



Prepared by the Bureau of Business Research  
College of Business Administration

## PERSONAL INCOME 1969-1983: NEBRASKA AND THE UNITED STATES

Nebraska's personal income is extremely volatile, compared with the United States'. As Chart 1 and Table 1 clearly demonstrate, Nebraska's personal income rises more rapidly during good periods and declines faster during periods of contracting economic activity than United States' personal income.

This issue of *Business in Nebraska* reviews, analyzes, and compares Nebraska's personal income with that for the United States. Data are available from 1969 through the first quarter of 1983. This analysis focuses upon personal income, whose major components include wages and salaries; dividends, interest, and rents; and transfer payments. A review of the concepts involved is helpful before presenting the analysis.

### DEFINITIONS

The personal income (PI) of an area is defined by the Bureau of Economic Analysis, U. S. Department of Commerce, as income received by, or on behalf of, the residents of an area. It is comprised of income received from all sources, including active participation in production; from transfer payments from the public sector and private sources; and public interest payments which are treated as transfer payments. PI includes the incomes of individuals; nonprofit institutions; private, noninsured welfare funds; and private trust funds. Proprietors' income is treated as income received by individuals and is also part of PI.

### HISTORICAL OVERVIEW 1969-1983

For perspective, a brief review of changes in Nebraska's and the United States' personal income is provided before cyclical variations are examined. Nebraska's personal income increased from \$5.0 billion in 1969 to \$17.1 billion in the first quarter of 1983, an increase of 242.0 percent (Table 1). Compared with the nation, Nebraska's gain over this interval was below the 265.0 percent recorded for the United States. Nationally, personal income increased from \$723 billion to \$2,640 billion over this interval (Table 1). Adjusted for inflation, Nebraska's real PI increased 26.0 percent and the United States' 37.0 percent over the interval 1969-1983, a significant imbalance. Unless specifically stated, personal income data in this study are unadjusted for price changes.

With few exceptions, Nebraska's personal income increased quarter-after-quarter, interrupted only by the recession of 1973-1975; weak grain prices in 1976; and the 1980-1982 recession. A

pause in Nebraska's personal income growth was recorded in 1976 when growth slowed to 3.4 percent in the second quarter, declined slightly in the third quarter, and increased again during the fourth quarter of 1976. Nationally, there was a slowdown in personal income growth in 1976, but it was relatively insignificant.

### CYCLICAL VARIATION

An examination of the data in Table 1 and Chart 1 reveals that Nebraska's personal income is subject to far more variation than that for the United States. To reiterate a point noted above, when prosperity develops, Nebraska's personal income expands more rapidly than the nation's; however, when the less desirable times occur, Nebraska's income drops more rapidly than the nation's.

The behavior of Nebraska's personal income during the contraction associated with the 1973-1975 recession and the subsequent recovery illustrates personal income's ability to expand and contract rapidly. The rate of increase in Nebraska's personal income peaked in the third quarter of 1973 at 21.4 percent (annualized rate not adjusted for inflation). Note that all annualized rates were calculated by comparing a particular quarter with the year previous quarter. That is, the third quarter of 1973 is compared with the third quarter of 1972, and the fourth quarter of 1973 is compared with the fourth quarter of 1972, and so on. Percentage change figures in Table 1 are annual changes calculated for each quarter.

The trough of the recession, as measured by the rate of change in personal income, occurred during the fourth quarter of 1974, when PI declined 1 percent. The effects of the 1973-1975 recession are illustrated by the quarterly changes in Nebraska's PI. PI expanded 18.1 percent in the first quarter of 1973; 18.4 percent 1973:2 (note that 1973:2 indicates the year, followed by the quarter); 21.4 percent 1973:3; and 19.7 percent 1973:4. The rate of increase dropped to 6.4 percent in the first quarter of 1974; 2.9 percent 1974:2; 0.8 percent in 1974:3; and declined -1.1 percent in 1974:4. Recovery was swift in 1975, with PI increasing 7.9 percent 1975:1; 13.6 percent 1975:2; 15.6 percent 1975:3; and 12.7 percent 1975:4.

Interestingly enough, PI growth peaked both in Nebraska and in the nation during the third quarter of 1973. Nationally, personal income was expanding 12.7 percent at the top of the cycle, compared to 21.4 percent for Nebraska. The trough of the national recession, as measured by personal income expansion, oc-

(Continued on page 3)

Table 1

## NEBRASKA AND UNITED STATES QUARTERLY PERSONAL INCOME: 1969-1983

NEBRASKA			UNITED STATES		
Year	Personal Income (billions of \$)	Percentage Change from Previous Year	Year	Personal Income (billions of \$)	Percentage Change from Previous Year
1969	5.0	---	1969	723	---
	5.2	---		740	---
	5.3	---		757	---
	5.4	---		770	---
1970	5.5	8.8	1970	781	8.0
	5.6	7.4 -		803	8.5
	5.6	5.2 -		812	7.3
	5.7	3.9 -		820	6.5
1971	5.8	5.8 +	1971	838	7.3
	5.9	6.4 +		857	6.8
	6.0	7.1 +		868	6.9
	6.2	9.1 +		884	7.8
1972	6.5	12.4 +	1972	913	9.0
	6.7	13.0 +		928	8.2
	6.8	13.4 +		951	9.5
	7.1	15.5 +		988	11.8
1973	7.7	18.1 +	1973	1018	11.5
	7.9	18.4 +		1044	12.5
	8.3	21.4 +		1072	12.7
	8.5	19.7 -		1102	11.5
1974	8.2	6.4 -	1974	1118	9.9
	8.1	2.9 -		1149	10.1
	8.3	0.8 -		1181	10.2
	8.4	-1.1 -		1200	8.9
1975	8.8	7.9 +	1975	1208	8.0
	9.3	13.6 +		1241	8.0
	9.6	15.6 +		1277	8.2
	9.5	12.7 -		1308	9.0
1976	9.5	7.9 -	1976	1342	11.1
	9.6	3.4 -		1368	10.2
	9.6	-0.6 -		1398	9.5
	9.8	2.8 +		1432	9.5
1977	10.1	6.3 +	1977	1471	9.6
	10.2	6.8 +		1509	10.3
	10.5	10.1 +		1555	11.2
	11.0	12.8 +		1603	11.9
1978	11.1	9.6 -	1978	1639	11.4
	11.7	14.3 +		1697	12.4
	11.9	12.7 -		1756	12.9
	12.7	15.3 +		1815	13.2
1979	12.8	15.4 +	1979	1865	13.8
	13.6	16.0 +		1909	12.5
	13.7	15.6 -		1974	12.4
	13.9	9.1 -		2027	11.7
1980	13.7	6.9 -	1980	2080	11.5
	13.7	1.4 -		2103	10.2
	14.2	3.4 +		2179	10.4
	14.6	5.2 +		2252	11.1
1981	15.8	15.2 +	1981	2322	11.6
	16.1	17.2 +		2372	12.8
	16.7	17.4 +		2449	12.4
	16.8	14.9 -		2484	10.3
1982	16.3	3.0 -	1982	2500	7.7
	16.5	2.5 -		2542	7.2
	16.7	0.3 -		2582	5.4
	17.0	1.3 +		2616	5.3
1983	17.1	5.1 +	1983	2640	5.6

(Continued from page 1)

occurred sometime between the fourth quarter of 1974 and the second quarter of 1975 (Table 1). The fourth quarter of 1974 marked the bottom of PI growth in Nebraska.

A similar relationship between Nebraska and the United States, relative to changes in personal income, is exhibited in the 1980-1982 recession. That is, Nebraska's changes--either up or down--were more violent than the nation's. Rather erratic movements in Nebraska's personal income rate of change were evident in 1980, as quarterly rates would increase--then decrease. The rate of increase in Nebraska's 1980 personal income was below the nation's by several percentage points for each quarter. Nebraska personal income began to expand rapidly during 1981's first quarter, when it increased 15.2 percent--well above that recorded for the nation. Personal income growth in Nebraska peaked in the third quarter of 1981 at 17.4 percent, compared with 12.4 percent na-

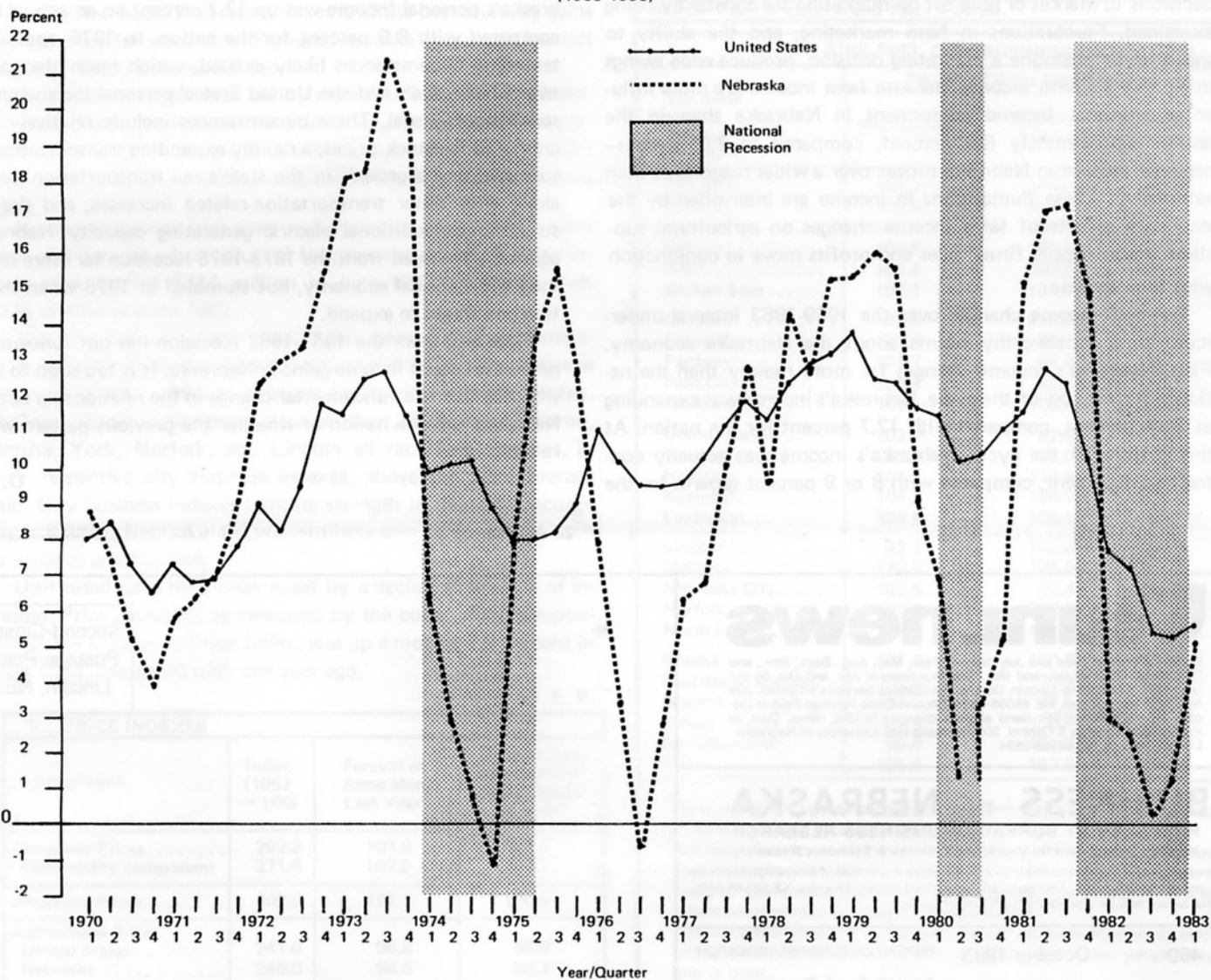
tionally. The peak in the nation's income growth had occurred one quarter earlier, at 12.8 percent.

The collapse of personal income growth was especially harsh during the 1981-1982 recession. Nebraska's PI was expanding at an annual rate of 17+ percent during 1981's second and third quarters. Growth slowed to 14.9 percent during 1981's fourth quarter and dropped severely to 3.0 percent during 1982's first quarter. Eventually, the rate of increase declined to 0.3 percent in 1982 before beginning a gradual recovery (Table 1). This unusual drop in personal income growth had a marked impact upon state tax collections.

Once again, Nebraska and the nation were nearly coincident, in terms of income growth, as the cycle reversed from contraction to expansion. Nationally, the first increase in the personal income growth rate, following several quarters of decline, occurred during 1983's first quarter when personal income climbed 5.6 percent.

(Continued on page 6)

Chart 1  
ANNUAL RATE OF INCREASE (DECREASE):  
NEBRASKA AND UNITED STATES PERSONAL INCOME  
(1969-1983)





## Review and Outlook

Output from Nebraska's economy improved slightly in June, according to the Bureau of Business Research's net physical volume index. The gain, however, was uneven, as some sectors scored substantial gains, whereas others recorded modest declines. Overall, the Nebraska economy recorded a 2.4 percent rise on a month-to-month basis.

The agricultural sector recorded a substantial gain of 22.1 percent May-June 1983. Nebraska cash farm marketings, on a seasonally-adjusted basis, were \$599 million--up 31.8 percent from the previous month but down slightly when compared with June 1982. Prices received by Nebraska farmers and ranchers in June 1983 did not compare as well as with the previous month. On a

month-to-month basis, prices received were down 4.4 percent in Nebraska, whereas, on an annual basis, prices were down 5.5 percent. Nationally, agricultural prices received were slightly more favorable for producers, with the year-to-year change being a decline of 3.2 percent--slightly better than the 5.5 percent decline received by the Nebraska farmers.

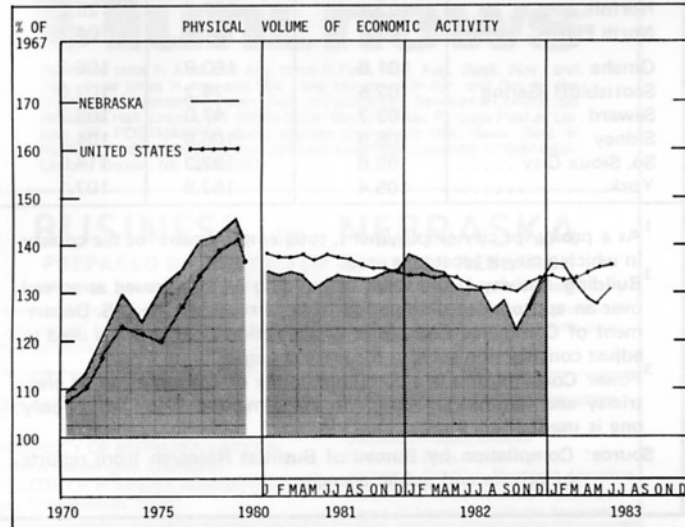
The increase in the agricultural component of the state's economy overshadowed the nonagricultural sector, which recorded a slight decline of 0.3 percent. The Nebraska economy's construction and distributive trade sectors recorded slight gains, whereas manufacturing and the government sectors posted declines in output.

The construction component of (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				
JUNE 1983	Current Month as Percent of Same Month Previous Year		1983 Year to Date as Percent of 1982 Year to Date	
	Nebraska	U.S.	Nebraska	U.S.
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	102.2	105.9	101.5	104.2
Agricultural	87.9	105.4	95.5	99.8
Nonagricultural	104.5	105.9	102.5	104.3
Construction	134.0	111.3	106.1	109.0
Manufacturing	97.4	98.2	89.7	94.6
Distributive	104.3	108.5	104.8	107.4
Government	107.7	106.6	107.8	107.0
Physical Volume	99.6	102.6	98.1	100.6
Agricultural	93.1	108.9	96.8	101.0
Nonagricultural	100.7	102.4	98.4	100.5
Construction	130.4	108.3	104.3	107.3
Manufacturing	96.6	97.2	88.6	93.9
Distributive	101.2	105.4	101.3	103.7
Government	98.7	98.7	99.3	99.1
2. CHANGE FROM 1967				
Indicator	Percent of 1967 Average			
	Nebraska	U.S.		
Dollar Volume	364.8	384.6		
Agricultural	322.8	341.0		
Nonagricultural	371.0	386.0		
Construction	264.3	345.8		
Manufacturing	311.3	286.4		
Distributive	400.6	442.5		
Government	387.0	397.9		
Physical Volume	130.3	136.0		
Agricultural	134.5	141.5		
Nonagricultural	129.6	135.9		
Construction	78.4	102.6		
Manufacturing	128.7	115.7		
Distributive	133.8	147.9		
Government	139.5	145.4		

3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES			
Region Number <sup>1</sup> and City	City Sales <sup>2</sup>	Sales in Region <sup>2</sup>	
	June 1983 as percent of June 1982	June 1983 as percent of June 1982	Year-to-date 83 as percent of year-to-date 82
<i>The State</i>	106.9	109.0	102.5
1 Omaha	108.8	110.5	105.3
Bellevue	109.2		
Blair	98.0		
2 Lincoln	109.2	111.2	106.9
3 So. Sioux City	92.3	98.3	103.4
4 Nebraska City	108.0	110.4	105.2
6 Fremont	104.6	105.2	103.3
West Point	104.5		
7 Falls City	114.3	110.8	102.6
8 Seward	106.4	112.1	105.4
9 York	104.3	106.3	103.2
10 Columbus	108.3	109.0	105.7
11 Norfolk	103.3	108.3	105.6
Wayne	114.2		
12 Grand Island	101.9	107.0	105.3
13 Hastings	108.1	110.7	104.8
14 Beatrice	109.6	112.1	107.3
Fairbury	117.4		
15 Kearney	105.5	104.5	103.1
16 Lexington	109.2	109.5	101.6
17 Holdrege	98.3	99.4	100.1
18 North Platte	102.8	104.3	106.8
19 Ogallala	98.5	103.3	100.1
20 McCook	111.0	113.2	104.9
21 Sidney	101.9	111.1	94.7
Kimball	119.4		
22 Scottsbluff/Gering	105.6	109.7	99.7
23 Alliance	110.1	110.8	103.3
Chadron	106.4		
24 O'Neill	106.6	99.3	97.0
25 Hartington	108.4	105.5	103.7
26 Broken Bow	102.5	105.7	103.5

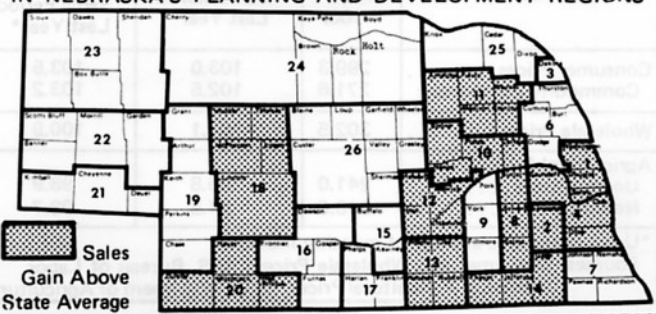


<sup>1</sup>See region map below.

<sup>2</sup>Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

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



(Continued from page 4) the Bureau of Business Research's net physical volume index increased 5.1 percent on a month-to-month basis. Despite this gain, activity in the construction sector remains well below previous years.

Output from Nebraska's distributive trade sector increased 0.2 percent on a month-to-month basis. Like the construction sector, activity remains below 1981 and 1982 levels. Although June was an up month for the distributive trade sector, 1983's second quarter was below 1983's first quarter.

Nebraska's manufacturing output recorded a decline of 1.7 percent on a month-to-month basis. The index is above its first quarter recession lows but remains well behind one- and two-year previous levels. The decline follows three consecutive monthly increases in manufacturing activity. For comparison, the manufacturing net physical product index was 128.7 (1967=100) in June 1983; 133.2 in June 1982; and 163.3 in June 1981.

The Nebraska economy's government sector recorded a slight decrease in June 1983, when compared with the previous month. The index stood at 139.5 (1967=100), compared with a reading of 141.3 in June 1982 and a reading of 145.0 in June 1981.

Nebraska's retail sales were strong in June. Total retail sales were up 9.0 percent on a dollar volume basis--6.4 percent on a price-adjusted basis. This represents one of the best monthly gains in retail sales for some time. Perhaps Nebraska's economy has left the 1981-1983 recession behind.

The retail sales gain was led by motor vehicles, for which dollar volume sales (unadjusted for price changes) increased 28.1 percent on a year-to-year basis. Motor vehicle sales in June 1983 amounted to \$101 million, compared with \$79 million in June 1982.

Nonmotor vehicle sales were up 6.9 percent on a dollar volume basis--4.3 percent when adjusted for price changes. Nonmotor vehicle sales totaled \$764 million in June 1983, compared with \$715 million in June 1982.

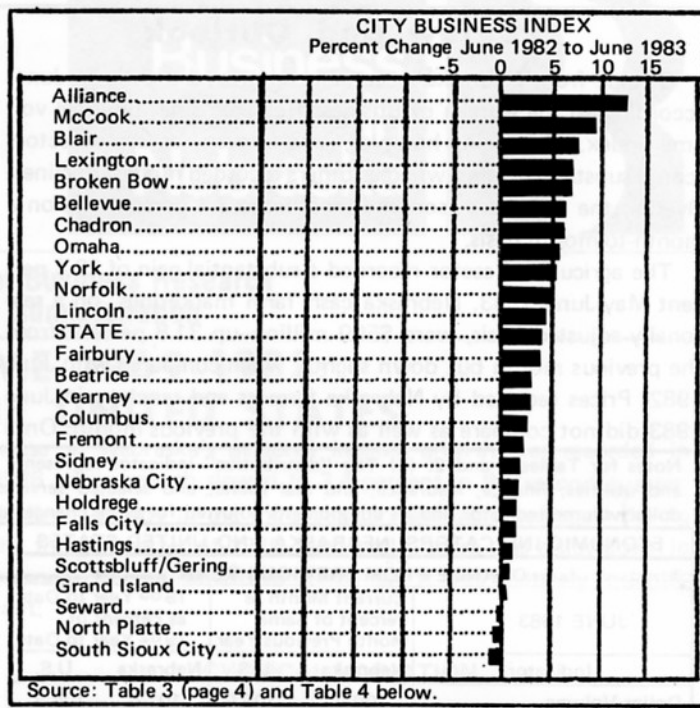
The improvement in the state's retail sales picture was reflected in the city business indexes of several Nebraska cities. Alliance led with a 13.2 percent increase in its city business index. McCook, Blair, Lexington, Broken Bow, Bellevue, Chadron, Omaha, York, Norfolk, and Lincoln all recorded increases, in their respective city business indexes, above the state average gain. City business indexes indicate strength in the state's economy in eastern Nebraska and western Nebraska communities, such as Alliance and McCook.

Unit retail sales have been aided by a decline in the rate of inflation. Price increases, as measured by the commodity component of the Consumer Price Index, was up a modest 2.5 percent in June 1983, compared with one year ago.

D. E. P.

5. PRICE INDEXES			
JUNE 1983	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices . . . . .	299.3	103.0	103.5
Commodity component	271.6	102.5	103.2
Wholesale Prices . . . . .	302.5	101.1	100.9
Agricultural Prices			
United States . . . . .	241.0	96.8	98.9
Nebraska . . . . .	240.0	94.5	98.7

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



4. JUNE 1983 CITY BUSINESS INDICATORS			
The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment <sup>1</sup>	Building Activity <sup>2</sup>	Power Consumption <sup>3</sup>
<i>The State</i> . . . . .	101.7	140.8	107.8
Alliance . . . . .	103.5	563.6	110.8
Beatrice . . . . .	102.8	88.0	142.5
Bellevue . . . . .	101.8	164.9	128.4
Blair . . . . .	105.6	380.4	140.6
Broken Bow . . . . .	107.1	191.9	95.0
Chadron . . . . .	99.5	259.2	121.6
Columbus . . . . .	102.4	95.7	128.6
Fairbury . . . . .	101.7	54.4	95.1
Falls City . . . . .	102.4	42.3	92.9
Fremont . . . . .	104.5	100.5	78.6*
Grand Island . . . . .	103.2	92.6	111.7
Hastings . . . . .	97.9	98.9	78.0
Holdrege . . . . .	107.2	116.8	99.7
Kearney . . . . .	104.7	105.0	109.3
Lexington . . . . .	104.8	138.1	89.5
Lincoln . . . . .	97.1	182.3	102.9
McCook . . . . .	110.6	124.5	112.8
Nebraska City . . . . .	103.5	72.4	118.3
Norfolk . . . . .	102.1	207.7	125.2
North Platte . . . . .	92.6	151.9	104.1
Omaha . . . . .	101.6	150.9	108.7
Scottsbluff/Gering . . . . .	102.5	74.2	102.0
Seward . . . . .	103.7	47.0	106.7
Sidney . . . . .	105.9	106.9	104.2
So. Sioux City . . . . .	99.6	197.2	114.6
York . . . . .	105.4	157.6	107.1

<sup>1</sup> As a proxy for city employment, total employment for the county in which a city is located is used.  
<sup>2</sup> 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.  
<sup>3</sup> 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.

(Continued from page 3)

Nebraska's income growth picked up in the fourth quarter of 1982, one quarter before the United States'.

### IMPLICATIONS

There are numerous possible explanations for this difference in personal income growth rates, a few of which will be explored here. A major reason is difference in size. Nebraska's economy is very small, compared to the United States'. Adjustments occurring *nationally* that affect industries concentrated in Nebraska will have a more substantial impact upon Nebraska. The recent adjustments in meatpacking is the type of problem which affects Nebraska far more than the nation. In the mid-1970s, development of energy sources to the west of Nebraska led to a boom in the state's transportation sector. The growth of transportation-related jobs was significant in pushing Nebraska's personal income growth rate above the nation's in 1975. Construction expanded in the 1970s because new electric generating capacity was built.

The importance of farm income is another factor behind the greater variation in Nebraska's personal income growth rate. Commodity and livestock prices rose and fell rather dramatically, and decisions to market or hold off on marketing are constantly being examined. Fluctuations in farm marketing, and the ability to speed up or postpone a marketing decision, produce wide swings in Nebraska's farm income. Because farm income is a more influential personal income component in Nebraska than in the nation--approximately 8.0 percent, compared to 2.0 percent--personal income in Nebraska moves over a wider magnitude than nationally. These fluctuations in income are intensified by the secondary effects of farm income changes on agricultural suppliers. Farm supply firms' sales and profits move in conjunction with farm income.

Personal income changes over the 1969-1983 interval underscore three noteworthy points about the Nebraska economy. First, Nebraska's income changes far more rapidly than the nation's. At the top of the cycle, Nebraska's income was expanding at 21.4 percent, compared with 12.7 percent for the nation. At the bottom of the cycle, Nebraska's income was actually contracting 1 percent, compared with 8 or 9 percent growth for the

nation. Nebraska's income moved more violently than that for the country as a whole. This is not unexpected since Nebraska's economy is considerably smaller than that of the United States.

A second point which needs to be emphasized is that Nebraska is a coincident state. Other personal income measures suggest that personal income in Nebraska moves up or down nearly simultaneously with the national level. Recessions do not necessarily come any earlier or later in Nebraska than in the United States, nor do they particularly tend to stay any longer or be of briefer duration than that for the nation. Past performance is no guarantee, however, of what the relationship will be in the future.

In the 1970s--once the national recovery was underway--Nebraska's income gains were usually more rapid than the nation's. Consider the quarter-by-quarter changes in 1975, compared with those for the nation. During 1975's first quarter, Nebraska's personal income increased 7.9 percent, compared with 8.0 percent nationally. By the second quarter, Nebraska's personal income was up an astounding 13.6 percent, compared with 8.0 percent for the nation. The third quarter of 1975 resulted in Nebraska's income increasing at a 15.6 percent clip, compared with 8.2 percent for the nation--almost doubling over the national increase in personal income--whereas, during 1975's fourth quarter, Nebraska's personal income was up 12.7 percent on an annual basis, compared with 9.0 percent for the nation. In 1975, special, extenuating circumstances likely existed, which made the gap between Nebraska's and the United States' personal income growth somewhat unusual. These circumstances include relatively good grain and livestock prices; a rapidly expanding transportation sector reflecting a growth in the state's rail transportation payroll, along with other transportation-related increases; and the construction of additional electric generating capacity. Nebraska's economy emerged from the 1973-1975 recession far more swiftly than the national economy, but stumbled in 1976 when the nation continued to expand.

Recovery from the 1981-1982 recession has not followed the pattern of rapid income gains in Nebraska. It is too soon to know whether this is a fundamental change in the relationship between Nebraska and the nation or whether the previous pattern will be re-established.

D. E. P.

# UNL news

Published once in June and July; twice in Feb., May, Aug., Sept., Nov., and Dec.; three times in Jan. and Mar.; and four times in Apr. and Oct. by the University of Nebraska-Lincoln, Dept. of Publications Services & Control, 209 Nebraska Hall, Lincoln, NE 68588-0524. Second-Class Postage Paid at Lincoln, NE. POSTMASTER: Send address changes to UNL News, Dept. of Publications Services & Control, 209 Nebraska Hall, University of Nebraska-Lincoln, Lincoln, NE 68588-0524

## 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, Lincoln, NE 68588-0406. Material herein may be reproduced with proper credit.

No. 469      October 1983      BUREAU OF BUSINESS RESEARCH

UNIVERSITY OF NEBRASKA-LINCOLN  
Martin A. Massengale, *Chancellor*  
COLLEGE OF BUSINESS ADMINISTRATION  
Gary Schwendiman, *Dean*

Donald E. Pursell, *Director*  
Charles L. Bare, *Statistician*  
Jerome A. Deichert, *Research Associate*  
Douglas O. Love, *Research Associate*  
Marna D. Hawkins, *Editorial Assistant*

The University of Nebraska-Lincoln does not discriminate in its academic, admission, or employment programs and abides by all federal regulations pertaining to same.

Second-Class  
Postage Paid  
Lincoln, NE