

## NEBRASKA GROSS STATE PRODUCT

Total economic activity at the national level has been measured since the late 1930s, when Simon Kuznets and the National Bureau of Economic Research pioneered the field. After World War II, the U.S. Department of Commerce assumed the task of measuring the nation's economic activity and has continued to do so on both a quarterly and an annual basis. A comprehensive set of national income and product accounts has developed as a result. Among these accounts, gross national product, defined as the dollar value of all final goods and services produced during a calendar year, is the most commonly used measure of total economic activity. The concept of gross national product is a familiar one, and economists and statisticians have been fairly successful in their efforts to report the level of national economic activity.

Attempts to measure regional economic activity have been less successful, due to data weaknesses. While a regional measure (gross state product) equivalent to gross national product would be desirable, no government agency currently constructs such a measure. Personal income and employment are aggregate measures of economic activity that are presently available at the state level. The personal income series, by major component, is published both quarterly and annually by the U.S. Department of Commerce. The series comprises the income of households and private nonprofit institutions—the largest economic sector. However, households are only one part of the economy, and personal income does not cover all income or economic activity of an area. It is quite possible that the secular and cyclical behavior of the personal income series may deviate significantly from those of the gross state product series. Employment is an indicator of economic activity of various industries but, as in the case of personal income, possesses shortcomings as a measure of total economic activity of an area.

Unlike personal income and employment, a gross state product series would reflect the net result of all economic activity of an area. Most methods of estimating gross state product assume that national relationships among various components of personal income and measures of gross product will apply for individual states. If the assumed relationships do not apply well at the state level, the results could be biased. Hence, like personal income and employment, gross state product estimates can have shortcomings as a measure of economic activity.

This article examines the gross state product concept and provides numerical estimates for Nebraska in Tables 1 and 2 (page 2). Gross state product is defined as the market value of all final goods and services produced by a state's economy in a year. Like its national counterpart, gross state product may be constructed conceptually by three alternative approaches: (1) gross expenditures by sector, (2) gross income by type, and (3) gross product

by industry. Because of data constraints, the only practical approach for estimating gross state product is the gross-product-by-industry approach. Gross product is estimated for each of seven nonagricultural industries and for the agricultural industry.<sup>1</sup> The gross product estimates are then aggregated to obtain the gross state product estimate. Historical series of current and constant dollar gross state product estimates are provided. Due to continual revisions in the data used to estimate gross state product, the estimates provided in this article are likewise subject to revision.

### METHODOLOGY

Since 1965, the research of John Kendrick and C. Milton Jaycox has provided a method of estimating the level of regional economic activity—gross regional (state) product—which is conceptually the counterpart of gross national product.<sup>2</sup>

Based on the industry approach, Kendrick and Jaycox define gross state product as the sum of the values of production in each industry, less purchases of materials and intermediate services. The estimation method involves division of the state economy into nine major industry classifications: (1) mining; (2) manufacturing; (3) contract construction; (4) wholesale and retail trade; (5) transportation, communications, and public utilities; (6) finance, insurance, and real estate; (7) services; (8) government; and (9) agriculture.

Gross product is estimated separately for each major industry and the values are summed to yield gross state product. With the exceptions of the farm and government industries, gross product is obtained by applying national ratios to state income-received data.

Gross government product is defined by Kendrick and Jaycox as wages and salaries of general government plus supplements to wages and salaries. In this procedure the output of military personnel is ignored. State data from the U.S. Department of Agriculture are used to compute gross farm product as the difference between the value of output and the cost of intermediate production expenses.

In the Kendrick-Jaycox technique, it is assumed that the state has factor proportions similar to the nation in each industry. For Nebraska, this assumption does not apply as well as in nonagricultural states, and the gross product estimates will be misleading. Therefore, several modifications of the Kendrick-Jaycox technique were used. (Continued on page 2)

<sup>1</sup> Mining is omitted from the gross product estimates because of its very small role in the Nebraska economy.

<sup>2</sup> John W. Kendrick and C. Milton Jaycox, "The Concept and Estimation of Gross State Product," *Southern Economic Journal*, October, 1965, p. 157.

(Continued from page 1)

For all industries except agriculture, government, and manufacturing, gross product was estimated based on two different income measures: (1) wages and salaries, and (2) participation income. Gross product for manufacturing was estimated using a combination of estimates based on value-added in manufacturing and wages and salaries.<sup>3</sup> In the estimation of gross government product, an alternative technique developed by L'Esperance,

<sup>3</sup>Vernon Renshaw and Keith Turner, *A New Business Activity Index for Nebraska*, Business Research Bulletin No. 73 (Bureau of Business Research, University of Nebraska-Lincoln, 1972), p. 41.

Nestel, and Fromm was used.<sup>4</sup> In this formulation the output of military personnel is included. For the agricultural industry, gross product is estimated using the Kendrick-Jaycox technique.

For all industries except agriculture, gross product is computed in constant dollars, using national industry deflators. The double deflation technique is used to obtain constant dollar gross farm product. Current and constant dollar gross product estimates for industries are summed to obtain current and constant dollar gross

<sup>4</sup>W. L. L'Esperance, Gil Nestel, and Daniel Fromm, "Gross State Product and an Econometric Model of a State," *Journal of the American Statistical Association*, September, 1969, p. 789.

Table 1  
NEBRASKA GROSS STATE PRODUCT ORIGINATING  
IN MILLIONS OF CURRENT DOLLARS

Year	Agriculture	Contract Construction	Manufacturing	Trans., Commun., and Public Utilities	Wholesale and Retail Trade	Finance, Insur., and Real Estate	Services	Government	Gross State Product
1960	598.8	191.8	531.9	409.7	649.1	550.7	292.2	363.7	3587.9
1961	466.3	199.2	558.5	418.3	676.3	576.4	310.0	387.3	3592.3
1962	574.3	198.3	597.7	455.9	710.0	630.9	327.2	415.6	3909.9
1963	541.5	201.9	619.9	468.7	736.5	656.0	341.5	444.3	4010.3
1964	422.0	199.8	696.9	484.4	778.8	696.6	370.5	475.2	4124.2
1965	605.6	215.5	712.8	508.9	818.7	720.5	392.0	491.0	4465.0
1966	754.4	232.7	801.4	531.4	882.1	763.4	428.9	506.0	4900.3
1967	695.2	245.0	894.7	543.6	944.0	806.8	480.6	541.7	5151.6
1968	601.3	265.3	984.4	583.7	1038.7	857.7	529.2	615.6	5475.9
1969	820.2	313.0	1076.6	619.6	1127.8	908.1	581.3	672.1	6118.7
1970	760.1	325.3	1114.9	664.1	1211.0	996.6	638.1	776.9	6487.0
1971	838.3	340.2	1185.9	729.9	1319.8	1091.8	676.0	833.7	7015.6
1972	1036.1	388.1	1291.3	828.3	1441.1	1177.8	740.5	891.7	7794.9
1973	1746.5	449.5	1436.4	933.1	1616.9	1294.9	851.9	969.5	9298.7
1974	1304.1	488.6	1513.2	1038.6	1803.4	1426.5	954.4	1068.4	9597.2
1975	1824.6	519.8	1589.3	1149.6	2050.4	1618.7	1075.7	1202.7	11030.8
1976	1434.5	612.5	1840.1	1300.3	2316.8	1811.6	1223.3	1304.0	11833.1

Source: 1977 July and August issues of the *Survey of Current Business* (July, Table 6.1; August, Table 30); the *National Income and Products Accounts of the U.S., 1929-1974*, Supplement to the *Survey*; Bureau of Economic Analysis printouts on personal income and wage and salary disbursements; annual *Survey of Manufactures* and *Census of Manufactures*.

Table 2  
NEBRASKA GROSS STATE PRODUCT ORIGINATING  
IN MILLIONS OF CONSTANT 1972 DOLLARS\*

Year	Agriculture	Contract Construction	Manufacturing	Trans., Commun., and Public Utilities	Wholesale and Retail Trade	Finance, Insur., and Real Estate	Services	Government	Gross State Product
1960	912.3	384.4	635.3	515.4	905.3	799.3	488.6	730.3	5371.0
1961	711.0	390.6	664.8	518.4	931.6	834.1	506.6	757.9	5315.0
1962	804.6	377.7	706.5	561.5	975.3	922.3	517.0	782.7	5647.6
1963	851.3	371.7	749.5	576.5	1004.7	906.1	525.4	797.7	5782.9
1964	738.6	363.9	841.7	590.0	1035.6	935.1	550.5	819.3	5874.7
1965	864.5	378.1	853.6	621.4	1078.7	958.1	560.7	815.6	6130.7
1966	920.0	386.6	942.8	648.1	1136.7	968.7	584.4	799.4	6386.7
1967	1002.1	392.6	1027.2	651.0	1164.0	992.3	626.6	807.3	6663.1
1968	884.9	407.5	1092.6	696.6	1224.9	1016.2	650.9	844.4	6818.0
1969	1009.6	417.9	1167.7	717.1	1250.3	1040.2	672.8	870.6	7146.2
1970	962.9	386.3	1160.1	741.2	1291.0	1085.7	701.2	915.1	7243.5
1971	1038.5	370.2	1197.9	764.3	1348.1	1132.5	700.5	906.2	7458.2
1972	1036.1	388.1	1291.3	828.3	1441.1	1177.8	740.5	891.7	7794.9
1973	950.2	405.7	1397.3	918.4	1531.2	1246.3	806.7	915.5	8171.3
1974	710.4	404.5	1320.4	953.7	1524.4	1322.1	833.6	940.5	8009.6
1975	1199.3	388.5	1249.4	959.6	1579.7	1378.8	841.7	976.2	8573.2
1976	1199.4	456.4	1388.8	1008.8	1682.5	1474.0	899.5	983.4	9092.8

\*Source of deflators: Table 7.15 of the 1977 July issue of the *Survey of Current Business* and the Supplement to the *Survey*; U.S. Department of Agriculture publication, *Nebraska Agricultural Prices*.

state product estimates.

Although there are obvious shortcomings in the techniques used to estimate gross state product, the estimates do serve useful purposes as enumerated below:

- (1) In some cases, figures are produced which provide approximate guides as to income levels in different regions of the country.
- (2) National cyclical and secular changes and their impact on state economic activity can be analyzed.
- (3) Gross state product estimates are a necessary framework for state and regional economic forecasting by industry.
- (4) Gross state product forecasts are useful to state agencies responsible for forecasting revenues and planning expenditures as part of the budget or long-range planning process.
- (5) Gross state product forecasts by industry are useful to private companies doing business in the state.
- (6) Gross state product estimates are used in the construction of business indexes that monitor business and economic activity in a state.

As time passes, improved techniques for estimating gross state product will undoubtedly become available. At the present time, the Bureau of Economic Analysis of the U.S. Department of Commerce is working on a new methodology for estimating gross state product. When such estimates will become available is not yet known.

#### ANALYSIS

Constant dollar (real) gross state product for Nebraska has increased from \$5.4 billion in 1960 to \$9.1 billion in 1976, a 69 percent increase for the period. During the same time, real gross national product has increased by 73 percent. In terms of annual compound growth rates, real output for Nebraska's economy has grown at about the same rate as for the national economy. To examine short-term fluctuations in real output for the state and national economies, annual percentage changes in output for major industrial classifications are computed.

From 1961 to 1976, the Nebraska economy was slightly behind the national economy in terms of the average annual percentage growth in real output. During this time, the state's average yearly percentage increase in constant dollar gross state product was 3.4 percent as compared to 3.5 percent for real gross national product. To provide some measure of the volatility of real output, standard deviations were computed for the yearly percentage changes in gross state product and gross national product.<sup>5</sup> The results, 2.3 percent for Nebraska and 2.4 percent for the nation, indicate that the stability of the state's economy very nearly matches that of the national economy. Annual percentage changes in real gross state product and gross national product are presented in Table 3.

Nebraska's agricultural industry is the most volatile industry of the state's economy. From 1961 to 1976, the average yearly percentage increase in real agricultural output for Nebraska was 3.5 percent, which is considerably greater than the 0.9 percent increase in the nation's farm output. The associated standard deviations, 21.2 percent for Nebraska and 2.8 percent for the nation, indicate that the state's agricultural industry is subject to extreme fluctuation in real output and is much less stable than

<sup>5</sup>The standard deviation provides a measure of the fluctuations of individual yearly percentage changes in output about the average annual percentage change in output.

the nation's agricultural industry. These figures also emphasize the obvious fact that agriculture has a much greater impact on Nebraska's economy than it does on the national economy. Fluctuations in real output for the state's farm industry are tempered somewhat by the interrelationship of agriculture with a set of relatively stable nonagricultural industries.

	1961	1962	1963	1964	1965	1966	1967	1968
GSP	-1.04	6.26	2.40	1.59	4.36	4.18	4.33	2.32
GNP	2.51	5.80	3.95	5.26	5.89	5.95	2.72	4.38
	1969	1970	1971	1972	1973	1974	1975	1976
GSP	4.81	1.36	2.96	4.51	4.83	-1.98	7.04	6.06
GNP	2.57	-0.32	2.99	5.74	5.46	-1.39	-1.29	6.04

Comparing the average annual percentage change in constant dollar gross state product by industry classification for the time period 1961-1976, the two state industries showing the fastest growth are manufacturing (5.1 percent) and transportation, communications, and public utilities (4.3 percent). Industries showing the slowest growth during the period are government (1.9 percent) and contract construction (1.2 percent). Average annual increases in constant dollar gross state product and gross national product by industrial classification, along with the associated standard deviations, are given in Table 4.

The percentage composition (share) of real gross state product by industry for the years 1960, and 1970 through 1976 are given in Table 5 (page 6). From 1960 to 1970, an increase in the share of real gross state product was experienced by all Nebraska industries except agriculture, contract construction, and government. Over this period, the greatest share increases were for manufacturing and transportation, communications, and public utilities. Agriculture and contract construction experienced the greatest decreases in their share of real output during this time.

For the period 1970-1976, industries showing the greatest increase in the share of constant dollar output were transportation, communications, and public utilities; finance, insurance, and real estate; and services. The trade industry posted a smaller increase in its share of real gross state product, (Continued on page 6)

	Gross State Product		Gross National Product	
Agriculture	3.54	(21.13)	0.87	(2.77)
Contract Construction	1.22	(5.66)	1.34	(5.15)
Manufacturing	5.14	(5.35)	3.81	(6.10)
Transportation, Communications, and Public Utilities	4.31	(3.03)	4.51	(2.73)
Wholesale and Retail Trade	3.95	(1.89)	4.00	(2.73)
Finance, Insurance, and Real Estate	3.94	(2.73)	4.10	(2.10)
Services	3.92	(2.42)	3.94	(1.81)
Government	1.89	(2.21)	2.71	(1.82)

Note: Numbers in parentheses are standard deviations.

## Review and Outlook

Real output in Nebraska inched upward in December following a sharp rise in November. The physical volume index for the state increased 0.2 percent during the month, with four of the five sectors of the state economy registering gains. Those sectors and their month-to-month percentage changes in activity were: construction (+2.0 percent), manufacturing (+1.4 percent), distributive (+0.3 percent), and government (+0.1 percent). Agriculture, down 1.6 percent, was the only sector recording a decrease for the month.

Year-to-date data indicate that the Nebraska economy experienced significant growth in 1977, with most of the gains occurring in the last eight months of the year. Following the lull in state

economic activity early in 1977, the Nebraska physical volume index increased 7.3 percent between April and December. For the year, the index was 6.4 percent above the level of 1976 (refer to Table 1). This compares favorably to the 5.2 percent rise in the U.S. physical volume index in 1977, and the 5.6 percent growth in Nebraska economic activity in 1976.

Production increases in the Nebraska economy in 1977 were broadly based, with all sectors contributing to the growth of state output. Sectoral growth rates varied considerably, however, with output gains in construction (+27.2 percent) and agriculture (+11.0 percent) far exceeding those of other sectors. Growth rates for the remaining sectors were: distributive (+6.0 percent), manufacturing (+3.6 percent),

(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				
December, 1977	Current Month as Percent of Same Month Previous Year		1977 Year to Date as Percent of 1976 Year to Date	
	Nebraska	U.S.	Nebraska	U.S.
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	113.2	110.1	111.3	111.5
Agricultural	119.6	104.1	103.4	100.6
Nonagricultural	112.2	110.3	112.6	111.9
Construction	113.8	116.0	134.3	116.1
Manufacturing	107.6	111.4	109.9	115.8
Distributive	115.2	109.9	112.9	111.0
Government	105.4	107.6	107.6	106.8
Physical Volume	107.2	103.6	106.4	105.2
Agricultural	116.2	102.4	111.0	102.1
Nonagricultural	105.6	103.6	105.7	105.3
Construction	107.4	109.6	127.2	109.7
Manufacturing	101.2	104.9	103.6	109.1
Distributive	107.9	102.9	106.0	104.2
Government	101.2	102.1	100.1	101.6

2. CHANGE FROM 1967		
Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	282.2	248.2
Agricultural	284.4	235.9
Nonagricultural	281.9	248.6
Construction	302.2	224.8
Manufacturing	288.6	235.1
Distributive	280.7	258.3
Government	269.3	249.6
Physical Volume	148.7	131.7
Agricultural	158.9	128.9
Nonagricultural	146.9	131.8
Construction	139.9	104.1
Manufacturing	146.9	120.9
Distributive	150.8	138.8
Government	132.1	139.1

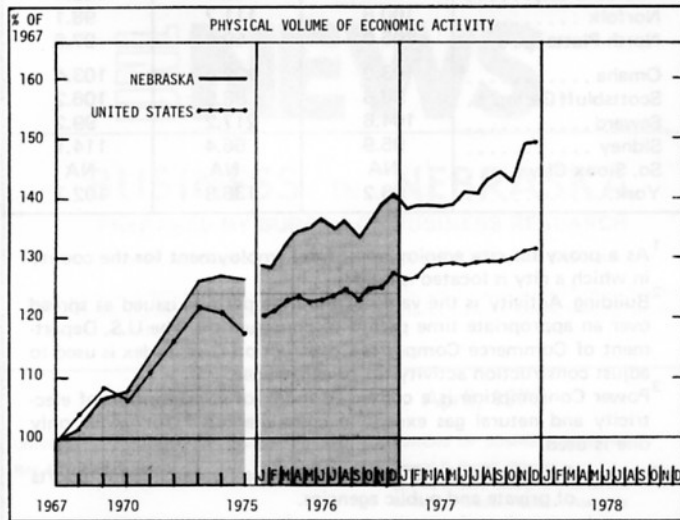
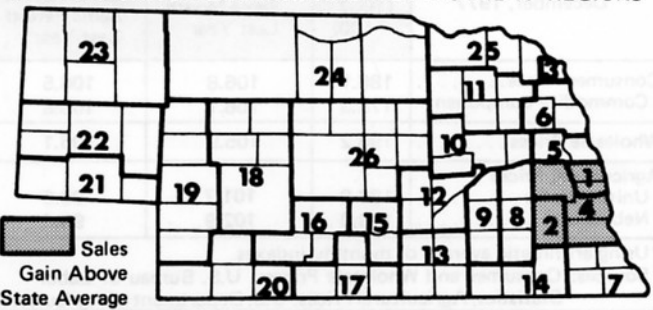
3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES (Adjusted for Price Changes)			
Region Number <sup>1</sup> and City	City Sales <sup>2</sup>		Sales in Region <sup>2</sup>
	Dec. 1977 as percent of Dec. 1976	Dec. 1977 as percent of Dec. 1976	Year to date '77 as percent of Year to date '76
<i>The State</i>	93.2	93.4	98.4
1 Omaha	92.5	93.8	102.2
Belleue	118.0		
2 Lincoln	96.1	96.2	103.7
3 So. Sioux City	89.6	92.1	93.6
4 Nebraska City	92.3	96.9	98.7
5 Fremont	89.4	91.5	98.3
Blair	88.9		
6 West Point	115.1	112.7	98.4
7 Falls City	101.1	92.7	97.3
8 Seward	82.4	95.1	94.5
9 York	86.4	80.1	90.5
10 Columbus	90.7	88.2	95.7
11 Norfolk	88.7	83.9	93.3
12 Grand Island	97.8	94.2	96.4
13 Hastings	96.2	93.6	93.8
14 Beatrice	101.1	98.9	95.3
Fairbury	107.3		
15 Kearney	93.7	89.1	95.4
16 Lexington	94.6	88.5	95.8
17 Holdrege	90.3	92.4	91.8
18 North Platte	97.3	97.9	97.0
19 Ogallala	101.7	103.8	93.2
20 McCook	85.6	92.0	94.6
21 Sidney	95.6	96.7	93.9
Kimball	98.6		
22 Scottsbluff/Gering	92.5	89.9	92.6
23 Alliance	118.4	105.4	98.1
Chadron	92.3		
24 O'Neill	88.2	85.0	96.6
25 Hartington	96.0	97.8	95.8
26 Broken Bow	90.2	90.9	90.9

<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.

1977 YEAR TO DATE AS PERCENT OF 1976 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(Continued from page 4) and government (+0.1 percent).

Most of the increase in construction activity occurred early in 1977, and were it not for the strong showing by this sector, real output in Nebraska would have dropped in the January-April period. Seasonally adjusted construction output fell between April and October, and was a matter of concern, given the longevity of the current economic expansion. In the last two months of the year, however, construction activity rebounded, and contributed to the strong performance of the state economy in late 1977. Despite such improvement, the construction index for the state in December remained 7.2 percent below last April.

If economic projections come to fruition, the construction sector is not likely to provide much stimulus to the state economy in 1978. Activity in this sector tends to be sensitive to interest rate changes. With interest rates projected to rise significantly, both the availability of funds for mortgage lending and the willingness of borrowers to undertake long-term commitments are likely to be adversely affected.

In contrast to the situation in the construction industry, growth in Nebraska agricultural output was concentrated in the last ten months of 1977. Despite a December decline, agricultural output for the month was nearly 30 percent above that of February, 1977. The purchasing power of farmers, however, depends not only on the physical volume of marketings, but also on prices in markets for agricultural produce. Prices received by farmers in the state were up 3.6 percent in December, and were 8.7 percent above their level in September. Despite these recent gains, December prices were only 2.9 percent above year-earlier levels, and economic conditions in many rural areas of the state are not expected to show significant improvement without further increases in agricultural prices.

Distributive sector output grew steadily throughout the year. December employment for the sector was 1.6 percent above its December, 1976, level despite a sluggish performance by the trade component. Trade employment increased only 0.3 percent, and reflected the 1.6 percent decline in price-adjusted retail sales in Nebraska in 1977.

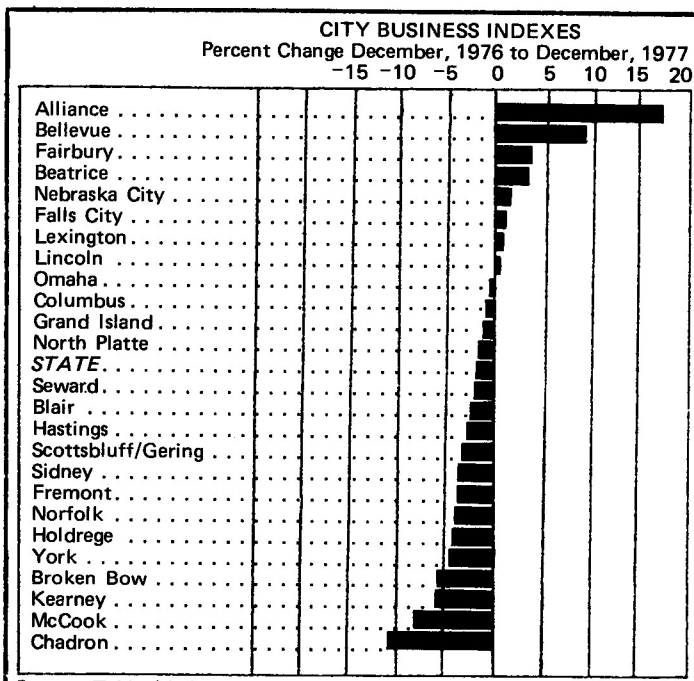
The growth in manufacturing output in the state during the year was accompanied by a small increase in employment (0.8 percent on a December-to-December basis). Government employment increased 1.2 percent for the same period.

Despite recent growth in the state economy, the city business indexes for December showed only eight of twenty-five Nebraska cities recording improvements relative to December, 1976. Alliance, with an increase of 17.4 percent, posted the largest gain. Other cities with significant December-to-December increases were Bellevue, Fairbury, and Beatrice.

W. D. G.

5. PRICE INDEXES			
December, 1977	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices . . . . .	186.1	106.8	106.5
Commodity component	178.3	106.1	105.8
Wholesale Prices . . . . .	198.2	105.9	106.1
Agricultural Prices			
United States . . . . .	183.0	101.7	98.6
Nebraska . . . . .	179.0	102.9	93.0

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



Source: Table 4 below.

4. DECEMBER 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> . . . . .	100.8	108.0	103.3
Alliance . . . . .	110.0	248.3	121.1
Beatrice . . . . .	99.1	216.3	96.0
Bellevue . . . . .	103.0	122.5	98.2*
Blair . . . . .	101.7	139.0	99.3
Broken Bow . . . . .	100.5	52.6	110.9
Chadron . . . . .	90.4	41.5	98.9
Columbus . . . . .	100.9	150.7	108.0
Fairbury . . . . .	99.3	103.3	104.1*
Falls City . . . . .	94.5	217.5	96.1
Fremont . . . . .	99.7	99.4	105.5*
Grand Island . . . . .	99.4	78.0	113.1
Hastings . . . . .	96.9	115.8	94.8
Holdrege . . . . .	101.1	87.0	98.6
Kearney . . . . .	91.7	110.4	98.8
Lexington . . . . .	110.2	83.1	94.7
Lincoln . . . . .	102.8	101.8	107.9
McCook . . . . .	100.5	52.6	104.8
Nebraska City . . . . .	105.6	168.7	102.4
Norfolk . . . . .	100.6	111.7	98.1
North Platte . . . . .	105.0	59.4	97.6
Omaha . . . . .	103.0	129.4	103.4
Scottsbluff/Gering . . . . .	98.6	88.5	106.2
Seward . . . . .	104.6	217.2	99.2
Sidney . . . . .	95.9	66.4	114.1
So. Sioux City . . . . .	NA	NA	NA
York . . . . .	98.2	136.8	102.7

<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) while agriculture, manufacturing, government, and contract construction have declined in their share of real output for the period. With the exception of agriculture, all industries declined in their share of constant dollar gross state product during the recession of 1974-1975. During the recession, the largest declines in the share of real output were suffered by manufacturing and contract construction.

A ratio used in computing gross government product is government wages and salaries for Nebraska divided by government wages and salaries for the nation. The declining share of gross government product for Nebraska indicates that state government wages and salaries for Nebraska have not kept pace with government wages and salaries for the nation.

The decline in the share of gross state product for manufacturing can be attributed to the effects of the last recession. For the years 1970 through 1973, the manufacturing industry increased its share of real output, and then the bottom dropped out. Since the end of the recession, manufacturing has again increased its share of constant dollar output and appears to be recovering.

From 1960 to 1970, the construction industry suffered a sizeable decrease in its share of real output. During this period the housing boom tapered off, along with an accompanying inflationary trend for construction materials and labor. During the 1970s, Nebraska's construction industry again decreased its share of real gross state product, although a recent increase in building activity indicates some recovery for the industry.

The share of real gross state product for agriculture declined for the years 1970 through 1974 and then increased considerably during 1975. The figures indicate that agriculture was not affected as drastically by the recession as were the nonagricultural industries of Nebraska. During 1976, the share of real output for agriculture again declined. This latest decrease in the share of real output is due, in part, to a combination of declining farm prices and increasing production expenses. Farm employment has stabilized during the past few years, but farm prices and production expenses will have to undergo the proper combination of change before agriculture's share of real gross state product levels off or increases.

C. L. B.

Table 5  
PERCENTAGE COMPOSITION OF CONSTANT DOLLAR  
GROSS STATE PRODUCT BY INDUSTRY FOR SELECTED YEARS

	1960	1970	1971	1972	1973	1974	1975	1976
Agriculture	16.99	13.29	13.92	13.29	11.63	8.87	13.99	13.19
Contract Construction	7.16	5.33	4.96	4.98	4.96	5.05	4.53	5.02
Manufacturing	11.83	16.02	16.06	16.57	17.10	16.49	14.57	15.27
Transportation, Communications, and Public Utilities	9.60	10.23	10.25	10.63	11.24	11.91	11.19	11.09
Wholesale and Retail Trade	16.86	17.82	18.08	18.49	18.74	19.03	18.43	18.50
Finance, Insurance, and Real Estate	14.88	14.99	15.18	15.11	15.25	16.51	16.08	16.21
Services	9.10	9.68	9.39	9.50	9.87	10.41	9.82	9.89
Government	13.60	12.63	12.15	11.44	11.20	11.74	11.39	10.82

Note: Totals may not add to 100 due to rounding.

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