	277	1.190	0.815	0.528	0.447
Raymond	172	0.705	0.720	0.560	0.904
Republican City	197	1.556	1.049	0.985	0.855
Reynolds	105		0.354	0.434	
Reynolds	105		0.354	0.434	
Richland	107			1.043	
Rising City	349	0.878	0.638	0.387	0.369
Riverdale	203		0.353	0.197	0.119
Riverton	159		0.201	0.090	0.058
Roca	80	1.140	1.229	2.061	7.692
Rosalie	181		0.413	0.277	0.100
Roseland	236	0.608	0.844	0.572	0.250
Rulo	182	0.882	0.542	0.595	0.447
Ruskin	181		1.412	0.553	0.405
Scotia	322	1.405	1.248	0.544	0.368
Shickley	344	1.787	2.223	1.543	1.029
Shubert	235		0.267	0.263	0.130
Silver Creek	443	3.391	1.200	0.542	0.549
Smithfield	62		0.535	0.878	1.356
Snyder	275		0.917	0.816	0.703
South Bend	107				
Springview	297		1.049	0.672	0.427
Stamford	186	0.659	0.765	0.363	0.163
Staplehurst	271		0.214	0.138	0.137
Stapleton	306				0.493
Stella	249		0.517	0.320	0.334
Sterling	449	0.979	0.704	0.519	0.579
Stratton	373	1.027	0.693	0.783	0.445
Sumner	235	0.790	0.939	0.678	0.476
Swanton	143		1.031	0.674	
Table Rock	310	1.123	1.069	0.957	0.497
Talmage	238	0.962	0.775	0.322	0.265
Taylor	193		0.648	0.378	0.171
Thedford	235	1.805	1.831	1.713	1.664
Thurston	119		0.886	0.193	0.209
Tobias	125		0.589	0.340	0.162
Trumbull	244		2.323	0.868	0.711
Uehling	268	2.073	1.586	0.318	0.303
Ulysses	259	0.857	0.947	0.283	0.226
Unadilla	300	1.705	1.603	0.396	0.381
Union	341	0.588	0.520	0.348	0.200
Upland	165		0.465	0.392	0.376
Valparaiso	499	2.514	1.374	0.598	0.613
Venango	179		0.711	0.310	0.166
Virginia	94			0.331	0.123
Waco	212	0.868	0.875	1.548	1.435
Wallace	313		0.917	0.885	0.405
Waterloo	467	1.990	2.056	1.740	1.922
Western	258	0.677	0.443	0.309	0.190
Weston	295	1.071	0.717	0.490	0.360
Wilcox	359	1.531	1.125	0.656	0.561
Wilsonville	140	0.548	0.385	0.435	0.231
Winside	439	0.761	0.525	0.278	0.195
Wolbach	281	1.034	0.936	0.816	0.445
Wynot	203		0.703	0.625	0.674
<b>Totals</b>	<b>63,543</b>	<b>1.079</b>	<b>0.907</b>	<b>0.551</b>	<b>0.479</b>



**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
<b>500 - 999</b>					
Alda	604	0.794	0.778	0.928	0.770
Ansley	527	0.749	0.551	0.259	0.381
Arapahoe	983	1.537	1.678	1.403	1.078
Arnold	650	1.321	1.175	0.784	0.576
Axtell	714	0.728	0.609	0.238	0.166
Bassett	641	1.932	2.736	1.754	1.042
Beaver City	690	0.687	0.650	0.426	0.287
Beemer	681	1.555	1.393	0.949	0.714
Bennet	561	0.428	0.559	0.435	0.476
Bennington	924	0.908	1.092	0.762	0.710
Bertrand	711	1.218	0.680	0.308	0.349
Blue Hill	758	0.952	0.787	0.725	0.881
Cairo	803	0.715	0.654	0.392	0.503
Callaway	553	0.977	0.806	0.457	0.394
Cedar Bluffs	599	0.398	0.324	0.215	0.166
Ceresco	889	1.857	1.581	1.841	2.000
Chappell	904	1.285	0.965	0.569	0.694
Clarkson	776	1.637	1.924	1.896	0.825
Clay Center	887	0.667	0.596	0.494	0.601
Coleridge	570	0.833	0.683	0.459	0.307
Crofton	768	1.652	1.497	1.188	0.727
Culbertson	704	0.503	0.631	0.240	0.204
Curtis	788	0.773	0.954	0.635	0.633
De Witt	586	1.225	1.268	0.391	0.335
Decatur	657	0.862	0.644	0.412	0.351
Deshler	833	1.019	0.793	0.438	0.554
Dodge	686	1.660	1.459	0.643	0.509
Doniphan	809	0.635	0.521	0.966	1.915
Dorchester	641	0.948	0.529	0.366	0.377
Edgar	636	1.081	1.167	0.877	0.814
Elgin	675	1.354	1.521	0.921	0.881
Elm Creek	849	1.001	0.834	0.444	0.628
Elmwood	611	0.886	0.768	0.525	0.526
Elwood	790		2.336	0.754	0.781
Emerson	802	1.308	0.954	0.618	0.260
Exeter	625	0.929	0.718	0.615	0.485
Fairmont	656	0.823	0.720	0.379	0.362
Firth	511	0.996	0.798	0.496	0.724
Fort Calhoun	832	0.487	0.357	0.495	0.495
Greeley	511	0.976	0.652	0.346	0.344
Greenwood	567	1.602	0.715	0.817	0.799
Harvard	882	0.516	0.408	0.148	0.151
Hay Springs	677	1.353	1.061	0.723	0.704
Hemingford	937	0.935	0.696	0.524	0.452
Hershey	607	0.805	0.867	0.891	0.779
Hooper	824	1.235	1.182	0.509	0.598
Howells	687	1.201	1.156	0.764	0.500
Humboldt	968	1.599	1.309	0.848	0.712
Humphrey	730	1.951	2.369	2.471	1.481
Indianola	630	1.006	0.708	0.565	0.474
Juniata	788	0.631	0.977	0.360	0.361
Kenesaw	790	0.895	0.418	0.219	0.426

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
Laurel	924	1.666	1.561	0.929	0.523
Mead	535	0.377	0.471	0.547	0.590
Minatare	795	0.695	0.557	0.445	0.270
Morrill	966	0.945	0.686	0.560	0.684
Mullen	496	1.123	0.950	0.706	0.980
Nelson	563	1.141	1.133	0.766	0.994
Newman Grove	769	1.088	0.934	0.678	0.533
Osceola	876	0.955	1.682	1.863	1.237
Osmond	765	0.611	1.370	1.232	0.848
Oshkosh	904	1.426	1.330	0.696	0.755
Overton	766	0.638	0.783	0.872	0.543
Oxford	914	1.031	0.950	0.740	0.661
Palmyra	534	0.593	0.369	0.228	0.281
Pawnee City	935	1.019	1.008	0.732	0.490
Paxton	523	0.921	1.279	0.712	0.893
Peru	935	0.270	0.212	0.143	0.182
Ponca	962	0.971	0.892	0.671	0.738
Randolph	944	1.340	1.160	0.610	0.656
Sargent	681	1.416	1.158	0.533	0.441
Scribner	928	1.266	1.300	0.935	0.735
Shelby	702	1.094	0.857	0.699	0.641
Shelton	937	1.280	1.933	1.854	0.969
Spalding	598	1.363	1.346	1.503	0.964
Spencer	535	1.223	1.212	0.740	0.631
St. Edward	827	1.298	0.999	0.617	0.381
Stuart	638	1.219	0.782	0.621	0.569
Tilden	905	1.675	1.616	0.935	0.675
Trenton	581	0.614	0.606	0.393	0.396
Utica	752	1.442	0.909	0.565	0.560
Verdigre	569	1.372	1.229	0.727	0.475
Walthill	769	1.196	0.624	0.272	0.174
Wauneta	641	1.343	1.522	0.866	0.672
Wausa	556	1.084	1.069	0.584	0.464
Yutan	658	0.425	0.267	0.255	0.285
<b>Totals</b>	<b>64,861</b>	<b>1.015</b>	<b>0.941</b>	<b>0.728</b>	<b>0.628</b>
<b>1,000 - 2,499</b>					
Ainsworth	1,858	1.759	2.082	1.460	1.415
Albion	1,829	1.961	2.278	1.751	1.394
Alma	1,189	1.603	1.540	0.915	0.802
Arlington	1,193	0.922	0.756	0.267	0.235
Ashland	2,185	1.162	0.904	0.653	0.776
Atkinson	1,296	1.463	1.965	1.132	1.094
Battle Creek	1,046	1.198	1.107	0.963	0.848
Bayard	1,166	1.260	0.860	0.563	0.532
Benkelman	1,071	1.242	1.537	0.970	0.760
Bloomfield	1,158	1.676	1.392	1.122	0.810
Bridgeport	1,591	1.740	2.525	1.653	0.937
Burwell	1,250	1.453	1.583	1.093	0.885
Cambridge	1,106	1.188	1.084	0.759	0.926
Crawford	1,058	1.039	0.956	0.626	0.736
Creighton	1,149	1.317	1.738	1.275	1.324
Dakota City	1,587	0.556	0.411	0.270	0.340

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
David City	2,435			0.990	0.817
Eagle	1,193	0.508	0.316	0.257	0.455
Franklin	1,093	1.732	1.599	0.862	0.743
Friend	1,102	1.297	1.705	0.917	0.587
Fullerton	1,439	1.194	1.196	0.913	0.512
Geneva	2,204	1.790	1.832	1.581	1.092
Genoa	1,069	0.663	0.603	0.415	0.397
Gibbon	1,473	0.790	0.915	0.737	0.798
Gordon	1,770	1.787	2.218	1.650	1.368
Grant	1,232	2.345	2.575	1.605	1.133
Hartington	1,642	1.814	2.113	1.817	1.402
Hebron	1,674	1.713	1.591	1.608	1.567
Henderson	1,002	1.342	1.752	1.206	0.933
Hickman	1,150	0.927	0.704	0.295	0.324
Imperial	1,948	1.822	2.273	1.786	1.463
Louisville	1,009	1.176	1.245	0.812	1.015
Loup City	1,044	1.629	1.438	0.942	0.845
Lyons	1,161	1.214	0.990	0.654	0.619
Madison	2,144	0.982	1.015	0.656	0.512
Milford	1,989	0.681	0.701	0.710	0.639
Mitchell	1,715	1.035	1.402	0.755	0.606
Neligh	1,644	1.929	1.878	1.699	1.181
North Bend	1,249	1.381	1.417	0.686	0.560
Oakland	1,294	1.216	0.928	0.908	0.758
Ord	2,355	1.948	1.669	1.426	1.153
Pender	1,268	1.397	1.171	1.002	0.808
Pierce	1,667	1.106	0.891	0.659	0.565
Plainview	1,308	1.384	1.436	0.951	0.716
Ravenna	1,292	1.382	1.661	0.977	0.819
Red Cloud	1,116	1.586	1.576	1.016	0.887
Rushville	1,134	1.770	1.530	0.834	0.675
Springfield	1,577	0.601	0.662	0.131	0.421
Stanton	1,522	1.007	0.744	0.557	0.573
Stromsburg	1,236	1.334	1.311	1.133	1.138
St. Paul	2,181	1.370	1.533	1.153	0.784
Superior	2,145	1.588	1.729	1.045	1.039
Sutherland	1,060	0.932	0.781	0.394	0.440
Sutton	1,261	1.634	1.862	1.333	0.981
Syracuse	1,669	1.748	1.887	1.153	0.927
Tecumseh	1,699	1.324	1.383	0.963	0.713
Tekamah	1,898	1.564	1.846	1.008	0.828
Valley	1,771	1.401	1.128	0.759	0.942
Wakefield	1,201	0.907	0.797	0.625	0.426
Waverly	1,960	0.514	0.521	0.680	0.563
Weeping Water	1,042	1.007	1.131	1.297	0.914
Wilber	1,570	0.765	0.635	0.397	0.409
Wisner	1,235	1.466	1.481	0.816	0.708
Wood River	1,257	1.062	0.678	0.587	0.445
Wymore	1,552	0.853	0.651	0.402	0.364
<b>Totals</b>	<b>90,507</b>	<b>1.327</b>	<b>1.364</b>	<b>0.960</b>	<b>0.826</b>

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
<b>2,500 - 4,999</b>					
Auburn	3,510	1.441	1.422	1.076	0.961
Aurora	4,077	1.492	1.455	1.067	0.909
Broken Bow	3,698	2.173	2.105	1.589	1.422
Central City	2,906	1.486	1.328	1.067	0.836
Cozad	3,889	1.393	1.285	1.116	1.085
Elkhorn	2,573	1.139	1.512	1.104	1.335
Fairbury	4,069	1.562	1.427	1.127	1.134
Falls City	4,661	1.401	1.230	0.827	0.776
Gothenburg	3,148	1.470	1.667	1.109	0.993
Gretna	2,769	0.623	0.754	0.462	1.670
Kimball	2,549	1.764	2.297	1.181	0.915
Minden	2,783	1.504	1.594	1.039	0.871
O'Neill	3,721	1.802	2.195	1.959	1.586
Schuyler	4,719	1.358	1.280	0.726	0.568
Valentine	2,884	1.908	2.023	1.684	2.004
Wahoo	3,830	1.492	1.476	0.890	0.854
West Point	3,340	1.374	1.689	1.582	1.578
<b>Totals</b>	<b>59,126</b>	<b>1.589</b>	<b>1.623</b>	<b>1.177</b>	<b>1.117</b>
<b>5,000 - 9,999</b>					
Alliance	9,702	1.358	1.389	0.931	0.878
Blair	7,558	1.368	1.357	1.203	1.206
Chadron	5,806	1.123	1.266	0.847	1.078
Crete	5,093	1.427	1.388	1.166	0.880
Gering	7,876	1.673	2.058	1.457	0.624
Holdrege	5,912	1.673	2.058	1.457	1.029
McCook	7,926	1.820	1.941	1.725	2.001
Nebraska City	6,766	1.408	1.322	1.038	1.350
Ogallala	5,072	1.727	1.879	1.888	1.559
Plattsmouth	6,863			0.604	0.696
Ralston	6,251			0.579	0.735
Seward	6,093	1.473	1.463	1.366	1.080
Sidney	6,128	1.369	1.360	1.107	1.739
Wayne	5,337	1.030	1.368	1.018	0.883
York	8,146	1.829	1.877	1.474	1.749
<b>Totals</b>	<b>100,529</b>	<b>1.494</b>	<b>1.561</b>	<b>1.100</b>	<b>1.172</b>
<b>10,000 - 19,999</b>					
Beatrice	12,464	1.397	1.373	1.118	1.209
La Vista	11,596			0.490	1.061
Lexington	10,075	1.722	1.675	1.588	0.991
Papillion	14,516			0.484	0.663
Scottsbluff	14,400	2.024	2.317	1.926	1.999
South Sioux City	11,166			1.131	0.994
<b>Totals</b>	<b>63,051</b>	<b>1.698</b>	<b>1.797</b>	<b>1.287</b>	<b>1.202</b>

**Appendix Table II. (Continued)**

<i>Town</i>	<i>1996 population</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>1998</i>
<b>20,000 - 99,999</b>					
Bellevue	42,807			0.705	0.622
Columbus	20,848	1.600	1.685	1.372	1.376
Fremont	24,223	1.360	1.338	1.227	1.223
Grand Island	41,177	1.699	2.147	1.492	1.722
Hastings	22,008	1.478	1.507	1.208	1.322
Kearney	27,314	1.310	1.589	1.413	1.632
Norfolk	23,423	1.728	1.800	1.577	1.749
North Platte	23,369	1.595	1.475	1.250	1.332
<b>Totals</b>	<b>225,169</b>	<b>1.508</b>	<b>1.651</b>	<b>1.262</b>	<b>1.339</b>
<b>100,000 or more</b>					
Lincoln	209,192	1.213	1.166	1.087	1.335
Omaha	364,253	1.418	1.551	1.583	1.804
<b>Totals</b>	<b>573,445</b>	<b>1.356</b>	<b>1.415</b>	<b>1.403</b>	<b>1.633</b>





Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Elbert C. Dickey, Interim Director of Cooperative Extension, University of Nebraska, Institute of Agriculture and Natural Resources.

University of Nebraska Cooperative Extension educational programs abide with the non-discrimination policies of the University of Nebraska-Lincoln and the United States Department of Agriculture.