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Prepared by the Bureau of Business Research
College of Business Administration

# NEBRASKA'S CHANGING EMPLOYMENT

This article examines a decade of change in Nebraska's **non-agricultural** employment from three perspectives.[1] First, trends in employment by industry are examined for Nebraska, as well as the combined Plains region. This provides the basis for the second view, an examination of trends in Nebraska's share of Plains employment by industry.[2] As a final perspective, the resulting changes in the relative importance of each sector's share of Nebraska employment are shown.

## BACKGROUND

In early 1983, Nebraska's unemployment rate peaked at 8.0 percent, the Plains at 9.7 percent, and the United States at 10.8 percent. These record rates came at the trough of a deep recession and at the time, there was considerable discussion about the impact of permanent structural shifts that were thought to be taking place. One implication of structural change was that even when the economy pulled out of the recession, many of the unemployed would not have jobs to which to return. Industries in decline would no longer need their services and their skills would not match those needed in the expanding industries. As a result, forecasters saw high rates of unemployment continuing throughout 1983—even after the economic recovery was forecasted.

The record for 1983 is now complete and it is apparent that the unemployment rate has dropped more sharply than expected (Graph 1). Does this mean that there have not been structural shifts, or that if they did take place, that they were not of the *magnitude expected? This article examines one aspect of this* issue by looking at changes in employment over the past decade. The focus is on industry and geographic shifts as they relate to Nebraska and the Plains.

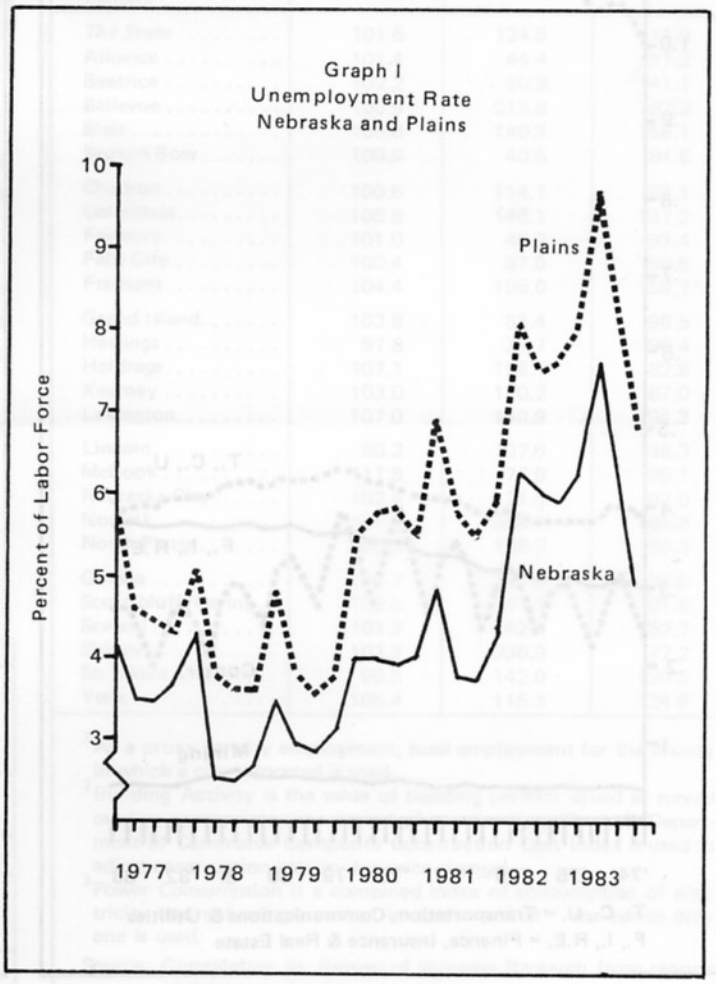
## LEVELS OF EMPLOYMENT: PLAINS AND NEBRASKA

In examining the employment record of the Plains, there are several features to be noted. Total employment peaked in 1979 at just over seven million workers, about six percent more persons than in 1983. Graph 2 shows the employment peaks in trade, government, manufacturing, the combined transportation communications, utilities category, and construction that coincided and created the overall 1979 employment peak. Employment in mining peaked two years later in 1981. The more modern industry downturns cannot be interpreted as long term structural shifts since much of the period following 1979 was recession. However, the decline in manufacturing employment was particularly sharp, with Plains employment falling to the lowest levels in more than a decade. Using the 1975 to 1979 period as a pattern for recovery in manufacturing jobs, it may take several years to reach the 1979 manufacturing employment level, if it is reached at all.

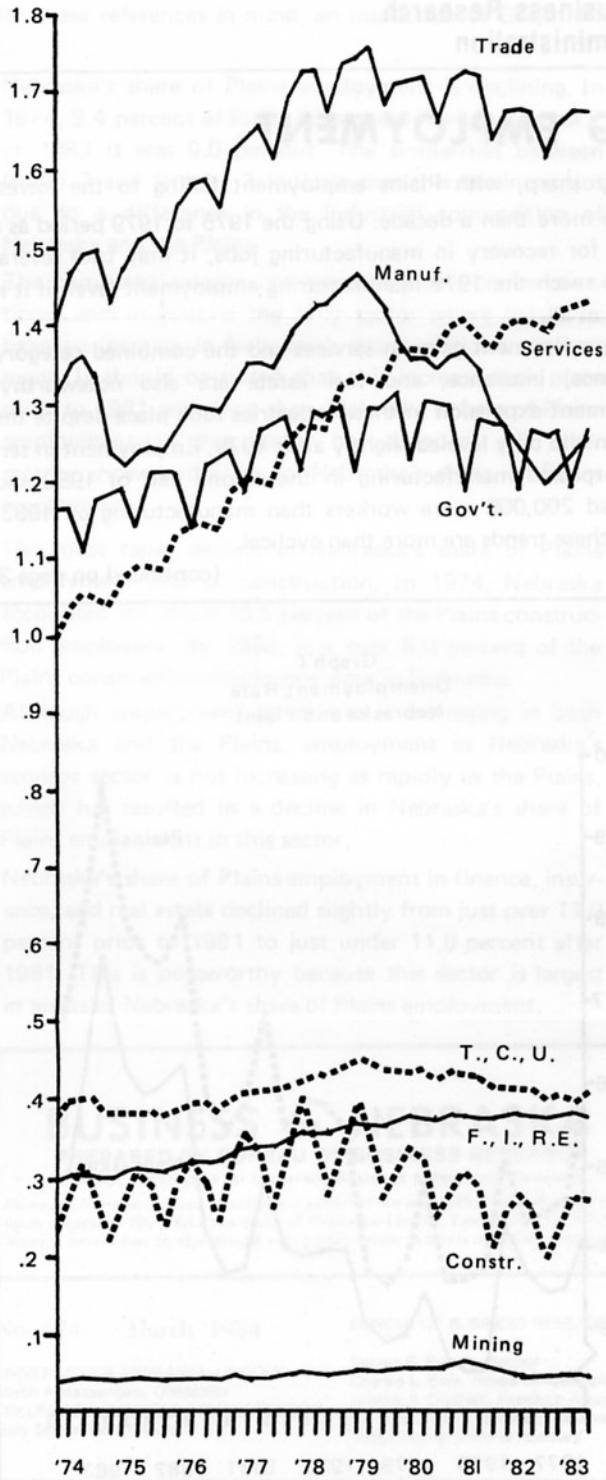
The employment gains in services and the combined category of finance, insurance, and real estate are also noteworthy. Employment expansion in these industries took place despite the recession and only leveled slightly after 1979. Employment in services surpassed manufacturing in the second half of 1980 and employed 200,000 more workers than manufacturing by 1983. Clearly these trends are more than cyclical.

(continued on page 3)

Graph I
Unemployment Rate
Nebraska and Plains

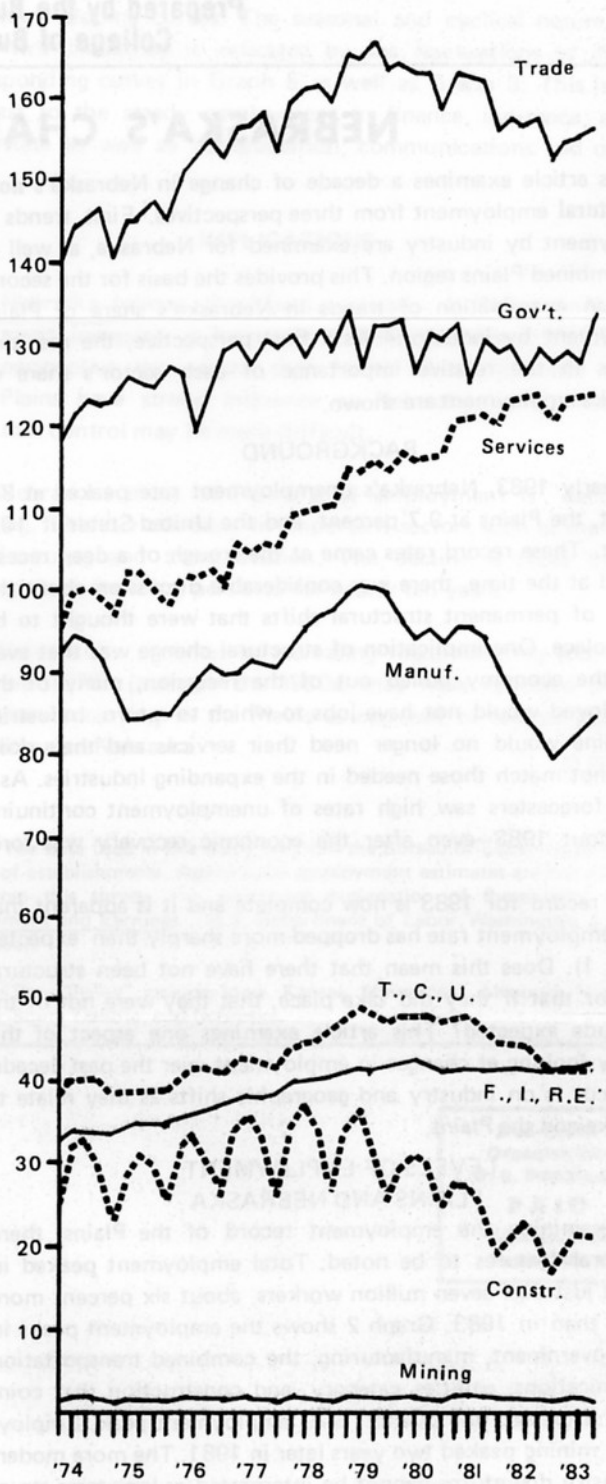


Graph 2
Plains Employment
(Millions)




T., C., U. = Transportation, Communications & Utilities
F., I., R.E. = Finance, Insurance & Real Estate

Graph 3
Nebraska Employment
(Thousands)



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Employment by industry for Nebraska is shown in Graph 3. The scale used on the vertical axis for the Nebraska graph is about .4 percent of the corresponding scale of the Plains graph. This approximates Nebraska's share of Plains employment (9.4 to 8.9 percent over the period) and allows direct comparison of Graph 2 and Graph 3. If Nebraska employment were distributed, by industry, in the same proportion as the Plains industry distributions, then Graph 2 and Graph 3 would look the same. A comparison of the two graphs **does** show a considerable similarity. The biggest difference is in the manufacturing sector, which is a smaller part of employment in Nebraska. Similarly, Nebraska employment in mining is relatively small. Employment in the combined categories of transportation, communications and utilities and of finance, insurance, and real estate is relatively larger in Nebraska than in the Plains.

## NEBRASKA'S SHARE OF PLAINS EMPLOYMENT

There are several other features in the comparison of Graph 2 and Graph 3 that should be noted. With a few exceptions, the shape of the curves is similar. Although the manufacturing employment as a share of total employment differs in Nebraska from the Plains, the employment curves are similar, indicating the same cyclical patterns of employment over the period. A closer examination of the services curves suggests that the gains in services employment in Nebraska have flattened (slowed) more than the Plains states. Although employment in transportation, communications, and utilities increased more rapidly in Nebraska prior to 1979, it also dropped more quickly after 1979. Similarly, the decline in Nebraska's construction sector has been more dramatic than in the Plains.

An examination of Nebraska's share of Plains employment (Graph 4) allows us to see this more clearly. A horizontal line on this graph would indicate that Nebraska's share of employment remained constant over the period. However, downward slope of the total employment curve indicates that Nebraska's share of total employment in the Plains declined over the period.

The total employment curve serves as a reference in two respects. Industries with curves above the total employment curve (finance, insurance, real estate; government; transportation, communications, utilities; and trade) are relatively more import-

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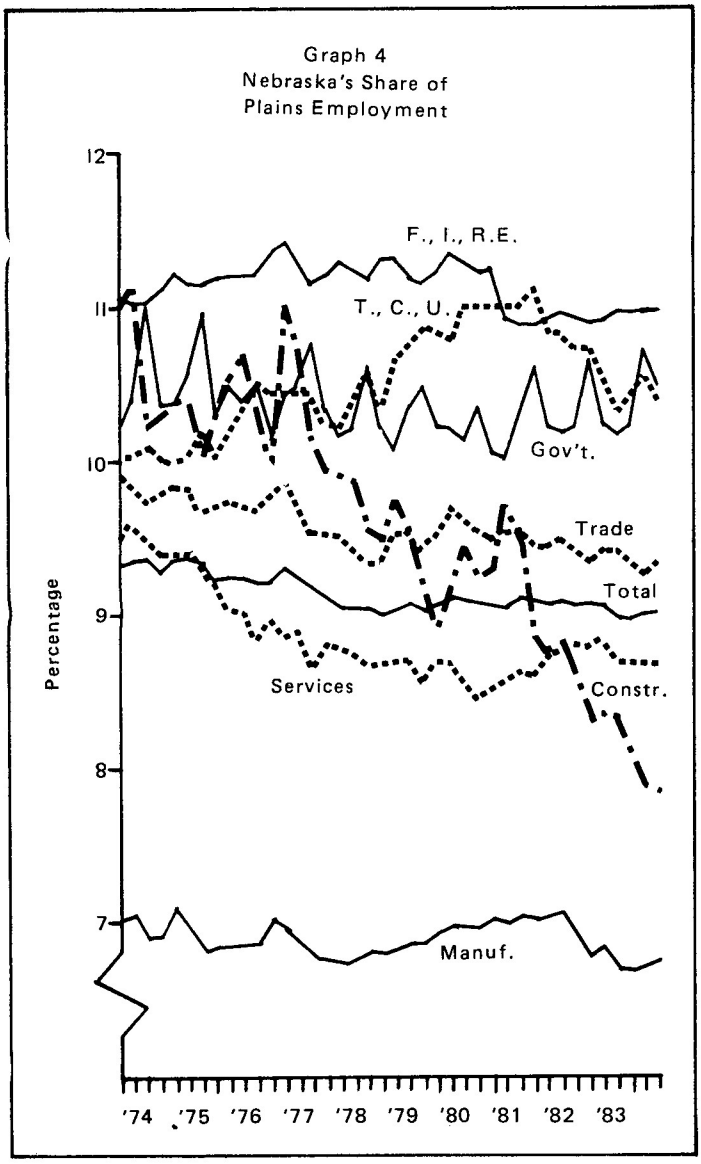
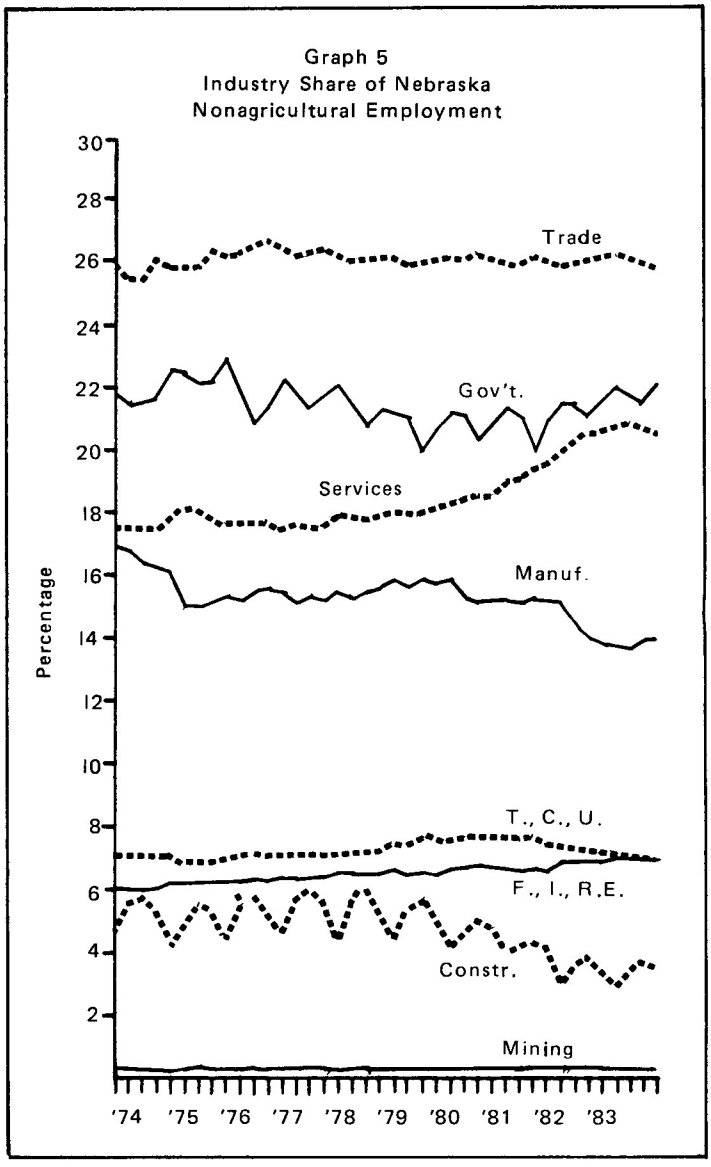
Graph 4
Nebraska's Share of
Plains Employment




Graph 5
Industry Share of Nebraska
Nonagricultural Employment



## Review and Outlook

Output from Nebraska's economy declined 1.5 percent on a month-to-month basis according to the most recent reading from the Bureau of Business Research's net physical volume index. All sectors of the economy were down somewhat October 1983–November 1983.

The agriculture sector recorded an 8.2 percent net physical volume decline. Cash farm marketings were $550.0 million in November, down $141.0 million from November 1982. Prices received by Nebraska agriculture producers were up 0.8 percent on a month-to-month basis. Compared with one year ago, prices received by Nebraska's producers were up 4.2 percent, a respectable gain.

The nonagriculture sectors of the Nebraska economy were down a combined 0.6 percent in November 1983. Construction was down 0.3 percent and manufacturing declined 2.5 percent. The distributive trade sector and the government sector declined a scant 0.1 percent on a month-to-month basis, an indication these sectors have changed very little.

(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.

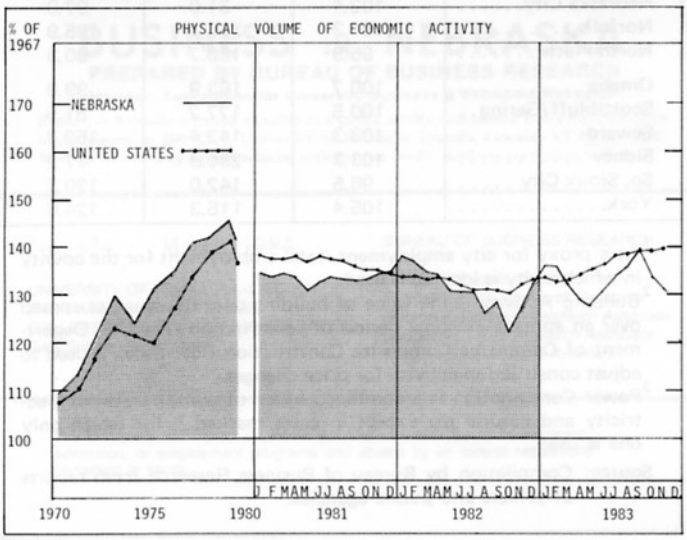
### ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

| November, 1983 | Current Month as Percent of Same Month Previous Year | | 1983 Year to Date as Percent of 1982 Year to Date | |
|---|---|---|---|---|
| Indicator | Nebraska | U.S. | Nebraska | U.S. |
| Dollar Volume | 108.1 | 108.3 | 105.0 | 105.9 |
| Agricultural | 103.5 | 86.0 | 102.5 | 98.9 |
| Nonagricultural | 108.6 | 109.0 | 105.4 | 106.1 |
| Construction | 129.8 | 111.6 | 118.8 | 113.6 |
| Manufacturing | 108.1 | 110.8 | 96.9 | 100.2 |
| Distributive | 104.5 | 108.9 | 106.2 | 107.8 |
| Government | 125.7 | 105.5 | 109.8 | 106.7 |
| Physical Volume | 102.8 | 104.9 | 101.6 | 102.5 |
| Agricultural | 99.3 | 81.6 | 102.7 | 98.7 |
| Nonagricultural | 103.2 | 105.8 | 101.4 | 102.7 |
| Construction | 125.6 | 107.9 | 116.7 | 111.7 |
| Manufacturing | 106.3 | 109.1 | 95.6 | 99.3 |
| Distributive | 101.2 | 105.5 | 102.9 | 104.5 |
| Government | 103.4 | 100.1 | 100.5 | 99.6 |

2. CHANGE FROM 1967

| | Percent of 1967 Average | |
|---|---|---|
| Indicator | Nebraska | U.S. |
| Dollar Volume | 373.7 | 399.7 |
| Agricultural | 259.4 | 323.5 |
| Nonagricultural | 390.9 | 402.2 |
| Construction | 273.9 | 362.0 |
| Manufacturing | 336.5 | 309.7 |
| Distributive | 417.6 | 456.4 |
| Government | 417.2 | 406.6 |
| Physical Volume | 131.0 | 139.8 |
| Agricultural | 104.6 | 128.4 |
| Nonagricultural | 134.9 | 140.1 |
| Construction | 81.8 | 108.1 |
| Manufacturing | 137.6 | 123.8 |
| Distributive | 137.8 | 150.6 |
| Government | 146.9 | 146.9 |

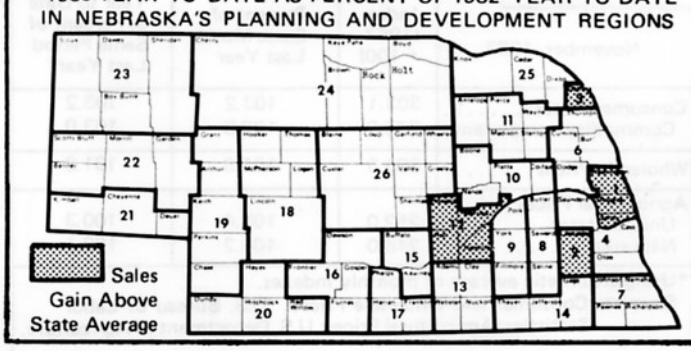



### 3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

| Region Number and City | City Sales * Nov. 1983 as percent of Nov. 1982 | Sales in Region * Nov. 1983 as percent of Nov. 1982 | Sales in Region * Year-to-date 83 as percent of Year-to-date 82 |
|---|---|---|---|
| *The State* | 110.2 | 109.5 | 102.9 |
| 1 Omaha | 123.0 | 120.2 | 107.8 |
| Bellevue | 139.1 | | |
| Blair | 96.2 | | |
| 2 Lincoln | 124.5 | 121.2 | 108.3 |
| 3 So. Sioux City | 124.0 | 106.4 | 105.4 |
| 4 Nebraska City | 97.3 | 93.8 | 100.7 |
| 6 Fremont | 116.6 | 102.3 | 101.0 |
| West Point | 94.9 | | |
| 7 Falls City | 92.4 | 89.3 | 99.5 |
| 8 Seward | 92.1 | 96.6 | 101.7 |
| 9 York | 102.7 | 104.1 | 100.3 |
| 10 Columbus | 102.8 | 96.1 | 101.1 |
| 11 Norfolk | 109.5 | 99.2 | 102.3 |
| Wayne | 92.1 | | |
| 12 Grand Island | 110.7 | 103.6 | 103.4 |
| 13 Hastings | 105.8 | 102.1 | 102.9 |
| 14 Beatrice | 110.7 | 100.6 | 102.2 |
| Fairbury | 94.0 | | |
| 15 Kearney | 110.3 | 100.4 | 100.7 |
| 16 Lexington | 98.1 | 94.1 | 98.7 |
| 17 Holdrege | 85.5 | 85.3 | 94.1 |
| 18 North Platte | 101.7 | 100.8 | 102.9 |
| 19 Ogallala | 104.1 | 93.3 | 98.0 |
| 20 McCook | 97.0 | 92.9 | 98.3 |
| 21 Sidney | 106.2 | 98.9 | 96.2 |
| Kimball | 87.1 | | |
| 22 Scottsbluff/Gering | 111.8 | 105.5 | 100.4 |
| 23 Alliance | 107.2 | 100.1 | 101.3 |
| Chadron | 102.7 | | |
| 24 O'Neill | 93.1 | 84.4 | 95.8 |
| 25 Hartington | 83.4 | 84.4 | 96.9 |
| 26 Broken Bow | 102.8 | 92.1 | 100.4 |

*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. Regional 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.

1983 YEAR TO DATE AS PERCENT OF 1982 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



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Nebraska retail sales were up an estimated 9.5 percent, unadjusted for price changes, in November 1983, compared with one year earlier. Total sales were $694.0 million. Motor vehicle sales were nearly $74.0 million, compared with $71.0 million a year ago. When adjusted for price changes, however, motor vehicle sales were down 7.8 percent.

Nonmotor vehicle sales were up an estimated 10.2 percent unadjusted for price changes. When adjusted for inflation, nonmotor vehicle sales were up 7.2 percent. It is difficult to make comparisons on nonmotor vehicle retail sales since food is no longer taxed. Food sales are not included in the numbers reported by the Bureau of Business Research. Until more data are available on the proportion of food in nonmotor vehicle retail sales, year-to-year changes will be indeterminate.

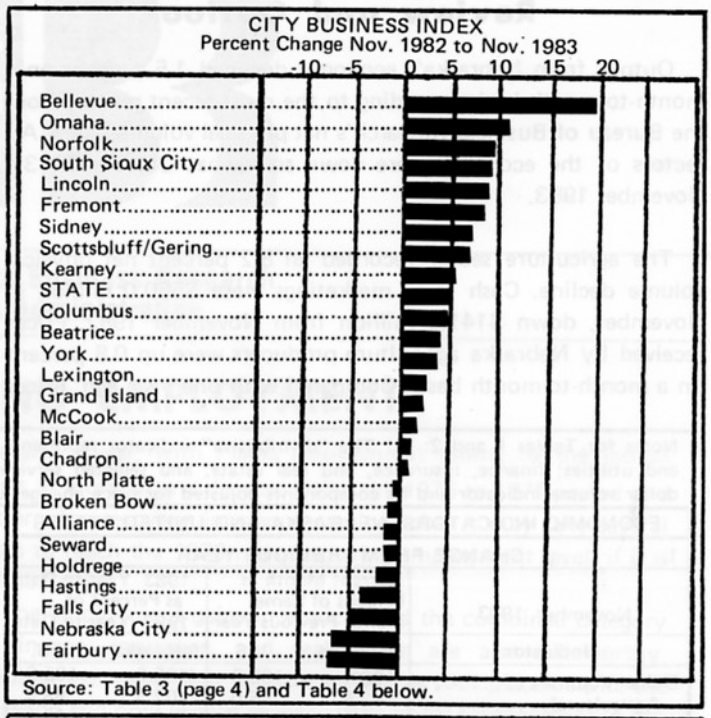
Bellevue led all Nebraska communities with a 19.8 percent increase in its city business index. Omaha ranked second with an 11.8 percent increase, Norfolk third with a 9.6 percent gain, and South Sioux City fourth with a 9.3 percent gain. Lincoln and Fremont recorded gains of more than 8.0 percent. Communities in eastern Nebraska were generally among the strongest in the state.

Sidney and Scottsbluff/Gering led all communities in the western part of the state with 7.0 and 6.9 percent increases in their respective city business indexes. Kearney managed a 5.1 percent gain, which was better than the state average.

The state's economy is stronger in the major metropolitan centers than in the nonmetro areas. Omaha has done somewhat better than the state for several months.

Among the nonmetro centers, Sidney has consistently recorded above average growth over the past four quarters. Construction activity and gains in retail sales have helped to boost Sidney.

D.E.P.




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

4. November, 1983 — CITY BUSINESS INDICATORS

| The State and Its Trading Centers | Percent of Same Month a Year Ago: Employment[1] | Building Activity[2] | Power Consumption[3] |
|---|---|---|---|
| *The State* | 101.6 | 124.5 | 114.0 |
| Alliance | 101.4 | 44.4 | 97.2 |
| Beatrice | 102.2 | 80.8 | 141.1 |
| Bellevue | 100.9 | 213.9 | 182.3 |
| Blair | 105.0 | 140.3 | 158.1 |
| Broken Bow | 106.9 | 40.5 | 84.6 |
| Chadron | 100.5 | 114.1 | 83.1 |
| Columbus | 106.8 | 146.1 | 137.2 |
| Fairbury | 101.0 | 46.7 | 93.4 |
| Falls City | 100.4 | 87.0 | 90.5 |
| Fremont | 104.4 | 106.0 | 159.7* |
| Grand Island | 103.8 | 53.4 | 98.5 |
| Hastings | 97.8 | 37.7 | 96.4 |
| Holdrege | 107.1 | 158.1 | 82.9 |
| Kearney | 103.0 | 110.2 | 87.0 |
| Lexington | 107.0 | 130.9 | 94.3 |
| Lincoln | 98.2 | 107.6 | 138.3 |
| McCook | 111.5 | 77.9 | 99.1 |
| Nebraska City | 102.4 | 31.0 | 97.0 |
| Norfolk | 101.3 | 356.1 | 185.9 |
| North Platte | 95.9 | 136.7 | 90.3 |
| Omaha | 100.7 | 163.9 | 99.0 |
| Scottsbluff/Gering | 100.5 | 177.2 | 81.5 |
| Seward | 103.3 | 142.4 | 152.7 |
| Sidney | 103.3 | 230.9 | 77.2 |
| So. Sioux City | 96.5 | 142.0 | 120.3 |
| York | 105.4 | 115.3 | 124.6 |

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

[2] Building 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.

[3] Power 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.

5. PRICE INDEXES

| November, 1983 | Index (1967 = 100) | Percent of Same Month Last Year | Year to Date as Percent of Same Period Last Year* |
|---|---|---|---|
| Consumer Prices | 303.1 | 103.2 | 103.2 |
| Commodity component | 275.2 | 102.8 | 103.0 |
| Wholesale Prices | 305.6 | 101.8 | 101.2 |
| Agricultural Prices | | | |
| United States | 252.0 | 105.4 | 100.3 |
| Nebraska | 248.0 | 104.2 | 100.1 |

*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)

ant in Nebraska than the Plains. The curves below the total curve indicate Nebraska's share of that sector's Plains employment is smaller. Mining (not shown), manufacturing, and services sectors fall into this category.

The total curve serves as another form of reference. Nebraska's share of employment in industries, having a steeper slope than the total curve, is declining more rapidly than Nebraska's share of total Plains employment.

With these references in mind, an inspection of Graph 4 indicates;

1. Nebraska's share of Plains employment is declining. In 1974, 9.4 percent of Plains employees were in Nebraska; in 1983 it was 9.0 percent. The similarities between Graph 2 and Graph 3 indicate that this decline is not due to a difference in the industrial composition of Nebraska and the Plains.
2. The combined category of transportation, communications, and utilities is the only sector where there has been an increase in Nebraska's share of Plains employment. It should be noted that this increase took place prior to 1981 and since then, Nebraska's share of Plains employment in this sector has dropped. All other sectors show a decline in Nebraska's share of Plains employment.
3. The most rapid decline in Nebraska's share of Plains employment was in construction. In 1974, Nebraska accounted for about 10.5 percent of the Plains construction employees. By 1983, just over 8.0 percent of the Plains construction employees were in Nebraska.
4. Although employment in services is increasing in both Nebraska and the Plains, employment in Nebraska's services sector is not increasing as rapidly as the Plains, which has resulted in a decline in Nebraska's share of Plains employment in this sector.
5. Nebraska's share of Plains employment in finance, insurance, and real estate declined slightly from just over 11.0 percent prior to 1981 to just under 11.0 percent after 1981. This is noteworthy because this sector is largest in terms of Nebraska's share of Plains employment.

## INDUSTRY DISTRIBUTION OF EMPLOYMENT

The final perspective of Nebraska employment trends is concerned with the redistribution of employment among industries. The industry shares of employment in Nebraska are shown in Graph 5. There are several distinct features. Over the ten year period, employment in the services sector increased from 17.0 percent of Nebraska's total nonagricultural employment to more than 20.0 percent in 1983. The decline in the portion of employment in manufacturing and construction are indicated by their downward sloping curves. The seasonal and cyclical nature of these two industries is indicated by the fluctuations in their corresponding curves in Graph 5 as well as Graph 3. This is in contrast to the steady employment in finance, insurance, and real estate as well as transportation, communications and utilities.

## IMPLICATIONS

* Nebraska follows the Plains cyclically. If Plains employment increases, it increases in Nebraska. From a policy perspective this means that forces which influence the Plains have strong influence on Nebraska, which means that control may be more difficult.

* Nebraska's share of Plains total employment is declining. This is noticeable in important sectors such as manufacturing and transportation. The decline is more than cyclical, for it has persisted for nearly ten years.

* Nebraska's progress in increasing manufacturing jobs in the 1970s (perhaps the 1960s) may have reflected progress occurring in the Plains as opposed to factors indigenous to Nebraska.

D.O.L.

[1]The data used in this study are from the Bureau of Labor Statistics' survey of establishments. Agricultural employment estimates are not available from this survey. For additional explanation of these data, see Employment and Earnings, U.S. Department of Labor, Washington, D.C. (any issue).

[2]The "Plains" include Iowa, Kansas, Minnesota, Missouri, North Dakota, South Dakota, and Nebraska.

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