

## NEBRASKA ECONOMIC PROJECTIONS

In cooperation with the State Office of Planning and Programming the Bureau of Business Research has recently completed a set of economic projections for Nebraska and its counties. Projections were made for 1975 and every fifth year thereafter through the year 2000. The projections include labor force by sex and age, employment by industry and occupation, earnings by industry, and per capita and total personal income. A detailed presentation of the projections is available in a separate report.<sup>1</sup>

Some of the more important features of the projections for the state are presented in this article, along with some comparisons of these projections with the "OBERS" projections made jointly by the U.S. Departments of Commerce and Agriculture.<sup>2</sup> Those interested in the projections for the counties and regions of the state will find them in the complete report.

### LABOR FORCE PROJECTIONS

Projections of labor force by sex and civilian employment by major industrial and occupational categories for the state are presented in Table 1 (page 2) for the years 1980 and 1990. The labor-force projections were based on earlier population projections, which assumed that there would be no further net migration into or out of the state and that birth rates would remain at approximately the long-run replacement rate (an average of 2.1 children per adult female).<sup>3</sup> Labor-force participation rates by sex and age were assumed generally to follow changes projected at the national level by the U.S. Bureau of Labor Statistics.<sup>4</sup>

The projections in Table 1 for 1980 and 1990 suggest some rather sharp changes in the composition of labor-force growth for the 1970s and 1980s as compared with the growth which occurred in the 1960s. Total labor force is projected to grow during the 1970s at a rate a little less than twice the rate of the 1960s (18.2 versus 10.6 percent) and then to fall during the 1980s to a growth rate a little below that of the sixties (8.8 percent). The projected changes in total labor-force growth, however, represent a much

less sharp contrast with the recent past than do the projected changes by sex. These show a significant slowing of the rate of growth of the female labor force during the 1970s (increasing 22.2 percent in the 1970s compared with 33.7 percent in the 1960s), while the rate of growth of the male labor force is projected to increase substantially (from .5 percent in the 1960s to 15.9 percent in the 1970s).

The anticipated increase in the rate of male labor-force growth during the 1970s can be attributed largely to three forces. First, the baby boom of the 1950s and early 1960s has resulted in a large number of potential labor-force entrants during the 1970s. Second, the projected elimination of net out-migration from Nebraska implies a greater retention rate of potential labor-force entrants than characterized the 1960s. Finally, factors such as increasing rates of college attendance and earlier retirements resulted in significant declines in labor-force participation rates for males in the 1960s, and such declines are anticipated to be smaller in the 1970s.

The projected slowing in the rate of growth of the female labor force in the 1970s is more speculative. The female labor force grew rapidly in the 1960s because of very sharp increases in labor-force participation rates among nearly all female age groups. National projections anticipate rather sharp reductions in the rate of increase of female participation rates during the 1970s, and projected national changes were the principal guide used in projecting changes in Nebraska participation rates.

The Bureau of Labor Statistics projections of national participation rates generally assumed that a variety of circumstances associated with rapidly increasing female participation in the 1960s would not be repeated in the 1970s. One factor not anticipated to continue was the Vietnam War. The war had the simultaneous effects of substantially increasing the demand for civilian labor and restricting the supply of civilian male labor, and therefore resulted in strong demand for female labor. With the phasing down and end of the war the supply of male labor increased (because of military-force reductions and a simultaneous reduction in the rate of full-time college attendance) and the overall growth of demand for labor slowed. In addition, the demand for labor in the female-dominated occupation of elementary school teaching has dropped dramatically since the 1960s.

To the extent that job prospects are an important factor influencing female labor-force participation, conditions in the 1970s are not likely to be as favorable for increasing female participation as were conditions in the 1960s. Other factors which might influence female labor-force participation, however, are more difficult to judge. The Bureau of Labor Statistics projections, for example, did not assume that declining (Continued on page 2)

<sup>1</sup>The report, *Nebraska Economic Projections*, is yet to be released, but will be available soon from the Bureau of Business Research.

<sup>2</sup>The comparison is made with projections appearing in "State Projections of Income, Employment, and Population to 1990," *Survey of Current Business* 54, No. 4 (April, 1974), pp. 19-45.

<sup>3</sup>The population projections appear in a report entitled *Nebraska Population Projections*, which can be obtained without charge from the Bureau of Business Research. A summary of the projections appeared in the October, 1973, issue of *Business in Nebraska*.

<sup>4</sup>The 1970 data and the 1980 and 1990 projections in Table 1 are based on 1970 Census of Population concepts. The changes shown for the 1960-1970 decade were based on the 1960 Census concept of labor force. Starting with the 1970 Census the minimum age for inclusion in the labor force was raised from 14 to 16.



**Table 1  
LABOR FORCE AND EMPLOYMENT**

	Number of Persons			Percentage Change		
	1970	1980	1990	1960-70*	1970-80	1980-90
Total Labor Force	606,676	717,176	780,634	10.6	18.2	8.8
Male	384,687	445,868	486,208	0.5	15.9	9.0
Female	221,989	271,308	294,426	33.7	22.2	8.5
Total Civilian Employment	578,436	686,136	747,881	11.4	18.6	9.0
<i>Industrial Classification</i>						
Agriculture	79,392	80,000	80,000	-30.4	0.8	0.0
Mining	2,190	2,000	2,000	13.0	-8.7	0.0
Construction	34,210	43,227	47,117	2.7	26.4	9.0
Manufacturing	79,453	94,390	102,083	19.5	18.8	8.2
Transport, Communications, Utilities	44,568	49,402	52,352	-3.4	10.8	6.0
Wholesale and Retail Trade	129,349	153,694	167,525	22.4	18.8	9.0
Finance, Insurance, Real Estate	29,964	37,051	41,133	30.6	23.7	11.0
Professional Services	108,619	142,664	165,925	54.6	31.3	16.3
Other Services	45,418	52,832	56,091	-0.4	16.3	6.2
Public Administration	25,273	30,876	33,665	7.1	22.2	9.0
<i>Occupational Classification</i>						
Farmers and Farm Workers	75,412	73,840	73,440	-32.4	-2.1	-0.6
Nonfarm Managers and Administrators	52,411	60,936	66,647	2.7	16.3	9.4
Professional, Technical	74,421	96,525	108,335	42.7	29.7	12.2
Clerical	90,395	113,898	126,043	31.3	26.0	10.7
Sales	39,625	49,014	53,808	8.6	23.7	9.8
Craftsmen, Foremen	66,077	80,202	87,505	8.1	21.4	9.1
Operatives	73,805	86,033	93,648	20.7	16.6	8.9
Laborers, except Farm	24,234	25,880	27,259	3.2	6.8	5.3
Service Workers	82,056	99,808	111,196	30.4	21.6	11.4

\*The 1960-70 percentages are based on the 1960 Census concept of labor force and employment and were calculated from Tables 46 and 47 of the Census report cited below.

Source: The 1970 data are taken from *1970 Census of Population, General Social and Economic Characteristics*, Final Report PC(1)-C29 (Nebraska), Tables 54 and 55. The numbers have been adjusted slightly to reflect corrections in the population count made by the Bureau of the Census subsequent to appearance of the final report. Projections and percentage calculations were made by the Bureau of Business Research.

(Continued from page 1) birth rates would contribute to increasing female labor-force participation in the 1970s to the same extent that was apparent in the 1960s. Birth rates, however, have continued dropping in the 1970s and forces related to "women's liberation" may also be creating increased interest in working on the part of females. Since female participation rates are still substantially lower than male rates, a continuation of rapid increases in female rates is a possibility. If rapid increases in female participation rates do continue, the female labor-force projections in Table 1 are likely to be on the low side.

#### EMPLOYMENT PROJECTIONS

As would be expected, the projections of total civilian employment in Table 1 closely follow the projections for total labor force. The breakdown of the total employment projections by industrial and occupational categories was made largely on the basis of past trends indicated by Census data for Nebraska and on the basis of various alternative projections of such trends at the national level. The industrial categories used for the projections are Census categories and do not correspond exactly to those used by the Nebraska Department of Labor. In addition, Census employment data are compiled by place of residence of the workers and differ somewhat in concept from much of the Department of Labor employment data, which are collected directly from business establishments.

Generally those industries which were growing rapidly in the 1960s have been projected to continue growing rapidly in the 1970s and 1980s. There are, however, some significant differences between the projected growth pattern and the growth pattern of the 1960s. Perhaps the greatest contrast is in the agricultural sector. Employment in agriculture declined by 30.4 percent in the 1960s but is projected to remain essentially constant in the

1970s and 1980s. This anticipated stabilization of the agricultural sector is a major reason behind the projected increase in the total employment growth rate from the 1960s to the 1970s (from 11.4 to 18.6 percent). Numerous signs point to a cessation of agricultural decline, but the future of agriculture remains highly uncertain.

Manufacturing employment increased quite rapidly during the 1960s and is projected to grow slightly faster than total employment in the 1970s but to grow a little less rapidly than total employment in the 1980s. Rapid growth of certain kinds of manufacturing employment in the past appears to have been closely associated with a large supply of labor freed by declines in agriculture. Stabilization of agriculture, therefore, might contribute to a slowing of the growth of manufacturing in Nebraska.

The projections for construction show rapid growth in the 1970s and average growth in the 1980s following very slow growth in the 1960s. The slow growth of the 1960s and the fast growth of the 1970s, however, are attributable to abnormally low employment in construction in the 1970 base year.

The two nonagricultural sectors which declined in employment during the 1960s (other services and transportation, communications, and utilities) are projected to grow in the 1970s and 1980s, but at rates below the average for all industries.

The professional services category was far and away the fastest growing sector during the 1960s and is projected to remain so during the 1970s and 1980s. Because the growth of demand for educational services is expected to fall off, however, the projected growth rates of professional services employment for the 1970s and 1980s (31.3 and 16.3 percent) are considerably lower than the actual growth rates of the 1960s (54.6 percent). Employment in the remaining sectors (wholesale and retail trade; finance, insurance, and real estate; and public administration) is projected to

grow at rates at or slightly above the rate of growth of total employment for the 1970s and 1980s.

Since particular occupations often tend to be concentrated in particular industries, changes in employment by occupation were projected largely on the basis of the projected changes in employment by industry. Since the professional services industry is projected to be the fastest growing industry, therefore, it is not particularly surprising that the professional, technical, and kindred worker occupational group is projected to be the fastest growing occupational group. Generally those occupations growing faster than the average for total employment during the 1960s are projected to continue growing faster than the average, while slow-growing occupations are projected to continue to be slow-growing. The sales, craftsmen, and operative categories, however, represent exceptions to this pattern.

The growth of employment in the sales category was unusually slow in Nebraska during the 1960s and is projected to return to a growth pattern closer to that of the nation in the 1970s. Growth of the craftsmen category was slow in the 1960s because of the slow growth of construction. Faster growth of construction in the 1970s combined with improved technical training in Nebraska should contribute to a significant increase in the rate of growth of craftsmen employment. The rate of growth of employment in the operative category was very high in Nebraska in the 1960s because of the rapid growth of manufacturing employment in the state. A slowing of the manufacturing growth rate accompanied by a tendency for increasing proportions of manufacturing jobs to fall into craftsmen or white-collar occupations should contribute to a slowing of the rate of growth of employment in the operative category.

#### PERSONAL INCOME AND EARNINGS

Projections of personal income and earnings for 1980 and 1990 are presented in Table 2. The concepts of income and earnings are those used by the Bureau of Economic Analysis of the U.S. Department of Commerce. The earnings concept includes wage and salary disbursements, other labor income, and proprietorship income. The personal income concept includes all earnings except those which go into personal contributions for social insurance programs and in addition includes property income and transfer payments (for example, social security benefits). The earnings data presented in the table exclude military earnings, and both

the earnings and personal income data are expressed in terms of constant (1967) dollars. The Consumer Price Index was used as a price deflator.

Earnings per employee have been projected to grow somewhat less rapidly in the 1970s and 1980s than was true for the 1960s. The reason for the projected slowing of earnings growth is the strong possibility of slower growth of labor productivity. A variety of factors such as increasing scarcity of agricultural, energy, and other raw material resources could result in slower productivity growth, but the extent of any slowdown is highly uncertain, and most income projections at the national level have continued largely to project past trends of productivity growth into the future. The rate of productivity growth assumed in the projections in Table 2 is about three-fourths of the rates most commonly used in national projections.

In spite of the projected slowing of productivity growth, both total earnings and total personal income are projected to increase more in the 1970s (46.1 and 46.2 percent) than they increased in the 1960s (38.5 and 44.5 percent). The faster growth in the 1970s can be attributed to the projected acceleration of employment growth in the 1970s. Per capita income is projected to increase slightly less in the 1970s (36.3 percent) than it increased in the 1960s (37.4 percent). Were it not for a projected decline in the dependent population relative to the working-age population in the 1970s, however, the discrepancy between the growth of the 1960s and the projected growth for the 1970s would have been greater. The growth rates of total earnings, total personal income, and per capita personal income are all projected to fall considerably in the 1980s.

The allocation of projected total earnings by industry was based to a large extent on projected employment by industry. Generally earnings per employee were projected to rise somewhat faster in industries where wage rates are low than in industries where wage rates are high. Since the projected tendency for earnings per employee in different industries to converge toward the average was small, however, the principal factors contributing to different growth rates of earnings by industry are differences in the projected rates of growth of employment by industry.

#### A COMPARISON WITH THE *OBERS* PROJECTIONS

The Bureau of Economic Analysis of the U.S. Department of Commerce and the Economic Research (Continued on page 6)

Table 2  
PERSONAL INCOME AND EARNINGS

	1967 Dollars				Percentage Change		
	1960	1970	1980	1990	1960-70	1970-80	1980-90
Total Personal Income (in millions)	3,365	4,861	7,105	9,370	44.5	46.2	31.9
Per Capita Personal Income	2,374	3,273	4,460	5,495	37.9	36.3	23.2
Total Personal Earnings (in millions)	2,584	3,578	5,229	6,896	38.5	46.1	31.9
Farm	480	531	716	896	10.6	34.8	25.1
Mining	18	12	14	17	-33.3	16.7	21.4
Construction	184	228	345	455	23.9	51.3	31.9
Manufacturing	389	581	831	1,075	49.4	43.0	29.4
Wholesale and Retail Trade	500	660	967	1,275	32.0	46.5	31.9
Finance, Insurance, Real Estate	140	196	287	379	40.0	46.4	32.1
Transport, Communications, Utilities	238	298	397	503	25.2	33.2	26.7
All Other	635	1,072	1,672	2,296	68.8	56.0	37.3

Source: The 1960 and 1970 data were taken from special printouts provided by the Bureau of Economic Analysis, U.S. Department of Commerce. Data for recent years are published in August issues of the *Survey of Current Business*. The Consumer Price Index was used to convert the 1960 and 1970 data to 1967 dollars. Projections and percentage calculations were made by the Bureau of Business Research.



## Review and Outlook

In the ratios to the same month last year the business situation in Nebraska continues to compare favorably with that in the United States. April figures, shown below in Table 1, indicate that this is true with respect to both the dollar volume and physical volume of business. As compared with the 1967 average (Table 2), Nebraska is again well above the nation. April is below March for both areas, however, and this was the third month to show a decline, as illustrated in the chart at the bottom of the page. We keep hearing that the bottom of the minor recession has been reached, or that there has not been and will not be a recession, but the figures do not provide reassurance in this regard.

There is an interesting contrast in the figures for agriculture.

Nebraska in April was better than the United States in the physical volume of agricultural products sold, as compared with 1973, but did not rise as much as the nation in dollar volume. The explanation is in Table 5, on page 5. The price index for agriculture rose more than 16 percent in the nation from April, 1973, but only 3.2 percent in the state. Here this index is more heavily weighted by livestock prices, which are low. Thus the state is selling more agricultural products, but not getting as much for them as the nation as a whole.

In the other industrial groups, the situation continues much as it has been in recent months. Nebraska does better than the United States in manufacturing and distribution, but not as well in construction or government. (Continued on page 5)

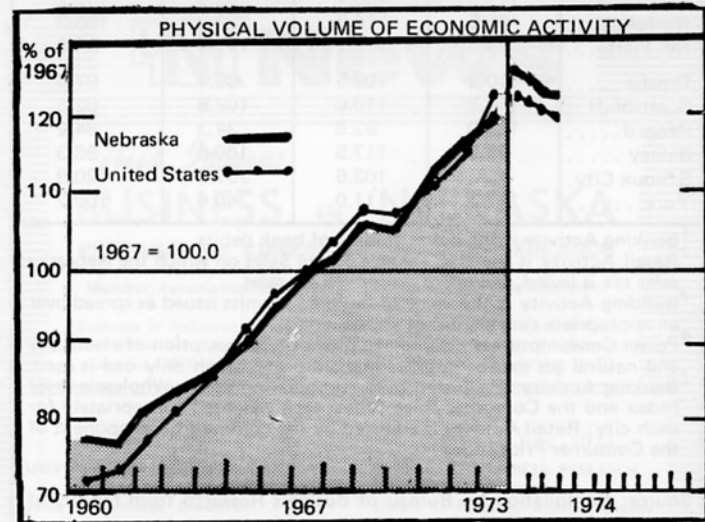
Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume 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				
April, 1974	Current Month as Percent of Same Month Previous Year		1974 Year to Date as Percent of 1973 Year to Date	
	Nebraska	U.S.	Nebraska	U.S.
<b>Indicator</b>				
Dollar Volume	113.7	111.4	116.3	111.4
Agricultural	112.2	116.2	129.9	127.3
Nonagricultural	113.9	111.2	113.6	110.8
Construction	101.1	101.7	95.7	99.1
Manufacturing	128.2	119.5	125.8	119.7
Distributive	112.7	108.8	113.7	108.3
Government	105.7	107.9	105.4	108.0
Physical Volume	103.6	99.9	103.8	99.6
Agricultural	105.1	99.8	110.0	99.2
Nonagricultural	102.8	99.9	102.8	99.7
Construction	91.9	92.4	86.2	89.3
Manufacturing	108.5	101.5	106.3	101.9
Distributive	102.3	98.8	103.4	98.5
Government	101.4	103.5	101.6	103.3

2. CHANGE FROM 1967		
Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	187.2	179.7
Agricultural	178.1	189.4
Nonagricultural	189.1	179.3
Construction	193.0	174.0
Manufacturing	207.0	176.2
Distributive	183.3	180.1
Government	186.9	183.3
Physical Volume	123.6	121.8
Agricultural	105.0	102.4
Nonagricultural	127.3	122.5
Construction	117.7	106.1
Manufacturing	135.0	118.1
Distributive	127.3	125.1
Government	119.9	126.7

3. NET TAXABLE RETAIL SALES <sup>1</sup> OF NEBRASKA REGIONS (Unadjusted for Price Changes)		
Region <sup>2</sup> and Principal Retail Trade Center	April, 1974 as percent of April, 1973	1974 Year to Date as percent of 1973 Year to Date
<i>The State</i>	118.9	117.2
1 (Omaha)	112.9	111.6
2 (Lincoln)	122.8	115.3
3 (So. Sioux City)	113.0	111.8
4 (Nebraska City)	114.2	120.0
5 (Fremont)	121.3	119.4
6 (West Point)	116.6	118.9
7 (Falls City)	110.6	116.7
8 (Seward)	113.6	121.1
9 (York)	134.8	129.1
10 (Columbus)	121.1	120.9
11 (Norfolk)	121.4	120.1
12 (Grand Island)	125.3	120.5
13 (Hastings)	114.9	121.8
14 (Beatrice)	122.1	121.2
15 (Kearney)	120.4	121.0
16 (Lexington)	127.1	124.3
17 (Holdrege)	122.3	122.8
18 (North Platte)	124.2	118.2
19 (Ogallala)	130.7	132.8
20 (McCook)	131.9	132.5
21 (Sidney, Kimball)	133.2	130.3
22 (Scottsbluff)	124.3	122.1
23 (Alliance, Chadron)	130.5	122.3
24 (O'Neill)	123.3	120.4
25 (Hartington)	114.3	116.1
26 (Broken Bow)	117.8	116.7

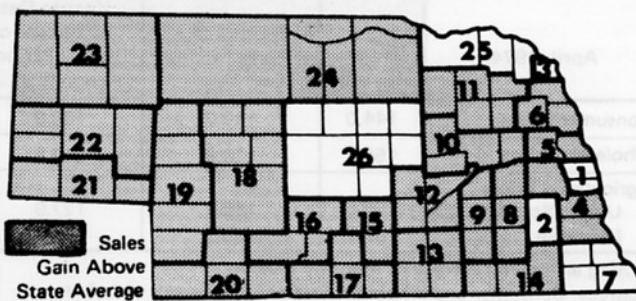


<sup>1</sup>Sales on which sales taxes are collected by retailers located in the state, including motor vehicle sales.

<sup>2</sup>"Planning and development" regions as established by the Nebraska Office of Planning and Programming and shown in the map below.

Source: Compilations by Bureau of Business Research from data provided by the Nebraska Tax Commissioner.

1974 YEAR TO DATE AS PERCENT OF 1973 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(Continued from page 4) In Nebraska, however, construction is farther ahead of 1967 than it is in the nation.

The dollar volume of retail sales, shown in Table 3, is well above 1973 and continues to improve from month to month. The western and southwestern parts of Nebraska, comprising the Panhandle plus the regions of McCook, Ogallala, Holdrege, Lexington, and York, show the biggest improvement: more than 22 percent for the year to date over last year. As has become usual, the Omaha, Lincoln, and South Sioux City regions lag behind the state average for the four-month period, but in April the Lincoln area showed a strong surge upward.

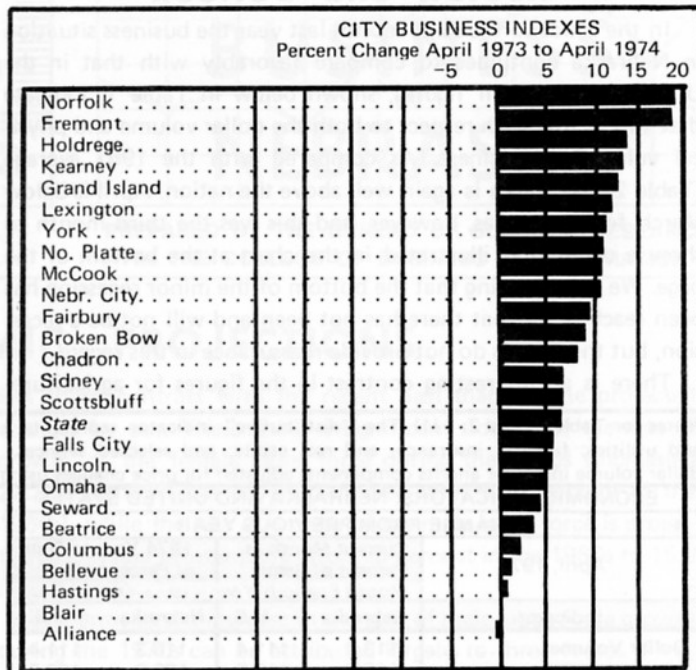
The Grand Island region made a strong showing in April, following the opening of two new shopping malls there in March. In the ratio of sales to the previous month (March) the Grand Island area jumped 8 percent, while the presumably competitive regions around Hastings, Columbus, Kearney, and Lexington all fell, with the biggest drop in the Hastings region. (These monthly comparisons are not shown in the table.) These may be chance variations, but it will be an interesting situation to watch.

Table 4 indicates that retail activity in the cities and the state is increasing even faster than the commodity price index, so that the adjusted sales jumped 8 percent over April, 1973. Only four of the cities sold less than last year in physical volume. Banking activity, adjusted for the increase in the price level, increased 8 percent in the state and dropped in only two cities. South Sioux City figures on bank debits since January have been based on erroneous reporting of the data for last year and are omitted here until they can be shown on a revised scale. In power consumption, the use of gas is down from last year in every city except two, but the use of electricity is up for all but six of the cities.

The city business indexes, which are an average of the year-to-year movement of price-adjusted banking activity (weighted .4), price-adjusted retail sales (weighted .4), and power consumption (weighted .2), show Norfolk to be the leader. This city has been among the top four in each of the four months in which we have shown this new index. Fremont, the second high this month, has been among the top six each month this year.

The picture on inflation gets no better with the passing months. The danger grows of a real galloping inflation of the type familiar in Latin America and in the Europe of the 1940s and 1950s. Moreover, the threat to the American standard of living grows with it. In March the average weekly earnings of all private nonagricultural workers in the United States dropped more than 4 percent in purchasing power compared with March, 1973. For manufacturing workers it dropped 5 percent. There is trouble ahead if this continues.

E. Z. P.



Source: Table 4 below.

The State and Its Trading Centers	Percent of Same Month a Year Ago			
	Banking Activity <sup>1</sup>	Retail Activity <sup>2</sup>	Building Activity <sup>3</sup>	Power Consumption <sup>4</sup>
	(Adjusted for Price Change) <sup>5</sup>			
The State	109.0	108.0	77.5	97.3
Alliance	80.9	114.6	52.9	106.8
Beatrice	107.3	107.4	158.3	87.5
Bellevue	102.9	100.9	107.1	95.8
Blair	109.7	93.3	136.6	94.0
Broken Bow	119.3	107.8	43.5	90.7
Chadron	111.7	108.3	174.7	99.9
Columbus	107.9	103.8	131.6	87.0
Fairbury	122.2	98.0	53.3	106.2
Falls City	117.4	99.5	216.0	93.3
Fremont	121.3	113.4	119.6	122.4
Grand Island	115.2	114.8	45.0	101.3
Hastings	108.0	100.9	101.2	84.5
Holdrege	132.3	110.3	172.2	81.3
Kearney	118.7	116.4	121.5	94.5
Lexington	117.3	115.3	531.7	94.9
Lincoln	103.0	112.5	35.9	95.3
McCook	119.0	116.7	65.6	91.8
Nebr. City	115.8	108.4	302.5	103.1
Norfolk	105.6	114.3	229.0	155.3
No. Platte	119.3	113.2	117.1	89.6
Omaha	110.3	103.5	69.1	97.6
Scottsbluff	114.2	110.0	108.8	83.5
Seward	122.0	92.5	34.3	94.2
Sidney	99.6	117.5	169.6	98.3
S.Sioux City	N.A.	103.6	237.0	120.9
York	117.3	111.0	40.6	100.2

<sup>1</sup>Banking Activity is the dollar volume of bank debits.  
<sup>2</sup>Retail Activity is the Net Taxable Retail Sales on which the Nebraska sales tax is levied, excluding motor vehicle sales.  
<sup>3</sup>Building Activity is the value of building permits issued as spread over an appropriate time period of construction.  
<sup>4</sup>Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked \* for which only one is used.  
<sup>5</sup>Banking Activity is adjusted by a combination of the Wholesale Price Index and the Consumer Price Index, each weighted appropriately for each city; Retail Activity is adjusted by the commodity component of the Consumer Price Index.

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

April, 1974	Index* (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	144.0	110.2	109.9
Wholesale Prices	155.3	118.8	119.8
Agricultural Prices			
United States	185.0	116.4	127.9
Nebraska	169.7	103.2	117.6

\*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) Service of the U.S. Department of Agriculture have recently completed a set of state and regional projections (called the OBERS projections: see footnote 2) of population, employment, personal income, and earnings. The concepts and methods used in making the OBERS projections differ somewhat from those used in making the projections which appear here, so a direct comparison of the projections is not always meaningful. Nevertheless, some of the differences between the two sets of projections tend to reveal the sensitivity of projections to certain key assumptions and to indicate the more controversial aspects of both sets of projections.

Both sets of projections are based on population projections which assume long-run replacement birth rates. In contrast to the no-net-migration assumption underlying the projections presented here, however, the OBERS projections base net migration on pre-1970 employment trends which suggest continued, but slowing, net out-migration for Nebraska. The OBERS projections, therefore, yield lower population and employment projections than those used here. The OBERS projections for Nebraska show only a .9 percent increase in population and a 10.1 percent increase in employment during the 1970s. The projections used for this article show a 7.3 percent increase in population and an 18.6 percent increase in employment. For the 1980s the OBERS projections show a 3.9 percent increase in population and a 4.7 percent increase in employment, while the projections used here show 7 and 9 percent increases respectively.

Population estimates for years following the 1970 Census suggest net in-migration into Nebraska. Therefore, at the moment, an assumption of no further net migration would appear to be better than an assumption of continued net out-migration. The history of net out-migration for Nebraska prior to 1970 was long and persistent, however, and many uncertainties surround the experience since 1970; it would be premature, therefore, to disregard the possibility of renewed net out-migration from the state. It is worth noting that even though the most recent Census Bureau estimates of state populations (for July, 1973) place the Nebraska

population at more than 40,000 above the 1980 OBERS projection and only about 15,000 below the 1990 OBERS projection, the rate of natural increase of the state's population is likely to be sufficiently low that a return to net out-migration for the state could quickly bring the OBERS population and employment projections back into the realm of probability.

The assumptions underlying the OBERS income and earnings projections also differ significantly from the assumptions used for the projections presented here. The principal difference is an assumption of approximately a 25 percent higher rate of productivity growth underlying the OBERS projections. Per capita personal income, therefore, shows a more rapid rate of increase in the OBERS projections (reaching \$6,069 by 1990) than in the projections shown in Table 2 (which reach \$5,495 by 1990). In the case of total personal income and total earnings, however, the faster productivity growth of the OBERS projections tends to be offset by slower growth of population and employment. The OBERS projections show slower growth of total income and earnings for the 1970s, but faster growth of these categories for the 1980s than do the projections presented in this article.

The published OBERS projections do not provide industrial detail for employment but do provide this detail for earnings. The industrial classification scheme used in the OBERS projections, however, does not exactly match the scheme of Table 2, and data for 1970 are not presented along with the OBERS projections, so it is difficult to make direct comparisons of the two sets of earnings projections. The industrial growth patterns indicated by the two sets of projections are generally similar, but the projections presented here are significantly more optimistic about the relative growth of farm earnings than the OBERS projections.

The agricultural sector may well hold the key to both sets of projections. If agriculture has ended its long-term declining trend, the projections in this article are likely to be better than the OBERS projections. If, however, agriculture resumes its downward course, the OBERS projections may well turn out to be superior.

VERNON RENSHAW

## UNL News

*This Issue:*

### **BUSINESS IN NEBRASKA**

**PREPARED BY BUREAU OF BUSINESS RESEARCH**

**Member, Association for University Business & Economic Research**

Business in Nebraska is issued monthly as a public service and mailed free within the State upon request to 200 CBA, University of Nebraska - Lincoln 68508. Material herein may be reproduced with proper credit.

No. 358

July, 1974

UNIVERSITY OF NEBRASKA-LINCOLN

BUREAU OF BUSINESS RESEARCH

James H. Zumberge, *Chancellor*

E. S. Wallace, *Director*

Edward L. Hauswald, *Associate Director*

Vernon Renshaw, *Statistician*

Ronald L. Smith, *Dean*

Duane Hackmann, *Research Associate*

College of Business Administration

Mrs. Marilyn Mertens, *Research Analyst*

## The University of Nebraska - Lincoln

209 Nebraska Hall  
901 North 17th St.  
Lincoln, NE 68508

Second Class Postage  
Paid Lincoln, Nebr.