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In This Issue

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Nebraska's Cattle Industrial Complex: A Giant by any Measure

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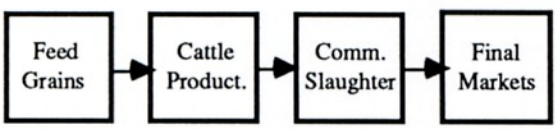
The Cattle Industry Record

Nebraska's cattle industrial complex is a giant by any measure, and it grows larger each year. The key parts of the complex are feed grains production, cattle production, and commercial slaughtering plants.



Nebraska placed 5.46 million head of cattle on feed in 1990 and led the nation in the number of fed cattle marketed. Nebraska, a forage-rich state producing about 17 million animal-unit-months annually, raises more than a third of its feeder cattle placements.

The state's 1990 cash receipts from cattle marketings topped $4.8 billion, about 55 percent of total agricultural receipts.

Nearly 5.9 million head of cattle were slaughtered commercially in Nebraska in 1990, ranking second only to Kansas. Nebraska's share was 17.7 percent of the U.S. total, more than double its share for 1960.

Commercial Cattle Slaughter in Nebraska

Year	Cattle Slaughter (1,000s)	Percent of U.S.
1960	2,137	8.5
1970	4,338	12.4
1980	5,612	16.6
1990	5,882	17.7

In contrast to other major cattle-producing states, Nebraska cattle feeding is spread across a wide variety of feedlot sizes. In 1989 nearly one-fourth (24 percent) of Nebraska's cattle on feed were in lots of less than 1,000 head capacity; lots of this size represented less than 2 percent of cattle feeding in Texas, Kansas, and Colorado. Feedlots of greater than 32,000 head capacity accounted for 8 percent of Nebraska's cattle on feed in

State Economic Scoreboard

Change from same month one year ago
See Review and Outlook for more details

	State	Metro+	Nonmetro
Motor Vehicle Sales (April) Constant $	↓ -3.8%	↓ -3.4%	↓ -4.1%
Nonmotor Vehicle Sales (April) Constant $	↓ -2.0%	↓ -4.3%	↑ 0.3%
Building Activity (April) Constant $	↓ -4.1%	↓ -15.2%	↑ -11.8%
Employment (June)	↑ 2.3%	↑ 3.2%	↑ 1.4%
Unemployment Rate* (June)	↑ 2.3%	↑ 2.4%	↑ 2.3%

+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago

1989, as compared with 52 percent in Texas, 32 percent in Kansas, and 48 percent in Colorado. Growth in Nebraska in recent years has been primarily among intermediate size feedlots.

Nebraska Rankings

1st Fed cattle marketed
(5.0 million in 1990)

1st Cattle on feed
(a record high 2.37 million 3/91)

2nd Cattle and calves inventory
(6.0 million 1/91)

2nd Cattle slaughtered
(5.88 million—1990)

Cuming and Dawson Counties continue to maintain their number 1 and 2 rankings, respectively, in cattle feeding in the state, but the configuration of the top ten counties has changed over time. The ten leading cattle-feeding counties in Nebraska in 1990 were Adams, Clay, Colfax, Cuming, Dawson, Hall, Phelps, Saunders, Scotts Bluff, and Wheeler. Seven were located west of U.S. Highway 81. In contrast, in 1960 seven of the ten leading counties were located east of U.S. Highway 81.

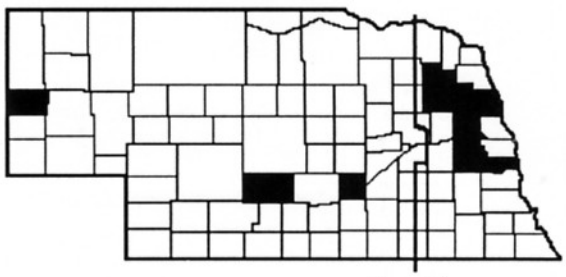
Recent growth in and location of cattle feeding in Nebraska have paralleled the state's growth in and location of irrigated corn production. In 1989 Nebraska produced 847 million bushels of corn for grain and 101 million bushels of grain sorghum. Over 80 percent of the corn was produced on irrigated land. Eight of the ten leading irrigated corn-producing counties are located west of U.S. Highway 81.

The feedlot portion of the cattle industry consumes about a third of the feed grains produced each year in the state. This level of demand has a positive effect on prices received by feed grains producers. Assuming the effect is as little as five cents per bushel, the increase represents $50 million of additional revenue per year to Nebraska's corn and sorghum producers. Thus, cattle serve as an important complementary sector to other components of our agricultural industry.

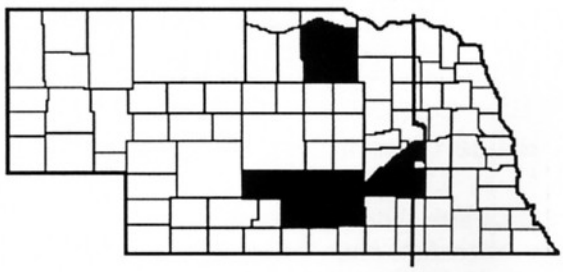
The Cattle Industry Impact

In 1989 Nebraska's cattle industrial complex directly supported an estimated 17,400 jobs. Approximately 2,400 jobs resulted from the production of feed grains for cattle feeding; another 5,000 jobs were associated with cattle production; and the remaining 10,000 jobs were connected directly to the commercial slaughter of cattle from Nebraska's feedlots. The estimated 17,400 jobs represent the direct economic impact of the cattle industrial complex on the state's economy.

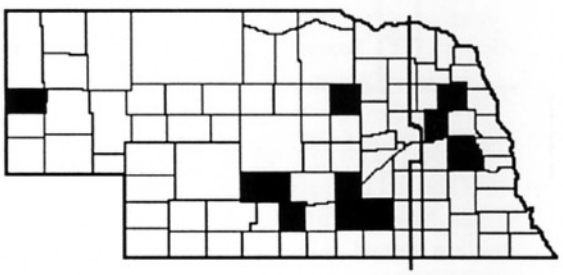
Cattle on Feed
Top Ten Counties for 1960



Top Ten Irrigated Corn for Grain 1989



Cattle on Feed
Top Ten Counties for 1990



Additional jobs are generated as a result of the various purchases of materials and services by the cattle complex from other businesses in the state plus the personal spending of earned incomes for goods and services. These additional purchases create a multiplier effect—a change in the output/employment of one industry will generate or induce changes in the outputs/employments of many other industries in the economy.

For example, hundreds of employees of Nebraska banks are involved directly in processing loans to finance the production of feed grains and the operation of feedlots and commercial slaughtering plants. Bank employees, in turn, support additional workers in the state as they spend their incomes for food, clothing, housing, insurance, recreation, etc. These latter jobs indirectly exist because of the cattle industrial complex.

Reading the Input-Output Model Results

Table 1 presents the economic impact in terms of gross earnings of the cattle industrial complex on Nebraska's economy in 1989. The term *gross earnings* is defined as the sum of wages and salaries, other labor income, and proprietors' income. The gross earnings figures presented in Table 1 can be explained best by starting with the cattle production column.

The 1989 total of gross earnings from Nebraska's cattle production was $620 million ($620,053,000). Additional earnings occurred as a result of the various interindustry transactions directly and indirectly associated with cattle production operations. Additional earnings are indicated in the cattle production column of Table 1.

For example, the wholesale and retail trade sector earned $267 million ($267,160,000) in 1989 as a result of cattle production operations. An additional $215 million ($215,148,000) was earned by the service sector, etc. Total gross earnings directly and indirectly associated with the state's cattle production in 1989 were nearly $1.5 billion ($1,467,638,000).

The feed grains column of Table 1 presents the estimated 1989 gross earnings resulting directly and indirectly from the production of feed grains consumed by the cattle industry within the state. In 1989, the gross earnings from the direct production of feed grains were $121 million ($120,748,000). Nearly $18 million ($17,940,000) in earnings occurred in the transportation, communication, and utilities sector. Total 1989 gross earnings directly and indirectly associated with feed grains production were $273 million ($273,281,000).

The commercial slaughter column of Table 1 shows that the total 1989 gross earnings directly and indirectly associated with commercial slaughter operations in Nebraska were slightly under $572 million ($571,814,000).

The final column of Table 1 sums gross earnings by sector for the cattle industrial complex. In other words, figures recorded in the fourth column are sums of corresponding figures recorded in the first three columns. Total 1989 gross earnings directly and indirectly associated with Nebraska's cattle industrial complex were estimated to be approximately $2.3 billion ($2,312,733,000).

Table 2 presents the contribution or impact of the cattle industrial complex on the state's economy in terms of estimated jobs. All job figures recorded in Table 2 include both full-time and part-time jobs. Figures presented in Table 2 can be interpreted similarly to those in Table 1. The difference in the two tables simply is the unit of measurement. Table 1 measures impact in terms of gross earnings. Table 2 measures impact on the basis of jobs. The final column of Table 2 shows that in 1989 nearly 107,000 jobs were associated directly and indirectly with Nebraska's cattle industrial complex.

Table 1
Total Direct and Indirect Gross Earnings by Industry of the Nebraska Cattle Industrial Complex
1989
($1,000 of Gross Earnings)

Sector	Feed Grains	Cattle Production	Commercial Slaughter	Total Impact
Cattle feeding	0	620,053	0	620,053
Feed grains	120,748	0	0	120,748
Ag services	5,398	46,836	0	52,234
Mining	837	2,124	677	3,638
Construction	4,031	20,453	5,701	30,185
Manufacturing	35,353	105,707	207,769	348,829
Trade	37,726	267,160	141,320	446,206
T.C.U.*	17,940	92,549	56,620	167,109
F.I.R.E**	16,229	97,398	30,542	144,169
Services	34,982	215,148	129,078	379,208
Other	37	210	107	354
Total	273,281	1,467,638	571,814	2,312,733

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Table 2
Total Direct and Indirect Jobs by Industry of the Nebraska Cattle Industrial Complex
1989

Sector	Feed Grains	Cattle Production	Commercial Slaughter	Total Impact
Livestock	0	5,000	0	5,000
Feed grains	2,400	0	0	2,400
Ag services	412	3,579	0	3,991
Mining	39	98	31	168
Construction	181	919	256	1,356
Manufacturing	1,575	4,709	10,792	17,076
Trade	3,108	22,011	11,643	36,762
T.C.U.*	733	3,781	2,313	6,827
F.I.R.E.**	754	4,527	1,420	6,701
Services	2,430	14,944	8,966	26,340
Other	9	50	25	84
Total	11,641	59,618	35,446	106,705

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

An industry's total multiplier effect on an economy can be measured by a mathematical model called an *input-output model*. The Bureau of Business Research maintains an input-output model of the state's economy for estimating economic impacts. The Bureau's model was used to estimate the total direct and indirect economic impact or contribution of the cattle industrial complex on the state's economy. Economic impacts were measured in terms of gross earnings and employment (jobs). These estimates are summarized below.

In 1989 the cattle industrial complex directly and indirectly contributed approximately $2.3 billion, or about 15 percent, to the state's total gross earnings of $15.44 billion. The cattle industrial complex directly and indirectly supported nearly 107,000 jobs of a total of approximately 730,000 jobs in the private sector. Slightly more than one of seven jobs in Nebraska in 1989 were tied directly and indirectly to the state's cattle industrial complex. Tables 1 and 2 provide details.

Summary

Certain impacts have not been explored or presented in this article. For example, the economic ramifications of Nebraska's range cattle operations have not been included fully in the impact analysis. The analysis focuses on cattle feeding. Nebraska's range cattle industry of over 1.7 million head of feeder cattle per year also has a multiplier effect on the state's economy.

Also absent from the analysis are impact estimates of equipment production and construction activity directly and indirectly associated with the growth of the cattle industrial complex in the state. No doubt these impacts are substantial. For example, the analysis excludes the economic impacts associated with the manufacture of center pivot irrigation systems in Nebraska that are used in the production of feed grains fed to cattle in the state. Thus, the actual economic impact of the cattle industrial complex on the state's economy is even greater than the impact estimates presented here.

The Need for Lifelong Education in Nebraska

Michael Gebbie
BBR Undergraduate Research Associate

Earlier this year President Bush unveiled a plan to reform the educational system in the United States. Summarizing his goals in *America 2000*, he urged the United States to "transform into a nation of students," "strengthen the nation's education effort for yesterday's students, today's workers," and "enhance job training opportunities" (Education Department, 1991). Given demographic patterns, the rate of technological change, and the increase in international competition, President Bush's policy goals appear to be well founded.

This article will focus on two points:

- The cohort of Nebraskans ages 45 to 64 is growing significantly as a percentage of the state's population;
- Future job trends will necessitate the reskilling of many older Nebraskans encountering new technologies or facing midlife occupation changes.

Population Trends

The U.S. Bureau of the Census is the main source of demographic information in the state. The bulk of the Census Bureau's information on historic changes comes from the censuses conducted by the United States at the beginning of each decade. This information, however, is not enough for policy makers. Planners need to have reliable data for predicting future population.

Shortly after the release of the 1980 census, several groups, including Woods & Poole, NPA Data Service, Inc., and the UNL Bureau of Business Research, projected population trends for Nebraska to the year 2010. Without exception, these independent groups understated the extent of the state's outmigration during the 1980s. As a whole, the projections roughly showed a 5.0 percent increase in Nebraska's total population from 1980 to 1990. The results of the 1990 census, however, show that the state's population grew only 0.5 percent.

The presence of an aging baby boom generation and the possible continuation of net outmigration means that Nebraska's future labor supply will be older and may stagnate. In 1990 there were 54,824 fewer persons ages 18 to 24 in the state than in 1980, a decrease of 26 percent. Meanwhile, the number of individuals ages 25 to 44 increased 73,045 or 17.7 percent.

Barring a massive increase in worker participation rates in Nebraska after 1990, changes in Nebraska's traditional workforce will occur as baby boomers spill into the age cohort of 45 to 64 and as the age cohort of 20 to 44 begins to shrink. This process most likely will continue until somewhere around the year 2010. In 2010 the number of Nebraskans ages 25 to 44 roughly will equal the number of Nebraskans ages 45 to 64.

In other words, the proportion of persons in Nebraska ages 45 to 64 will grow significantly. An upward shift in the ages of workers is food for thought in a state that gears much of its educational system toward residents under the age of 25.

Labor Skills

Accelerated changes in technology, in the workplace, and in the types of jobs available will require new skills from older workers in the future. Microprocessors, advanced communication technology, robotics, and biotechnology are only a few of the changes that will revolutionize the nature of occupations. In addition to technological changes, shifts in available employment will draw more workers into the service sector.

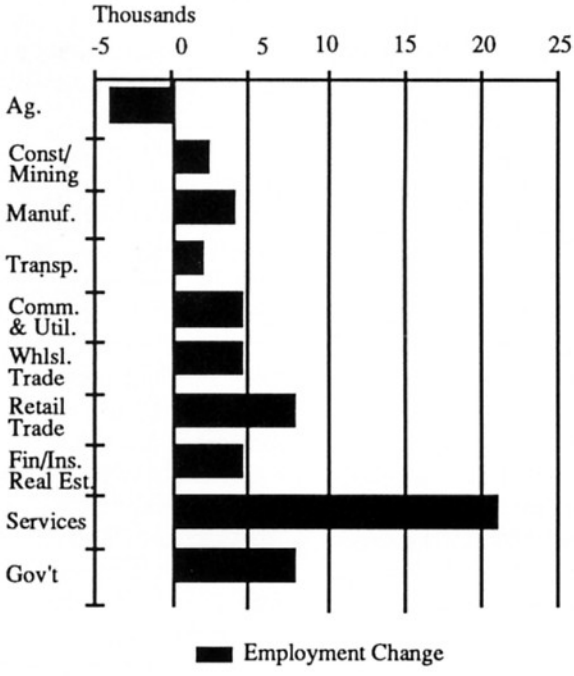
Technological changes and employment shifts at the state level are reflected in 1986 estimates of the Nebraska Department of Labor State Occupational Information Coordinating Committee (SOICC) (Figure 1).

It is difficult to draw precise conclusions from the data, and it may be inappropriate to assume that trends in the late 1980s will continue in a linear fashion to the year 2000. It is not difficult, however, to see the high growth of service jobs in Nebraska relative to other jobs. Trends in Nebraska employment patterns are in line with the rest of the nation. Service jobs dominate both sets of predictions.

Although there is some variation between the levels of education required now and the predicted levels for the year 2000, the difference is not large. The immediate need for individuals with four or more years of higher education currently is being met; only 17 percent of the jobs in Nebraska require a university degree. In 1987 roughly one in five persons in the U.S. over the age of 25 had a four year degree.

If the job composition continues to change, what skills will workers need? Will future workers need more or less training? Will future jobs require more skills from workers, or will occupations be deskilled by technology?

Industry Growth 1986-1991
Statewide



(Nebraska Labor Department—SOICC, 1986)

As international competition intensifies and American companies are faced with slow productivity growth and shrinking profits, the deskilling process may accelerate. In order to cut costs, companies may replace individuals with machines, forcing workers to take jobs involving more menial tasks.

Deskilling scenarios have been dismissed by many analysts lately in favor of scenarios that require upskilling or reskilling. Computers, for instance, free humans from mundane tasks and allow them to perform more complex tasks such as making inferences, judgments, and decisions. Some industries, such as textiles, already require more skills from their workers. In modern textile factories, employees work in teams where every individual is expected to possess a variety of skills, including basic machine maintenance and knowledge of quality control procedures. The training these employees receive enables them to be flexible in an industry with diverse and highly volatile consumer demand.

From an individual perspective, reskilling is needed as technological changes displace workers from their jobs. As persons live longer and the pace of change accelerates, it becomes increasingly difficult for a worker to use the same skills in the same job all of his or her life. Midlife career changes become inevitable for many, even in countries such as Japan, famous for its lifetime employees. In Nebraska—where the workforce is aging and not growing—the need for reskilling is especially pressing for individuals ages 45 to 64.

From a societal perspective, reskilling is needed to avoid a loss of productivity corresponding to a lack of skills in the workforce. It costs society less to keep a workforce able to change than it does to deal with the social problems resulting from an inadequately trained workforce.

Lifelong Education

Without access to adequate lifelong education programs, individuals who need or want to acquire new or improved skills lose not only the knowledge they were taught in school, but they also lose the ability to learn in a classroom environment. Lacking the ability to acquire new skills, workers will have problems adjusting to new technologies.

The aging of the workforce in Nebraska is cause for concern in a state that gears much of its educational system toward individuals under the age of 25. Given the demographic situation in Nebraska, policy makers and business leaders continually should evaluate the mechanisms available for educating and training individuals at all stages of life.

If Nebraska is to lead the way in meeting President Bush's educational goals, then attitudes regarding what traditionally has been considered to be adequate education must be examined. The focus of lifetime education should be improving methods of training and retraining the workforce.

Future issues of ***Business in Nebraska*** *will examine the issue of workforce skills and training in more detail.*

Does Higher Education Pay?

Lisa Valladao
UNL Bureau of Business Research

The high cost of college tuition may leave many wondering whether it is worth the expense. But the economic value of postsecondary education is relatively high according to a recent report by the Bureau of the Census. There is a considerable gap in earnings power between a high school diploma and a college degree and between college degrees.

The report, entitled *What's it Worth? Educational Background and Economic Status: Spring 1987*, compares high school diplomas with four college degree levels and college degrees in different fields of study.

The average monthly income for college degree holders at all levels was almost double that of individuals with only high school diplomas. Figure 1 shows the ratios of postsecondary degree earnings to high school diploma earnings in 1987.

From 1984 to 1987 the monthly earnings gap between college degrees and high school diplomas widened 20 percent, from $1,231 to $1,477 in constant dollars. Table 1 compares 1984 earnings with 1987 earnings by educational level. This report looks solely at fields of study as opposed to fields of employment—degree holders do not necessarily obtain employment within their particular field of study.

Figure 1
1987 Ratio of Postsecondary Earnings to High School Diploma Earnings

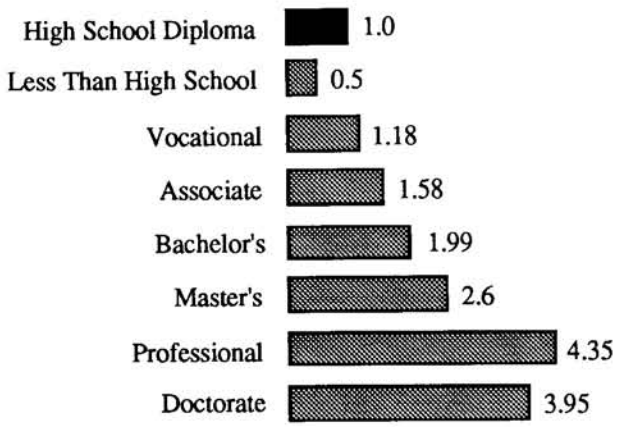


Table 1
Average Monthly Earnings
1984 and 1987

Educational Level	1984*	1987
Doctorate	$2,994	$3,637
Professional	3,749	4,003
Master's	2,132	2,378
Bachelor's	1,679	1,829
Associate	1,294	1,458
Vocational	1,079	1,088
Some college	1,052	1,088
High school diploma	924	921
High school dropout	452	452

*1984 dollars adjusted to 1987 using inflation factor of 1.09 derived from the CPI-Urban

The earnings power of associate, bachelor's and advanced degrees increased from 1984 to 1987. Individuals with no postsecondary degree and vocational degree holders experienced no real increase in monthly earnings from 1984 to 1987.

Although economic status is determined by more than field of study, certain majors do provide advantages in terms of financial rewards. Table 2 presents 1987 average monthly earnings of bachelor's and advanced degrees by field of study.

In 1987 bachelor's degrees in economics, engineering, mathematics, and statistics were at the top of the earnings scale. Home economics, English, journalism, and education were at the bottom. High earnings areas at the advanced degree level were medicine, physical and earth sciences, law, engineering, and business. The liberal arts, education, English, and journalism were at the bottom of the 1987 earnings scale for advanced degrees.

The report also compared earnings of men and women and blacks and whites at each educational level. Table 3 shows average monthly earnings by sex, race, and educational level in 1987.

The data reveal that the gap between the earnings of women and men is substantial. Caution should be exercised in determining the size of the gap. These data do not reflect the possibility that a higher percent of women work part-time and therefore report fewer earnings than do men in any given time period due to fewer hours worked. This possibility, however, does not account for all the earnings gap between men and women.

Most postsecondary degrees held by women in 1987 were in education and technical health (including nursing). Both education and technical health—fields

Table 2
Average Monthly Earnings by Field of Study
1987

Bachelor's Degree	Earnings	Advanced Degree	Earnings
Economics	$2,756	Medicine/Dentistry	$5,607
Engineering	2,670	Physical/Earth Sciences	4,050
Math/Statistics	2,548	Law	3,808
Business/Management	2,330	Engineering	3,369
Agriculture/Forestry	2,154	Business/Management	3,210
Psychology	2,067	Psychology	2,482
Social Sciences	1,674	Social Sciences	2,377
Biology	1,640	Nursing/Technical Health	2,116
Physical/Earth Sciences	1,467	Religion/Theology	1,975
English/Journalism	1,431	Education	1,962
Nursing/Technical Health	1,367	English/Journalism	1,749
Liberal Arts/Humanities	1,346	Liberal Arts/Humanities	1,587
Education	1,181		
Home Economics	1,079		

traditionally dominated by women—were in the bottom half of average monthly earnings at $1,375 and $1,323, respectively. The majority of postsecondary degrees held by men were in business and engineering. These fields were at the higher end of the earnings scale, $2,195 and $2,677 respectively.

The distribution of fields of study for blacks and whites in 1987 was nearly equal. The highest percentages of postsecondary degrees held by both blacks and whites in 1987 were in business and education. Black degree holders earned only 80 percent of what white degree holders earned in 1987. Additionally, there was a substantial gap between the number of degree holders. There were over 36 million white postsecondary degree holders in 1987, while the corresponding number for blacks was just under 3 million. If blacks held postsecondary degrees in proportion to their share of the population, there would have been almost 5.5 million, or 80 percent more, black degree holders in 1987.

Table 3
Average Monthly Earnings*
1987

	Women	Men	Black	White
Professional	$2,311	$4,480		
Master's	1,733	2,901	$2,047	$2,399
Bachelor's	1,136	2,471	1,461	1,861
Associate	1,022	1,977	1,260	1,471
Vocational	773	1,699	689	1,128
H.S. diploma	583	1,350	759	946

*Due to the small number of samples of female doctorate and black doctorate and professional degrees, no data are provided in these categories

Wayne State to Host Rural Development Event

Networking with agencies, resources, and area leaders to strengthen your community will be the focus of the 3rd Annual Cooperative Rural Development Conference. Hosted by Wayne State College, the workshop is scheduled for Friday, October 11, 1991.

Steve Buttress, director of the Nebraska Department of Economic Development, will kick off the morning session, while the luncheon keynote speaker will be Lieutenant Governor Maxine Moul.

Wayne State's Connie Keck says that the conference will examine many aspects of rural development. Sessions will feature:

- Food processing
- K-12 Economic development
- Recycling/solid waste
- International markets
- Entrepreneurship
- Housing
- Marketing your community
- Financing rural development
- Leadership
- Operation Back Home Again
- Dependent care
- Nebraska Technical Assistance Center.

To register, contact Connie Keck, director, Bureau for Community and Economic Development, Wayne State College, Wayne, NE 68723, 402/375-7533.

Review & Outlook

John S. Austin, Research Associate
UNL Bureau of Business Research

National Outlook

The Shoe Has Dropped

At this point, all but the most skeptical economists believe that an economic recovery is underway:

- Second quarter GNP figures showed a slight gain of 0.4 percent. (See box on page 9.)
- In June, the Industrial Production Index increased 0.7 percent, marking the third rise in a row from its low in March.
- Domestic automobile sales were 7.1 million units at annual rates in June and increased to 7.3 million in early July. There was a slight interruption in the upward trend, with a fall to 6.6 million units by mid-July. Nevertheless, automobile sales are well above their lows of late April.
- Housing starts finally climbed over the one-million-unit barrier to 1,040,000 units at annual rates in June. This jump was a 5.2 percent increase above May levels. The figure was well above the January low.
- The unemployment rate reached 7.0 percent in June and dropped to 6.8 percent in July.

The leading indicators have increased for five consecutive months. As we mentioned in a previous issue of *Business in Nebraska*, five months of continuing increases in the leading indicators is the minimum period to feel assured that a recovery will happen. Typically recovery already is underway by the time we are able to observe the necessary increases. This pattern has been the case once again.

Recovery likely started during the second quarter. An official date will be assigned by the National Bureau of Economic Research at some future time. The turnaround in key coincident indicators, most notably the Industrial Production Index, will be a critical determinant in assigning a date to the bottom of the recession. The official date likely will be March.

Fears of a Double-Dip Recession

It almost seems that the public cannot stand too much good news at one time. Thus, attention has focused in recent days on those who foresee a double-dip recession. A double-dip recession is one where a recovery from recession lows begins but is followed shortly by a reverse before the ultimate recovery begins.

The most notable example of a double-dip recession occurred in 1980 and 1981-1982. In 1980 we had a sharp, quick recession in the spring. We recovered in the summer and one year later experienced an enormous downturn throughout the balance of the year and the next year.

The current climate is not at all like that of the early 1980s. In the '80s inflation was high, interest rates were high, and the economy was overheated. The initial recession did not break the overall inflation. The Federal Reserve, feeling alone in fighting inflation, clamped the

Income and Earnings in Nebraska*
($ millions)

	First Quarter 1989	Second Quarter 1989	Third Quarter 1989	Fourth Quarter 1989	First Quarter 1990	Second Quarter 1990	Third Quarter 1990	Fourth Quarter 1990	First Quarter 1991	% Change 1991:I vs. Year Ago
Income										
Total Personal Income	25,201	25,253	24,951	25,682	27,339	27249	26,867	27,508	28,077	2.7
Nonfarm	22,815	23,228	23,615	24,040	24,528	25,002	25,295	25,719	26,080	6.3
Farm	2,387	2,025	1,336	1,641	2,811	2,248	1,572	1,789	1,998	-28.9
Earnings by Industry**										
Ag. Services, Forestry & Fisheries	135	143	150	147	155	153	160	154	156	0.6
Mining	56	54	54	55	55	56	60	66	61	10.9
Construction	912	931	919	930	983	978	991	1,013	1,065	8.3
Manufacturing	2,472	2,472	2,503	2,500	2,575	2,641	2,615	2,657	2,665	3.5
Nondurable	1,218	1,228	1,241	1,238	1,221	1,290	1,270	1,286	1,308	7.1
Durable	1,254	1,244	1,262	1,263	1,354	1,351	1,345	1,371	1,358	0.3
TCU	1,733	1,733	1,723	1,737	1,752	1,787	1,808	1,810	1,806	3.1
Wholesale Trade	1,307	1,327	1,336	1,351	1,429	1,415	1,490	1,473	1,490	4.3
Retail Trade	1,693	1,703	1,734	1,743	1,775	1,781	1,808	1,820	1,838	3.5
FIRE	1,262	1,258	1,255	1,297	1,309	1,349	1,380	1,404	1,440	10.0
Services	3,890	3,956	4,067	4,160	4,251	4,401	4,521	4,724	4,847	14.0
Government	3,185	3,239	3,270	3,360	3,417	3,588	3,536	3,606	3,706	8.5
Federal, Civilian	500	505	510	515	537	572	548	548	578	7.6
Military	420	417	414	411	421	420	418	411	432	2.6
State & Local	2,265	2,317	2,345	2,434	2,459	2,596	2,570	2,647	2,696	9.6

* All data are seasonally adjusted at annual rates
** Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors
*** Transportation, Communication, & Utilities
**** Finance, Insurance, & Real Estate
Source: Bureau of Economic Analysis, U.S. Department of Commerce

money supply and induced a second downturn in the economy.

Inflation currently is relatively low, running in the 5 percent versus year-ago area. Interest rates are low, with the federal funds rate at about 5.5 percent. Furthermore, our economy was far from overheated before the recession began and is unlikely to show anything other than moderate growth during the recovery period.

The double-dip talk may have arisen from a misinterpretation of the mixed signals typical during a turnaround in economic performance. Signals on the status of the economy are mixed most of the time, but especially at a economic turning point.

To clear the confusion about mixed signals, it is important that we consider whether the indicators are leading, lagging, or coincident. This issue was discussed in the April 1991 issue of *Business in Nebraska*.

An outstanding example is the current bad news about corporate earnings. A recent Wall Street Journal survey reported a drop of 25 percent versus weak year-ago figures in the second quarter. The worst reports came from the auto industry, with GM, Chrysler, and Ford reporting multimillion dollar losses in the second quarter. But I would argue that these losses are the result of past activity: notably, weak automobile sales at the end of last year and the first half of this year. Furthermore, in the auto industry, labor virtually has become a fixed cost due to contract provisions for income maintenance during layoffs. Therefore, when auto sales are down, profits nose-dive.

There could be a double-dip recession, but a second dip would come from an external source. For example,

The Second Quarter GNP Advance Report

The advance report of an anemic gain in real GNP in the second quarter results from a large negative in the net export sector. All major GNP components showed positive gains except net exports. Here, import growth far outstripped export gains. The accompanying table shows the sources of increase in second quarter real GNP. The increase was distinctly consumer led.

GNP reports are revised frequently. The net export sector likely will be reestimated substantially in future reports. I would speculate that subsequent revisions will be in the positive direction.

Sources of Change in Real GNP (Advance Report)
First Quarter to Second Quarter 1991
(Billions of 1982 Dollars)

	Change in Real GNP	
	$ Billions	Percent
Real GNP	4.3	0.4
Consumption	23.5	3.6
Investment	2.3	NA
Net Exports	-25.7	NA
Exports	5.9	3.7
Imports	31.6	21.2
Government	4.3	2.1

Data all seasonally adjusted at annual rates. NA - not applicable

Table I
Employment in Nebraska

	Revised May 1991	Preliminary June 1991	June % Change vs. Year Ago
Place of Work			
Nonfarm	768,606	773,004	4.7
Manufacturing	101,056	102,115	3.8
Durables	49,504	49,749	1.5
Nondurables	51,352	52,366	6.2
Mining	1,926	1,975	9.7
Construction	32,036	33,973	16.7
TCU*	45,929	46,306	0.6
Trade	192,274	192,738	2.4
Wholesale	52,242	52,288	-3.1
Retail	140,032	140,450	4.5
FIRE**	49,625	50,154	2.9
Services	192,305	193,398	8.1
Government	153,453	152,345	3.6
Place of Residence			
Civilian Labor Force	875,109	874,712	2.7
Unemployment Rate	2.6	2.3	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table II
Price Indices

	June 1991	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	136.0	4.7	5.1
Commodities	126.7	4.2	4.3
Services	145.8	5.0	5.7
Producer Price Index (1982 = 100)			
Finished Goods	121.9	3.5	3.4
Intermediate Materials	114.3	1.1	1.7
Crude Materials	99.5	-1.7	-0.9
Ag Index of Prices Received (1977 = 100)			
Nebraska	155	-6.1	-4.1
Crops	115	-13.5	-11.6
Livestock	180	-2.7	-0.4
United States	155	2.0	-1.9
Crops	146	12.3	-0.5
Livestock	163	-5.8	-3.2

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics, Nebraska Department of Agriculture

Table III
City Business Indicators
April 1991 Percent Change from Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	2.8	-4.1
Alliance	0.1	5.3
Beatrice	1.5	14.9
Bellevue	5.2	-13.4
Blair	5.2	-22.4
Broken Bow	2.4	-14.7
Chadron	-3.2	628.1
Columbus	2.5	-33.0
Fairbury	5.2	-83.9
Falls City	1.9	77.1
Fremont	-0.2	-52.9
Grand Island	2.1	37.3
Hastings	1.4	2.6
Holdrege	5.5	-63.8
Kearney	2.7	62.5
Lexington	-0.7	-21.9
Lincoln	2.7	-12.0
McCook	6.6	18.0
Nebraska City	1.2	-37.1
Norfolk	1.7	110.4
North Platte	0.0	94.5
Ogallala	-2.0	-15.0
Omaha	5.2	-17.2
Scottsbluff/Gering	4.5	-61.1
Seward	1.2	-31.0
Sidney	4.9	1061.9
South Sioux City	2.8	-0.7
York	-2.4	40.3

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

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

Sources: Nebraska Department of Labor and reports from private and public agencies

if there were another flare-up in the Middle East with a resulting large military operation, we could see a drop resembling last year's decrease.

Will there be a double-dip recession? I think that it is unlikely at this stage. We most likely will continue on a relatively weak recovery course—perhaps one of the weakest recoveries in post-World War II economic history.

Other Economic News

Both personal income and consumer spending increased 0.5 percent in June. If inflationary effects are removed from the figures, the increases were both 0.4 percent in real terms. May's saving rate was 3.7 percent.

Consumer confidence, as measured by the Conference Board, slipped marginally from 78.0 in June to 77.7 in July. Nevertheless, either figure is well ahead of the low established in February.

There was good news in the prices during June. The Consumer Price Index advanced a mere 0.2 percent, while the Producer Price Index slipped 0.3 percent.

In a somewhat confusing turn of events, retail sales slipped 0.2 percent in June, but stood well above their January lows.

The inventory-sales ratio that many analysts expected would not rise during the recession rose to 1.58 in January, but returned to 1.51 in May. The 1.51 figure means that there is the equivalent of a month and a half of sales in inventory.

Supporting the news in the housing start area, existing home sales increased 1.4 percent in June, marking the fifth gain in a row.

Nebraska Outlook

First quarter 1991 personal income data for the state recently have been released and are presented in the accompanying table. In the first quarter Nebraska's total personal income increased 2.7 percent versus year ago. This figure contrasts to a gain of 4.0 percent for the U.S. as a whole. These gains are distorted by estimated changes in farm income figures.

Farm income in Nebraska dropped 28.9 percent versus a year ago, while U.S. farm income fell 21.0 percent. Nebraska farm income is a much larger percent of state personal income than it is in the U.S. as a whole.

We look at Nebraska's nonfarm income to eliminate the wide swings in farm income. Nebraska nonfarm income increased 6.3 percent versus a year ago but only 4.4 percent for the nation as a whole. As inflation (as measured by the CPI) was approximately 5.3 percent from first quarter 1990 to first quarter 1991, Nebraska showed a real gain in income. The nation fell in real nonfarm income due to the recession.

Strength in the Nebraska personal income figures came from the service sector with an increase of 14.0 percent and from the finance, insurance, and real estate sector with an increase of 10.0 percent.

Nebraska did relatively well compared to other Plains states. There were some distortions in the data because of the timing of agricultural payments (some Plains states received ag payments in the fourth quarter, while others received payments in the first quarter of the year).

Once again we look at nonfarm income to abstract from those distortion problems. From the first quarter 1990 to the first quarter 1991, nonfarm income in the Plains increased 4.8 percent, a figure that contrasts with 4.4 percent for the nation as a whole. Nebraska led all the Plains states with an increase of 6.3 percent, followed closely by an increase of 5.9 percent in South Dakota and 5.4 percent in Minnesota, and 5.2 percent in Iowa and North Dakota. Missouri and Kansas kept the averages down with increases of 3.5 and 4.4 percent, respectively.

Employment figures for June verify the increases we have seen in personal income. Employment was strong, with an increase of 4.7 percent versus year-ago levels (Table I). The strongest sectors were construction at 16.7 percent and services at 8.1 percent.

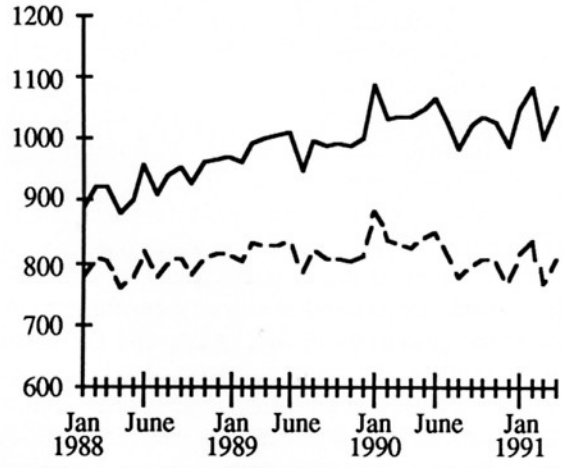
Table IV
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)		City Sales (2) April 1991 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) April 1991 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA		897,697	2.4	1,028,265	2.0	-0.1
1	Omaha	299,374	-0.8	373,354	1.0	-2.1
	Bellevue	12,759	3.1	*	*	*
	Blair	4,652	-7.3	*	*	*
2	Lincoln	116,734	-3.4	136,225	-2.9	-0.7
3	South Sioux City	5,658	-5.4	7,704	-5.6	-6.7
4	Nebraska City	3,461	-5.5	18,215	-0.6	0.6
6	Fremont	18,130	9.0	32,968	8.4	4.3
	West Point	3,401	11.6	*	*	*
7	Falls City	2,339	4.6	9,431	1.7	2.9
8	Seward	4,460	-2.3	14,904	1.7	1.5
9	York	6,444	-2.7	15,457	-2.3	0.0
10	Columbus	15,756	1.8	28,530	-0.1	-0.3
11	Norfolk	19,179	-0.1	35,361	-0.5	0.2
	Wayne	3,202	9.1	*	*	*
12	Grand Island	34,226	1.6	48,729	3.1	-1.6
13	Hastings	16,445	3.8	26,234	3.1	1.3
14	Beatrice	8,481	8.4	18,234	2.2	-1.0
	Fairbury	2,740	-3.4	*	*	*
15	Kearney	19,562	0.5	28,324	-0.3	3.5
16	Lexington	5,559	-5.8	16,300	1.6	1.0
17	Holdrege	5,121	-0.8	8,613	-3.5	1.7
18	North Platte	16,751	5.7	21,507	7.2	6.5
19	Ogallala	5,267	0.6	11,504	-6.8	-7.8
20	McCook	8,241	4.4	11,596	3.4	3.0
21	Sidney	3,650	1.2	7,874	4.5	2.8
	Kimball	1,759	16.4	*	*	*
22	Scottsbluff/Gering	17,798	-2.2	25,919	0.3	2.8
23	Alliance	5,347	-4.4	12,718	-6.1	0.2
	Chadron	2,421	-5.1	*	*	*
24	O'Neill	4,007	-15.9	13,645	-5.3	0.9
	Valentine	2,528	5.0	*	*	*
25	Hartington	1,647	-2.3	8,568	1.6	2.2
26	Broken Bow	3,851	6.3	12,227	0.3	0.1

(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
*Within an already designated region

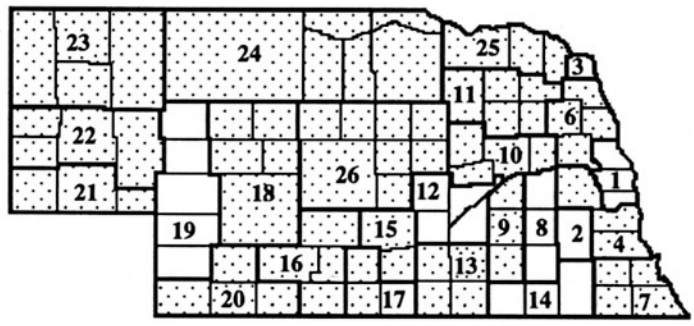
Compiled from data provided by the Nebraska Department of Revenue

Figure I
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted, $ Millions)



(1) A Nebraska price index (1982-84 = 100) is used to deflate current dollars into constant dollars. Solid line indicates current dollars; broken line indicates constant dollars

Figure II
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

Unemployment has remained relatively low. The recession of 1990-1991 has shown extreme regional differences. In May unemployment in Massachusetts was 9.7 percent, while in Michigan it was 9.0 percent. In May Nebraska had the lowest unemployment rate in the nation at 2.6 percent, with Lincoln's 2.6 percent rate the second lowest metropolitan area. Iowa City's rate, the lowest in the nation, was 1.7 percent.

In June unemployment in Nebraska reached 2.3 percent, in contrast to a U.S. unemployment rate of 7.0 percent. Lincoln stood at 2.0 percent, while Omaha was 2.8 percent. Nonmetropolitan Nebraska's unemployment rate matched the state's level.

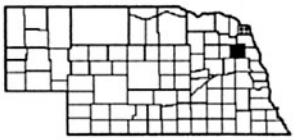
Retail sales improved slightly in April. Net taxable retail sales were 2.0 percent ahead of year-ago levels; however, on a year-to-date basis the first four months of this year are 0.1 percent behind year-ago levels (Table IV). Removing inflation's effects, Nebraska's net taxable retail sales have fallen in real terms from year ago. I strongly suspect that the retail sales figures will be reversed in months to come. Nebraska ought to do well because of the nonspending we experienced in the first part of this year and the gains in personal income. Nebraska's savings rates likely were up; thus, there should be ample funds available for additional consumption.

In agricultural news, subsoil moisture shortages are beginning to be a problem. Subsoil shortages had been isolated in the southeast corner of the state, but shortages now are spreading to east central, northeast, and south central locations. In the report for the week ending July 29, the state as a whole was 58 percent short in subsoil moisture, in contrast to a 46 percent shortage one year ago.

County of the Month

Cuming

West Point—County Seat



License plate prefix number: 24
Size of county: 571 square miles, ranks 62nd in the state
Population: 10,117 in 1990, a change of -13.3 percent from 1980
Median age: 36.8 years in Cuming County, 33.0 years in Nebraska in 1990
Per capita personal income: $14,631 in 1989, ranks 53rd in the state
Net taxable retail sales ($000): $61,476 in 1990, a change of +10.5 percent from 1989; $20,557 during Jan-April 1991, a change of +7.6 percent from the same period one year ago
Number of business and service establishments: 352 in 1988; 58 percent had less than five employees
Unemployment rate: 1.4 percent in Cuming County, 2.1 percent in Nebraska for 1990
Nonfarm employment (1990):

	State	Cuming County
Wage and salary workers	731,108	3,230
	(percent of total)	
Manufacturing	13.5%	23.3%
Construction and Mining	3.8	5.0
TCU	6.3	3.5
Retail Trade	18.4	18.8
Wholesale Trade	7.2	7.4
FIRE	6.6	4.1
Services	24.4	16.9
Government	19.7	21.0
Total	100.0%	100.0%

Agriculture:
Number of farms: 1,185 in 1987, 1,250 in 1982
Average farm size: 303 acres in 1987
Market value of farm products sold: $338.2 million in 1987 ($285,425 average per farm)

Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

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