

State of the State



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Nebraska's Economy in the Next Decade

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Summary: 1989-1998 Projections

- *Real Gross State Product will advance 16 percent over the period, an annual growth rate of 1.5 percent.
- *Job and employment growth will be robust into the early 1990s and then slow. Growth in these fields, however, will be constrained severely if the population of Nebraska does not expand.
- *Nebraska unemployment rates will remain below national rates.
- *Without substantial change, Nebraska will remain a low wage rate state. That status would leave little chance for improvement in the state's relative level of personal income.
- *The farm bill of 1990 will be a major determinant of Nebraska's economic future.
- *Net taxable retail sales gains will be less than those of personal income due to an aging population and an increasing portion of consumption devoted to spending that is not taxed.
- *The outlook can be altered substantially if Nebraska can offer high wage employment opportunities to improve the retention of skilled, well-educated young adults.

Overview

The future has become a popular topic in Nebraska, with many concerned citizens and groups examining the state's legacy and future courses. Our immediate contributions to this developing area of public discussion are found in the contents of this report. Rather than deal in generalities, we provide needed specifics about the current state of the Nebraska economy and offer projections of the economy for the next ten years. The analysis and projections come from an econometric model that was designed to capture the dynamic movements of the state economy. Thus, our comments and conclusions about Nebraska come from careful consideration of a myriad of numeric measurements concerning production, income, employment, and national and international economic conditions.

Projecting the activity levels of a state economy over a ten year period is a risky venture. An econometric model will provide projections for the terminal year of a ten year horizon in

the same numeric detail as it will for the initial year. This lends a false impression that the accuracy expected for the near term also applies to the later years of the horizon. Although accuracy naturally diminishes with distance, the projections for later years of the horizon show the expected directions of major economic accounts. These caveats should be kept in mind when evaluating the projections. The vision of Nebraska's future portrayed in the projections is mixed. Growth will continue at moderate rates as will changes in composition. This vision of the future is a continuation of past trends. The challenge facing Nebraskans is what can be done to alter it.

The report is organized into five sections corresponding to broad economic categories: Gross State Product; jobs and employment; personal income; wage rates; and retail sales. Each section contains numeric projections of the items in the economic category, supporting illustrations in some cases, and commentary on past and future trends.

Gross State Product

Among the various measures of state economic activity, Gross State Product (GSP) is the most comprehensive. It is the state equivalent of the nation's Gross National Product. GSP is the gross market value of the goods and services attributable to labor and property located in a state. The GSP figures are available on an annual basis and are available by industry components.

Table 1 contains historical and projected GSP in constant dollars for the industries of Nebraska and the state total. The historical period consists of the past two decades, with 1969 and 1979 used as the reference years. Those years were chosen rather than 1970 and 1980 because the latter were recession years in Nebraska. The projection decade of 1989-1998 is broken into five year increments. Compounded annual growth rates over the respective historical decades and over the respective projection intervals are shown in the table.

Total GSP in Nebraska grew at an annual rate of 2.6 percent during the 1969-1979 period, followed by a lower growth rate of 1.9 percent during the 1979-1988 period. Progress during the latter period was even slower for the nonfarm portion of the state, which had a growth rate of only 1.2 percent. Figure 1 shows both total GSP and the nonfarm portion over the years. The projected growth rate for the full economy over the 1988-1993 span is 1.8 percent on an annual basis, a rate nearly identical to that of the past decade. One major difference between the two time periods is evident from the figures. Gross product in the farm sector is expected to decrease gradually over the 1988-1993 period, in sharp contrast to its growth in the past decade. Thus, the projection implies a nonfarm portion of the economy that is stronger and faster growing during the next few years than during the 1979-1988 period. That view does not rule out the possibility of a recession in the near future. If a downturn does occur, it will be relatively short and should not be as severe as that experienced by Nebraska in the early 1980s. For the 1993-1998 period, a rate of growth for total GSP of 1.3 percent is projected. Farm GSP is projected to continue its slight downward trend over the period. The nonfarm portion of the economy will be influenced by the slower real growth in the U.S. economy that is anticipated during those years.

Nonfarm GSP projections are examined next. Gross product in mining is small and has decreased substantially over the long term as Nebraska oil production value decreased. Moderate rises in the real value of mining output are anticipated. Construction has bottomed out after a general decrease in gross product over the past 20 years. There may be temporary real gains in construction activity during the coming years, but the projection calls for no growth 1988-1993. A revival of the downward trend, although slight, is projected for 1993-1998. When evaluating the less than optimistic projections for industries such as construction,

Manufacturing has been enjoying an upswing in activity levels. Durables and nondurables manufacturing achieved estimated annual growth rates of 5.6 and 5.4 percent, respectively, in gross product between 1987 and 1988. A strong national economy pushed manufacturing activity upward, and the recent tax incentive legislation (LB775, etc.) has contributed as well. Over the longer period of 1979-1988, durables showed an annual growth rate of 3.2 percent, with nondurables lagging behind at 2.2 percent. The 1988-1993 period will find the nondurables annual growth rate of 4.1 percent slightly exceeding that of durables. Thus, the manufacturing surge should continue, although at a slower pace, over the next five years. If a recession were to occur in 1990, Nebraska's manufacturing growth would be reduced or stopped temporarily. The projected 1988-1993 growth rates would have to be scaled accordingly. Manufacturing is projected to remain vigorous in the 1993-1998 period, but with growth rates closer to those of the 1979-1988 period.

All of the remaining industries show growth patterns, but not levels, similar to those of manufacturing. Annual growth rates of the 1969-1979 span were higher than those of the 1979-1988 span which are less than or equal to the projected rates for 1988-1993. With the exception of the federal government sector, the projected rates for the 1993-1998 period are less than those of 1988-1993. Thus, the slowdown in growth anticipated over 1993-1998 will be experienced across all industries in the group. The federal government sector will look strong in future years due to the allocations of losses by federal farm credit agencies in the early 1980s. The losses were assessed against states on the basis of farm activity levels.

Table 2 contains the percentages of total GSP that have been, or will be, accounted for by the state's industries. The pattern of structural change in the Nebraska economy can be discerned by careful examination of the table. The share of total GSP in the farm sector has oscillated between single and double digit percentages over the 1969-1988 period, but is projected to fall from 14.7 percent in 1988 to 10.7 percent in 1998. Durables manufacturing increased its share by two percentage points between 1969 and 1988. Its share will continue to grow to above 10.0 percent. An identical pattern holds for the nondurables manufacturing share. It is projected to rise slightly above 8.0 percent by 1998. Transportation, communication, and utilities accounts for a significant and relatively stable share of total GSP—its share has been relatively stable over time. Share stability should continue. Wholesale trade enjoyed a substantial gain in its share between 1969 and 1979, but faltered slightly between 1979 and 1988. Modest gains in the share are projected. Retail trade has dropped in its share of total GSP during the 1979-1988 period. Further minor decreases are projected. The finance, insurance, and real estate industry has had a stable share of total GSP. Small increases are projected through 1998. Services has gained consistently in share, and the trend should continue. State and local government will have further declines in share of total GSP

Table 1
Nebraska's Gross State Product by Industry
(millions of 1982 dollars)

Industry	1969	1979	1988*	1993	1998	Annual Growth Rates		
						1969 -1979	1979 -1988	1988 -1993
Farm	1,922	2,044	3,625	3,319	3,066	0.6	6.6	-1.7
Ag. Services	99	118	118	111	109	1.8	0.0	-1.2
Mining	304	89	85	93	103	-11.6	-0.5	1.8
Construction	1,395	1,027	799	800	779	-3.0	-2.8	0.0
Durables Manufacturing	1,106	1,671	2,210	2,657	3,098	4.2	3.2	3.8
Nondurables Manufacturing	964	1,396	1,692	2,068	2,370	3.8	2.2	4.1
Transportation, Communication, Utilities	1,650	2,424	2,702	3,010	3,209	3.9	1.2	2.2
Wholesale Trade	955	1,700	1,886	2,115	2,284	5.9	1.2	2.3
Retail Trade	1,644	2,116	2,130	2,227	2,286	2.6	0.1	0.9
Finance, Insurance, Real Estate	2,175	3,176	3,760	4,243	4,574	3.9	1.9	2.4
Services	1,742	2,482	3,126	3,553	3,879	3.6	2.6	2.6
Federal Government	745	699	525	618	735	-0.6	-3.1	3.3
State and Local Government	1,433	2,002	2,044	2,164	2,216	3.4	0.2	1.1
Total GSP**	16,134	20,943	24,705	26,978	28,710	2.6	1.9	1.8

*Figures for 1988 are estimates made in advance of official releases.

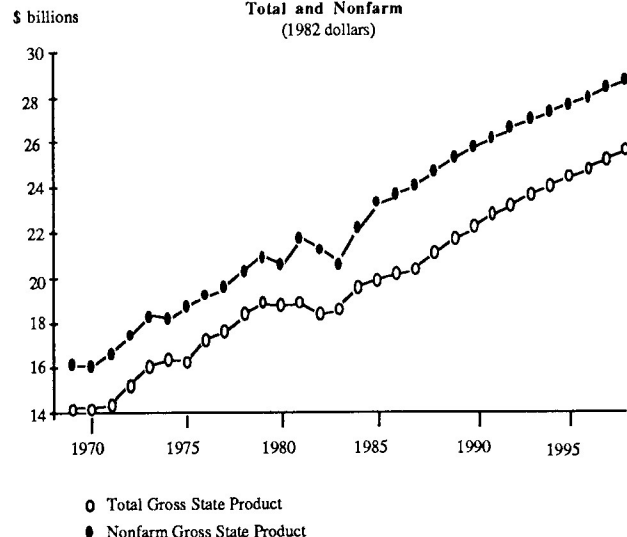
** Totals may not add due to rounding.

Sources: Bureau of Economic Analysis, April 1988 release of Gross State Product.
Projections from the Nebraska econometric model.

Table 2
Industry Shares of Gross State Product
(percentage distribution)

Industry	1969	1979	1988	1993	1998
Farm	11.9%	9.8%	14.7%	12.3%	10.7%
Ag. Services	0.6	0.6	0.5	0.4	0.4
Mining	1.9	0.4	0.3	0.3	0.4
Construction	8.6	4.9	3.2	3.0	2.7
Durables Manufacturing	6.9	8.0	8.9	9.8	10.8
Nondurables Manufacturing	6.0	6.7	6.8	7.7	8.3
Transportation, Communication, Utilities	10.2	11.6	10.9	11.2	11.2
Wholesale Trade	5.9	8.1	7.6	7.8	8.0
Retail Trade	10.2	10.1	8.6	8.3	8.0
Finance, Insurance, Real Estate	13.5	15.2	15.2	15.7	15.9
Services	10.8	11.9	12.7	13.2	13.5
Federal Government	4.6	3.3	2.1	2.3	2.6
State and Local Government	8.9	9.6	8.3	8.0	7.7
Total	100.0	100.0	100.0	100.0	100.0

Figure 1
Nebraska's Gross State Product
Total and Nonfarm
(1982 dollars)



Jobs and Employment

Employment data for Nebraska are collected in two ways: by place of work and by place of residence. Each covers a distinct dimension of the labor market. The place of work figures are counts of the number of wage and salary jobs in the nonfarm industries of Nebraska. The term *jobs* is confined properly to the counts of the nonfarm wage and salary jobs. These job counts are not the numbers of employed persons. Persons can hold multiple jobs, nonresidents can hold jobs in Nebraska, and Nebraskans can hold jobs outside the state. Nebraskans can be employed, but need not hold a wage and salary job in a nonfarm industry.

Data collected on the place of residence basis are counts of Nebraskans that are employed or unemployed. The sum of the employed and unemployed is the labor force total. Employment (the number of employed Nebraskans) is not equivalent to the number of jobs held in Nebraska. The two counts even can move in opposite directions. For example, annual average employment in Nebraska decreased 1,000 persons between 1986 and 1987, while the number of jobs increased almost 7,000. A return to the more common pattern of movement in the same direction occurred between 1987 and 1988, when annual average employment increased roughly 7,500 persons and the number of jobs increased roughly 10,000.

Table 2 contains historical and projected numbers for jobs and employment. The job numbers are portrayed by industry, but no such breakdown is available for employment data. The years presented are the same as those in the previous section. Figures for 1988 are estimated because data for the full year were not available.

The number of jobs in Nebraska grew at a compounded annual rate of 2.9 percent between 1969 and 1979. GSP rose at a 2.6 percent annual rate during this period, and the labor force participation rate rose dramatically. Both influences allowed job growth. An interesting perspective of the job growth is provided by noting that population advanced only 90,000 during the period, while the number of jobs rose close to 160,000. Persons were joining the labor force at a rate that was sufficient to cover growth of jobs. The rate of job growth slowed markedly during the 1979-1988 period. Occasional annual declines in total GSP during this period were translated into decreases in the number of jobs during 1980, 1981, and 1982. There was virtually no change in 1983. The jobs count resumed growth in 1984 and finished 1988 at an estimated level of roughly 669,000 on an annual average basis.

The projected annual growth rate for the number of jobs is 1.1 percent for 1988-1993. That rate is substantially less than the rate during 1969-1979, but it exceeds the rate of 1979-1988. The 1988-1993 rate translates into 37,000 more jobs by 1993, a five year gain respectable by historical standards. Growth is projected to slow in the 1993-1998 period to an annual rate of 0.9 percent. The projected job total for the final year of the horizon is approximately 741,000, representing a gain of almost 72,000 jobs over the next ten years. Can Nebraska achieve this gain? The projection is tilted in the optimistic direction, but it was made only after careful review of past trends and developments in the state. GSP growth over the next decade will have to achieve the

projected rates noted earlier and labor supply constraints cannot be tolerated. Slight recessions that may be encountered will not compromise the projections to a great degree, but repetition of a downturn such as that in the early 1980s would dictate substantial downward revisions. It also is assumed that the amount and pace of job creation associated with the tax incentive legislation (LB775, etc.) will achieve expected levels.

The finance, insurance, and real estate (FIRE) industry has the highest projected growth rate for jobs, 2.0 percent annually, over the next five years. One influence behind the projected strength of the increase is the weak growth of only about 350 jobs between 1987 and 1988. The story is the familiar one of an increase that appears strong because of measurement from a low base. Several industries have annual growth rates either equal to or close to 1.5 percent for the 1988-1993 period. The durables and nondurables categories of manufacturing are in the group, along with transportation, communication, and utilities (TCU); wholesale trade; services; and federal government. All of these industries also have projected annual growth rates of jobs exceeding that of the state total. Although services does not retain its lead in growth rates in the next five years, it dominates in job numbers. Almost 161,500 service industry jobs are projected for 1993. In terms of jobs, retail trade has been the second largest industry, but the annual growth rate projected for 1988-1993 is 0.7 percent, matching the rate posted 1979-1988. The slow growth rate of jobs is consistent with the projection of slow growth for gross product in retail trade. Construction job numbers are projected to continue the downward trend established in 1979-1988.

Job growth rates projected for the 1993-1998 period are less than those of the 1988-1993 period for the state total and the majority of industries. Those projected to have higher rates include mining, construction, services, federal government, and state and local government. The improved growth rates for the group just slightly exceed the rates anticipated for the earlier period, with the federal government an exception to the pattern. Of the majority group with lower growth rates, nondurables has the biggest decrease from its 1988-1993 rate. That slowing of growth coincides with the end of the seven year period of job creation under LB775. As a significant number of the LB775 applications have come in the nondurables manufacturing area, it follows that job growth rates in the industry should be less in the post-LB775 era as the economy absorbs the positive shocks.

Table 4 contains the industry shares of the nonfarm wage and salary jobs in the state during the historical and projection periods. The dynamics of the Nebraska labor market and shifting job patterns can be discerned by following the respective industry shares through time. Mining and construction consistently have lost share during the past 20 years and will continue to do so. Durables and nondurables manufacturing have had their respective shares decrease to around 7.0 percent, but projections show the shares stabilizing in the future. The same pattern holds for TCU. Small gains in share during the projection years are projected for wholesale trade, federal government, and FIRE. Services will expand its share of Nebraska jobs, but not at the rapid rate of the 1979-1988 period. Retail trade employment is projected to grow at rates less than those of the state total,

Table 3
Nebraska's Jobs and Employment

	1969	1979	1988*	1993	1998	Annual Growth Rates				
						1969 -1979	1979 -1988	1988 -1993	1993 -1998	
By Place of Work: (count of jobs)										
Mining	1,700	1,769	1,665	1,665	1,665	0.4	-0.7	0.0	0.0	0.0
Construction	25,200	32,449	23,844	22,031	20,623	2.6	-3.4	-1.6	1.1	1.1
Durables Manufacturing	45,300	52,564	45,772	49,291	51,777	1.5	-1.5	1.5	1.1	1.1
Nondurables Manufacturing	41,400	46,916	46,655	50,544	52,043	1.3	-0.1	1.6	0.8	0.8
Transportation, Communication, Utilities	36,700	47,843	43,821	46,972	49,182	2.7	-1.0	1.4	0.9	0.9
Wholesale Trade	26,100	48,259	48,086	52,134	55,303	6.3	0.0	1.6	1.1	1.1
Retail Trade	91,200	115,811	123,260	127,812	131,648	2.4	0.7	0.7	0.8	0.8
Finance, Insurance, Real Estate	27,900	40,995	48,157	53,254	56,653	3.9	1.8	2.0	1.1	1.1
Services	79,100	113,988	150,039	161,484	174,486	3.7	3.1	1.5	1.6	1.6
Federal Government - Civilian	18,100	16,242	17,552	18,955	20,990	-1.1	0.9	1.5	2.1	2.1
State & Local Government	79,300	114,362	120,400	123,440	126,557	3.7	0.6	0.5	0.5	0.5
Nonfarm Wage & Salary Jobs**	472,000	631,198	669,251	707,581	740,928	2.9	0.7	1.1	0.9	0.9
By Place of Residence: (count of persons)										
Population (000s)	1,474	1,564	1,604	1,638	1,654	0.6	0.3	0.4	0.2	0.2
Participation Rate	44.7	49.4	50.4	51.6	53.0	1.0	0.2	0.5	0.5	0.5
Labor Force	658,500	772,000	808,983	845,208	876,620	1.6	0.5	0.9	0.7	0.7
Unemployment	14,600	25,000	30,296	31,279	31,409	5.5	2.2	0.6	0.1	0.1
Unemployment Rate	2.2	3.2	3.7	3.7	3.6					
Employment	642,900	747,000	778,687	813,929	845,211	1.5	0.5	0.9	0.8	0.8
Farm	107,600	72,724	74,740	70,165	68,621	-3.8	0.3	-1.3	-0.4	-0.4
Nonfarm Wage & Salary	472,000	595,406	623,682	661,291	692,456	2.3	0.5	1.2	0.9	0.9
Other Nonfarm	63,300	78,870	80,265	82,473	84,134	2.2	0.2	0.5	0.4	0.4

*Figures for 1988 are estimates made in advance of official releases.

**Totals may not add due to rounding.

Sources: Nebraska Department of Labor.

Projections from the Nebraska econometric model.

Table 4
Industry Shares
Nebraska's Nonfarm Wage & Salary Jobs
(percentage distribution)

	1969	1979	1988	1993	1998
Mining	0.4%	0.3%	0.2%	0.2%	0.2%
Construction	5.3	5.1	3.6	3.1	2.8
Durables Manufacturing	9.6	8.3	6.8	7.0	7.0
Nondurables Manufacturing	8.8	7.4	7.0	7.1	7.0
Transportation, Communication, Utilities	7.8	7.6	6.5	6.6	6.6
Wholesale Trade	5.5	7.6	7.2	7.4	7.5
Retail Trade	19.3	18.3	18.4	18.1	17.8
Finance, Insurance, Real Estate	5.9	6.5	7.2	7.5	7.6
Services	16.8	18.1	22.4	22.8	23.5
Federal Government-Civilian	3.8	2.6	2.6	2.7	2.8
State & Local Government	16.8	18.1	18.0	17.4	17.1
Total	100.0	100.0	100.0	100.0	100.0

implying an eroding share. State and local government job growth also will fall short of the state growth rate. Even though change and evolution of the job distribution among industries will continue, the changes will not be dramatic.

The place of residence basis of the labor market (counts of persons) now is used for an analysis of past and projected trends in employment. The relevant figures are in the lower portion of Table 3. Total employment in the state grew at a compounded annual rate of 1.5 percent during the 1969-1979 decade to a level of 747,000 in 1979. Close to 104,000 persons were added to total employment in that decade, even though population grew only 90,000. The labor force participation rate (percent of the population in the labor force whether employed or unemployed) rose through the decade. The dramatic rise in the female participation rate during this period and the shifts among population cohorts have been well documented.

Growth in total employment slowed to a 0.5 percent annual rate during 1979-1988, leaving an estimated employment total of roughly 779,000 on an annual average basis for 1988. The gain was nearly 32,000 persons. Population grew only 40,000, and the participation rate increased only one percentage point during the period. Although the 1979-1988 span contains one less year, the gains during that period were meager in comparison to those of the 1969-1979 decade. Employment is projected to rise to nearly 814,000 by 1993, a gain of about 35,000 persons. The implied annual rate of growth is about midway between the rates observed in the 1969-1979 and 1979-1988 periods. The growth rate is projected to slow during the last five years of the projection horizon. Total employment finishes at slightly above 845,000 in 1998, for a total gain of around 66,500 persons over the ten years. From where will these persons come? The projections rely upon the addition of about 50,000 persons to the population and another 2.6 percentage points to the labor force participation rate. Growth in the labor force then would be sufficient to facilitate employment growth with unemployment in the reasonable range of 3.0 percent to 4.0 percent.

Employment figures are broken into three categories: farm, nonfarm wage and salary, and all other nonfarm. The first two categories are self-explanatory, while the last category is the residual containing domestic workers, unpaid family workers, and the self-employed. As shown in Table 3, farm employment fell almost 35,000 persons during 1969-1979 before stabilizing in 1979-1988. The projections show a resumption of the slow downward trend in farm employment. Other nonfarm employment grew an annual rate of 2.2 percent over the 1969-1979 period, but the rate moderated to 0.2 percent for 1979-1988. Low annual growth rates of 0.5 and 0.4 percent, respectively, are expected for other nonfarm employment in each of the five year intervals of the projection horizon. That leaves the dominant category of nonfarm wage and salary employment as the pacesetter for future employment trends. Employment in this category is projected to grow to around 661,000 by 1993 and to approximately 692,500 by 1998.

Figure 2 portrays the major components of the Nebraska labor market: the labor force, total employment, total nonfarm wage and salary jobs, and total nonfarm wage and salary employment.

The vertical distance between the labor force and employment levels in each year is the number of unemployed. The distance between employment and its dominant component of nonfarm wage and salary employment is the sum of farm employment and all other nonfarm employment. Finally, the distance between nonfarm wage and salary jobs and nonfarm wage and salary employment shows the difference between wage and salary job counts and employees in the nonfarm industries.

Figure 2 is labeled as the baseline case, indicating that population and the labor force participation rate are projected to behave as shown in Table 3, the former to grow about 50,000 persons and the latter to increase 2.6 percentage points over the decade. Large increases in the participation rate will not occur again during the 1990s. The projected increases in population and the participation rate would translate into labor force increases sufficient to allow employment to grow at the projected rates. That precarious relationship between labor force and employment is illustrated by the gap in Figure 2. The gap cannot close substantially because an unreasonably low rate of unemployment would be implied. Nebraska is moving into an era where sustained population growth will be a prerequisite for continued employment growth. In turn, the growth in employment will be needed to keep the state on a reasonable growth path. A crucial element in the projections shown in Figure 2 is the gap between the nonfarm wage and salary job count and the employment count. Over the past 20 years, the job count has been 6.0 percent above the employment count, but the percentage has oscillated. The projection relies upon a job count 7.0 percent above employment. Figure 3 shows the implications of a recent, but reversible, trend in Nebraska: the lack of population growth over the past several years. In contrast to the projection of slow population growth used in the baseline case, an alternate projection of no population growth from the 1989 level of 1.614 million is used. The same projection of the participation rate from the baseline case is used. The negative implications of no population growth appear as the 1990s progress. Labor force growth is cut due to the lack of population growth. Rather than a labor force of about 877,000 by 1998, it grows only to around 855,000. The gap between the employment levels in the baseline case and the labor force begins to narrow. By the mid-1990s, unemployment rates implied by the narrowing gap have fallen below 2.5 percent. These rates are not sustainable. The state economy has a labor market gridlock. The state lacks the persons to keep employment levels growing at strong rates. Only participation rate increases can offset this situation. Unfortunately, sufficient increases in the participation rate will not occur.

Nebraska has relied upon employment growth to balance mediocre wage rates and to keep wage and salary totals and, therefore, personal income growing at rates close to national levels. The prospect of constrained employment levels, coupled with continued low wage rates in many industries, implies low economic growth rates for the state. Population must grow over the long term to provide a sufficient labor force for employment growth. Higher wage rates relative to the U.S. are needed to retain members of the Nebraska workforce who are prone to leave the state.

Figure 2
Labor Force, Employment, and Jobs
Baseline Case

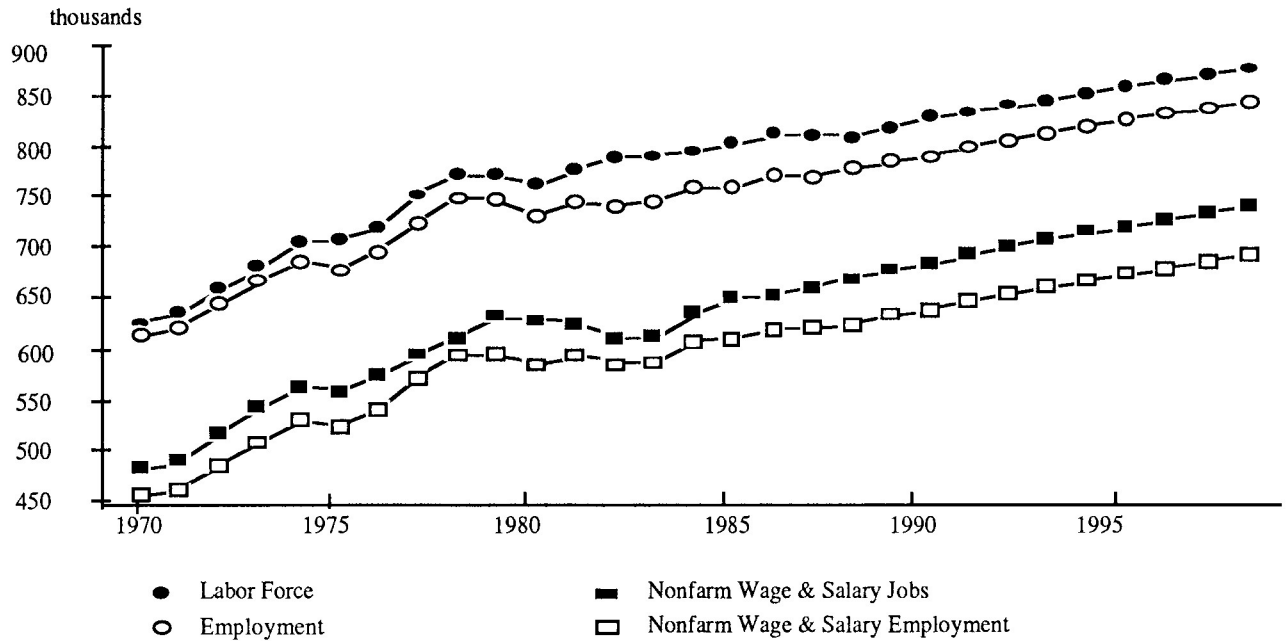


Figure 3
Labor Force and Employment
No Population Growth



Personal Income

Total personal income in Nebraska and the U.S. grew at an annual rate of 10.2 percent from 1969-1979 (Table 2). Nebraska's annual rate of income growth lagged that of the U.S. from 1979-1988, with Nebraska's 6.5 percent trailing the 8.0 percent national rate. Most growth during both periods was attributable to inflation. Real personal income in Nebraska grew at an annual rate of 2.3 percent over the period 1969-1988.

Per capita personal income for both the state and nation grew at an annual rate of 8.0 percent over the period 1969-1988. The equivalence in per capita income growth between state and nation arises from the low growth rate of the Nebraska population compared to the nation. With few exceptions, Nebraska's personal income has remained about 92.0 percent to 94.0 percent of U.S. per capita personal income for the last two decades.

Figure 3 displays the trends in both total and nonfarm real personal income in the state from 1969-1998. Over the period 1969-1987, the average proportion of total personal income attributable to farm income was 8.6 percent. That compares to a 1987 U.S. proportion of 1.3 percent. Nebraska farm income is highly variable. In 1973, farm income was about 16.0 percent of Nebraska total personal income. In 1980 and 1983, years associated with poor agricultural markets, farm income was just over 5.0 percent of Nebraska's total personal income. Farm income consists of gross receipts less production expenses adjusted for inventory changes. Gross receipts comprise crop and livestock receipts, government payments, and an imputed rent figure. Production expenses consist of outlays for feed, seed, fertilizer, petroleum products, purchased livestock, farm labor, machinery repair, depreciation, interest, taxes, and rents. Projections call for Nebraska farm income growth to slow from that experienced in the last two decades. An annual growth rate of 3.2 percent is projected for 1988-1993, followed by a slight drop to 3.0 percent for 1993-1998.

The agricultural sector should be stable, but will account for a smaller share of total personal income over the next ten years. This decline will depend on weather, markets, exports, and government policy. The most important influence on farm income in the early 1990s will be the upcoming farm bill. This legislation may be the most influential economic event in the Nebraska economy in the 1990s. Continued prosperity and growth in Nebraska hang in the balance. These projections of farm income assume a farm bill that is not as favorable as the current bill.

The largest share of total personal income comes from wages and salaries, but the share has been decreasing over the past 20 years and will continue to do so. Wages and salaries are determined by employment levels and wage rates. The relative wage rate for Nebraska is less than that for the U.S. Nebraska wages and salaries will grow 5.9 percent annually over the next decade. The proportion of personal income from wages and salaries in Nebraska will decrease marginally from the current 50.0 percent level.

Other labor income has made up approximately 4.5 percent of total personal income in recent years. This component primarily is benefits earned by employees. Other labor income grew sharply 1969-1979, but since has tracked wage and salary

growth. The outlook calls for the category to increase slightly faster than wages and salaries.

Proprietors' income has been about 15.0 percent of total personal income over the last several years. This classification of the regional income accounting system includes partnerships as well as sole proprietors. A relatively large share of Nebraska proprietors' income is attributable to farm operations. In 1987, the Nebraska share of proprietors' income from farming was 50.0 percent while the U. S. share was 13.0 percent. The variability of proprietors' income is related to the agricultural sector. Figure 5 shows the peak in proprietors' income in 1973, an outstanding year for agriculture. The low point comes in 1983, a year of low farm income. The outlook over the next decade for Nebraska's proprietors' income is dictated by farm income projections. Proprietors' income will grow 4.4 percent, compared to over 6.0 percent growth for total personal income. The share of proprietors' income will decrease from 16.6 percent in 1988 to 13.2 percent in 1998.

The next item in the personal income accounts is an adjustment for social insurance contributions. Growth in this category will follow growth in earnings. Over the historical period, social insurance payments increased faster than earnings. That disparity resulted from large increases in the rate of taxation for Social Security in the 1970s and moderate increases in the 1980s. Thus, the growth rate of the contributions to social insurance outpaced the growth of earnings. The projection assumes no major increase in the Social Security tax rate.

The dividends, interest, and rent category is another large component of total personal income. It has grown from under 14.0 percent in 1969 to 17.5 percent in 1988. Growth in the component is cyclical. The share of total personal income of this category grew from 14.7 percent to 19.7 percent over the four year period starting in 1979. The share then dropped to a more modest 18.0 percent. The projection of dividends, interest, and rent is lower growth rates over the next decade than in the 1970s or 1980s. Relatively stable interest rates and single digit interest rates are assumptions underlying the projections.

Transfer payments are a large component of total personal income in Nebraska. Transfer payments were 8.5 percent of TPI in 1969 and 13.1 percent in 1988. The important components of transfer payments are retirement and disability payments, medical payments (including Medicare and Medicaid), income maintenance payments (including Aid to Families with Dependent Children and food stamps), and veteran payments. Also included are unemployment insurance benefits. Transfer payments are expected to grow from 13.1 percent of total personal income in 1988 to just under 15.0 percent in 1998. The growth is attributable to the Social Security payment system and the medical payment component of the program. Because the average age of Nebraskans is expected to increase sharply over the next 20 years, Social Security payments will become an important feature of total personal income in the state. Perhaps the most important trend in the historical income data is the failure of wage and salary growth rates to keep pace with those of personal income. The wage and salary share continues to fall, with transfer payment growth taking up the slack. This pattern is projected to continue.

Table 5
Personal Income in Nebraska
(millions of current dollars)

	1969	1979	1988	1993	1998	Annual Growth Rates				
						1969 -1979	1979 -1988	1988 -1993	1993 -1998	
Total Personal Income (TPI)**	5,222	13,852	24,390	32,814	44,435	10.2	6.5	6.1	6.3	
Nonfarm Personal Income	4,622	12,725	22,168	30,212	41,419	10.7	6.4	6.4	6.5	
Farm Personal Income	601	1,127	2,223	2,602	3,016	6.5	7.8	3.2	3.0	
Components of TPI										
Earnings	4,262	10,805	17,939	23,558	31,016	9.7	5.8	5.6	5.7	
Wages and Salaries	3,000	7,767	12,776	17,012	22,681	10.0	5.7	5.9	5.9	
Other Labor Income	144	671	1,129	1,577	2,158	16.6	6.0	6.9	6.5	
Proprietors' Income	1,118	2,367	4,034	4,969	6,176	7.8	6.1	4.3	4.4	
Less: Social Insurance Contribution	174	514	1,149	1,500	1,985	11.5	9.3	5.5	5.8	
Plus: Residence Adjustment	-98	-189	-289	-303	-319	6.8	4.8	1.0	1.0	
Plus: Dividends, Interest, Rent	765	2,140	4,514	6,248	8,745	10.8	8.6	6.7	7.0	
Plus: Transfer Payments	467	1,610	3,375	4,811	6,978	13.2	8.6	7.4	7.7	

**Totals may not add due to rounding.

* Figures for 1988 are estimates made in advance of official releases.

Sources: Bureau of Economic Analysis, August 1988 release of state personal income.
Projections from the Nebraska econometric model.

Figure 4
Nebraska's Personal Income
Total and Nonfarm
(1982 dollars)

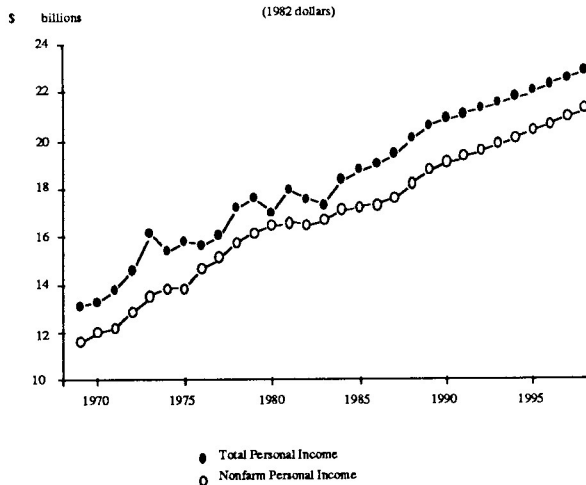
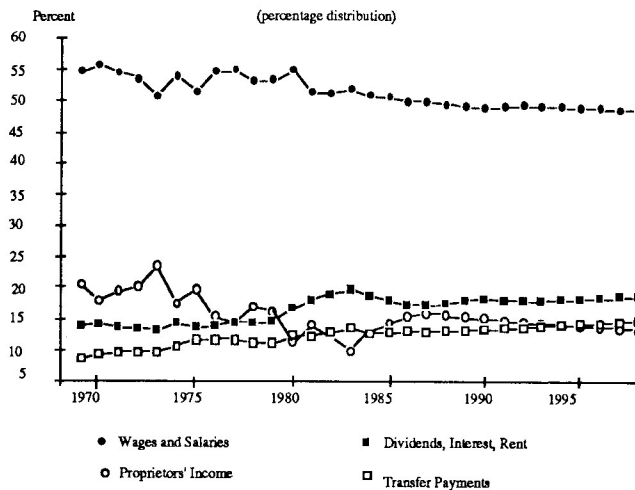


Figure 5
Components of Nebraska's Personal Income
(percentage distribution)



*No deductions are made for social insurance contributions or the residence adjustment

Wage Rates

The wage rate picture for Nebraska is not encouraging. Tables 6 and Table 7 reveal three features about Nebraska's wage rates, as measured by wages and salaries per job per year. First, Nebraska's growth rates for wages roughly have paralleled national growth. The notable exceptions in the 1980s have been wholesale and retail trade; finance, insurance, and real estate; and services. All other growth rates were within 1.0 percent of national rates. Second, Nebraska is overrepresented in lower wage industries such as services. Third, relative wages fell sharply in Nebraska compared to the nation for all industries, especially in the 1980s.

There are three industry groupings with exceptional wage rate patterns.

In durables manufacturing, there has been parity between Nebraska and the U.S. This is not reassuring, as Nebraska is underrepresented in durables manufacturing.

In transportation, communication, and utilities, Nebraska was below parity in 1969 but above parity in 1988. Nebraska wages in this category now are roughly 5.0 percent above national levels. The reason for the disparity is that Nebraska is represented heavily in the railroad industry. This industry is highly paid and strongly unionized. But the future for the railroads is clear. Railroads increasingly have reduced labor, especially in the last decade. Furthermore, railroads are not viewed as a rapid growth industry. The trend of the last 20 years has been toward increased bulk commodity transportation and toward increased piggyback traffic.

The last exception to the general pattern of continuous decreases in Nebraska's relative wage rates is federal government. Federal government wages started at 87.9 percent of national levels in 1969, peaked in 1979, and then fell to 90.1 percent.

The remainder of the major industry groupings have the same pattern in relative wages: decreases from 1969 onward. State government was 90.2 percent of the national wage rate in 1969

and decreased to 81.4 percent in 1988. Although that may be good news for some Nebraska taxpayers, it is not good news for personal income. In construction, Nebraska's wages matched national wages in 1969, but have decreased to 90.0 percent. If construction were decomposed into roads and homes, a strikingly dissimilar pattern would emerge. Because of federal government contracts, road-building workers tend to be paid at nationally set union wages, but residential workers in Nebraska tend to be non-union and are paid comparably less than national standards.

Nondurable manufacturing wages were 84.7 percent of national wages in 1969, decreasing to 78.2 percent in 1988. Nebraska's nondurable manufacturing tends to be dominated by food production, a relatively low wage industry.

Twenty years ago, Nebraska wholesale and retail trade wages were slightly above 90.0 percent of national wages and are now slightly above 80.0 percent. For finance, insurance, and real estate, the same pattern prevails. The most disturbing development is in the services industry. Twenty years ago, Nebraska wages in services were 94.9 percent of the national level. Today they have decreased to 81.4 percent.

All of the wage rate projections are fairly optimistic, as no continuation of downward trends in the ratio of Nebraska to national levels are implied. Instead, a continuation of the ratios of 1988 characterize the outlook. It may be reasonable to speculate that no further deterioration in the wage rate will arise because of a possible upcoming crunch in labor supply. If Nebraska industries continue to concentrate in the low wage area, the projections may be too optimistic.

A solution to the wage problem may be an upgrading of jobs or industries. Nebraska has an adequate supply of educated, younger workers. A recent study found that Nebraska's public education system is highly rated. Furthermore, Nebraska produces a large number of university graduates. The problem of the future will be to retain these persons in meaningful, highly paid jobs. The emphasis of future programs should be attracting employers that need skilled, highly paid workers.

Table 6
Nebraska's Annual Wage Rates
 (current dollars per job)

	1969	1979	1988*	1993	1998	Annual Growth Rates			
						1969 -1979	1979 -1988	1988 -1993	1993 -1998
Mining	7,008	14,960	23,376	30,486	39,865	7.9	5.1	5.5	5.5
Construction	8,647	15,097	20,841	25,635	32,159	5.7	3.6	4.2	4.6
Durables Manufacturing	6,828	14,233	23,658	29,835	38,279	7.6	5.8	4.7	5.1
Nondurables Manufacturing	7,047	13,901	22,124	27,859	35,379	7.0	5.3	4.7	4.9
Transportation, Commu- -nication, Utilities	8,053	18,539	30,546	39,437	51,024	8.7	5.7	5.2	5.3
Wholesale Trade	7,673	14,268	21,549	27,070	34,239	6.4	4.7	4.7	4.8
Retail Trade	4,219	7,392	10,088	12,323	15,195	5.8	3.5	4.1	4.3
Finance, Insurance, Real Estate	6,305	12,287	21,825	27,136	34,343	6.9	6.6	4.5	4.8
Services	4,590	9,285	15,373	19,413	24,804	7.3	5.8	4.8	5.0
Federal Government-Civilian	7,692	17,617	25,233	31,229	39,432	8.6	4.1	4.4	4.8
State & Local Government	5,505	10,096	16,952	21,126	26,750	6.3	5.9	4.5	4.8

*Figures for 1988 are estimates made in advance of official releases.

Sources: Bureau of Economic Analysis, August 1988 release of state personal income.
 Projections from the Nebraska econometric model.

Table 7
U.S. Annual Wage Rates
 (current dollars per job)

	1969	1979	1988*	1993	1998	Annual Growth Rates			
						1969 -1979	1979 -1988	1988 -1993	1993 -1998
Mining	8,615	20,622	34,550	44,414	57,909	9.1	5.9	5.2	5.4
Construction	8,645	15,890	23,420	28,785	36,322	6.3	4.4	4.2	4.8
Durables Manufacturing	6,977	14,142	23,971	30,174	38,677	7.3	6.0	4.7	5.1
Nondurables Manufacturing	8,316	16,899	28,284	35,663	45,751	7.3	5.9	4.7	5.1
Transportation, Commu- -nication, Utilities	8,394	18,405	29,165	36,902	47,352	8.2	5.2	4.8	5.1
Wholesale Trade	8,379	16,372	26,931	33,705	42,861	6.9	5.7	4.6	4.9
Retail Trade	4,649	8,183	12,191	14,934	18,660	5.8	4.5	4.1	4.6
Finance, Insurance, Real Estate	7,037	13,448	26,862	33,844	43,352	6.7	8.0	4.7	5.1
Services	4,837	10,229	18,739	23,793	30,635	7.8	7.0	4.9	5.2
Federal Government-Civilian	8,747	18,441	27,987	34,842	44,221	7.7	4.7	4.5	4.9
State & Local Government	6,106	11,795	20,820	26,014	33,099	6.8	6.5	4.6	4.9

*Figures for 1988 are estimates made in advance of official releases.

Sources: Bureau of Economic Analysis, August 1988 release of state personal income.
 Projections from the Nebraska econometric model.

Retail Sales

Retail sales are related to general economic conditions and demographics. Table 6 presents current dollar retail sales data. Retail sales in the 1970s, both motor vehicle and nonmotor vehicle sales, increased rapidly. This growth was related to inflation and rapidly waned in the 1980s. For a comparison with national levels, total consumption less services is used. This figure increased 9.9 percent for the U.S. from 1970-1979. The Nebraska growth rate for taxable retail sales is 10.2 percent. Although it is desirable to look at the 1980s as a whole, a break in Nebraska data interferes. Nebraska's retail sales taxes were altered in October 1983 when food was exempted from taxation. In Table 6, the growth rates are not for 1979-1988, but cover the period 1984-1988 for both nonmotor vehicle sales and total sales. In addition, dependable data for 1969 are not available for retail sales, which makes these tables incomparable to other tables in this paper. From 1984-1988, Nebraska total retail sales increased 5.3 percent, compared to an increase of 5.6 percent for the nation's consumption less services.

Nebraska motor vehicle sales are highly variable. That variability is due to farm income changes and changes in the nonfarm business cycle. Motor vehicle purchases increase in years of high agricultural income. 1973 was a good year in agriculture, and motor vehicle sales peaked. 1980 was a poor agricultural year, and motor vehicle sales fell. Motor vehicles did not recover from 1980 because a nationwide recession strongly influenced sales. Motor vehicle sales continued downward in the early 1980s, but jumped in 1983. Although 1983 was a poor agricultural year, other segments of the economy recovered from recession conditions, allowing motor vehicle sales to increase sharply. From that point, motor vehicle sales grew steadily in Nebraska, with the exception of 1985. Nebraska tends to have its own motor vehicle sales cycle. Nationally, 1985 and 1986 were outstanding years for motor vehicle sales; 1985 was not particularly good for Nebraska motor vehicles. In 1988, both Nebraska and the nation had high levels of motor vehicle sales. The outlook for motor vehicle sales in Nebraska over the

next decade is for moderate growth. This growth is not helped by the relatively slow growth in farm income. Motor vehicle sales rates barely will outpace inflation rates in the next decade.

Nonmotor vehicle sales cover the balance of the sales tax base. The tie to farm income is not as close as for motor vehicles. Nonmotor vehicle sales in Nebraska appear to be recession prone. Figure 6 shows sales in constant dollars. The series peaks in 1979 and then declines through 1982, paralleling the nationwide recession. Because the 1983 figures are affected by the repeal of the sales tax on food, we can not see the recovery in that year. But after 1985, nonmotor vehicle sales improved steadily.

The outlook for nonmotor vehicle sales is for increases around 5.0 percent. That increase is mirrored by total retail sales. As income growth projections are around 6.0 percent, one may wonder why retail sales are not higher than projected. There are several reasons. Nebraska's population is growing older, and savings rates probably will increase over the next decade. Services, a growing share of consumption, are not taxed. As the population shifts purchases toward purchases of services, retail sales will not parallel gains in personal income.

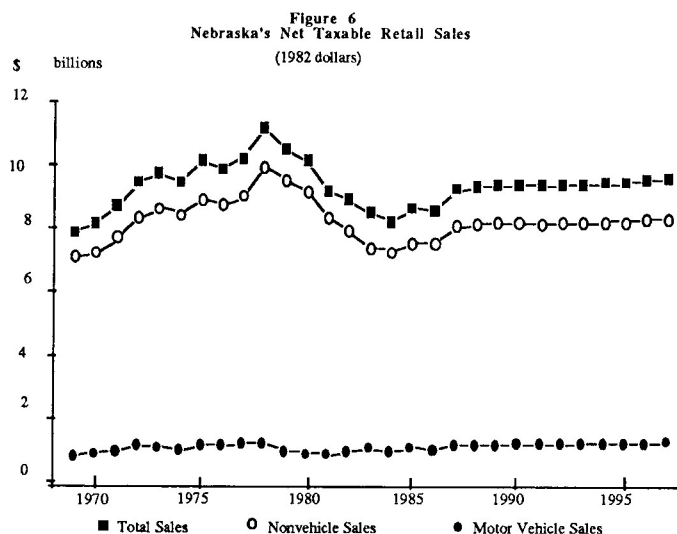


Table 8
Nebraska's Net Taxable Retail Sales
(billions of current dollars)

	1970	1979	1988**	1993	1998	Annual Growth Rates			
						1970 -1979	1979 -1988	1988 -1993	1993 -1998
Motor Vehicle Sales	0.341	0.957	1.411	1.820	2.429	10.9	4.4	5.2	5.9
Nonmotor Vehicle Sales	2.966	7.777	9.747	12.414	16.094	10.1	5.2*	5.0	5.3
Total Sales	3.307	8.734	11.158	14.234	18.523	10.2	5.3*	5.0	5.4

* Computed over 1984-1988.

** Figures for 1988 are estimates made in advance of official releases.

Sources: Nebraska Department of Revenue.

Projections from the Nebraska econometric model.