

Prepared by the Bureau of Business Research
College of Business Administration

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF NORTH CENTRAL NEBRASKA

This article focuses on the demographic and economic characteristics of the North Central Region. The boundaries of these regions come from a modified version of the district/region system of Nebraska adopted by the Nebraska Department of Economic Development. To develop a pattern of change during the past decade, statistics on population, personal income, and retail sales will be examined in a fashion similar to the previous report on the Northwest Region (*Business in Nebraska*, September 1981).

The North Central Region of Nebraska is comprised of fourteen counties: Blaine, Boyd, Brown, Cherry, Custer, Garfield, Greeley, Holt, Keya Paha, Loup, Rock, Sherman, Valley, and Wheeler (Figure 1). The geographical contrasts of the region are as varied as the state of Nebraska, whose configuration the region mirrors. The unique physical traits of the North Central Region are reflected in terms of its demographic and economic characteristics. These characteristics will be highlighted in this article.

POPULATION

During the decade of the 1970s, eight out of the fourteen counties (57 percent) in the North Central Region experienced declines in population. This trend closely followed that of the state, as fifty-one counties in Nebraska (55 percent) experienced a net loss of people during this ten-year period (Table 1). Counties in the region showing a population increase were Blaine, Brown, Holt, Loup, Rock, and Wheeler. Only two counties increased at a higher rate than the statewide average of 5.7 percent: Brown, 8.9 percent; and Rock, 6.8 percent. Of the counties registering decreases in population, Greeley had a 13.5 percent decline; Boyd, 11.5 percent; and Sherman, 10.6 percent. For the region as a whole, the North Central counties decreased during the 1970s from 64,886 to 64,049 inhabitants for a 1.3 percent loss in popu-

lation, as compared to the statewide increase of 5.7 percent and the 3.5 percent increase in the Northwest Region.

In the last decade the North Central Region boasts the third fastest growing incorporated place classified as a city. The city of Long Pine in Brown County grew from 363 to 524 inhabitants for a 43.5 percent increase in population. Long Pine also had the highest growth rate of housing units among all cities in the state as it went from 142 to 272 units for a 91.5 percent increase in the 1970s. This enabled Brown County to be the only county in the entire region to have an increase in housing units greater than that of the state as a whole. Housing units in Brown County increased 22.7 percent compared to the statewide increase of 21.2 percent. The North Central Region housing units increase of 8.8 percent was far below the state increase, and trailed the 12.7 percent increase of housing units in the Northwest Region. On the other hand, the number of persons per household in the North Central Region closely resembled the statewide average. The region had 2.68 persons per household in 1980 compared to the statewide average of 2.66. (continued on page 2)

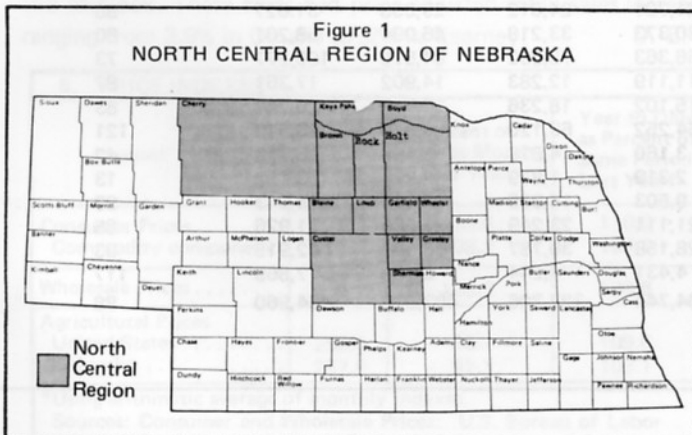


Table 1
1970 AND 1980 POPULATION OF COUNTIES
AND SELECTED CITIES WITH THE PERCENT CHANGE
IN THE NORTH CENTRAL REGION OF NEBRASKA

Counties	Population		1970 to 1980 % Change
	1970	1980	
Blaine	847	867	2.4
Boyd	3,752	3,331	-11.2
Brown	4,021	4,377	8.9
Cherry	6,846	6,758	-1.3
Custer	14,092	13,877	-1.5
Garfield	2,411	2,363	-2.0
Greeley	4,000	3,462	-13.5
Holt	12,933	13,552	4.8
Keya Paha	1,340	1,301	-2.9
Loup	854	859	0.6
Rock	2,231	2,383	6.8
Sherman	4,725	4,226	-10.6
Valley	5,783	5,633	-2.6
Wheeler	1,051	1,060	0.9
Regional Total	64,886	64,049	-1.3
Cities			
Ainsworth	2,073	2,256	8.8
Broken Bow	3,734	3,979	6.6
Loup City	1,456	1,368	-6.0
O'Neill	3,753	4,049	7.9
Ord	2,439	2,658	9.0
Valentine	2,662	2,829	6.3

Source: 1980 Census of Population and Housing.

(continued from page 1)

The most recent Bureau of Business Research projections of population for the North Central Region indicate a decline of approximately 0.6 percent during the 1980s. This decrease is the smallest projected growth in population in the state (see *Business in Nebraska*, November 1978). It must be noted, however, that while regional population decreased every year from 1970 through 1978, the trend markedly reversed itself in 1979 and again in 1980. This turnaround in the population trend belies the 1.3 percent regional decrease for the past decade and may be an important indicator of population growth for the 1980s.

PERSONAL INCOME

Personal income is composed of wages and salaries, proprietors' income, other labor income, dividends, interest, rent, and transfer payments, and covers the time period from 1972 through 1979. Total personal income for the North Central Region of Nebraska increased from \$247.7 million in 1972 to \$465.0 million in 1979, an 88 percent increase (Table 2). This was smaller than the statewide increase of 97 percent due to both the farm and nonfarm components of personal income trailing the Nebraska levels. North Central personal income shows how the trend of total personal income for the region followed that of farming for the period. The average annual increase in personal income for the North Central Region, as well as for the state and the Northwest Region, was 10 percent for the period.

It is clear that the North Central Region is affected by national economic trends. The 1973 period marks a boom year; the region registered a 32 percent increase in personal income. The 1974-75 recession which followed, however, had a severe impact. Personal income for the region did not surpass the 1973 level (in current dollars) until 1978, taking five years to recover. Holt County was first to recover, but it took three years to do so. Two counties did not regain their 1973 levels until 1979, and Loup County had failed to recover from the recessionary effects by 1979. If the data were adjusted for inflation to 1972 dollars, the negative impact of the national economic decline on the personal income for the North Central Region would have been even more dramatic.

Nonfarm participation income measures wages and salaries, proprietors' income, and other labor income (fringe benefits, and

the like). It is used as a measure of the earnings of all individuals that are producing the goods and services of a region. Real nonfarm earnings are expressed in 1972 dollars to adjust for inflation, resulting in an indication of the regional trend in output and production. Real nonfarm income for the North Central Region increased 24.4 percent from 1972 through 1979, slightly less than the statewide increase of 25.4 percent. Figures 2 and 3 illustrate

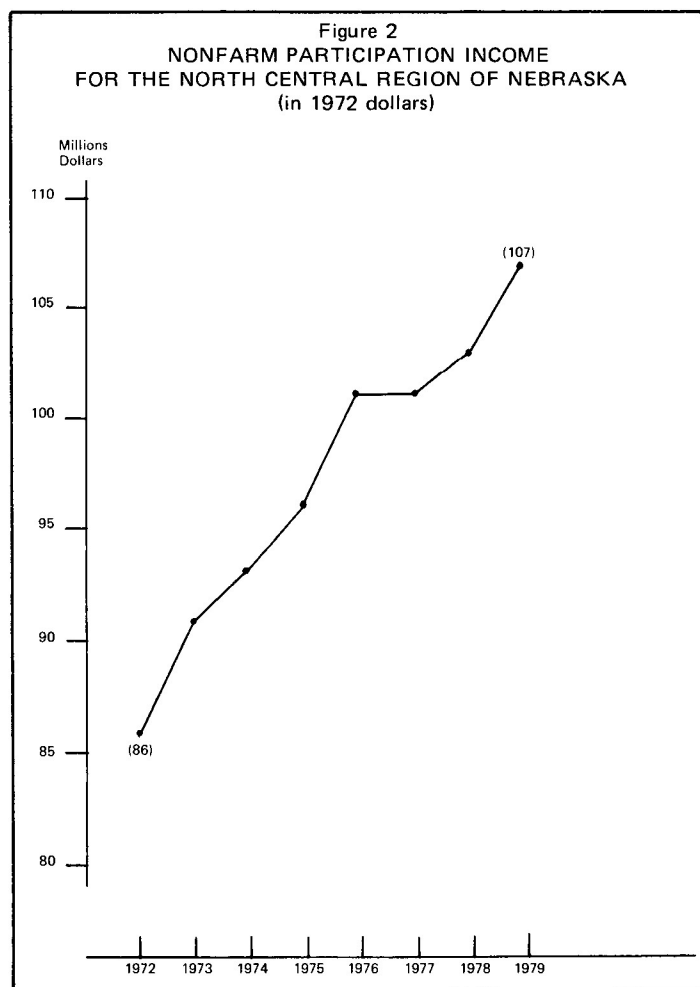


Table 2
PERSONAL INCOME FOR COUNTIES OF THE NORTH CENTRAL REGION OF NEBRASKA
(in thousands of current dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	Percent Change
Blaine	2,825	4,876	3,170	3,474	2,871	3,253	4,024	5,376	90
Boyd	13,565	17,128	13,902	13,154	14,221	16,135	20,974	23,801	75
Brown	16,191	19,896	18,557	20,060	21,761	24,012	29,058	31,627	95
Cherry	32,383	40,009	30,354	28,298	30,373	33,218	46,094	58,201	80
Custer	58,029	76,356	63,485	66,633	66,363	76,092	84,576	100,277	73
Garfield	9,272	11,680	10,615	10,542	11,119	12,283	14,902	17,361	87
Greeley	14,354	18,956	14,289	15,705	15,102	18,236	22,692	26,247	83
Holt	42,586	61,048	47,946	53,203	64,252	63,120	80,979	93,940	121
Keya Paha	4,735	6,629	3,916	2,870	3,160	4,878	6,196	6,718	42
Loup	3,062	3,677	3,084	2,317	2,319	1,879	2,824	3,459	13
Rock	7,657	9,834	9,303	9,444	9,503	15,920	18,840	15,243	99
Sherman	17,216	21,286	18,477	17,477	21,111	23,249	27,280	31,926	85
Valley	22,227	28,371	23,220	28,989	28,158	30,787	38,908	42,915	93
Wheeler	3,634	6,286	4,189	4,185	4,431	4,244	6,168	7,869	117
Regional Total	247,736	326,032	264,507	276,351	294,744	327,306	403,515	464,960	88

Source: Bureau of Economic Analysis, U.S. Department of Commerce.

the growth trends of real nonfarm earnings for the North Central Region and the state, respectively. Their annual growth rates are 3 percent, as is the case for the Northwest Region.

Per capita personal income is total personal income divided by population. As noted in the initial article, the concept is strictly monetary, so its best use is as an evaluator of data for a long time span. In the North Central Region per capita personal income in constant dollars (1972) has increased from \$3,838 in 1972 to \$4,475 in 1979 for a 2.2 percent annual growth rate (Figure 4), compared to the state's annual growth rate of 2.3 percent. Figure 4 is an interesting study of the impact of the boom-bust cycle on the North Central Region. The boom period of 1972-1973 shot per capita personal income up to near the state average, but the recession that followed devastated the region. The classical peak and the bucket-shaped bottom indicate that the overall economy of the region responds greatly to national economic trends, particularly in light of the fact that the population of the region remained fairly constant from 1972 to 1977. The fluctuations in state per capita personal income correspond to the good years and the lean years in terms of farm income for the state, which signifies the influence of agriculture on the Nebraska economy. The bad years for the ranching factor of the North Central Region economy, however, may have had a dampening effect on the recovery of the region.

RETAIL SALES

Statistically, a high positive correlation exists between the relative wealth of a region and the level of retail sales. For example, if

a region has a higher level of personal income than the surrounding regions, then this condition will be favorably reflected in the regional volume of retailing. Retail sales for the region have increased from \$108.3 million in 1970 to \$147.5 million in 1980 in constant 1972 dollars (Table 3, p. 6). The 36 percent increase represents a compound annual growth rate of 3.1 percent. This lagged considerably behind the 56 percent increase in the retail sales of the state of Nebraska from 1970 to 1980, an annual growth rate of 4.5 percent. Real per capita retail sales for the region increased slower than for the state, 40 percent to 47.4 percent, respectively (Table 4, p. 6). This trend continues to be seen in recent second quarter retail sales for the region. Net taxable retail sales for the second quarter of 1981 compared to the second quarter of 1980, as well as the year-to-date figures, show that the North Central Region continues to lag the state. However, the gap has greatly diminished.

Real per capita retail sales, retail sales divided by population, gives a perspective to the examination of individual trade centers as a measure of the drawing power on consumers located away from that center. The real net taxable retail sales were \$12.6 million in Ainsworth and \$22.6 million in Broken Bow. Even though Broken Bow had 80 percent more real net taxable retail sales than Ainsworth, real per capita retail sales (continued on page 6)

Figure 3
NONFARM PARTICIPATION INCOME
FOR NEBRASKA
(in 1972 dollars)

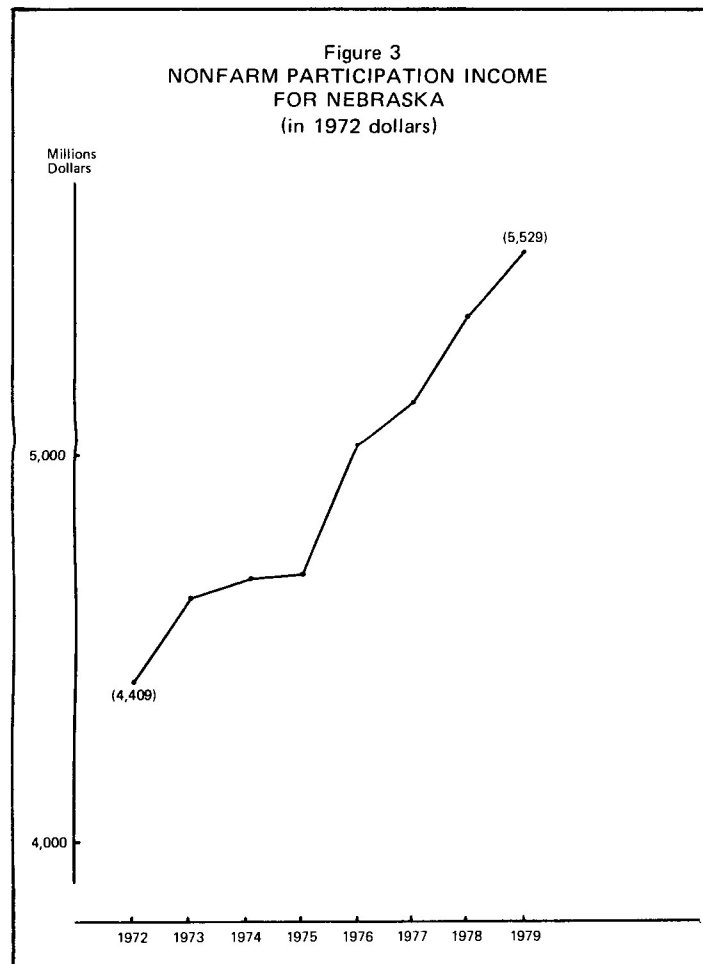
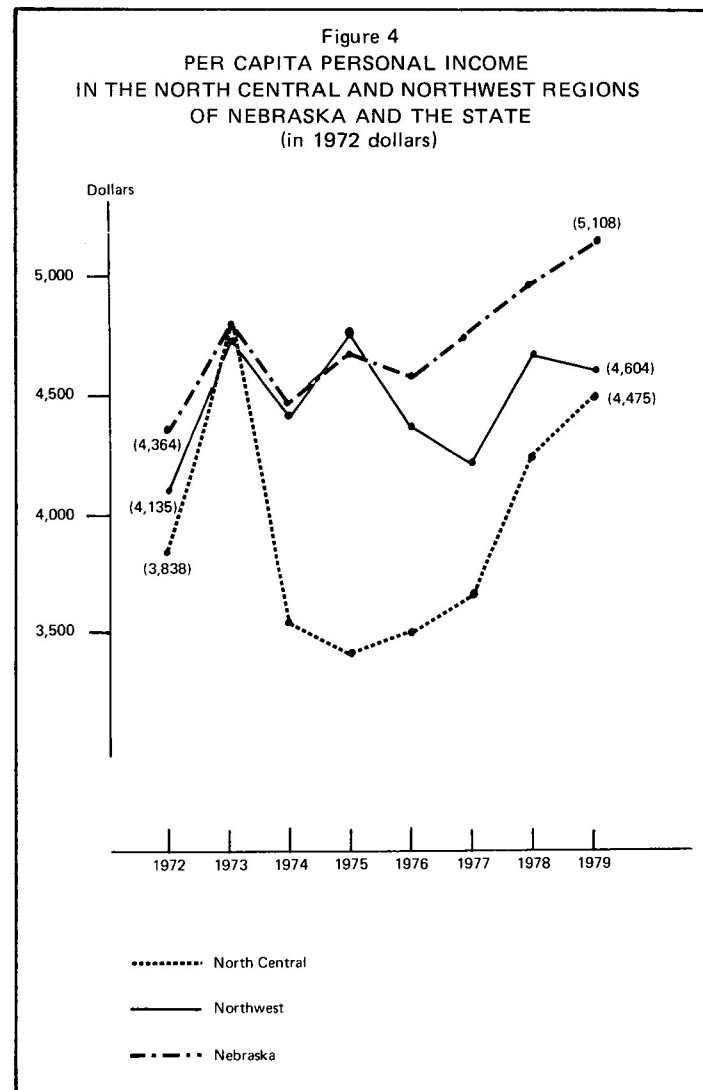


Figure 4
PER CAPITA PERSONAL INCOME
IN THE NORTH CENTRAL AND NORTHWEST REGIONS
OF NEBRASKA AND THE STATE
(in 1972 dollars)



Review and Outlook

Nebraska's output fell sharply in August 1981 compared with the previous month. The Bureau of Business Research's net physical volume index declined 2.4% on a month-to-month basis. A decline in output was registered across all sectors, with the exception of agriculture.

Nebraska cash farm marketing receipts of \$650 million made August one of the highest months ever recorded. Prices received by Nebraska farmers were up 0.4% July-August, but when compared with one year ago were down 2.9%. Prices paid were up 7.9% August 1980-August 1981, indicating a continuing cost squeeze on the agriculture sector.

The decline in the Nebraska economy was more pronounced

among the nonagriculture components. The index of output for all sectors excluding agriculture dropped 4.1% on a month-to-month basis. Construction recorded a 3.9% decrease in the index. The construction index stood at 78.6 in August 1981 (1967 = 100), compared with 71.4 August 1980 and 106.6 August 1979.

The August 1981 construction index value of 78.6 represents the lowest reading of 1981. After declining to 65.1 in June 1980, construction activity as measured by the index advanced each month, peaking in March 1981 at 102.7. Following the March peak, construction activity in Nebraska reversed directions and declined each month through the most current reading of the index, August. High interest rates would appear to be adversely impacting the construction sector. (continued on page 5)

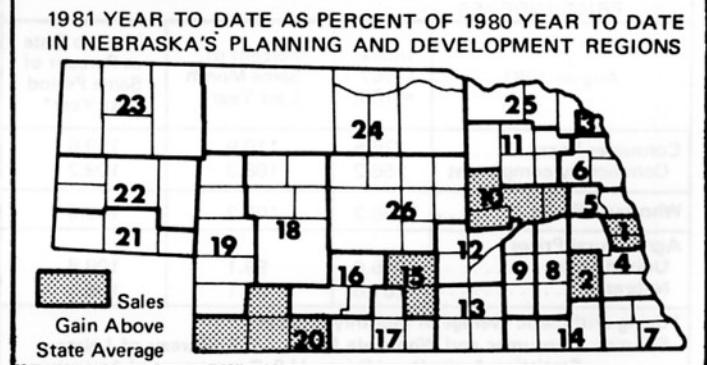
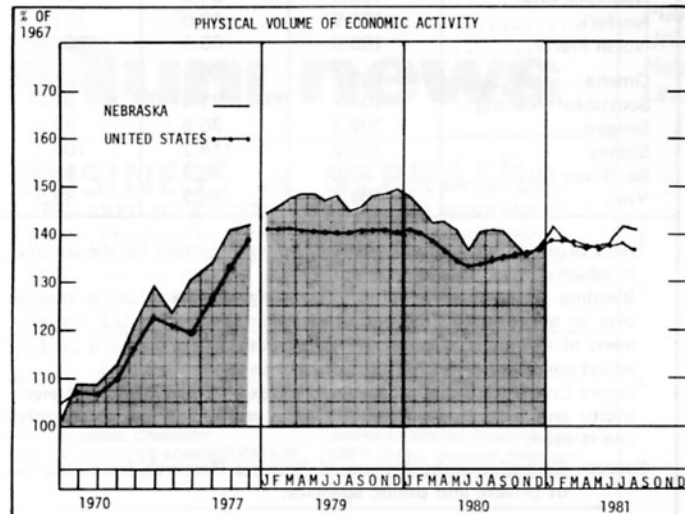
Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES				
1. CHANGE FROM PREVIOUS YEAR				
August 1981	Current Month as Percent of Same Month Previous Year		1981 Year to Date as Percent of 1980 Year to Date	
	Nebraska	U.S.	Nebraska	U.S.
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	108.5	111.3	108.8	110.8
Agricultural	110.2	103.9	106.4	108.4
Nonagricultural	108.2	111.5	109.2	110.9
Construction	114.8	106.0	131.0	105.2
Manufacturing	108.0	114.0	108.6	110.8
Distributive	107.4	111.7	108.7	111.9
Government	110.7	107.8	106.5	108.7
Physical Volume	100.9	101.8	99.2	100.6
Agricultural	113.5	105.9	98.5	98.8
Nonagricultural	99.0	101.7	99.3	100.6
Construction	110.1	101.7	123.0	98.8
Manufacturing	101.1	105.0	99.0	100.4
Distributive	96.9	100.7	98.2	101.2
Government	103.2	98.9	99.5	99.6

2. CHANGE FROM 1967		
Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	373.5	358.1
Agricultural	413.5	348.2
Nonagricultural	367.3	358.5
Construction	251.6	307.6
Manufacturing	381.6	324.4
Distributive	377.8	387.7
Government	365.0	335.5
Physical Volume	140.5	137.4
Agricultural	154.9	136.6
Nonagricultural	138.2	137.4
Construction	78.6	96.1
Manufacturing	160.8	134.2
Distributive	136.7	140.2
Government	143.7	148.9

3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES (Adjusted for Price Changes)			
Region Number and City	City Sales*	Sales in Region*	
	August 1981 as percent of August 1980	August 1981 as percent of August 1980	Year to date '81 as percent of Year to date '80
<i>The State</i>	101.0	99.8	100.1
1 Omaha	98.4	98.9	103.9
Bellevue	100.0		
2 Lincoln	100.5	99.6	101.0
3 So. Sioux City	90.4	94.3	97.6
4 Nebraska City	97.6	96.8	96.4
5 Fremont	93.0	89.1	97.2
Blair	95.8		
6 West Point	91.4	90.1	92.9
7 Falls City	92.1	98.1	96.0
8 Seward	96.0	83.6	95.3
9 York	92.9	85.6	92.4
10 Columbus	125.4	113.9	100.4
11 Norfolk	98.2	96.6	99.9
Wayne	94.4		
12 Grand Island	89.7	88.6	97.0
13 Hastings	98.0	96.9	98.2
14 Beatrice	92.2	93.0	97.1
Fairbury	94.4		
15 Kearney	99.2	96.9	100.2
16 Lexington	95.9	97.3	95.6
17 Holdrege	104.5	95.6	97.4
18 North Platte	90.2	90.5	94.7
19 Ogallala	92.2	98.2	98.9
20 McCook	95.4	93.3	101.0
21 Sidney	115.7	106.6	99.8
Kimball	104.2		
22 Scottsbluff/Gering	96.7	92.9	97.9
23 Alliance	103.0	97.9	98.4
Chadron	100.2		
24 O'Neill	99.1	95.7	98.0
25 Hartington	105.2	101.0	96.7
26 Broken Bow	105.5	93.3	94.8

*State totals include sales not allocated to cities or regions. The year-to-year ratios for city and region sales may be misleading because of changes in the portion of unallocated sales. Region totals include, and city totals exclude, motor vehicle sales. Sales are those on which sales taxes are collected by retailers located in the state. Compiled from data provided by Nebraska Department of Revenue.



(continued from page 4)

Manufacturing reported a decrease in the index of 4.8% on a month-to-month basis. The July-August decline represents one of the steepest declines on a month-to-month basis. Manufacturing output in August 1981 was about the same as in August 1980, but about 6% below the level recorded in August 1979. Manufacturing, like most sectors, is below peak levels recorded in 1979 or 1980.

The distributive trade component of the index declined 4.6%. This is the lowest reading for the distributive trade sector since June 1980, the trough of the sharp second-quarter 1980 decline.

Output in Nebraska's government sector declined 0.5% July-August 1981. This index stood at 148.9 in August 1981 compared with 150.6 in August 1980 and 149.2 in August 1979. Output as measured by the index has changed little in the government sector during the past three years.

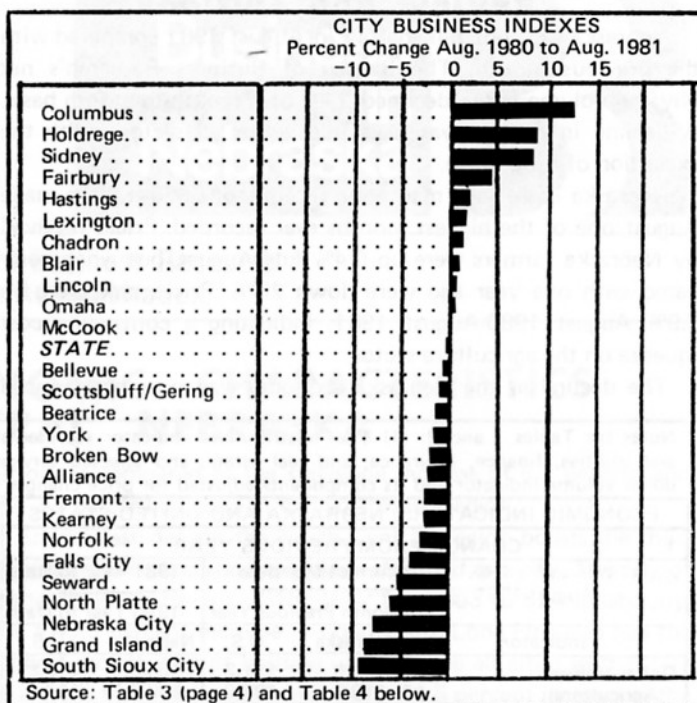
Nebraska retail sales in August were \$813 million, up from \$753 million one year ago. August sales were approximately \$15 million higher than July 1981, or about 1.8% above the July level (unadjusted for price changes).

Areas with above-average retail sales on a month-to-month basis include Columbus, up 17.7%; Lincoln, up 8.7%; Kearney, up 6.4%; Grand Island, up 4.7%; Hastings, up 3.6%; Holdrege, up 2.7%; and Nebraska City, up 3.9% (data refer to regions).

Cities with substantial increases in retail sales include Columbus, Holdrege, Sidney, Hartington, and Broken Bow. Columbus recorded a substantial increase in price-adjusted retail sales. The largest gains were scattered across the state, and there seems to be no particular geographic pattern associated with these gains.

When retail sales are adjusted for price changes using the commodity component of the Consumer Price Index—an imperfect price adjustor—twelve of the state's twenty-six economic regions showed declines. Regions which remain below 1980 year-to-date retail sales through August include Region 3, the South Sioux City area; Region 6, the West Point area; Region 7, the Falls City area; Region 9, the York area; Region 8, the Seward area; Region 13, the Hastings area; Region 16, the Lexington area; Region 17, the Holdrege area; Region 18, the North Platte area; Region 19, the Ogallala area; Region 24, the O'Neill area; Region 25, the Hartington area; and Region 26, the Broken Bow area. Retail sales are not depressed in communities in these areas and some communities have had a good month at times, but, on a cumulative basis, sales remain below 1980 levels.

The strongest regional retail sales markets on a cumulative basis through August include Omaha, Lincoln, Columbus, Kearney, and McCook. These areas had price-adjusted retail sales increases ranging from 3.9% in Omaha to .2% in Kearney. D. E. P.



Source: Table 3 (page 4) and Table 4 below.

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment ¹	Building Activity ²	Power Consumption ³
<i>The State</i>	102.2	72.5	94.2
Alliance	97.9	63.8	101.3
Beatrice	102.0	129.4	94.5
Bellevue	102.3	76.1	83.0
Blair	105.2	113.1	89.8
Broken Bow	102.0	35.5	98.1
Chadron	106.2	75.4	78.2
Columbus	103.9	85.7	89.1
Fairbury	102.4	339.7	98.9
Falls City	103.7	56.0	83.7
Fremont	102.6	92.0	83.8*
Grand Island	102.4	34.3	99.5
Hastings	102.8	134.3	99.2
Holdrege	103.3	294.3	109.4
Kearney	99.6	68.0	97.0
Lexington	103.6	144.6	106.2
Lincoln	102.2	85.2	92.4
McCook	102.1	124.8	93.3
Nebraska City	100.3	24.6	90.1
Norfolk	101.9	49.6	103.7
North Platte	100.6	60.1	93.1
Omaha	102.3	99.7	94.0
Scottsbluff/Gering ..	104.7	71.5	90.6
Seward	102.3	36.5	92.9
Sidney	101.2	114.2	100.2
So. Sioux City	97.0	45.2	95.9
York	104.4	96.2	88.9

¹As a proxy for city employment, total employment for the county in which a city is located is used.

²Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

³Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

August 1981	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	276.5	110.9	110.6
Commodity component	256.2	108.2	109.2
Wholesale Prices	296.2	108.2	109.6
Agricultural Prices			
United States	255.0	98.1	109.6
Nebraska	267.0	97.1	108.1

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

(Continued from page 3) in Ainsworth and Broken Bow were almost identical—\$5,600 to \$5,675, respectively. This is indicative of the smaller population in Ainsworth (2,256) compared to Broken Bow (3,979). It reflects the growth in business in Ainsworth, as its per capita retail sales increased 47 percent and real net taxable retail sales increased 59 percent in the 1970s. This is a result of the internal economic activity in Brown County, led by the increased population and housing in nearby Long Pine. It is interesting to note that two of the five cities reported as

having had an increase in real retail city sales for July 1981 as a percent of July 1980 (out of the thirty-two cities reviewed) are in the North Central Region. Broken Bow recorded the largest increase of the Nebraska cities in the report, up 22.6 percent, while O'Neill was up 3.2 percent (see *Business in Nebraska*, November 1981).

In summary, the North Central Region appears to have been somewhat less affluent than the remainder of the state during the past decade. The North Central Region is still struggling to reach its 1973 level of per capita personal income in real dollars, while per capita personal income for the state as a whole has risen 6.3 percent above the 1973 peak. The positive advances for the North Central personal income from 1977 through 1979 must be tempered with the understanding that a national economic downturn could present problems for per capita personal income in the region. Although the North Central Region ranks last at the moment among the Nebraska regions in anticipated economic growth, the Bureau of Business Research projects that personal income and per capita personal income in the North Central Region are both expected to increase by 47.1 percent by the end of the century.

JOHN WINGENDER

Table 3
1970 AND 1980 NET TAXABLE RETAIL SALES*
FOR COUNTIES AND SELECTED CITIES OF THE
NORTH CENTRAL REGION OF NEBRASKA AND THE STATE
(in millions of dollars)

Counties	Current Dollars		1972 Dollars	
	1970	1980	1970	1980
Blaine	0.7	1.7	0.8	1.0
Boyd	4.3	8.7	4.6	4.9
Brown	7.9	23.7	8.5	13.2
Cherry	11.4	30.4	12.3	17.0
Custer	23.9	59.2	25.8	33.1
Garfield	3.9	10.6	4.2	5.9
Greeley	4.7	9.5	5.1	5.3
Holt	21.1	66.3	22.8	37.1
Keya Paha	0.8	1.8	0.9	1.0
Loup	0.4	0.8	0.4	0.4
Rock	4.0	12.9	4.3	7.2
Sherman	5.6	11.5	6.1	6.4
Valley	11.0	24.9	11.9	13.9
Wheeler	0.5	1.8	0.5	1.0
Regional Total	100.2	263.8	108.3	147.5
State	2,961.5	8,920.7	3,201.6**	4,986.4
Cities				
Ainsworth	7.3	22.6	7.9	12.6
Broken Bow	16.2	40.4	17.5	22.6
Loup City	4.7	9.5	5.1	5.3
O'Neill	13.5	42.6	14.6	23.8
Ord	9.5	21.5	10.3	12.0
Valentine	10.1	27.4	10.9	15.3

*Non-motor vehicle sales. **Recently adjusted state figure.
Source: Nebraska Department of Revenue.

Table 4
1970 AND 1980 PER CAPITA RETAIL SALES*
FOR THE STATE OF NEBRASKA,
THE NORTH CENTRAL REGION, AND SELECTED CITIES
(in 1972 dollars)

	1970	1980	% Change
State	2,155	3,176	47.4
North Central Region	1,669	2,303	40.0
Cities			
Ainsworth	3,807	5,600	47.1
Broken Bow	4,690	5,675	21.0
Loup City	3,490	3,882	11.2
O'Neill	3,889	5,881	51.2
Ord	4,211	4,521	7.4
Valentine	4,102	5,414	32.0

*Non-motor vehicle sales.
Source: Nebraska Department of Revenue,
1980 Census of Population and Housing.

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Lincoln, NE 68588-0524