

# Business in Nebraska

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*Prepared by the Bureau of Business Research (BBR), College of Business Administration, University of Nebraska-Lincoln, 114 CBA, Lincoln, NE 68588-0406, 402/472-2334*

## Will Net Outmigration be Reversed?—A Look at the Future of Nebraska County Populations

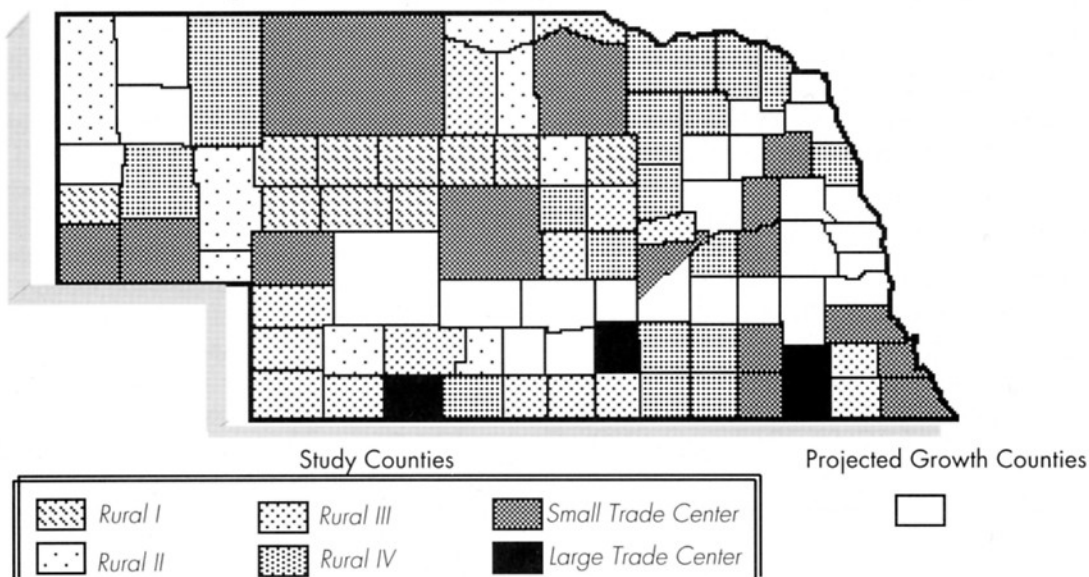
*John Austin and Mahbubul Kabir*

Counties across Nebraska have been steadily losing population throughout much of the 20th century. Projections into the next century, based on data through 1990, offer little hope for a reversal of this trend—more than two-thirds of the state’s 93 counties are expected to lose population through 2010. Recent intercensal estimates of population, however, provide indications that half, rather than two-thirds, of the state’s counties will experience population loss.

This article examines the recent history of county-level migration in the sixty-eight counties projected to lose population in the coming decades. Levels of net migration that will be required to stop the projected population losses are contrasted with estimated levels of net migration derived from current intercensal data. The migration patterns of persons in the study counties from 1985 to 1990 also are presented.

Counties in this study are divided into three major categories: Large Trade Center, Small Trade Center, and Rural, based on the size of their largest towns in 1990. (Figure 1) The rural category is further divided into four classifications based on the total county population. Definitions for each major category and size classification are shown on page 2.

**Figure 1**  
**Location of Study Counties by Category**



## Study County Categories

**Large Trade Center**—County outside a metropolitan statistical area (MSA). Population of largest town is at least 7,500 persons.

**Small Trade Center**—County outside a metropolitan statistical area (MSA). Population of largest town ranges from 2,500 to 7,499 persons.

**Rural**—Population of largest town is 2,499 persons or less. (Note that the total populations of some rural counties exceed 2,499.)

### Rural Classifications

**Rural I:** total population less than 1,000

**Rural II:** total population ranges from 1,000 to 2,499

**Rural III:** total population ranges from 2,500 to 4,999

**Rural IV:** total population 5,000 or above

*Net migration* is defined as the total change in population less the natural change in population (births minus deaths). Net migration can be either positive—indicating *net immigration*—or negative—denoting *net outmigration*. The term *net outmigration* indicates that more people moved out of a county than entered it.

A simplified example, using data for hypothetical County A, may help clarify the terms:

1980 population	1,000
1990 population	900
Total change, 1980 to 1990	-100
Births, 1980 to 1990	225
Deaths, 1980 to 1990	200
Natural change	+25
Total change less natural change = net migration	-125
Net migration rate (net migration/1980 pop.)	-12.5%



The above example shows that County A experienced a natural population growth of twenty-five persons over the decade. That natural growth (and any immigration that may have occurred) was, however, offset by the number of persons migrating out of the county over the period. Thus, County A experienced net outmigration or a net migration rate of minus 12.5 percent.

Net outmigration (indicated by negative percentages) characterized nearly all of the study counties in the 1960s, 1970s, and 1980s. (Table 1) It is evident that a major reversal in historic trends will be required simply to maintain current populations in a majority of counties.

The fourth column of Table 1 presents stop-loss rates—net migration rates that will be needed to stem the projected loss of population through the turn of the century. A negative stop-loss rate indicates that the county has the potential to produce enough natural population growth (births minus deaths) to offset some net outmigration and still maintain its current population. Arthur County, for example, could experience a net migration of minus 2.2 percent (net outmigration) through 2000, and still maintain its 1990 population level.

A positive stop-loss rate indicates that the county does not have the potential to produce natural population growth, that is, deaths will exceed births. A county with a positive stop-loss rate, therefore, must experience net immigration simply to maintain its current population. Boyd County, for example, must experience net migration of positive 3.9 percent to maintain its 1990 population.

The last column in Table 1 presents recent estimates of net migration through 1994. These estimates were not available when the projections to 2010 cited earlier were calculated. The 1990-

1994 net migration rates are presented as ten-year equivalencies to ensure compatibility with the rates in columns 1 through 4.

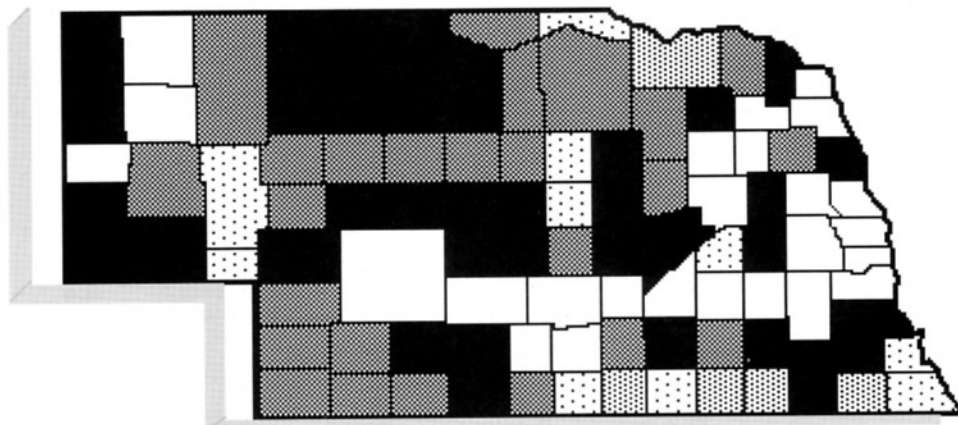
A comparison of columns 4 and 5 shows that estimated 1990-1994 net migration rates in twenty-eight study counties are either less negative than or more positive than the stop-loss rates. (Figure 2) Populations in these counties can be expected to grow. Banner County, for example, will need a net migration rate of minus 6.2 percent to maintain its 1990 population. Estimates for 1990-

1994 indicate a net migration rate of minus 2.8 percent. Assuming that the 1990-1994 estimates accurately reflect population activity and assuming that the trends derived from the estimates continue, Banner County will experience population growth over the decade. Johnson County will need a net migration rate of positive 1.8 percent to maintain population. Based on the 1990-1994 estimates, Johnson County is experiencing net migration of positive 2.9 percent. Thus, the population of Johnson County also is expected to grow. (The reader must keep in mind that the 1990-1994 estimates for any county may contain enough error to present a distorted picture of future population activity.)

**Table 1**  
**Historic, Stop-Loss, and Estimated Net Migration Rates**  
**Study Counties by Category**

	Historic Net Migration Rates			Stop-Loss Rate 1990s	Estimated Net Migration Rate 1990-1994
	1960s	1970s	1980s		
<b>Rural I</b>					
Arthur	-18.8	-20.1	-13.4	-2.2	-11.2
<b>Banner</b>	-25.0	-18.6	-16.9	<b>-6.2</b>	<b>-2.8</b>
Blaine	-24.4	-3.1	-25.8	-4.4	-10.1
Grant	-12.0	-22.2	-20.0	-5.1	-6.1
Hooker	-21.1	6.1	-19.6	-4.9	-12.2
<b>Logan</b>	-14.4	-9.6	-16.5	<b>-5.4</b>	<b>1.9</b>
Loup	-26.3	-0.9	-25.0	-3.2	-6.5
<b>McPherson</b>	-20.0	-10.9	-13.0	<b>-3.7</b>	<b>1.3</b>
Thomas	-14.2	-3.1	-19.6	-7.1	-10.0
<b>Wheeler</b>	-29.1	-7.0	-22.8	<b>-6.1</b>	<b>-1.7</b>
<b>Rural II</b>					
Deuel	-16.4	-8.8	-8.9	0.5	-10.9
Garden	-18.9	-3.1	-10.6	1.5	-8.9
Garfield	-15.0	-0.3	-7.5	1.0	-3.1
<b>Gosper</b>	-15.6	-6.4	-9.9	<b>1.0</b>	<b>18.3</b>
Hayes	-24.9	-17.3	-16.7	-3.2	-19.8
Keya Paha	-26.7	-10.8	-25.0	-1.1	-10.1
Rock	-19.7	3.1	-19.9	-3.0	-7.8
<b>Sioux</b>	-25.6	-14.1	-19.1	<b>-2.8</b>	<b>0.6</b>
<b>Rural III</b>					
Boyd	-21.2	-10.8	-13.9	3.9	-5.6
<b>Brown</b>	-12.8	5.9	-17.1	<b>-0.7</b>	<b>-0.5</b>
Chase	-8.6	10.7	-12.4	-2.1	-7.9
Dundy	-16.6	-1.4	-8.8	-0.7	-3.0
Franklin	-14.6	0.7	-7.2	3.9	-2.9
<b>Frontier</b>	-11.2	-11.4	-19.1	<b>-2.7</b>	<b>3.9</b>
<b>Greeley</b>	-17.8	-14.6	-14.1	<b>-1.0</b>	<b>2.6</b>
Harlan	-15.8	1.6	-12.4	2.4	0.5
Hitchcock	-19.0	-2.0	-10.7	-0.3	-18.0
<b>Johnson</b>	-11.3	-7.2	-9.1	<b>1.8</b>	<b>2.9</b>
<b>Nance</b>	-12.6	-9.3	-10.4	<b>-2.3</b>	<b>0.7</b>
Pawnee	-13.4	-7.3	-12.1	5.0	2.8
Perkins	-23.1	1.7	-10.6	-0.4	-6.0
Sherman	-18.3	-12.0	-11.6	-0.1	-7.8
Webster	-12.0	-4.9	-7.9	4.4	2.1
<b>Rural IV</b>					
Antelope	-15.2	-7.2	-13.8	-2.4	-11.9
Boone	-16.0	-12.1	-14.0	-1.1	-6.0
<b>Burt</b>	-11.5	-4.0	-8.7	<b>0.5</b>	<b>3.3</b>
Cedar	-19.5	-11.0	-16.6	-2.5	-3.7
<b>Clay</b>	-7.6	-5.4	-13.4	<b>-1.8</b>	<b>2.7</b>
<b>Dixon</b>	-11.8	-6.4	-16.5	<b>-1.6</b>	<b>4.9</b>
Fillmore	-15.2	-0.7	-9.2	-0.8	-5.4
<b>Furnas</b>	-10.3	-2.2	-8.9	<b>5.2</b>	<b>11.7</b>
<b>Howard</b>	-2.8	-4.2	-13.1	<b>-3.1</b>	<b>7.3</b>
Knox	-17.0	-2.9	-17.4	2.2	1.5
Morrill	-23.8	0.9	-14.5	-1.5	-2.9
Nuckolls	-12.6	-9.0	-14.6	2.2	-3.9
<b>Pierce</b>	-9.2	-3.7	-13.3	<b>-2.9</b>	<b>-0.3</b>
Polk	-12.1	-1.9	-10.0	1.3	-1.5
Sheridan	-25.0	-0.4	-13.9	-1.3	-2.2
<b>Thayer</b>	-14.5	-0.6	-10.9	3.1	1.4
Valley	-14.3	-2.4	-9.7	0.5	-9.1
<b>Small Trade Center</b>					
<b>Butler</b>	-11.7	-2.2	-10.1	<b>-0.5</b>	<b>0.7</b>
<b>Cherry</b>	-26.7	-7.9	-12.9	<b>-2.3</b>	<b>-1.0</b>
<b>Cheyenne</b>	-36.6	-10.5	-10.0	<b>-3.0</b>	<b>-0.7</b>
<b>Colfax</b>	-3.9	2.8	-10.4	<b>-0.8</b>	<b>15.2</b>
Cuming	-11.4	-7.0	-17.2	-0.7	-1.0
<b>Custer</b>	-17.7	-3.3	-12.4	<b>0.9</b>	<b>4.1</b>
Holt	-14.9	-1.3	-14.5	-2.7	-5.7
Jefferson	-10.3	-4.4	-11.1	1.7	0.1
<b>Keith</b>	-6.3	2.6	-14.0	<b>-2.9</b>	<b>-2.5</b>
<b>Kimball</b>	-38.8	-24.8	-21.2	<b>-1.2</b>	<b>-0.7</b>
<b>Merrick</b>	-2.9	-3.2	-13.6	<b>-2.7</b>	<b>-0.9</b>
Nemaha	-3.1	-8.2	-6.2	0.4	-6.4
<b>Otoe</b>	-9.7	-3.2	-6.7	<b>-0.5</b>	<b>3.0</b>
Richardson	-12.7	-4.3	-9.5	1.7	-1.2
<b>Saline</b>	1.8	3.4	-3.9	<b>1.7</b>	<b>5.0</b>
<b>Large Trade Center</b>					
Adams	-1.4	-2.8	-7.2	-1.2	-3.5
<b>Gage</b>	-6.7	-5.3	-8.0	<b>-0.8</b>	<b>2.2</b>
Red Willow	-15.3	-1.5	-12.2	-4.5	-9.3

**Figure 2**  
**Location of Growth and Non-Growth Counties Based on Comparison**  
**of Stop-Loss Rates to Current Net Migration Estimate**



Study Counties

- Estimated net migration less negative than or more positive than stop-loss rate = population growth
- Estimated net migration more negative than stop-loss rate = natural growth but total population loss
- Estimated net migration less positive than stop-loss rate = natural loss and total population loss
- Estimated net migration negative, stop-loss rate positive = natural loss and total population loss

Projected Growth Counties



Tables 2 through 4 summarize the 1985 to 1990 gross immigration and outmigration activity, by age, for the study counties. Outmigrants tended to be young—individuals age 20 to 24 in 1990 had the highest rate of outmigration over the 1985 to 1990 period. (Table 2) The rate of outmigration in this age group decreases steadily as the size of the county classification increases. That pattern is evident for many of the age groups.

Individuals age 25 to 29 generally exhibited the highest rates of immigration. (Table 3) These data may indicate that many young adults returned home after completing postsecondary degrees. The rates of immigration are highest overall in the smallest (Rural I) and largest (Large Trade Center) county categories.

The ratio of immigrants to outmigrants is presented in Table 4. The overall trend is consistent with data presented in Table 1 with outmigration generally exceeding immigration. Some interesting exceptions are apparent. The ten smallest rural counties (Rural I) experienced immigration that ex-

ceeded outmigration in the key 25 to 29 year old group.

Also shown in Table 4 is the ratio of 25 to 29 year-old immigrants to outmigrants age 20 to 24. In all cases, the ratio was under 100 percent indicating that those persons who immigrated to the study counties their late 20s were not sufficient in number to replace those who left in their early 20s.

The common perception that population is flowing on a one-way street out of rural Nebraska conflicts with data that indicate there is a complex flow of people in and out of the state's rural and nonmetropolitan counties. Despite the migration mix, however, the overall trend remains clear. Net outmigration will continue to describe future population movements for most of the counties in this study. A reversal in the overall trend will depend on many factors, including expanded employment opportunities and access to public services and social amenities.

*Technical assistance was provided by Clayton Buss.*

**Table 2**  
**Gross Outmigration Rates\*, 1985 to 1990, by Age in 1990**  
**by Study County Category**

	Rural I	Rural II	Rural III	Rural IV	Small Trade	Large Trade
Total, age 5 and over	32.5	26.0	21.2	19.8	20.1	20.6
5 to 14 years	29.5	25.9	21.5	18.4	18.7	22.1
15 to 19 years	47.9	38.2	33.2	29.7	28.2	23.9
20 to 24 years	84.6	78.0	67.8	65.9	64.8	52.7
25 to 29 years	46.1	44.3	39.1	38.3	38.1	36.2
30 to 34 years	36.9	29.3	24.6	23.6	24.1	28.5
35 to 44 years	34.4	27.5	20.7	17.0	16.4	19.3
45 to 64 years	22.4	13.3	10.4	10.0	10.6	10.6
65 years and over	15.1	9.7	8.9	7.1	7.4	7.4

\*Gross outmigration rate is the number of outmigrants from 1985 to 1990 divided by the total population in 1985.

Source: US Department of Commerce, Bureau of the Census

**Table 3**  
**Gross Immigration Rates\*, 1985 to 1990, by Age in 1990**  
**by Study County Category**

	Rural I	Rural II	Rural III	Rural IV	Small Trade	Large Trade
Total, age 5 and over	21.8	15.9	14.6	13.2	15.6	18.0
5 to 14 years	35.1	21.7	19.2	17.2	18.8	16.8
15 to 19 years	22.3	11.5	13.8	11.0	16.8	27.5
20 to 24 years	30.5	20.0	18.2	15.8	27.3	42.7
25 to 29 years	54.3	35.6	33.5	34.1	33.6	30.3
30 to 34 years	33.2	30.1	25.9	20.6	23.6	20.0
35 to 44 years	23.5	17.9	15.9	13.5	15.7	18.9
45 to 64 years	10.1	9.2	9.3	8.2	9.3	9.7
65 years and over	5.8	7.2	6.7	6.1	5.9	8.6

\*Gross immigration rate is the number of immigrants from 1985 to 1990 divided by the total population in 1985

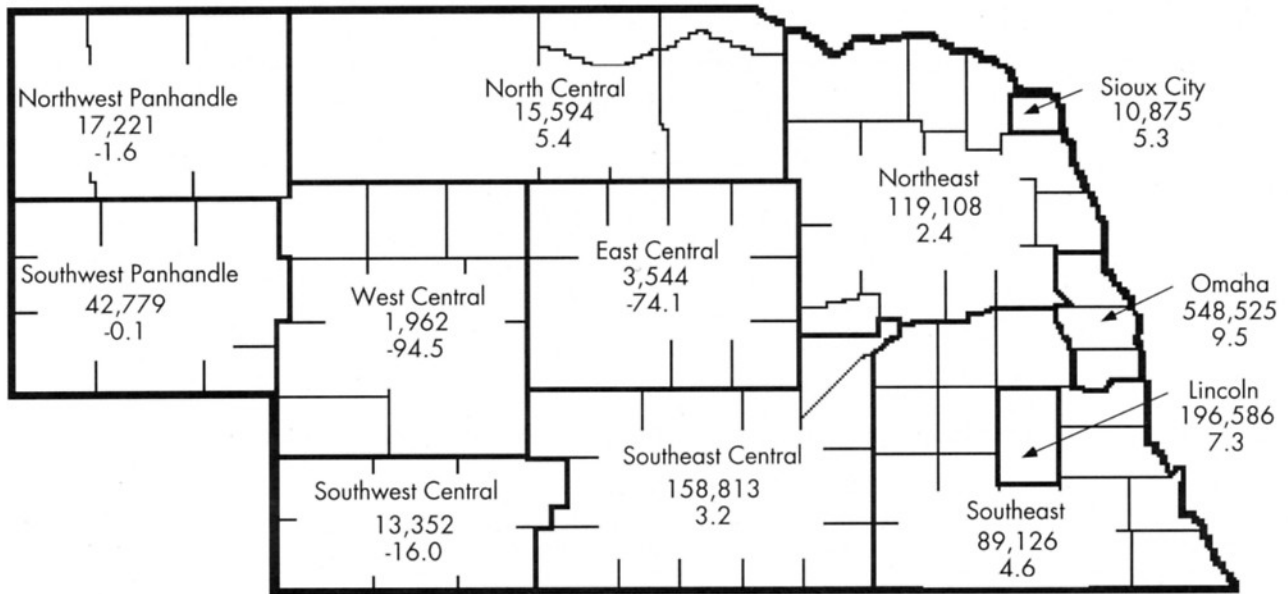
Source: US Department of Commerce, Bureau of the Census

**Table 4**  
**Ratio of 1985-1990 Inmigrants to 1985-1990 Outmigrants, by Age in 1990**  
**by Study County Category**

	Rural I	Rural II	Rural III	Rural IV	Small Trade	Large Trade
Total, age 5 and over	67.0	61.1	68.9	66.4	77.5	87.6
5 to 14 years	118.9	83.6	89.6	93.5	100.5	75.8
15 to 19 years	46.6	30.1	41.5	37.0	59.6	115.0
20 to 24 years	36.0	25.7	26.8	24.1	42.1	81.0
25 to 29 years	117.8	80.3	85.6	89.0	88.1	83.6
30 to 34 years	90.1	102.7	105.4	87.0	97.6	70.3
35 to 44 years	68.4	64.9	77.1	79.5	95.8	97.9
45 to 64 years	45.1	69.2	89.0	81.9	87.2	91.6
65 years and over	38.2	74.2	74.6	85.9	79.8	116.8
Ratio of Inmigrants age 25 to 29 to Outmigrants age 20 to 24	56.4	41.5	44.3	44.8	49.6	66.6

# August 1995 Regional Retail Sales and Percent Change from Year Ago

(\$000)



## Price Indices

	September 1995	% Change vs Year Ago	YTD % Change vs Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	153.2	2.5	2.9
Commodities	136.8	1.5	2.2
Services	170.0	3.4	3.4

U\* = All urban consumers

Source: U.S. Bureau of Labor Statistics

## Employment in Nebraska

	Revised August 1995	Preliminary September 1995	% Change vs Year Ago
Place of Work			
Nonfarm	807,427	810,334	0.9
Manufacturing	112,220	111,694	1.5
Durables	53,863	53,274	1.7
Nondurables	58,357	58,420	1.4
Mining & Construction	36,210	35,395	-4.5
TCU*	49,178	49,238	0.9
Trade	203,792	203,338	1.6
Retail	150,840	150,500	1.7
Wholesale	52,952	52,838	1.3
FIRE**	52,778	52,567	1.8
Services	210,321	208,611	1.8
Government	142,928	149,491	-0.6
Place of Residence			
Civilian Labor Force	895,812	882,561	1.2
Unemployment Rate	2.2	2.0	

\* Transportation, Communication, and Utilities  
\*\* Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

## City Employment September 1995

### Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)
NEBRASKA	2.0
Alliance	1.9
Beatrice	1.9
Bellevue	1.7
Blair	1.7
Broken Bow	3.0
Chadron	2.3
Columbus	1.3
Fairbury	2.6
Falls City	2.7
Fremont	1.9
Grand Island	2.2
Hastings	2.2
Holdrege	2.3
Kearney	2.2
Lexington	2.1
Lincoln	1.3
McCook	2.8
Nebraska City	2.3
Norfolk	2.0
North Platte	2.3
Ogallala	2.6
Omaha	1.7
Scottsbluff/Gering	2.2
Seward	2.0
Sidney	2.6
South Sioux City	1.2
York	2.5

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used.

Source: Nebraska Department of Labor



# Merrick

**Central City—County Seat**

**License plate prefix number:** 46

**Size of county:** 478 square miles, ranks 77th in the state

**Population:** 8,049 in 1990, a change -10.0 of percent from 1980

**Median age:** 36.2 years in Merrick County, 33.0 years in Nebraska in 1990

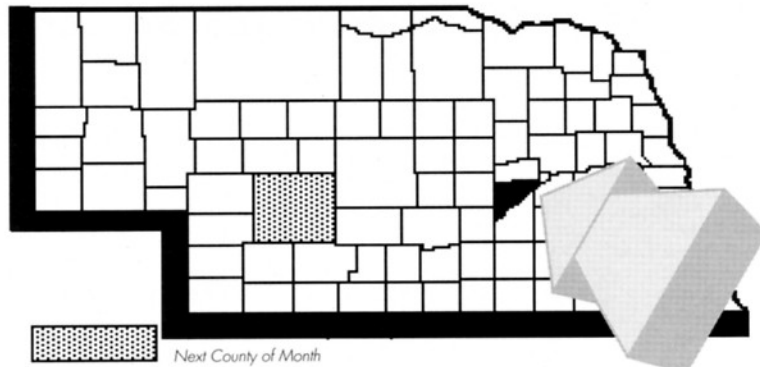
**Per capita personal income:** 16,360 in 1993, ranks 72nd in the state

**Net taxable retail sales (\$000):** \$33,995 in 1994, a change of -2.5 percent from 1993; \$18,447 during January-July 1995, a change of -4.8 percent from the same period one year ago

**Number of business and service establishments:** 219 in 1992, 66.7 percent had less than five employees

**Unemployment rate:** 2.3 percent in Merrick County, 2.9 percent in Nebraska for 1994

**Nonfarm employment (1994):**



Next County of Month

Wage and salary workers

Manufacturing

Construction and Mining

TCU

Retail Trade

Wholesale Trade

FIRE

Services

Government

Total

**State**

795,486

(percent of total)

13.7%

4.4

6.1

18.5

6.5

6.5

25.4

19.0

100.0%

**Merrick County**

1,906

5.0%

7.7

4.6

18.6

8.7

5.2

16.7

33.5

100.0%

**Agriculture:**

Number of farms: 617 in 1992, 664 in 1987

Average farm size: 471 acres in 1992

Market value of farm products sold: \$133.0 million in 1992 (\$215,647 average per farm)

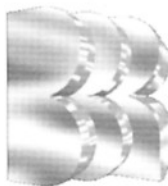
Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

## Updated Retail Trade Capture Data Now Available!

The recent release of population estimates for 1993 and 1994 has enabled BBR to update the retail trade capture figures reported in the September 1995 issue of *Business in Nebraska*. Estimated employment impacts by trade center also have been updated.

Contact Carol Boyd at (402)472-2334, or by email: cboyd@cbamail.unl.edu, to obtain the updated data.

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