1995

Economic Report To The Governor

State of Utah

Michael O. Leavitt, Governor

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STATE OF UTAH

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GOVERNOR

OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114-0601

OLENE S. WALKER
LIEUTENANT GOVERNOR

January 5, 1995

My Fellow Utahns:

As did the 1994 report, the *1995 Economic Report to the Governor* describes a strong economy in Utah. The report characterizes 1994 as 'a boom year with exceptional economic performance.' Specifically, it reports impressive gains in jobs; indeed, employment growth rates were the highest in the nation and among the highest for the state in many decades. Construction continued to drive the expanding economy, the amount of gross taxable sales increased sizably and the estimated net in-migration was the highest in 40 years.

All Utahns can be proud of our state's economic performance over the past year. The performance can be characterized as being broadly successful, meaning that the economies of counties throughout the state are performing better. Growth and expansion were driven by the private sector, and while extractive industries and military installations are significant contributors to the Utah economy, our dependence on these industries has decreased as other industry clusters have emerged. This economic diversification may be important as Utah faces the effects of events beyond our control, for example, the downsizing of the nation's military, corporate restructuring, and international trade relations.

I am pleased to accept this document produced by members of the State Economic Coordinating Committee because it relates information that is important to wise economic decision-making. The facts and figures presented here can help us to meet the challenges of 1995 and the more distant future. As users of this report ponder this information, I ask that you think about how to use this information as we strive to reach the objectives I outlined as I entered leadership of the state. These objectives are:

- world-class education,
- quality jobs and a quality business environment,
- better government,
- quality of life, and
- self-reliance.

In my address to the Utah State Legislature, in July 1994, I identified several challenges we will face as we strive to accomplish these objectives. We will need to:

- invest in the infrastructure of the future,
- use existing resources more wisely,
- provide for the economic resettlement of rural Utah,
- become a generation of planners--not compulsive regulators,
- make quality our comparative advantage, and
- rekindle a sense of individual responsibility and community values.

The climate is right for us to be thinking about and planning for the future. Forecasts in the *Economic Report* state that our economy will gradually adjust to more normal and sustainable levels of performance during the next year. As governor I will continue efforts to ensure that Utah's economy remains healthy.

Sincerely,

Michael O. Leavitt

Michael O. Leavitt
Governor

✧ Preface

The *1995 Economic Report to the Governor* represents the efforts of the State Economic Coordinating Committee to provide economic information and analysis that enhances economic decision-making in Utah. Published annually since 1986, the report summarizes and interprets data on important events and trends in the Utah economy, and makes comparisons with national and regional trends as well as providing information for planning districts and counties within the state.

Approximately 1,200 copies of the report were distributed last year. Users of the report, including public policy makers and researchers in the private and public sectors, will find this year's report to be a valuable reference for information on the performance of Utah's economy in 1994. An examination of economic indicators and economic development activities is provided and an outlook for 1995 is also provided. In addition, the report focuses on the performance of some of the most important industries in Utah. Special chapters explore the wage levels in Utah, and give information on primary metals, and a sub-regional analysis of county growth patterns.

The *1995 Economic Report to the Governor* is authored in December; therefore, most of the data have not been finalized and the numbers presented here are preliminary estimates based on the most current data available and the consensus views of the Economic Coordinating Committee. Revised and final estimates of much of the data presented in this report will be available in 1995. Membership of the Economic Coordinating Committee includes representatives from the following organizations:

- ✧ Governor's Office of Planning and Budget
- ✧ Utah Department of Employment Security
- ✧ Utah State Tax Commission
- ✧ Utah Department of Natural Resources
- ✧ Utah Department of Community and Economic Development
- ✧ Legislative Fiscal Analyst's Office
- ✧ Utah Foundation
- ✧ Bureau of Economic and Business Research, University of Utah
- ✧ Economics Department, Utah State University
- ✧ Department of Economics, Weber State University
- ✧ Department of Managerial Economics, Brigham Young University
- ✧ First Security Bank
- ✧ Key Bank

The report can be obtained electronically through UTAHNET--the State of Utah's Online Bulletin Board Service--by dialing (801)538-3383 or (800)882-4638 (join the conference for GOPB On-Line). It can also be obtained on diskette for $2.50 or paper copies are available for $15.00. The Governor's Office of Planning and Budget, Demographic and Economic Analysis section, can be contacted to obtain the *Economic Report* or information about topics in the report at 116 State Capitol, Salt Lake City, Utah 84114. The phone number is (801)538-1036. ✧

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Executive Summary

✧ Executive Summary

After last year's economic performance was characterized as stunning, economists postulated that 1994 would again be a strong year, albeit somewhat slower growth than in 1993. Instead, 1994 took off even stronger than 1993 and job growth sailed even higher, with the state creating 50,000 net new jobs and leading the nation in the job growth rate for the second year in a row. The 1994 job growth rate of 6.2 percent is the highest in 15 years and the third highest in post-World-War-II history. This economic expansion is not only substantial, but sustained, extending the longest period of employment growth of 3.0 percent or higher to seven years. Because of this performance, 1994 is distinguished as a boom year. The *1995 Economic Report to the Governor* documents the exceptional economy of the past year, reviews the history of previous year's activities, and provides an outlook for the future.

Many of the same trends that impacted last year's economy are present again this year. A construction boom continues to lead economic growth and brings with it increases in related industries. Net in-migration has continued, as well as sizable increases in gross taxable sales. On the downside, defense reductions, base closures and corporate restructuring continue to cause concern. But 1994 has introduced several new themes. These themes portray an economy that is:

- ✧ strong and booming, sometimes at record setting levels;
- ✧ broadly successful, meaning that economies in counties throughout the state are performing better;
- ✧ private-sector driven;
- ✧ competitive, with low business costs;
- ✧ diversified, with clusters of new industries performing very well;
- ✧ resilient, withstanding several threats to economic performance;
- ✧ cooling down; that is, gradually adjusting back to more sustainable and historical levels of performance; and,
- ✧ looking toward major decisions in 1995.

Each of these themes is described in more detail, followed by a brief summary of each chapter contained in this report.

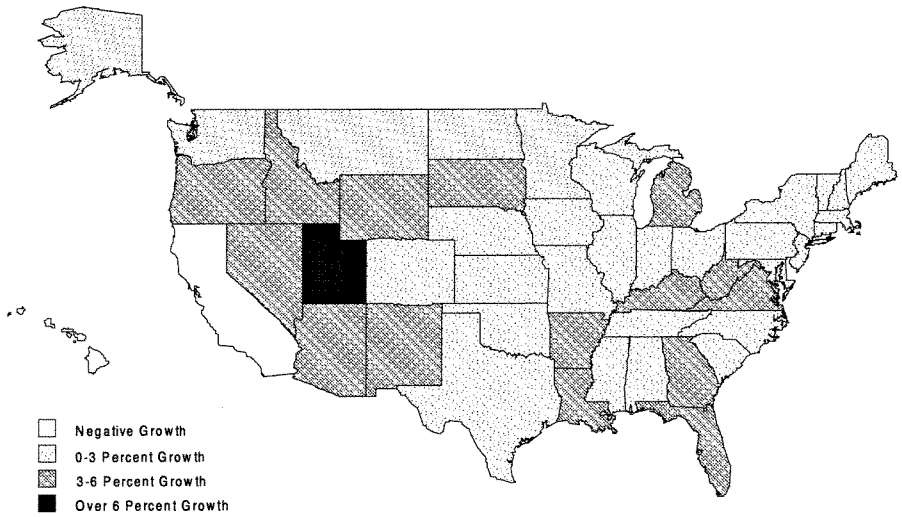
Strong and Booming

By nearly every measure, Utah's economy is performing at very high or historic levels. In addition to having the highest rate of job growth in the nation, Utah's 1993-1994 job growth rate is the highst since 1978 and the third highest in post-war history. Utah's jobless rate of 3.7 percent is the lowest since 1957. The estimated net in-migration of 23,000 persons is the largest amount recorded in the past 40 years. This in-migration has greatly benefitted Utah's construction industry which registers the most rapid employment growth in 22 years. Construction is currently growing at nearly six times the historical average growth rate and the values of residential and nonresidential construction are at record levels. Personal income growth in Utah is outpacing the nation by 2.7 points. Production of natural gas, coal, and minerals will reach new highs in 1994. Many of these trends are illustrated in Figures A through D.

Broadly Successful

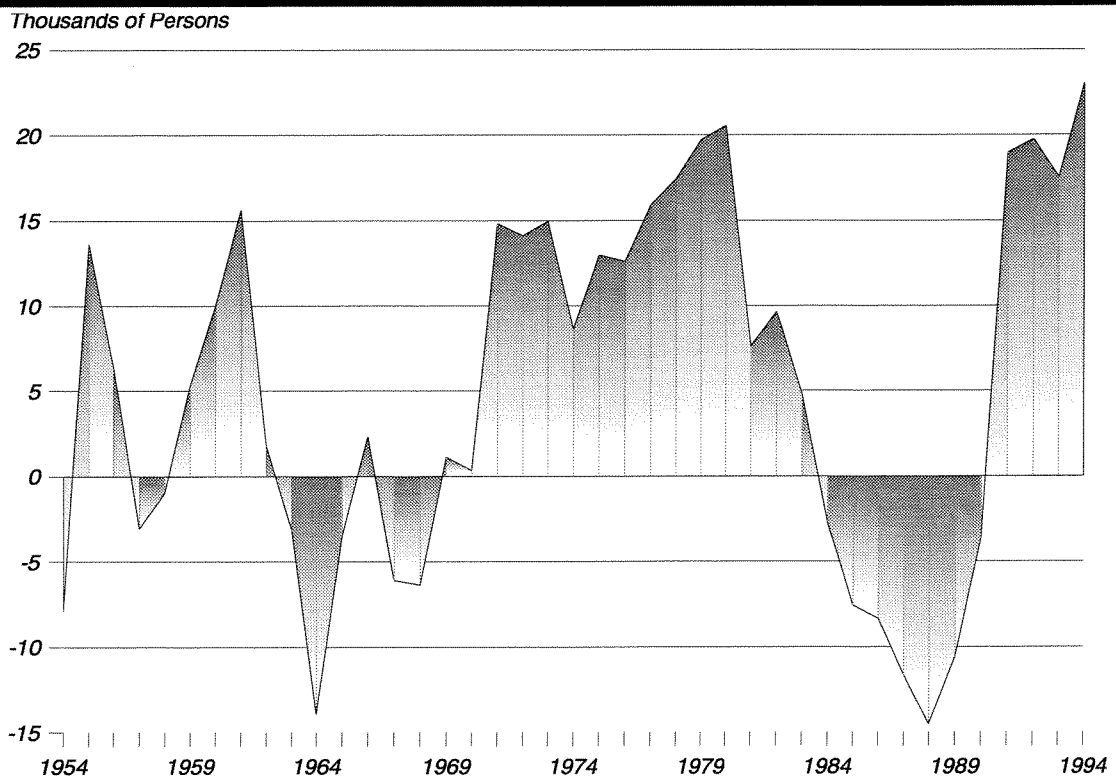
As Utah's economy moves into its seventh year of significant economic expansion, the impact of this growth is dispersed geographically. Growth continues to be focused in Utah's metropolitan counties, but non-metropolitan Utah is performing substantially better than in years past. During 1994, no county in the state lost population. Net migration to non-metropolitan Utah continues to comprise a increasing share of the migration occurring statewide. In economic terms, 10 counties registered unemployment rates in the double-digits in 1987, while in 1993 no counties experienced unemployment rates higher than 9.0 percent. Growth pockets continue to materialize outside of the metropolitan counties. Washington and Iron

Figure A
Employment Growth by State: October 1993 to October 1994



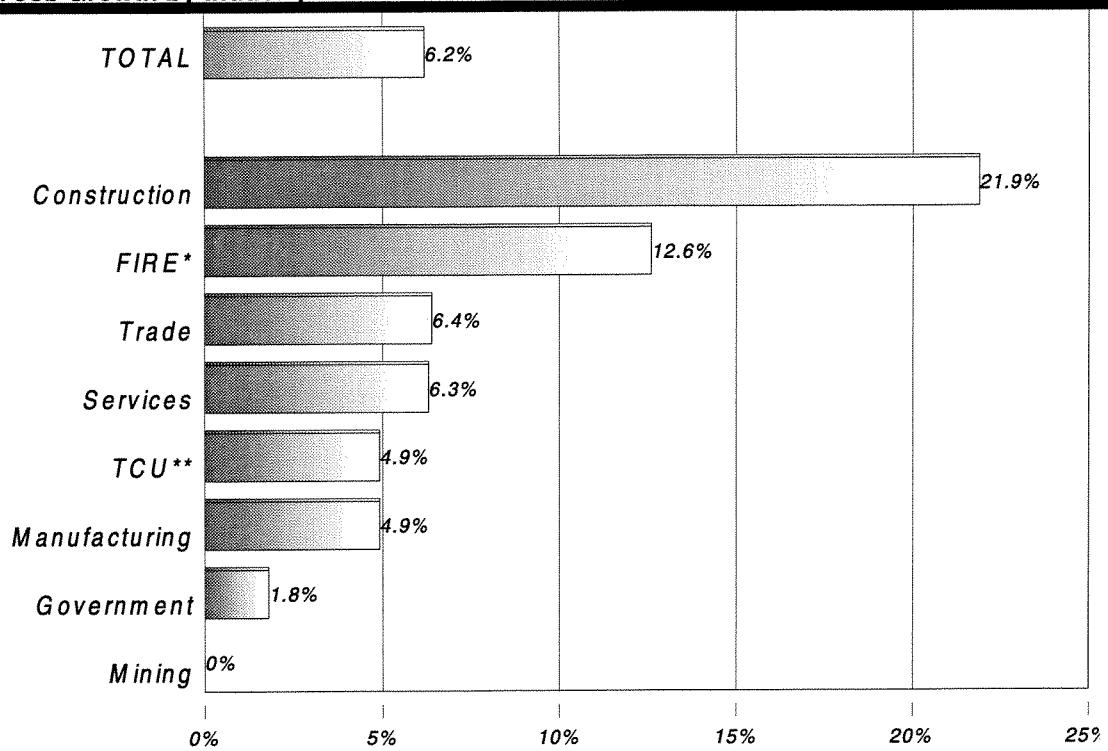
Source: U.S. Bureau of Labor Statistics

Figure B
Net Migration In Utah: 1954 to 1994



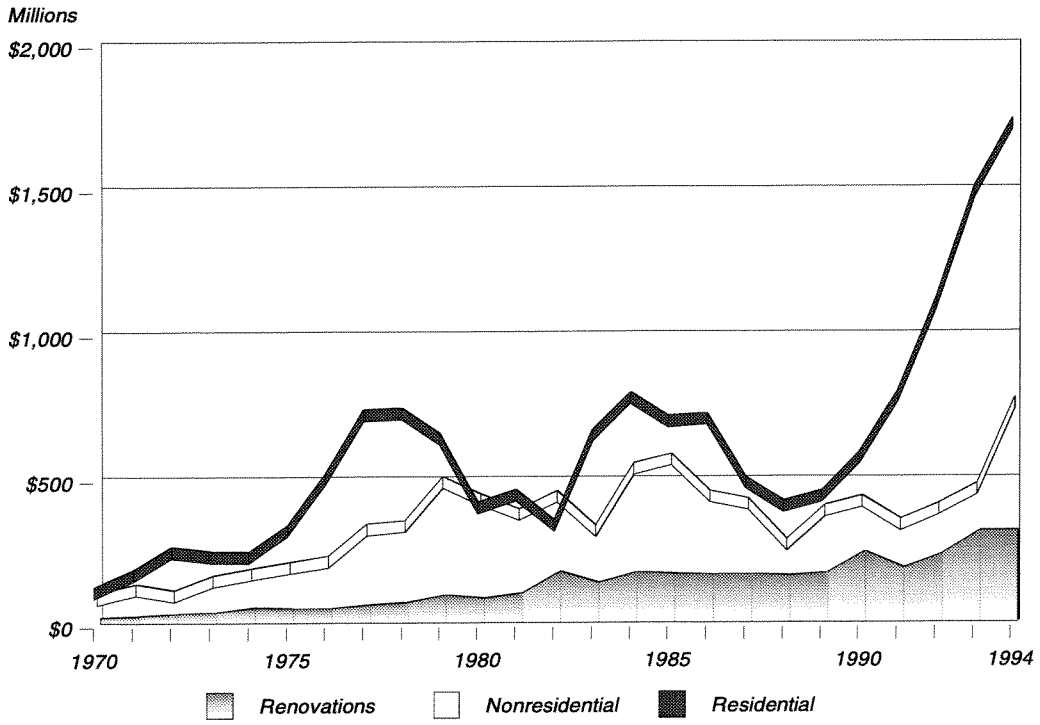
Source: U.S. Census Bureau, Utah Population Estimates Committee

Figure C
Utah Job Growth by Industry: 1993 to 1994



*FIRE = Finance Insurance and Real Estate
**TCU = Transportation, Communications and Utilities
Source: Utah Dept. of Employment Security

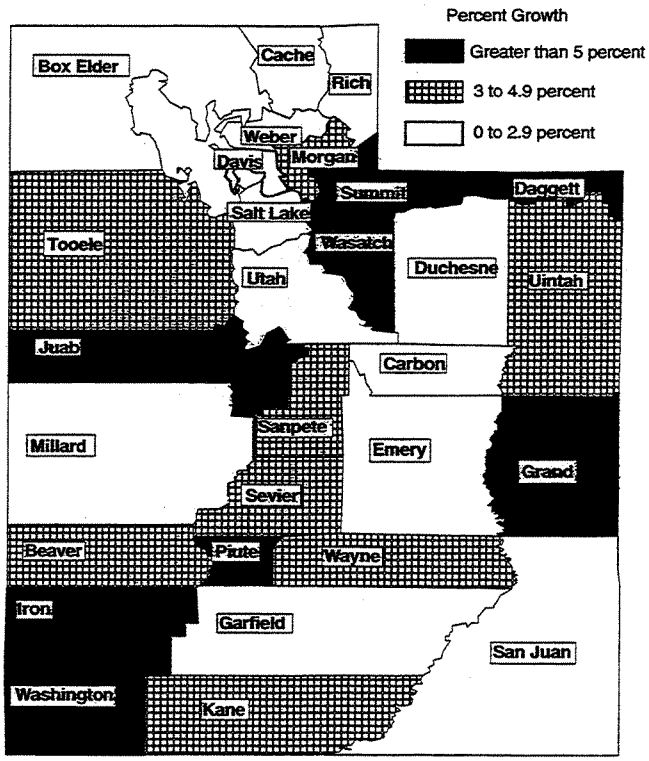
Figure D
Value of New Construction: 1970-1994



Source: University of Utah Bureau of Economic and Business Research

Counties have surfaced as strong and diverse urban areas with an emerging economic base that is different from that in years past. Growth centers are also apparent in Grand and Summit Counties. Figure E shows 1994 population growth rates by county.

Figure E
Estimated Population Growth Rates by County: 1993 to 1994



Source: Utah Population Estimates Committee

Competitive

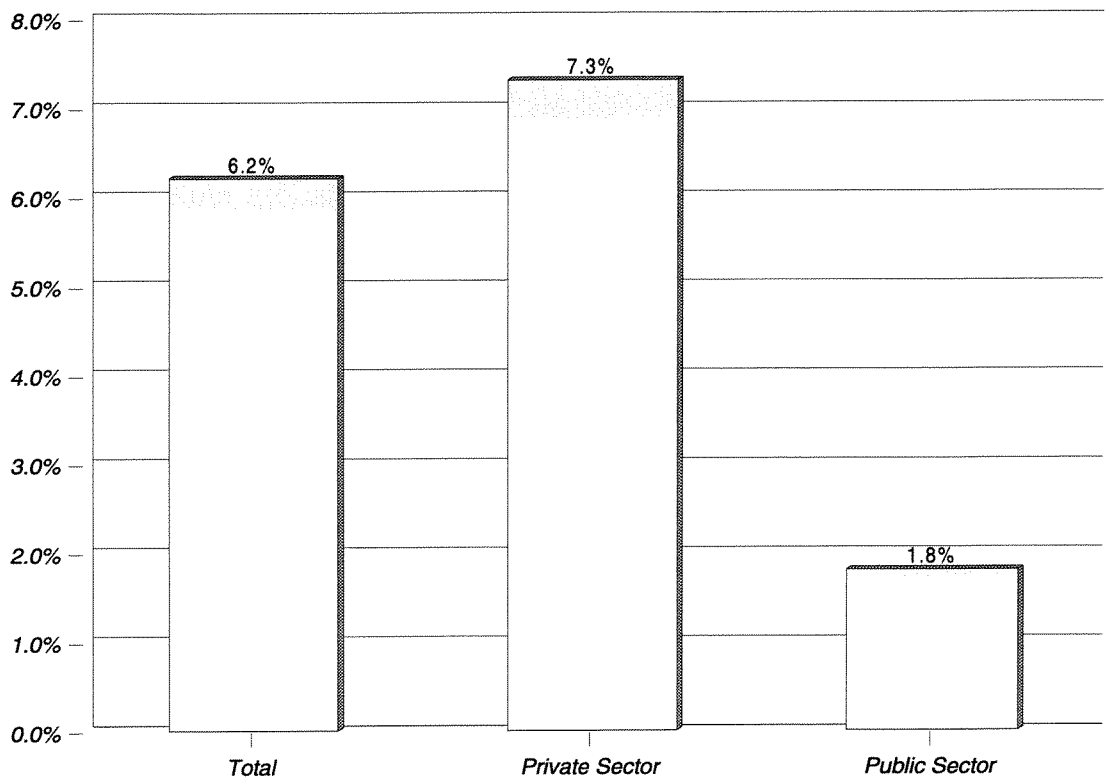
One reality of the emerging global economy is that businesses must aggressively pursue cost-cutting strategies to survive in the intensely competitive environment. These cost pressures mean that businesses in states with lower tax, energy, and labor costs are better positioned to succeed. A vital component of Utah's significant economic growth over the past several years has been low business costs. *Forbes*, *The Wall Street Journal*, the Federal Reserve Bank of San Francisco, and national forecasting firms have acknowledged Utah's favorable business climate as an important factor in explaining the state's current prosperity.

Private-Sector Driven

Employment growth in Utah's private sector is outpacing growth in the government sector four to one. During 1994 the private sector increased at 7.3 percent compared to public sector (federal, state, and local) growth of 1.8 percent. This disparity in growth rates is the largest in 21 years. While an important explanation for this disparity is the decline in federal government employment that has been occurring

because of defense and non-defense deficit reduction measures, state government employment has also been increasing at lower levels than the private sector. During 1994 state government employment increased by 3.3 percent, less than half the growth in the private sector. Figure F shows 1993 employment growth rates for the public and private sectors.

Figure F
Employment Growth Rates--Total, Private Sector, and Public Sector: 1994

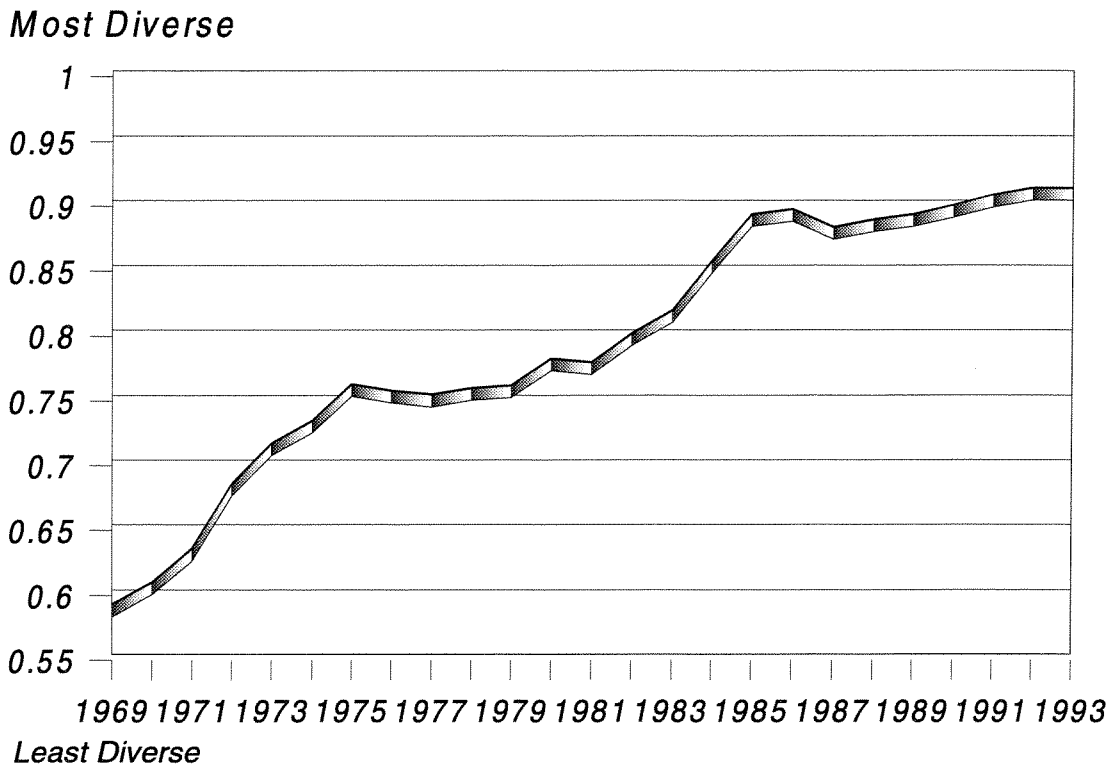


Source: Utah Department of Employment Security, U.S. Labor Market Information

Diversified

Although economic growth and economic diversity are not necessarily linked, the strength of Utah's economy over the past several years has prevailed at the same time that the economy has become more diversified. That is, the level of total employment has increased while the distribution of the state's employment has become less specialized across industries. Economic diversity, as defined in this analysis, is a measurement of how similar a state's industrial structure is to that of the nation. The implicit assumption is that the national economy is fully diversified. Increasing diversity in Utah can be viewed as a positive trend because the long-run level of overall economic performance is less vulnerable to employment fluctuations in a few industries. Particularly positive for the state's economy is that increasing diversity has occurred during a time of profound economic prosperity. While extractive industries and military installations continue to contribute significantly to employment in the Utah economy, Utah's dependence on these industries has decreased over time. In addition, certain industry clusters have emerged that have contributed to the diversification of the economy as the export base of the state has broadened. These clusters include tourism, computer software, and financial services. Figure G shows increasing diversity in Utah employment since 1969. A 1993 index of diversity ranks Utah 7th highest among states.

Figure G
Hachman Employment Diversity Index for Utah: 1970 to 1993

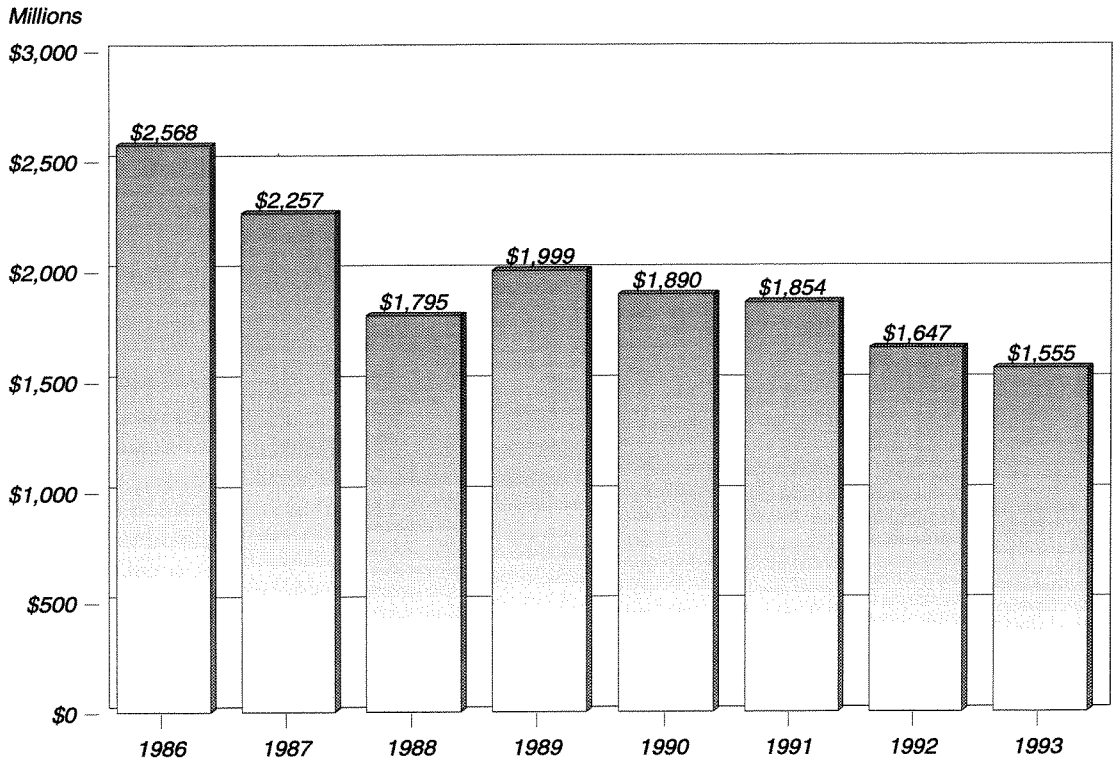


Source: Frank Hachman, Bureau of Business and Economic Research, University of Utah;

Resilient

Utah's economy withstood several serious threats during 1994. While final 1994 defense data are not yet available, it is estimated that Utah lost between 1,500 to 2,000 defense-related jobs during 1994. Defense losses have now occurred in six of the last seven years and the state currently receives approximately $1 billion less in defense-related spending than the peak year in 1986. These reductions, coupled with other federal government cutbacks, are a profound loss to the Utah economy. Figure H shows federal defense-related spending in Utah. Also in 1994, oil prices continued their four-year decline. As a partial result, oil and gas drilling and well maintenance activity declined. Farm income also fell, largely due to a very dry growing season and growth in Utah's computer software industry slowed because of corporate restructuring. In addition to these industry-specific challenges, toward the latter part of 1994, monetary issues such as rising interest rates and inflation also presented obstacles to continued growth. Finally, whether real or perceived, a growing awareness of shortages in labor and available residential and commercial land surfaced. These and other factors challenged and will continue to test the strength of the Utah economy. However, the resiliency of the Utah economy prevailed and despite the combination of these threats, the economy out-performed any in the nation in 1994.

Figure H
Federal Defense Spending in Utah: 1986 to 1993



Source: U. S. Bureau of the Census and Department of Defense

Cooling Down

Utah's economy should begin to cool down and gradually return to still strong, but more sustainable levels of growth in 1995. The 1994 rate of job growth of 6.2 percent is over one-and-a-half times the historical average of 3.5 percent. Like all booms, Utah's current boom will subside. The monthly construction and employment data suggest that Utah's economy peaked in mid-1994 and growth rates are either slowing down or flattening as the year ends. The construction boom is the major driver in the current expansion. As housing prices rise in response to demand and the impact of higher mortgage rates take effect, the number of new permits issued should fall. The values of both residential and nonresidential construction are expected to decrease next year. Fortunately, the scenario of over-building that caused such dramatic decreases in construction in the late 1980s has not repeated itself in the current market. The supply of housing is much more in balance with the demand and this bodes well for a smooth, moderate adjustment ahead. Nonresidential construction is not burdened with an oversupply of space, but instead experiences very competitive and strong market forces. This lack of over-building means that the expected cooling down in construction should be less severe and more gradual and this will benefit the stability of the overall economy. The percent change in employment, personal income, total wages, retail sales, population, and consumer sentiment, to name just a few, are all expected to decline from 1994 to 1995. These declines are expected to be gradual and moderate and will place Utah's economy in 1995 again as one of the top performers in the country. Figure I and Table A illustrate the character of this anticipated cooling off period.

Figure I
Utah Economic Indicators--Annual Percentage Change: Actual, Estimated and Forecasted

Source: Utah State Economic Coordinating Committee

Decisions in 1995

Utah will be impacted by several very important decisions during 1995. On January 24, 1995 the International Olympic Committee will narrow the current list of nine cities to host the 2002 Winter Olympics to four cities. These nine include Graz, Austria; Jaca, Spain; Quebec, Canada; Ostersund, Sweden; Poprad-Tatry, Slovakia; Sion, Switzerland; Sochi, Russia; Tarvisio, Italy; and Salt Lake City, Utah. A final selection for hosting the Olympic Games in 2002 will be made on June 16, 1995 in Budapest, Hungary. Utah continues to be a strong candidate for hosting these Games.

The 1995 military base closure process involves two Utah bases: the Air Logistics Center at Hill Air Force Base and the Defense Depot Ogden. The Base Closure and Realignment Commission must present its recommendations to President Clinton by July 1, 1995. The President has two weeks to respond and can make changes. After the President makes his decision, the Congress has two months to either accept the President's recommendations or reject the entire list. Hill Air Force Base is the largest basic employer in the Utah economy and realignment or closure of the base would have serious impacts on the state's economy.

Table A
Actual and Estimated Economic Indicators--Utah and U.S.: December 1994

U.S. and Utah Indicators	Units	1992 Actual	1993 Actual	1994 Estimates	1995 Forecast	% Chg. 92-93	% Chg. 93-94	% Chg. 94-95
Production and Spending								
U.S. Real Gross Domestic Product	Billion 1987$	4,979.3	5,134.5	5,329.6	5,473.5	3.1	3.8	2.7
U.S. Real Personal Consumption	Billion 1987$	3,349.5	3,458.7	3,576.3	3,680.0	3.3	3.4	2.9
U.S. Real Bus. Fixed Investment	Billion 1987$	525.9	591.6	663.8	726.2	12.5	12.2	9.4
U.S. Real Defense Spending	Billion 1987$	261.4	243.7	227.9	206.2	-6.8	-6.5	-9.5
U.S. Real Exports	Billion 1987$	578.8	602.5	648.9	712.5	4.1	7.7	9.8
U.S. Industrial Production Index	1987=100	106.6	111.0	117.4	122.7	4.1	5.8	4.5
Utah Coal Production	Million Tons	21.0	21.7	24.1	25.9	3.3	11.1	7.5
Utah Oil Production	Million Barrels	24.1	21.8	20.5	18.6	-9.5	-6.0	-9.3
Utah Copper Production	Million Pounds	646.7	687.7	690.0	685.0	6.3	0.3	-0.7
Utah Merchandise Exports	Million Dollars	2,897.5	2,540.5	2,653.9	2,914.0	-12.3	4.5	9.8
Sales and Construction								
U.S. New Auto and Truck Sales	Millions	12.8	13.9	15.1	15.7	8.6	8.7	4.0
U.S. Housing Starts	Millions	1.20	1.29	1.43	1.36	7.5	10.5	-4.7
U.S. Residential Construction	Billion Dollars	223.8	250.6	282.7	289.2	12.0	12.8	2.3
U.S. Nonresidential Structures	Billion Dollars	171.1	173.4	180.3	196.6	1.3	4.0	9.0
U.S. Final Domestic Sales	Billion 1987$	5,015.7	5,198.8	5,393.2	5,549.1	3.7	3.7	2.9
Utah New Auto and Truck Sales	Thousands	63.2	68.8	76.2	79.0	8.9	10.8	3.7
Utah Dwelling Unit Permits	Thousands	13.0	17.7	19.1	16.5	36.4	7.7	-13.6
Utah Residential Permit Value	Million Dollars	1,113.6	1,496.9	1,730.0	1,480.0	34.4	15.6	-14.5
Utah Nonresidential Permit Value	Million Dollars	396.9	465.5	760.0	650.0	17.3	63.3	-14.5
Utah Taxable Retail Sales	Million Dollars	9,889	11,018	12,035	12,759	11.4	9.2	6.0
Utah Taxable Business Purchases	Million Dollars	4,328	4,933	5,784	6,310	14.0	17.3	9.1
Utah Taxable Sevices	Million Dollars	2,222	2,502	2,744	3,180	12.6	9.7	15.9
Utah Gross Taxable Sales	Million Dollars	17,312	19,340	21,516	23,229	11.7	11.3	8.0
Demographics and Sentiment								
U.S. Population (Without Overseas Military)	Millions	255.1	257.9	260.3	262.9	1.1	0.9	1.0
U.S. Consumer Sentiment of U.S.	1966=100	77.6	82.8	91.9	90.4	6.7	11.0	-1.6
Utah Fiscal Year Population	Thousands	1,822.0	1,866.0	1,916.0	1,962.0	2.4	2.7	2.4
Utah Fiscal Year Net Migration	Thousands	19.7	17.4	22.8	18.0	na	na	na
Utah Consumer Sentiment of Utah	1966=100	85.3	95.8	106.1	104.3	12.4	10.7	-1.6
Profits and Prices								
U.S. Corp. Profits Before Tax	Billion Dollars	396.0	462.4	516.5	542.3	16.8	11.7	5.0
U.S. Domestic Profits Less F.R.	Billion Dollars	311.2	375.1	421.5	427.9	20.5	12.4	1.5
U.S. Oil Ref. Acquis. Cost	$ Per Barrel	18.4	16.4	15.6	16.7	-10.7	-5.0	7.1
U.S. Coal Price Index	1982=100	95.0	96.1	96.5	97.7	1.2	0.4	1.2
U.S. No. 1 Heavy Melting Scrap	$ Per Metric Ton	84.7	112.4	133.0	134.0	32.8	18.3	0.8
Utah Coal Prices	$ Per Short Ton	21.8	21.2	21.2	21.8	-2.8	0.0	2.8
Utah Oil Prices	$ Per Barrel	19.4	17.5	16.0	16.5	-9.8	-8.6	3.1
Utah Copper Prices	$ Per Pound	1.04	0.87	1.08	1.17	-16.3	24.1	8.3
Inflation, Money and Interest								
U.S. CPI Urban Consumers	1982-84=100	140.4	144.6	148.3	153.0	3.0	2.6	3.2
U.S. GDP Implicit Deflator	1987=100	120.9	123.5	126.1	129.8	2.2	2.1	2.9
U.S. Money Supply (M2)	Billion Dollars	3,489.1	3,527.6	3,591.1	3,630.6	1.1	1.8	1.1
U.S. Real M2 Money Supply (GDP)	Billion 1987$	2,885.9	2,856.4	2,848.0	2,798.1	-1.0	-0.3	-1.7
U.S. Federal Funds Rate	Percent	3.52	3.02	4.18	6.29	-14.2	38.4	50.5
U.S. Bank Prime Rate	Percent	6.25	6.00	7.13	9.29	-4.0	18.8	30.3
U.S. Prime Less Federal Funds	Percent	2.73	2.98	2.95	3.00	9.2	-1.0	1.7
U.S. Prime Less CPI-U	Percent	3.25	3.01	4.57	6.09	-7.4	51.9	33.2
U.S. 3-Month Treasury Bills	Percent	3.43	3.00	4.19	6.08	-12.5	39.7	45.1
U.S. T-Bond Rate, 30-Year	Percent	7.67	6.60	7.37	8.37	-14.0	11.7	13.6
U.S. Mortgage Rates, Fixed FHLMC	Percent	8.4	7.3	8.3	9.3	-12.7	13.8	10.9
Employment, Wages and Income								
U.S. Nonagricultural Employment (BLS)	Millions	108.6	110.5	113.3	116.1	1.8	2.5	2.5
U.S. Average Nonagriculture Wage (BLS)	Dollars	25,897	26,362	27,337	28,212	1.8	3.7	3.2
U.S. Total Nonagriculture Wages (BLS)	Billion Dollars	2,812	2,914	3,097	3,276	3.6	6.3	5.8
U.S. Personal Income (BEA)	Billion Dollars	5,135	5,360	5,681	6,039	4.4	6.0	6.3
U.S. Unemployment Rate	Percent	7.4	6.8	6.2	5.8	na	na	na
Utah Nonagricultural Employment (DES)	Thousands	768.6	809.7	859.8	897.0	5.4	6.2	4.3
Utah Average Nonagriculture Wage (DES)	Dollars	21,612	21,874	22,377	23,003	1.2	2.3	2.8
Utah Total Nonagriculture Wages (DES)	Million Dollars	16,611	17,711	19,240	20,634	6.6	8.6	7.2
Utah Personal Income (BEA)	Million Dollars	28,078	30,010	32,621	35,035	6.9	8.7	7.4
Utah Unemployment Rate	Percent	4.9	3.9	3.7	3.8	na	na	na

Source: State of Utah Economic Coordinating Committee.

✧ Section Highlights

Economic Outlook

National Outlook

The end of 1994 marks nearly four years of economic expansion since the 1990-91 recession. During 1994, economic growth remained strong, while inflation stayed in check. The economy is expected to move at a slower pace in 1995 as interest rate hikes take their toll. The outlook is for lower economic growth, a modest increase in interest rates, and no recession. Real gross domestic product is expected to rise by 2.7 percent; consumer price inflation is expected to increase to 3.2 percent; and employment should grow around 2.5 percent.

Utah Outlook

The Utah economy is expected to continue to experience solid, above-average growth in 1995. Employment is forecasted to increase by 4.3 percent in 1995, well above the historical average of 3.5 percent. Several companies have announced permanent work force expansions, and housing and labor costs in Utah should remain below the national average. Forecast for 1995 are increases for:

- Population--2.4 percent
- Employment--4.3 percent
- Nonagricultural Wages--7.2 percent
- Personal Income--7.4 percent
- Gross Taxable Sales--8.0 percent

Overall economic growth is expected to be slower in 1995 than 1994 because of higher interest rates, federal defense and non-defense cutbacks, lower net in-migration, less affordable housing, a tighter labor market, an improving business climate in California, and other factors. Of particular concern is the possibility of realignment or closure of Hill Air Force Base and/or the Defense Depot Ogden. Despite these risks, Utah's economy is still expected to be among the top performers in 1995.

Utah Long-Term Outlook

Utah's population is projected to reach 3.11 million persons by the year 2020. This projection represents an increase of 1.2 million inhabitants between 1994 and 2020 and an average annual increase of 1.9 percent per year. Over the projection period from 1994 to 2020, approximately 1.3 million births are projected to occur, 400,000 deaths, and 350,000 net in-migration. During the same 26-year period, the school age population is projected to increase by over 191,000. Utah is projected to continue to have the youngest median age in the nation and the total population should increase at roughly twice the national rate.

Economic Development Activities

The goal of Utah's economic development activities is to maintain a healthy state economy by fostering the creation of quality, high-paying jobs. To achieve this Utah must assure that the state offers a healthy business climate with a reasonable regulatory structure, competitive utility rates, low taxes, affordable housing, a trained work force, an excellent quality of life, and a world class infrastructure. In addition to focusing on these important economic attributes, the Utah Department of Community and Economic Development has undertaken a public-private process to define Utah's industry-specific strengths, weaknesses, and policy issues. One portion of this process is the identification of industry clusters that are deserving of special attention.

Economic Indicators

Labor Market Activity

In 1994, Utah added a record 50,000 new nonfarm jobs for a growth rate of 6.2 percent, the strongest expansion since 1978 and the largest job growth rate of any state in the nation. The 1994 unemployment rate of 3.7 percent is the lowest level since 1957. Construction registered the highest growth rate of any major industry, increasing by 21.9 percent. Mining was the only major industry to experience no growth. Total wages were up 8.6 percent, while the average monthly wage expanded 2.3 percent in 1994. Despite the rise in wages, the average wage per job did not keep pace with inflation.

Personal Income

Utah's 1994 total personal income is forecast to be $32.6 billion, up 8.7 percent from the 1993 total. This reflects a substantial increase from 1993's growth of 6.9 percent. Moreover, Utah's 1994 personal income grew 45 percent faster than the forecasted U.S. personal income. The state's per capita personal income is estimated at $17,100. From 1990 to 1994, Utah's inflation-adjusted per capita income has increased by about $1,000, compared to a $600 increase in the nation's. Utah's per capita personal income continues to rank 48th among the states, but the state's relative ranking improves considerably when adjusting for the young population.

Gross State Product

Gross state product is the broadest measure of the aggregate production that occurs within a state and is the parallel to gross domestic product. The most recent estimate of gross state product for Utah released by the U.S. Bureau of Economic Analysis is for 1991 and shows Utah at $33.1 billion. Utah's 1994 gross state product is estimated to be $43.0 billion.

Demographics

Utah's 1994 population is estimated at 1,916,000, a growth of 50,000 people and a 2.7 percent increase over 1993. Natural increase accounted for 54 percent of the new growth and net in-migration the remainder. The estimated net in-migration of 23,000 is the fourth consecutive year of positive net migration and the highest absolute level recorded in recent history. However, migration rates (net in-migration as a percent of the previous year's population) were higher during the 1970s. Approximately 77 percent of Utah's population is concentrated along the metropolitan area comprised of Salt Lake, Davis, Weber, and Utah Counties. Notable growth in non-metropolitan Utah, however, continues in some counties, and is beginning to surface in others, due to the current economic expansion. In 1994, 55 percent of the net in-migration statewide occurred in non-metropolitan counties, compared to 30 percent just three years ago. During the past year, the rate of population growth was highest in Juab County at 9.7 percent. A significant amount of suburbanization from the neighboring metropolitan county appears to be occurring in Juab. Washington, Piute, Daggett, and Summit were the next fastest growing counties. Utah continues have the youngest population and largest household size in the nation.

Prices, Inflation, and Cost of Living

The pace of inflation remained generally well-behaved in 1994. Throughout 1994, consumer price inflation varied between 2.3 to 3.0 percent, for an average annual increase of 2.6 percent. The gross domestic product implicit price deflator increased 2.1 percent. Utah's cost of living in selected cities remained near the national average. The second quarter American Chamber of Commerce 1994 composite index (national average equals 100) for Salt Lake City was 97.5, Provo-Orem 95.3, Cedar City 94.2, St. George 103.1, and Logan 104.7.

Gross Taxable Sales

Utah's construction boom continues to boost the rate of increase in gross taxable sales. The 1994 growth of 11.3 percent nearly reached the 11.7 percent increase tallied in 1993. Taxable business investment in 1994 was also impacted by several factors including relatively low interest rates, the low cost of capital relative to rising labor costs, and the surge in buying that occurs as businesses upgrade to current technology (including purchases of fax machines, coaxial cable capability, and mobile phones). Taxable services are expected to increase by 9.7 percent in 1994.

International Merchandise Exports

The value of Utah's 1994 international merchandise exports is estimated at $2.65 billion, a 4.5 percent increase over 1993 levels. Final figures for 1993 indicate that the value of merchandise exports for 1993 had fallen by 12.3 percent from the record 1992 level. The 1993 decrease and 1994 increase in the value of Utah's international merchandise exports are primarily attributable to price fluctuations in the primary metal market, which continues to be Utah's largest merchandise export industry in value terms. Utah's largest merchandise export industries in 1994 were primary metals, metallic ores, electrical machinery, and transportation equipment.

Tax Collections

Fiscal year 1994 was the strongest year for revenue collections since FY1984. This strong performance was largely due to phenomenal sales tax collections which increased at a tax rate, base, and inflation-adjusted rate of 8.3 percent. Income tax collections were also strong, benefitting from the combined strength of corporate profits, net in-migration, housing sales, construction, and overall employment.

Regional/National Comparisons

The 1990s have been a period of sustained economic growth for the Mountain Division states. The past year is the strongest year for the national economy since the last national recession. Even with the national recovery, the economies in most mountain states continue to out-perform the nation. In 1993, among the eight mountain states, Utah ranked first in nonfarm employment growth, fifth in population growth, fourth in average annual pay as a percent of the U.S. average, and fourth in personal income per household.

Industry Focus

Agriculture

Utah farmers faced one of the driest growing seasons on record. As a result, net farm income in 1994 should decline from 1993. The production of livestock products is the most important part of agricultural production in Utah. Utah also has high national rankings in production of cherries, apricots, sheep and lambs, mink, spring wheat, and barley. Cache, Box Elder, Utah, and Sanpete Counties receive about 44 percent of all farm cash receipts in the state. Cache County is the leading dairy county, while Sanpete County is synonymous with turkey production. Box Elder and Utah Counties lead in fruit production.

Construction

Both residential and nonresidential construction reached record levels during 1994. Population growth--enhanced by net in-migration, strong economic and job growth, and low mortgage interest rates--all contributed to this record year. Residential construction should slow down during 1995 because of higher interest rates, less migration and more moderate job growth. Vacancy rates will remain low and, as a result, demand for multifamily housing will remain relatively strong. Nonresidential construction should experience another strong year in 1995. Continued work on the Kennecott expansion and low vacancy rates for industrial, office, and retail buildings will keep nonresidential values high.

Defense

Utah continues to be negatively impacted by declining defense spending. Defense-related spending has fallen from a peak of approximately $2.08 billion in fiscal year 1987 to about $1.53 billion in 1993. Despite this downsizing, the defense industry still comprises approximately 7.0 percent of the Utah economy and Utah ranks among the upper third of defense-dependent states. The single most important defense issue Utah faces is the outcome of the 1995 base closure process. By late summer 1995, a final decision will be made about the fate of Hill Air Force Base, the largest defense installation in the state, and the Defense Depot Ogden.

Energy and Minerals

The value of Utah energy production is estimated to be $1.3 billion in 1994. Coal is the largest primary energy source in the state, followed by natural gas, and crude oil. Coal production reached an all-time high of 24 million tons in 1994. Utah's coal industry is currently benefitting from increased demand because of the requirements of the clean air act, extremely high productivity, and a surge in both overseas exports and in-state electric utility coal consumption. Utah production of natural gas also continues to reach all-time highs. A record 348 billion cubic feet of natural gas is expected to be produced by Utah's gas wells in 1994. Utah crude oil production is not so fortunate and will continue its eight-year decline. Oil prices continue their downward trend that started in 1991.

The value of mineral production reached an all-time high in 1994 of $2.2 billion. Commodity prices for all base metals, especially copper and precious metals, increased significantly over 1993. Utah ranks seventh among the states in the value of nonfuel minerals. More specifically, Utah ranks first in beryllium, second in copper, third in gold, fourth in magnesium compounds, and sixth in silver production among the states.

High Technology

Utah's high technology sector is concentrated in two major industries: aerospace and software. In years past, gains in software have outpaced losses in aerospace. The result has been steady growth throughout much of the past decade. Since the end of 1992, however, this situation changed. Now, both aerospace and software are reporting losses. Fortunately, the high tech industry is showing strong growth in other sectors. Growth in automotive, pharmaceuticals, and communications products helped offset some of the aerospace and software losses. Nonetheless, it may be difficult for the smaller sectors in Utah's high technology industry to offset future anticipated declines in aerospace and software.

Tourism, Travel, and Recreation

Utah's tourism industry reached another record year in 1994. Over 15 million out-of-state visitors came to or through Utah during 1994, spending approximately $3.35 billion. The travel industry accounts for roughly 69,000 jobs and contributes an estimated $247 million for state and local governments. The major travel indicators and/or destinations experiencing the largest increase during the year are the Salt Lake International Airport, Capitol Reef National Park, and Glen Canyon Recreation Area. Despite the mediocre snow year, the ski industry registered its second highest skier visit total. The summer season in Southern Utah was a bit slower than expected, but the World Cup Soccer Games may have diverted summer visitors, as well as increased marketing promoting the use of national parks during the off-peak season.

Special Topics

Utah Wage Levels

Utah's household income, like all of its neighboring states, has relatively low average annual pay compared to the nation. Utah's low wage levels are largely the result of demographic and social factors. These include: 1) a much higher percentage of young and part-time workers, 2) a higher female labor force participation rate, and 3) lower union affiliation. Other measures of income place Utah in a more favorable

light, including median household income where Utah ranks 21st among the 50 states and District of Columbia; and Utah per capita income as a percent of the U.S., where Utah is in its sixth straight year of gaining ground with respect to the nation.

Primary Metals: Production and Investment

Utah's primary metals sector has made remarkable achievements over the past seven years. In particular, the output of the state's two largest primary metals firms, Kennecott Copper and Geneva Steel, has steadily increased as production costs have been dramatically reduced by large capital investments in new technology, resulting in improved productivity. Eight years ago these two Utah firms were virtually shut down. Today, after commitments to the largest capital investments made by two companies in Utah's history, and with prices at much more favorable levels, these two firms have increased production capacity and are setting records for production and shipments. Both firms are among the low cost producers in their respective industries. An added and very important bonus is that these capital investments have already and will continue to greatly reduce the air, water, and other environmental impacts of these large firms.

Growth in Utah

Growth in Utah, as measured by a variety of economic and demographic measures, has been similar to -- but not identical to -- the growth that has occurred in the Rocky Mountain Region. The similarity of growth patterns seems to indicate that growth is driven by market forces and not by public policy intervention. Growth in Utah has been concentrated in a few counties. The metropolitan area has broadened to not only include Utah, Salt Lake, Davis, and Weber Counties, but Summit, Wasatch, Tooele, Morgan, Box Elder, and Cache Counties as well. Two new urban areas in Washington and Iron Counties have also emerged. To varying degrees, energy projects and tourism have also impacted the patterns of growth.

Diversification of the Utah Economy

The strength of Utah's economy over the past several years has occurred at the same time that the economy has become more diversified. While the diversification of the state's economy does not necessarily have positive implications for the economic well-being of its residents, it does mean that the state is less vulnerable to employment fluctuations in a few industries. Over the past several years Utah's dependence on extractive industries and defense spending has diminished, while industry clusters of tourism, computer software, and financial services have emerged to broaden the state's economic base. Consequently, the diversification of the Utah economy has helped the state to outperform the nation even in the midst of industrial restructuring and defense downsizing. ✧

Economic Outlook

✧ National Outlook

The Economy in 1994: Continuing Expansion

The economy continued to grow in 1994, although there are indications that it is starting to slow as some interest-related spending winds down. If the economy proceeds along a slow non-inflationary growth path and the Federal Reserve does not pursue overly contractionary monetary policy, the economy should be headed toward a "soft landing"--slower growth but no recession. The end of 1994 marks nearly four years of economic expansion since the 1990-91 recession.

Real GDP

Real Gross Domestic Product (GDP) growth during this recovery has been relatively weak--approximately half of other post-World-War-II recoveries. Economic growth remained steady in 1994 with inflation in check. Real GDP is expected to grow 3.8 percent in 1994. According the U.S. Department of Commerce, real economic growth rose 3.3 percent in the first quarter, 4.1 percent in the second quarter and 3.9 percent in the third quarter.

An examination of the components of real GDP growth results in the following expectations for 1994 (Table 1):

- ✧ Personal consumption expenditures are expected to increase 3.4 percent.
- ✧ U.S. real business fixed investment is expected to grow 12.2 percent, led by telecommunications and to a lesser extent computers; two industries, which, due to technology, are increasingly linked.
- ✧ Growth in business spending on communications equipment has accelerated as a result of the transformation in this industry due to the creation of the information super-highway.
- ✧ The communications sector will continue to provide the impetus for growth in investment spending into the future as attempts to link various media continue.

Growth in GDP was also assisted by inventory accumulation in 1994. Capital spending by business was strong despite rising interest rates. While interest rates are rising, nominal and real interest rates are still relatively low by historic standards. The cost of capital relative to labor is low and corporations are increasingly able to borrow through nonbanking means such as finance companies or financial markets. The trade deficit continued to be a drag on the economy in 1994. Exports have not really been the problem. U.S. real exports will probably increase 7.7 percent in 1994. However, imports are expected to grow by 12.7 percent in 1994, due to the strength of the U.S. economy in relation to its trading partners. The U.S. has been growing faster than everywhere else and drawing in imports.

Industrial production is expected to rise 5.8 percent in 1994. Manufacturing expanded at a rapid rate in 1994, outpacing other sectors of the economy. According to the National Association of Purchasing Management, U.S. manufacturing posted its 14th straight monthly expansion in October to the best level in almost seven years. Capacity utilization in manufacturing for 1994 is expected to average 83.6 percent, but has been edging up to 85 percent late in 1994.

Inflation

The gross domestic products' implicit price deflator is expected to rise 2.1 percent in 1994. Inflation in 1994, as measured by the more renowned Consumer Price Index (CPI), should end up around 2.6 percent, fairly tame, although forces in the economy portend higher prices in the future. Some analysts worry that the economy is overheating and will overshoot full employment. This would lead to 4.0 percent or greater inflation, followed by an extreme Federal Reserve reaction and eventual recession. Financial markets have been particularly worried. The economy is operating at or near full employment (where the unemployment rate is close to 6 percent) in several sectors of the economy, especially manufacturing and construction, which means tighter labor markets, production problems and upward pressure on producer prices. On the

other hand, the Federal Reserve has shown a willingness to act this year to hold the line on prices; significant inflation at the labor end does not seem likely, and some sectors of the economy are slowing. Although the prices producers pay for raw materials have increased, it may not necessarily result in inflation at the consumer end. Competitive pressures have also tended to keep prices from being passed on to consumers.

Interest Rates and Consumer Durable Spending

Last year at this time, forecasts about the direction of interest rates were optimistic, but this year the only uncertainty is how high they will go. The November 15th rate hike was more aggressive than anticipated with an increase in the federal funds and discount rate of 75 basis points rather than the expected 50 basis point increase.

Through November 1994, the Federal Reserve raised interest rates six times, as it attempted to calm inflation fears among investors and bolster a weak dollar by manipulating short-term interest rates. Although the Federal Reserve's rate hikes will no doubt impact interest-sensitive sectors of the economy such as business-fixed investment, housing, autos and durable goods, the U.S. economy in 1994 still had plenty of momentum from spending in these areas. Recent data indicate that auto and housing sales have been surprisingly resilient to interest rate hikes. Auto and home sales will decline gradually as pent-up demand is satisfied and interest rates move upward. U.S. auto sales in 1994 are expected to grow 8.7 percent in 1994 to 15.1 million vehicles, with continuing strength in light truck sales. U.S. housing starts in 1994 are anticipated to rise 10.5 percent to 1.43 million units. Housing starts in September 1994 climbed to a 1.52 million annual rate or more than 12 percent above their level a year ago according to Wharton Econometric Forecasting Associates (WEFA). Despite rising interest rates, some housing and housing-related spending still exists in the pipeline. Homes are still relatively affordable. Mortgage rates are still low relative to rates seen in the 1980's and adjustable rate mortgages have grown in popularity (now over 40 percent of the total). Mortgage originations are expected to be significantly lower in 1994 than the record $1.01 trillion level reached in 1993, due to the drop in refinancing.

Employment

Nonagricultural payroll employment in the U.S. should equal 113.3 million in 1994, an increase of 2.5 percent from the previous year, with much of this growth concentrated in services. According to the U.S. Department of Labor, nonfarm payroll employment grew by 194,000 in October of 1994, slower growth than was expected. Although employment growth got off to a slow start, nonfarm payroll employment during the first half of the year averaged 345,000 jobs per month. Third quarter 1994 nonfarm payroll employment growth averaged 240,000 per month. The U.S. civilian unemployment rate is expected to be 6.2 percent in 1994. The unemployment rate in November 1994 was 5.6 percent.

While some sectors of the economy are heating up, an inflation scenario in the labor markets appears unlikely. Labor costs have been held in check through increases in productivity and a slowdown in the rate of growth in compensation. Wages are not expected to rise rapidly and employment growth continues to be relatively slow as defense cutbacks continue and corporations restructure and downsize. Furthermore, as stated earlier, many of the new jobs being created are concentrated in the lower-paying services sector.

Income

U.S. personal income is expected to increase 6.0 percent in 1994. U.S. average nonagricultural wages should grow 3.7 percent in 1994. U.S. corporate profits before tax are expected to rise a healthy 11.7 percent in 1994.

The Economic Outlook for 1995

The economy in 1995 in the U.S. is expected to move at a slower pace than in 1994 as interest rate hikes take their toll. The outlook is for lower economic growth, a modest increase in interest rates and no

recession. The risks in this scenario, however, are that the economy overheats, inflation accelerates, and the Federal Reserve pursues highly restrictive policy thus slowing the economy too much.

Real GDP

U.S. real GDP is expected to rise 2.7 percent in 1995. Real consumer expenditures, especially on housing and housing-related durable goods, are expected to cool to a 2.9 percent growth rate for 1995. U.S. new vehicle sales are expected to slow to 4 percent, although there is still surprising momentum in this industry. Growth in business fixed investment, which has also fueled this recovery, should continue to be strong in 1995. Business-fixed investment is expected to grow 9.4 percent in 1995. Residential investment is expected to drop 0.5 percent in 1995. Nonresidential construction is expected to pick up 9 percent in 1995. Residential construction is expected to only grow 2.3 percent in 1995 as interest rate hikes take their toll. Growth in government purchases is expected to fall 0.7 percent as its effort toward deficit reduction and defense downsizing continue. The U.S. international trade picture should improve as the economies of our trading partners pick up. Although exports are still expected to grow 9.8 percent, imports, where growth has been troublesome, are expected to only grow by 8.1 percent in 1995. With further Federal Reserve action, the value of the dollar in relation to foreign currencies should stabilize and increase slightly.

Interest and Inflation Rates

The current Federal Open Market Committee (FOMC) has attempted to slow growth in the economy to reduce the threat of inflation and will probably continue that course through 1995, with the result that short term rates could increase by 100 basis points (1 percent) during the year, perhaps with the increase occurring at the beginning of the year.

Two main risks to this assessment can be seen, unfortunately going in different directions. The first risk is that the FOMC may have already or by mid-year over-corrected and the intended soft landing may become turbulent (not a crash), with the result that interest rates stabilize or fluctuate slightly for the last quarter of the year. The second uncertainly concerns the FOMC reaction to the progression of the "Contract with America." The FOMC has a fairly strong record of opposing large deficits, and raising interest rates in response. If tax cuts precede the difficult and contentious spending cuts (not only in legislation but also in implementation), then the FOMC may send a message both to the economy and to Congress by raising interest rates up by 150 basis points, with the extra crank in the latter part of the year.

Long-term rates are more free than the FOMC controlled rates, but also are more influenced by investors' longer-term expectations and reactions. These rates are expected to increase by less than 50 basis points in the coming year. In next year's *Economic Report to the Governor* it is hoped this chapter will report stable or slowly falling interest rates.

As the economy enters its fifth year of expansion, the unemployment rate will sink below 6 percent and manufacturing capacity utilization will edge up over 85 percent, pressures on wages will become prevalent rather than a rarity. Price pressures already are strong throughout the midwest manufacturing belt. As productivity falls, unit labor costs will begin to move upward and some "wage-push" inflation may materialize in 1995.

Inflation, as measured by the CPI, is expected to increase 3.2 percent in 1995 as the Federal Reserve moves to engineer more modest economic growth (2.0 to 2.5 percent growth in GDP) to avoid a significant acceleration in inflation. The GDP deflator is expected to increase to 2.9 percent in 1995.

Employment

Nonagricultural payroll employment in the U.S. should grow 2.5 percent to 116.1 million in 1995. The U.S. civilian unemployment rate is expected to decline to approximately 5.8 percent in 1995. ✧

Table 1
Components of Real GDP Growth--Percent Changes: 1993 to 1995

Category	Percent Change 1993	1994	1995
Real GDP (Billions of 1987 Dollars)	3.1	3.8	2.7
Personal Consumption	3.3	3.4	2.9
Investment			
Business Fixed	12.5	12.2	9.4
Residential	8.2	8.6	-0.5
Exports	4.1	7.7	9.8
Imports	10.7	12.7	8.1
Government Purchases	-0.8	-1.6	-0.7
Inventories	15.3	49	29
Net Exports	-79.3	-113.2	-111.8

Source: The State of Utah Economic Coordinating Committee.

✧ Utah Outlook

The Previous Ten Years

The Utah economy grew slightly faster than the national economy as measured by consumer-price inflation (CPI-U) and population-adjusted (real per capita) personal income growth over the previous 10 years. Real per capita (inflation and population-adjusted) personal income grew 15.5 percent from $14,800 to $17,100 in Utah; whereas, it only grew 14.7 percent from $19,000 to $21,800 nationwide (in 1994 dollars).

Per Capita Income

Utah's real per capita income as a percent of the nation's increased steadily for the last six years from 74.5 percent in 1988 to 78.4 percent in 1994. Of the 50 states, Utah had the 14th fastest increase in real per capita income growth in the nation from 1988 to 1993.

Utah's population is estimated to have grown 17.6 percent, while the nation's population only grew 10.4 percent, from 1984 to 1994. Inflation-adjusted personal income is also estimated to have grown faster in Utah (36.2 percent) than in the nation (26.6 percent) over this time period--fast enough to prevent population growth in Utah from holding real per capita personal income growth under the national average. Nonetheless, real per capita income in Utah will remain considerably below the national average in the foreseeable future due to the large percentage of the population comprised of individuals below the age of 18 and over the age of 64. Most recent data show that each 100 of Utah's working-age population (those 18 to 64) had to support 18 more dependents on average than each 100 of the nation's working-age population.

Although real per capita income increased over the past ten years, the average-yearly wage in Utah, adjusted for CPI-U inflation, decreased 7.1 percent from $24,100 to $22,400 in 1994 dollars. By comparison, the national inflation-adjusted, average annual wage increased 4.2 percent from $26,200 to $27,300. Inflation-adjusted average wage growth in Utah may have decreased (while it increased on average throughout the nation) due to less unionization, more part-time workers, a higher rate of labor force participation by women, and more entry level (younger) workers in Utah than in the nation.

Possible explanations for real per capita income within Utah increasing, while the inflation-adjusted average wage in the state declined, include: increasing labor force participation rates (more female job holders); stronger growth in nonwage, than in wage, sources of income; and, a greater percentage of entry-level, part-time, or dual-job workers. Total personal income (wage and nonwage income) grew 94.5 percent over the last 10 years while total nonagricultural wages (wage income alone) grew at a slower rate of 89.3 percent.

Job Growth

Lower inflation-adjusted average wage growth in Utah than in the nation over this 10-year period helped stimulate stronger employment growth in Utah. Total nonagricultural job growth in Utah is estimated to have increased about 43.1 percent over the past ten years for an average annual growth rate of around 3.6 percent. This surpasses Utah's average yearly growth rate since 1950 of about 3.5 percent. By comparison, job growth in the nation from 1984 to 1994 is estimated to be 20 percent for an average of about 1.8 percent per year. Thus, Utah's rate of job growth was more than double that of the nation over this time period.

Over this 10-year span the state's economy continued to undergo structural changes, away from government jobs and goods-producing industries, towards private employment and services-producing industries, that began in the late 1960s. The decline in high-paying federal government and goods-producing jobs is most likely one contributing factor (among many) to the decline in inflation-adjusted wages in Utah over the past 10 years.

It is estimated that the state added about 259,000 jobs from 1984 to 1994 with most of the growth, 228,000 jobs, occurring in private-sector industries. Annual growth in private-sector jobs is estimated to have averaged 4.0 percent over the past ten years. Private employment increased from 78.1 percent of total jobs to 81.1 percent from 1984 to 1994. By comparison, private employment only made up 70 percent of total employment as recently as 1967.

The private sector is composed of goods-producing and services-producing industries. It is estimated that goods-producing industries (mining, construction, and manufacturing) decreased from 23.5 percent to 20.1 percent of total employment from 1984 to 1994. This rate compares to a high of 29.8 percent in 1962.

Most of the goods-producing percentage decline occurred in mining and durable manufacturing. Mining is estimated to have actually lost 4,500 jobs from 1984 to 1994, a decrease from 2.1 percent of total employment to 1.0 percent. In contrast, mining made up 6.9 percent of total employment in 1957. Improved technology and productivity have resulted in the losses of thousands of coal and copper mining jobs. Utah's mining sector averaged an employment loss over 4.0 percent per annum over the previous ten years.

Non-government, services-producing industries (transportation, communications, and public utilities; wholesale and retail trade; services; and finance, insurance, and real estate) increased from 54.6 percent in 1984 to 61 percent of total employment in 1994. The services industry gained around 104,200 jobs and increased from 20.1 percent of total employment in 1984 to 26.2 percent in 1994. During this period annual growth in services averaged 6.4 percent, the highest growth rate for all industries.

Retail trade grew at an average annual rate of 4.3 percent over the past 10 years, and is estimated to have gained 55,400 jobs, increasing from 17.7 percent to 18.8 percent of total employment. Government added about 30,800 jobs but decreased in its share of total jobs from 21.9 percent in 1984 to 18.9 percent in 1994. Federal employment actually decreased by 4,900 jobs, due to defense cut backs that began in 1991, and declined from 6.2 percent of total employment to only 3.8 percent.

Local governments added 21,000 jobs over this decade but declined from 9.8 percent of total jobs to 9.3 percent. State government added 14,600 jobs while its percent of total employment remained constant at 5.8 percent. Only finance, insurance and real estate, services, and retail trade experienced percentage-of-total employment gains over the past 10 years.

Recent Conditions

Employment

Employment grew 5.4 percent in 1993, considerably higher than the 3.1 percent of 1992. Most of the growth in 1993 came from the private sector at 6.3 percent, compared to 1.6 percent for the public sector. Employment growth continued to increase into 1994 at 6.2 percent. Private-sector growth in 1994 was 7.3 percent and government growth was 1.8 percent.

Industries with employment growth rates above the 6.2 percent average for 1994 include construction at 21.9 percent; retail trade at 6.9 percent; finance, insurance, and real estate at 12.5 percent; and, services at 6.3 percent. All other industries grew at a rate below 6.2 percent. Only federal government employment showed a loss in employment at -6.2 percent.

Firms

New firm openings and major expansions of existing firms with 100 or more workers in 1994 included, but were not limited to: Morton International, Packard Bell, Matrixx Marketing, Litton Industries, Teleperformance, U.S. Postal Service, O'Sullivan Industries, Parker-Hannifen, American Express, Southwest Airlines, AT&T Universal Card, American Pacific, Paradigm Medical, Wal-Mart and Sam's Club, Smithfield Foods, Taco Bell, Delta Air Lines Reservations, Marriott Courtyard, Mill-Grow Greenhouse, Harbor Village Resort, Fidelity Investments, TheraTech, MTI, Prime Option, R.R. Donnelley, Vesper, Home

Depot, Fred Meyer, Utility Trailers, Bourns, O.E.A., Frito-Lay, Deluxe, Folio, Sauder Woodworking, and Funjet Vacations.

Contractions and closures with 100 or more workers in 1994 included, but were not limited to, layoffs at Hill Air Force Base, Tooele Army Depot, the Army Reserve, Thiokol, IOMEGA, PACE, Novell and WordPerfect, Natter Manufacturing, Morris Airlines, and Evans & Sutherland.

Media Report / Rankings

Utah continued to receive favorable national rankings and press coverage in 1994. Utah ranked 3rd in the nation, at 8.6 percent, for personal income growth from second quarter 1993 to second quarter 1994. Utah ranked 1st in the nation in growth in nonagricultural employment, at 6.1 percent, for October 1994 over October 1993. The state ranked 2nd for housing permits, at 26 percent; and, 4th in the nation in service employment growth, at 6.8 percent, for September 1994 over September 1993. The state placed 7th in the nation for manufacturing exports growth, at 23.1 percent, for August 1994 over August 1993.

Utah firms ranked 1st in business credit quality (51st in business failures as measured by liabilities of failed or bankrupt firms) for September 1994 over September 1993. The U.S. Bankruptcy Court also reported that bankruptcy petitions for the first nine months of 1994 compared to the same period in 1993 were down 5 percent in Utah. And, the State of Utah continued to receive a triple-A bond rating from the nation's leading bond rating agencies--Moody's Investor Services, Standard and Poors, and Fitch in 1994. Fitch hailed the state for its small amount, short tenure, and modest burden of debt. Standard and Poors cited Utah as "the strongest economic scenario in the country."

The Corporation for Enterprise Development ranked Utah as the 2nd best economy in its annual report of May 1994. *U.S. News & World Report* in its November 2, 1994 issue ranked Utah as having the 3rd best economy in the nation as measured by employment, income, business, construction permits, retail sales, and home price growth.

Increased industry diversification, a favorable business climate, and the low cost of living and doing business were listed in several 1994 articles and reports as reasons for Utah's success. *Forbes* magazine in two of its January 1994 issues listed Utah as the least litigious state in the nation, and as one of six states in the nation with the best prospects for job growth due to its low cost of doing business. *The Wall Street Journal* in May and October of 1994, and the Federal Reserve Bank of San Francisco in June 1994, featured articles on the lower social problems and costs of living and doing business in western states, including Utah, when compared with California.

Regional Financial Associates (RFA), in October 1994, attributed low business costs as a vital component of Utah's dramatic growth over the past several years. RFA, using 1992 energy, tax, and labor cost data, estimated that Utah's relative business costs are 4 percent below the national average, compared to California's 10 percent above the U.S. average. And, Utahns were rated as the healthiest people in America in December 1994 by the National Institute for Healthcare Management.

Many Utah cities were also recipients of good press coverage in 1994. *Money Magazine* ranked Provo/Orem 3rd and Salt Lake City/Ogden 4th in its 1994 best places to live in America. The magazine also listed St. George among the top 20 places in the U.S. to retire. *Snow Country* magazine listed Park City as the 5th best ski resort in the nation, and *Ski Magazine* ranked Alta and Snowbird as the 4th and 6th best resorts respectively.

City and State magazine ranked Salt Lake City 1st among the nation's "up and coming cities." CFO magazine listed the city as having "the best environment for business." And, *Managing Your Career*, the quarterly college edition of *National Employment Weekly*, listed Salt Lake City as the best place to launch a new career.

U.S. News & World Report in a March 21, 1994 article listed the law and business schools at Brigham Young University among the top 50 graduate schools nationwide. A 1994 report issued by the American

Legislative Exchange Council ranked Utah among the top 10 states in all measures of academic achievement for public education.

In a feature article "Housing's Hot Markets," *Baron's* on May 30, 1994 listed Salt Lake City as one of seven cities across the nation with a combination of strong economic growth and undervalued residential real estate. *U.S. News & World Report* in its April 11, 1994 article "Top 100 Markets," ranked Salt Lake City as the 9th best housing market in the nation. Ernst & Young accounting firm in June 1994 ranked Salt Lake City as the 4th most affordable housing market when prices are compared to disposable median household income.

USA Today on November 4, 1994 listed Ogden, Utah as the top vacation home market in the West, "based on price appreciation, available recreation and proximity to major population centers." *Fortune Magazine* featured an article on November 14, 1994 wherein Salt Lake City was mentioned as one of the hot housing markets least likely to become a speculative bubble. The National Association of Realtors reported in November 1994 that even though Salt Lake City medium home prices were up 16.7 percent for third quarter 1994 over third quarter 1993 (the 2nd fastest appreciation in the nation), they remained 7 percent below the national median cost of a home.

Outlook

The Utah economy is expected to experience solid, above-average growth in 1995. The State of Utah Economic Coordinating Committee expects employment to grow at about 4.3 percent in 1995. The historic (1950-94) average job growth rate in Utah is about 3.5 percent. Regional Financial Associates (RFA) forecast in October 1994 that Utah would rank 1st in the nation in job growth for 1995 at 4.7 percent.

Several companies have announced permanent work force expansions and new firm openings in 1995. These include, but are not limited to: Morton International, TheraTech, Matrixx Marketing, CDP Technologies, McDonnell Douglas, Mill-Grow, American Pacific, Paradigm Medical, Litton Industries, O.E.A., Smithfields Foods, Internal Revenue Service, Huntsman Chemical, Little America, Packard Bell, L & B recycling, Fingerhut, Holly Products, Fibrebond, U.S. Postal Service, Fred Meyer, and Continental Airlines. And, Salt Lake City's chances of being selected in June by the International Olympics Committee to host the Winter Olympics in 2002 appear favorable. Impacts of that decision if Salt Lake City is chosen, are longer-term.

Nonagricultural wages, personal income, net migration, and population in Utah are also expected to show solid growth through 1995. Population growth should increase at 2.4 percent, total nonagricultural wages should increase 7.2 percent, and personal income is expected to increase by 7.4 percent in 1995.

Housing/Construction/Rentals

Housing and labor costs in Utah should remain below the national average; and, especially below those in California. Commercial and apartment construction should remain strong due to low vacancy rates. Office vacancy rates declined to 11.5 percent by the end of 1993, compared to 18.9 percent in 1992, and retail vacancy rates fell to 5.8 percent from 11.2 percent over the same time period, according to CB Commercial Real Estate Group. Office vacancy rates currently hover around 7.4 percent, and industrial building vacancy rates are now around 3.0 percent, according to the Bureau of Economic and Business Research at the University of Utah.

The U.S. Census Bureau reported in 1994 that the Salt Lake City-Ogden area had the lowest apartment vacancy rate in the nation in 1992 at 2.6 percent. And, PKF Consulting in a recent survey found that Salt Lake City had the highest hotel occupancy rates in the nation--rates which should bring about more construction of hotels and motels.

Apartment rents in Utah for all apartment sizes increased 20 to 25 percent from 1991 to 1993 according to a 1994 Apartment Association of Utah survey. Some communities such as Sandy, Draper, and Park City have recently enacted apartment building moratoriums and restrictions. And, several cities have, or are

considering, imposing impact fees on new development. Increased costs of housing helped push inflation to over 6 percent along parts of the Wasatch Front for first quarter 1994 over first quarter 1993, according to Weber State University's Price Watch.

Cutbacks

Work force reductions in 1995 will include more layoffs at Thiokol, the Tooele Army Depot, Hill Air Force Base, the Ogden Defense Depot, and within the Army Reserve. Tooele Army Depot is not scheduled to begin closing until 1995 but has already experienced reductions in its work force, as have other military installations throughout the state. Additionally, the federal Energy Department has announced that its primary contractor at the Idaho Nuclear Engineering Laboratory in southern Idaho will lay off 1,250 workers by the end of next September. These layoffs could adversely affect sales in Utah from Idaho shoppers.

Perhaps most distressing is the possibility of realignment or closure at Hill Air Force Base. The Air Force will make new base closure and realignment recommendations by February 1st and the Pentagon will release recommendations by March 1995. The Base Realignment and Closure Commission will give a recommendation list to the President by July 1, 1995. Congress will have two months to accept or reject it.

Forecast

Economic growth is expected to slow somewhat in Utah in 1995 due to higher interest rates; federal defense and nondefense cut backs; building moratoriums and restrictions; slower single-family residential construction growth; lower net in-migration; a tighter labor market; a less affordable housing market; higher apartment and commercial rents; and, an improved economy and business climate in California. California has lost many jobs to neighboring states, including Utah, in recent years. California is expected to make many of the necessary adjustments to become more competitive.

The Utah outlook presented in this *Economic Report to the Governor* anticipates no unannounced closures such as the Kennecott and Geneva closures that occurred during the mid-1980's. Specifically, the outlook assumes no adverse HAFB impacts; i.e., that HAFB will not be restructured or closed. It also assumes that the Federal Reserve will not raise short-term interest rates to a level that will bring on a national recession.

HAFB restructuring and higher interest rates are the principal downside risks to this report's 1995 economic forecast. In 1993 HAFB was responsible for about 4 percent ($1.6 billion) of Utah's total gross state product ($39.0 billion) and 3.6 percent (29,100 jobs) of its total (809,700 jobs) employment. These figures include direct, indirect and induced income and employment impacts. Direct employment at HAFB in 1993 was 16,400 jobs.

Further interest rate hikes remain a distinct possibility since key indicators followed by the Federal Reserve are currently running at levels the Fed considers to be inflationary. As of third quarter 1994, real (inflation-adjusted) gross domestic product (GDP) was coming in above its non-inflationary level of 2.5 percent (at 3.9 percent), unemployment was under 6 percent in November (at 5.6 percent), and capacity utilization remained above 84 percent in November (at 84.4 percent).

Conclusions

The most likely outcome, however, is that Utah's economy should continue to do well into 1995 for many of the same reasons it did well in 1994. Utah has a pro-business regulatory environment; low business taxes; housing, labor, and energy costs below the national average; a balanced, comprehensive tax system; and, a solid utility, communications, education and transportation infrastructure. Utah also has numerous recreational opportunities; a youthful and educated labor force; good universities; healthy lifestyles; inexpensive health insurance and workers' compensation; and, a strong work ethic that should continue to favorably influence business location and expansion decisions. ✧

✧ Utah's Long-term Outlook

Utah is projected to have almost 1.2 million more inhabitants in the year 2020 than were estimated in 1994. The projected population of 3.11 million in the year 2020 represents an average annual growth rate of 1.9 percent from 1994 to 2020. The 63 percent increase in population over the next 26 years implies that approximately 350,000 persons will migrate to Utah. The magnitude of this growth has far-reaching implications for Utah's future. A summary of economic and demographic projection for 1990 to 2020 is presented in Table 2.

Components of Population Change

Population change in any area over time results from three phenomena: (1) births; (2) deaths; and (3) net in- or out-migration. Utah's birth rate has historically been the highest in the nation. Total fertility (a measure of average births per woman) in Utah is still high relative to the national average. Utah's rate declined steadily during the 1980s, while the national rate held fairly constant until the past two years, when some increase occurred.

Births

After a historical comparison of Utah and U.S. fertility rates, a reasonable assumption was made that the Utah total fertility rate would stabilize at a level above the U.S. average, which is currently at about 2.0 births per woman. For the purpose of these projections, Utah's total fertility rate was assumed to remain constant at approximately 2.6 births per woman through the projection period.

It is projected that 1.3 million births will occur to Utah residents between 1994 and 2020. The number of yearly births is expected to increase gradually over the projection period, reaching 57,000 by the year 2020, as compared with 37,480 births in 1994.

Deaths

The number of deaths in the state is expected to rise continually through 2020, even though the survival rates for each age level are assumed to remain constant. This increase occurs because the population as a whole becomes more heavily concentrated in the older age groups, which experience lower survival rates. For example, in 1990, it was estimated that 8.7 percent of the population was 65 years old or older. By 2020, this age group is projected to increase to 11.0 percent. The number of deaths between 1994 and 2020 should total over 400,000.

Migration

Migration is typically the most volatile component of population change because it varies with demographic changes and economic conditions. Since 1950, Utah has experienced two extended periods of net out-migration (1951 to 1968 and 1983 to 1990), and one extended period of net in-migration (1969 to 1982). These periods depict the volatility of migration. For the decade of the 1980s, the total net out-migration for the state was approximately 25,000, which was very different from the 1970s when there was a net in-migration totalling 150,000 people. The 1990s have experienced another period of net in-migration, totalling 79,000 in the first four years of the decade.

During the period 1994 to 2020, a net in-migration of almost 350,000 people is expected (i.e., in-migration is expected to exceed out-migration by 350,000). In past projection series, periods of net out-migration were anticipated in the mid-1990s. Net out-migration occurs when the economy does not grow fast enough to provide adequate jobs for the growing labor force. However, given the strong population and employment growth of the past four years, these projections now indicate that net out-migration from the state is not anticipated during the projection period. There are projected to be several years, however, of net in-migration lower than 10,000 persons.

Age Structure

School Age Population

Figures 1 and 2 provide projected populations by age group. The ratio of school age population to total population increased in the 1980s, from 23.5 percent in 1980, to almost 26 percent in 1990. However, the ratio is expected to decline to 22 percent by the year 2020. The decline in fertility rates, the age structure of women in the childbearing years, and the net out-migration from 1983 to 1990 are responsible for the slowdown in the growth of the school age population. Very small declines in the school age population are anticipated over a fairly short period in the late 1990s. This trend may be offset, however, if larger levels of in-migration than are currently anticipated occur in future years. Also, it should be kept in mind that while total enrollment may decline, this decline will be concentrated in the elementary grades. Enrollment in the middle and secondary schools will, in fact, increase during the period of projected enrollment declines. After the turn of the century, growth in school age population is projected to resume, as a new demographic cycle begins when the children of the baby boomers enter the childbearing years. Between 1994 and 2020, school age population is projected to increase by over 191,000 (Figure 3). Table 3 presents population projections by selected age groups.

Young Adult Population (16-24 Year Olds)

Increases or decreases in the labor force are caused by one or more of the following circumstances:

- more entrants joining the labor force for the first time (defined as the population between 16 and 24 years of age);
- changes in the labor force participation rates for persons already in the 16-64 age group; and
- changes in net migration which result in modification of the number of people in the labor force pool.

The most dramatic change that will be occurring in the 1990s is the number of new entrants moving into the labor force (Figure 4). While the population in the 16-24 age group actually declined in the 1980s by 3 percent, the 1990s will show an increase of 33 percent (85,100) in this group. This rate is over twice the national increase. Over the entire 30-year projection period, this age group will increase by almost 60 percent. Because of this growth, Utah will continue to have the youngest labor force in the nation. This factor has positive implications for future employers in the state, including an ample supply of labor.

Older Adult Population (40-64 Year Olds)

The age group of 40-64 year olds is expected to more than double in size between 1994 and 2020, increasing by almost 450,000 persons. This large increase of the older adult population is a result of the aging of baby boomers, and to a lesser extent, the expected net in-migration. This group comprised 20 percent of the population in the 1990 Census, and is expected to account for 26.9 percent of the population by the year 2020. The 40-64 age group enjoys significantly higher income levels than the general population, and therefore has a greater amount of disposable income to spend on cars, trucks, recreation, upscale housing, etc. The 1990 Census indicates that a full one-third (33.8 percent) of householders aged 45-64 have household incomes greater than $50,000. This figure compares to less than 15 percent enjoying that level of income for the rest of the population. Clearly, the affluence offered by higher income levels will significantly impact the future economy of the state

Dependency Ratio

An indication of the demographic shifts in population is the dependency ratio. This ratio is the number of non-working age persons (younger than 18, and 65 years and over) per 100 working age persons (ages 18 through 64). Utah's dependency ratio has historically been high, given the large proportion of under age 18 (pre-school and school age) relative to the total population. In 1994, Utah's dependency ratio was 80, and is expected to decline to 72 by the year 2020. This change is a result of not only a projected increase in the

portion of the working age population, but also of a projected decrease in the share of the population younger than 18.

Employment

Total state employment (including self-employment and agriculture) is projected to increase from over 880,000 in 1993 to almost 1,570,000 jobs in 2020. This increase of 690,000 jobs represents an average annual growth rate of 2.2 percent. The overall pattern of job growth continues to show a significant movement away from dependence on the state's traditional goods-producing economic base and toward service-producing industries as the driving sectors in the Utah economy (Figure 5 and Table 4). The Services and Trade industries together account for over half of the new jobs that are projected to be created in the state over the next 27 years. This is evident when the fastest growing industries (having annual growth rate of at least 3.0 percent) are surveyed, where seven of the nine industries are in the Services area. The specific industries include (by two-digit Standard Industrial Classification (SIC) code):

SIC	SIC Description
07	Agricultural Services
45	Air Transportation
47	Transportation Services
70	Hotels and Lodging Places
73	Business Services
80	Medical and Health Services
83	Social Services (Private)
87	Engineering and Management Services
89	Professional Services

Long-Term Projections: Utah and the U.S.

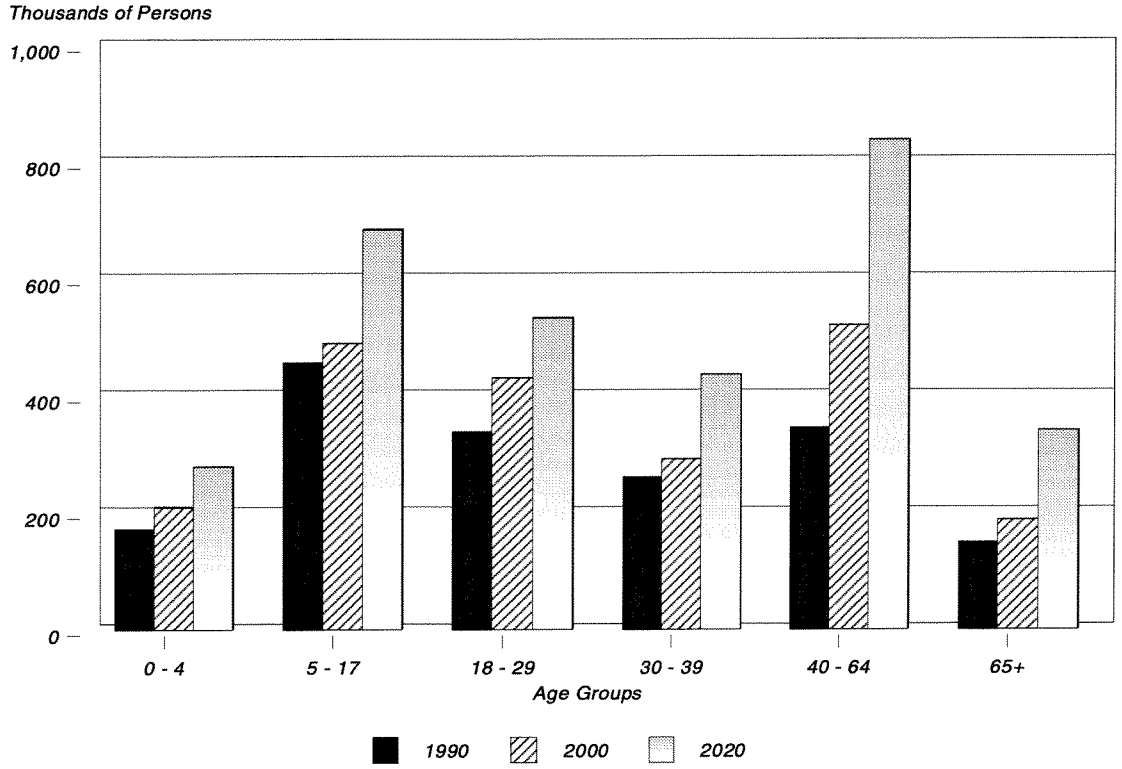
Summary

- Utah's total fertility rate is assumed to remain constant at approximately 2.6 average births per woman. Nationally, total fertility rates average 2 births per woman.
- Utah's population is projected to have an annual growth rate of 1.9 percent through 2020, while the nation is projected to grow at less than half that rate.
- Utah is projected to continue to have the youngest population in the nation. Utah's median age in the year 2020 is projected to be 30, while the nation's median age is projected to be 38.
- Utah will continue to have the youngest labor force in the nation. While Utah's labor force will see periods of rapid increase over the next two decades, many parts of the U.S. are already seeing labor shortages, and these shortages are expected to become more prevalent in the future.

Implications of the Long-Term Projections

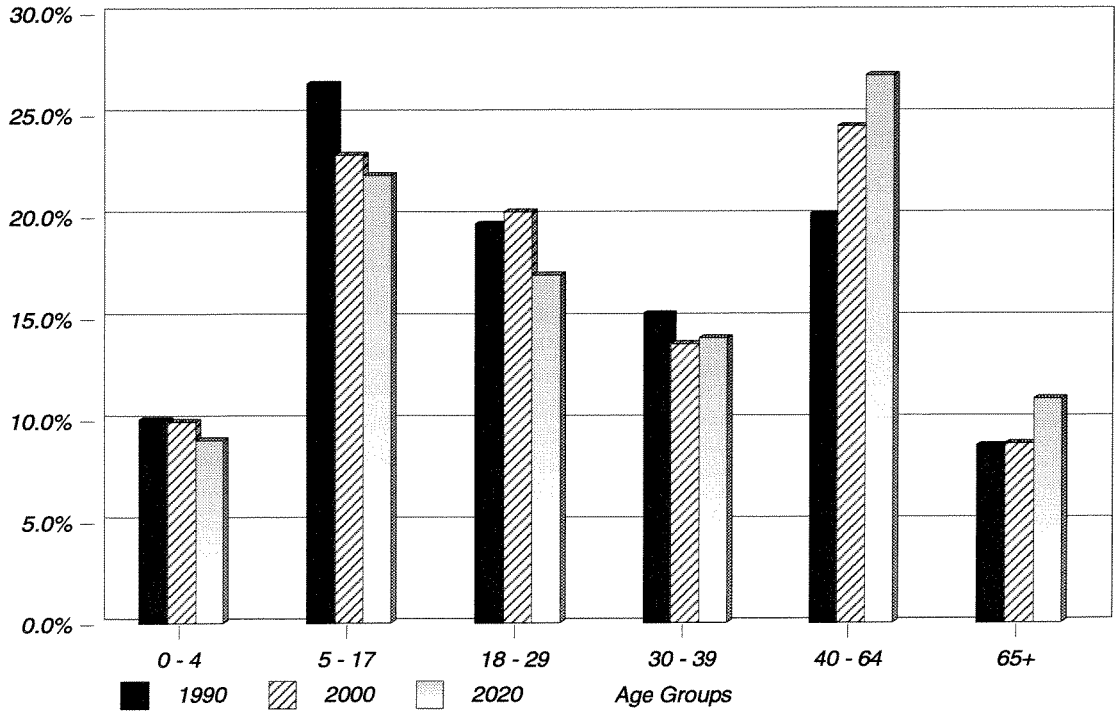
- Utah can be expected to experience continued relatively good growth through the last decade of the 20th century and well into the 21st century.
- The overall picture for the state is one of adequate job growth to meet Utahns' employment needs.
- Growth in Utah will not be evenly distributed across the state. Geographic distribution of new jobs may cause migration from rural areas to metropolitan counties. Table 5 presents county projections, along with the associated long-term growth rates.
- The projections are based on assumptions which represent a consensus best effort of a large number of planners, officials, and analysts at both state and local levels. The projections and assumptions are plausible and reasonable as viewed from this point in time.

Figure 1
Utah Population by Age Group: 1990, 2000, and 2020



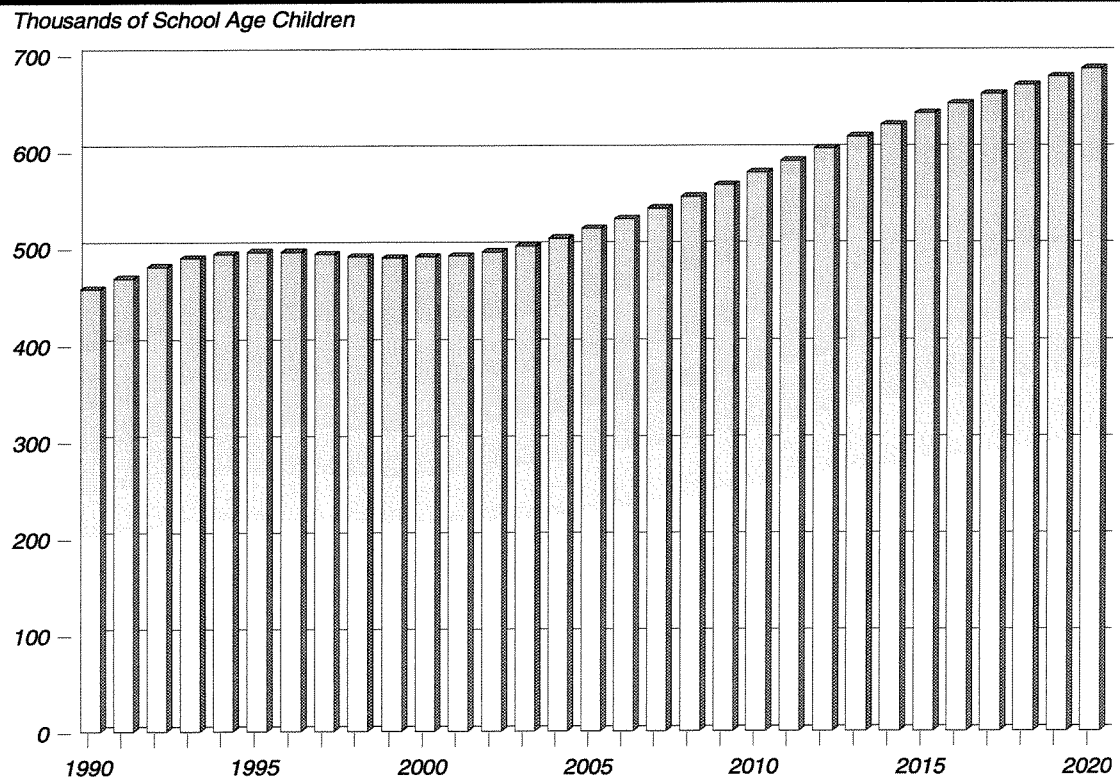
Source: 1990 Census and UPED Model, Governor's Office of Planning and Budget

Figure 2
Utah Population by Age Group as a Percent of Total Population: 1990, 2000, and 2020



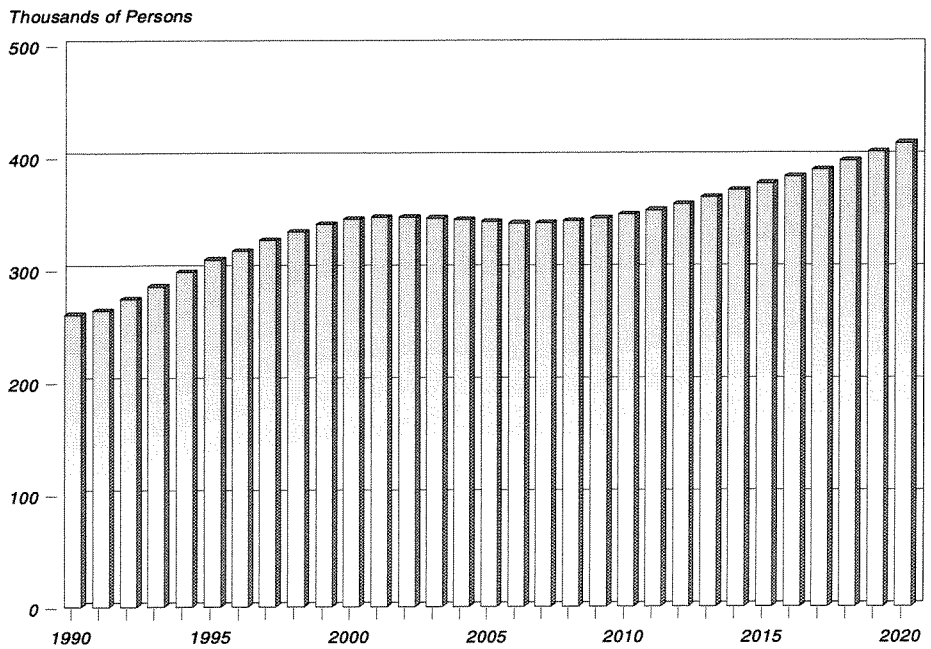
Source: 1990 Census and UPED Model, Governor's Office of Planning and Budget

Figure 3
Utah's School Age Population (Ages 5 to 17): 1990-2020



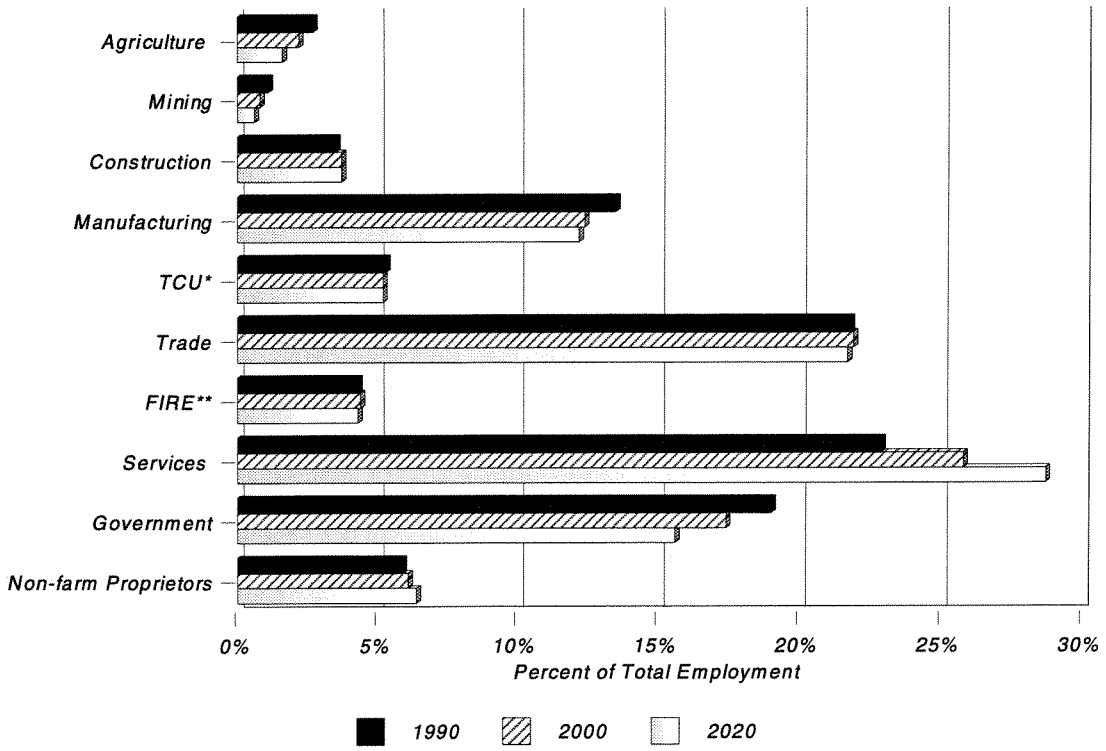
Source: 1990 Census and UPED Model, Governor's Office of Planning and Budget

Figure 4
Utah's Young Adult Population (Ages 16 to 24): 1990-2020



Source: 1990 Census and UPED Model, Governor's Office of Planning and Budget

Figure 5
Utah Employment by Industry: 1990, 2000, and 2020



*TCU = Transportation, Communications and Utilities **Fire = Finance Insurance and Real Estate
Source: 1990 Census, Utah Dept. of Employment Security; 2000-2020, UPED Model, GOPB

Table 2
Utah Economic and Demographic Projections Summary: 1990 to 2020

Year	Total Population	Percent Change	School Age Population (Ages 5-17)	Percent Change	Total Employment	Percent Change	Nonag. Wage and Salary Employment	Percent Change	Households	Percent Change	Average Household Size
1990	1,729,100	--	456,783	--	791,746	--	726,277	--	539,184	--	3.21
1991	1,775,505	2.7	468,342	2.5	813,585	2.8	747,788	3.0	558,722	3.6	3.18
1992	1,821,951	2.6	480,461	2.6	838,620	3.1	771,270	3.1	574,514	2.8	3.17
1993	1,866,452	2.4	488,937	1.8	883,367	5.3	812,345	5.3	591,300	2.9	3.16
1994	1,915,197	2.6	493,361	0.9	920,207	4.2	847,651	4.3	610,961	3.3	3.13
1995	1,957,691	2.2	494,940	0.3	951,331	3.4	876,493	3.4	628,526	2.9	3.11
1996	1,991,811	1.7	494,654	-0.1	974,876	2.5	898,108	2.5	643,832	2.4	3.09
1997	2,023,856	1.6	493,247	-0.3	996,838	2.3	918,341	2.3	658,465	2.3	3.07
1998	2,056,274	1.6	490,328	-0.6	1,015,698	1.9	935,657	1.9	673,496	2.3	3.05
1999	2,092,948	1.8	489,022	-0.3	1,036,383	2.0	954,640	2.0	689,818	2.4	3.03
2000	2,130,008	1.8	489,629	0.1	1,058,191	2.1	974,689	2.1	706,401	2.4	3.02
2001	2,164,844	1.6	491,155	0.3	1,079,260	2.0	994,051	2.0	722,237	2.2	3.00
2002	2,203,607	1.8	494,927	0.8	1,101,755	2.1	1,014,740	2.1	739,155	2.3	2.98
2003	2,247,554	2.0	501,225	1.3	1,125,918	2.2	1,036,978	2.2	757,756	2.5	2.97
2004	2,294,270	2.1	508,988	1.5	1,151,235	2.2	1,060,330	2.3	776,995	2.5	2.95
2005	2,343,126	2.1	518,578	1.9	1,177,465	2.3	1,084,585	2.3	796,953	2.6	2.94
2006	2,390,587	2.0	528,736	2.0	1,203,024	2.2	1,108,277	2.2	816,255	2.4	2.93
2007	2,438,542	2.0	539,767	2.1	1,229,057	2.2	1,132,489	2.2	835,233	2.3	2.92
2008	2,492,564	2.2	551,674	2.2	1,256,950	2.3	1,158,451	2.3	856,397	2.5	2.91
2009	2,549,146	2.3	564,086	2.2	1,285,628	2.3	1,185,169	2.3	878,329	2.6	2.90
2010	2,604,366	2.2	576,706	2.2	1,313,865	2.2	1,211,507	2.2	899,840	2.4	2.89
2011	2,653,960	1.9	589,223	2.2	1,339,875	2.0	1,235,783	2.0	919,541	2.2	2.89
2012	2,707,126	2.0	602,086	2.2	1,366,620	2.0	1,260,725	2.0	940,359	2.3	2.88
2013	2,760,733	2.0	614,461	2.1	1,393,247	1.9	1,285,553	2.0	961,462	2.2	2.87
2014	2,812,452	1.9	626,221	1.9	1,419,096	1.9	1,309,663	1.9	981,941	2.1	2.86
2015	2,863,426	1.8	637,527	1.8	1,444,623	1.8	1,333,485	1.8	1,002,514	2.1	2.86
2016	2,914,179	1.8	648,329	1.7	1,469,943	1.8	1,357,125	1.8	1,023,263	2.1	2.85
2017	2,962,302	1.7	658,013	1.5	1,494,444	1.7	1,380,012	1.7	1,043,128	1.9	2.84
2018	3,012,774	1.7	667,483	1.4	1,519,609	1.7	1,403,519	1.7	1,063,925	2.0	2.83
2019	3,062,658	1.7	676,244	1.3	1,544,625	1.6	1,426,886	1.7	1,084,538	1.9	2.82
2020	3,112,425	1.6	684,414	1.2	1,569,842	1.6	1,450,456	1.7	1,105,264	1.9	2.82

Note: These are long-term projections and are not consistent with the short-term forecasts presented in other tables in this report.

Source: Governor's Office of Planning and Budget, UPED Model.

Table 3
Utah Population Projections by Age Group: 1990, 2000, 2010, and 2020

	Population by Age Group			
Age Group	1990	2000	2010	2020
0-4	172,252	210,054	253,872	279,948
5-17	456,783	489,629	576,706	684,414
18-29	337,682	430,739	481,754	533,131
30-39	261,192	292,441	375,098	435,529
40-64	345,459	519,565	685,328	838,089
65+	149,482	187,580	231,608	341,314
16-24	259,670	344,826	348,785	412,159
15-44	789,887	983,663	1,128,035	1,330,067
Total	1,722,850	2,130,008	2,604,366	3,112,425
Median Age	25	26	28	30
Dependency Ratio	82	71	69	72

	Age Group as a Percent of Total Population			
Age Group	1990	2000	2010	2020
0-4	10.0%	9.9%	9.7%	9.0%
5-17	26.5%	23.0%	22.1%	22.0%
18-29	19.6%	20.2%	18.5%	17.1%
30-39	15.2%	13.7%	14.4%	14.0%
40-64	20.1%	24.4%	26.3%	26.9%
65+	8.7%	8.8%	8.9%	11.0%
16-24	15.1%	16.2%	13.4%	13.2%
15-44	45.8%	46.2%	43.3%	42.7%
Total	100.0%	100.0%	100.0%	100.0%

Source: U.S. Bureau of the Census (1990) and Governor's Office of Planning and Budget, UPED Model (2000-2020).

Table 4
Utah Employment Projections by Industry: 1990, 2000, 2010, and 2020

Industry	1990 Number of Jobs	1990 Percent of Total	2000 Number of Jobs	2000 Percent of Total	2010 Number of Jobs	2010 Percent of Total	2020 Number of Jobs	2020 Percent of Total	Annual Growth
Agriculture (1)	21,276	2.7%	22,819	2.2%	23,826	1.8%	24,454	1.6%	0.5%
Mining	8,603	1.1%	8,841	0.8%	9,191	0.7%	9,583	0.6%	0.4%
Construction	27,926	3.5%	39,474	3.7%	48,282	3.7%	58,450	3.7%	2.5%
Manufacturing	107,100	13.5%	131,045	12.4%	159,785	12.2%	192,179	12.2%	2.0%
TCU (2)	42,283	5.3%	55,287	5.2%	67,386	5.1%	81,127	5.2%	2.2%
Trade	172,391	21.8%	231,794	21.9%	287,561	21.9%	340,229	21.7%	2.3%
FIRE (3)	34,134	4.3%	46,850	4.4%	57,485	4.4%	67,167	4.3%	2.3%
Services (4)	180,924	22.9%	272,955	25.8%	359,072	27.3%	450,918	28.7%	3.1%
Government	150,556	19.0%	184,268	17.4%	217,562	16.6%	244,990	15.6%	1.6%
Non-farm Proprietors (5)	46,549	5.9%	64,850	6.1%	83,709	6.4%	100,735	6.4%	2.6%
Total Employment	791,742		1,058,183		1,313,859		1,569,832		2.3%
Non Agricultural Wage & Salary Emp. (1)	723,629	91.4%	974,682	92.1%	1,211,499	92.2%	1,450,446	92.4%	2.3%

(1) Both Agriculture and Non-Ag Wage & Salary Employment include Agricultural Services.
(2) Transportation, Communications and Utilities.
(3) Finance, Insurance and Real Estate.
(4) Includes Private Household employment; excludes Agricultural Services employment.
(5) Estimated based on 1990 Census data.

Source: Utah Department of Employment Security and Governor's Office of Planning and Budget, UPED Model.

Table 5
Utah Population Projections by County and District: Selected Years

MCD/County	1990	1995	2000	2005	2010	2015	2020	*AARC 1990-2020
BEAR RIVER	108,393	120,257	127,236	138,078	152,450	164,103	176,185	1.63%
Box Elder	36,485	40,192	41,974	45,356	49,903	53,555	57,346	1.52%
Cache	70,183	78,292	83,439	90,817	100,528	108,440	116,636	1.71%
Rich	1,725	1,773	1,823	1,905	2,019	2,108	2,203	0.82%
WASATCH FRONT	1,104,356	1,237,475	1,337,767	1,465,776	1,624,975	1,799,859	1,965,738	1.94%
Davis	187,941	215,448	236,016	259,226	287,728	318,795	348,036	2.08%
Morgan	5,528	6,354	6,812	7,400	8,188	9,100	10,014	2.00%
Salt Lake	725,956	811,837	875,526	957,681	1,060,782	1,174,612	1,283,001	1.92%
Tooele	26,601	27,230	26,739	31,134	36,524	42,658	49,024	2.06%
Weber	158,330	176,606	192,674	210,335	231,753	254,694	275,663	1.87%
MOUNTAINLAND	289,197	344,040	379,987	416,205	459,982	491,611	529,260	2.04%
Summit	15,518	21,519	25,882	30,756	36,591	43,190	50,022	3.98%
Utah	263,590	310,538	340,877	370,984	407,438	431,464	461,056	1.88%
Wasatch	10,089	11,983	13,228	14,465	15,953	16,957	18,182	1.98%
CENTRAL	52,294	57,889	60,544	65,118	71,396	76,170	78,227	1.35%
Juab	5,817	6,446	6,635	7,043	7,637	8,070	8,219	1.16%
Millard	11,333	11,845	12,093	12,730	13,689	14,344	14,488	0.82%
Piute	1,277	1,515	1,535	1,579	1,652	1,697	1,695	0.95%
Sanpete	16,259	18,588	19,613	21,261	23,472	25,189	25,998	1.58%
Sevier	15,431	17,020	18,081	19,717	21,879	23,584	24,437	1.54%
Wayne	2,177	2,475	2,587	2,788	3,067	3,286	3,390	1.49%
SOUTHWEST	83,263	106,608	130,291	157,784	185,755	212,634	237,862	3.56%
Beaver	4,765	6,200	8,251	8,994	9,615	10,055	10,331	2.61%
Garfield	3,980	4,289	4,645	5,090	5,486	5,804	6,047	1.40%
Iron	20,789	24,546	28,103	32,423	36,655	40,543	44,033	2.53%
Kane	5,169	5,690	6,856	8,255	9,675	11,039	12,317	2.94%
Washington	48,560	65,883	82,436	103,022	124,324	145,193	165,134	4.16%
UINTAH BASIN	35,546	38,266	39,700	42,848	47,657	51,590	53,643	1.38%
Daggett	690	713	737	794	881	952	988	1.20%
Duchesne	12,645	13,371	13,656	14,552	16,016	17,185	17,734	1.13%
Uintah	22,211	24,182	25,307	27,502	30,760	33,453	34,921	1.52%
SOUTHEAST	49,801	53,153	54,483	57,319	62,164	67,475	71,535	1.21%
Carbon	20,228	21,177	21,320	22,300	24,116	26,014	27,433	1.02%
Emery	10,332	10,530	10,360	10,628	11,302	12,017	12,512	0.64%
Grand	6,620	8,153	9,260	10,598	12,293	14,028	15,492	2.87%
San Juan	12,621	13,293	13,543	13,793	14,453	15,416	16,098	0.81%
STATE OF UTAH	1,722,850	1,957,688	2,130,008	2,343,128	2,604,379	2,863,442	3,112,450	1.99%

*AARC = Average Annual Rate of Change

Note: These are long-term projections and are not consistent with the short-term forecasts presented in other tables in this report.

Source: Governor's Office of Planning and Budget, UPED Model

Economic Development Activities

✧ Economic Development Activities

The goal of Utah's economic development activities is to maintain a healthy state economy by fostering the creation of quality, high paying jobs. To achieve this, Utah must assure that it offers a healthy business climate with a reasonable regulatory structure, competitive utility rates, low taxes, affordable housing, a trained work force, an excellent quality of life, and a world class infrastructure.

Twenty-five years ago there was little public sector involvement in the promotion of economic activity apart from crude efforts to attract out-of-state business and advertising to lure tourists. Today, however, all 50 states and thousands of local governments and private organizations are heavily involved in very sophisticated efforts to enhance economic activity within their borders. In addition to the traditional roles, these efforts include:

- ✧ encouraging technology transfer and research and development linkages between universities and private industry,
- ✧ providing loan guarantees or revolving loan funds for small business,
- ✧ providing a source of 'seed' capital for business start-ups, and
- ✧ assistance in identifying foreign markets,
- ✧ organizing defense conversion efforts, and many more.

Economic Development Strategies

There are two general approaches taken by states in the implementation of economic development strategies. One presumes that the state need not prioritize industries when designing economic development programs, establishing criteria for program eligibility, and recruiting new businesses. The underlying rationale for this "hands off" approach is that focusing efforts and resources on specific industries or firms is poor public policy because it interferes with the operation of the market as it distributes resources. Rather, government's role is to enhance the efficiency of the economy overall, e.g., improve businesses' access to market information, train disadvantaged or dislocated individuals who otherwise could not effectively participate in the labor market, and/or to facilitate the availability of capital to small- and medium-sized businesses.

However, as in many other states, there is now a widespread concern in Utah that economic development resources dedicated to enhancing industries' competitiveness are too widely diffused to have a measurable impact on the economy. Further, this lack of focus is often coupled with an ignorance, or even lack of interest, on the part of much of the business community as to what economic development activities are being undertaken.

The second approach, therefore, maintains that state economic development agencies should act more like the private sector, realize that they are in competition with other states for jobs and industries, and foster growth by analyzing and capitalizing on the state's strengths and advantages. The reasoning is that given a state's inevitably limited resources, it should encourage the creation of quality, higher paying jobs through a strategic approach, which will utilize economic development resources more effectively.

Utah's Strategies

As part of the process of defining Utah's role in economic development, the Division of Business and Economic Development (DBED) is involving the business community in program design and implementation through the DBED Board and various task forces and work groups. The hope is that meaningful participation will lay the groundwork for long-term, private-public sector collaboration, promote cooperation among firms themselves, achieve more effective program structures, and build constituencies and political support for such efforts. In addition, discussions with other public and private economic development professionals, focus groups of industry representatives, and quantitative analyses are being used to help Utah define industry-specific strengths, weaknesses, and policy issues. The initial stage of this

process has been to re-examine Utah's industries. DBED has reviewed a variety of criteria by which Utah's industries and their needs might be evaluated. These evaluation criteria include the industries':

- size and wages,
- growth or contraction potential,
- need to compete internationally,
- ability to help diversify the state's economy, or produce technologies or services that have an important influence on the performance of other state industries, and
- performance as part of the state's export base.

These criteria are explained more fully in the following paragraphs.

Size and Wages

First, and most obvious, are the criteria of size and wages. Some industries are important simply because they employ a much larger share of the state's work force than other sectors. The construction industry, particularly in times of economic growth such as Utah has experienced in the 1990s, is a good example.

The average size of companies within an industry may be important. Industries with a high percentage of small firms often have a difficult time accessing the information and resources needed to maintain their competitiveness. Unlike the competitive environment in which Utah's larger firms operate, the failure of small and medium-sized businesses typically occurs because they lack the resources to stay current on markets or technology, or because of the loss of a single customer. Programs designed to promote inter-firm cooperation may allow small- and medium-sized firms to acquire the economies of scale, strength of numbers, and a pool of shared knowledge to maintain competitiveness in national and global markets. Also, it has been found that when promoting economic development activities, industries in which many smaller companies predominate require much more aggressive outreach efforts.

Similarly, some industries pay significantly more than others and may therefore disproportionately affect the state economy. Obviously, all things being equal, it is preferable to try to retain and/or recruit industries that offer higher-paying jobs. Not only do the workers in that industry enjoy higher incomes, but these higher incomes often generate higher levels of "induced" local growth, the often discussed (and misused) multiplier effect. In Utah the primary metals sector is an obvious example of a high wage industry with a disproportionate income and employment effect.

Growth Potential

Besides ranking by size or wages, there are a variety of other factors that may be considered when targeting economic development assistance. Obviously some state industries, regardless of size or pay, have better growth potential than others. Efforts to facilitate development of the fast-growing computer software industry may yield greater employment increases than a similarly sized effort in the more mature mining industry. Conversely, some industries are projected to undergo particularly rapid contraction over the next decade. Developing an effective adjustment strategy for dislocated aerospace workers in response to decreased defense spending may also pay a higher return on the state's investment. Targeting public programs in response to either of these circumstances may benefit the state more than assisting industries with average growth prospects.

Compete Internationally

Industries or companies that must compete internationally may also merit assistance. Questions concerning the effects of NAFTA and GATT on Utah have become widespread. These effects may become an increasingly important consideration as international trade continues to liberalize and Utah companies must compete in the global market place. Also, other nations have programs that promote the competitiveness of particular industries. Regardless of one's opinion of the effort, the support of Airbus by the European Community is frequently cited as a classic example of the deliberate fostering of a priority

industry through coordinated, long-term public assistance. However, even if desirable, the state's ability to have a significant impact in this area is problematic, given its size and resource constraints.

Diversity and Export Base

Other features which have been considered include whether or not an industry helps diversify the state's economy, or produces technologies or services that have an important influence on the performance of other state industries.

Finally, and arguably most importantly, an industry may be part of the state's export base. These are the economic activities that bring wealth into Utah by selling goods and services outside the state. These industries hold a key position because such "exports" generate income on which other sectors rely, amplifying the previously mentioned income and employment effects.

Industry Clusters

By necessity, the starting point for these industry studies is to analyze firms by their Standard Industrial Classification (SIC) code. This is the format in which most establishments report employment and wages. However, while SIC codes provide the most useful means of classification, there are problems with SIC codes. An example of a problem is that even fairly narrowly defined industries may cover a diverse array of products and firms, and in fact be too broad for certain types of analysis. On the other hand, there are commonly-used industry groupings (such as the tourism industry) that cut across SIC's. SIC codes also do not address industry linkages, i.e., other industries that provide the raw materials or purchase the products of the industry being studied.

This process has led Utah away from the idea of "target industries" and toward the increasingly popular concept of "industry clusters". The cluster is not an alternative definition of an industry and an industry is not necessarily a member of only one cluster. Also, the examination of industry clusters is not intended to exclude other large, important, or growing industries in Utah. A cluster is a geographic concentration of interdependent, related industries which offer a product or range of similar products. A cluster includes firms which are part of the production chain (suppliers of materials or users of the product), as well as institutions that influence the competitiveness of these concentrations (such as education, infrastructure, research facilities).

A convenient way of visualizing the cluster concept is to consider a pyramid, with the cluster's export industries at the top, underlain with linkage industries (that is, suppliers of raw materials, product components, support services, etc.), based on a state's "infrastructure" (the education system, technology research and development, human resources, capital financing structures, quality of life, information/communication infrastructure, tax and regulatory environment, and physical infrastructure). As is often noted, Utah's industry clusters are supported by the state's strategic geographic location and natural resources, a research-oriented university system, an educated and highly literate labor force, relative wage and cost-of-labor advantages, and a well-developed physical infrastructure (a notable component of which is the Salt Lake International Airport).

Industry clusters are also a useful concept when studying how related industries influence each other's competitiveness. In theory, a concentration of industrial activity and supporting institutions in a given area yields certain competitive advantages. The cluster essentially becomes greater than the sum of its parts. Cluster-related advantages for an industry or firm may include:

- access to a deeper pool of skilled labor,
- opportunities for product specialization,
- more rapid diffusion of research or production technology,
- greater access to public support,
- broader expertise and exposure within the local financial community, and
- higher visibility to potential customers.

There is also a propensity for clusters to generate spin-off firms.

Location Advantage

Using SIC code classifications and the concept of export sectors, there are approximately 20 specific industries in Utah which enjoy a location advantage. A location advantage is defined here as an industry with an employment location quotient of 1.3 or greater. A location quotient of 1.3 means that, in relation to its employment within the state, a particular industry is at least 30 percent more likely to be located in Utah than would be expected given that industry's overall share of national employment. Most of Utah's export industries, when combined with considerations of size, wages, growth potential, and related linkage industries, sort themselves into a handful of definable industry clusters.

Utah's Industry Clusters

Information Technology

Perhaps the most prominent is the information technologies cluster. With over 30,000 employees, this is a large and diverse group, but is represented by two export sectors; computer equipment manufacturing and software development. It also consists of all or parts of the following industries: communications equipment, electronic components, magnetic recording media, process control instruments, instruments to measure electricity, telephone and telegraph communications, cable TV, wholesale trade in computers and peripherals, wholesale electronic parts and equipment, retail computers and software, and data processing schools.

Transportation

The transportation industries cluster, employing almost 28,000 persons, consists of the export sectors of railroads, trucking and warehousing, and airlines. These industries have several commonalities that make them of vital interest to economic development agencies; they all contribute to and depend on the state's infrastructure, all are uniquely affected by national and inter-state regulation, and all transport Utah's (and other states) goods and people. These industries are also key linkage industries for all of Utah's other export sectors.

Metals Mining and Manufacturing

The metals mining and manufacturing cluster employs some 17,000 and is led by copper ore mining and primary metals manufacturing. It also includes fabricated metals and iron ores. Linkage industries include coal mining, electric utilities, and railroads. An illustration of the linkages in this cluster is the fact that primary metals manufacturing is the largest industrial consumer of electricity in Utah. In addition, electric utilities are the largest consumer of U.S. coal, while coke production is second.

Aerospace

The aerospace cluster is defined by the manufacture of aircraft and aircraft parts and guided missiles and parts. It also includes search and navigation equipment manufacturing. Aerospace employs approximately 10,000 Utah workers.

Emerging Clusters

There are also several clusters that are still in the process of emerging in Utah. These are clusters that are not as broad based, or do not have as large an export sector, or are still in the process of coalescing and being defined.

Biomedical

The biomedical cluster is the most advanced of these emerging clusters, and is centered on the manufacture of medical instruments and supplies. While medical instruments and supplies manufacturing is at present the only clear export industry within biomed, the cluster currently has about 8,000 employees and has been growing by over 10 percent per year. The biomed cluster also contains the sectors drug and pharmaceutical manufacturers and wholesalers, medical research and testing facilities, and biological and medical research labs.

Environmental Technologies

The environmental technologies cluster is relatively new, both nationally and in Utah. It includes the manufacture of pollution and environmental control equipment, environmental engineering and consulting firms, and waste management systems. Some of the largest customers for environmental control equipment are electric utilities and primary metals manufacturing. Because in many ways, this cluster is still in the process of being defined, data for analysis are somewhat sketchy. However, it is growing rapidly in Utah (approximately 50 percent per year over the past several years), with relatively high wages and employment of about 5,000. Similarly dramatic projections are made for this cluster both nationally and abroad.

Tourism and Agribusiness

Finally there are the potential clusters of tourism and agribusiness. Both are vital parts of the Utah economy, major employers, and are represented by chapters elsewhere in this report. However, despite the ski industry in the case of tourism, and livestock and dairy operations in agribusiness, neither currently display a pronounced geographic concentration in Utah compared to the rest of the nation. They also have other characteristics associated with them, such as comparatively low wages, or seasonal and climatic limitations, that circumscribe state economic development efforts. However, both population trends and evolving technology may provide the impetus to broaden and deepen the growth of these two clusters.

Cluster Analysis and Economic Development Programs

Cluster studies are potentially a conceptual step forward in the design and targeting of economic development programs, and can facilitate industry analysis by providing an overall framework for analysis. To date, cluster analysis has helped identify the industries in which Utah enjoys comparative national and international advantages. It has also helped define the next step, which involves answering the questions:

- Are cluster-specific programs and activities warranted or are general economic development programs intended to foster and maintain Utah's comparative advantages sufficient?
- If warranted, what is the most appropriate mix of investments and activities for a particular cluster?
- What can the State really accomplish for industry clusters given limited resources and the increasingly inter-state or even global nature of clusters--should it target all clusters, emphasize one or two, or concentrate on individual firms?
- Can Utah identify and pursue a specific sector within a cluster (e.g. the manufacture of medical devices) at the expense of the linked activities--will the export industry drive the cluster?

Although the reasons for the appearance, growth, or decline of industry clusters are not fully understood, studies show that the overall costs of doing business, especially tax burdens and relative labor costs, are probably the single most important influence. The examination of Utah's export industries and clusters also indicates that sustained growth requires a combination of continuous technological innovation, on-going spin-offs from existing clusters, and distinct geographic advantages.

Not surprisingly, the industry clusters investigated so far have generally agreed upon the following broad initiatives for state investment:

- continuing research and development for cluster technology,

- ✧ funding for start-up companies within the cluster,
- ✧ improving the tax and regulatory environment in which the clusters operate,
- ✧ supporting environmental and infrastructure maintenance, and
- ✧ assisting in the marketing of clusters and their products.

Further suggestions involve: establishing clear program priorities, developing benchmarks and assessment tools for program accountability, developing cluster-specific staff expertise, and reaching out to businesses that have had difficulty accessing economic development programs.

In crafting an economic development program two major constraints should be kept in mind. First, economic development is a long-term proposition. There are a few areas where the state can invest and obtain a return within a year. More often the return occurs within a two to five year time period. In most cases, the return may require a much longer period. The second constraint is that of the global and national setting. Utah is subject to a variety of powerful forces beyond its control including national fiscal and monetary policy, global prices for natural resources, national defense spending, interstate commerce and migration, international trade policy, and continuing structural shifts within industries.

In conclusion, despite the proliferation of economic development programs, the most powerful forces under a state's control remain the education of the population, the development and maintenance of the infrastructure (roads, airports, water systems, parks, etc.), and the ensuring of a competitive tax structure and a fair legal and regulatory environment. ✧

Economic Indicators

✧ Labor Market Activity

Highlights

- ✧ Utah's 1994 unemployment rate--3.7 percent--dropped two-tenths of a percentage point from the 1993 figure of 3.9 percent.
- ✧ Extremely strong job growth in 1994 helped push Utah's jobless rate to the lowest level registered since 1957.
- ✧ Utah added a record 50,000 new nonfarm jobs in 1994 for a growth rate of 6.2 percent--the strongest expansion since 1978.
- ✧ Utah continued to have one of the best state records for employment growth in the nation.
- ✧ Utah's performance is even more phenomenal given the employment cuts resulting from reductions in defense spending.
- ✧ Construction showed the highest growth rate (22 percent) of any major industry (for the fourth year in a row), while services added the highest number (13,400) of net additions.
- ✧ Mining was the only major industry to experience no growth.
- ✧ Government expansion remained relatively slow because of defense cutbacks.
- ✧ Total wages were up 8.6 percent, while the average monthly wage expanded 2.3 percent in 1994.
- ✧ Utahns did not keep up with inflation, despite the rise in wages.
- ✧ Roughly 72 percent of the noninstitutionalized population 16 years and older was in the labor force in 1993.
- ✧ Young people, women, and men all show higher rates of labor force participation than their national counterparts.
- ✧ Utahns are more likely to work part-time than the U.S. labor force in general.

The Utah Labor Market

While the national labor market made moderate gains, Utah positively boomed. With a nonfarm job growth rate of 6.2 percent, Utah ranked as one of the fastest growing labor markets in the country. The last time Utah's job gains exceeded 6.0 percent was in 1978. In addition, this expansion followed on the heels of several years of strong job gains.

Not surprisingly, while employment boomed, unemployment dropped. However, this decline measured a mere two-tenths of a point--dropping from 3.9 percent in 1993 to 3.7 percent in 1994. Joblessness in Utah has not measured so low since 1957! Throughout the year, Utah consistently maintained one of the lowest unemployment rates in the nation--registering roughly 2.5 points below the U.S. average. Figure 6 provides Utah and U.S. unemployment rates.

The state started the year with a 15-year-low unemployment rate of 3.2 percent, but this indicator fluctuated around the 3.5 range for most of the rest of the year. With joblessness so low, it is not surprising that anecdotal evidence of labor shortages (particularly in low-wage and construction jobs) began surfacing from employers.

An average of 36,000 individuals were out of work each month during 1994--1,000 more than the year before. How could the unemployment rate be lower than the year before, while the number of unemployed registered higher in that same year? This phenomenon can be explained by labor force growth. The labor force expanded so much that the state could register a lower unemployment rate with a larger number of jobless residents. Tables 6 and 7 provide labor force and unemployment for Utah.

Although this chapter makes comparisons between 1994 labor force (and unemployment) data and previous years, these figures are not strictly comparable. During 1994, several major changes were instituted which impact these data. First, the Current Population Survey which collects unemployment data, has undergone a major redesign and automation. The new survey questionnaire now more accurately counts the unemployed. In Utah, 600 households are included in the survey each month.

Research by the Bureau of Labor Statistics suggests that the new survey raised the reported U.S. unemployment rate by roughly two-tenths of a percentage point. For Utah, the effect is less clear and must be analyzed at a later date when more information is available.

The second important factor impacting Utah's monthly unemployment rate in 1994 was the implementation of a new regression model. Utah is one of 39 states whose monthly unemployment estimates are made using regression techniques in which the Current Population Survey data are inputs. Utah's new model appears to be providing more accurate estimates of monthly unemployment. Annual rates are based solely on the survey. More accurate measures of unemployment in the nation and Utah are now available; however, these factors should be considered when comparing data based on the new survey and older data.

Nonfarm Jobs

During 1994, Utah added a record 50,000 new nonfarm jobs for a growth rate of 6.2 percent--eight-tenths of a point higher than in 1993 (5.4 percent). And, while the national labor market made very strong improvements, Utah's rate of job expansion still measured two and one-half times greater than the U.S. average. In addition, no major industrial sectors showed employment declines during 1994. Figures 7, 8, 9 and 10 provide nonagricultural employment data.

After three years of double-digit growth, it might seem unlikely that the construction industry could grow much more. However, construction managed its highest growth rate in 10 years. In 1994, construction employment rose by 22 percent--a phenomenal 8,700 jobs. Residential building appears to have peaked during 1994, but very strong nonresidential expansion should continue to sustain employment well into 1995.

Manufacturing's expansion of 5 percent (5,400 jobs) during 1994 was just another indicator of Utah's economic well-being. Manufacturing suffered tremendously during the 1990s between a national recession and cuts in defense-spending. And, while defense cuts continue to make themselves felt, Utah manufacturing jobs continue to substantially outstrip the nation. The major portion of this growth occurred in the durable goods sector with the automobile airbag industry proving a major player. And, while many of the new durable manufacturing jobs do not pay as well as the old defense-related jobs, they generally provide an above-average salary.

Mining employment held flat at roughly 8,300 jobs in 1994. However, various subsectors of this industry experienced gains and losses. Growth in oil and gas offset losses in coal mining.

Transportation/communications/utilities added 2,300 new jobs in 1994 for a moderate growth rate of almost 5 percent. Changes in ownership of Morris Air and Southwest Air produced only minor disruptions in the expansion of air transportation. Trucking and warehousing experienced particularly strong growth, while communications and utilities made moderate gains.

As usual, the service industry created the largest number of new jobs (13,400) during 1994, if not the fastest growth rate (6 percent). Despite layoffs at WordPerfect, computer services continued to expand at a respectable rate. Other major contributors to this rapid expansion included business services, engineering/management services, and personal/amusement services. While continuing to provide a large number of Utah jobs, health services expansion slowed to a moderate rate during 1994.

Finance/insurance/real estate generated a remarkable 5,200 jobs in 1994. This outstanding 13 percent growth rate was spurred by additions and expansions of several financial services centers in the state and a ballooning of mortgage industry jobs occurring as masses of people refinanced their loans and built houses to take advantage of low interest rates.

Trade experienced strong employment expansion with a growth rate of more than 6 percent. Gains in retail and wholesale trade helped push this sector's employment total up 10,400 jobs. This expansion appeared

to be fairly broad-based and can be traced, at least partially to the need for additional services for in-migrants and to people buying furniture, etc., to furnish newly-constructed houses.

Government managed to add 2,900 new jobs in 1994 despite continued cutbacks in federal defense employment. Fortunately, a high percentage of the federal cutbacks were accomplished through early retirements and attrition. This meant that the cutbacks did not have a major effect on the unemployment rate. During 1994, federal employment dropped by 2,200 jobs. Since 1986, Utah has lost roughly 7,800 federal jobs. Moderate growth on the part of state and local governments more than offset the losses in federal employment. Both state and local government employment grew slower than the economy in general. Given the strong in-migration of the past several years, this is a remarkable feat for the public sector. Government ended 1994 with a growth rate just under 2 percent. Data on nonagricultural employment including a list of Utah's largest employers are shown in Tables 8, 9, 10 and 11.

Wages

Final 1994 figures are expected to show an increase of roughly 8.6 percent in total nonfarm wages. While this growth registers 2 points higher than the 1993 increase, one significant factor should be taken into consideration when making comparisons between the two years. An employer response to higher 1993 tax rates prompted many businesses to "accelerate" income--such as bonuses--into 1992 in order to avoid the tax increases which took effect in 1993. This caused total wages for 1992 to appear abnormally high, while total wages in 1993 appeared low. Therefore, 1994 gains appear larger than would have been the case had 1993 followed a typical pattern.

Changes in Utah's average wage reflected the pattern in total wages. The state's 1994 average annual wage is expected to reach $22,400--up over 2 percent from 1992 (Table 12). However, the wage of the average Utah worker has not kept up with inflation. In addition, despite a relatively sound economy, growth in wages for Utahns covered under unemployment insurance laws has not kept pace with national wage increases. Utah's annual pay as a percentage of U.S. annual pay has declined from a high of 96 percent in 1981 to a low of 84.4 percent in 1993. However, the declines have moderated substantially during the 1990s.

The loss of high-paying, goods-producing jobs in the early and mid-1980s helped contribute to this decline. However, Utah's demographics may also play a part. Utah has a large percentage of young people in the labor market and a younger labor force in general. Young people are usually paid less than older workers. In addition, Utah also has a higher percentage of individuals working part-time than the U.S. in general which also tends to pull the average wage down. Also, a lower cost of living helps offset the lower average wage. Figure 11 and 12 show wage data for Utah. For a more complete analysis of this issue, a special topic chapter has been included in this report on Utah's wage levels.

Labor Force Characteristics

What was the composition of Utah's labor force in 1993 (the most recent data available)? Roughly 72 percent of the state's civilian, noninstitutionalized population--over the age of 16--participated in the labor force during the year. This "participation rate" ranks significantly higher than the national average of 66 percent (Figure 13 and Table 13). Both Utah women (64 percent) and Utah men (81 percent) are more likely to take part in the labor market than their national counterparts (58 and 75 percent respectively). In addition, Utah teenagers showed a very high propensity toward labor force participation. Roughly 68 percent of Utah's population 16-19 years old are part of the labor force compared to 52 percent nationally. In fact, Utah has the third highest rate of teenage labor force participation in the nation (after Minnesota and Iowa).

Just why are Utahns more likely to work than their national counterparts? Is it just Utah's much touted work ethic? The work ethic may not be entirely responsible. Utah has a relatively young population, and young people are most likely to work--particularly given recent trends toward early retirement. Plus, as mentioned previously, Utah's young people are much more likely to work than U.S. teenagers in general. In addition, Utah's relatively large families and lower than average wages may require families to embrace more than

one wage earner. These factors, coupled with Utahns' relatively higher education levels and "work ethic", account for most of the difference between Utah and U.S. participation rates.

Single (never-married) Utahns are most likely to work--78 percent participate in the labor force. However, never-married men are less likely to work than married men, while single women are more likely to work than married females. Those in the "other marital status" group (separated, divorced, widowed) are least likely (of both sexes) to be labor force members--60 percent of women and men. Of course, this "other" group includes a larger number of older widowed individuals who are more likely to be retired, as participation rates include those over 65 years of age.

Roughly 97 percent of Utah workers are employed in nonagricultural industries. Trade and services each employ about one-fifth of the experienced labor force. Government also accounts for one-fifth of employment in Utah, a noticeably larger share than in the nation generally (about 17 percent). This stems from the state's large school-age population which requires a large number of jobs in the educational sector. Manufacturing employs another 14 percent of Utah workers. Smaller sectors include mining (less than 1 percent), construction (4 percent), transportation/communications/utilities (6 percent), and finance/insurance/real estate (5 percent). Tables 14, 15 and 16 provide descriptive characteristics of Utah's unemployed population.

Occupational Outlook

Occupational projections of employment mirror trends in Utah industries. Of the eight major occupational categories, (representing the 700 job titles), by far the largest--both in number of jobs and number of different job titles--is the production, operating, and maintenance category. One-fourth (225,000 of total jobs) in 1994 is included in this group. Between 1994 to 2000, a projected 22,700 new employment positions could swell the ranks of this category, for an annual growth rate of slightly less than the average for all occupations.

After production-related occupations, clerical occupations account for the next largest slice of the jobs pie in Utah. Nearly 155,000 individuals are employed in this group, which is expected to add 16,150 new positions. Although this is a substantial number of employment opportunities, the rate of job creation in the clerical category (1.7 percent per year) is slower than the 2.0 percent rate for all occupations. This slower rate of job creation is due in part to the rapid infusion of productivity-enhancing computer technology into the office environment.

The professional and service occupational groups each claim about 15 percent of total jobs, with sales jobs accounting for one in eight employment positions in the state. Managerial and administrative employment adds 7 percent to the total with the technical occupations making up about 5 percent. Occupations associated with agriculture claim the smallest portion of total jobs with just over 3 percent.

Rates of Job Growth

In terms of rates of job creation, the technical category leads the way with an average annual growth rate of 2.5 percent, followed closely by the managerial and the service categories each increasing at 2.4 percent per year. Sales occupations will grow at a 2.3 percent per year rate with professional jobs an above-average rate at 2.1 percent. Three job categories will not keep pace with the other five groups. These are production-related and clerical with 1.7 percent rates, and agriculture with 0.6 percent rate of employment increase.

Managerial/administrative, technical, sales, and service occupational groups will increase their share of total jobs between 1994 and 2000. Those occupational groups just holding their own or declining in their share of total jobs are production-related, professional, clerical, and agriculture.

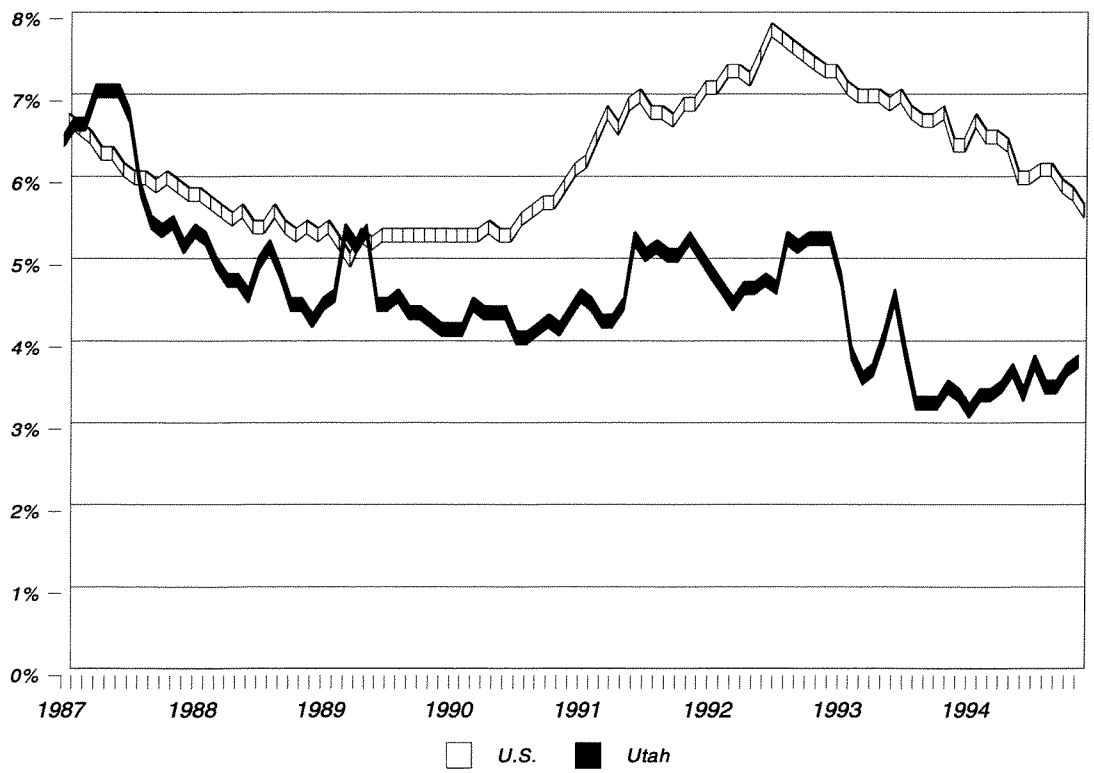
Training Requirements of Utah Jobs

By the year 2000, roughly 43 percent of jobs in Utah will call for short-term training of less than six months, another 41 percent will require training from six months up to, but not including, a baccalaureate (B.S.) degree, and about 16 percent will call for a B.S. degree or more. These numbers show trends in the training requirements. The percent of jobs requiring a B.S. degree, and jobs calling for six months and up to a B.S. degree, will increase slightly. The percent of jobs requiring less than six months of training will decline.

Conclusion

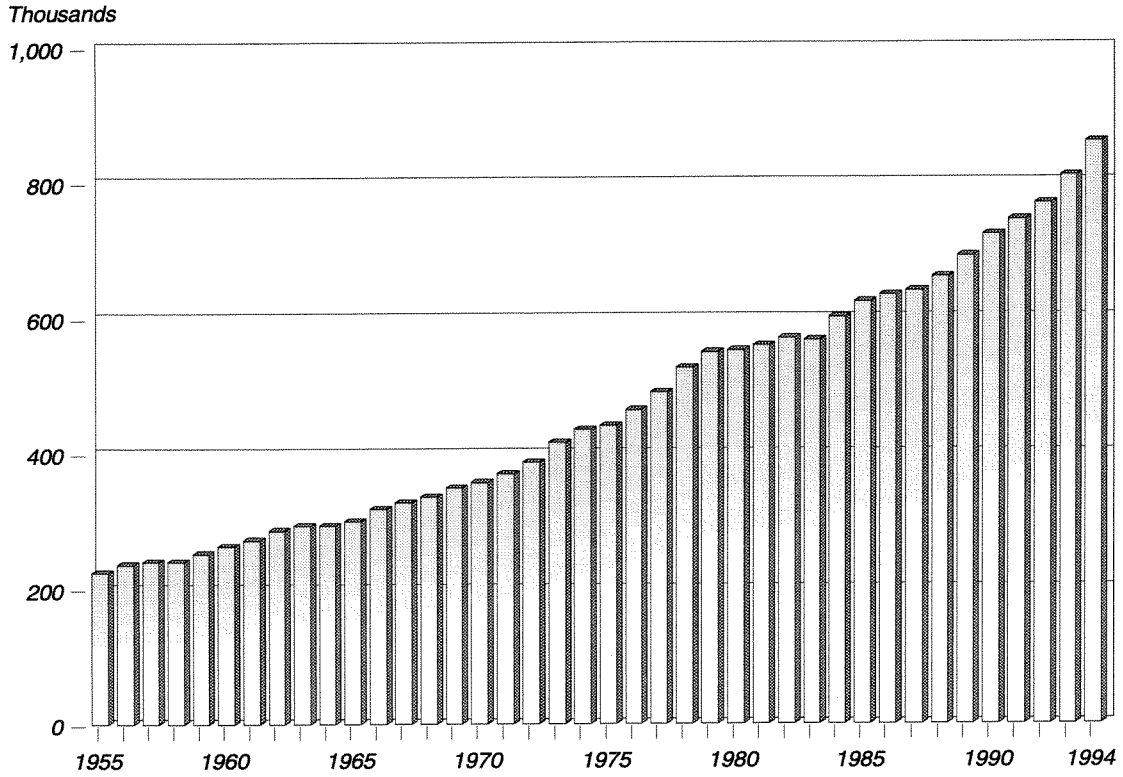
Utah's economy boomed in 1994. The state created more jobs than ever before at a rate not seen since 1978. Utah helped lead the nation in job growth and experienced a 37-year low in unemployment rates. No major industries lost jobs, and defense cutbacks merely slowed growth. ✧

Figure 6
U.S. and Utah Unemployment Rates: 1988 to 1994



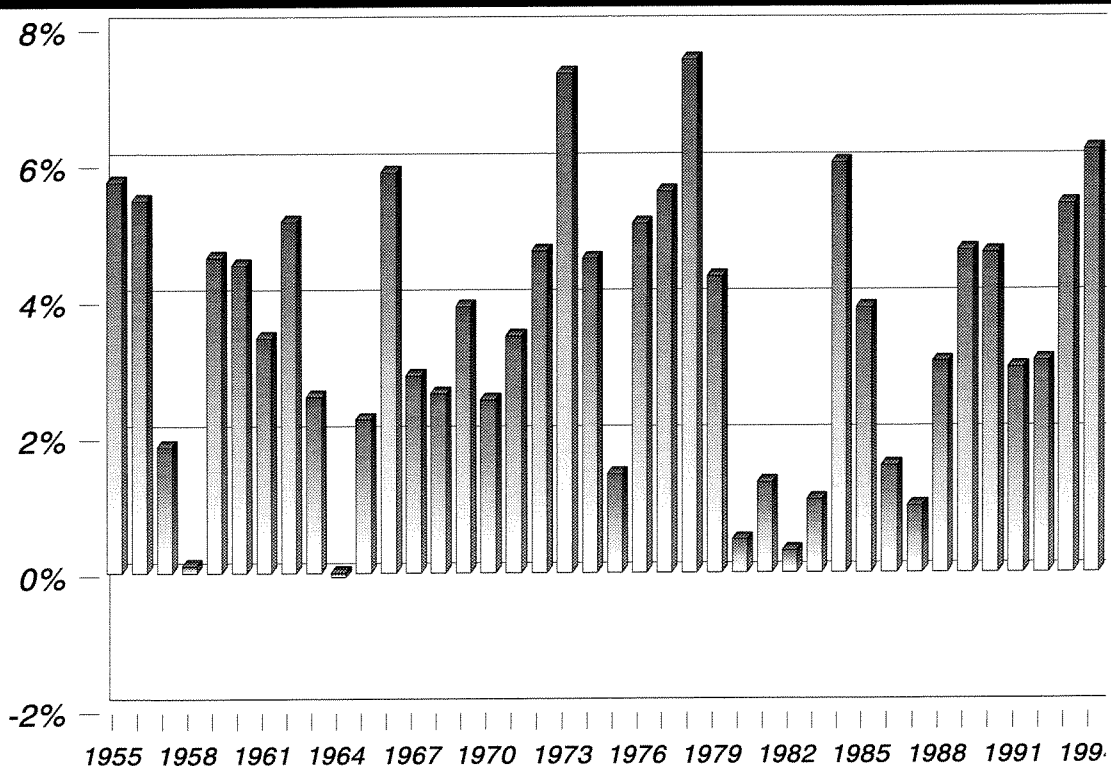
Source: Utah Dept. of Employment Security

Figure 7
Utah Nonagricultural Employment: 1955 to 1994



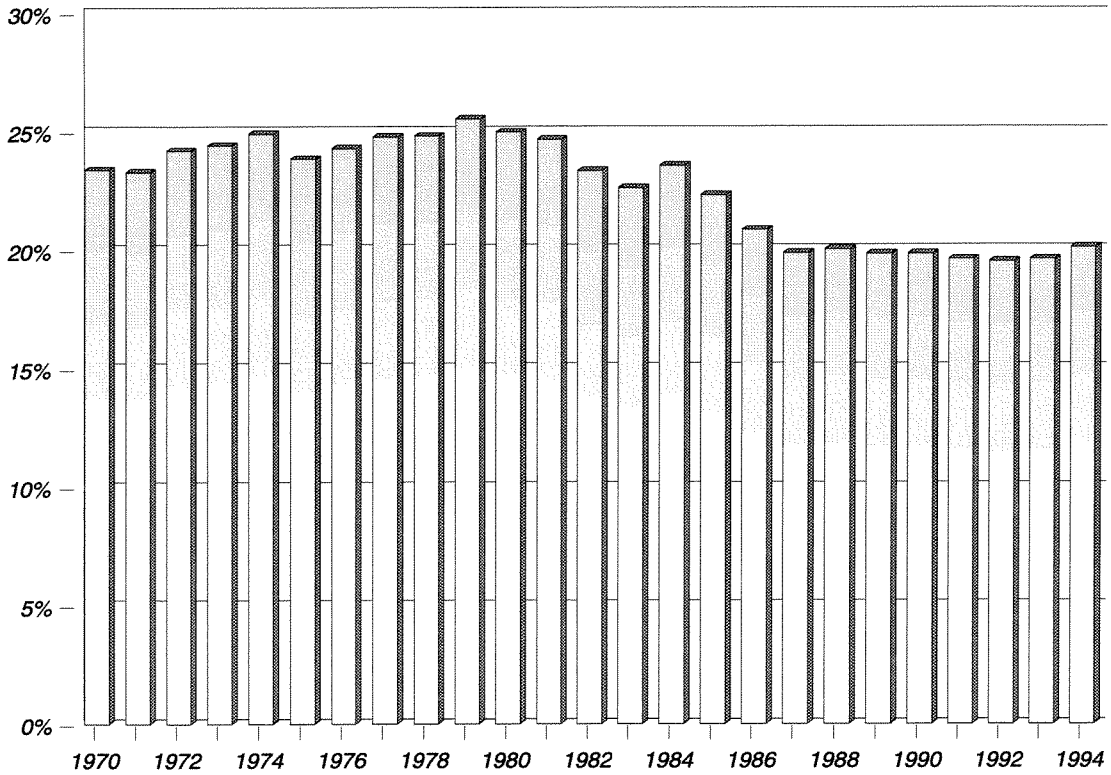
Source: Utah Dept. of Employment Security

Figure 8
Utah Nonagricultural Employment--Annual Percent Change: 1955 to 1994



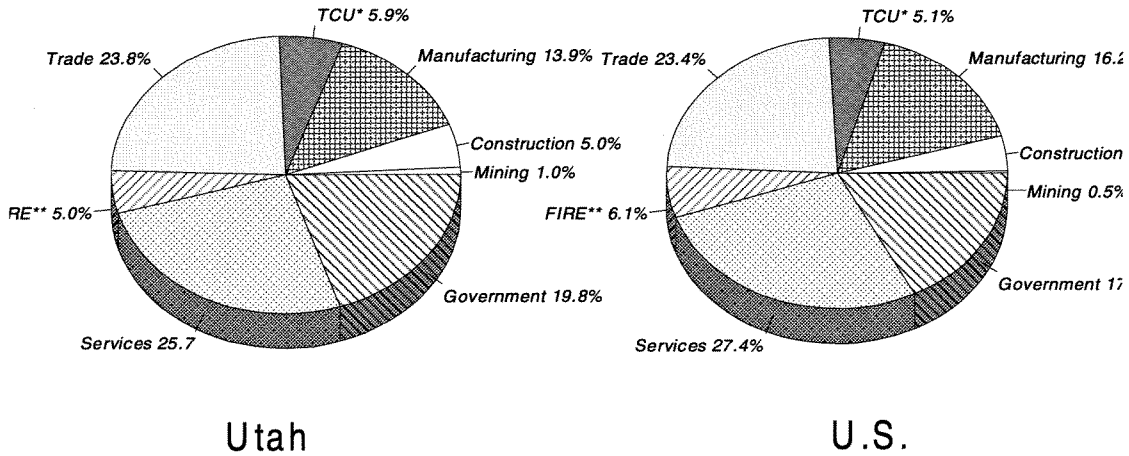
Source: Utah Dept. of Employment Security

Figure 9
Percent of Employment in Goods-Producing Industries: 1970 to 1994



Source: Utah Dept. of Employment Security

Figure 10
Utah and U.S. Employment by Industry: 1993

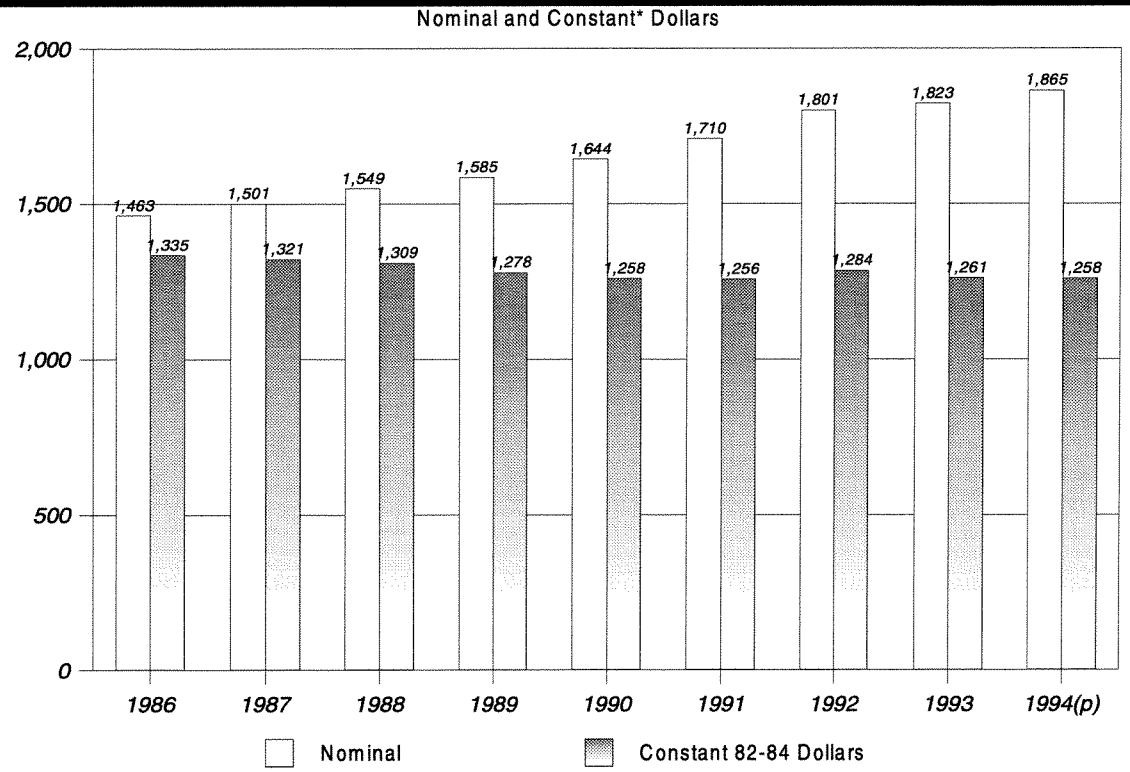


*TCU = Transportation, Communications and Utilities

**FIRE = Finance, Insurance, and Real Estate

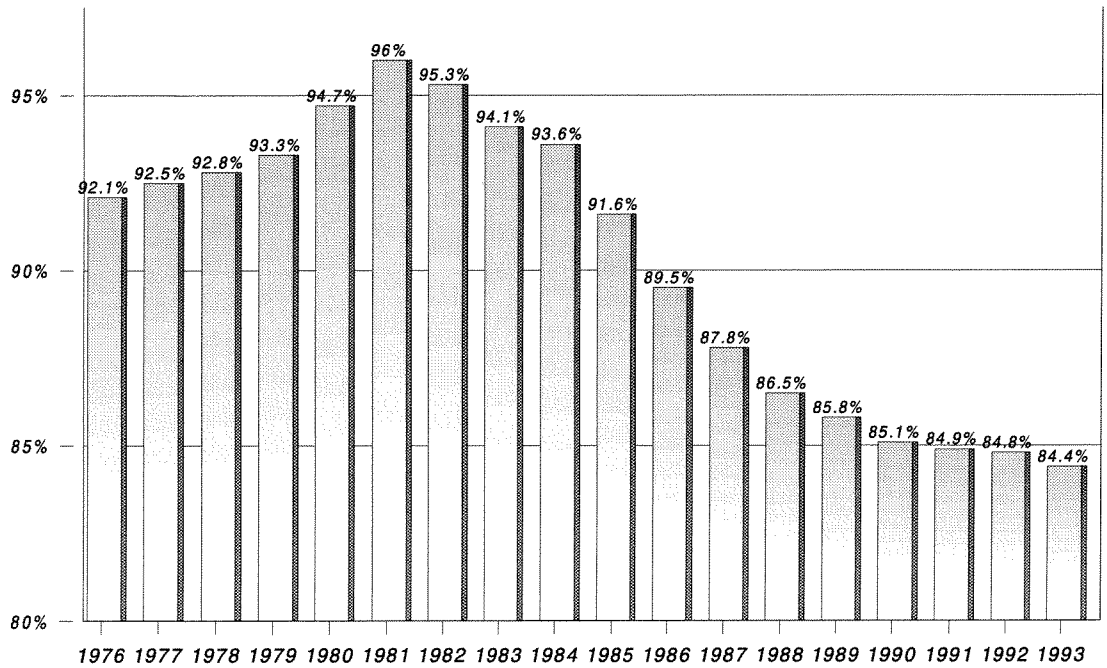
Source: Utah Dept. of Employment Security

Figure 11
Utah Nonagricultural Average Monthly Wages: 1986 to 1994



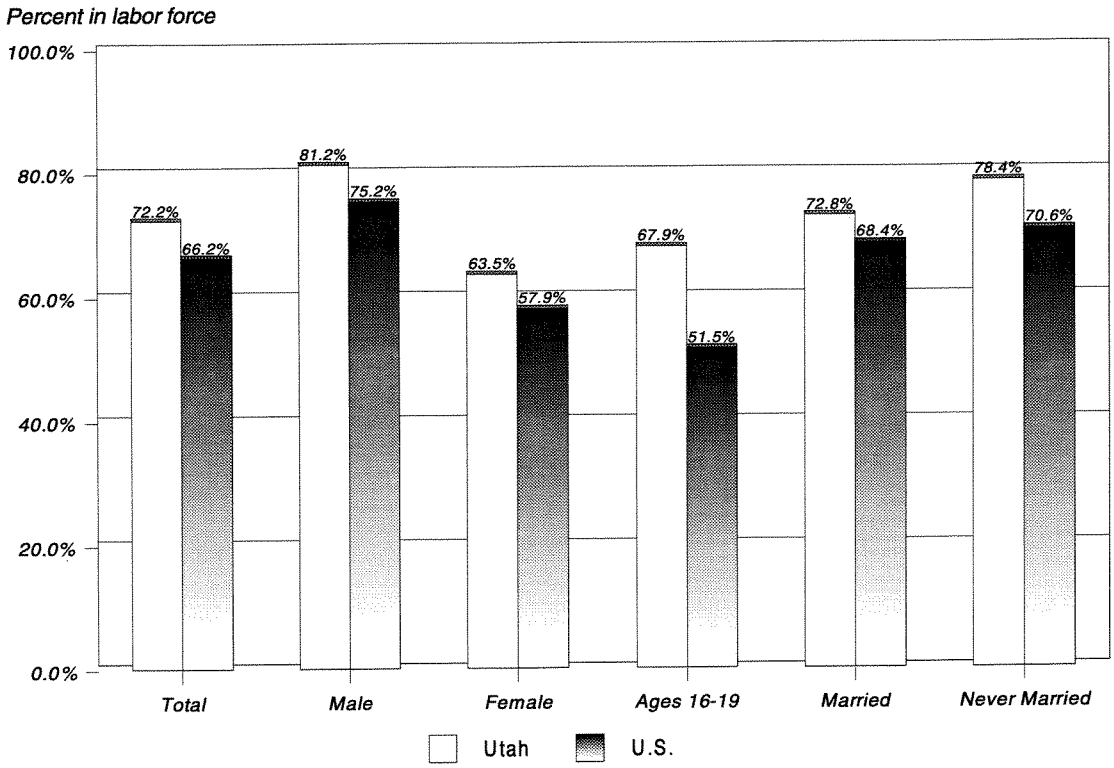
*Constant 1982-84 Dollars using CPI-U
Source: Utah Dept. of Employment Security

Figure 12
Utah Average Annual Pay as a Percent of U.S.: 1976 to 1993



Note: For workers covered by unemployment insurance
Source: Utah Dept. of Employment Security

Figure 13
Utah and U.S. Labor Force Participation Rates: 1993



Source: U.S. Bureau of Labor Statisitcs

Table 6
Labor Force, Employed, and Unemployed Persons by District and County: 1993

Planning District and County	Civilian Labor Force	Total Employed	Unemployed	Unemployment Rate
State Total	910,000	875,000	35,000	3.9
Bear River	55,071	53,038	2,033	3.7
Box Elder	16,438	15,647	791	4.8
Cache	37,771	36,552	1,219	3.2
Rich	862	839	23	2.7
Wasatch Front	603,094	581,102	21,992	3.6
North	183,953	176,265	7,688	4.2
Davis	96,274	92,959	3,315	3.4
Morgan	2,842	2,702	140	4.9
Weber	84,837	80,604	4,233	5.0
South	419,141	404,837	14,304	3.4
Salt Lake	406,666	392,954	13,712	3.4
Tooele	12,475	11,883	592	4.7
Mountainland	147,692	142,319	5,373	3.6
Summit	9,779	9,306	473	4.8
Utah	132,817	128,200	4,617	3.5
Wasatch	5,096	4,813	283	5.6
Central	22,950	21,691	1,259	5.5
Juab	3,079	2,909	170	5.5
Millard	4,540	4,318	222	4.9
Piute	466	437	29	6.2
Sanpete	6,898	6,485	413	6.0
Sevier	6,885	6,531	354	5.1
Wayne	1,082	1,011	71	6.6
Southwestern	43,561	41,742	1,819	4.2
Beaver	2,094	2,000	94	4.5
Garfield	2,301	2,101	200	8.7
Iron	10,860	10,452	408	3.8
Kane	2,819	2,629	190	6.7
Washington	25,487	24,560	927	3.6
Uintah Basin	15,691	14,604	1,087	6.9
Daggett	399	384	15	3.8
Duchesne	5,516	5,083	433	7.8
Uintah	9,776	9,137	639	6.5
Southeastern	21,942	20,505	1,437	6.5
Carbon	8,613	8,045	568	6.6
Emery	3,959	3,674	285	7.2
Grand	4,465	4,195	270	6.0
San Juan	4,905	4,591	314	6.4

Source: Utah Department of Employment Security, Labor Market Information Services.

Table 7
Utah Unemployment Rates by District and County: 1985 to 1993

District/County	1985	1986	1987	1988	1989	1990	1991	1992	(p) 1993
State Total	5.9	6.0	6.4	4.9	4.6	4.3	4.9	4.9	3.9
Bear River	4.8	4.3	4.5	3.8	3.8	4.4	4.4	4.4	3.7
Box Elder	4.5	4.1	4.3	3.8	3.8	4.3	4.6	4.9	4.8
Cache	5.1	4.4	4.5	3.8	3.9	4.5	4.4	4.2	3.2
Rich	3.7	5.1	5.8	4.0	2.0	1.6	3.3	3.5	2.7
Wasatch Front	5.3	5.4	5.8	4.7	4.5	4.0	4.6	4.8	3.6
North	4.9	5.5	6.0	5.1	5.0	4.4	4.9	5.2	4.2
Davis	4.0	4.8	5.3	4.4	4.3	3.8	4.3	4.4	3.4
Morgan	6.5	7.2	8.3	7.0	8.2	4.2	5.2	6.2	4.9
Weber	5.9	6.2	6.7	5.8	5.6	5.1	5.5	6.1	5.0
South	5.5	5.3	5.7	4.5	4.3	3.8	4.5	4.5	3.4
Salt Lake	5.5	5.3	5.6	4.5	4.3	3.7	4.4	4.5	3.4
Tooele	6.0	6.3	7.4	5.6	4.6	5.0	5.2	5.9	4.7
Mountainland	6.8	6.7	7.3	4.6	4.6	4.6	5.1	4.5	3.6
Summit	7.8	8.6	8.6	6.5	6.2	5.6	6.8	5.9	4.8
Utah	6.5	6.3	6.9	4.3	4.3	4.5	4.8	4.3	3.5
Wasatch	11.3	13.3	13.5	8.7	8.3	5.8	7.6	7.3	5.6
Central	8.9	10.2	10.0	7.9	7.2	6.3	7.6	7.3	5.5
Juab	15.5	15.8	15.3	9.7	7.7	5.3	5.6	8.3	5.5
Millard	5.5	6.6	7.5	5.6	5.2	4.2	5.2	5.4	4.9
Piute	13.3	14.8	12.6	12.7	7.6	7.2	10.0	11.5	6.2
Sanpete	13.2	14.9	13.4	11.2	10.4	9.3	10.3	9.0	6.0
Sevier	7.4	7.9	7.4	6.0	5.6	5.0	7.0	6.7	5.1
Wayne	8.1	9.4	9.4	6.9	6.4	7.5	8.5	7.2	6.6
Southwestern	6.0	5.9	6.3	4.9	4.9	4.8	5.5	5.5	4.2
Beaver	6.1	6.8	6.3	5.4	5.3	4.3	4.7	4.9	4.5
Garfield	13.5	12.3	12.2	8.6	9.5	8.1	10.2	15.4	8.7
Iron	6.2	6.3	6.5	4.9	4.7	4.9	5.0	4.6	3.8
Kane	8.6	7.1	7.6	6.1	6.9	6.0	7.7	7.9	6.7
Washington	4.7	4.8	5.4	4.4	4.3	4.3	5.1	4.9	3.6
Uintah Basin	9.1	13.1	13.2	9.2	8.5	6.1	6.6	7.9	6.9
Daggett	3.9	4.1	3.4	2.8	2.0	1.1	2.6	5.1	3.8
Duchesne	10.5	15.4	16.4	12.0	10.6	7.4	7.8	8.8	7.8
Uintah	8.5	12.0	11.8	8.0	7.7	5.6	6.1	7.6	6.5
Southeastern	10.9	10.7	10.9	8.6	8.1	6.8	8.1	8.4	6.5
Carbon	10.0	10.1	10.3	8.5	8.2	6.6	7.6	8.4	6.6
Emery	12.9	12.6	14.9	9.3	7.6	6.9	8.6	9.0	7.2
Grand	13.1	12.9	11.0	8.8	9.5	6.4	6.9	7.5	6.0
San Juan	9.0	8.2	8.4	7.9	7.4	7.4	9.6	8.7	6.4

(p) = preliminary

Source: Utah Department of Employment Security, Labor Market Information Services.

Table 8
Utah Labor Force, Nonagricultural Jobs and Wages: 1986 to 1994

Category	Absolute Amounts									Percent Changes							
	1986	1987	1988	1989	1990	1991	1992	1993	(p) 1994	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
Civilian Labor Force (thousands)	754.0	757.0	759.0	789.0	814.0	837.0	857.0	910.0	983.0	0.4	0.3	4.0	3.2	2.8	2.4	6.2	8.0
Employed	709.0	709.0	722.0	752.0	779.0	796.0	815.0	875.0	947.0	0.0	1.8	4.2	3.6	2.2	2.4	7.4	8.2
Unemployed	45.0	48.0	37.0	37.0	35.0	41.0	42.0	35.0	36.0	6.7	-22.9	0.0	-5.4	17.1	2.4	-16.7	2.9
Unemployment Rate	6.0%	6.4%	4.9%	4.6%	4.3%	4.9%	4.9%	3.9%	3.7%								
Nonagricultural Jobs (thousands)	634.1	640.3	660.1	691.2	723.6	745.2	768.6	809.7	859.8	1.0	3.1	4.7	4.7	3.0	3.1	5.3	6.2
Mining	7.8	8.0	8.1	8.1	8.6	8.6	8.5	8.3	8.3	2.6	1.2	0.0	6.2	0.0	-1.2	-2.4	0.0
Construction	32.2	26.7	25.0	25.9	27.8	31.5	34.9	39.7	48.4	-17.1	-6.4	3.6	7.3	13.3	10.8	13.8	21.9
Manufacturing	92.1	92.5	99.0	103.1	107.1	105.7	106.2	110.5	115.9	0.4	7.0	4.1	3.9	-1.3	0.5	4.0	4.9
Trans., Comm., & Util.	37.5	37.9	39.4	40.9	42.3	42.4	43.9	47.1	49.4	1.1	4.0	3.8	3.4	0.2	3.5	7.3	4.9
Trade	152.4	152.6	156.5	166.4	172.4	178.8	184.4	191.5	203.7	0.1	2.6	6.3	3.6	3.7	3.1	3.9	6.4
Finance, Ins., & Real Estate	32.9	33.8	33.4	33.4	34.1	35.8	37.3	41.4	46.6	2.7	-1.2	0.0	2.1	5.0	4.2	11.0	12.6
Services	137.9	147.5	155.9	167.2	180.8	188.4	196.4	211.8	225.2	7.0	5.7	7.2	8.1	4.2	4.2	7.8	6.3
Government	141.3	141.5	142.7	146.3	150.6	154.0	156.9	159.4	162.3	0.1	0.8	2.5	2.9	2.3	1.9	1.6	1.8
Nonagricultural Wages (millions)	$11,131	$11,536	$12,271	$13,148	$14,275	$15,294	$16,611	$17,711	$19,240	3.6	6.4	7.1	8.6	7.1	8.6	6.6	8.6
Average Monthly Wage	$1,463	$1,501	$1,549	$1,585	$1,644	$1,710	$1,801	$1,823	$1,865	2.6	3.2	2.3	3.7	4.0	5.3	1.2	2.3
Adjusted for Inflation (1985 $)	$1,335	$1,321	$1,309	$1,278	$1,258	$1,256	$1,284	$1,261	$1,258	-1.0	-0.9	-2.4	-1.6	-0.2	2.2	-1.7	-0.2

(p) = preliminary

Source: Utah Department of Employment Security.

Table 9
Utah Nonfarm Jobs by Industry and by District and County: 1993

District/County	Total	Mining	Construction	Manufacturing	Trans., Comm., & Utilities	Trade	Finance Ins.,& Real Estate	Services	Government
State Total	809,732	8,321	39,714	110,457	47,072	191,477	41,441	211,815	159,441
Bear River	48,940	60	1,916	17,804	1,113	8,727	1,232	6,973	11,115
Box Elder	15,986	48	517	8,548	341	2,723	378	1,349	2,082
Cache	32,543	12	1,396	9,240	765	5,929	817	5,539	8,845
Rich	411	0	3	16	7	75	37	85	188
Wasatch Front	559,283	3,428	27,098	71,842	37,940	134,607	34,200	141,429	108,738
North	136,818	114	7,017	19,914	4,360	31,981	4,750	29,319	39,361
Davis	65,240	102	3,897	8,766	2,225	16,389	2,299	11,817	19,743
Morgan	1,156	0	98	274	11	377	21	49	326
Weber	70,422	12	3,022	10,874	2,124	15,215	2,430	17,453	19,292
South	422,465	3,314	20,081	51,928	33,580	102,626	29,450	112,110	69,377
Salt Lake	412,468	3,072	19,625	50,900	32,737	101,100	29,295	110,902	64,837
Tooele	9,997	242	456	1,028	843	1,526	155	1,208	4,540
Mountainland	120,692	156	6,415	14,923	23,900	27,807	3,935	46,830	18,237
Summit	9,945	104	497	572	223	3,289	892	3,018	1,352
Utah	107,932	52	5,611	14,209	2,079	23,764	2,988	43,050	16,178
Wasatch	2,815	0	307	142	88	754	55	762	707
Central	16,593	516	577	1,797	1,377	3,844	361	2,681	5,443
Juab	2,049	38	101	320	60	516	39	445	531
Millard	3,441	169	87	178	700	764	61	495	987
Piute	195	0	1	26	15	18	6	8	122
Sanpete	4,836	0	148	751	135	982	118	603	2,100
Sevier	5,431	307	210	474	451	1,450	130	995	1,414
Wayne	641	2	30	48	16	114	7	135	289
Southwestern	33,857	231	2,515	2,829	1,490	9,787	1,200	8,314	7,489
Beaver	1,462	6	36	89	144	453	39	197	503
Garfield	1,626	8	38	104	66	233	22	663	491
Iron	9,242	32	463	857	294	2,584	275	1,940	2,797
Kane	1,834	16	49	33	22	530	47	615	523
Washington	19,693	175	1,929	1,746	964	5,987	817	4,899	3,175
Uintah Basin	11,772	1,496	367	544	1,101	2,672	199	2,008	3,387
Daggett	361	0	2	3	27	37	0	85	207
Duchesne	4,186	481	147	275	470	837	91	425	1,461
Uintah	7,225	1,015	218	266	604	1,798	108	1,498	1,719
Southeastern	18,595	2,434	826	718	1,661	4,033	314	3,580	5,032
Carbon	7,724	1,093	210	307	475	1,837	164	1,543	2,094
Emery	3,467	915	179	31	773	396	36	288	850
Grand	3,303	163	157	56	124	1,213	78	861	652
San Juan	4,101	263	280	324	289	587	36	888	1,436

Source: Utah Department of Employment Security, Labor Market Information Services.

Table 10
Utah's Largest Nonagricultural Employers: December 1993

Rank by Size	Firm Name	Approximate Employment
1	University of Utah	15,000
2	Brigham Young University	15,000
3	Hill Air Force Base*	10,500
4	Granite School District	7,500
5	Jordan School District	6,500
6	Davis School District	6,000
7	Utah State University	6,000
8	Smith's Food & Drug Centers	5,500
9	Utah Social Services	5,000
10	ZCMI	5,000
11	Thiokol Corporation	4,500
12	WordPerfect**	4,500
13	Salt Lake County	4,500
14	U.S. Internal Revenue Service	4,500
15	Delta Airlines	4,500
16	U.S. Post Office	4,500
17	Morton International	4,000
18	Albertsons, Inc.	4,000
19	Alpine School District	3,500
20	Salt Lake School District	3,500
21	Pacific Corporation	3,000
22	K Mart	3,000
23	U.S. West Communications	3,000
24	LDS Hospital	3,000
25	Wal-Mart Stores	3,000
26	Weber School District	3,000
27	Geneva Steel, Inc.	2,500
28	Matrixx Marketing	2,500
29	Shopko Stores	2,500
30	Salt Lake City Corporation	2,500
31	Hercules	2,500
32	Kennecott Mining	2,500
33	Healthtrust, Inc.	2,500
34	Sears & Roebuck Company	2,500
35	FHP of Utah	2,500
36	Utah Valley Regional Medical Center	2,500
37	JC Penney Company	2,000
38	McKay-Dee Hospital	2,000
39	First Security Bank of Utah	2,000
40	Proform Fitness	2,000
41	Tooele Army Depot	2,000
42	Zions First National Bank	2,000
43	Provo School District	2,000
44	Defense Depot Ogden	2,000
45	Primary Children's Medical Center	2,000
46	Utah Department of Transportation	2,000
47	United Parcel Service	2,000
48	Utah State Corrections	2,000
49	Nebo School District	2,000
50	Pizza Hut	1,500

*Includes only civilian employment (military excluded)
**Novell and WordPerfect merged after these figures were reported.

Source: Utah Department of Employment Security.

Table 11
Utah's Largest Private Sector Nonagricultural Employers: December 1993

Rank by Size	Firm Name	Approximate Employment
1	Brigham Young University	15,000
2	Smith's Food & Drug Centers	5,500
3	ZCMI	5,000
4	Thiokol Corporation	4,500
5	WordPerfect*	4,500
6	Delta Airlines	4,500
7	Morton International	4,000
8	Albertsons, Inc.	4,000
9	Pacific Corporation	3,000
10	K Mart	3,000
11	U.S. West Communications	3,000
12	LDS Hospital	3,000
13	Wal-Mart Stores	3,000
14	Geneva Steel, Inc.	2,500
15	Matrixx Marketing	2,500
16	Shopko Stores	2,500
17	Hercules	2,500
18	Kennecott Mining	2,500
19	Healthtrust, Inc.	2,500
20	Sears & Roebuck Company	2,500
21	FHP of Utah	2,500
22	Utah Valley Regional Medical Center	2,500
23	JC Penney Company	2,000
24	McKay-Dee Hospital	2,000
25	First Security Bank of Utah	2,000
26	Proform Fitness	2,000
27	Zions First National Bank	2,000
28	Primary Children's Medical Center	2,000
29	United Parcel Service	2,000
30	Pizza Hut	1,500
31	Morris Air Service	1,500
32	American Express Service	1,500
33	Intermountain Employment	1,500
34	Snowbird Corporation	1,500
35	Union Pacific Railroad	1,500
36	O. C. Tanner Corporation	1,500
37	Novell*	1,500
38	Fred Meyer, Inc.	1,500
39	Harmon City	1,500
40	Mountain Fuel Supply	1,500
41	Deseret Industries	1,500
42	Holy Cross Hospital	1,500
43	Discover Card	1,500
44	C. R. England & Sons	1,500
45	Nordstrom	1,500
46	Abbott Laboratories	1,500
47	Mervyn's	1,500
48	Kelly Services, Inc.	1,500
49	Franklin Quest Company	1,500
50	Cottonwood Hospital	1,500

*Novell and WordPerfect merged after these figures were reported.

Source: Utah Department of Employment Security.

Table 12
Utah's Average Monthly Wage by Industry: 1986 to 1993

Industry	Average Monthly Wage								Percent Change						
	1986	1987	1988	1989	1990	1991	1992	1993	86-87	87-88	88-89	89-90	90-91	91-92	92-93
Total Nonagricultural Jobs	$1,463	$1,501	$1,549	$1,585	$1,644	$1,710	$1,801	$1,823	2.6	3.2	2.3	3.7	4.0	5.3	1.2
Mining	2,758	2,708	2,820	2,905	2,976	3,002	3,217	3,283	-1.8	4.1	3.0	2.4	0.9	7.2	2.1
Construction	1,636	1,665	1,742	1,799	1,843	1,917	1,878	1,875	1.8	4.6	3.3	2.4	4.0	-2.0	-0.2
Manufacturing	1,864	1,896	1,968	2,009	2,066	2,125	2,246	2,250	1.7	3.8	2.1	2.8	2.9	5.7	0.2
Trans., Comm., & Util.	2,087	2,175	2,270	2,355	2,424	2,552	2,613	2,643	4.2	4.4	3.7	2.9	5.3	2.4	1.1
Trade	1,052	1,063	1,103	1,133	1,173	1,231	1,264	1,288	1.0	3.8	2.7	3.5	4.9	2.7	1.9
Finance, Ins., & Real Estate	1,568	1,641	1,702	1,760	1,818	1,907	2,092	2,177	4.7	3.7	3.4	3.3	4.9	9.7	4.1
Services	1,226	1,315	1,350	1,385	1,458	1,534	1,682	1,690	7.3	2.7	2.6	5.3	5.2	9.6	0.5
Government	1,574	1,597	1,625	1,663	1,735	1,805	1,891	1,922	1.5	1.8	2.3	4.3	4.0	4.8	1.6

Source: Utah Department of Employment Security.

Table 13
Utah and U.S. Labor Force Participation Rates: Selected Years

Category	1950	1960	1970	1980	1990	1991	1992	1993
UTAH	52.2	57.4	58.4	64.2	70.5	70.8	70.4	72.2
Male	82.5	82.3	77.4	79.3	80.5	80.9	80.6	81.2
Female	25.3	33.5	41.5	49.8	60.6	61.2	61.0	63.5
U.S.	54.0	60.0	58.0	62.0	66.4	65.6	66.3	66.2
Male	80.0	83.3	79.7	75.1	76.1	74.7	75.6	75.2
Female	30.0	37.7	43.3	49.9	57.5	57.3	57.8	57.9

Source: Utah Department of Employment Security and U.S. Department of Labor, Bureau of Labor Statistics.

Table 14
Characteristics of Utah Unemployed Persons: 1993

Category	Number	Percent
Total Unemployed	35,000	100.0
Men	18,000	51.4
Women	17,000	48.6
Both Sexes, Ages 16-19	10,000	28.6
Unemployment Rate		
Total		3.9
Men		3.6
Women		4.2
Both Sexes, Ages 16-19		11.5
Marital Status of Unemployed		
Single (never married)	16,000	45.7
Married, Spouse Present	14,000	40.0
Other: Widowed, Divorced, & Separated	5,000	14.3
Length of Unemployment		
Total		
Less than 5 Weeks	18,800	53.6
5-14 Weeks	8,900	25.5
15-26 Weeks	4,000	11.4
27 Weeks and Over	3,300	9.5
Males		
Less than 5 Weeks	8,800	48.7
5-14 Weeks	4,000	22.1
15-26 Weeks	2,500	14.1
27 Weeks and Over	2,700	15.1
Females		
Less than 5 Weeks	10,000	58.8
5-14 Weeks	4,900	28.8
15-26 Weeks	1,500	8.8
27 Weeks and Over	600	3.5
Full and Part-Time Status		
Total		
Looking for Full-Time Work	22,000	62.9
Looking for Part-time Work	13,000	37.1
Reason for Unemployment		
Total		
Job Losers	16,800	48.0
Job Leavers	6,100	17.4
Re-entrants	7,600	21.6
New Entrants	4,600	13.0
Males		
Job Losers	10,400	57.6
Job Leavers	3,200	17.9
Re-entrants	2,200	12.4
New Entrants	2,200	12.1
Females		
Job Losers	6,400	37.6
Job Leavers	2,900	17.1
Re-entrants	5,400	31.8
New Entrants	2,400	14.1

Note: Numbers may not add due to rounding.

Source: U.S. Bureau of Labor Statistics.

Table 15
Duration of Unemployment in Utah as a Percent of Total Unemployed: 1981 to 1993

Year	Less than 5 Weeks	5-14 Weeks	15 Weeks +	27 Weeks +
1993	53.6	25.5	20.9	9.5
1992	45.8	29.0	25.3	11.5
1991	47.5	31.2	21.3	8.6
1990	50.0	29.4	20.6	8.8
1989	47.4	28.9	23.7	7.9
1988	47.3	34.3	37.6	7.5
1987	50.2	27.2	22.6	10.2
1986	45.9	32.2	21.9	10.7
1985	46.7	32.2	21.1	9.8
1984	47.3	29.9	22.7	11.1
1983	37.3	32.0	30.3	15.0
1982	38.2	36.6	25.3	10.1
1981	49.6	29.9	20.5	8.9

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 16
Reasons for Unemployment in Utah as a Percent of Total Unemployed: 1981 to 1993

Year	Job Losers	Job Leavers	New and Re-entrants
1993	48.0	17.4	34.6
1992	46.5	16.8	37.0
1991	45.2	17.1	37.7
1990	38.2	20.6	38.2
1989	42.1	23.7	34.2
1988	44.2	12.2	43.5
1987	45.7	12.8	41.5
1986	48.5	13.1	38.4
1985	45.0	14.5	40.5
1984	44.3	10.8	44.9
1983	52.9	8.4	38.7
1982	57.5	9.0	36.5
1981	45.0	16.1	38.8

Source: U.S. Department of Labor, Bureau of Labor Statistics.

✧ Personal Income

Total personal income is defined as all income received by all residents of an area. The statistical series comprising the components of total personal income, by area and by year, constitutes the most extensive body of consistent economic information available for the nation, states, counties, and metropolitan areas. This entire data series was developed and is maintained by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. The Utah Department of Employment Security assists BEA in this service by providing wage and employment data by industry for the state and its counties.

Utah's 1994 total personal income (TPI) is forecast to be $32.6 billion, up 8.7 percent from the 1993 total. This forecast reflects a substantial increase from 1993's growth of 6.9 percent; moreover, Utah's 1994 TPI grew 45 percent faster than the forecasted U.S. TPI (6.0 percent). The relative strength of Utah's ongoing economic expansion is clearly reflected in these TPI growth comparisons. Comparison of Utah and United States TPI growth rates for previous years from Table 17 shows that Utah has also weathered previous economic "hard times" relatively well.

Components of Personal Income

The largest single component of total personal income is "Earnings by Place of Work." As depicted in Table 18, this portion consists of the total earnings from farm and nonfarm industries, including contributions for social insurance. In 1993, earnings by place of work was $23.3 billion, representing 77 percent of TPI. Approximately 10 percent of this figure was proprietors' income, while 90 percent was wages, salaries, and other labor income. Nonfarm earnings ($23.0 billion) were 99 percent of total earnings; farm income comprised only 1 percent. Private sector nonfarm industries accounted for 80 percent of nonfarm earnings, while earnings from public (government) industries made up 20 percent.

The other components of TPI are (1) dividends, interest, and rent (DIR), and (2) transfer payments. In 1993, DIR amounted to $3.6 billion, and transfer payments were $4.6 billion. Some of the major differences between the economic compositions of Utah and the United States can be observed in Table 18. Perhaps the most significant is that Utah DIR comprises a much smaller (12.0 vs. 15.7 percent) share of TPI than the national figure. Transfer payments are also relatively smaller. Thus, Utahns must rely to a greater extent on earnings. The problem with this dependence is that Utah's average wage was only 84 percent (in 1993) of the U.S. average. Due to these two factors, Utah's TPI is relatively lower than that of the U.S. Table 19 provides personal income trends for Utah and the U.S.

The industrial composition of Utah's TPI has changed in recent years. In 1980, prior to the last two recession periods, goods-producing industries (mining, construction, manufacturing) generated over 31 percent of Utah's total earnings. By 1993 that share had dropped to 23 percent. This change means that service-producing industries (including government) correspondingly increased their importance, from 67 percent of total earnings in 1980 to 76 percent in 1992. These comparisons reflect the continuing historical shift from goods- to service-producing jobs in the state's economy. Similar shifts have been experienced nationally.

Four major industry sectors generate over three-fourths of Utah's total earnings. Services is the leader, providing 27 percent of earnings; government (including military) pays 19 percent. Both manufacturing and trade account for nearly 16 percent of Utah's total earnings. Following these are transportation/ communications/utilities at 8 percent; construction and finance/insurance/real estate at 6 percent each; and mining at 2 percent of earnings. Agriculture/agricultural services make up the remaining 2 percent.

Per Capita and Per Household Personal Income

Per capita personal income is an area's annual total personal income divided by the total population as of July 1 of that year. Utah's 1994 per capita personal income (PCI) is estimated at approximately $17,100. From 1990 to 1994, Utah's real (inflation-adjusted) PCI has increased about $1,000, compared to a $600

increase in the United States' real PCI. Thus, Utah's percentage of the U.S. PCI has increased by nearly 3 percentage points (from 75 to 78 percent) since 1990.

Utah's 1993 per capita personal income of $16,140 ranked only 48th among the 50 states. Because Utah's population has a large number of children (the result of many years of high birth rates), these PCI comparisons portray Utah as a low-income state. However, 1990 adult per capita income improves the Utah's picture considerably: 88 percent of the national figure. Similarly, Utah also compares more favorably to the rest of the U.S. when using household income data. Total personal income per household in 1993 in Utah was $51,600, which is 92 percent of the nation's $56,300 and ranks Utah 30th among the states.

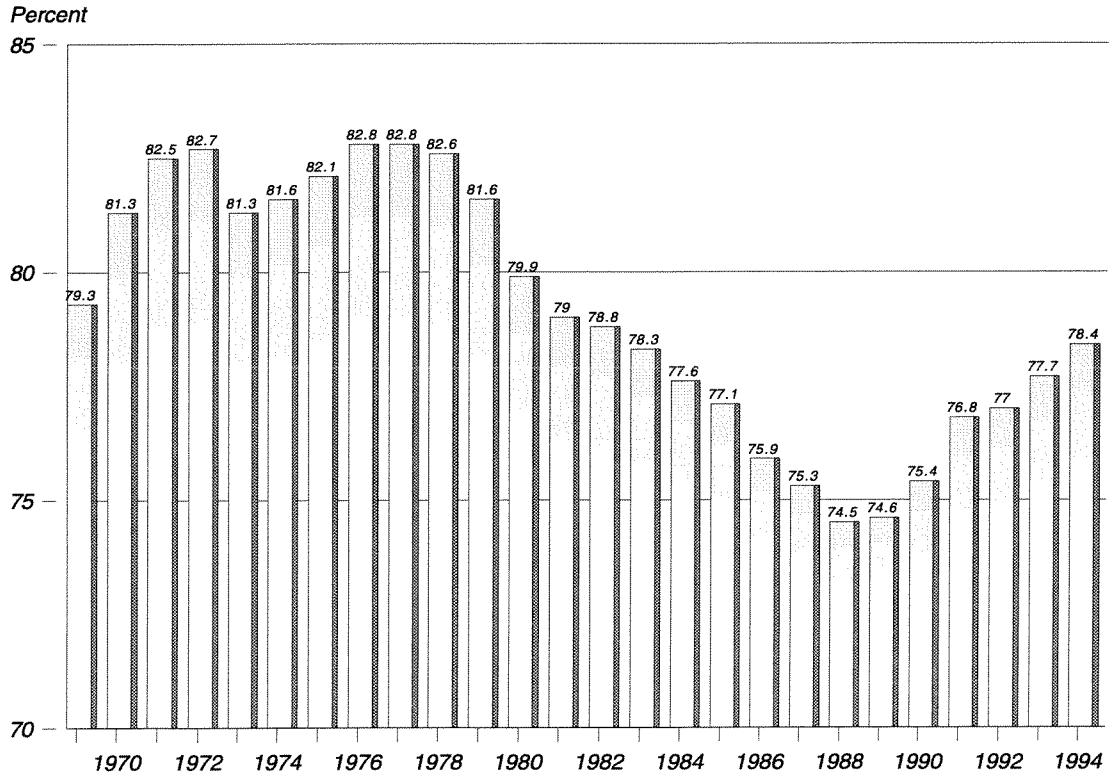
During the 1970's, Utah's PCI ranged between 81 and 83 percent of the United States PCI. However, as shown in Figure 14, from 1978 to 1988 this parameter dropped eight percentage points--from 83 to 75 percent. But the years 1990 through 1994 saw improvements in this comparison--the 1994 ratio exceeds 78 percent, the highest level since 1982. Utah's PCI for 1969 to 1994 is presented in Table 17.

County Personal Income

Four counties (Grand, San Juan, Washington, and Summit) of Utah's 29 counties posted double-digit 1992-1993 growth in total personal income, about the same as 1992's five counties. Most of these counties had large nonfarm employment increases which led to large wage increases; their total personal income thus increased rapidly also. On the other end of the scale, four counties (Carbon, Emery, Tooele, and Uintah) suffered year-over losses of TPI. These declines are related to meager job growth or to job losses.

With few exceptions, the per capita income estimates in northern Utah's counties are considerably higher than those of the rest of Utah. Summit County's $23,700 leads Utah; San Juan County's $10,900 is lowest. Interestingly, only three counties, Summit, Salt Lake, and Weber, have PCI's that exceed the state figure. The 1993 per capita income of the United States, at $20,781, is higher than that of all of Utah's counties except Summit. Table 20 presents county and planning district TPI and PCI estimates for 1991 through 1993. ✧

Figure 14
Utah Per Capita Personal Income as a Percent of U.S.: 1969 to 1994



Source: U.S. Bureau of Economic Analysis and Governor's Office of Planning and Budget

Table 17
Personal Income and Growth Rates--Utah and U.S.: 1969 to 1993

Year	Total Personal Income (millions of dollars)		Growth Rates		Per Capita Personal Income		
	Utah	U.S.	Utah	U.S.	Utah	U.S.	Utah as a Percent of U.S.
1969	$3,167	$767,608	--	--	$3,024	$3,813	79.3
1970	3,507	824,823	10.7	7.5	3,291	4,047	81.3
1971	3,898	888,002	11.1	7.7	3,541	4,294	82.5
1972	4,369	974,938	12.1	9.8	3,851	4,659	82.7
1973	4,908	1,092,217	12.3	12.0	4,199	5,168	81.3
1974	5,509	1,200,575	12.2	9.9	4,595	5,628	81.6
1975	6,123	1,302,532	11.1	8.5	4,963	6,045	82.1
1976	6,982	1,442,221	14.0	10.7	5,488	6,629	82.8
1977	7,920	1,596,944	13.4	10.7	6,016	7,267	82.8
1978	9,142	1,802,663	15.4	12.9	6,702	8,117	82.6
1979	10,419	2,024,812	14.0	12.3	7,358	9,017	81.6
1980	11,695	2,259,006	12.2	11.6	7,942	9,940	79.9
1981	13,186	2,526,009	12.7	11.8	8,702	11,009	79.0
1982	14,225	2,683,456	7.9	6.2	9,128	11,583	78.8
1983	15,261	2,857,710	7.3	6.5	9,568	12,223	78.3
1984	16,776	3,144,363	9.9	10.0	10,343	13,332	77.6
1985	17,933	3,368,069	6.9	7.1	10,915	14,155	77.1
1986	18,821	3,579,783	5.0	6.3	11,318	14,906	75.9
1987	19,769	3,789,297	5.0	5.9	11,781	15,638	75.3
1988	20,915	4,061,806	5.8	7.2	12,376	16,610	74.5
1989	22,520	4,366,135	7.7	7.5	13,200	17,690	74.6
1990	24,320	4,655,420	8.0	6.6	14,066	18,667	75.4
1991	26,038	4,840,768	7.1	4.0	14,736	19,199	76.8
1992	28,078	5,135,062	7.8	6.1	15,504	20,131	77.0
1993	30,010	5,359,589	6.9	4.4	16,139	20,781	77.7
1994	32,621	5,681,200	8.7	6.0	17,101	21,822	78.4

Note: These estimates do not agree with Utah Population Estimates Committee data.

Sources: U.S. Bureau of Economic Analysis, and Utah Governor's Office of Planning and Budget.

Table 18
Components of Utah's Total Personal Income (Millions of Dollars): 1991 to 1993

Components	Dollar Amounts (millions) 1991	1992	1993	Percentage Change 1991-92	1992-93	1993 Percentage Distribution Utah	U.S.	Industry Distribution Utah	U.S.
Total Personal Income	$26,038	$28,078	$30,010	7.8	6.9	100.0	100.0		
Total Earnings - Place/Work	19,927	21,691	23,253	8.9	7.2	77.5	72.1		
Less:									
Personal Cont. for Soc. Ins.	1,239	1,325	1,427	6.9	7.7	4.8	4.9		
Plus: Resid. Adjustment	10	7	8	-36.6	19.2	0.0	-0.0		
Equals: Earnings by Residence	18,698	20,373	21,834	9.0	7.2	72.8	67.2		
Plus:									
Dividends, Interest, & Rent	3,451	3,475	3,613	0.7	4.0	12.0	15.7		
Plus:									
Transfer Payments	3,889	4,231	4,563	8.8	7.8	15.2	17.0		
Components of Earnings	19,927	21,691	23,253	8.9	7.2	77.5	72.1		
Wages & Salaries	16,329	17,691	18,848	8.3	6.5	62.8	57.3		
Other Labor Income	1,712	1,925	2,145	12.4	11.4	7.1	6.6		
Proprietors' Income	1,887	2,076	2,261	10.0	8.9	7.5	8.2		
Farm	180	226	230	25.5	1.5	0.8	0.6		
Nonfarm	1,707	1,849	2,031	8.4	9.8	6.8	7.5		
Earnings by Industry	19,927	21,691	23,252	8.9	7.2	77.5	72.1	100.0	100.0
Farm	230	278	287	20.9	3.1	1.0	0.9	1.2	1.2
Nonfarm	19,697	21,413	22,966	8.7	7.3	76.5	71.2	98.8	98.8
Private Sector	15,683	17,138	18,555	9.3	8.3	61.8	59.5	79.8	82.5
Ag. Services, Etc.	60	66	74	10.4	11.7	0.2	0.5	0.3	0.6
Mining	380	404	408	6.2	1.1	1.4	0.7	1.8	0.9
Construction	1,095	1,180	1,345	7.8	14.0	4.5	3.7	5.8	5.1
Manufacturing	3,203	3,379	3,548	5.5	5.0	11.8	13.2	15.3	18.4
Trans., Comm., Utilities	1,594	1,710	1,874	7.3	9.6	6.2	4.8	8.1	6.7
Wholesale Trade	1,252	1,272	1,340	1.6	5.3	4.5	4.5	5.8	6.2
Retail Trade	1,941	2,170	2,328	11.8	7.3	7.8	6.9	10.0	9.5
Fin., Ins., Real Estate	1,040	1,199	1,376	15.4	14.7	4.6	5.5	5.9	7.7
Services	5,120	5,759	6,264	12.5	8.8	20.9	19.7	26.9	27.4
Government (Incl. Military)	4,014	4,275	4,410	6.5	3.2	14.7	11.8	19.0	16.3
Federal, Civilian	1,287	1,341	1,325	4.2	-1.2	4.4	2.4	5.7	3.3
Military	260	267	257	3.0	-3.7	0.9	0.9	1.1	1.3
State and Local	2,467	2,667	2,828	8.1	6.0	9.4	8.5	12.2	11.7
Per Capita Personal Income*	$14.7	$15.5	$16.1	5.2	4.1				
Population*	1,767	1,811	1,859	2.5	2.7				

*Per capita personal income and population are in thousands.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Unpublished quarterly printouts, October 1994.

Table 19
Personal Income Trends--Utah and U.S.: 1984, 1989, and 1994

Category	Absolute Amounts			Average Annual Percent Change*			Amount as a Percent of U.S. Total		
	1984	1989	1994	1984-89	1989-94	1984-94	1984	1989	1994
Population (thousands)									
U.S.	235,847	246,820	260,340	0.9	1.1	1.0	100.00	100.00	100.00
Utah **	1,622	1,706	1,908	1.0	2.3	1.6	0.69	0.69	0.73
Total Personal Income (billions)									
U.S.	$3,144.4	$4,366.1	$5,681.2	6.8	5.4	6.1	100.00	100.00	100.00
Utah	$16.8	$22.5	$32.6	6.0	7.7	6.9	0.53	0.52	0.57
Per Capita Personal Income									
U.S.	$13,332	$17,690	$21,822	5.8	4.3	5.1	100.00	100.00	100.00
Utah	$10,343	$13,200	$17,101	5.0	5.3	5.2	77.6	74.6	78.4

* Compounded annually.
**These estimates do not agree with Utah Population Estimates Committee data.

Sources: Population--U.S. Bureau of the Census, Utah Department of Employment Security; Income--U.S. Bureau of Economic Analysis, and Utah Governor's Office of Planning and Budget.

Table 20
Total and Per Capita Income by District and County: 1991 to 1993

County/MCD	Total Personal Income (Millions of Dollars) 1991	1992	1993	Percentage Change 1991-92	1992-93	Per Capita Personal Income 1991	1992	1993	Percentage Change 1991-92	1992-93
State Total	$26,038.0	$28,078.0	$30,010.0	7.8	6.9	$14,736	$15,504	$16,139	5.2	4.1
Bear River	1,478.6	1,587.2	1,703.5	7.3	7.3	13,405	14,121	14,800	5.3	4.8
Box Elder	531.0	564.2	592.5	6.3	5.0	14,397	15,043	15,600	4.5	3.7
Cache	921.9	996.4	1,082.3	8.1	8.6	12,851	13,610	14,400	5.9	5.8
Rich	25.7	26.6	28.6	3.5	7.4	15,439	15,859	15,900	2.7	0.3
Wasatch Front	18,050.1	19,514.7	20,699.9	8.1	6.1	15,930	16,801	17,500	5.5	4.2
North	5,412.5	5,815.2	6,076.1	7.4	4.5	14,997	15,700	16,000	4.7	1.9
Davis	2,789.9	2,998.1	3,141.3	7.5	4.8	14,371	14,994	15,200	4.3	1.4
Morgan	75.2	81.4	85.3	8.2	4.8	13,365	14,022	14,000	4.9	-0.2
Weber	2,547.4	2,735.7	2,849.4	7.4	4.2	15,803	16,616	17,000	5.1	2.3
South	12,637.6	13,699.5	14,623.7	8.4	6.7	16,366	17,317	18,200	5.8	5.1
Salt Lake	12,260.4	13,291.4	14,221.6	8.4	7.0	16,455	17,408	18,300	5.8	5.1
Tooele	377.2	408.1	402.1	8.2	-1.5	13,910	14,810	14,400	6.5	-2.8
Mountainland	3,827.6	4,155.1	4,438.4	8.6	6.8	12,914	13,668	13,900	5.8	1.7
Summit	378.4	415.9	462.7	9.9	11.2	22,263	22,859	23,700	2.7	3.7
Utah	3,312.6	3,590.1	3,825.8	8.4	6.6	12,314	13,052	13,300	6.0	1.9
Wasatch	136.6	149.1	150.0	9.2	0.6	13,093	13,929	13,500	6.4	-3.1
Central	631.2	668.0	700.2	5.8	4.8	11,776	12,279	12,600	4.3	2.6
Juab	69.4	74.8	75.8	7.8	1.3	11,753	12,556	12,400	6.8	-1.2
Millard	145.5	150.4	152.7	3.4	1.5	12,700	13,002	13,200	2.4	1.5
Piute	13.3	14.1	14.5	6.0	3.1	10,437	11,079	11,200	6.2	1.1
Sanpete	186.3	197.6	211.5	6.1	7.0	10,892	11,229	11,600	3.1	3.3
Sevier	193.2	204.8	217.8	6.0	6.4	12,405	12,948	13,400	4.4	3.5
Wayne	23.5	26.3	27.8	11.9	5.9	10,757	12,441	12,700	15.7	2.1
Southwestern	1,056.4	1,154.2	1,314.5	9.3	13.9	12,073	12,628	13,600	4.6	7.7
Beaver	61.0	64.8	67.4	6.2	4.0	12,766	13,265	13,500	3.9	1.8
Garfield	48.0	51.2	54.3	6.7	6.0	12,039	12,631	12,900	4.9	2.1
Iron	241.5	265.8	291.9	10.1	9.8	11,333	12,154	12,500	7.2	2.8
Kane	66.1	71.9	76.0	8.8	5.7	12,910	13,788	14,300	6.8	3.7
Washington	639.8	700.5	824.9	9.5	17.8	12,236	12,660	14,000	3.5	10.6
Uintah Basin	418.6	457.3	462.8	9.2	1.2	11,468	12,260	12,300	6.9	0.3
Daggett	8.9	9.6	9.7	7.9	1.0	12,185	13,155	13,900	8.0	5.7
Duchesne	153.0	170.6	179.4	11.5	5.2	11,998	13,065	13,400	8.9	2.6
Uintah	256.7	277.1	273.7	7.9	-1.2	11,157	11,781	11,600	5.6	-1.5
Southeastern	613.9	669.8	690.8	9.1	3.1	12,427	13,290	13,500	6.9	1.6
Carbon	294.5	313.6	309.2	6.5	-1.4	14,558	15,491	15,200	6.4	-1.9
Emery	128.6	138.4	129.3	7.6	-6.6	12,414	13,504	12,300	8.8	-8.9
Grand	83.6	95.2	112.9	13.9	18.6	12,448	13,343	15,100	7.2	13.2
San Juan	107.2	122.6	139.4	14.4	13.7	8,839	9,609	10,900	8.7	13.4
Salt Lake/Odgen MSA	17,597.7	19,025.2	20,212.4	8.1	6.2	15,992	16,865	17,600	5.5	4.4

Sources: 1990-1992: U.S. Department of Commerce, Bureau of Economic Analysis, May 1994 estimates adjusted to October 1994 BEA figures; 1993: Utah Department of Employment Security, LMI, November 1994.

✧ Gross State Product

Gross State Product (GSP) is the broadest measure of the aggregate production that occurs within a state for a given year and is comparable Gross Domestic Product (GDP) at the national level. More precisely, GSP is the total market value of final goods and services produced with labor and capital located within the state in a year.

GSP by industry is the value added in production, or the value of the industry's output less the cost of the goods and services purchased from other industries. Although GSP by industry is estimated separately for each of the states, these estimates are adjusted so that the national total of GSP by industry is the same as the U.S. GDP by industry, which is also known as Gross Product Originating (GPO) by industry.

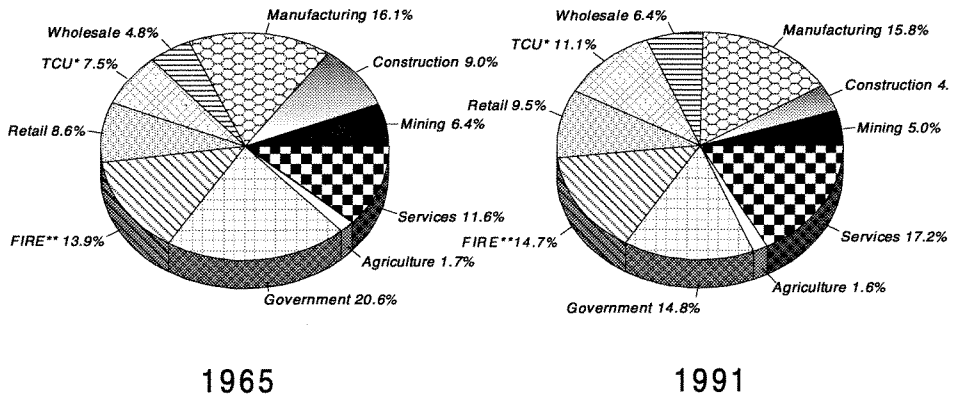
Figures 15 and 16 present the distribution of GSP by major industrial sector for Utah and the U.S., respectively, in 1965 and 1991. Tables 21 and 22 present Utah's GSP by industry from 1965 to 1991 in current and inflation-adjusted 1987 dollars, respectively. Table 23 presents Utah's GSP charged to compensation, proprietor's income, indirect business taxes and capital, by industry for 1991. Table 24 presents GSP for each state and region in the nation from 1965 to 1991 in current dollars. Tables 25 and 26 present U.S. GDP by industry from 1965 to 1991 in current and inflation-adjusted 1987 dollars, respectively.

The GSP series has been produced by the U.S. Bureau of Economic Analysis (BEA). To date, GSP estimates have been issued relatively infrequently, but BEA is currently attempting to schedule annual releases of the estimates. In attempting to meet this goal, BEA established a Gross State Product Branch within its Regional Economics Division during 1992. BEA's plan is to issue estimates every spring for the GSP produced three years previously. In the spring of 1995, for instance, BEA plans to release new estimates of GSP during 1992 and revised estimates for earlier years. In August of 1994, BEA released new GSP estimates by industry for 1991 and revised estimates for earlier years. Although BEA's GSP estimates are three years out of date when released, Regional Financial Associates (RFA), a private firm providing regional economic analysis, produces current GSP estimates. For 1992, 1993, and 1994, respectively, RFA has estimated Utah's GSP to be $35.9 billion, $39.0 billion, and $43.0 billion.

GSP estimates include the allocation of productive income between employee compensation, proprietors' income, indirect business taxes, and capital charges. Employee compensation includes wages and salaries, employer contributions for social insurance, such as the employer-paid social security taxes, and other labor income, such as pension and health benefits. Proprietor's income includes the income of sole proprietorships, such as farms and restaurants; partnerships, such as law firms and accounting firms, and tax exempt cooperatives. Indirect business taxes are taxes or charges paid by firms on the goods and services they sell. Examples include the federal excise taxes on gasoline, alcohol and tobacco, federal customs duties, and state and local sales and business receipts taxes. Capital charges represent the cost of using fixed assets, such as plant and equipment, in production. Among other things, these charges include rental income, corporate profits and depreciation.

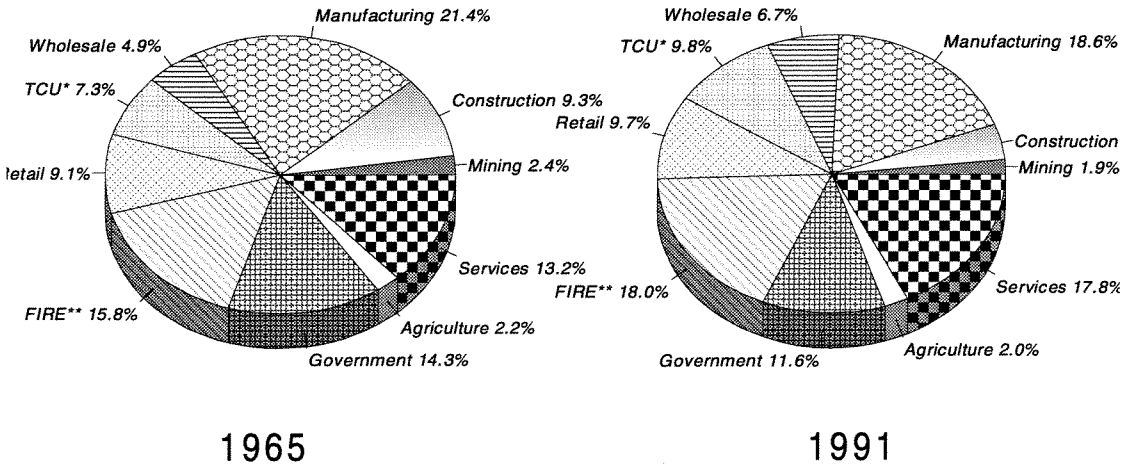
For the most part, inflation-adjusted GSP estimates are derived with the so-called "double deflation" method. Using double deflation, the price of an industry's output is deflated separately from the prices of the inputs it purchases from other industries. The industry's inflation-adjusted GSP is then the difference between its deflated output and input. Although output and input prices will generally vary by state, BEA does not have the resources to estimate these prices state by state. Instead, inflation-adjusted estimates for each of the states are produced with the same national price indexes used to estimate GPO. A more thorough discussion of the sources and methods used to compute inflation-adjusted GPO estimates is contained in the *Survey of Current Business* issued in May 1993 in an article entitled "Gross Product by Industry, 1977-1990." The important point to note is that BEA does not use the implicit GDP price deflator. ✧

Figure 15
Utah Gross State Product--Percent Share by Industry: 1965 and 1991



*TCU = Transportation, Communication and Utilities
**FIRE = Finance, Insurance, and Real Estate
Source: Survey of Current Business

Figure 16
U.S. Gross State Product--Percent Share by Industry: 1965 and 1991



*TCU Transportation, Communication, and Utilities
**FIRE = Finance, Insurance, and Real Estate
Source: Survey of Current Business

Table 21
Utah Gross State Product by Industry (Millions of Current Dollars): Selected Years

Industry	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990	1991
Total	$3,203	$4,366	$7,798	$15,209	$24,009	$24,344	$24,915	$27,008	$28,602	$30,913	$33,078
Private Industries	2,694	3,498	6,476	13,010	20,239	20,637	20,953	22,764	24,184	26,072	27,868
Agriculture, Forestry, and Fisheries	95	133	189	281	339	352	381	464	455	511	495
Farms	89	125	173	250	275	291	316	393	398	446	419
Agricultural Services, Forestry, and Fisheries	6	8	16	32	64	60	66	71	57	65	76
Mining	203	204	385	1,071	1,398	980	1,049	1,214	1,168	1,436	1,334
Metal Mining	112	125	111	276	138	129	186	301	308	376	315
Coal Mining	20	22	103	259	253	284	259	271	290	282	264
Oil and Gas Extraction	55	42	149	490	963	518	561	601	528	736	712
Nonmetallic Minerals, Except Fuels	16	14	23	46	44	49	43	40	43	43	44
Construction	166	216	498	915	1,252	1,217	1,072	1,019	1,112	1,182	1,322
Manufacturing	617	676	1,180	2,437	3,612	3,756	3,636	4,167	4,429	4,666	5,122
Durable Goods	449	468	825	1,693	2,616	2,714	2,508	2,791	3,008	3,186	3,360
Lumber and Wood Products	9	14	40	77	85	82	88	86	106	112	116
Furniture and Fixtures	3	6	11	29	69	72	72	74	78	84	94
Stone, Clay, and Glass Products	30	35	68	127	191	208	145	136	138	148	142
Primary Metal Industries	221	168	221	358	308	247	196	481	537	520	563
Fabricated Metal Products	29	45	104	161	206	201	208	229	274	288	305
Industrial Machinery and Equipment	29	72	177	436	650	724	541	483	323	335	329
Electronic and Other Electric Equipment	20	32	44	157	235	252	247	262	440	469	461
Motor Vehicles and Equipment	4	7	17	36	83	95	119	120	122	121	131
Other Transportation Equipment	97	73	106	197	574	603	640	652	668	732	780
Instruments and Related Products	2	8	21	73	87	99	102	153	179	238	290
Miscellaneous Manufacturing Industries	5	7	16	42	127	129	149	115	146	140	150
Nondurable Goods	169	209	354	744	997	1,042	1,128	1,376	1,420	1,479	1,762
Food and Kindred Products	72	90	134	169	262	284	300	323	360	397	481
Tobacco Manufactures	0	0	0	0	0	0	0	0	0	0	0
Textile Mill Products	0	1	1	1	2	2	4	7	6	7	7
Apparel and Other Textile Products	10	22	37	71	76	79	77	79	82	82	89
Paper and Allied Products	4	6	11	16	36	42	42	45	50	58	61
Printing and Publishing	27	31	58	126	228	259	278	291	305	333	349
Chemicals and Allied Products	10	16	43	130	136	123	139	172	199	208	287
Petroleum and Coal Products	40	36	51	190	214	206	225	378	339	313	402
Rubber and Miscellaneous Plastic Products	5	7	17	38	41	45	61	81	78	80	84
Leather and Leather Products	0	1	1	1	1	1	1	1	1	2	2
Transportation, Communication, and Utilities	326	446	801	1,706	2,786	2,782	2,777	2,995	3,148	3,219	3,298
Transportation	168	232	355	704	975	989	1,080	1,269	1,358	1,431	1,440
Railroad Transportation	82	95	102	207	292	260	233	257	230	248	240
Local and Interurban Passenger Transit	9	11	15	36	20	23	20	20	21	22	23
Trucking and Warehousing	59	96	182	325	381	408	440	515	571	611	629
Water Transportation	0	0	1	6	1	1	1	3	4	3	2
Transportation by Air	12	20	34	74	207	232	318	406	448	467	456
Pipelines, Except Natural Gas	4	6	10	36	30	22	22	17	16	13	15
Transportation Services	2	4	11	19	43	44	46	52	68	66	75
Communication	77	107	203	380	686	694	709	734	777	807	855
Electric, Gas, and Sanitary Services	81	106	242	622	1,125	1,099	988	992	1,012	982	1,003
Wholesale Trade	225	317	591	1,091	1,532	1,615	1,545	1,688	1,847	1,912	2,086
Retail Trade	318	456	838	1,379	2,244	2,429	2,332	2,516	2,704	2,868	3,058
Finance, Insurance, and Real Estate	423	582	1,100	2,249	3,616	3,725	3,936	4,101	4,265	4,669	5,019
Depository Institutions	47	84	110	256	473	480	564	562	544	786	865
Nondepository Institutions	8	8	12	47	124	116	117	120	126	114	137
Holding Cos. and Investment Services	7	9	14	39	139	169	146	95	109	133	138
Insurance Carriers	22	32	51	133	142	175	187	220	253	262	320
Insurance Agents, Brokers, and Services	16	21	34	67	92	109	133	148	157	182	204
Real Estate	322	430	879	1,707	2,647	2,676	2,788	2,956	3,076	3,193	3,354
Services	321	468	893	1,882	3,459	3,780	4,225	4,600	5,055	5,608	6,134
Hotels and Other Lodging Places	17	25	56	127	201	205	214	211	232	253	277
Personal Services	31	37	53	88	137	146	145	165	165	177	189
Business Services	27	49	109	281	614	680	660	784	910	1,084	1,272
Auto Repair, Services, and Garages	21	33	67	132	223	236	233	250	263	292	306
Miscellaneous Repair Services	9	15	31	70	88	91	86	99	106	124	114
Motion Pictures	6	9	15	40	48	57	66	49	67	75	67
Amusement and Recreation Services	15	20	36	70	127	134	144	145	163	182	214
Health Services	83	130	245	542	911	1,014	1,197	1,296	1,409	1,577	1,738
Legal Services	17	22	47	87	180	206	231	228	252	269	282
Educational Services	36	41	74	125	203	222	249	270	293	312	355
Social Services and Membership Organizations	28	44	75	137	435	495	587	617	622	621	637
Other Services	24	34	77	170	272	273	392	462	548	613	655
Private Households	8	8	9	12	19	21	21	23	26	28	27
Government	509	869	1,322	2,198	3,771	3,708	3,962	4,245	4,418	4,841	5,210
Federal Civilian Government	233	405	541	770	1,192	1,229	1,253	1,308	1,422	1,481	1,606
Federal Military Government	34	50	86	164	281	281	290	310	327	349	379
State and Local Government	242	414	695	1,264	2,298	2,198	2,418	2,627	2,669	3,011	3,225

Source: U.S. Bureau of Economic Analysis.

Table 22
Utah Gross State Product by Industry (Millions of Constant 1987 Dollars): Selected Years

Industry	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990	1991
Total	$10,983	$11,925	$14,870	$20,625	$25,111	$25,074	$24,915	$25,994	$26,491	$27,549	$28,599
Private Industries	8,503	8,975	11,915	17,162	20,985	21,188	20,953	21,957	22,497	23,380	24,364
Agriculture, Forestry, and Fisheries	208	244	197	263	329	363	381	434	377	434	443
Farms	187	225	174	227	263	298	316	367	325	375	374
Agricultural Services, Forestry, and Fisheries	21	20	23	36	65	65	66	67	52	58	69
Mining	768	650	686	683	954	990	1,049	1,260	1,176	1,382	1,433
Metal Mining	382	359	268	98	139	152	186	266	295	398	400
Coal Mining	82	60	99	193	207	263	259	299	334	340	329
Oil and Gas Extraction	263	196	284	340	562	524	561	656	505	602	661
Nonmetallic Minerals, Except Fuels	41	34	36	53	47	51	43	39	42	42	43
Construction	1,085	825	1,140	1,319	1,459	1,260	1,072	948	1,005	1,035	1,151
Manufacturing	1,938	1,658	2,048	2,863	3,586	3,636	3,636	3,949	4,087	4,223	4,504
Durable Goods	1,474	1,188	1,439	2,024	2,551	2,637	2,508	2,713	2,844	3,004	3,160
Lumber and Wood Products	28	34	76	87	90	85	88	83	95	101	102
Furniture and Fixtures	9	13	20	40	72	73	72	71	73	76	82
Stone, Clay, and Glass Products	79	78	111	168	197	205	145	140	142	152	141
Primary Metal Industries	733	460	368	398	305	258	196	382	390	416	495
Fabricated Metal Products	88	116	167	193	207	197	208	225	252	259	266
Industrial Machinery and Equipment	61	126	235	461	583	673	541	468	311	314	324
Electronic and Other Electric Equipment	37	56	64	201	235	249	247	275	460	498	493
Motor Vehicles and Equipment	8	16	39	54	89	95	119	127	129	129	131
Other Transportation Equipment	414	256	292	287	557	576	640	674	681	720	725
Instruments and Related Products	3	16	37	90	87	98	102	153	174	212	267
Miscellaneous Manufacturing Industries	14	18	29	44	129	129	149	115	137	128	133
Nondurable Goods	465	471	610	839	1,035	998	1,128	1,236	1,243	1,219	1,344
Food and Kindred Products	168	177	197	210	272	282	300	321	325	343	395
Tobacco Manufactures	0	0	0	0	0	0	0	0	0	0	0
Textile Mill Products	1	1	1	1	2	2	4	6	6	6	7
Apparel and Other Textile Products	19	33	53	84	76	78	77	79	80	78	82
Paper and Allied Products	10	13	18	22	39	44	42	40	42	52	56
Printing and Publishing	111	99	143	203	256	267	278	282	276	286	279
Chemicals and Allied Products	21	34	66	158	136	126	139	151	168	176	234
Petroleum and Coal Products	124	100	106	117	212	155	225	277	270	201	214
Rubber and Miscellaneous Plastic Products	10	12	25	42	41	43	61	78	74	75	76
Leather and Leather Products	1	1	1	2	1	1	1	1	1	1	2
Transportation, Communication, and Utilities	905	1,125	1,564	2,399	2,786	2,715	2,777	2,957	3,067	3,130	3,165
Transportation	481	577	660	803	961	981	1,080	1,211	1,313	1,404	1,423
Railroad Transportation	217	218	172	186	257	234	233	259	245	270	271
Local and Interurban Passenger Transit	39	38	37	58	23	23	20	18	19	19	19
Trucking and Warehousing	162	226	323	410	414	415	440	496	548	576	612
Water Transportation	0	0	1	7	1	1	1	3	3	2	2
Transportation by Air	36	53	68	78	194	239	318	366	418	465	442
Pipelines, Except Natural Gas	19	29	38	37	27	20	22	18	18	14	17
Transportation Services	8	13	20	27	47	48	46	50	61	57	60
Communication	159	215	331	522	706	682	709	734	754	774	821
Electric, Gas, and Sanitary Services	265	333	573	1,075	1,118	1,053	988	1,011	1,000	952	920
Wholesale Trade	573	704	931	1,084	1,513	1,705	1,545	1,588	1,705	1,683	1,815
Retail Trade	1,039	1,147	1,556	1,804	2,419	2,629	2,332	2,506	2,604	2,659	2,725
Finance, Insurance, and Real Estate	1,671	1,903	2,804	3,712	4,104	3,904	3,936	3,988	3,953	4,117	4,212
Depository Institutions	255	329	374	489	547	532	564	554	507	669	652
Nondepository Institutions	86	61	61	151	192	152	117	112	107	98	118
Holding Cos. and Investment Services	31	39	44	69	136	128	146	114	129	140	158
Insurance Carriers	98	104	132	221	213	206	187	205	237	225	257
Insurance Agents, Brokers, and Services	84	87	104	102	112	118	133	139	140	155	164
Real Estate	1,118	1,283	2,089	2,680	2,904	2,768	2,788	2,864	2,832	2,830	2,863
Services	1,400	1,544	2,130	3,035	3,835	3,986	4,225	4,328	4,523	4,718	4,916
Hotels and Other Lodging Places	90	99	154	200	221	215	214	203	216	229	250
Personal Services	117	113	122	140	153	154	145	159	150	152	154
Business Services	109	162	253	422	648	697	660	737	846	943	1,058
Auto Repair, Services, and Garages	76	101	148	219	264	253	233	239	235	245	247
Miscellaneous Repair Services	36	42	65	106	90	93	86	97	104	116	103
Motion Pictures	22	32	41	60	54	61	66	47	60	62	53
Amusement and Recreation Services	53	53	73	96	140	140	144	138	148	157	176
Health Services	416	468	638	954	1,045	1,090	1,197	1,199	1,204	1,250	1,283
Legal Services	120	123	159	181	212	225	231	219	227	223	221
Educational Services	148	115	150	200	223	233	249	255	260	263	283
Social Services and Membership Organizations	101	121	149	197	474	518	587	593	581	564	559
Other Services	87	96	162	245	292	286	392	420	467	488	507
Private Households	24	18	14	15	19	21	21	23	25	26	25
Government	2,480	2,950	2,954	3,463	4,125	3,886	3,962	4,037	3,995	4,169	4,235
Federal Civilian Government	1,230	1,467	1,217	1,217	1,277	1,286	1,253	1,252	1,299	1,296	1,296
Federal Military Government	166	166	177	246	299	290	290	297	299	304	310
State and Local Government	1,084	1,317	1,560	2,000	2,549	2,310	2,418	2,487	2,397	2,569	2,629

Source: U.S. Bureau of Economic Analysis.

Table 23
Utah Gross State Product by Component and Industry (Millions of Current Dollars): 1991

Industry	Absolute Amounts: Compensation	Proprietor's Income	Capital Charges	Indirect Business Taxes	GSP	Percent of Total: Compensation	Proprietor's Income	Capital Charges	Indirect Business Taxes	GSP
Total	$19,772	$2,906	$7,695	$2,705	$33,078	59.8	8.8	23.3	8.2	100.0
Private Industries	15,056	2,906	7,201	2,705	27,868	54.0	10.4	25.8	9.7	100.0
Agriculture, Forestry, and Fisheries	102	342	32	20	495	20.6	69.1	6.5	4.0	100.0
Farms	51	329	23	15	419	12.2	78.5	5.5	3.6	100.0
Agricultural Services, Forestry, and Fisheries	51	13	8	4	76	67.1	17.1	10.5	5.3	100.0
Mining	385	122	707	120	1,334	28.9	9.1	53.0	9.0	100.0
Metal Mining	138	32	115	30	315	43.8	10.2	36.5	9.5	100.0
Coal Mining	133	17	72	42	264	50.4	6.4	27.3	15.9	100.0
Oil and Gas Extraction	86	70	510	46	712	12.1	9.8	71.6	6.5	100.0
Nonmetallic Minerals, Except Fuels	29	2	10	3	44	65.9	4.5	22.7	6.8	100.0
Construction	896	264	131	30	1,322	67.8	20.0	9.9	2.3	100.0
Manufacturing	3,374	68	1,199	481	5,122	65.9	1.3	23.4	9.4	100.0
Durable Goods	2,476	47	645	191	3,360	73.7	1.4	19.2	5.7	100.0
Lumber and Wood Products	74	8	23	10	116	63.8	6.9	19.8	8.6	100.0
Furniture and Fixtures	72	5	15	2	94	76.6	5.3	16.0	2.1	100.0
Stone, Clay, and Glass Products	105	1	12	23	142	73.9	0.7	8.5	16.2	100.0
Primary Metal Industries	252	1	285	25	563	44.8	0.2	50.6	4.4	100.0
Fabricated Metal Products	202	11	70	22	305	66.2	3.6	23.0	7.2	100.0
Industrial Machinery and Equipment	274	6	37	12	329	83.3	1.8	11.2	3.6	100.0
Electronic and Other Electric Equipment	409	9	23	20	461	88.7	2.0	5.0	4.3	100.0
Motor Vehicles and Equipment	107	0	(10)	35	131	81.7	0.0	(7.6)	26.7	100.0
Other Transportation Equipment	660	1	90	29	780	84.6	0.1	11.5	3.7	100.0
Instruments and Related Products	192	2	94	3	290	66.2	0.7	32.4	1.0	100.0
Miscellaneous Manufacturing Industries	130	3	9	8	150	86.7	2.0	6.0	5.3	100.0
Nondurable Goods	897	21	554	289	1,762	50.9	1.2	31.4	16.4	100.0
Food and Kindred Products	287	6	158	30	481	59.7	1.2	32.8	6.2	100.0
Tobacco Manufactures	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Textile Mill Products	7	0	0	0	7	100.0	0.0	0.0	0.0	100.0
Apparel and Other Textile Products	72	3	11	3	89	80.9	3.4	12.4	3.4	100.0
Paper and Allied Products	56	0	2	4	61	91.8	0.0	3.3	6.6	100.0
Printing and Publishing	218	11	109	10	349	62.5	3.2	31.2	2.9	100.0
Chemicals and Allied Products	130	1	142	15	287	45.3	0.3	49.5	5.2	100.0
Petroleum and Coal Products	55	0	122	225	402	13.7	0.0	30.3	56.0	100.0
Rubber and Miscellaneous Plastic Products	71	0	11	2	84	84.5	0.0	13.1	2.4	100.0
Leather and Leather Products	1	0	0	0	2	50.0	0.0	0.0	0.0	100.0
Transportation, Communication, and Utilities	1,659	109	1,158	372	3,298	50.3	3.3	35.1	11.3	100.0
Transportation	1,006	74	243	118	1,440	69.9	5.1	16.9	8.2	100.0
Railroad Transportation	161	0	69	10	240	67.1	0.0	28.7	4.2	100.0
Local and Interurban Passenger Transit	17	2	3	1	23	73.9	8.7	13.0	4.3	100.0
Trucking and Warehousing	442	59	102	26	629	70.3	9.4	16.2	4.1	100.0
Water Transportation	0	0	2	0	2	0.0	0.0	100.0	0.0	100.0
Transportation by Air	334	3	42	78	456	73.2	0.7	9.2	17.1	100.0
Pipelines, Except Natural Gas	4	0	9	2	15	26.7	0.0	60.0	13.3	100.0
Transportation Services	48	9	16	2	75	64.0	12.0	21.3	2.7	100.0
Communication	274	21	478	82	855	32.0	2.5	55.9	9.6	100.0
Electric, Gas, and Sanitary Services	379	15	437	172	1,003	37.8	1.5	43.6	17.1	100.0
Wholesale Trade	1,258	86	321	422	2,086	60.3	4.1	15.4	20.2	100.0
Retail Trade	1,861	240	436	522	3,058	60.9	7.8	14.3	17.1	100.0
Finance, Insurance, and Real Estate	1,028	699	2,689	602	5,019	20.5	13.9	53.6	12.0	100.0
Depository Institutions	341	0	476	47	865	39.4	0.0	55.0	5.4	100.0
Nondepository Institutions	91	0	21	24	137	66.4	0.0	15.3	17.5	100.0
Holding Cos. and Investment Services	136	(6)	2	7	138	98.6	(4.3)	1.4	5.1	100.0
Insurance Carriers	195	0	56	70	320	60.9	0.0	17.5	21.9	100.0
Insurance Agents, Brokers, and Services	124	62	11	7	204	60.8	30.4	5.4	3.4	100.0
Real Estate	141	643	2,123	447	3,354	4.2	19.2	63.3	13.3	100.0
Services	4,493	976	528	136	6,134	73.2	15.9	8.6	2.2	100.0
Hotels and Other Lodging Places	182	22	53	20	277	65.7	7.9	19.1	7.2	100.0
Personal Services	105	58	19	8	189	55.6	30.7	10.1	4.2	100.0
Business Services	825	233	184	30	1,272	64.9	18.3	14.5	2.4	100.0
Auto Repair, Services, and Garages	132	66	77	32	306	43.1	21.6	25.2	10.5	100.0
Miscellaneous Repair Services	73	18	12	11	114	64.0	15.8	10.5	9.6	100.0
Motion Pictures	40	10	13	5	67	59.7	14.9	19.4	7.5	100.0
Amusement and Recreation Services	118	57	32	8	214	55.1	26.6	15.0	3.7	100.0
Health Services	1,333	291	100	13	1,738	76.7	16.7	5.8	0.7	100.0
Legal Services	226	53	3	1	282	80.1	18.8	1.1	0.4	100.0
Educational Services	317	27	7	4	355	89.3	7.6	2.0	1.1	100.0
Social Services and Membership Organizations	624	3	8	2	637	98.0	0.5	1.3	0.3	100.0
Other Services	492	139	20	4	655	75.1	21.2	3.1	0.6	100.0
Private Households	27	0	0	0	27	100.0	0.0	0.0	0.0	100.0
Government	4,716	0	494	0	5,210	90.5	0.0	9.5	0.0	100.0
Federal Civilian Government	1,549	0	57	0	1,606	96.5	0.0	3.5	0.0	100.0
Federal Military Government	379	0	0	0	379	100.0	0.0	0.0	0.0	100.0
State and Local Government	2,788	0	437	0	3,225	86.4	0.0	13.6	0.0	100.0

Source: U.S. Bureau of Economic Analysis.

Table 24
Gross State Product by Region and State (Millions of Current Dollars): Selected Years

Region/State	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990	1991
United States	$695,784	$1,001,793	$1,571,442	$2,684,793	$4,037,830	$4,251,849	$4,548,182	$4,911,706	$5,232,032	$5,518,482	$5,690,865
New England	40,361	58,665	83,310	141,197	230,020	253,018	277,749	303,694	319,944	327,043	331,974
Connecticut	11,794	16,972	23,965	40,633	65,743	72,140	79,234	86,429	91,292	94,329	96,384
Maine	2,769	3,887	5,857	10,053	15,593	17,093	18,993	20,895	22,415	23,007	23,241
Massachusetts	19,609	28,520	40,234	67,049	109,880	120,856	132,250	145,116	152,301	154,208	156,090
New Hampshire	2,007	3,066	4,770	9,106	16,675	18,587	20,760	22,444	23,170	23,616	24,404
Rhode Island	2,941	4,302	5,728	9,547	14,675	16,050	17,366	18,794	19,931	20,664	20,657
Vermont	1,241	1,916	2,757	4,810	7,454	8,292	9,147	10,016	10,835	11,219	11,198
Mideast	159,989	231,220	328,345	511,026	775,366	839,198	908,066	984,995	1,037,042	1,084,371	1,114,620
Delaware	2,137	3,075	4,655	7,371	11,929	13,061	14,786	16,261	18,354	19,664	21,274
District of Columbia	5,230	8,115	12,437	17,867	25,771	27,327	29,371	32,170	34,770	36,646	38,160
Maryland	11,696	18,250	28,578	45,103	73,790	80,718	88,790	97,009	103,989	109,202	111,874
New Jersey	26,572	38,457	55,281	89,343	143,980	158,044	171,774	190,550	201,129	207,449	212,822
New York	74,097	106,902	145,134	221,815	341,015	369,400	398,315	428,687	444,937	466,827	475,961
Pennsylvania	40,257	56,421	82,260	129,527	178,881	190,647	205,030	220,319	233,864	244,584	254,528
Great Lakes	157,251	208,691	307,681	482,583	680,384	717,399	756,970	808,135	859,411	891,410	913,777
Illinois	45,806	63,495	95,385	144,657	202,306	214,239	226,333	242,585	258,852	270,503	279,283
Indiana	19,409	25,068	37,718	58,861	82,033	87,035	92,827	99,095	107,565	111,164	114,211
Michigan	37,930	46,677	65,781	103,083	152,334	160,318	167,004	176,023	184,655	187,155	189,445
Ohio	39,350	53,171	77,312	122,803	170,335	178,762	189,217	202,219	213,979	223,058	228,109
Wisconsin	14,756	20,280	31,484	53,178	73,376	77,043	81,590	88,213	94,360	99,530	102,729
Plains	53,299	75,032	121,041	195,083	278,893	288,876	305,688	323,970	348,445	367,980	379,866
Iowa	9,569	12,917	21,665	33,775	41,510	42,364	44,235	46,776	51,780	54,800	56,032
Kansas	7,237	10,018	16,958	27,817	40,240	41,009	43,766	46,291	47,939	51,691	53,281
Minnesota	12,293	18,252	28,599	49,049	72,248	75,982	81,493	87,555	95,418	99,751	103,301
Missouri	15,725	22,059	32,626	52,528	78,983	83,855	88,764	93,737	99,305	103,172	106,214
Nebraska	4,730	6,893	11,661	17,687	25,378	25,691	26,498	29,003	31,054	33,648	35,281
North Dakota	1,890	2,371	5,044	7,625	10,837	9,880	10,209	9,607	10,789	11,990	12,045
South Dakota	1,855	2,522	4,487	6,602	9,697	10,094	10,723	11,001	12,159	12,929	13,712
Southeast	118,886	179,833	303,157	538,158	829,972	878,576	951,228	1,029,294	1,095,950	1,156,954	1,208,921
Alabama	8,699	12,215	20,517	35,296	52,267	55,119	59,545	63,584	67,117	70,594	73,956
Arkansas	4,497	6,485	11,551	19,873	28,852	30,179	32,078	34,356	36,424	38,376	40,561
Florida	17,344	29,541	52,989	95,851	163,508	178,536	197,054	213,937	231,022	244,527	255,129
Georgia	12,603	19,173	31,373	55,608	96,154	106,073	115,171	124,587	131,080	137,064	143,643
Kentucky	9,811	13,883	22,744	36,553	50,110	52,313	55,536	59,501	63,694	67,028	69,839
Louisiana	11,440	16,794	29,543	64,652	84,864	73,123	75,205	82,581	84,314	91,784	95,377
Mississippi	4,836	6,956	11,870	22,062	30,655	31,089	33,743	35,964	37,619	39,471	41,481
North Carolina	14,464	22,138	34,939	59,067	95,305	104,333	113,246	123,811	133,458	140,630	147,520
South Carolina	6,198	9,566	15,514	27,315	42,492	46,300	50,848	55,306	59,245	63,706	66,408
Tennessee	10,562	15,541	25,990	45,077	67,892	73,370	80,781	86,501	91,598	95,234	100,804
Virginia	13,126	20,449	34,345	58,037	94,745	104,457	113,936	123,518	133,465	140,362	145,189
West Virginia	5,306	7,090	11,781	18,768	23,128	23,684	24,086	25,649	26,914	28,180	29,014
Southwest	49,902	77,482	141,661	293,713	438,607	421,026	432,723	468,322	496,254	533,961	553,604
Arizona	4,782	8,104	14,680	29,542	48,702	53,808	57,784	62,179	65,097	67,752	69,767
New Mexico	3,101	4,163	7,806	16,352	23,064	21,797	22,359	23,476	25,168	27,101	30,250
Oklahoma	7,217	10,857	18,704	38,143	51,176	47,268	47,912	50,889	53,392	56,942	57,914
Texas	34,802	54,357	100,471	209,677	315,665	298,152	304,668	331,777	352,597	382,167	395,673
Rocky Mountain	15,913	22,998	42,531	82,635	118,547	118,445	121,720	129,743	138,422	147,820	156,395
Colorado	6,802	10,504	19,628	37,387	57,103	58,240	60,160	64,021	67,971	72,669	76,921
Idaho	2,215	3,071	5,600	9,749	13,001	13,189	13,899	15,166	17,065	18,156	19,047
Montana	2,251	3,055	5,402	9,284	10,986	11,351	11,764	11,885	13,161	13,406	14,419
Utah	3,203	4,366	7,798	15,209	24,009	24,344	24,915	27,008	28,602	30,913	33,078
Wyoming	1,442	2,003	4,104	11,006	13,448	11,320	10,983	11,662	11,623	12,675	12,931
Far West	100,184	147,872	243,714	440,397	686,041	735,312	794,038	863,554	936,564	1,008,942	1,031,709
Alaska	1,224	2,189	6,387	15,619	25,753	21,328	21,123	21,786	23,489	27,303	26,212
California	75,887	111,631	179,858	319,804	511,087	552,355	598,992	650,246	702,723	752,665	763,577
Hawaii	2,564	4,566	7,743	12,351	17,985	19,621	21,354	23,993	26,495	29,087	30,802
Nevada	1,934	3,055	5,322	11,721	18,283	20,000	22,054	25,745	28,892	31,830	33,322
Oregon	6,985	9,726	16,610	30,022	39,582	42,031	45,097	49,079	52,803	56,217	58,799
Washington	11,590	16,705	27,794	50,879	73,352	79,976	85,418	92,704	102,161	111,839	118,997

Source: U.S. Bureau of Economic Analysis.

Table 25
U.S. Gross Domestic Product by Industry (Millions of Current Dollars): Selected Years

Industry	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990	1991
Total	$695,784	$1,001,793	$1,571,442	$2,684,793	$4,037,830	$4,251,849	$4,548,182	$4,911,706	$5,232,032	$5,518,482	$5,690,865
Private Industries	622,266	875,361	1,368,264	2,370,240	3,570,831	3,755,289	4,019,409	4,343,962	4,622,190	4,862,148	4,992,795
Agriculture, Forestry, and Fisheries	24,209	29,854	56,329	66,711	84,343	81,671	88,540	90,787	104,797	112,018	108,630
Farms	21,892	26,297	50,261	56,106	67,100	62,899	66,047	67,623	81,122	85,096	78,846
Agricultural Services, Forestry, and Fisheries	2,317	3,557	6,068	10,605	17,243	18,772	22,493	23,164	23,675	26,922	29,784
Mining	13,976	18,661	41,255	112,635	130,592	82,670	83,044	87,920	84,244	103,059	91,841
Metal Mining	1,120	1,534	1,618	4,432	2,506	2,450	2,609	4,841	5,212	6,183	5,671
Coal Mining	1,757	3,004	9,052	13,604	13,763	14,009	12,501	12,533	12,864	12,738	12,248
Oil and Gas Extraction	9,534	12,243	27,411	89,085	108,425	59,545	60,780	63,240	58,782	76,940	66,745
Nonmetallic Minerals, Except Fuels	1,565	1,880	3,174	5,514	5,898	6,666	7,154	7,306	7,386	7,198	7,177
Construction	34,673	51,397	76,511	128,657	179,228	201,879	213,038	227,622	235,885	240,081	223,394
Manufacturing	198,396	252,275	357,312	588,286	798,489	829,287	877,827	960,967	1,004,602	1,024,697	1,026,182
Durable Goods	118,433	145,941	206,331	348,883	471,528	479,970	501,898	541,079	562,555	563,696	551,423
Lumber and Wood Products	5,449	7,052	10,422	19,179	23,593	26,612	31,271	31,589	32,646	30,778	29,837
Furniture and Fixtures	3,031	3,786	5,019	8,376	13,551	14,189	15,217	15,677	16,461	15,945	15,516
Stone, Clay, and Glass Products	6,573	8,002	11,532	18,007	23,735	26,303	24,044	24,255	25,086	24,937	23,481
Primary Metal Industries	16,559	18,393	28,522	44,170	35,658	36,929	36,313	43,329	45,725	43,972	42,450
Fabricated Metal Products	13,520	18,181	27,403	45,424	57,366	57,650	59,323	63,025	66,550	66,510	65,479
Industrial Machinery and Equipment	19,992	28,180	41,706	76,748	86,961	80,235	88,230	100,369	106,081	109,124	102,209
Electronic and Other Electric Equipment	16,127	21,536	28,279	54,548	83,502	84,947	76,791	80,584	86,874	85,687	88,087
Motor Vehicles and Equipment	18,516	16,186	19,887	26,791	58,317	57,905	58,748	59,192	53,390	46,313	41,076
Other Transportation Equipment	10,775	13,446	16,844	26,307	48,203	53,581	56,564	56,365	59,769	65,117	65,413
Instruments and Related Products	4,769	7,005	10,189	19,511	26,791	27,559	40,388	49,656	51,618	56,368	58,868
Miscellaneous Manufacturing Industries	3,122	4,174	6,528	9,822	13,851	14,060	15,009	17,038	18,355	18,945	19,007
Nondurable Goods	79,963	106,334	150,981	239,403	326,961	349,317	375,929	419,888	442,047	461,001	474,759
Food and Kindred Products	20,107	26,653	39,135	51,781	71,731	73,671	78,926	82,768	87,713	97,121	102,281
Tobacco Manufactures	3,308	4,112	5,103	7,091	11,196	12,952	13,008	13,900	14,248	15,954	17,190
Textile Mill Products	6,497	8,482	10,072	14,803	17,263	19,091	20,288	20,467	21,110	21,940	21,749
Apparel and Other Textile Products	6,729	9,027	11,499	17,333	20,992	22,443	22,598	23,518	25,305	25,330	26,013
Paper and Allied Products	7,220	9,678	13,875	22,762	32,863	35,029	38,530	44,123	47,121	46,222	45,442
Printing and Publishing	9,373	12,925	18,560	32,662	52,464	56,709	60,992	65,095	70,538	72,093	72,904
Chemicals and Allied Products	14,423	19,074	30,005	47,556	66,958	73,451	82,310	94,414	99,570	103,581	105,839
Petroleum and Coal Products	5,388	6,893	9,857	24,267	23,548	25,800	25,899	40,654	38,474	40,116	43,121
Rubber and Miscellaneous Plastic Products	4,994	7,217	10,406	17,012	26,364	27,046	29,887	31,125	34,023	34,618	36,053
Leather and Leather Products	1,924	2,273	2,469	4,136	3,582	3,125	3,491	3,824	3,945	4,026	4,167
Transportation, Communication, and Utilities	62,563	88,445	141,708	242,236	378,022	393,842	419,842	442,120	463,253	481,178	506,017
Transportation	29,965	40,431	59,207	102,928	136,009	141,826	152,730	163,681	168,884	176,777	180,788
Railroad Transportation	9,014	10,294	12,427	20,630	22,229	21,603	21,696	22,910	20,792	22,177	21,724
Local and Interurban Passenger Transit	2,585	3,031	3,600	5,264	7,357	8,307	8,672	8,834	9,475	9,951	10,931
Trucking and Warehousing	10,997	15,303	24,572	40,323	53,632	58,397	61,025	65,801	69,931	73,282	72,788
Water Transportation	2,237	2,861	3,969	7,179	8,329	8,125	7,964	8,957	9,672	10,029	10,735
Transportation by Air	3,426	6,313	10,045	18,082	27,237	29,378	35,074	38,552	38,560	39,833	41,592
Pipelines, Except Natural Gas	668	1,046	1,528	5,195	6,072	4,661	5,227	4,376	4,250	4,205	4,613
Transportation Services	1,038	1,583	3,066	6,255	11,153	11,355	13,072	14,251	16,204	17,300	18,405
Communication	15,310	24,122	40,017	68,883	112,582	119,969	127,597	135,067	139,900	146,720	154,944
Electric, Gas, and Sanitary Services	17,288	23,892	42,484	70,425	129,431	132,047	139,515	143,372	154,469	157,681	170,285
Wholesale Trade	46,844	68,240	117,484	191,596	276,556	290,942	303,072	330,967	351,641	363,042	375,133
Retail Trade	68,132	100,488	156,235	244,673	390,936	418,712	441,758	471,714	502,502	515,712	532,075
Finance, Insurance, and Real Estate	98,912	145,801	221,676	418,438	681,762	743,481	809,744	866,343	926,476	982,370	1,039,707
Depository Institutions	9,887	18,379	25,812	55,952	100,500	106,590	134,701	136,734	145,396	158,667	171,814
Nondepository Institutions	1,216	1,688	3,274	6,659	18,516	24,199	17,374	18,583	19,819	20,716	21,207
Holding Cos. and Investment Services	2,574	3,839	5,722	15,625	41,784	55,446	54,724	44,464	48,856	53,674	57,235
Insurance Carriers	7,248	11,625	17,236	36,924	39,056	47,070	51,247	65,261	68,932	69,931	90,059
Insurance Agents, Brokers, and Services	3,446	4,844	7,793	14,639	22,245	25,399	30,171	33,177	33,999	37,697	37,936
Real Estate	74,541	105,426	161,839	288,639	459,661	484,777	521,527	568,124	609,474	641,685	661,456
Services	74,561	120,200	199,754	377,008	650,903	712,805	782,544	865,522	948,790	1,039,991	1,089,816
Hotels and Other Lodging Places	3,939	6,323	10,097	19,631	35,703	38,814	42,564	45,208	49,331	49,864	52,040
Personal Services	7,083	9,274	11,414	17,481	27,884	30,381	30,959	34,166	35,390	36,273	36,462
Business Services	10,558	18,032	30,609	69,279	143,260	158,611	141,569	162,221	175,485	198,235	201,762
Auto Repair, Services, and Garages	4,002	6,256	11,174	19,138	33,304	36,249	38,186	41,120	42,866	46,240	47,859
Miscellaneous Repair Services	1,807	2,688	4,641	8,901	12,234	13,582	13,683	15,149	16,285	17,066	16,072
Motion Pictures	1,595	2,272	3,094	5,989	9,937	11,315	13,704	13,786	17,384	18,612	18,419
Amusement and Recreation Services	3,624	4,753	7,672	14,222	22,624	24,744	28,114	30,417	34,571	40,187	44,026
Health Services	16,961	31,363	57,807	111,460	186,201	201,193	228,925	248,536	272,963	304,403	332,963
Legal Services	4,605	7,260	12,496	24,912	47,968	55,946	61,137	68,657	73,011	79,626	81,929
Educational Services	3,839	7,144	11,424	16,428	25,901	27,377	30,344	33,430	36,293	38,123	42,490
Social Services and Membership Organizations	6,454	10,047	15,907	26,143	38,086	41,607	45,659	50,845	55,969	60,636	64,805
Other Services	6,126	10,287	18,785	37,321	60,460	65,256	99,991	113,672	130,320	141,283	141,815
Private Households	3,968	4,501	4,634	6,103	7,341	7,730	7,709	8,315	8,922	9,443	9,174
Government	73,518	126,432	203,178	314,553	466,999	496,560	528,773	567,744	609,842	656,334	698,070
Federal Civilian Government	17,941	29,658	45,257	70,263	100,950	102,889	108,881	117,434	125,378	134,233	146,037
Federal Military Government	10,755	18,037	25,366	35,496	55,183	57,294	59,910	62,072	64,725	67,172	71,057
State and Local Government	44,822	78,737	132,555	208,794	310,866	336,377	359,982	388,238	419,739	454,929	480,976

Source: U.S. Bureau of Economic Analysis.

Table 26
U.S. Gross Domestic Product by Industry (Millions of Constant 1987 Dollars): Selected Years

Industry	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990	1991
Total	$2,214,606	$2,627,051	$3,006,556	$3,697,140	$4,270,981	$4,391,529	$4,548,182	$4,731,458	$4,836,446	$4,888,324	$4,883,224
Private Industries	1,866,676	2,208,733	2,554,540	3,202,709	3,759,219	3,871,193	4,019,409	4,191,944	4,285,708	4,324,161	4,315,114
Agriculture, Forestry, and Fisheries	54,115	55,958	59,321	63,199	81,885	84,506	88,540	85,058	87,952	95,759	97,377
Farms	46,136	47,469	50,713	50,973	64,181	64,265	66,047	63,201	66,221	71,604	70,387
Agricultural Services, Forestry, and Fisheries	7,978	8,489	8,607	12,226	17,704	20,241	22,493	21,857	21,731	24,155	26,990
Mining	60,754	74,183	69,790	79,917	83,347	82,993	83,044	94,249	83,277	91,836	91,525
Metal Mining	3,817	4,402	3,912	1,567	2,513	2,900	2,609	4,274	4,991	6,553	7,192
Coal Mining	7,138	8,206	8,729	10,122	11,292	12,976	12,501	13,811	14,827	15,348	15,286
Oil and Gas Extraction	45,766	57,004	52,313	61,805	63,204	60,176	60,780	69,042	56,202	62,929	61,992
Nonmetallic Minerals, Except Fuels	4,033	4,571	4,836	6,423	6,338	6,941	7,154	7,122	7,257	7,006	7,055
Construction	226,648	196,531	174,851	185,393	208,972	209,113	213,038	211,720	213,103	210,154	194,522
Manufacturing	523,384	570,629	617,337	725,428	810,486	819,126	877,827	923,545	932,242	928,483	908,011
Durable Goods	317,478	334,093	356,725	424,333	468,115	471,463	501,898	536,361	543,187	536,998	525,513
Lumber and Wood Products	16,958	17,731	19,798	21,572	24,928	27,481	31,271	30,266	29,347	27,745	26,219
Furniture and Fixtures	8,134	8,072	8,944	11,601	14,254	14,280	15,217	15,174	15,383	14,314	13,538
Stone, Clay, and Glass Products	17,265	17,763	18,723	23,801	24,548	25,919	24,044	24,923	25,843	25,612	23,447
Primary Metal Industries	54,856	50,389	47,388	49,181	35,323	38,494	36,313	34,407	33,247	35,162	37,353
Fabricated Metal Products	40,598	46,777	44,280	54,573	57,578	56,439	59,323	61,991	61,199	59,673	57,191
Industrial Machinery and Equipment	42,311	49,499	55,591	81,237	77,948	74,564	88,230	97,244	102,329	102,406	100,766
Electronic and Other Electric Equipment	30,035	37,227	40,692	69,820	83,359	83,769	76,791	84,584	90,862	90,937	94,214
Motor Vehicles and Equipment	41,879	35,529	45,133	39,767	62,753	58,024	58,748	62,896	56,516	49,444	41,022
Other Transportation Equipment	45,872	47,021	46,274	38,261	46,708	51,206	56,564	58,313	60,939	64,107	60,803
Instruments and Related Products	10,781	13,700	18,003	24,151	26,651	27,283	40,388	49,588	50,226	50,314	54,107
Miscellaneous Manufacturing Industries	8,788	10,386	11,900	10,369	14,065	14,004	15,009	16,975	17,296	17,284	16,853
Nondurable Goods	205,907	236,536	260,612	301,095	342,371	347,663	375,929	387,184	389,055	391,485	382,498
Food and Kindred Products	46,687	52,318	57,520	64,270	74,655	73,072	78,926	82,245	79,366	83,863	83,923
Tobacco Manufactures	14,619	16,830	19,337	19,657	14,362	14,504	13,008	12,171	10,388	9,362	8,334
Textile Mill Products	10,678	12,777	11,712	17,314	17,993	19,295	20,288	19,992	20,858	21,038	20,549
Apparel and Other Textile Products	13,299	13,774	16,474	20,412	20,853	21,932	22,598	23,497	24,676	24,077	24,094
Paper and Allied Products	19,252	22,406	24,127	30,937	35,684	36,874	38,530	39,620	39,406	41,942	41,963
Printing and Publishing	38,292	41,828	45,468	52,686	58,861	58,613	60,992	63,046	63,911	61,870	58,256
Chemicals and Allied Products	30,187	39,706	45,374	57,540	66,963	74,823	82,310	83,060	83,922	87,627	86,382
Petroleum and Coal Products	16,660	19,235	20,275	14,981	23,289	19,422	25,899	29,868	30,674	25,827	22,954
Rubber and Miscellaneous Plastic Products	10,614	12,822	15,349	18,528	26,122	25,975	29,887	29,964	32,112	32,271	32,386
Leather and Leather Products	5,618	4,840	4,975	4,770	3,589	3,153	3,491	3,721	3,742	3,608	3,657
Transportation, Communication, and Utilities	177,871	227,728	278,947	336,306	381,793	386,874	419,842	437,082	449,450	462,640	478,087
Transportation	89,910	104,391	113,247	120,211	137,362	142,646	152,730	155,772	161,199	168,929	173,010
Railroad Transportation	23,761	23,563	20,895	18,473	19,562	19,491	21,696	23,106	22,132	24,141	24,563
Local and Interurban Passenger Transit	11,048	9,875	8,752	8,465	8,267	8,552	8,672	8,156	8,638	8,706	9,135
Trucking and Warehousing	30,044	36,208	43,630	50,821	58,236	59,472	61,025	63,388	67,072	68,999	70,755
Water Transportation	6,938	7,947	8,207	9,319	8,405	8,177	7,964	7,688	7,780	7,963	8,238
Transportation by Air	10,259	16,863	19,830	19,223	25,511	30,225	35,074	34,784	36,015	39,686	40,351
Pipelines, Except Natural Gas	3,648	5,129	6,037	5,254	5,382	4,259	5,227	4,807	4,947	4,476	5,182
Transportation Services	4,212	4,808	5,895	8,656	11,999	12,470	13,072	13,843	14,615	14,958	14,786
Communication	31,641	48,247	65,113	94,447	115,812	117,761	127,597	135,084	135,652	140,827	148,782
Electric, Gas, and Sanitary Services	56,320	75,090	100,586	121,648	128,619	126,467	139,515	146,226	152,599	152,884	156,295
Wholesale Trade	119,389	151,453	184,952	190,512	273,021	307,087	303,072	311,329	324,549	319,543	326,372
Retail Trade	222,596	252,568	289,947	320,134	421,372	453,226	441,758	469,681	483,916	478,080	474,137
Finance, Insurance, and Real Estate	386,107	476,886	576,041	692,808	776,367	776,613	809,744	846,461	865,477	868,306	878,390
Depository Institutions	53,679	72,214	87,582	107,074	116,157	118,089	134,701	134,638	135,389	135,076	129,450
Nondepository Institutions	12,587	13,735	16,701	21,412	28,824	31,725	17,374	17,422	16,895	17,853	18,283
Holding Cos. and Investment Services	11,301	17,291	18,047	27,616	40,920	41,976	54,724	53,068	57,872	56,507	65,327
Insurance Carriers	32,016	38,154	45,251	61,122	58,657	55,400	51,247	60,749	64,771	60,083	72,241
Insurance Agents, Brokers, and Services	17,965	20,549	24,055	22,537	27,083	27,470	30,171	31,202	30,395	32,057	30,600
Real Estate	258,559	314,944	384,404	453,047	504,726	501,953	521,527	549,382	560,155	566,730	562,489
Services	322,461	399,329	478,206	609,012	721,976	751,655	782,544	812,819	845,742	869,360	866,693
Hotels and Other Lodging Places	20,835	24,843	27,969	31,008	39,211	40,700	42,564	43,578	46,006	45,047	46,881
Personal Services	26,830	28,537	26,244	27,620	31,117	32,028	30,959	32,839	32,154	30,991	29,544
Business Services	42,343	59,325	71,214	103,885	151,186	162,564	141,569	152,329	163,230	172,573	167,901
Auto Repair, Services, and Garages	14,913	19,205	24,712	31,736	39,339	38,969	38,186	39,283	38,227	38,860	38,669
Miscellaneous Repair Services	7,124	7,634	9,636	13,530	12,551	13,971	13,683	14,926	15,972	15,942	14,412
Motion Pictures	6,270	7,714	8,284	8,951	11,139	12,045	13,704	13,159	15,454	15,535	14,646
Amusement and Recreation Services	12,581	12,902	15,933	19,545	24,903	25,816	28,114	28,935	31,338	34,598	36,203
Health Services	85,461	113,123	150,486	196,095	213,557	216,134	228,925	229,918	233,320	241,357	245,784
Legal Services	32,905	39,705	42,321	51,530	56,516	61,034	61,137	65,907	65,741	66,120	64,094
Educational Services	15,903	20,049	23,041	26,255	28,442	28,746	30,344	31,548	32,198	32,098	33,859
Social Services and Membership Organizations	23,233	27,503	32,008	37,767	41,435	43,541	45,659	48,835	52,324	54,990	56,831
Other Services	22,023	29,006	39,283	53,902	65,074	68,291	99,991	103,346	111,091	112,341	109,641
Private Households	12,039	9,783	7,075	7,188	7,506	7,816	7,709	8,216	8,687	8,908	8,228
Government	347,930	418,318	452,016	494,431	511,762	520,336	528,773	539,514	550,738	564,163	568,110
Federal Civilian Government	94,621	107,474	101,834	111,058	108,207	107,632	108,881	112,426	114,473	117,417	117,853
Federal Military Government	52,206	60,157	52,532	53,102	58,685	59,175	59,910	59,511	59,227	58,536	58,174
State and Local Government	201,103	250,687	297,650	330,271	344,870	353,529	359,982	367,577	377,038	388,210	392,083

Source: U.S. Bureau of Economic Analysis.

✧ Demographics

Demographic characteristics play an important role in the analysis of a state's economy. Population growth, resulting from natural increase and migration, is a factor which provides insight into the economic health of Utah.

Population estimates for Utah by county are prepared annually by both the U.S. Bureau of the Census and the Utah Population Estimates Committee. Because the Estimates Committee utilizes more recent data and has the input of local population analysts, the Committee's estimates are generally preferable to Census estimates for planning and analysis. However, Bureau of the Census population estimates are frequently used for allocating revenues, including transportation funds and local option sales taxes. This section focuses on the estimates generated by the Utah Population Estimates Committee, and concludes with Census Bureau age estimates and household characteristics.

State Population Change

Between July 1, 1993 and July 1, 1994, Utah's population grew by approximately 50,000 people--from 1,866,000 to 1,916,000. This preliminary estimate was produced by the Utah Population Estimates Committee and implies a net in-migration of 23,000 persons. As shown in Figure 17, the level of change indicates an annual growth rate of 2.7 percent between 1993 and 1994, the highest rate of growth in the last 12 years. Table 27 presents population estimates, along with the components of population change--migration and natural increase--for the past 42 years.

Migration

Utah has experienced net in-migration for the fourth year in a row. Net migration is derived by calculating the difference between the population change and the natural increase for a given year. Net in-migration occurs when the population increase exceeds the natural increase, while net out-migration occurs when the natural increase exceeds the population increase. During 1994, Utah experienced a net in-migration of 23,000 (Figure 18). The last four years account for the only years of net in-migration since 1983. Utah in 1994, as in the previous three years, experienced robust employment growth. During 1994, Utah experienced the largest absolute net in-migration in the last four decades. However, over the last 40 years, the highest annual migration rates (net in-migration as a percent of total population) were during the 1970s.

While very little is known about the characteristics of migrants, data from the Internal Revenue Service and the 1990 Census illuminate several interesting points:

- California dominates the flow of interstate migration to and from Utah;
- the extended Salt Lake area has strong migration ties with the major metropolitan areas south and or west of Utah, such as Los Angeles, Phoenix, Portland, Seattle and Las Vegas, and
- employment-related migration accounts for the vast majority of population movement to and from Utah.

These and other finding are described in more detail in reports published by the Governor's Office of Planning and Budget.

County Shift in Net Migration

Roughly 77 percent of Utah's population is concentrated along the metropolitan area comprised of Salt Lake, Davis, Weber, and Utah Counties. Over the last three years, net migration in non-metropolitan counties has steadily increased. In 1992, counties outside the metropolitan area accounted for roughly one-third (32.4 percent) of Utah's total net in-migration. In 1994, more than half (55.3 percent) of the net in-migration is attributed to non-metropolitan counties.

Natural Increase

Natural increase is the number of births minus the number of deaths. The number of deaths in Utah has climbed proportionally with the total population. The number of births peaked in 1982 and has declined almost every year, until 1991 and 1992 when the number of births increased slightly. The most current data, while preliminary, show that births have stayed nearly constant. Fiscal year 1994 births and deaths are provided in Table 27.

The total fertility rate is the number of births that a woman would have during her lifetime if, at each year of age, she experienced the birth rate occurring for that specific year. Fertility rates declined in Utah from 3.3 births per woman in 1979 to 2.6 in 1992. The national rate held constant at approximately 1.8 births per woman from 1977 through 1986. The Utah rate now appears to have stabilized at about 2.6, while the national rate has increased to 2.0. Despite the decline in Utah's fertility rate, it remains the nation's highest. Historical fertility rates for Utah and the nation are illustrated in Figure 19 and listed in Table 28.

County Population

Almost every county in Utah experienced population increases between 1993 and 1994. Washington County experienced the largest net in-migration with approximately 4,000 persons. Six other counties--Davis, Iron, Salt Lake, Summit, Utah, and Weber--also experienced net in-migration of at least 1,000 persons. Twenty-seven of Utah's 29 counties experienced net in-migration in 1994, compared to 25 in 1993.

In terms of growth rates, Juab County led the state with 9.7 percent growth. Washington County had the second fastest growth with 8.0 percent, followed by Piute County (7.4 percent), Daggett County (7.1 percent), and Summit County (7.1 percent). In 1994, 12 of Utah's counties experienced growth of 4 percent or more, compared to six in 1993. Table 29 presents the preliminary 1994 county population estimates, along with the intercensal county estimates for Utah during the 1980s.

Age Composition

The U.S. Bureau of the Census produces annual state population estimates by age group. The most recent data available are for 1993 and are shown in Table 30. These data demonstrate that Utah continues to have a very young population relative to the nation. Utah ranks first in the percent of the population under five years of age--9.7 percent--and first in the percent of the population aged 5 to 17, 26.1 percent. In contrast, Utah ranks 50th in the percent of the population over age 64.

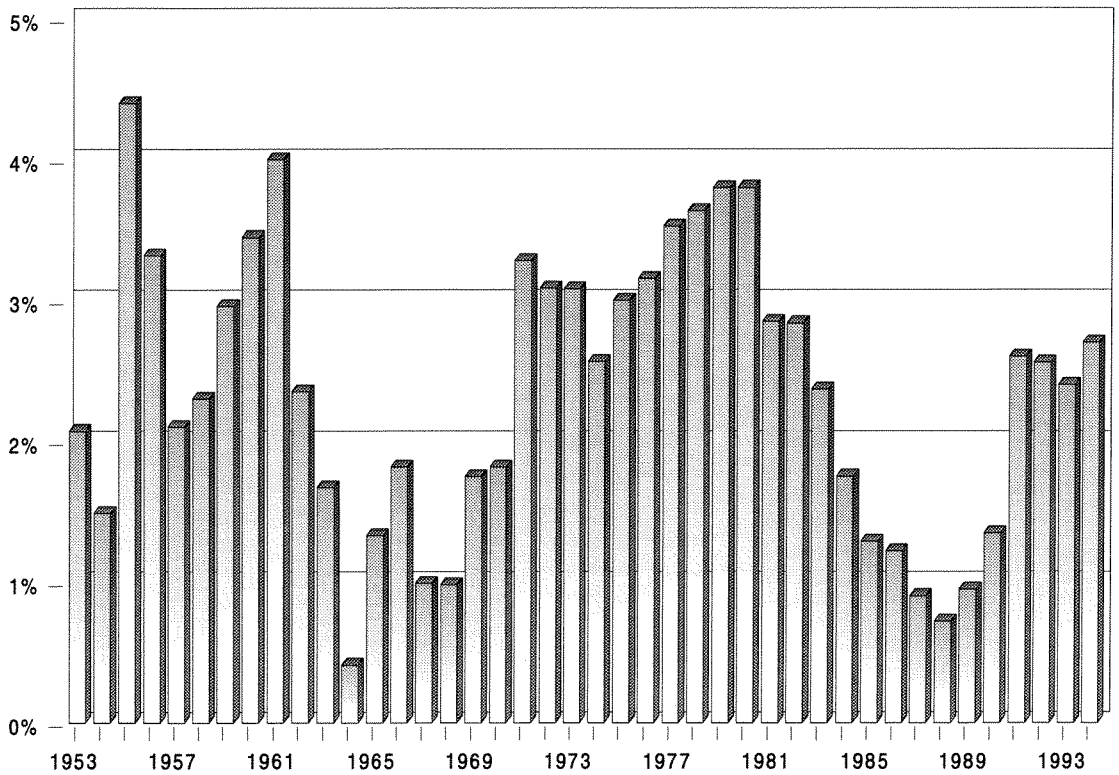
Utah's age characteristics can be summarized in terms of a demographic construct called a dependency ratio. The dependency ratio measures the number of dependents (defined as persons younger than age 18 and older than age 64) per 100 persons of working age (defined as persons in the age group 18 to 64). Utah's dependency ratio is 81 compared to the national average of 63. This means that for every 100 persons of working age in Utah, 18 more dependents than the national average must be supported. Utah's dependency ratio is the highest in the country and even significantly higher than the next closest state. Table 31 provides dependency ratios for every state and the District of Columbia.

Household Characteristics

Table 32 provides household characteristics and rankings from the 1990 Census for the United States, the District of Columbia, and states. Utah ranks first in the percentage of persons living in family households--88.5 percent. A family household is defined by the Census Bureau as a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. Utah ranks last in the percentage of persons living in group quarters--1.7 percent. Group quarters include both institutionalized quarters--prisons or nursing homes--and noninstitutionalized quarters--college dormitories or shelters.

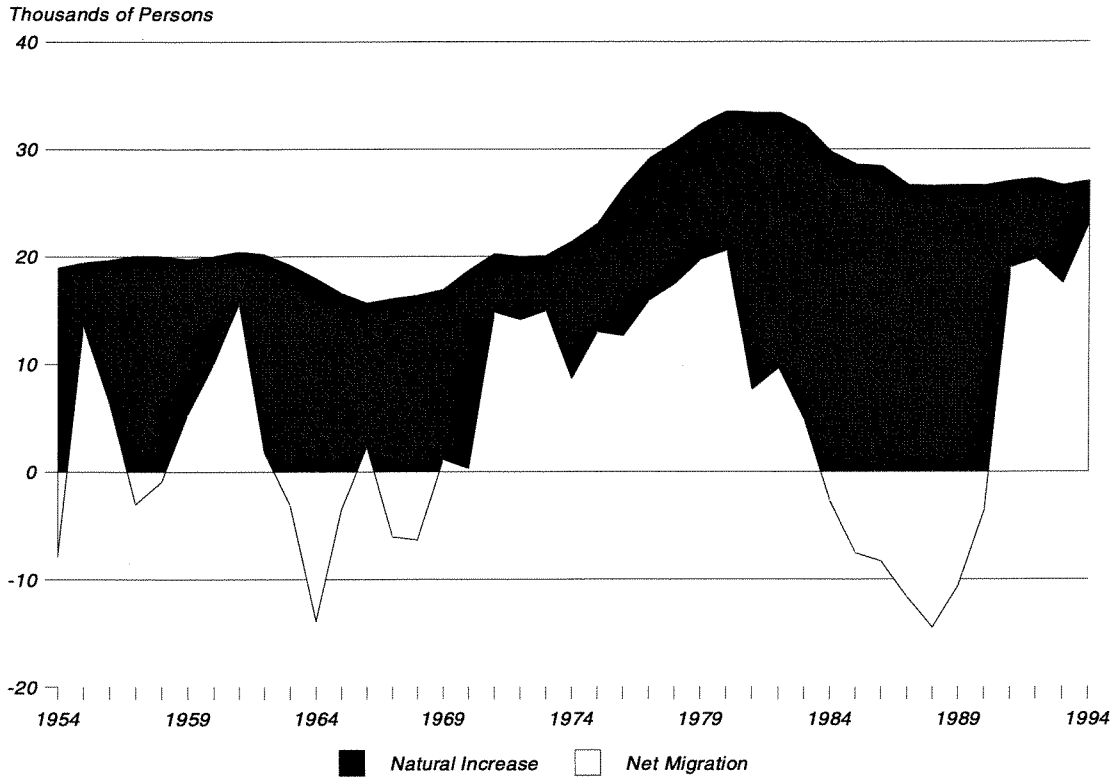
Of Utah's total households, 64.8 percent are comprised of married-couple families, which ranks Utah first. Utah has a lower-than-average ranking of single-headed households--11.7 percent of households are comprised of single parents, ranking Utah 41st in the nation. Utah also has the most persons per household nationally, 3.15, and most persons per family, 3.67. ✧

Figure 17
Utah Population--Annual Percent Change: 1953 to 1994



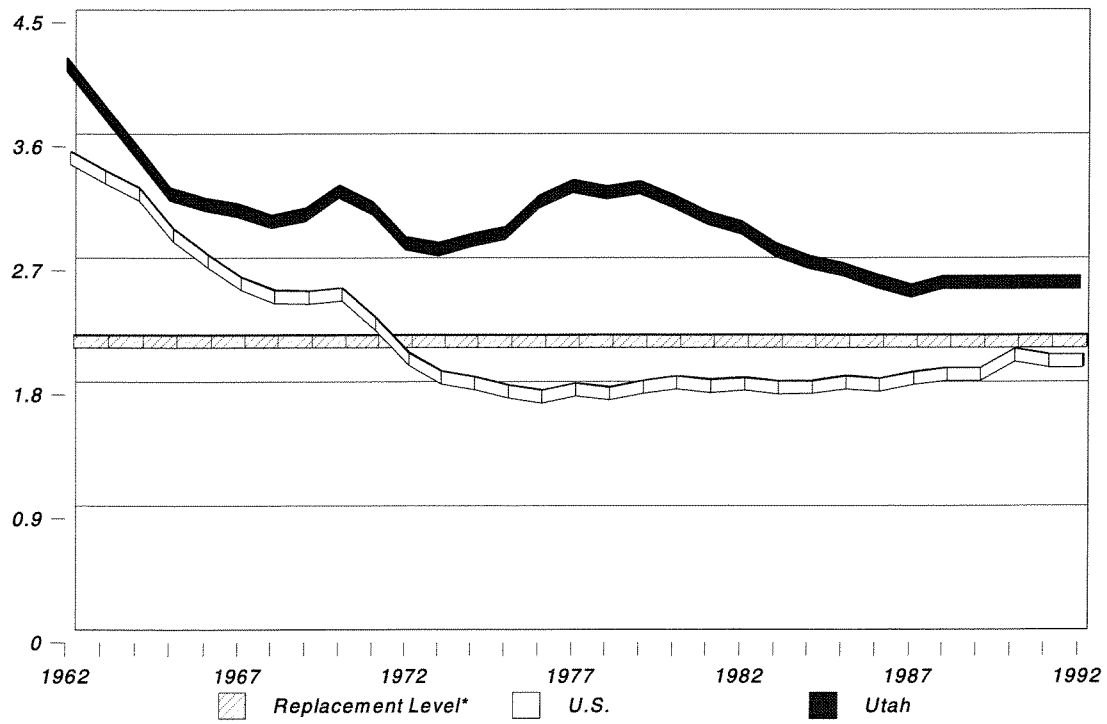
Source: U.S. Bureau of the Census and Utah Population Estimates Committee

Figure 18
Components of Utah Population Change--Net Migration and Natural Increase: 1954 to 1994



Source: U.S. Census Bureau, Utah Population Estimates Committee, and Utah Bureau of Health Statistics

Figure 19
Total Fertility for U.S. and Utah: 1962 to 1992



*Fertility level at which current population is replaced

Source: U.S. Bureau of the Census and Utah Population Estimates Committee

Table 27
Utah Population Estimates, Net Migration, Births and Deaths: 1952 to 1994

Year	July 1st Population	Percent Change	Increase	Net *Migration	Net Migration as a Percent of Previous Year's Population	Natural Increase	Fiscal Year **Births	Fiscal Year **Deaths
1952	724,000	2.55	18,000	(209)	NA	18,209	23,251	5,042
1953	739,000	2.07	15,000	(3,522)	-0.49%	18,522	23,658	5,136
1954	750,000	1.49	11,000	(7,906)	-1.07%	18,906	23,944	5,038
1955	783,000	4.40	33,000	13,589	1.81%	19,412	24,454	5,042
1956	809,000	3.32	26,000	6,372	0.81%	19,629	24,787	5,158
1957	826,000	2.10	17,000	(3,058)	-0.38%	20,058	25,518	5,460
1958	845,000	2.30	19,000	(972)	-0.12%	19,972	25,724	5,753
1959	870,000	2.96	25,000	5,330	0.63%	19,671	25,515	5,844
1960	900,000	3.45	30,000	9,980	1.15%	20,021	25,959	5,938
1961	936,000	4.00	36,000	15,608	1.73%	20,392	26,431	6,039
1962	958,000	2.35	22,000	1,802	0.19%	20,199	26,402	6,203
1963	974,000	1.67	16,000	(3,148)	-0.33%	19,148	25,583	6,435
1964	978,000	0.41	4,000	(13,924)	-1.43%	17,924	24,398	6,474
1965	991,000	1.33	13,000	(3,515)	-0.36%	16,515	23,053	6,538
1966	1,009,000	1.82	18,000	2,330	0.24%	15,670	22,431	6,761
1967	1,019,000	0.99	10,000	(6,092)	-0.60%	16,092	22,775	6,683
1968	1,029,000	0.98	10,000	(6,372)	-0.63%	16,372	23,071	6,699
1969	1,047,000	1.75	18,000	1,124	0.11%	16,876	23,713	6,837
1970	1,066,000	1.81	19,000	327	0.03%	18,674	25,601	6,927
1971	1,101,000	3.28	35,000	14,800	1.39%	20,200	27,407	7,207
1972	1,135,000	3.09	34,000	14,090	1.28%	19,910	27,146	7,236
1973	1,170,000	3.08	35,000	14,955	1.32%	20,045	27,562	7,517
1974	1,200,000	2.56	30,000	8,620	0.74%	21,380	28,876	7,496
1975	1,236,000	3.00	36,000	12,949	1.08%	23,051	30,566	7,515
1976	1,275,000	3.16	39,000	12,605	1.02%	26,395	33,773	7,378
1977	1,320,000	3.53	45,000	15,886	1.25%	29,114	36,709	7,595
1978	1,368,000	3.64	48,000	17,422	1.32%	30,578	38,265	7,687
1979	1,420,000	3.80	52,000	19,712	1.44%	32,288	40,134	7,846
1980	1,474,000	3.80	54,000	20,517	1.44%	33,483	41,591	8,108
1981	1,515,000	2.78	41,000	7,601	0.52%	33,399	41,511	8,112
1982	1,558,000	2.84	43,000	9,630	0.64%	33,370	41,774	8,404
1983	1,595,000	2.37	37,000	4,789	0.31%	32,211	40,557	8,346
1984	1,622,000	1.69	27,000	(2,757)	-0.17%	29,757	38,643	8,886
1985	1,643,000	1.29	21,000	(7,585)	-0.47%	28,585	37,508	8,923
1986	1,663,000	1.22	20,000	(8,355)	-0.51%	28,355	37,145	8,790
1987	1,678,000	0.90	15,000	(11,656)	-0.70%	26,656	35,469	8,813
1988	1,690,000	0.72	12,000	(14,526)	-0.87%	26,526	35,648	9,122
1989	1,706,000	0.95	16,000	(10,633)	-0.63%	26,633	35,549	8,916
1990	1,729,000	1.35	23,000	(3,619)	-0.21%	26,619	35,569	8,950
1991	1,775,000	2.66	46,000	18,961	1.10%	27,039	36,312	9,273
1992	1,822,000	2.65	47,000	19,746	1.11%	27,254	36,813	9,559
1993	1,866,000	2.41	44,000	17,427	0.96%	26,573	36,573	10,000
1994 (p)	1,916,000	2.68	50,000	22,831	1.22%	27,169	37,480	10,311

(p) = preliminary

*Net migration figures are based on rounded population estimates to maintain consistency with the historical database. The migration estimates may differ from those found elsewhere in the report.

**From 1952 to 1970 fiscal year births and deaths are estimated by averaging calendar year births and deaths in the two years that are partially covered by each fiscal year. From 1971 to 1994, actual fiscal year births and deaths are shown.

Source: Utah Bureau of Health Statistics and Utah Population Estimates Committee.

Table 28
Total Fertility Rates--Utah and U.S.: 1960 to 1992

Year	Utah	U.S.	Year	Utah	U.S.
1960	4.3	3.7	1976	3.2	1.7
1961	4.2	3.6	1977	3.3	1.8
1962	4.2	3.5	1978	3.3	1.8
1963	3.9	3.3	1979	3.3	1.8
1964	3.6	3.2	1980	3.2	1.8
1965	3.2	2.9	1981	3.1	1.8
1966	3.2	2.7	1982	3.0	1.8
1967	3.1	2.6	1983	2.8	1.8
1968	3.0	2.5	1984	2.7	1.8
1969	3.1	2.5	1985	2.7	1.8
1970	3.3	2.5	1986	2.6	1.8
1971	3.1	2.3	1987	2.5	1.9
1972	2.9	2.0	1988	2.6	1.9
1973	2.8	1.9	1989	2.6	1.9
1974	2.9	1.8	1990	2.6	2.0
1975	3.0	1.8	1991	2.6	2.0
			1992	2.6	2.0

Source: Eileen Brown, "Fertility in Utah: 1960-1985"; U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1023; and the Utah Department of Health.

Table 29
Utah Population Estimates by County: 1980 to 1994

County	July 1, 1980	July 1, 1981	July 1, 1982	July 1, 1983	July 1, 1984	July 1, 1985	July 1, 1986	July 1, 1987	July 1, 1988	July 1, 1989	July 1, 1990	July 1, (a) 1991	July 1, 1992	July 1, (b) 1993	July 1, (c) 1994	Avg. Ann. Percent Change 1980-94	Percent Change 1993-94	1994 Percent of Total Population
Bear River																		
Box Elder	33,500	33,800	34,200	34,700	34,900	35,500	36,000	36,300	36,300	36,500	36,500	37,100	37,500	38,100	38,500	1.0	1.0	2.0
Cache	57,700	59,400	61,200	63,500	64,300	65,200	66,300	67,500	68,500	69,200	70,500	71,900	74,000	76,100	78,300	2.2	2.9	4.1
Rich	2,150	2,250	2,350	2,250	2,100	2,050	2,000	1,850	1,750	1,750	1,750	1,700	1,750	1,800	1,850	-1.1	2.8	0.1
Wasatch Front																		
Davis	148,000	153,000	158,000	162,000	166,000	170,000	175,000	179,000	184,000	186,000	188,000	195,000	201,000	206,000	212,000	2.6	2.9	11.1
Morgan	4,950	5,000	5,100	5,100	5,150	5,250	5,250	5,350	5,350	5,450	5,550	5,650	5,850	6,150	6,350	1.8	3.3	0.3
Weber	145,000	148,000	151,000	153,000	154,000	154,000	156,000	156,000	157,000	158,000	159,000	162,000	166,000	169,000	172,000	1.2	1.8	9.0
Salt Lake	625,000	641,000	659,000	673,000	686,000	697,000	706,000	710,000	713,000	720,000	728,000	747,000	765,000	777,000	792,000	1.7	1.9	41.3
Tooele	26,200	26,500	26,700	26,800	27,100	27,300	27,000	27,100	26,500	26,500	26,700	27,200	27,800	28,100	29,300	0.8	4.3	1.5
Mountainland																		
Summit	10,400	11,100	11,600	12,200	12,800	13,000	13,400	14,200	14,300	15,100	15,700	17,000	18,400	19,700	21,100	5.2	7.1	1.1
Utah	220,000	227,000	232,000	238,000	243,000	245,000	247,000	252,000	255,000	258,000	266,000	272,000	279,000	291,000	299,000	2.2	2.7	15.6
Wasatch	8,650	8,850	8,700	9,100	9,200	9,200	9,450	9,700	9,750	10,000	10,100	10,700	10,800	11,200	11,800	2.2	5.4	0.6
Central																		
Juab	5,550	5,600	5,700	5,950	6,200	6,300	5,900	5,800	5,800	5,900	5,800	6,000	6,150	6,200	6,800	1.5	9.7	0.4
Millard	9,050	9,450	10,100	10,800	12,400	12,900	12,200	11,400	11,300	11,300	11,300	11,600	11,700	11,700	11,900	2.0	1.7	0.6
Piute	1,350	1,350	1,250	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,250	1,350	1,350	1,350	1,450	0.5	7.4	0.1
Sanpete	14,800	15,200	15,800	16,400	16,400	16,300	15,800	15,900	16,000	16,000	16,300	16,900	17,500	18,100	18,800	1.7	3.9	1.0
Sevier	14,900	15,100	15,300	15,600	15,800	15,900	15,300	15,400	15,400	15,400	15,400	15,700	16,000	16,400	16,900	0.9	3.0	0.9
Wayne	1,950	2,000	2,000	2,200	2,200	2,200	2,200	2,150	2,200	2,200	2,150	2,200	2,150	2,200	2,300	1.2	4.5	0.1
Southwestern																		
Beaver	4,400	4,600	4,650	5,000	5,150	5,050	4,950	4,900	4,800	4,800	4,800	4,850	4,900	5,000	5,150	1.1	3.0	0.3
Garfield	3,700	3,700	3,750	3,900	3,900	4,000	4,000	4,000	3,950	4,000	3,950	4,100	4,100	4,200	4,200	0.9	0.0	0.2
Iron	17,500	18,100	18,600	19,500	20,000	20,100	20,300	20,300	20,100	20,400	20,900	21,500	22,400	23,800	25,200	2.6	5.9	1.3
Kane	4,050	4,050	4,200	4,500	4,700	4,950	5,100	5,150	5,250	5,250	5,150	5,250	5,350	5,450	5,700	2.5	4.6	0.3
Washington	26,400	27,900	29,800	31,300	33,300	36,800	40,700	43,200	45,000	47,200	49,100	51,900	55,000	58,700	63,400	6.5	8.0	3.3
Uintah Basin																		
Daggett	750	850	850	750	750	700	700	700	700	650	700	700	700	700	750	0.0	7.1	0.0
Duchesne	12,700	13,100	13,700	14,400	14,800	14,700	14,300	13,700	13,100	12,800	12,600	12,800	12,900	13,200	13,500	0.4	2.3	0.7
Uintah	20,700	22,100	24,800	26,000	25,200	24,900	24,000	23,000	22,700	22,200	22,200	23,100	23,600	23,600	24,700	1.3	4.7	1.3
Southeastern																		
Carbon	22,400	23,000	24,300	24,100	23,100	22,800	22,300	21,700	21,100	20,400	20,200	20,600	20,600	20,700	21,100	-0.4	1.9	1.1
Emery	11,600	12,000	12,700	12,700	11,900	11,100	11,100	10,900	10,500	10,400	10,300	10,200	10,200	10,400	10,600	-0.6	1.9	0.6
Grand	8,250	8,400	8,150	8,050	7,750	7,200	7,050	6,900	6,750	6,700	6,600	6,800	7,150	7,500	7,950	-0.3	6.0	0.4
San Juan	12,400	12,600	12,500	12,900	12,600	12,300	12,400	12,600	12,600	12,600	12,600	12,700	13,100	13,100	13,400	0.6	2.3	0.7
State	1,474,000	1,115,750	1,558,000	1,595,000	1,622,000	1,643,000	1,663,000	1,678,000	1,690,000	1,706,000	1,729,000	1,775,000	1,822,000	1,866,000	1,916,000	1.9	2.7	100.0

(a) Summit County revised
(b) Revised
(c) Preliminary

Note: Totals may not add due to rounding.

Source: Utah Population Estimates Committee.

Table 30
Rankings of States by Selected Age Groups: July 1, 1993

Rank	Under Age 5 State	Population (thousands)	Percent of Total	Ages 5-17 State	Population (thousands)	Percent of Total	Ages 18-64 State	Population (thousands)	Percent of Total	Ages 65+ State	Population (thousands)	Percent of Total	All Ages State	Population (thousands)	Percent of Total
	United States	19,705	7.6%	United States	47,428	18.4%	United States	157,985	61.3%	United States	32,791	12.7%	United States	257,908	100.0%
1	Utah	180	9.7%	Utah	485	26.1%	District of Columbia	386	66.8%	Florida	2,539	18.6%	California	31,211	100.0%
2	Alaska	57	9.5%	Idaho	247	22.5%	Virginia	4,192	64.6%	Pennsylvania	1,908	15.8%	New York	18,197	100.0%
3	California	2,830	9.1%	Wyoming	104	22.1%	Maryland	3,175	63.9%	Rhode Island	155	15.5%	Texas	18,031	100.0%
4	Texas	1,534	8.5%	Alaska	132	22.0%	Alaska	383	63.9%	Iowa	436	15.5%	Florida	13,678	100.0%
5	New Mexico	137	8.5%	South Dakota	153	21.4%	Colorado	2,270	63.7%	West Virginia	278	15.3%	Pennsylvania	12,048	100.0%
6	Arizona	325	8.3%	New Mexico	344	21.3%	Nevada	883	63.6%	Arkansas	362	14.9%	Illinois	11,697	100.0%
7	Hawaii	94	8.0%	Louisiana	901	21.0%	Georgia	4,382	63.4%	North Dakota	94	14.8%	Ohio	11,091	100.0%
8	Louisiana	342	8.0%	Mississippi	550	20.8%	North Carolina	4,376	63.0%	South Dakota	105	14.7%	Michigan	9,478	100.0%
9	Nevada	110	7.9%	Montana	173	20.6%	Vermont	362	62.8%	Nebraska	229	14.3%	New Jersey	7,879	100.0%
10	Mississippi	208	7.9%	Texas	3,649	20.2%	New Hampshire	707	62.8%	Missouri	741	14.2%	North Carolina	6,945	100.0%
11	Idaho	86	7.8%	North Dakota	128	20.2%	Massachusetts	3,777	62.8%	Connecticut	462	14.1%	Georgia	6,917	100.0%
12	Georgia	541	7.8%	Nebraska	323	20.1%	Hawaii	736	62.8%	Massachusetts	842	14.0%	Virginia	6,491	100.0%
13	Illinois	913	7.8%	Minnesota	895	19.8%	Delaware	438	62.6%	Kansas	353	13.9%	Massachusetts	6,012	100.0%
14	South Dakota	55	7.7%	Kansas	498	19.7%	Tennessee	3,179	62.3%	Oregon	418	13.8%	Indiana	5,713	100.0%
15	Maryland	378	7.6%	Oklahoma	634	19.6%	New Jersey	4,912	62.3%	Maine	170	13.7%	Washington	5,255	100.0%
16	Delaware	53	7.6%	Wisconsin	987	19.6%	New York	11,342	62.3%	Oklahoma	440	13.6%	Missouri	5,234	100.0%
17	New York	1,375	7.6%	Iowa	544	19.3%	Connecticut	2,041	62.3%	New Jersey	1,071	13.6%	Tennessee	5,099	100.0%
18	South Carolina	275	7.5%	Arkansas	463	19.1%	South Carolina	2,264	62.1%	Montana	113	13.5%	Wisconsin	5,038	100.0%
19	Washington	396	7.5%	Michigan	1,801	19.0%	California	19,315	61.9%	Arizona	529	13.4%	Maryland	4,965	100.0%
20	Colorado	268	7.5%	Washington	997	19.0%	Washington	3,250	61.8%	Wisconsin	676	13.4%	Minnesota	4,517	100.0%
21	Michigan	705	7.4%	Arizona	745	18.9%	Kentucky	2,336	61.7%	Ohio	1,480	13.3%	Louisiana	4,295	100.0%
22	Minnesota	333	7.4%	Missouri	988	18.9%	Maine	763	61.6%	District of Columbia	77	13.3%	Alabama	4,187	100.0%
23	New Jersey	580	7.4%	Oregon	570	18.8%	Indiana	3,515	61.5%	New York	2,388	13.1%	Arizona	3,936	100.0%
24	Kansas	186	7.3%	Georgia	1,300	18.8%	Alabama	2,566	61.3%	Alabama	545	13.0%	Kentucky	3,789	100.0%
25	Oklahoma	235	7.3%	Colorado	670	18.8%	Michigan	5,802	61.2%	Tennessee	651	12.8%	South Carolina	3,643	100.0%
26	Virginia	472	7.3%	Kentucky	710	18.7%	Illinois	7,151	61.1%	Indiana	728	12.7%	Colorado	3,566	100.0%
27	Ohio	806	7.3%	Indiana	1,063	18.6%	Texas	11,013	61.1%	Kentucky	482	12.7%	Connecticut	3,277	100.0%
28	North Carolina	503	7.2%	South Carolina	677	18.6%	Rhode Island	610	61.0%	Illinois	1,479	12.6%	Oklahoma	3,231	100.0%
29	Wyoming	34	7.2%	Alabama	776	18.5%	West Virginia	1,109	60.9%	Minnesota	568	12.6%	Oregon	3,032	100.0%
30	Nebraska	116	7.2%	Ohio	2,053	18.5%	Ohio	6,751	60.9%	North Carolina	865	12.5%	Iowa	2,814	100.0%
31	Alabama	301	7.2%	California	5,764	18.5%	Oregon	1,832	60.4%	Mississippi	329	12.4%	Mississippi	2,643	100.0%
32	Missouri	375	7.2%	Illinois	2,155	18.4%	Pennsylvania	7,270	60.3%	Delaware	87	12.4%	Kansas	2,531	100.0%
33	Connecticut	234	7.1%	Maine	226	18.2%	Minnesota	2,721	60.2%	Michigan	1,171	12.4%	Arkansas	2,424	100.0%
34	Massachusetts	428	7.1%	Vermont	105	18.2%	Wisconsin	3,021	60.0%	Vermont	69	12.0%	Utah	1,860	100.0%
35	New Hampshire	80	7.1%	New Hampshire	203	18.0%	Missouri	3,129	59.8%	New Hampshire	134	11.9%	West Virginia	1,820	100.0%
36	Indiana	406	7.1%	West Virginia	326	17.9%	Louisiana	2,565	59.7%	Idaho	130	11.8%	New Mexico	1,616	100.0%
37	Rhode Island	71	7.1%	Tennessee	908	17.8%	Wyoming	280	59.6%	South Carolina	426	11.7%	Nebraska	1,607	100.0%
38	Arkansas	172	7.1%	Hawaii	205	17.5%	Oklahoma	1,922	59.5%	Hawaii	137	11.7%	Nevada	1,389	100.0%
39	Tennessee	361	7.1%	Delaware	122	17.4%	Arizona	2,338	59.4%	Washington	612	11.6%	Maine	1,239	100.0%
40	Wisconsin	355	7.0%	Nevada	242	17.4%	New Mexico	959	59.3%	Louisiana	487	11.3%	Hawaii	1,172	100.0%
41	Montana	59	7.0%	Maryland	863	17.4%	Kansas	1,494	59.0%	Nevada	155	11.2%	New Hampshire	1,125	100.0%
42	Oregon	212	7.0%	North Carolina	1,201	17.3%	Arkansas	1,428	58.9%	Maryland	549	11.1%	Idaho	1,099	100.0%
43	Florida	952	7.0%	Virginia	1,116	17.2%	Montana	494	58.9%	New Mexico	178	11.0%	Rhode Island	1,000	100.0%
44	North Dakota	44	6.9%	Pennsylvania	2,060	17.1%	Mississippi	1,556	58.9%	Virginia	712	11.0%	Montana	839	100.0%
45	District of Columbia	40	6.9%	New York	3,093	17.0%	Iowa	1,645	58.5%	Wyoming	51	10.9%	South Dakota	715	100.0%
46	Kentucky	261	6.9%	New Jersey	1,316	16.7%	Nebraska	939	58.4%	California	3,303	10.6%	Delaware	700	100.0%
47	Vermont	39	6.8%	Connecticut	541	16.5%	Florida	7,970	58.3%	Texas	1,835	10.2%	North Dakota	635	100.0%
48	Iowa	190	6.8%	Rhode Island	164	16.4%	North Dakota	369	58.1%	Georgia	695	10.0%	Alaska	599	100.0%
49	Pennsylvania	812	6.7%	Florida	2,217	16.2%	Idaho	637	58.0%	Colorado	357	10.0%	District of Columbia	578	100.0%
50	Maine	81	6.5%	Massachusetts	965	16.1%	South Dakota	401	56.1%	Utah	165	8.9%	Vermont	576	100.0%
51	West Virginia	108	5.9%	District of Columbia	75	13.0%	Utah	1,030	55.4%	Alaska	26	4.3%	Wyoming	470	100.0%

Source: U.S. Bureau of the Census, Population Estimates Branch, CB94-43.

Table 31
Dependency Ratios for States: July 1, 1993

Rank	State	Pre-School per 100 of Working Age	State	School Age per 100 of Working Age	State	Retirement Age per 100 of Working Age	State	Total Dependents per 100 of Working Age
	United States	12	United States	30	United States	21	United States	63
1	Utah	17	Utah	47	Florida	32	Utah	81
2	Alaska	15	Idaho	39	Iowa	27	South Dakota	78
3	California	15	South Dakota	38	Pennsylvania	26	Idaho	73
4	New Mexico	14	Wyoming	37	South Dakota	26	North Dakota	72
5	Texas	14	New Mexico	36	North Dakota	25	Florida	72
6	Arizona	14	Mississippi	35	Rhode Island	25	Nebraska	71
7	South Dakota	14	Louisiana	35	Arkansas	25	Iowa	71
8	Idaho	14	Montana	35	West Virginia	25	Mississippi	70
9	Mississippi	13	North Dakota	35	Nebraska	24	Montana	70
10	Louisiana	13	Alaska	34	Missouri	24	Arkansas	70
11	Hawaii	13	Nebraska	34	Kansas	24	Kansas	69
12	Illinois	13	Kansas	33	Oklahoma	23	New Mexico	69
13	Nevada	12	Texas	33	Montana	23	Arizona	68
14	Kansas	12	Iowa	33	Oregon	23	Oklahoma	68
15	Nebraska	12	Oklahoma	33	Connecticut	23	Wyoming	68
16	Georgia	12	Minnesota	33	Arizona	23	Louisiana	67
17	Minnesota	12	Wisconsin	33	Wisconsin	22	Missouri	67
18	Oklahoma	12	Arkansas	32	Massachusetts	22	Wisconsin	67
19	Washington	12	Arizona	32	Maine	22	Minnesota	66
20	Michigan	12	Missouri	32	Ohio	22	Pennsylvania	66
21	South Carolina	12	Oregon	31	New Jersey	22	Oregon	66
22	Wyoming	12	Michigan	31	Alabama	21	Ohio	64
23	New York	12	Washington	31	Mississippi	21	West Virginia	64
24	Delaware	12	Ohio	30	New York	21	Rhode Island	64
25	Arkansas	12	Kentucky	30	Minnesota	21	Texas	64
26	Missouri	12	Indiana	30	Indiana	21	Illinois	64
27	Florida	12	Alabama	30	Illinois	21	Michigan	63
28	Montana	12	Illinois	30	Kentucky	21	Alabama	63
29	Ohio	12	South Carolina	30	Tennessee	20	Maine	63
30	North Dakota	12	California	30	Idaho	20	Indiana	63
31	Maryland	12	Georgia	30	Michigan	20	Kentucky	62
32	New Jersey	12	Maine	30	District of Columbia	20	Washington	62
33	Colorado	12	Colorado	30	Delaware	20	California	62
34	Wisconsin	12	West Virginia	29	North Carolina	20	South Carolina	61
35	Alabama	12	Vermont	29	Vermont	19	Connecticut	61
36	Rhode Island	12	New Hampshire	29	Louisiana	19	New York	60
37	Oregon	12	Tennessee	29	New Hampshire	19	New Jersey	60
38	Indiana	12	Pennsylvania	28	Washington	19	Tennessee	60
39	Iowa	12	Delaware	28	South Carolina	19	Delaware	60
40	North Carolina	11	Hawaii	28	Hawaii	19	Hawaii	59
41	Connecticut	11	Florida	28	New Mexico	19	Massachusetts	59
42	Tennessee	11	North Carolina	27	Wyoming	18	New Hampshire	59
43	Massachusetts	11	Nevada	27	Nevada	18	Vermont	59
44	New Hampshire	11	New York	27	Maryland	17	North Carolina	59
45	Virginia	11	Maryland	27	California	17	Georgia	58
46	Kentucky	11	Rhode Island	27	Virginia	17	Nevada	57
47	Pennsylvania	11	New Jersey	27	Texas	17	Colorado	57
48	Vermont	11	Virginia	27	Utah	16	Maryland	56
49	Maine	11	Connecticut	27	Georgia	16	Alaska	56
50	District of Columbia	10	Massachusetts	26	Colorado	16	Virginia	55
51	West Virginia	10	District of Columbia	19	Alaska	7	District of Columbia	50

Source: U.S. Bureau of the Census, Population Estimates Branch, CB94-43.

Table 32
1990 Census of Population and Housing--Household Characteristics for U.S. and States

State	All Persons: Total	All Persons: Percent in Family Households	All Persons: Rank	All Persons: Percent in Group Quarters	All Persons: Rank	Persons 15 Years and Over: Percent Now Married	Persons 15 Years and Over: Rank	Persons 15 Years and Over: Percent Never Married	Persons 15 Years and Over: Rank	Households: Total	Households: Percent Married-Couple Family	Households: Rank	Households: Percent Single Head-of-Household	Households: Rank	Households: Persons per Household	Households: Rank	Households: Persons per Family	Households: Rank
United States	248,709,873	83.7%	---	2.7%	---	54.8%	---	26.9%	---	91,947,410	55.1%	---	15.0%	---	2.63	---	3.16	---
Alabama	4,040,587	86.3%	3	2.3%	42	56.6%	24	23.9%	38	1,506,790	57.0%	21	16.3%	8	2.62	18	3.13	25
Alaska	550,043	82.7%	38	3.8%	5	56.6%	22	27.2%	17	188,915	56.2%	29	14.2%	27	2.80	3	3.33	3
Arizona	3,665,228	82.9%	34	2.2%	46	55.7%	31	25.5%	26	1,368,843	54.6%	40	14.0%	28	2.62	20	3.16	13
Arkansas	2,350,725	85.9%	6	2.5%	34	59.7%	7	20.7%	51	891,179	59.2%	7	13.9%	30	2.57	31	3.06	41
California	29,760,021	82.8%	37	2.5%	32	51.9%	48	30.1%	4	10,381,206	52.7%	47	16.1%	11	2.79	4	3.32	4
Colorado	3,294,394	81.1%	47	2.4%	36	56.0%	28	25.8%	24	1,282,489	53.8%	44	12.8%	35	2.51	49	3.07	39
Connecticut	3,287,116	83.1%	29	3.1%	14	54.1%	39	29.0%	9	1,230,479	55.6%	34	14.6%	22	2.59	27	3.10	30
Delaware	666,168	83.3%	26	3.0%	17	54.6%	37	27.6%	12	247,497	55.8%	32	15.3%	17	2.61	22	3.09	32
District of Columbia	606,900	66.3%	51	6.9%	1	28.8%	51	47.6%	1	249,634	25.3%	51	23.6%	1	2.26	51	3.15	20
Florida	12,937,926	82.0%	43	2.4%	39	56.3%	27	22.6%	44	5,134,869	54.4%	41	14.0%	29	2.46	50	2.95	51
Georgia	6,478,216	84.9%	15	2.7%	29	54.7%	36	26.2%	22	2,366,615	55.2%	36	17.2%	6	2.66	13	3.16	17
Hawaii	1,108,229	85.2%	14	3.4%	9	55.1%	34	29.8%	5	356,267	59.1%	9	14.9%	20	3.01	2	3.48	2
Idaho	1,006,749	85.8%	9	2.1%	47	62.2%	1	21.2%	49	360,723	62.2%	2	10.8%	47	2.73	9	3.23	10
Illinois	11,430,602	84.0%	21	2.5%	33	53.3%	44	28.8%	10	4,202,240	54.1%	43	15.5%	14	2.65	15	3.23	9
Indiana	5,544,159	84.4%	19	2.9%	22	57.4%	16	24.3%	35	2,065,355	58.2%	13	13.5%	32	2.61	24	3.11	27
Iowa	2,776,755	82.4%	40	3.6%	7	59.5%	8	23.7%	40	1,064,325	59.2%	6	10.4%	50	2.52	48	3.05	47
Kansas	2,477,574	82.9%	32	3.3%	13	59.8%	5	22.7%	43	944,726	58.5%	12	11.2%	46	2.53	42	3.08	37
Kentucky	3,685,296	85.9%	8	2.7%	25	58.7%	13	22.6%	45	1,379,782	59.2%	5	14.4%	25	2.60	25	3.08	38
Louisiana	4,219,973	86.0%	5	2.7%	30	53.0%	45	27.4%	14	1,499,269	53.6%	45	19.1%	3	2.74	6	3.28	5
Maine	1,227,928	82.9%	35	3.0%	16	58.0%	15	24.0%	36	465,312	58.1%	15	12.5%	37	2.56	35	3.03	49
Maryland	4,781,468	84.0%	22	2.4%	38	52.8%	46	29.1%	8	1,748,991	54.2%	42	17.0%	7	2.67	12	3.14	21
Massachusetts	6,016,425	80.8%	48	3.6%	8	50.5%	49	32.8%	2	2,247,110	52.1%	48	15.3%	16	2.58	30	3.15	19
Michigan	9,295,297	84.7%	17	2.3%	43	54.0%	40	27.8%	11	3,419,331	55.1%	37	16.3%	9	2.66	14	3.16	15
Minnesota	4,375,099	82.2%	42	2.7%	28	57.2%	18	27.4%	15	1,647,853	57.2%	19	11.4%	44	2.58	29	3.13	24
Mississippi	2,573,216	86.9%	2	2.7%	27	53.4%	43	26.7%	20	911,374	54.7%	39	19.3%	2	2.75	5	3.27	7
Missouri	5,117,073	83.5%	25	2.8%	24	57.0%	20	23.9%	37	1,961,206	56.3%	28	13.4%	33	2.54	41	3.08	35
Montana	799,065	82.9%	31	3.0%	20	59.8%	4	22.3%	46	306,163	57.7%	17	11.5%	43	2.53	44	3.08	36
Nebraska	1,578,385	82.9%	33	3.0%	18	59.2%	11	24.4%	34	602,363	58.2%	14	10.8%	48	2.54	40	3.11	28
Nevada	1,201,833	80.6%	50	2.0%	49	53.8%	41	23.7%	39	466,297	51.4%	49	14.5%	23	2.53	46	3.06	44
New Hampshire	1,109,252	83.1%	28	2.9%	23	58.2%	14	25.5%	29	411,186	59.7%	4	11.5%	42	2.62	19	3.09	34
New Jersey	7,730,188	85.6%	10	2.2%	45	53.8%	42	29.1%	7	2,794,711	56.5%	25	15.8%	12	2.70	10	3.21	12
New Mexico	1,515,069	85.9%	7	1.9%	50	56.0%	29	25.8%	25	542,709	56.0%	31	16.2%	10	2.74	7	3.26	8
New York	17,990,455	82.5%	39	3.0%	15	49.9%	50	32.1%	3	6,639,322	49.9%	50	17.7%	4	2.63	16	3.22	11
North Carolina	6,628,637	83.9%	23	3.4%	10	56.3%	26	25.1%	31	2,517,026	56.6%	24	15.4%	15	2.54	39	3.03	48
North Dakota	638,800	82.3%	41	3.8%	4	59.7%	6	25.9%	23	240,878	59.1%	8	9.9%	51	2.55	37	3.13	23
Ohio	10,847,115	84.5%	18	2.4%	37	55.9%	30	25.5%	27	4,087,546	56.1%	30	14.7%	21	2.59	26	3.12	26
Oklahoma	3,145,585	84.2%	20	3.0%	19	59.3%	10	20.9%	50	1,206,135	57.7%	16	13.2%	34	2.53	45	3.06	43
Oregon	2,842,321	81.8%	44	2.3%	40	57.3%	17	23.1%	42	1,103,313	55.6%	35	12.5%	39	2.52	47	3.02	50
Pennsylvania	11,881,643	83.6%	24	2.9%	21	54.5%	38	27.3%	16	4,495,966	55.7%	33	14.5%	24	2.57	33	3.10	31
Rhode Island	1,003,464	81.6%	45	3.8%	2	52.4%	47	29.6%	6	377,977	53.5%	46	15.0%	18	2.55	36	3.11	29
South Carolina	3,486,703	85.4%	12	3.3%	12	55.0%	35	26.4%	21	1,258,044	56.4%	27	17.3%	5	2.68	11	3.16	16
South Dakota	696,004	83.0%	30	3.7%	6	59.5%	9	24.4%	33	259,034	58.9%	11	10.7%	49	2.59	28	3.16	14
Tennessee	4,877,185	85.3%	13	2.6%	31	57.1%	19	23.2%	41	1,853,725	57.2%	20	15.6%	13	2.56	34	3.05	46
Texas	16,986,510	85.4%	11	2.3%	41	56.6%	25	25.1%	30	6,070,937	56.6%	23	15.0%	19	2.73	8	3.28	6
Utah	1,722,850	88.5%	1	1.7%	51	60.6%	3	25.5%	28	537,273	64.8%	1	11.7%	41	3.15	1	3.67	1
Vermont	562,758	80.6%	49	3.8%	3	55.5%	33	27.6%	13	210,650	56.4%	26	12.3%	40	2.57	32	3.06	42
Virginia	6,187,358	82.8%	36	3.4%	11	55.7%	32	27.1%	19	2,291,830	56.8%	22	14.3%	26	2.61	23	3.09	33
Washington	4,866,692	81.5%	46	2.5%	35	56.6%	23	24.8%	32	1,872,431	55.0%	38	12.6%	36	2.53	43	3.06	40
West Virginia	1,793,477	86.0%	4	2.1%	48	58.8%	12	22.2%	47	688,557	59.0%	10	13.7%	31	2.55	38	3.05	45
Wisconsin	4,891,769	83.2%	27	2.7%	26	56.7%	21	27.1%	18	1,822,118	57.5%	18	12.5%	38	2.61	21	3.14	22
Wyoming	453,588	84.7%	16	2.3%	44	61.3%	2	21.7%	48	168,839	59.7%	3	11.3%	45	2.63	17	3.16	18

Source: U.S. Bureau of the Census, Summary Tape File 1C.

✧ Prices, Inflation, Cost of Living

Consumer Price Index

The pace of inflation, as measured by the Consumer Price Index for all urban consumers, remained generally favorable in 1994. Throughout 1994, the year-to-year Consumer Price Index increase varied between 2.3 to 3.0 percent (Figure 20). The 1994 annual average increase is estimated at 2.6 percent (Table 33).

The outlook for inflation in 1995 is for price increases over 3 percent. With capacity utilization near 85 percent and essentially full employment in the labor market, cost pressures will develop that, at least partially, will be passed on to the retail level. Growth in the nation's money supply, while admittedly hard to interpret, continues generally below target ranges.

Gross Domestic Product Deflators

In 1994, the Gross Domestic Product (GDP) implicit price deflator is estimated to increase 2.1 percent compared with 2.2 percent in 1993. The GDP personal consumption deflator in 1994 rose approximately 2.2 percent compared to 2.5 percent in 1993 (Table 34).

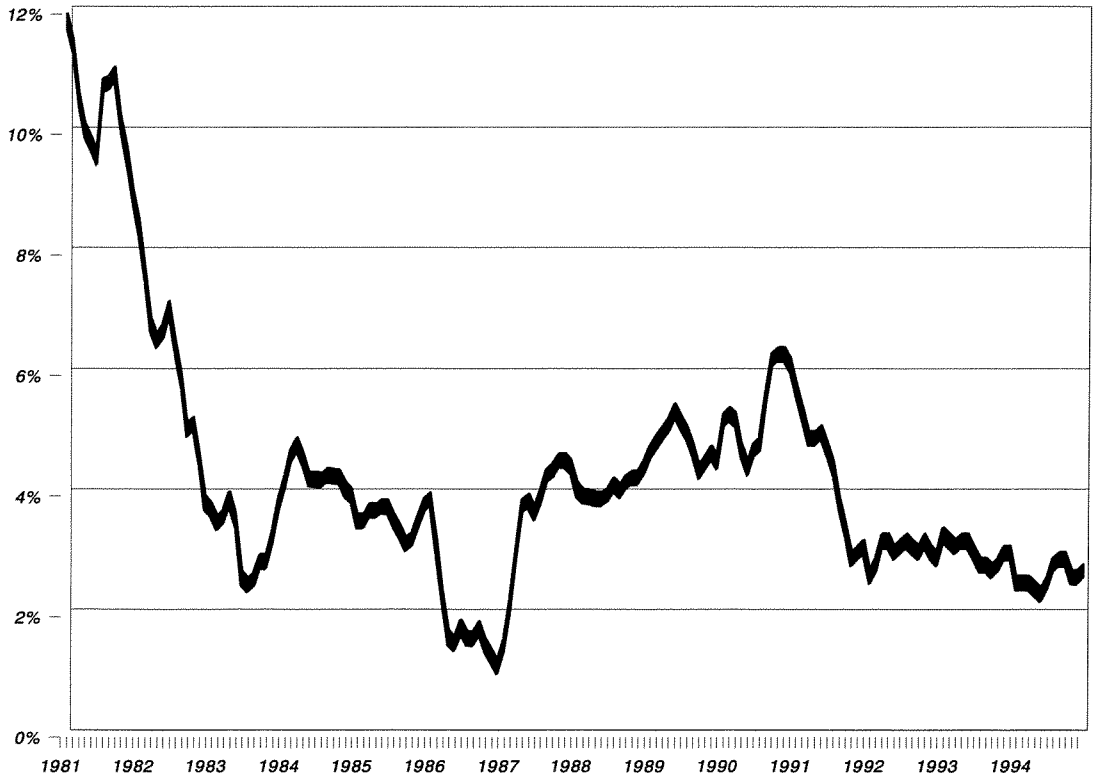
Utah Cost of Living

The American Chamber of Commerce Researchers Association (ACCRA) Cost of Living Index is prepared quarterly and includes comparative data for approximately 270 urban areas (Figure 21). The index consists of price comparisons for a single point in time, but does not measure inflation or price changes over time. The differences between areas in the cost of consumer goods and services are measured and compared with a national average of 100.

The composite index is based on six components, including grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services. The Salt Lake Area Chamber of Commerce is a member of ACCRA and submits quarterly data for the local area. Additional Utah specific price information can be obtained through First Security Bank or Weber State University.

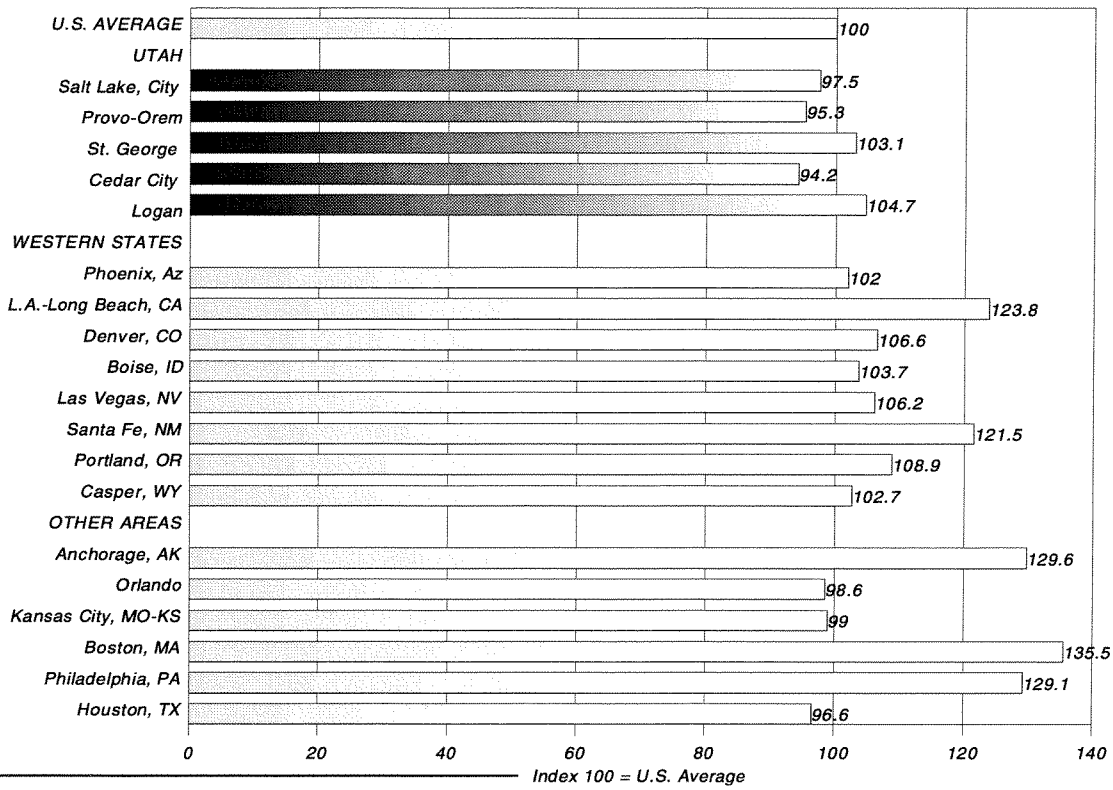
The second-quarter 1994 composite index for Salt Lake City was 97.5. Other Utah cities included in the second-quarter survey were Cedar City (94.2), Logan (104.7), Provo-Orem (95.3), and St. George (103.1), as found in Table 35. Historical figures by component for the Salt Lake City area may be found in Table 36. ✧

Figure 20
Increase in Prices Measured by CPI: Monthly from 1981 to 1994



Source: U.S. Department of Labor

Figure 21
Cost of Living Comparisons for Selected Metropolitan Areas: Second Quarter 1994



Source: American Chamber of Commerce Researchers Association (ACCRA)

Table 33
U.S. Consumer Price Index for All Urban Consumers (1982-1984=100): 1954 to 1994

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual Avg.	Percent Change Dec.-Dec.	Percent Change Annual Avg.
1954	26.9	26.9	26.9	26.8	26.9	26.9	26.9	26.9	26.8	26.8	26.8	26.7	26.9	-0.7	0.7
1955	26.7	26.7	26.7	26.7	26.7	26.7	26.8	26.8	26.9	26.9	26.9	26.8	26.8	0.4	-0.4
1956	26.8	26.8	26.8	26.9	27.0	27.2	27.4	27.3	27.4	27.5	27.5	27.6	27.2	3.0	1.5
1957	27.6	27.7	27.8	27.9	28.0	28.1	28.3	28.3	28.3	28.3	28.4	28.4	28.1	2.9	3.3
1958	28.6	28.6	28.8	28.9	28.9	28.9	29.0	28.9	28.9	28.9	29.0	28.9	28.9	1.8	2.8
1959	29.0	28.9	28.9	29.0	29.0	29.1	29.2	29.2	29.3	29.4	29.4	29.4	29.1	1.7	0.7
1960	29.3	29.4	29.4	29.5	29.5	29.6	29.6	29.6	29.6	29.8	29.8	29.8	29.6	1.4	1.7
1961	29.8	29.8	29.8	29.8	29.8	29.8	30.0	29.9	30.0	30.0	30.0	30.0	29.9	0.7	1.0
1962	30.1	30.1	30.1	30.2	30.2	30.2	30.3	30.3	30.4	30.4	30.4	30.4	30.2	1.3	1.0
1963	30.4	360.4	30.5	30.5	30.5	30.6	30.7	30.7	30.7	30.8	30.8	30.9	30.6	1.6	1.3
1964	30.9	30.9	30.9	30.9	30.9	31.1	31.1	31.0	31.1	31.1	31.2	31.2	31.0	1.0	1.3
1965	31.2	31.2	31.3	31.4	31.4	31.6	31.6	31.6	31.6	31.7	31.7	31.8	31.5	1.9	1.6
1966	31.8	32.0	32.1	32.3	32.3	32.4	32.5	32.7	32.7	32.9	32.9	32.9	32.4	3.5	2.9
1967	32.6	32.9	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	33.4	3.0	3.1
1968	34.1	34.2	34.3	34.4	34.5	34.7	34.9	35.0	35.1	35.3	35.4	35.5	34.8	4.7	4.2
1969	35.6	35.8	36.1	36.3	36.4	36.6	36.8	37.0	37.1	37.3	37.6	37.7	36.7	6.2	5.5
1970	37.8	38.0	38.2	38.5	38.6	38.8	39.0	39.0	39.2	39.4	39.6	39.8	38.8	5.6	5.7
1971	39.8	39.9	40.0	40.1	40.3	40.6	40.7	40.8	40.8	40.9	40.9	41.1	40.5	3.3	4.4
1972	41.1	41.3	41.4	41.5	41.6	41.7	41.9	42.0	42.1	42.3	42.4	42.5	41.8	3.4	3.2
1973	42.6	42.9	43.3	43.6	43.9	44.2	44.3	45.1	45.2	45.6	45.9	46.2	44.4	8.7	6.2
1974	46.6	47.2	47.8	48.0	48.6	49.0	49.4	50.0	50.6	51.1	51.5	51.9	49.3	12.3	11.0
1975	52.1	52.5	52.7	52.9	53.2	53.6	54.2	54.3	54.6	54.9	55.3	55.5	53.8	6.9	9.1
1976	55.6	55.8	55.9	56.1	56.5	56.8	57.1	57.4	57.6	57.9	58.0	58.2	56.9	4.9	5.8
1977	58.5	59.1	59.5	60.0	60.3	60.7	61.0	61.2	61.4	61.6	61.9	62.1	60.6	6.7	6.5
1978	62.5	62.9	63.4	63.9	64.5	65.2	65.7	66.0	66.5	67.1	67.4	67.7	65.2	9.0	7.6
1979	68.3	69.1	69.8	70.6	71.5	72.3	73.1	73.8	74.6	75.2	75.9	76.7	72.6	13.3	11.3
1980	77.8	78.9	80.1	81.0	81.8	82.7	82.7	83.3	84.0	84.8	85.5	86.3	82.4	12.5	13.5
1981	87.0	87.9	88.5	89.1	89.8	90.6	91.6	92.3	93.2	93.4	93.7	94.0	90.9	8.9	10.3
1982	94.3	94.6	94.5	94.9	95.8	97.0	97.5	97.7	97.9	98.2	98.0	97.6	96.5	3.8	6.2
1983	97.8	97.9	97.9	98.6	99.2	99.5	99.9	100.2	100.7	101.0	101.2	101.3	99.6	3.8	3.2
1984	101.9	102.4	102.6	103.1	103.4	103.7	104.1	104.5	105.0	105.3	105.3	105.3	103.9	3.9	4.3
1985	105.5	106.0	106.4	106.9	107.3	107.6	107.8	108.0	108.3	108.7	109.0	109.3	107.6	3.8	3.6
1986	109.6	109.3	108.8	108.6	108.9	109.5	109.5	109.7	110.2	110.3	110.4	110.5	109.6	1.1	1.9
1987	111.2	111.6	112.1	112.7	113.1	113.5	113.8	114.4	115.0	115.3	115.4	115.4	113.6	4.4	3.6
1988	115.7	116.0	116.5	117.1	117.5	118.0	118.5	119.0	119.8	120.2	120.3	120.7	118.3	4.6	4.1
1989	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6	125.9	126.1	124.0	4.5	4.8
1990	127.4	128.0	128.7	128.9	129.2	129.9	130.4	131.6	132.7	133.5	133.8	133.8	130.7	6.1	5.4
1991	134.6	134.8	135.0	135.2	135.6	136.0	136.2	136.6	137.2	137.4	137.8	137.9	136.2	3.1	4.2
1992	138.1	138.6	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8	142.0	141.9	140.3	2.9	3.0
1993	142.6	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	144.5	2.7	3.0
1994	146.2	146.7	147.2	147.4	147.5	148.0	148.4	149.0	149.4	149.5	(e) 149.8	(e) 150.2	(e) 148.3	(e) 3.0	(e) 2.6

(e) = estimate

Source: U.S. Bureau of Labor Statistics and Governor's Office of Planning and Budget.

Table 34
Gross Domestic Product Implicit Price Deflators (1987=100): 1974 to 1994

Year	Gross Domestic Product Deflator	Change from Previous Year	Personal Consumption Expenditures Deflator	Change from Previous Year
1974	44.9	8.7%	45.2	10.2%
1975	49.2	9.6%	48.9	8.2%
1976	52.3	6.3%	51.8	5.9%
1977	55.9	6.9%	55.4	6.9%
1978	60.3	7.9%	59.4	7.2%
1979	65.5	8.6%	64.7	8.9%
1980	71.7	9.5%	71.4	10.4%
1981	78.9	10.0%	77.8	9.0%
1982	83.8	6.2%	82.2	5.7%
1983	87.2	4.1%	86.2	4.9%
1984	91.0	4.4%	89.6	3.9%
1985	94.4	3.7%	93.1	3.9%
1986	96.9	2.6%	96.0	3.1%
1987	100.0	3.2%	100.0	4.2%
1988	103.9	3.9%	104.2	4.2%
1989	108.5	4.4%	109.3	4.9%
1990	113.2	4.3%	114.9	5.1%
1991	117.6	3.8%	119.7	4.2%
1992	120.9	2.8%	123.5	3.2%
1993	123.5	2.2%	126.6	2.5%
1994 (e)	126.2	2.1%	129.4	2.2%

(e) = estimate

Source: U.S. Department of Commerce, Bureau of Economic Analysis and Governor's Office of Planning and Budget.

Table 35
American Chamber of Commerce Researchers Association Cost of Living Comparisons for Selected Metropolitan Areas: Second Quarter 1994

COMPONENT INDEX WEIGHT	100% All Items	13% Groceries	28% Housing	9% Utilities	10% Trans-portation	5% Health Care	35% Misc. Goods & Services
US AVERAGE	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UTAH AREAS							
Salt Lake City	97.5	101.8	96.6	93.7	95.0	108.6	95.8
Cedar City (Nonmetro)	94.2	108.7	82.4	87.6	97.7	94.8	97.6
Logan (nonmetro)	104.7	107.3	117.8	88.3	96.4	101.4	99.2
Provo-Orem	95.3	95.2	100.0	85.4	100.3	100.6	91.3
St George (Nonmetro)	103.1	104.3	113.0	82.7	100.6	99.1	100.5
WESTERN AREAS							
Phoenix AZ	102.0	102.9	93.8	106.5	116.9	117.2	100.5
Los Angeles-Long Beach CA	123.8	107.3	154.2	94.4	111.7	132.0	115.0
San Diego CA	127.2	111.6	172.8	74.2	132.6	134.4	106.0
Denver CO	106.6	98.7	118.8	96.3	109.6	130.5	97.4
Boise ID	103.7	98.1	109.2	79.4	98.0	117.8	106.7
Las Vegas NV	106.2	102.7	111.3	88.6	111.4	143.5	99.5
Santa Fe NM	121.5	102.9	159.4	115.4	113.1	105.1	105.2
Portland OR	108.9	99.0	125.9	76.9	112.7	130.4	102.1
Casper WY	102.7	104.8	107.0	79.9	92.7	106.5	105.7
OTHER AREAS							
Anchorage AK	129.6	119.8	145.5	106.7	114.5	166.5	123.9
Orlando FL	98.6	94.9	93.8	114.8	99.8	101.1	99.9
Boston MA	135.5	121.5	164.1	184.6	116.0	149.8	108.9
Kansas City MO-KS	99.0	102.3	93.4	113.9	96.8	99.5	99.2
Philadelphia PA	129.1	122.1	144.3	188.4	114.7	103.6	113.9
Houston TX	96.6	97.0	89.5	104.3	110.1	105.9	95.3

Source: American Chamber of Commerce Researchers Association (ACCRA).

Table 36
American Chamber of Commerce Researchers Association Cost of Living Index for Salt Lake Metropolitan Area: Second Quarter 1981-1994

COMPONENT INDEX WEIGHTS:	100% All Items	13% Groceries	28% Housing	9% Utilities	10% Transportation	5% Health Care	35% Misc-Goods
U.S. AVERAGE:	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981	100.1	96.1	107.3	80.7	107.8	100.9	101.8
1982	100.9	101.2	107.5	89.4	103.5	100.6	99.0
1983	96.0	96.2	104.9	88.0	95.2	98.6	92.2
1984	98.0	100.3	97.4	88.2	97.5	106.8	98.9
1985	101.7	100.6	97.9	95.3	102.2	103.2	107.1
1986	101.4	102.9	94.4	97.2	98.6	105.3	107.5
1987	99.3	95.4	94.0	96.2	105.5	101.6	103.4
1988	98.3	94.6	88.4	94.0	105.4	106.1	104.4
1989	95.6	94.8	86.9	89.8	101.1	100.9	100.9
1990	92.0	88.8	81.5	84.4	97.0	93.7	101.9
1991	93.8	95.4	81.5	93.4	100.4	93.3	99.2
1992	96.9	105.3	84.8	92.8	104.8	101.1	101.6
1993*	96.8	99.7	86.0	89.4	104.0	99.6	103.7
1994	97.5	101.8	96.6	93.7	95.0	108.6	95.8

* First Quarter 1993; Salt Lake City not included in Second Quarter 1993 ACCRA Report.

Source: American Chamber of Commerce Researchers Association (ACCRA).

✧ International Merchandise Exports

The value of Utah's 1994 international merchandise exports is estimated to increase by 4.5 percent over 1993 levels to $2.65 billion. Final figures for 1993 indicate that the value of merchandise exports for 1993 had fallen by 12.3 percent from the record 1992 level. The 1993 decrease and 1994 increase in the value of Utah's international merchandise exports are primarily attributable to price fluctuations in the primary metal market, which continues to be Utah's largest merchandise export industry in value terms.

The Value of Utah's Exports

The State of Utah has become more integrated into the world economy as the value of merchandise exports has grown from $943 million in 1988 to an estimated $2.65 billion in 1994, an increase of $1.71 billion or 181 percent. Over this same period, Gross State Product (GSP), the broadest measure of the productive activity in the state, increased from $27.0 billion to an estimated $43.0 billion. Thus merchandise exports have gained in share of GSP from 3.5 percent in 1988 to an estimated 6.2 percent in 1994. The export share for the nation in 1993 was 9.0 percent. The value of Utah's merchandise exports reached a record level of $2.90 billion in 1992, increasing by 40.6 percent from 1991 (Figure 22). The state's merchandise exports decreased in value terms by 12.3 percent in 1993 to $2.54 billion and, based on three quarters of data, are estimated to increase by 4.5 percent in 1994 to $2.65 billion.

The fluctuations that have occurred in the value of the state's merchandise exports over the past four years are almost wholly explained by primary metal export fluctuations as measured in value terms. For 1991 through 1994, primary metal products have represented between 30 percent and 45 percent of the total value of Utah's merchandise exports. Over this time period, the value of primary metal exports ranged from $0.6 billion to $1.3 billion. Much of this fluctuation has resulted from changes in world commodity prices, specifically the price of copper, as the volume of these exports has remained relatively constant. Exports of all other merchandise except primary metal products has been relatively more constant varying between $1.4 billion and $1.6 billion during the same time.

Industry Composition of Utah's Merchandise Exports

In 1993 primary metal products were 36.7 percent of the value of Utah's international merchandise exports. Other major export industries in 1993 were electrical equipment (13.0 percent), transportation equipment (10.0 percent), metallic ores (8.9 percent), and industrial machinery (8.4 percent). This composition is shown in Table 37 and Figure 23.

Destination of Utah's Merchandise Exports

Utah's largest markets for merchandise exports are in eastern Asia, Canada, and Europe. In 1993 the top five destination countries for Utah's merchandise exports accounted for $1.53 billion of the $2.54 billion total, or 60.0 percent. Further, these top five destination markets purchased 79.4 percent of primary metal exports, 99.9 percent of coal exports, 60.4 percent of metal ore exports, 25.8 percent of electrical machinery exports, 24.9 percent of scientific instrument exports, 66.2 percent of chemical products, and 48.7 percent of transportation equipment exports from Utah in 1993 (Table 38, Table 39, and Figure 24).

Taiwan, Utah's largest export market for 1993, and second largest market in 1992, purchased $380.3 million of Utah merchandise in 1993. About three quarters ($291.9 million) of this was primary metal products, $26.7 million was coal purchases, and $18.6 million was metallic ores. Canada was the second largest market for Utah exports in 1993, purchasing a total of $362.1 million of merchandise. Canada's purchases were much more disbursed across industries with significant purchases of electrical equipment (19.1 percent or $69.0 million), transportation equipment (17.3 percent or $62.6 million), metallic ores (10.6 percent or $38.3 million), industrial machinery (9.4 percent or $34.0 million), and chemical products (9.2 percent or $33.4 million). Japan was Utah's third largest export destination in 1993 and also had purchases distributed across a range of industries. Of total Utah merchandise exports to Japan in 1993,

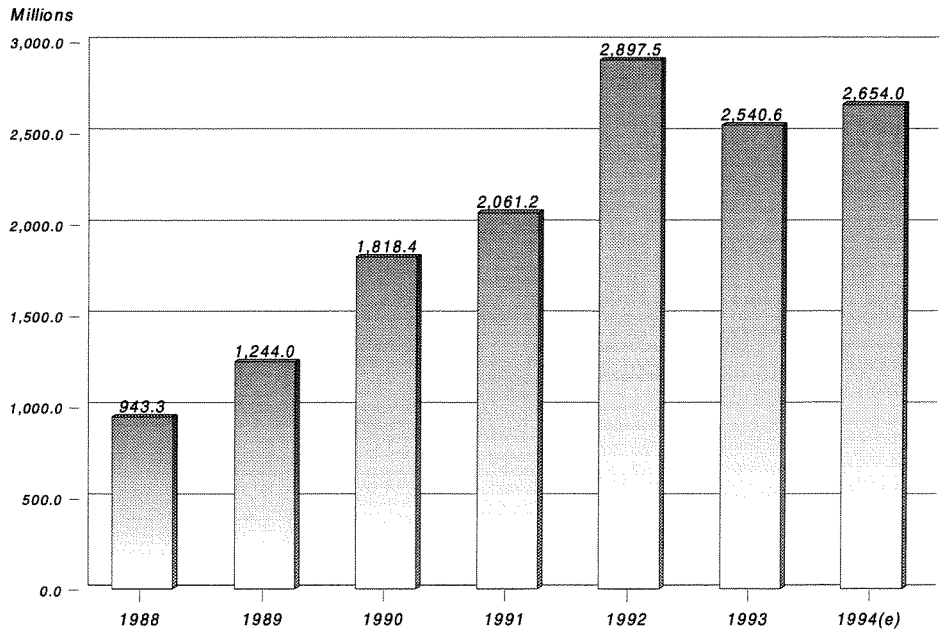
$78.8 million (25.1 percent) was metallic ores, $61.1 million (19.5 percent) was transportation equipment, and $54.4 million (17.4 percent) was bituminous coal. Nearly all of Utah's exports to its fourth largest trading partner, Switzerland, were $239.8 million of primary metal products. Similarly, Hong Kong, Utah's fifth largest export market, concentrated 92.9 percent or $208.1 million of its Utah purchases in primary metal products.

Over the past several years, Utah's geographic shifting of exports has been especially affected by geographic shifts in primary metal export markets. For example, in 1992, Utah's number one export purchaser was the United Kingdom, while in 1993 the United Kingdom ranked eighth. This drop in ranking is explained by the substantial reduction in primary metals exports to the United Kingdom.

Limitations of These Export Data

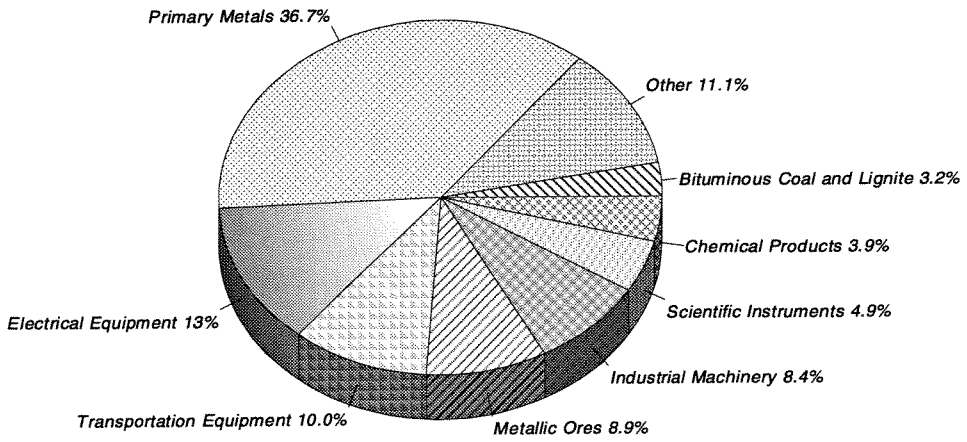
The export data presented here have been generated by the U.S. Census Bureau, Foreign Trade Division and has been adjusted by the Massachusetts Institute for Social and Economic Research (MISER). The series, called "Origin of Movement," is designed to measure the transportation origin of exports, and accounts for the value of merchandise exports but not service exports. This means that exports of business services (such as financial services or computer software), educational services (such as international students paying tuition to purchase Utah education), tourist services (such as purchases made by international travelers in Utah), and other services sold in international markets are not counted in the value of these exports. Further, data on international imports by state are not compiled, so it is not possible to determine a balance of trade for Utah. ✧

Figure 22
Utah Merchandise Exports: 1988 to 1994



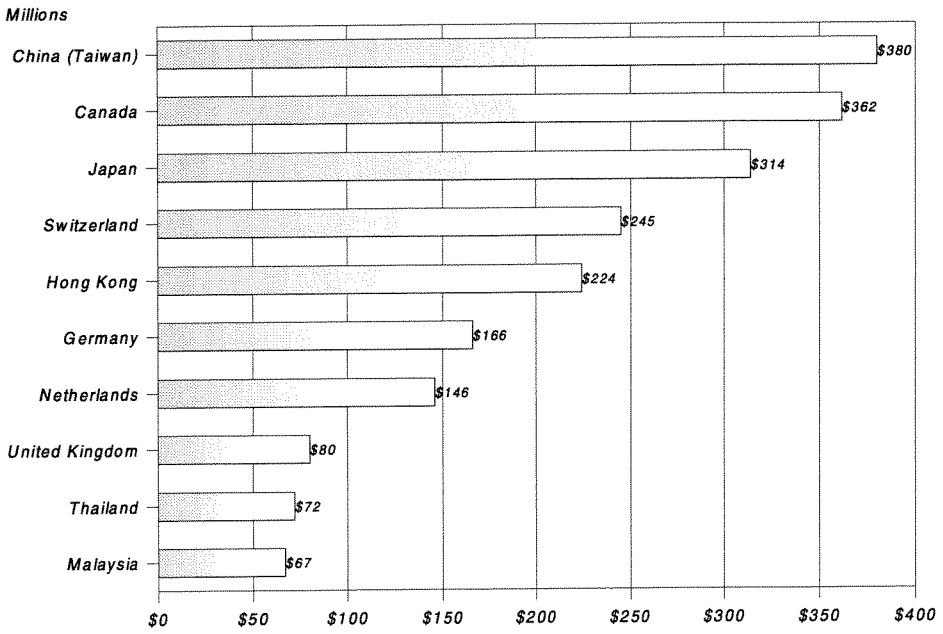
Source: U.S. Bureau of the Census Foreign Trade Division; and Massachusetts Institute for Social and Economic Research (MISER)

Figure 23
Utah Merchandise Exports by Industry: 1993



Source: U.S. Bureau of the Census Foreign Trade Division;
and Massachusetts Institute for Social and Economic Research (MISER)

Figure 24
Utah Merchandise Exports to Selected Countries: 1993



Source: U.S. Bureau of the Census Foreign Trade Division;
and Massachusetts Institute for Social and Economic Research (MISER)

Table 37
Utah Merchandise Exports by Industry (Thousands of Dollars): 1988 to 1994

SIC Code	Industry Description	1988	1989	1990	1991	1992	1993	Industry as a Percent of 1993 Total	(e) 1994	Percent Change 1991-92	1992-93	1993-94
1	Agricultural Products	$278.6	$1,687.1	$1,864.1	$1,477.2	$1,057.6	$2,900.1	0.1	$5,586.2	-28.4	174.2	92.6
2	Livestock and Livestock Products	501.8	562.0	153.6	98.4	173.8	486.4	0.0	85.6	76.6	179.9	-82.4
8	Forestry Products	189.0	32.2	52.5	5.0	74.2	23.3	0.0	113.3	1394.4	-68.7	387.1
9	Fishing, Hunting, and Trapping	3,521.2	213.2	572.0	732.4	334.7	1,279.3	0.1	1,202.0	-54.3	282.3	-6.0
10	Metallic Ores and Concentrates	15,668.7	213,167.4	209,220.6	196,613.3	282,205.1	224,861.2	8.9	282,465.4	43.5	-20.3	25.6
12	Bituminous Coal and Lignite	32,775.4	80,003.3	64,021.2	84,073.2	78,485.8	81,193.1	3.2	91,210.7	-6.6	3.4	12.3
13	Crude Petroleum and Natural Gas	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Nonmetallic Minerals, Except Fuels	1,842.7	10,265.9	5,166.0	7,833.0	11,766.7	8,153.6	0.3	8,301.0	50.2	-30.7	1.8
20	Food and Kindred Products	33,230.1	53,931.7	57,903.5	54,963.2	60,006.5	74,419.4	2.9	76,549.1	9.2	24.0	2.9
21	Tobacco Manufacturers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	Textile Mill Products	1,577.8	2,240.1	2,162.2	1,644.9	1,590.6	2,107.2	0.1	3,264.1	-3.3	32.5	54.9
23	Apparel and Related Products	10,967.0	3,077.6	3,368.5	4,969.3	7,538.9	6,276.2	0.2	8,338.9	51.7	-16.8	32.9
24	Lumber and Wood Products, Except Furniture	572.9	594.7	1,687.3	947.0	3,098.8	917.0	0.0	1,068.2	227.2	-70.4	16.5
25	Furniture and Fixtures	1,364.5	2,093.4	1,806.4	2,964.6	6,742.7	3,766.4	0.1	3,363.4	127.4	-44.1	-10.7
26	Paper and Allied Products	10,495.0	10,691.9	12,563.5	6,650.0	3,175.0	9,241.3	0.4	3,031.9	-52.3	191.1	-67.2
27	Printing, Publishing, and Allied Products	9,053.1	24,885.4	34,539.9	19,731.5	22,619.8	26,359.0	1.0	25,729.7	14.6	16.5	-2.4
28	Chemicals and Allied Products	22,224.5	40,406.4	66,567.4	60,072.8	94,803.4	98,883.0	3.9	162,277.1	57.8	4.3	64.1
29	Petroleum Refining and Related Products	2,124.7	530.6	3,925.5	758.8	289.5	454.7	0.0	141.6	-61.8	57.1	-68.9
30	Rubber and Misc. Plastic Products	27,050.7	11,242.0	9,675.8	23,318.5	8,724.5	11,544.2	0.5	14,562.0	-62.6	32.3	26.1
31	Leather and Leather Products	584.2	395.2	1,404.0	2,413.5	3,902.0	2,709.8	0.1	4,566.2	61.7	-30.6	68.5
32	Stone, Clay, Glass, and Concrete Products	7,366.1	3,366.5	3,676.3	3,552.2	5,477.2	8,610.1	0.3	3,971.8	54.2	57.2	-53.9
33	Primary Metal Products	200,209.8	95,443.0	322,645.9	616,094.1	1,313,756.9	931,868.6	36.7	1,066,078.2	113.2	-29.1	14.4
34	Fabricated Metal Products, Except Mach./Tran.	21,653.2	33,571.1	36,721.2	65,105.2	62,682.0	51,831.0	2.0	35,380.8	-3.7	-17.3	-31.7
35	Industrial Machinery, Except Electrical	117,563.4	146,628.1	202,848.0	195,040.1	153,313.0	214,509.6	8.4	207,347.2	-21.4	39.9	-3.3
36	Electrical/Electronic Machinery, Equip., and Supplies	281,318.0	287,844.1	446,497.0	402,726.3	325,596.4	329,298.6	13.0	209,007.3	-19.2	1.1	-36.5
37	Transportation Equipment	25,825.0	68,319.4	144,321.3	140,653.5	277,191.4	253,965.1	10.0	208,973.6	97.1	-8.4	-17.7
38	Scientific Instruments	85,323.9	116,766.7	128,715.6	109,561.9	111,647.5	124,175.8	4.9	138,666.8	1.9	11.2	11.7
39	Misc. Manufactured Commodities	18,348.1	19,649.8	22,642.4	31,033.1	39,975.9	47,299.8	1.9	71,985.4	28.8	18.3	52.2
91	Scrap and Waste	8,633.2	7,482.0	20,099.5	14,665.8	8,700.7	12,598.5	0.5	10,480.9	-40.7	44.8	-16.8
92	Used or Second-Hand Merchandise	451.1	66.1	4,653.4	2,871.5	1,001.9	1,871.5	0.1	1,552.7	-65.1	86.8	-17.0
98	Special Classification Provisions	2,606.4	8,843.5	5,299.5	5,234.5	7,715.0	6,084.8	0.2	5,141.5	47.4	-21.1	-15.5
99	GDS Imported From Canada and Returned UN	0.0	0.0	3,101.8	5,433.7	3,811.6	2,848.8	0.1	3,495.4	-29.9	-25.3	22.7
	Statistical Adjustment	0.0	0.0	569.5	0.0	0.0	4.2		0.0			
	TOTAL	$943,320.1	$1,244,000.4	$1,818,445.4	$2,061,241.3	$2,897,458.8	$2,540,541.4	100.0	$2,653,937.9	40.6	-12.3	4.5

(e)=estimate

Notes: In 1988 and 1989 Special Classification Provisions' SIC Code was 99. After which it became 98 and GDS Imported From Canada and Returned UN assumed SIC Code 99.
The 1994 estimate is based on actual export data through the third quarter of 1994.

Sources: U.S. Bureau of the Census, Foreign Trade Division and Massachusetts Institute for Social and Economic Research.

Table 38
Utah Merchandise Exports to Selected Countries (Thousands of Dollars): 1988 to 1994

Rank	Country	1988	1989	1990	1991	1992	1993	(e) 1994	Country as a Percent of 1993 Total	Percent Change 1991-92	1992-93	1993-94
1	China (Taiwan)	$41,495.1	$46,815.4	$45,885.8	$68,049.2	$421,116.6	$380,309.4	$300,748.1	15.0	518.8	-9.7	-20.9
2	Canada	209,526.1	183,645.5	430,093.0	303,256.0	361,432.4	362,147.6	360,204.8	14.3	19.2	0.2	-0.5
3	Japan	77,782.7	257,319.9	210,624.8	211,503.0	315,343.6	313,588.3	334,817.6	12.3	49.1	-0.6	6.8
4	Switzerland	25,235.1	15,598.6	20,377.4	101,678.9	28,871.3	244,614.2	181,290.1	9.6	-71.6	747.3	-25.9
5	Hong Kong	10,778.8	15,645.5	55,429.4	131,887.4	417,473.7	223,950.8	399,103.3	8.8	216.5	-46.4	78.2
6	Germany	59,402.5	59,061.3	115,135.6	119,862.5	103,195.9	166,260.9	184,969.9	6.5	-13.9	61.1	11.3
7	Netherlands	23,571.4	26,029.3	28,070.4	27,577.9	69,175.7	145,810.0	147,922.7	5.7	150.8	110.8	1.4
8	U.K.	61,267.9	70,707.0	130,598.1	366,163.4	450,659.2	79,709.7	72,846.0	3.1	23.1	-82.3	-8.6
9	Thailand	100,516.3	92,671.0	163,010.4	162,290.2	104,182.8	71,509.5	61,698.0	2.8	-35.8	-31.4	-13.7
10	Malaysia	30,221.1	41,250.1	33,545.3	38,066.2	37,586.7	66,874.7	42,265.8	2.6	-1.3	77.9	-36.8
11	Korea (Republic)	65,823.1	86,556.0	121,126.2	89,940.4	114,535.9	63,535.2	77,050.3	2.5	27.3	-44.5	21.3
12	Mexico	50,985.2	31,758.3	40,081.8	39,340.2	26,609.7	51,301.4	103,128.5	2.0	-32.4	92.8	101.0
13	Singapore	17,750.3	39,690.4	33,487.1	42,522.0	68,324.8	50,894.3	41,212.4	2.0	60.7	-25.5	-19.0
14	Belgium	13,862.2	51,909.8	38,469.5	23,238.8	25,478.0	34,228.4	64,072.0	1.3	9.6	34.3	87.2
15	Australia	15,186.8	24,604.7	30,566.0	28,420.1	42,526.2	31,615.0	32,645.4	1.2	49.6	-25.7	3.3
16	Philippines	1,949.7	10,095.6	12,532.3	32,604.1	27,458.1	28,025.9	32,630.3	1.1	-15.8	2.1	16.4
17	Turkey	4,680.6	694.3	1,146.6	13,512.8	39,798.6	22,398.8	12,948.6	0.9	194.5	-43.7	-42.2
18	China (mainland)	11,554.8	10,557.5	47,251.6	44,359.7	49,673.7	20,219.4	15,221.4	0.8	12.0	-59.3	-24.7
19	France	24,320.3	30,668.4	33,710.1	30,109.9	23,334.4	19,516.0	20,789.9	0.8	-22.5	-16.4	6.5
20	Chile	1,767.0	5,110.9	8,003.4	11,300.5	12,177.9	17,797.0	17,071.4	0.7	7.8	46.1	-4.1
21	Ireland	4,187.8	3,659.6	5,532.7	6,559.0	7,541.6	16,510.0	19,122.1	0.6	15.0	118.9	15.8
22	Italy	9,659.9	14,562.5	34,905.4	16,722.1	20,324.3	12,584.3	12,815.1	0.5	21.5	-38.1	1.8
23	Spain	13,982.4	7,966.9	11,144.3	23,656.0	27,290.3	8,587.8	6,793.4	0.3	15.4	-68.5	-20.9
24	Brazil	3,139.5	47,612.5	22,473.7	34,426.8	2,107.2	7,730.7	7,892.5	0.3	-93.9	266.9	2.1
25	Israel	0.0	5,291.1	31,983.1	10,509.7	5,001.2	6,617.7	5,179.8	0.3	-52.4	32.3	-21.7
26	New Zealand	2,139.1	3,523.4	3,733.9	6,524.9	7,866.1	6,468.8	7,361.9	0.3	20.6	-17.8	13.8
27	Indonesia	1,450.2	2,912.2	2,270.9	2,999.7	4,593.2	5,478.7	6,539.9	0.2	53.1	19.3	19.4
28	Sweden	2,955.1	9,105.1	13,927.7	5,235.6	5,978.0	5,014.6	5,822.3	0.2	14.2	-16.1	16.1
29	Austria	1,682.6	1,979.5	3,573.2	5,068.1	4,212.1	4,978.9	5,419.4	0.2	-16.9	18.2	8.8
30	Saudi Arabia	2,486.0	1,902.4	2,146.5	1,824.3	7,461.1	4,740.2	3,895.1	0.2	309.0	-36.5	-17.8
31	Russia	0.0	0.0	0.0	0.0	6,645.3	4,392.5	4,939.5	0.2	0.0	-33.9	12.5
32	Norway	4,300.1	2,037.4	56.1	3,634.6	4,738.6	4,326.9	4,020.0	0.2	30.4	-8.7	-7.1
33	India	1,465.8	3,134.9	5,540.9	1,356.1	1,373.2	4,064.7	3,032.7	0.2	1.3	196.0	-25.4
34	Peru	218.7	2,938.5	519.3	1,005.1	347.5	3,620.9	3,879.6	0.1	-65.4	942.1	7.1
35	Republic of S. Africa	3,167.7	3,178.9	4,922.0	5,220.2	3,883.4	3,603.6	3,121.6	0.1	-25.6	-7.2	-13.4
36	Egypt	832.2	798.7	204.0	1,988.4	1,041.0	3,263.8	2,446.0	0.1	-47.6	213.5	-25.1
37	Denmark	1,950.8	2,846.9	2,983.5	2,736.9	2,521.5	3,136.7	5,457.2	0.1	-7.9	24.4	74.0
38	Columbia	823.1	1,251.7	846.9	1,106.6	1,312.8	2,837.6	5,187.1	0.1	18.6	116.1	82.8
39	Morocco	84.3	87.6	277.7	32.0	71.2	2,833.8	1,630.3	0.1	122.6	3878.8	-42.5
40	United Arab Emirates	936.5	1,153.5	1,156.8	1,390.3	2,062.4	2,604.7	2,442.1	0.1	48.3	26.3	-6.2
	Total (All Countries)	$943,319.6	$1,244,000.2	$1,818,446.0	$2,061,241.3	$2,897,458.8	$2,540,541.4	$2,653,937.9	100.0	40.6	-12.3	4.5

(e)=estimate

Notes: The 1994 estimate is based on actual export data through the third quarter of 1994.
Rankings are by share of Utah's total merchandise exports for 1993.

Sources: U.S. Bureau of the Census, Foreign Trade Division and Massachusetts Institute for Social and Economic Research (MISER).

Table 39
Utah Top Five Export Markets by Top Five Industries (Thousands of Dollars): 1993

Country	Industry Group	Dollar Value	Percent of Total
China (Taiwan)	Primary Metal Products	$291,865.2	76.7
	Bituminous Coal/Lignite	26,700.9	7.0
	Metal Ores	18,631.4	4.9
	Chemical Products	11,540.4	3.0
	Electrical Machinery and Equipment	8,751.8	2.3
Canada	Electrical Machinery and Equipment	$69,046.7	19.1
	Transportation Equipment	62,594.6	17.3
	Metal Ores	38,322.7	10.6
	Industrial Machinery	33,961.4	9.4
	Chemical Products	33,351.3	9.2
Japan	Metal Ores	$78,760.3	25.1
	Transportation Equipment	61,146.9	19.5
	Bituminous Coal/Lignite	54,413.2	17.4
	Scientific Instruments	29,622.5	9.4
	Chemical Products	20,581.5	6.6
Switzerland	Primary Metal Products	$239,811.6	98.0
	Electrical Machinery and Equipment	1,894.1	0.8
	Scientific Instruments	1,359.0	0.6
	Industrial Machinery	593.8	0.2
	Misc. Manufactures	309.0	0.1
Hong Kong	Primary Metal Products	$208,136.1	92.9
	Electrical Machinery and Equipment	5,336.9	2.4
	Food Products	3,257.8	1.5
	Misc. Manufactures	1,983.6	0.9
	Industrial Machinery	1,248.4	0.6

Source: U.S. Bureau of the Census, Foreign Trade Division.

✧ Gross Taxable Sales

The year 1994 has been another banner year for gross taxable sales. The 11.7 percent growth in 1993 (the highest since 1984) will be almost duplicated by an estimated 11.3 percent gain in 1994 (Table 40). On a quarterly basis, the first quarter grew 11.8 percent, the second quarter grew 11.7 percent (Figure 25) and the third quarter is estimated at a nearly 12 percent growth rate. Christmas quarter sales, despite the slowdown in construction, should be bolstered by heavy nondurable sales at department, apparel and miscellaneous shopping goods stores. Taxable sales are growing significantly faster than Utah nonfarm wages, which are estimated to rise 8.6 percent in 1994. The difference may be attributed to several factors.

Utah's unprecedented construction boom is the main reason behind the 11 to 12 percent growth rates in sales. Mortgage rate drops to 7.3 percent in 1993 led to ten-fold increases in refinancing. Consumer refinancing in 1993 and early 1994 paved the way for increased disposable income for consumers to "buy up" in the housing market, fix up their present homes, or purchase new cars or trucks. In addition, a shift from out-migration to substantial in-migration of about 20,000 new people each year since 1991 increased demands for new and used housing by approximately 13,000 units per year. Strong job growth and consistently improving economic outlooks since 1992 have bolstered consumer sentiment to new highs in 1994 (Figure 26). All these factors combined to unleash significant pent-up demands for upscale housing by Utah's baby boomers, and in-migrants (many of whom were Californians, bringing with them substantial home equities). Residential construction values hit bottom in 1987 at $415 million after the economy lapsed into recession following the 1984 boom. By the end of 1994, however, residential construction value will be $1.72 billion, a four-fold increase.

Since purchases for tangible property are taxable, the construction boom manifests itself directly in five taxable sales sectors:

- ✧ Construction,
- ✧ Manufacturing,
- ✧ Wholesale trade,
- ✧ Retail--building and garden stores, and
- ✧ Retail--furniture and home furnishing stores.

The boom in construction permit values appears to filter through the economy for six to eight quarters as projects are commenced and completed. And once the homeowner enters his new home, the expenses are not over. There are furniture and drapes to buy, yards to landscape, and swamp coolers to install. For 1995, Utah's residential construction boom should begin to level on a "high mesa". And, despite the fact that residential and nonresidential construction values will be $350 million down from the record $2.5 billion level in 1994, many projects will carry into the first half of 1995 to make it a successful year.

At the same time taxable business investment has been boosted by the construction boom, it has also been spurred on by favorable factors for Utah industry to invest in plant and equipment. These favorable factors include:

- ✧ interest rates that have dropped the cost of new capital,
- ✧ the cost of capital equipment relative to burgeoning labor costs,
- ✧ the ability of industrial firms to finance new projects by issuing equities,
- ✧ the ability of computers to improve productivity (this has led to a flurry of buying),
- ✧ the upgrading of communications equipment, from coaxial cable to fax machines to mobile phones (which has led to a surge in buying),
- ✧ the replenishing and upgrading of infrastructure and plant, and
- ✧ continued pressure from imports (this has pushed American manufacturers to the decision to invest in plant and equipment or lose markets).

All of the above factors, except for lower interest rates, will be at play again in 1995, leading to a 9.0 percent increase in taxable business investment, despite the fact that construction may have peaked in the middle of 1994.

Another positive growth sector is taxable services. This sector will continue on an upward growth path. Taxable services include: hotel and lodging sales, leases, rents and repairs to tangible property, and admissions to certain amusement and recreational activities (motion picture theaters, skiing, amusement parks, professional and college sporting events). Thus, taxable services in Utah are a function of household wage and salary levels, tourist demand, business and household leases of cars and equipment, and demand for automobile and other repairs. During the first half of 1994, taxable services growth was up 9 percent compared to the same period in 1993. It is estimated to grow almost 10 percent in 1994 and jump almost 16 percent in 1995 due partially to an increase in the taxable base when amusement and recreation services were redefined to include golf, tennis, dance, racquetball and many other athletic and admission services.

Despite rising mortgage rates, respectable growth rates in taxable sales for 1995 will result from a combination of favorable Utah job growth, relatively low inflation, and investment by business in plant and equipment. Following back-to-back 11 to 12 percent growth in 1993 and 1994, taxable sales are expected to make an 8 percent gain in 1995. If construction values sink lower, however, taxable sales will slip accordingly. Given an approximate multiplier of two and since only about half of permitted value applies to purchases of tangible property, taxable sales will drop in line with construction value declines in 1995 for the five taxable sales sectors outlined above.

Retail Trade

In 1992 and in 1993 taxable retail trade sales rose over 10 percent--10.6 percent in 1992 and 11.4 percent in 1993. A slightly smaller, but significant 9.2 percent gain is expected for 1994 as the large nondurable side drags down double-digit gains from the durable sector. During the first half of 1994, retail sales rose 10.5 percent as durable goods growth outpaced nondurable goods growth by 18.6 percent to 6.2 percent. For the year, retail sales should slow down as the growth in new residential construction levels off (Figure 27).

The double-digit durable retail sales gains are readily apparent on Figure 28. Quarterly data from 1982 was seasonally adjusted for both retail durable goods sales (those items lasting three years or more) and retail nondurable goods sales (less than three years). As expected, nondurable retail sales is a much smoother, upward trending series. One reason for this is that food and clothing spending is not as sensitive to swings in the business cycle, since they are necessities. The upward path of retail durable goods is much more cyclical and sensitive to business cycle variables (interest rates, consumer confidence and employment growth). Clearly, sales of automobiles and housing materials are sensitive to not only demographic trends and wage and salary growth, in addition to these business cycle variables.

Nondurable Retail Sales

Nondurable retail sales (including sales in the food, general merchandise, apparel, food, eating and drinking, and retail shopping goods store sectors) comprise almost 40 percent of gross taxable sales and normally two-thirds of retail trade sales. Nondurable sales increased 7.2 percent in 1993 and are expected to make a 6.8 percent gain in 1994 (Table 41). During the first half of 1994 nondurable sales rose only 6.2 percent, but year-end sales growth is expected to approach 7 percent given the strong Christmas outlook this year. For 1995, nondurable sales are expected to pickup to an 8.1 percent growth rate due to 10 and 11 percent increases in restaurant sales and miscellaneous shopping goods store sales, respectively. A continued strong tourist sector, reflected by double-digit gains in passenger departures and arrivals at Salt Lake City's International Airport, is expected in the near term for the Beehive State. With the boom in the construction sector, apparel store sales may also hit double-digit rates in 1995. Food store sales are expected to grow only about 7 percent due to the shifting of bulk food purchases to Utah's thriving discount department stores. Department store (general merchandise) sales growth should pick up from their lackluster 3 percent gain in 1994 to almost 5 percent in 1995.

Durable Retail Sales

Durable retail sales consist of sales by Utah's motor vehicle dealers and sales related to housing and home improvements (building, garden and furniture store sales). Lower interest rates combined with booming employment to impact durable sales, which grew 15.5 percent in 1992 and more than 20 percent in 1993. Double-digit growth continued into 1994 as first half durable sales jumped 18.6 percent.

The boom in residential and nonresidential construction over the past three years has almost doubled taxable sales in the retail "building and garden" and "furniture and home furnishings" sectors. Sales in the building and garden sector have risen from $575 million in 1990 to $1.15 billion in 1994. Once new homes are built, new furnishings are usually desired. Furniture and home furnishings stores sales have risen from $498 million in 1990 to an estimated $905 million in 1994.

Evidence of the housing boom is also reflected in the rise of new single family permits, which have risen from 6,099 in 1990 to over 14,000 in 1994. Despite the fact that over 45 percent of all new mortgages used adjustable rate instruments (ARM's), the 2 percent jump in mortgage rates in 1994, in addition to possible increases in the spring of 1995, point to a decline in new single family starts next year. But during this Utah construction cycle, housing should be less sensitive to the rise in interest rates for three reasons:

- consumers will switch to ARM's in order to afford the homes they have already started,
- continued growth in multi-family starts should occur where demand has already outstripped supply, as reflected by basement level vacancy rates, and
- demand for multiple family housing will continue to increase due to smaller but significant in-migration and the fact that the late 1970s baby boomlet will be matriculating from high school over the next six years.

Nevertheless, retail sales in building and garden stores, in addition to furniture stores, will likely fall below 1994 levels in 1995. Building and garden store sales should drop just under 5 percent. Furniture store sales will drop 2 percent because these sales lag building and garden store sales by several months and because this sector includes sales from electronic and computer-related stores which are expected to continue on a brisk double-digit pace in 1995.

The continued string of interest rate hikes by the Federal Reserve Bank, however, will take a toll not only on the housing market, but also on the sales of motor vehicles. Unit sales of new cars and trucks in Utah at 57,000 during the first three quarters were up over 10.7 percent compared to 1993. However, after a 25 percent surge in new unit sales during the first quarter of 1994, new car and truck sales growth was only 5 percent in succeeding quarters. Motor vehicle sales rose almost 12 percent in the first half of 1994 not only due to new and used car sales, but also due to 20 to 60 percent increases in sales of recreational trailers, boats and motorcycles. Our outlook for 1995 is that motor vehicle sales will increase 7 percent. This industry should be a little less sensitive to interest rates than housing due to the ability to lease automobiles with low monthly rates, but the double-digit growth sales will subside since some of the pent-up demands were unleashed in 1993 and early 1994.

Business Equipment Investment and Utility Purchases

The "high mesa" of Utah construction permit values will bring taxable business investment growth down from its double-digit levels in 1993 and 1994 to 9 percent in 1995. The big growth sector here since 1990 has been the wholesale trade sector. Final sales of wholesalers have risen from $1.27 billion in 1990 to an estimated $2.57 billion in 1994. Much of this run-up has been due to the boom in residential and nonresidential construction over the past three years. However, several wholesale subsectors not related to construction have been experiencing strong growth in 1994. Listed below are first half growth rates of these sectors, which are related more to Utah's increasingly diversified mining, manufacturing and service sectors than to construction:

- wholesale durable--professional and commercial equipment (up 57 percent),
- wholesale durable--metals and minerals (up 54 percent),

- wholesale durable--machinery and equipment (up 18 percent),
- wholesale nondurable--paper and paper products (up 18 percent),
- wholesale nondurable--drugs, proprietaries and sundries (up 156 percent),
- wholesale nondurable--apparel and piece goods (up 28 percent),
- wholesale nondurable--grocery and related products (up 146 percent), and
- wholesale nondurable--chemicals and allied products (up 46 percent).

In addition to the booming wholesale sector in the first half of 1994, Utah's taxable mining, manufacturing, and construction sectors continued to invest in plant and equipment. Taxable mining equipment purchases are expected to grow 8 percent in 1994 and almost 11 percent in 1995. Construction sector purchases, led by special trade contractors, were up 10 percent in the first half of 1994 and are expected to rise 17 percent for the year, then flatten out in 1995. Taxable manufacturing purchases were up less than 5 percent in the first half, but expected to rise almost 19 percent in 1995. Reported new and expanding manufacturing equipment purchases which have been given an exemption from sales tax, however, are up almost 17 percent from last year, fortifying the contention that Utah's manufacturing sector is very healthy and investing in its future. This growth rate also dovetails with the 18 percent first-half growth of the "wholesale durable--machinery equipment" sector reported above.

Taxable purchases by Utah's transportation sector jumped 38 percent in the first half of 1994. Railroad purchases were up more than 25 percent. Purchases more than doubled by air transportation companies. Salt Lake City International Airport's decision to build a new runway in addition to expansions by various airlines were at play here. Trucking and warehouse purchases also were up more than 30 percent. Two new major (one department and one drug store) warehouse distribution centers were opened in 1994, highlighting Utah's proximity to markets in the Mountain West.

Increasing disposable income and consumer attachment to new technologies in the telephone industry, such as fax machines and mobile telephones, have given a boost to communication sales in 1994. Telephone communication sales should be up 30 percent in 1995. But the completion of investments in cable TV are muting the overall growth by the communications sector.

Finally, sales and purchases by Utah's electric and natural gas utilities were lackluster in the first half due to a relatively warm winter and spring. Natural gas sales were off in double digits. Heated-degree days at the Salt Lake City Airport were off 19 percent in the first half of 1994 compared to a year earlier. An early winter in 1994, however, boosts prospects for these sales. Electricity sales were up 11 percent in the second quarter of 1994 due to the warm spring's and hot summer's demand for air conditioning.

In summary, while it seems clear that Utah's business investment growth will not see another double digit gain in 1995, it will probably not fall dramatically. Forecasts of 9.1 percent in 1995 are dependent on two critical occurrences:

- Utah investment in manufacturing, mining and service sector plant and equipment continues at near double-digit pace, and
- Utah construction values tail off only slightly in 1995 to a gradual 10 percent decline.

Obviously, given the steep slope of the construction upswing, a more pronounced decline is possible. However, since both consumers and business are less sensitive to interest rate swings than in the past, it is more likely that a "soft landing" will occur. However the future is difficult to predict, as the downturns in 1985 through 1987 demonstrated. But this time Utah's primary business sectors are in much stronger condition, and the U.S. economy is also in an expansion mode. In addition, if the Federal Reserve Bank is insistent on slowing U.S. real GDP growth to the 2 percent level, perhaps higher interest rates than anticipated are possible.

Taxable Services

The State of Utah taxes only about 40 percent of its service sector by levying sales taxes on hotel and lodging, admissions to amusements and recreation and repairs to tangible personal property. Over the

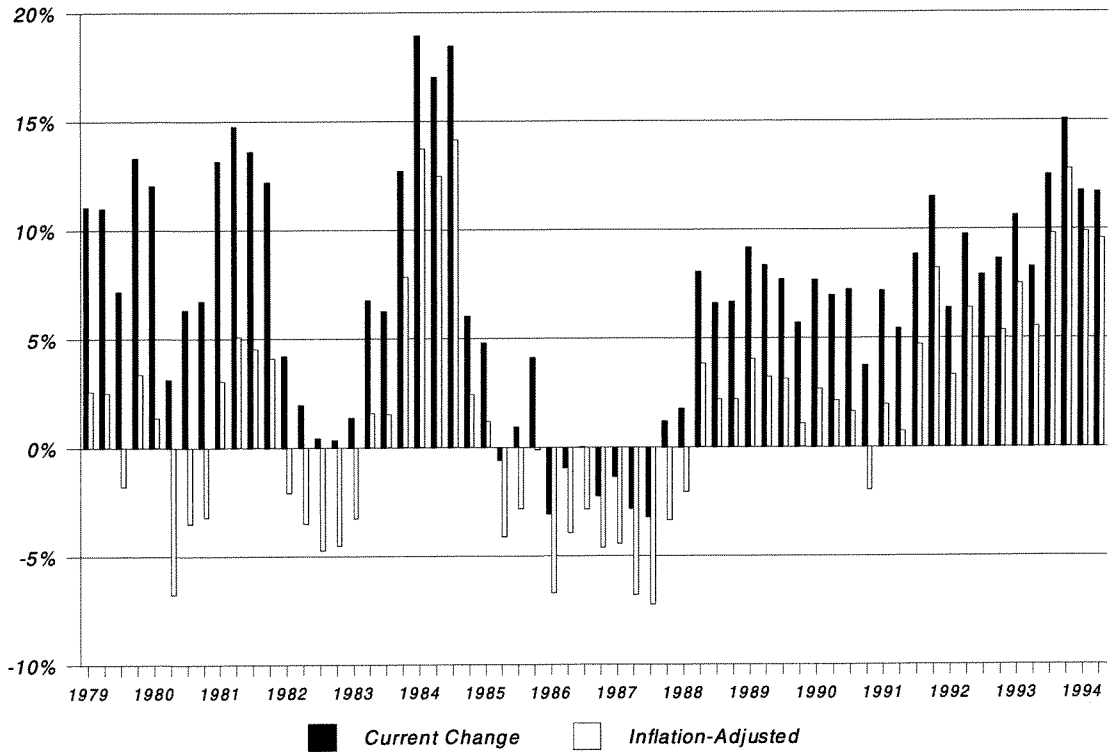
past four years this sector has grown 50 percent from $1.83 billion in 1990 to an estimated $2.75 billion in 1994. Through the first half of 1994 taxable services were up 9.4 percent. For the year, the taxable services growth rate will improve to slightly less than 10 percent. Prospects for 1995 are even better. Services growth should improve to almost 16 percent due to following (one technical change and one legal change):

- ✧ The Finance, Insurance and Real Estate sector has been included in the taxable service sector. Any broad interpretation of "services" would naturally include this sector. For sales tax purposes, it includes taxable leases of tangible personal property, such as automobiles and appliances. In the real estate subsector condominium leases are a big factor.
- ✧ The 1994 Utah Legislature, by redefining "admissions", expanded the taxable base to include recreational activities such as golf, tennis, bowling, river running and a broad range of recreational and cultural activities.

The first inclusion, finance, insurance and real estate, is currently growing at a 40 percent clip, but is expected to moderate to a 16 percent growth rate in 1995. The base expansion in the amusement and recreation sector will add about $200 million of sales in 1995. Even without the base broadening this sector has been growing in double-digit rates since 1990.

Due to a flat 1993-94 ski season and despite low vacancy rates, Utah's hotel and lodging sales are estimated to have grown only 4 percent in 1994. But hotel sales are expected to pickup to a 6 percent rate in 1995. Business services are expected to continue at double-digit growth as demand for computers and data processing, and the increase in corporate "out-sourcing", expands in the near term. The largest sector in services--automobile rentals, repairs and other repair services--is expected to see an 8 percent increase in 1994, followed by a 5.4 percent gain in 1995. Figure 29 illustrates the composition of Utah's sale tax base for the major sectors of retail trade, business investment, services, and other. ✧

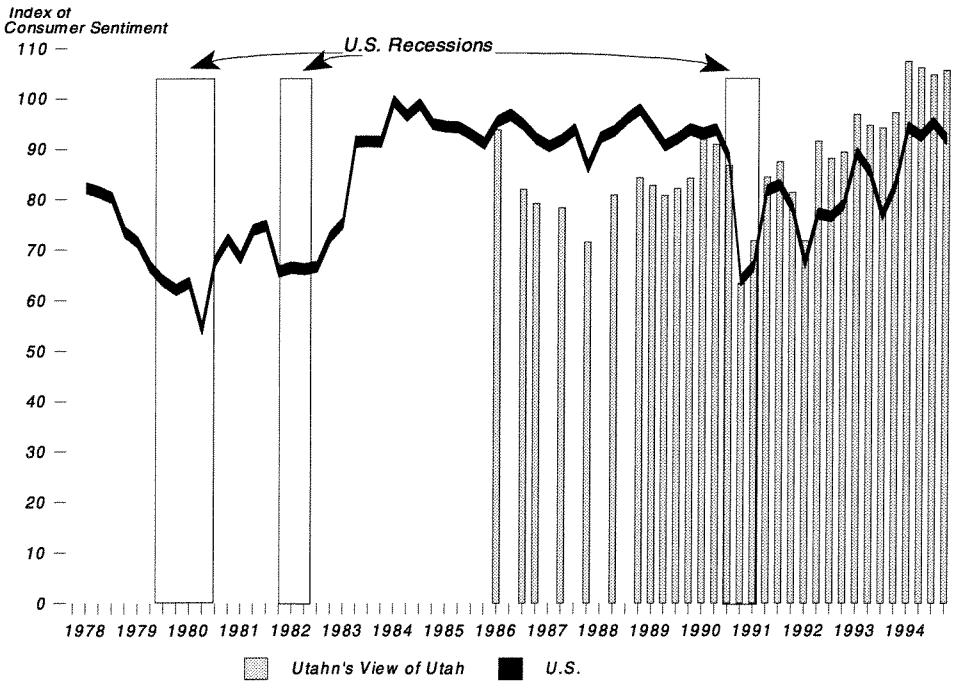
Figure 25
Percent Change in Gross Taxable Sales: 1979 to 1994



Note: All data includes prior-period adjusted

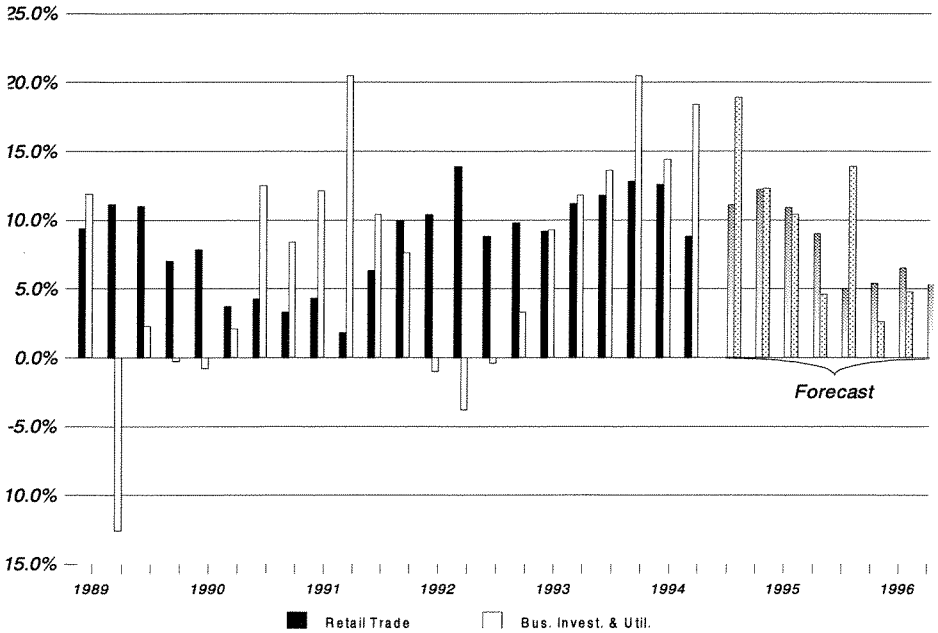
Source: Utah State Tax Commission

Figure 26
Consumer Sentiment Indices--Utah and U.S.: 1978 to 1994



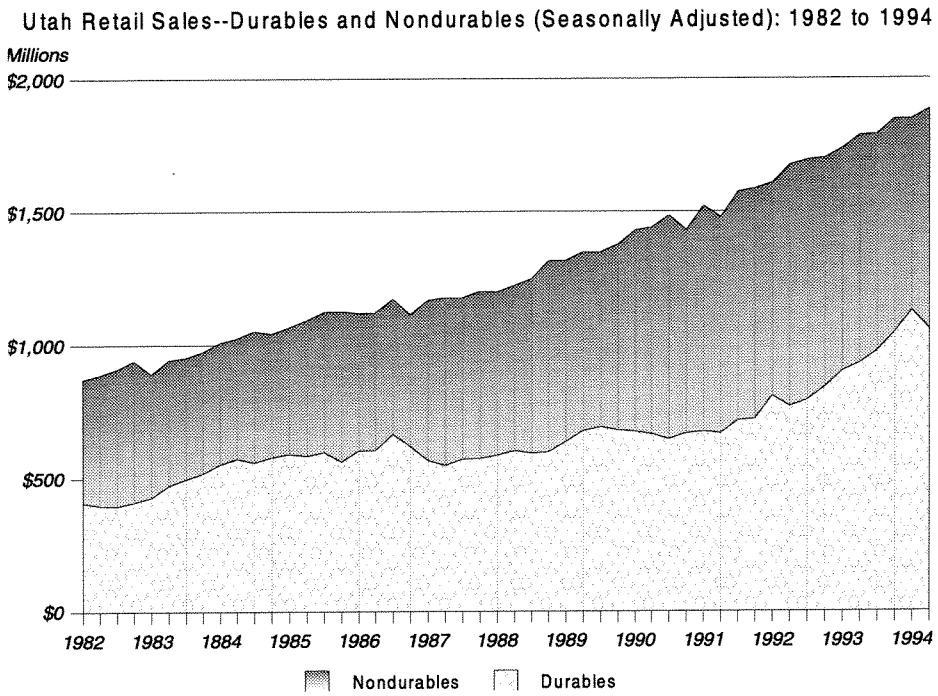
Sources: U.S.--University of Michigan, Utah--University of Utah Survey Research Center

Figure 27
Growth in Retail Sales vs. Business Investment & Utilities: 1989 to 2nd Quarter 1994 & Forecast



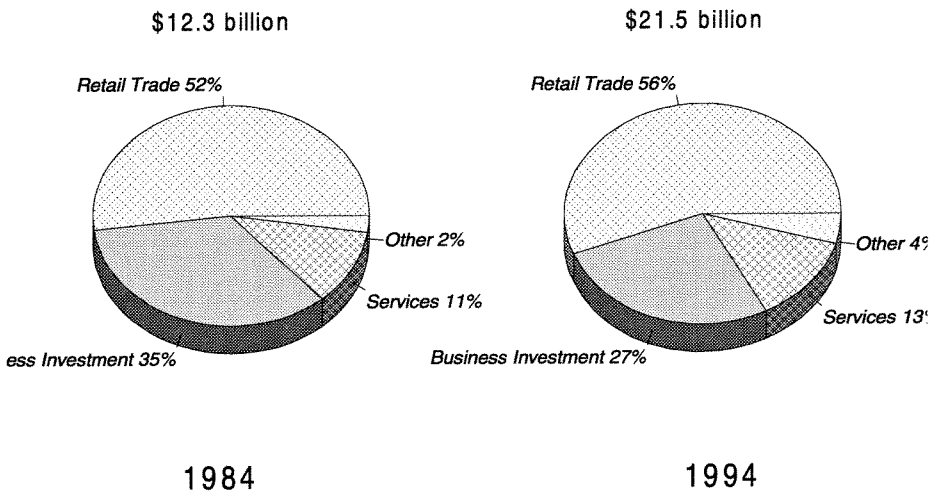
Source: Utah State Tax Commission

Figure 28
Utah Retail Sales--Durables and Nondurables (Seasonally Adjusted): 1981 to 1994



Source: Utah State Tax Commission

Figure 29
Shares of Utah's Sales Tax Base--Four Major Sectors: 1984 and 1994



Source: Utah State Tax Commission

Table 40
Utah Gross Taxable Sale by Component: 1981 to 1994

Dollar Amounts (Millions)

Calendar Year	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Gross Taxable Sales
1981	$4,911	$3,545	$918	$483	$9,857
1982	5,225	3,271	1,059	464	$10,019
1983	5,655	3,423	1,135	472	$10,685
1984	6,399	4,254	1,385	256	$12,294
1985	6,749	4,122	1,440	263	$12,574
1986	7,022	3,689	1,414	253	$12,378
1987	6,982	3,398	1,587	222	$12,189
1988	7,376	3,684	1,718	240	$13,018
1989	8,080	3,676	1,849	288	$13,893
1990	8,424	3,864	1,828	658	$14,774
1991	8,939	4,345	2,040	675	$15,999
1992	9,889	4,328	2,222	873	$17,312
1993	11,018	4,933	2,502	887	$19,340
1994 (e)	12,035	5,784	2,744	953	$21,516

Percent Change

Calendar Year	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Gross Taxable Sales
1982	6.4	-7.7	15.4	-3.9	1.6
1983	8.2	4.6	7.2	1.7	6.6
1984	13.2	24.3	22.0	-45.8	15.1
1985	5.5	-3.1	4.0	2.7	2.3
1986	4.0	-10.5	-1.8	-3.8	-1.6
1987	-0.6	-7.9	12.2	-12.3	-1.5
1988	5.6	8.4	8.3	8.1	6.8
1989	9.5	-0.2	7.6	20.0	6.7
1990	4.3	5.1	-1.1	128.5	6.3
1991	6.1	12.4	11.6	2.6	8.3
1992	10.6	-0.4	8.9	29.3	8.2
1993	11.4	14.0	12.6	1.6	11.7
1994 (e)	9.2	17.2	9.7	7.4	11.3

(e) = estimate

Source: Utah State Tax Commission.

Table 41
Gross Taxable Retail Sales by Sector: 1990 to 1995

Category	Dollar Amounts (in Millions)						Percent Change				
	1990	1991	1992	1993	(e) 1994	(f) 1995	1990-91	1991-92	1992-93	1993-94	1994-95
Retail Nondurables	$5,775	$6,164	$6,685	$7,164	$7,650	$8,270	6.7	8.5	7.2	6.8	8.1
General Merchandise	1,362	1,484	1,619	1,716	1,767	1,850	9.0	9.1	6.0	3.0	4.7
Apparel	415	452	506	581	616	690	8.9	11.9	14.8	6.0	12.0
Food Stores	2,161	2,226	2,374	2,496	2,671	2,855	3.0	6.6	5.1	7.0	6.9
Eating and Drinking	861	935	1,025	1,140	1,254	1,385	8.6	9.6	11.2	10.0	10.4
Miscellaneous Shopping Goods	976	1,067	1,161	1,231	1,342	1,490	9.3	8.8	6.0	9.0	11.0
Retail Durables	2,650	2,773	3,203	3,854	4,386	4,489	4.6	15.5	20.3	13.8	2.4
Motor Vehicles	1,577	1,590	1,783	2,140	2,333	2,500	0.8	12.1	20.0	9.0	7.2
Building & Garden	575	630	764	941	1,148	1,099	9.6	21.3	23.2	22.0	-4.3
Furniture & Home Furnishings	498	553	656	773	905	890	11.0	18.6	17.8	17.1	-1.7
Business Investment	3,864	4,345	4,329	4,932	5,784	6,310	12.4	-0.4	13.9	17.3	9.1
Mining	150	186	153	142	153	170	24.0	-17.7	-7.2	8.0	10.9
Construction	203	207	228	246	288	290	2.0	10.1	7.9	17.0	0.8
Manufacturing	889	936	1,000	1,083	1,137	1,350	5.3	6.8	8.3	5.0	18.7
Transportation, Comm. & Utilities	1,351	1,644	1,407	1,552	1,685	1,850	21.7	-14.4	10.3	8.6	9.8
Wholesale Trade	1,271	1,372	1,541	1,909	2,520	2,650	7.9	12.3	23.9	32.0	5.2
Services	1,829	2,039	2,223	2,501	2,745	3,180	11.5	9.0	12.5	9.7	15.9
Hotels & Lodging	307	351	373	400	416	440	14.3	6.3	7.2	4.0	5.8
Amusement & Recreation	194	228	256	304	347	581	17.5	12.3	18.8	14.0	67.7
Personal	91	99	110	130	143	155	8.8	11.1	18.2	10.0	8.4
Health	76	68	77	85	79	84	-10.5	13.2	10.4	-7.0	6.3
Education, Legal & Social	111	126	137	144	151	160	13.5	8.7	5.1	5.0	5.8
Auto Rental & Repairs	525	571	601	677	731	771	8.8	5.3	12.6	8.0	5.4
Business	446	502	564	626	689	769	12.6	12.4	11.0	10.0	11.7
Finance Insurance & Real Estate	79	94	105	135	189	220	19.0	11.7	28.6	40.0	16.4
All Other	658	675	872	890	952	980	2.6	29.2	2.1	7.0	2.9
Grand Total Taxable Sales	14,776	15,996	17,312	19,341	21,516	23,229	8.3	8.2	11.7	11.2	8.0

(e) = estimate
(f) = forecast

Source: Economic and Statistical Unit, Utah State Tax Commission.

✧ Tax Collections

Actual and estimated tax collections and trends are presented in Tables 42 through 48. Table 49 summarizes the fiscal year 1995 revenue impacts on the general and uniform school funds from legislation passed by the 1994 legislative session. Historic tax collections are presented in nominal (current) dollars and in inflation-adjusted (constant) dollars.

Distribution of Revenues

Table 42 shows the distribution of revenue funds as a percent of total revenues and as a percent of total personal income. The general fund, transportation fund, and mineral lease monies have generally declined as a percent of total revenues and of personal income, while the uniform school fund percentages have increased. Explanations for these trends include, but are not limited to:

- stronger growth in sales tax-exempt services industries than in taxable goods industries;
- income tax bracket creep;
- tobacco and alcohol health warnings;
- increased fuel efficiency of vehicles;
- sales tax exemptions;
- general fund monies transferred to restricted accounts;
- increased circuit breaker credits; and,
- sliding-scale severance tax rates and tax credits.

Revenue collection changes in Tables 42 to 46 result from tax rate and base changes, changes in resource prices, tax payment accelerations and windfalls, the elimination or addition of revenue categories, and swings in national and local economic activity. Because many of these factors distort the true underlying trends in revenue collections when compared to general economic activity, Tables 47 and 48 adjust collections not only for inflation, but also for tax rate and base changes, windfalls and payment accelerations, and the occurrence of large construction projects.

1994 Revenues

Fiscal year 1994 was the strongest year for revenue collections since fiscal year 1984. Fiscal year 1994 inflation, and tax rate and base-adjusted total revenues grew at an overall rate of 7.3 percent, compared to 6.0 percent in fiscal year 1984. By comparison, the historic 1978 to 1994 adjusted annual rate averaged 1.9 percent. Fiscal year 1994's strong performance was largely due to phenomenal sales tax collections, which increased at a tax rate/base and inflation-adjusted rate of 8.3 percent. The unadjusted (raw) sales tax growth rate was 10.8 percent.

A one-time change in income tax withholding rates of $13 million, one-time Public Employees' Health Plan premium refunds of $6.2 million, and a $10 million one-time corporate tax payment from a major corporation, explain some of the above-normal growth in fiscal year 1994 revenue collections. Most of the growth, however, came from the combined strength in corporate profits, net in-migration, housing sales, construction and overall employment.

Revenue Outlook

Employment growth and overall economic activity should remain above average in fiscal year 1995. Nonetheless, tax collection growth should slow in fiscal year 1995 due to: 1) a 1/8th cent reduction in the sales tax rate; 2) lower construction, financial and real estate activity brought on by higher interest rates; and, 3) around $30 million in one-time windfalls that occurred in the previous fiscal year.

Still, the outlook for fiscal year 1995 is for solid growth in inflation-adjusted receipts of around 3.7 percent. This rate equals the average annual constant dollar rate of 3.7 percent for fiscal years 1978 through 1994

as shown in Table 46; and surpasses the tax rate/base and inflation-adjusted rate of 1.9 percent for the same period (Table 48). It should be noted that the historic inflation-adjusted rate of 3.7 percent was due in part to periodic tax increases throughout the 1978 to 1994 time period; whereas, the 1.9 percent rate is net of inflation and tax increases.

Strong growth in fiscal year 1995 receipts is expected despite a $12.5 million overall sales tax cut for that year which resulted from the 1994 regular legislative session. The sales tax rate was reduced by 1/8th cent; whereas, several sales tax exemptions were simultaneously eliminated, and one exemption was expanded. The details of the sales tax rate reduction and sales tax exemption changes are presented in Table 49. Some of the major sales tax changes include the following:

- HB162 - Repeal of Flood Tax Authorization. Repeals the 1/8th cent of flood tax imposed in July 1983 to fund flooding of that year. Effective July 1, 1994.
- SB238 - Purchases of Construction Materials. Repeals the sales tax exemption for the purchase of construction materials by government entities, except where employees of those entities install the materials. Effective July 1, 1994.
- HB145 - Replacement Parts for Steel Mills. Expands the exemption for steel mill replacement parts to apply to all steel mills. Effective May 2, 1994.
- HB346 - Pollution Control Facilities. Narrows the exemption by requiring that the primary purpose, rather than a substantial purpose, of pollution equipment be the prevention or reduction of pollution. Effective July 1, 1994.
- SB211 - Coin Operated Devices. Repeals the exemption for coin-operated dry cleaning and laundry machines, car washes, and amusement devices. Continues to exempt restricted-use laundry devices in multiple-dwelling units. Effective July 1, 1994.
- SB191 - Admission and User Fees. Provides a list of various amusement, recreation, exhibition, cultural, and athletic activities subject to sales taxation. Effective July 1, 1994.
- SB205 - Transportation Services. Repeals the exemption for taxi cabs and similar transportation fares. Effective July 1, 1994.

Some tax bills may be revisited in the 1995 legislative session. SB238, described above, may be a candidate for reconsideration. The provisions of this bill allow for certain monies (sales taxes on the purchases of construction materials) collected in wealthy school districts to be redistributed to poor districts to help with the construction of new schools. The debate centers around whether or not sales taxation of property taxes is the best way to help poorer school districts.

Another controversial sales tax law passed by the 1994 legislature was SB212. This law earmarks sales taxes of 1/8 cent for water projects, and/or (under certain revenue increase conditions) transportation projects, as of fiscal year 1997. This law will create a restricted sales tax account which will reduce general fund unrestricted revenues by around $30 million beginning in fiscal year 1997. Consequently, the general fund unrestricted sales tax rate will decline from 4.859375 percent to 4.734375 percent effective July 1, 1996.

Finally, SB90 (passed by the 1994 legislature) increased the exemption for primary residential property from 29.5 percent to 32 percent and lowered the minimum school program basic property tax rate from .004275 to .00422, effective January 1, 1994. The effect of this property tax bill was to partially offset an estimated $8.5 million increase in property taxes that would have automatically resulted from increased property valuations due to the final phase-out of the 5 percent intangibles exemption under the AMAX agreement. The net impact after passage of this bill, however, was an increase in primary residential property taxable valuations of 1.53 percent in fiscal year 1995, and an increase in all other locally assessed real property taxable values of 5.26 percent.

Budget Reserve Account and Appropriations Limitation

The State maintains a Budget Reserve Account (the "Rainy Day Fund") which can only be used to cover operating deficits or retroactive tax refunds. The Legislature met in October 1993 in a special session to authorize a transfer from the Rainy Day Fund to the Federal Retirees Settlement Fund for retroactive tax

refunds due federal retirees. In the 1994 General Session, the Legislature raised the ceiling of the Rainy Day Fund from 6 percent to 8 percent of the particular year's general fund appropriation total.

Appropriations from tax collections are limited by the "State Appropriations and Tax Limitation Act". This law limits State appropriations from the general fund, uniform school fund and transportation fund based upon a formula that reflects the average of changes in personal income and the combined changes in population and inflation. This law also restricts the amount of outstanding general obligation debt to 20 percent of the maximum allowable appropriations limit. The Governor's annual budget recommendations and the final appropriations enacted by the Legislature are required to be in strict compliance with this law. ✧

Table 42
Distribution of Unrestricted Revenue Funds as a Percent of Total Revenues and Personal Income: FY 1978 to 1995

Fiscal Year	Total Unrestricted Revenues (thousands)	Fiscal Year Personal Income (millions)	Percent of Personal Income	General Fund (thousands)	Percent of Total Revenues	Percent of Personal Income	Uniform School Fund (thousands)	Percent of Total Revenues	Percent of Personal Income	Transportation Fund (thousands)	Percent of Total Revenues	Percent of Personal Income	Mineral Lease Payments (thousands)	Percent of Total Revenues	Percent of Personal Income
1978	$638,803	$8,503	7.5%	$318,208	50%	3.7%	$235,856	37%	2.8%	$75,100	12%	0.9%	$9,639	2%	0.1%
1979	739,252	$9,756	7.6%	352,767	48%	3.6%	282,476	38%	2.9%	91,683	12%	0.9%	12,325	2%	0.1%
1980	841,315	$11,090	7.6%	403,410	48%	3.6%	333,179	40%	3.0%	89,794	11%	0.8%	14,933	2%	0.1%
1981	901,574	$12,405	7.3%	437,153	48%	3.5%	359,518	40%	2.9%	86,750	10%	0.7%	18,153	2%	0.1%
1982	1,020,704	$13,773	7.4%	499,345	49%	3.6%	392,978	39%	2.9%	101,490	10%	0.7%	26,891	3%	0.2%
1983	1,045,236	$14,660	7.1%	486,988	47%	3.3%	409,909	39%	2.8%	112,177	11%	0.8%	36,162	3%	0.2%
1984	1,280,109	$16,061	8.0%	657,399	51%	4.1%	468,734	37%	2.9%	116,508	9%	0.7%	37,468	3%	0.2%
1985	1,409,793	$17,409	8.1%	705,088	50%	4.1%	529,594	38%	3.0%	140,921	10%	0.8%	34,190	2%	0.2%
1986	1,445,594	$18,455	7.8%	706,012	49%	3.8%	560,809	39%	3.0%	146,195	10%	0.8%	32,578	2%	0.2%
1987	1,479,883	$19,222	7.7%	679,076	46%	3.5%	622,973	42%	3.2%	155,449	11%	0.8%	22,385	2%	0.1%
1988	1,645,921	$20,264	8.1%	759,554	46%	3.7%	665,082	40%	3.3%	192,449	12%	0.9%	28,836	2%	0.1%
1989	1,800,179	$21,715	8.3%	823,704	46%	3.8%	728,259	40%	3.4%	197,416	11%	0.9%	50,800	3%	0.2%
1990	1,871,433	$23,367	8.0%	869,059	46%	3.7%	767,181	41%	3.3%	200,252	11%	0.9%	34,941	2%	0.1%
1991	1,960,264	$25,236	7.8%	893,950	46%	3.5%	826,524	42%	3.3%	207,412	11%	0.8%	32,378	2%	0.1%
1992	2,069,194	$26,937	7.7%	932,284	45%	3.5%	890,048	43%	3.3%	214,336	10%	0.8%	32,526	2%	0.1%
1993	2,209,196	$29,100	7.6%	1,016,714	46%	3.5%	938,023	42%	3.2%	224,172	10%	0.8%	30,287	1%	0.1%
1994	2,462,132	$31,278	7.9%	1,128,386	46%	3.6%	1,062,257	43%	3.4%	238,153	10%	0.8%	33,336	1%	0.1%
1995*	2,623,700	$33,796	7.8%	1,201,800	46%	3.6%	1,140,800	43%	3.4%	247,000	9%	0.7%	34,100	1%	0.1%
Average	--	--	7.7%	--	47%	3.7%	--	40%	3.1%	--	10%	0.8%	--	2%	0.2%

*FY95 personal income and revenues are estimates.

Note: These revenues were not adjusted for tax rate or base changes. As such they include historical changes to the tax structure, including all tax rate increases. These monies are cash collections as reported by the Tax Commission. They are not the modified accrual collections used for budgeting.

Source: Utah Department of Finance, Utah State Tax Commission, and Governor's Office of Planning and Budget.

Table 43
Cash Collection Unrestricted Revenues (Thousands of Current Dollars): FY 1978 to 1995

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994*	1995**
General Fund:																		
Sales & Use Tax	257,988	288,603	320,454	347,366	385,378	389,480	526,158	555,415	558,581	558,998	617,624	667,403	707,443	740,307	802,391	881,917	976,991	1,050,000
Liquor Profits	12,492	12,991	15,054	17,604	19,163	19,005	19,475	18,867	19,008	17,177	15,918	15,984	16,602	17,571	16,596	18,132	17,893	18,400
Insurance Premiums	11,917	13,452	14,718	15,778	21,494	18,012	19,990	22,262	26,077	27,762	28,223	26,406	30,020	27,845	30,175	33,998	38,735	41,000
Beer Cig. & Tobacco	9,988	10,156	12,445	13,520	14,107	16,241	19,998	21,314	21,052	24,000	29,190	30,733	30,182	31,008	34,581	34,282	36,582	36,800
Severance Taxes	8,446	8,423	10,568	15,344	23,307	19,433	36,235	46,880	43,797	21,548	29,156	28,135	30,096	31,016	18,160	19,267	18,873	21,100
Inheritance Tax	4,055	1,423	1,695	2,046	4,514	1,977	3,121	4,786	4,725	2,318	3,443	9,766	7,593	4,811	3,975	7,606	8,189	7,900
Investment Income	6,827	10,884	22,370	14,743	21,485	11,253	11,204	14,368	12,020	3,836	10,688	19,236	17,893	10,959	7,002	4,358	6,370	7,000
Other Fines and Fees	7,315	8,052	8,990	13,125	12,403	13,924	23,042	23,409	22,237	24,679	26,464	27,437	32,593	33,946	23,473	21,339	29,231	24,400
Circuit Breaker	(820)	(1,217)	(2,884)	(2,373)	(2,506)	(2,337)	(1,824)	(2,213)	(1,485)	(1,242)	(1,152)	(1,396)	(3,363)	(3,513)	(4,069)	(4,185)	(4,477)	(4,800)
GF Subtotal	318,208	352,767	403,410	437,153	499,345	486,988	657,399	705,088	706,012	679,076	759,554	823,704	869,059	893,950	932,284	1,016,714	1,128,386	1,201,800
Uniform School Fund:																		
Individual Income	183,894	225,956	265,328	294,947	331,139	347,977	390,913	435,510	454,290	533,288	569,853	615,604	647,593	717,600	784,430	842,089	923,199	1,000,000
Corporate Franchise	29,448	32,874	40,377	40,667	40,894	33,763	53,226	65,918	84,048	68,898	78,806	92,982	99,693	87,766	80,945	79,441	123,595	127,000
School Land Income	7,403	8,860	10,728	14,443	18,857	30,428	18,985	18,409	11,227	7,940	0	0	0	0	0	0	0	0
Perm. Fund Interest	0	0	0	0	0	0	0	0	0	0	2,075	3,110	4,533	4,593	4,721	6,491	4,417	5,000
Gross Receipts Tax	0	0	0	0	0	0	0	0	0	510	4,498	2,814	4,172	3,685	3,577	4,505	4,128	4,100
Federal Rev. Sharing	11,993	13,443	14,045	6,999	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USF Other	3,118	1,343	2,701	2,462	2,088	(2,259)	5,610	9,757	11,244	12,337	9,850	13,749	11,189	12,880	16,375	5,496	6,918	4,700
USF Subtotal	235,856	282,476	333,179	359,518	392,978	409,909	468,734	529,594	560,809	622,973	665,082	728,259	767,181	826,524	890,048	938,023	1,062,257	1,140,800
Transportation Fund:																		
Motor Fuel Tax	48,808	61,372	60,451	56,508	67,734	68,697	68,979	89,337	92,164	99,985	129,370	131,220	132,475	131,056	136,352	141,306	150,896	156,000
Special Fuel Tax	7,391	9,852	10,470	10,107	12,672	12,637	14,449	17,791	19,369	20,626	27,555	29,305	29,092	36,786	33,405	35,568	37,676	39,000
TF Other	18,901	20,459	18,873	20,135	21,084	30,843	33,080	33,793	34,662	34,838	35,524	36,891	38,685	39,570	44,579	47,298	49,581	52,000
TF Subtotal	75,100	91,683	89,794	86,750	101,490	112,177	116,508	140,921	146,195	155,449	192,449	197,416	200,252	207,412	214,336	224,172	238,153	247,000
Mineral Lease Payt.	9,639	12,325	14,933	18,153	26,891	36,162	37,468	34,190	32,578	22,385	28,836	50,800	34,941	32,378	32,526	30,287	33,336	34,100
Total	638,803	739,252	841,315	901,574	1,020,704	1,045,236	1,280,109	1,409,793	1,445,594	1,479,883	1,645,921	1,800,179	1,871,433	1,960,264	2,069,194	2,209,196	2,462,132	2,623,700

*FY94 revenues are preliminary TC-23 collections.
**FY95 values are estimates.

Note: These revenues include tax rate and base changes. These monies primarily reflect Tax Commission cash collection annual reports, and not the Department of Finance's accrual reports which are used for budgeting.

Source: Utah Department of Finance, Utah State Tax Commission, and Governor's Office of Planning and Budget.

Table 44
Cash Collection Unrestricted Revenues (Current Dollar Percent Changes): FY 1978 to 1995

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
General Fund:																		
Sales & Use Tax	na	11.9	11.0	8.4	10.9	1.1	35.1	5.6	0.6	0.1	10.5	8.1	6.0	4.6	8.4	9.9	10.8	7.5
Liquor Profits	na	4.0	15.9	16.9	8.9	-0.8	2.5	-3.1	0.7	-9.6	-7.3	0.4	3.9	5.8	-5.5	9.3	-1.3	2.8
Insurance Premiums	na	12.9	9.4	7.2	36.2	-16.2	11.0	11.4	17.1	6.5	1.7	-6.4	13.7	-7.2	8.4	12.7	13.9	5.8
Beer Cig. & Tobacco	na	1.7	22.5	8.6	4.3	15.1	23.1	6.6	-1.2	14.0	21.6	5.3	-1.8	2.7	11.5	-0.9	6.7	0.6
Severance Taxes	na	-0.3	25.5	45.2	51.9	-16.6	86.5	29.4	-6.6	-50.8	35.3	-3.5	7.0	3.1	-41.5	6.1	-2.0	11.8
Inheritance Tax	na	-64.9	19.1	20.7	120.6	-56.2	57.9	53.3	-1.3	-50.9	48.5	183.6	-22.3	-36.6	-17.4	91.3	7.7	-3.5
Investment Income	na	59.4	105.5	-34.1	45.7	-47.6	-0.4	28.2	-16.3	-68.1	178.6	80.0	-7.0	-38.8	-36.1	-37.8	46.2	9.9
Other Fines and Fees	na	10.1	11.6	46.0	-5.5	12.3	65.5	1.6	-5.0	11.0	7.2	3.7	18.8	4.2	-30.9	-9.1	37.0	-16.5
Circuit Breaker	na	48.4	137.0	-17.7	5.6	-6.7	-22.0	21.3	-32.9	-16.4	-7.2	21.2	140.9	4.5	15.8	2.9	7.0	7.2
GF Subtotal	na	10.9	14.4	8.4	14.2	-2.5	35.0	7.3	0.1	-3.8	11.9	8.4	5.5	2.9	4.3	9.1	11.0	6.5
Uniform School Fund:																		
Individual Income	na	22.9	17.4	11.2	12.3	5.1	12.3	11.4	4.3	17.4	6.9	8.0	5.2	10.8	9.3	7.4	9.6	8.3
Corporate Franchise	na	11.6	22.8	0.7	0.6	-17.4	57.6	23.8	27.5	-18.0	14.4	18.0	7.2	-12.0	-7.8	-1.9	55.6	2.8
School Land Income	na	19.7	21.1	34.6	30.6	61.4	-37.6	-3.0	-39.0	-29.3	na	na	na	na	na	na	na	na
Perm. Fund Interest	na	na	na	na	na	na	na	na	na	na	na	49.9	45.8	1.3	2.8	37.5	-32.0	13.2
Gross Receipts Tax	na	na	na	na	na	na	na	na	na	na	782.0	-37.4	48.3	-11.7	-2.9	25.9	-8.4	-0.7
Federal Rev. Sharing	na	12.1	4.5	-50.2	na	na	na	na	na	na	na	na	na	na	na	na	na	na
USF Other	na	-56.9	101.1	-8.8	-15.2	-208.2	-348.3	73.9	15.2	9.7	-20.2	39.6	-18.6	15.1	27.1	-66.4	25.9	-32.1
USF Subtotal	na	19.8	17.9	7.9	9.3	4.3	14.4	13.0	5.9	11.1	6.8	9.5	5.3	7.7	7.7	5.4	13.2	7.4
Transportation Fund:																		
Motor Fuel Tax	na	25.7	-1.5	-6.5	19.9	1.4	0.4	29.5	3.2	8.5	29.4	1.4	1.0	-1.1	4.0	3.6	6.8	3.4
Special Fuel Tax	na	33.3	6.3	-3.5	25.4	-0.3	14.3	23.1	8.9	6.5	33.6	6.4	-0.7	26.4	-9.2	6.5	5.9	3.5
TF Other	na	8.2	-7.8	6.7	4.7	46.3	7.3	2.2	2.6	0.5	2.0	3.8	4.9	2.3	12.7	6.1	4.8	4.9
TF Subtotal	na	22.1	-2.1	-3.4	17.0	10.5	3.9	21.0	3.7	6.3	23.8	2.6	1.4	3.6	3.3	4.6	6.2	3.7
Mineral Lease Payt.	na	27.9	21.2	21.6	48.1	34.5	3.6	-8.7	-4.7	-31.3	28.8	76.2	-31.2	-7.3	0.5	-6.9	10.1	2.3
Total Ann. Pct. Chg.	na	15.7	13.8	7.2	13.2	2.4	22.5	10.1	2.5	2.4	11.2	9.4	4.0	4.7	5.6	6.8	11.4	6.6
Avg. Ann. Grth. Rates	na	15.7	14.8	12.2	12.4	10.3	12.3	12.0	10.7	9.8	9.9	9.9	9.4	9.0	8.8	8.6	8.8	8.7

Note: These percentages reflect tax rate and base changes, and represent Tax Commission cash collection annual reports rather than the Department of Finance's accrual reports which are used for budgeting.

Source: Utah Department of Finance, Utah State Tax Commission, and Governor's Office of Planning and Budget.

Table 45
Cash Collection Unrestricted Revenues (Constant 1987 Dollars): FY 1978 to 1995

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994*	1995**
General Fund:																		
Sales & Use Tax	445,344	459,193	467,953	461,126	471,699	455,639	590,857	598,508	583,984	568,203	607,300	628,144	638,602	640,238	672,301	720,933	783,599	819,512
Liquor Profits	21,564	20,670	21,983	23,369	23,455	22,233	21,870	20,331	19,872	17,460	15,652	15,044	14,986	15,196	13,905	14,822	14,351	14,361
Insurance Premiums	20,571	21,403	21,492	20,945	26,308	21,072	22,448	23,989	27,263	28,219	27,751	24,853	27,099	24,081	25,283	27,792	31,067	32,000
Beer Cig. & Tobacco	17,241	16,159	18,173	17,948	17,267	19,000	22,457	22,968	22,009	24,395	28,702	28,925	27,245	26,817	28,974	28,024	29,341	28,722
Severance Taxes	14,580	13,402	15,432	20,369	28,528	22,734	40,690	50,517	45,789	21,903	28,669	26,480	27,167	26,824	15,216	15,750	15,137	16,468
Inheritance Tax	7,000	2,264	2,475	2,716	5,525	2,313	3,505	5,157	4,940	2,356	3,385	9,192	6,854	4,161	3,331	6,218	6,568	6,166
Investment Income	11,785	17,317	32,666	19,571	26,297	13,164	12,582	15,483	12,567	3,899	10,509	18,104	16,152	9,478	5,867	3,562	5,109	5,463
Other Fines and Fees	12,627	12,811	13,128	17,423	15,181	16,289	25,875	25,225	23,248	25,085	26,022	25,823	29,421	29,357	19,667	17,444	23,445	19,044
Circuit Breaker	(1,416)	(1,936)	(4,211)	(3,150)	(3,067)	(2,734)	(2,048)	(2,385)	(1,553)	(1,262)	(1,133)	(1,314)	(3,036)	(3,038)	(3,409)	(3,421)	(3,591)	(3,746)
GF Subtotal	549,297	561,284	589,091	580,317	611,194	569,710	738,235	759,793	738,120	690,258	746,857	775,251	784,491	773,113	781,135	831,124	905,026	937,990
Uniform School Fund:																		
Individual Income	317,442	359,516	387,453	391,540	405,311	407,086	438,981	469,300	474,950	542,069	560,328	579,392	584,576	620,600	657,252	688,375	740,455	780,488
Corporate Franchise	50,834	52,305	58,962	53,985	50,054	39,498	59,771	71,033	87,870	70,033	77,489	87,513	89,992	75,903	67,821	64,940	99,130	99,122
School Land Income	12,779	14,097	15,666	19,173	23,081	35,597	21,319	19,837	11,738	8,071	0	0	0	0	0	0	0	0
Perm. Fund Interest	0	0	0	0	0	0	0	0	0	0	2,040	2,927	4,092	3,972	3,956	5,306	3,543	3,902
Gross Receipts Tax	0	0	0	0	0	0	0	0	0	518	4,423	2,648	3,766	3,187	2,997	3,683	3,311	3,200
Federal Rev. Sharing	20,703	21,389	20,510	9,291	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USF Other	5,382	2,137	3,944	3,268	2,556	(2,643)	6,300	10,514	11,755	12,540	9,685	12,940	10,100	11,139	13,720	4,493	5,549	3,668
USF Subtotal	407,140	449,445	486,535	477,257	481,001	479,538	526,372	570,684	586,313	633,231	653,965	685,420	692,526	714,800	745,746	766,797	851,987	890,380
Transportation Fund:																		
Motor Fuel Tax	84,253	97,648	88,275	75,014	82,906	80,366	77,461	96,268	96,355	101,632	127,207	123,501	119,584	113,341	114,245	115,512	121,026	121,756
Special Fuel Tax	12,759	15,675	15,289	13,417	15,510	14,784	16,226	19,171	20,250	20,966	27,094	27,581	26,261	31,814	27,989	29,075	30,218	30,439
TF Other	32,627	32,552	27,560	26,729	25,807	36,082	37,148	36,415	36,238	35,412	34,930	34,721	34,921	34,221	37,351	38,664	39,767	40,585
TF Subtotal	129,639	145,876	131,124	115,160	124,223	131,232	130,834	151,855	152,844	158,009	189,232	185,803	180,766	179,375	179,586	183,252	191,011	192,780
Mineral Lease Payt.	16,639	19,611	21,806	24,098	32,914	42,304	42,075	36,843	34,060	22,754	28,354	47,812	31,541	28,001	27,253	24,758	26,737	26,615
Total	1,102,715	1,176,216	1,228,556	1,196,833	1,249,331	1,222,784	1,437,517	1,519,174	1,511,337	1,504,252	1,618,408	1,694,286	1,689,324	1,695,290	1,733,719	1,805,931	1,974,761	2,047,766

*FY94 revenues are preliminary TC-23 collections.
**FY95 values are estimates.

Note: These revenues include tax rate and base changes. These monies primarily reflect Tax Commission cash collection annual reports, and not the Department of Finance's accrual reports which are used for budgeting.

Source: Utah Department of Finance, Utah State Tax Commission, and Governor's Office of Planning and Budget.

Table 46
Cash Collection Unrestricted Revenues (Constant 1987 Dollar Percent Changes): FY 1978 to 1995

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
General Fund:																		
Sales & Use Tax	na	3.1	1.9	-1.5	2.3	-3.4	29.7	1.3	-2.4	-2.7	6.9	3.4	1.7	0.3	5.0	7.2	8.7	4.6
Liquor Profits	na	-4.1	6.4	6.3	0.4	-5.2	-1.6	-7.0	-2.3	-12.1	-10.4	-3.9	-0.4	1.4	-8.5	6.6	-3.2	0.1
Insurance Premiums	na	4.0	0.4	-2.5	25.6	-19.9	6.5	6.9	13.6	3.5	-1.7	-10.4	9.0	-11.1	5.0	9.9	11.8	3.0
Beer Cig. & Tobacco	na	-6.3	12.5	-1.2	-3.8	10.0	18.2	2.3	-4.2	10.8	17.7	0.8	-5.8	-1.6	8.0	-3.3	4.7	-2.1
Severance Taxes	na	-8.1	15.1	32.0	40.1	-20.3	79.0	24.2	-9.4	-52.2	30.9	-7.6	2.6	-1.3	-43.3	3.5	-3.9	8.8
Inheritance Tax	na	-67.7	9.3	9.7	103.4	-58.1	51.5	47.2	-4.2	-52.3	43.7	171.5	-25.4	-39.3	-20.0	86.7	5.6	-6.1
Investment Income	na	46.9	88.6	-40.1	34.4	-49.9	-4.4	23.1	-18.8	-69.0	169.5	72.3	-10.8	-41.3	-38.1	-39.3	43.4	6.9
Other Fines and Fees	na	1.5	2.5	32.7	-12.9	7.3	58.8	-2.5	-7.8	7.9	3.7	-0.8	13.9	-0.2	-33.0	-11.3	34.4	-18.8
Circuit Breaker	na	36.8	117.5	-25.2	-2.6	-10.9	-25.1	16.4	-34.9	-18.7	-10.3	16.0	131.1	0.1	12.2	0.3	5.0	4.3
GF Subtotal	na	2.2	5.0	-1.5	5.3	-6.8	29.6	2.9	-2.9	-6.5	8.2	3.8	1.2	-1.5	1.0	6.4	8.9	3.6
Uniform School Fund:																		
Individual Income	na	13.3	7.8	1.1	3.5	0.4	7.8	6.9	1.2	14.1	3.4	3.4	0.9	6.2	5.9	4.7	7.6	5.4
Corporate Franchise	na	2.9	12.7	-8.4	-7.3	-21.1	51.3	18.8	23.7	-20.3	10.6	12.9	2.8	-15.7	-10.6	-4.2	52.6	-0.0
School Land Income	na	10.3	11.1	22.4	20.4	54.2	-40.1	-7.0	-40.8	-31.2	na	na	na	na	na	na	na	na
Perm. Fund Interest	na	na	na	na	na	na	na	na	na	na	na	43.5	39.8	-2.9	-0.4	34.1	-33.2	10.2
Gross Receipts Tax	na	na	na	na	na	na	na	na	na	na	753.2	-40.1	42.2	-15.4	-6.0	22.9	-10.1	-3.4
Federal Rev. Sharing	na	3.3	-4.1	-54.7	na	na	na	na	na	na	na	na	na	na	na	na	na	na
USF Other	na	-60.3	84.6	-17.1	-21.8	-203.4	-338.4	66.9	11.8	6.7	-22.8	33.6	-21.9	10.3	23.2	-67.3	23.5	-33.9
USF Subtotal	na	10.4	8.3	-1.9	0.8	-0.3	9.8	8.4	2.7	8.0	3.3	4.8	1.0	3.2	4.3	2.8	11.1	4.5
Transportation Fund:																		
Motor Fuel Tax	na	15.9	-9.6	-15.0	10.5	-3.1	-3.6	24.3	0.1	5.5	25.2	-2.9	-3.2	-5.2	0.8	1.1	4.8	0.6
Special Fuel Tax	na	22.9	-2.5	-12.2	15.6	-4.7	9.8	18.2	5.6	3.5	29.2	1.8	-4.8	21.1	-12.0	3.9	3.9	0.7
TF Other	na	-0.2	-15.3	-3.0	-3.5	39.8	3.0	-2.0	-0.5	-2.3	-1.4	-0.6	0.6	-2.0	9.1	3.5	2.9	2.1
TF Subtotal	na	12.5	-10.1	-12.2	7.9	5.6	-0.3	16.1	0.7	3.4	19.8	-1.8	-2.7	-0.8	0.1	2.0	4.2	0.9
Mineral Lease Payt.	na	17.9	11.2	10.5	36.6	28.5	-0.5	-12.4	-7.6	-33.2	24.6	68.6	-34.0	-11.2	-2.7	-9.2	8.0	-0.5
Total Ann. Pct. Chg.	na	6.7	4.4	-2.6	4.4	-2.1	17.6	5.7	-0.5	-0.5	7.6	4.7	-0.3	0.4	2.3	4.2	9.3	3.7
Avg. Ann. Grth. Rates	na	6.7	5.6	2.8	3.2	2.1	4.5	4.7	4.0	3.5	3.9	4.0	3.6	3.4	3.3	3.3	3.7	3.7

Note: These percentages reflect tax rate and base changes, and represent Tax Commission cash collection annual reports rather than the Department of Finance's accrual reports which are used for budgeting.

Source: Utah Department of Finance, Utah State Tax Commission, and Governor's Office of Planning and Budget.

Table 47
Rate and Base Adjusted Cash Collection Unrestricted Revenues (Thousands of Constant 1987 Dollars): 1978 to 1994

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994*
General Fund:																	
Sales & Use Tax	563,594	581,120	592,205	583,566	596,457	574,223	608,999	643,386	632,427	601,904	602,540	623,273	638,593	650,221	674,274	723,872	783,599
Liquor Profits	21,564	20,670	21,983	23,369	23,455	22,233	21,870	20,331	19,872	17,460	15,652	15,044	14,986	15,196	13,905	14,822	14,351
Insurance Premiums	20,439	21,266	21,355	20,811	19,937	20,936	22,304	23,835	27,088	28,038	27,573	24,693	25,580	25,216	25,121	27,614	31,067
Beer Cig. & Tobacco	57,921	54,245	51,011	50,217	45,829	43,550	39,912	40,134	38,601	37,709	31,939	32,232	30,302	29,878	28,974	28,024	29,341
Severance Taxes	21,610	19,865	23,647	30,981	43,020	34,086	40,560	38,159	34,880	16,911	24,413	23,731	23,674	21,503	17,811	19,517	15,137
Inheritance Tax	7,000	2,264	2,475	2,716	5,525	2,313	3,505	5,157	4,940	2,356	3,385	9,192	6,854	4,161	3,331	6,218	6,568
Investment Income	11,785	17,317	32,666	19,571	26,297	13,164	12,582	15,483	12,567	3,899	10,509	18,104	16,152	9,478	5,867	3,562	5,109
Other Fines and Fees	9,164	9,297	9,527	12,644	11,017	11,821	18,778	18,306	16,871	18,204	18,884	18,740	21,351	21,305	22,177	19,670	23,445
Circuit Breaker	(1,416)	(1,936)	(4,211)	(3,150)	(3,067)	(2,734)	(2,048)	(2,385)	(1,553)	(1,262)	(1,133)	(1,314)	(3,036)	(3,038)	(3,409)	(3,421)	(3,591)
GF Subtotal	711,661	724,108	750,658	740,725	768,470	719,594	766,462	802,406	785,695	725,219	733,762	763,695	774,456	773,919	788,051	839,878	905,026
Uniform School Fund:																	
Individual Income	315,760	357,611	385,400	389,465	403,163	404,942	436,671	466,838	472,462	488,145	522,939	558,029	590,131	626,497	663,503	694,923	740,455
Corporate Franchise	72,423	74,520	84,003	76,913	71,312	55,195	71,178	75,144	93,939	75,306	84,965	100,140	94,735	89,371	80,832	83,710	99,130
School Land Income	12,779	14,097	15,666	19,173	23,081	35,597	21,319	19,837	11,738	8,071	0	0	0	0	0	0	0
Perm. Fund Interest	0	0	0	0	0	0	0	0	0	0	2,040	2,927	4,092	3,972	3,956	5,306	3,543
Gross Receipts Tax	0	0	0	0	0	0	0	0	0	518	4,423	2,648	3,766	3,187	2,997	3,683	3,311
Federal Rev. Sharing	20,703	21,389	20,510	9,291	0	0	0	0	0	0	0	0	0	0	0	0	0
USF Other	5,382	2,137	3,944	3,268	2,556	(2,643)	6,300	10,514	11,755	12,540	9,685	12,940	10,100	11,139	13,720	4,493	5,549
USF Subtotal	427,047	469,754	509,523	498,110	500,111	493,091	535,468	572,333	589,895	584,580	624,052	676,685	702,824	734,166	765,008	792,115	851,987
Transportation Fund:																	
Motor Fuel Tax	228,688	206,147	186,359	158,363	143,201	138,814	133,796	130,650	130,768	131,721	127,207	123,501	119,584	113,341	114,245	115,512	121,026
Special Fuel Tax	39,075	37,340	36,420	31,960	30,229	28,813	31,624	29,358	31,009	29,771	30,572	31,121	29,632	29,359	27,989	29,075	30,218
TF Other	33,763	33,686	28,519	27,660	26,705	37,338	38,441	37,683	37,500	36,645	36,146	35,930	36,136	35,413	37,351	38,664	39,767
TF Subtotal	301,526	277,172	251,299	217,983	200,135	204,966	203,861	197,691	199,278	198,136	193,926	190,552	185,352	178,112	179,586	183,252	191,011
Mineral Lease Payt.	16,639	19,611	21,806	24,098	32,914	42,304	42,075	36,843	34,060	22,754	28,354	28,988	31,541	28,001	27,253	24,758	26,737
Total	1,456,873	1,490,645	1,533,285	1,480,916	1,501,631	1,459,955	1,547,866	1,609,272	1,608,927	1,530,689	1,580,094	1,659,921	1,694,174	1,714,198	1,759,897	1,840,003	1,974,761

FY94 revenues are preliminary TC-23 collections.

Note: These revenues were adjusted for tax rate and base changes. As such they do not include historical changes to the tax structure nor tax rate increases.

Source: Governor's Office of Planning and Budget.

Table 48
Rate and Base Adjusted Cash Collection Unrestricted Revenues (Constant 1987 Dollar Percent Changes): FY 1978 to 1994

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
General Fund:																	
Sales & Use Tax	na	3.1	1.9	-1.5	2.2	-3.7	6.1	5.6	-1.7	-4.8	0.1	3.4	2.5	1.8	3.7	7.4	8.3
Liquor Profits	na	-4.1	6.4	6.3	0.4	-5.2	-1.6	-7.0	-2.3	-12.1	-10.4	-3.9	-0.4	1.4	-8.5	6.6	-3.2
Insurance Premiums	na	4.0	0.4	-2.5	-4.2	5.0	6.5	6.9	13.6	3.5	-1.7	-10.4	3.6	-1.4	-0.4	9.9	12.5
Beer Cig. & Tobacco	na	-6.3	-6.0	-1.6	-8.7	-5.0	-8.4	0.6	-3.8	-2.3	-15.3	0.9	-6.0	-1.4	-3.0	-3.3	4.7
Severance Taxes	na	-8.1	19.0	31.0	38.9	-20.8	19.0	-5.9	-8.6	-51.5	44.4	-2.8	-0.2	-9.2	-17.2	9.6	-22.4
Inheritance Tax	na	-67.7	9.3	9.7	103.4	-58.1	51.5	47.2	-4.2	-52.3	43.7	171.5	-25.4	-39.3	-20.0	86.7	5.6
Investment Income	na	46.9	88.6	-40.1	34.4	-49.9	-4.4	23.1	-18.8	-69.0	169.5	72.3	-10.8	-41.3	-38.1	-39.3	43.4
Other Fines and Fees	na	1.5	2.5	32.7	-12.9	7.3	58.8	-2.5	-7.8	7.9	3.7	-0.8	13.9	-0.2	4.1	-11.3	19.2
Circuit Breaker	na	36.8	117.5	-25.2	-2.6	-10.9	-25.1	16.4	-34.9	-18.7	-10.3	16.0	131.1	0.1	12.2	0.3	5.0
GF Subtotal	na	1.7	3.7	-1.3	3.7	-6.4	6.5	4.7	-2.1	-7.7	1.2	4.1	1.4	-0.1	1.8	6.6	7.8
Uniform School Fund:																	
Individual Income	na	13.3	7.8	1.1	3.5	0.4	7.8	6.9	1.2	3.3	7.1	6.7	5.8	6.2	5.9	4.7	6.6
Corporate Franchise	na	2.9	12.7	-8.4	-7.3	-22.6	29.0	5.6	25.0	-19.8	12.8	17.9	-5.4	-5.7	-9.6	3.6	18.4
School Land Income	na	10.3	11.1	22.4	20.4	54.2	-40.1	-7.0	-40.8	-31.2	na	na	na	na	na	na	na
Perm. Fund Interest	na	na	na	na	na	na	na	na	na	na	na	43.5	39.8	-2.9	-0.4	34.1	-33.2
Gross Receipts Tax	na	na	na	na	na	na	na	na	na	na	753.2	-40.1	42.2	-15.4	-6.0	22.9	-10.1
Federal Rev. Sharing	na	3.3	-4.1	-54.7	na	na	na	na	na	na	na	na	na	na	na	na	na
USF Other	na	-60.3	84.6	-17.1	-21.8	-203.4	-338.4	66.9	11.8	6.7	-22.8	33.6	-21.9	10.3	23.2	-67.3	23.5
USF Subtotal	na	10.0	8.5	-2.2	0.4	-1.4	8.6	6.9	3.1	-0.9	6.8	8.4	3.9	4.5	4.2	3.5	7.6
Transportation Fund:																	
Motor Fuel Tax	na	-9.9	-9.6	-15.0	-9.6	-3.1	-3.6	-2.4	0.1	0.7	-3.4	-2.9	-3.2	-5.2	0.8	1.1	4.8
Special Fuel Tax	na	-4.4	-2.5	-12.2	-5.4	-4.7	9.8	-7.2	5.6	-4.0	2.7	1.8	-4.8	-0.9	-4.7	3.9	3.9
TF Other	na	-0.2	-15.3	-3.0	-3.5	39.8	3.0	-2.0	-0.5	-2.3	-1.4	-0.6	0.6	-2.0	5.5	3.5	2.9
TF Subtotal	na	-8.1	-9.3	-13.3	-8.2	2.4	-0.5	-3.0	0.8	-0.6	-2.1	-1.7	-2.7	-3.9	0.8	2.0	4.2
Mineral Lease Payt.	na	17.9	11.2	10.5	36.6	28.5	-0.5	-12.4	-7.6	-33.2	24.6	2.2	8.8	-11.2	-2.7	-9.2	8.0
Total Ann. Pct. Chg.	na	2.3	2.9	-3.4	1.4	-2.8	6.0	4.0	-0.0	-4.9	3.2	5.1	2.1	1.2	2.7	4.6	7.3
Avg. Ann. Grth. Rates	na	2.3	2.6	0.5	0.8	0.0	1.0	1.4	1.2	0.6	0.8	1.2	1.3	1.3	1.4	1.6	1.9

Note: These percentages do not reflect tax rate and base changes. As such they do not include historical changes to the tax structure nor tax rate increases.

Source: Governor's Office of Planning and Budget.

Table 49
Bills Impacting Revenue--General Fund and Uniform School Fund FY 1995 Impacts

Bill	Title	General Fund	Uniform School Fund	Total
H.B. 145	Sales Tax Exemption - Replacement Parts for Steel Mills	(516,700)	0	(516,700)
H.B. 162	Sales Tax - Repeal of Flood Tax Authorization	(26,500,000)	0	(26,500,000)
H.B. 170	Tax Penalties	0	90,000	90,000
H.B. 201	Long-Term Care Facilities Amendments	12,800	0	12,800
H.B. 205	Tax Credit for Low-Income Housing	0	(226,600)	(226,600)
H.B. 277	Public Assistance Overpayments	1,300	0	1,300
H.B. 279	Sales Tax - Container Exemption	380,000	0	380,000
H.B. 302	Sales Tax - Vending Machines	310,400	0	310,400
H.B. 322	Voluntary Declaration of Paternity	10,000	0	10,000
H.B. 346	Sales Tax Exemption - Pollution Control Facilities	1,400,000	0	1,400,000
H.B. 388	Appropriations for State Government	750,000	0	750,000
S.B. 093	Corporate Tax Revisions	0	50,000	50,000
S.B. 191	Sales Tax Exemption - Admission and User Fees	3,290,000	0	3,290,000
S.B. 205	Sales Tax Exemptions - Transportation Services	600,000	0	600,000
S.B. 211	Sales Tax Exemptions - Coin Operated Devices	1,103,100	0	1,103,100
S.B. 238	Sales Tax Exemptions - Building Materials	6,920,000	0	6,920,000
S.B. 245	Alternative Dispute Resolution Act	(100,000)	0	(100,000)
	Total	(12,339,100)	(86,600)	(12,425,700)

Note: This table shows bills that were passed by the 1994 legislature that will either increase or decrease FY 1995 revenue going into the General and Uniform School Funds.

Source: State of Utah, Budget Summary, Governor's Office of Planning and Budget, April 1994.

✧ Regional / National Comparisons

The 1990s have been a period of sustained economic growth for the Mountain Division[1]. In fact, 1994 had the strongest growth in the national economy since the national recession (July 1990 to March 1991). The mountain region is in the midst of an economic boom and leads the nation in economic vitality and growth. An examination of basic demographic and economic statistics demonstrates the relatively favorable economic conditions among most mountain states compared to the national economy.

Population Growth

The rate of population growth in the mountain states has increased since 1988. In 1993, the population growth rate was 2.8 percent. The favorable economic conditions in the mountain west will support continued above-average population growth. In-migrants (from California in particular) have been moving into the intermountain area. From 1992 to 1993, the population in Mountain Division states increased by 397,000, to a total of 14,776,000 inhabitants or growth of 2.8 percent compared to a 1.1 percent increase nationally (Figure 30 and Table 50). In 1994, the mountain states continued to attract in-migrants to the area. The California economy is now improving, which will likely reduce the number of migrants moving into this region during 1995.

Personal Income Growth

Total personal income for the region grew at an average annual rate of 7.3 percent from 1988 to 1993, as compared to the national rate of 4.4 percent. Utah's average annual growth of personal income was 7.5 percent during this period. Of the eight states in the mountain region, three (Nevada, Idaho, and Utah) had personal income growth rates above the national average since 1988 (Table 51).

From 1992 to 1993, income grew by 7.3 percent in the mountain states compared to 4.4 percent in the U.S. The most recent data show that income growth is quite strong in this region relative to the nation. Personal income grew by 7.9 percent and by 5.5 percent in the mountain states and the U.S. respectively from the second quarter of 1993 to the second quarter of 1994. During this same time, personal income grew 10.1 percent in Nevada and 8.6 percent in Utah, the first and third largest percent increases of all 50 states.

Per capita personal income for a region can change relative to the U.S. average because the region's total personal income, its population, or both, grow at a faster or slower rate than the U.S. average. From 1988 to 1993, income in the mountain region grew 30 percent faster than the national rate, while population grew almost twice the U.S. rate. The result is that per capita income for the mountain states has increased a little relative to national per capita income (Table 52). In 1988, per capita income in the mountain region was $14,706 or 88.5 percent of the national figure of $16,610. By 1993, per capita income for the mountain states was 90.9 percent of the national figure--$18,887 compared to $20,781.

Seven of the eight mountain states experienced an increase in per capita personal income relative to the U.S. average from 1988 to 1993. Only Arizona declined, rather significantly, from 90.7 percent to 87.2 percent of the U.S. average.

Per capita total personal income is one statistic that is used to measure relative economic prosperity between states. In Utah, on average, the birth rate is higher and household size is larger than found in other states. With 35.8 percent of Utah's population under the age of 18 compared to 26.0 percent nationally, Utah's per capita income is just 77.7 percent of the national figure of $20,781 for 1993. This rate of 77.7 percent is the lowest of any state in the region (Figure 31).

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[1]As defined by the Bureau of the Census, the Mountain Division includes: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming.

Another measure of relative economic prosperity, total personal income per household, recognizes that most people live in households and not as individuals. In 1993, Utah's per household income was fourth out of the eight mountain states, and was 91.7 percent of the national figure of $56,300 (Figure 32 and Table 53). Total personal income per household in the mountain region at $51,400 was 91.3 percent of the U.S. average.

Wages

The most complete measure of relative wages paid between states is average annual pay for all workers covered either by state or federal unemployment insurance programs. Wage growth for the intermountain region averaged 3.4 percent per year from 1988 to 1993, compared to the national growth rate of 3.8 percent (Table 54). With a slower growth rate in wages for the mountain states, wages dropped from 91 percent of the U.S. average in 1988 to 89.3 percent by 1993. As a percent of the national average, wages dropped in seven of the eight mountain states over this five-year period. Only Nevada wages increased, from 93.9 percent to 96.6 percent of the U.S. average. In 1993, average pay in Utah was 84.4 percent of the U.S. average, ranking fourth among the eight mountain states, and 37th nationally (Figure 33).

Labor Market Activity

From 1988 to 1993, the mountain region's employment growth rate was more than three times that of the nation. Nonagricultural job growth in the region averaged 3.1 percent per year, while the national rate was 1.0 percent. Among the eight states of the region job growth per year was the highest in Idaho (4.6 percent), Nevada (4.5 percent), and Utah (4.2 percent). These were the fastest job growth rates for all 50 states over this five-year period. During this period, every mountain state increased in employment at a faster rate than the national growth rate (Table 55).

The most recent complete year for which data is available is 1993. From 1992 to 1993, nonagricultural employment growth in the mountain region was 4.2 percent, compared to the national rate of 1.8 percent. Of the 50 states, Utah, Idaho, Nevada, and Colorado led the way with job increases ranging from 5.4 to 4.3 percent.

Latest available information for all states, October 1993 to October 1994, indicates that the job picture in the mountain region is by far the strongest of any region of the country. Four states, Utah, New Mexico, Nevada, and Arizona are outpacing all other states with net new job creation of between 4.5 to 6.1 percent (Figure 34). Nonagricultural job growth averaged 4.2 percent for mountain states, while for the nation it was 2.9 percent.

The latest data indicate that unemployment in this region is about 0.6 percent below the national rate of 5.4 percent (Table 56). This relatively favorable unemployment situation for the mountain states is indicative of the economic strength this region has maintained during the 1990s.

Broad-Based Strength

Economic conditions in the mountain region are stronger than that of any other region in the United States. The states of the intermountain west have been recognized nationally as having a favorable business climate; including moderate business taxes, less government regulation, a relatively youthful and educated populace, lower wages, and affordable housing. In addition, the quality of life in the mountain states with lower crime, functioning schools, and abundant recreational opportunities has been praised. For the past few years there has been a noticeable migration of jobs and people into this region. The largest number of these jobs and people have been relocating from California.

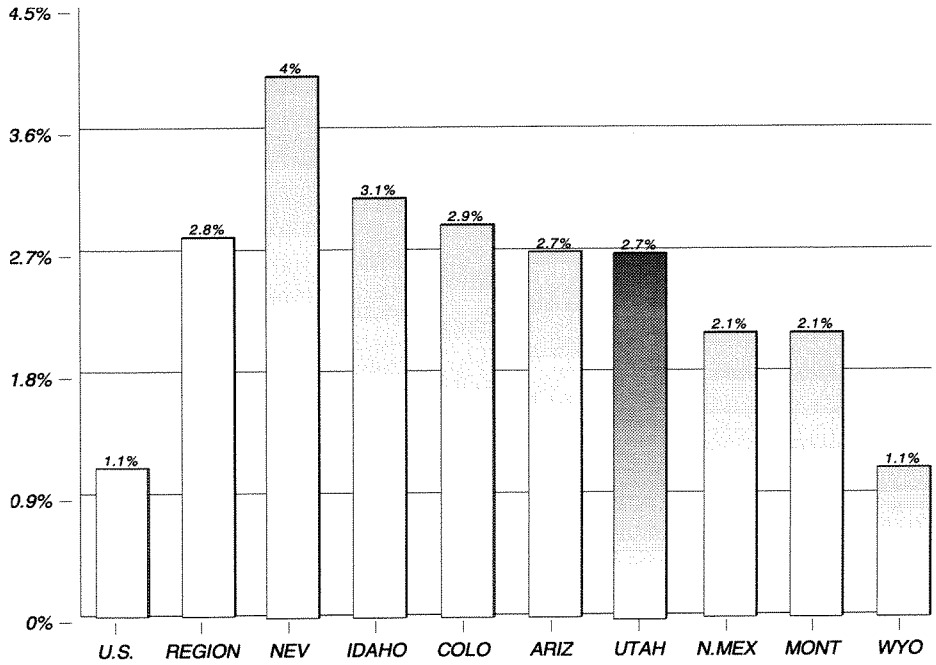
This influx has helped to fuel increased economic activity in manufacturing, residential and nonresidential construction, wholesale and retail trade, service industries, and government throughout the mountain west. Regional employment growth is broad-based across most of the mountain states and across most of the major industries. The effects of the strong regional economy and net in-migration have had a particularly

noticeable effect in the construction industries. From October 1993 to October 1994, construction jobs were increasing at double digit rates in four mountain states--Utah (21.6 percent), New Mexico (14.8 percent), Arizona (13.4 percent) and Idaho (12.2 percent).

Manufacturing jobs have been adversely affected because of cuts in defense, productivity gains, and foreign competition. Nationally, manufacturing employment grew about just 1.1 percent from October 1993 to October 1994. Even with these adverse trends, manufacturing employment growth has quickened in New Mexico, Wyoming, Arizona, Utah and Nevada, all increasing by 5 percent or more.

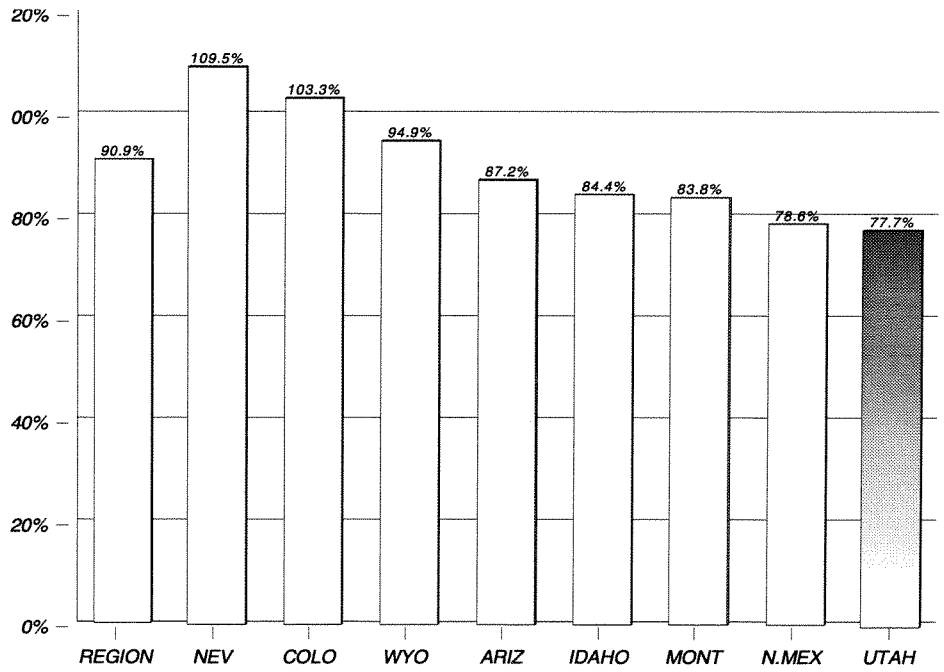
The national economy remains strong as 1995 begins. Mountain Division state economies are experiencing an unprecedented, broad-based expansion. The Federal Reserve has been putting upward pressure on interest rates through most of 1994 in an effort to slow the national economy and to prevent it from overheating. While the mountain states have been able, to this point, to expand economically without developing labor shortages or other serious bottlenecks, there are signs that rapid growth will begin to put inevitable strains on infrastructures and resources. These signs include increasing housing prices, low rates of unemployment, some labor shortages and upward pressure on wages. Higher interest rates should begin to reduce economic growth nationally and regionally in 1995. Regardless, the states in the Mountain Division will continue to outperform the nation as a whole during 1994. ✧

Figure 30
Population Growth Rates--U.S. and Mountain Division States: 1992-1993



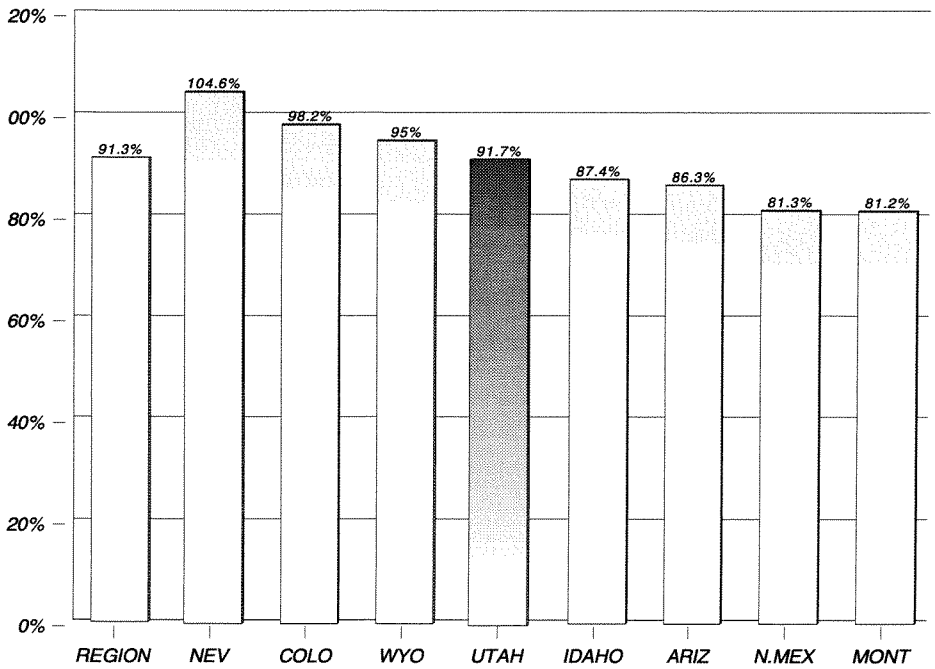
Source: U.S. Census Bureau

Figure 31
Per Capita Income as a Percent of U.S.--Mountain Division States: 1993



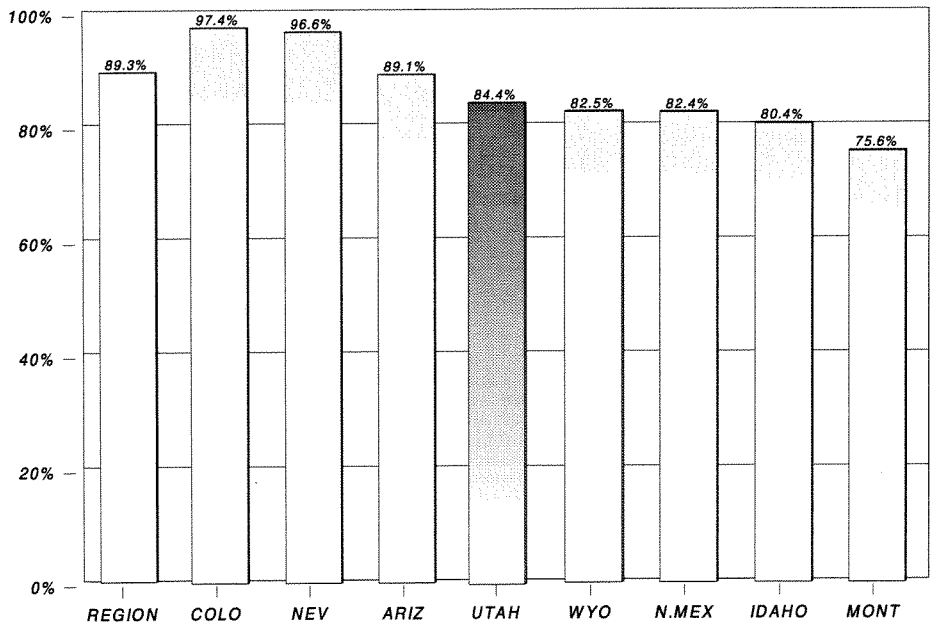
Source: Bureau of Economic Analysis

Figure 32
Personal Income per Household as a Percent of U.S.--Mountain Division States: 1993



Source: Base data from the U.S. Bureau of the Census and the U.S. Bureau of Economic Analysis.
Personal income per household estimate calculated by Utah Foundation.

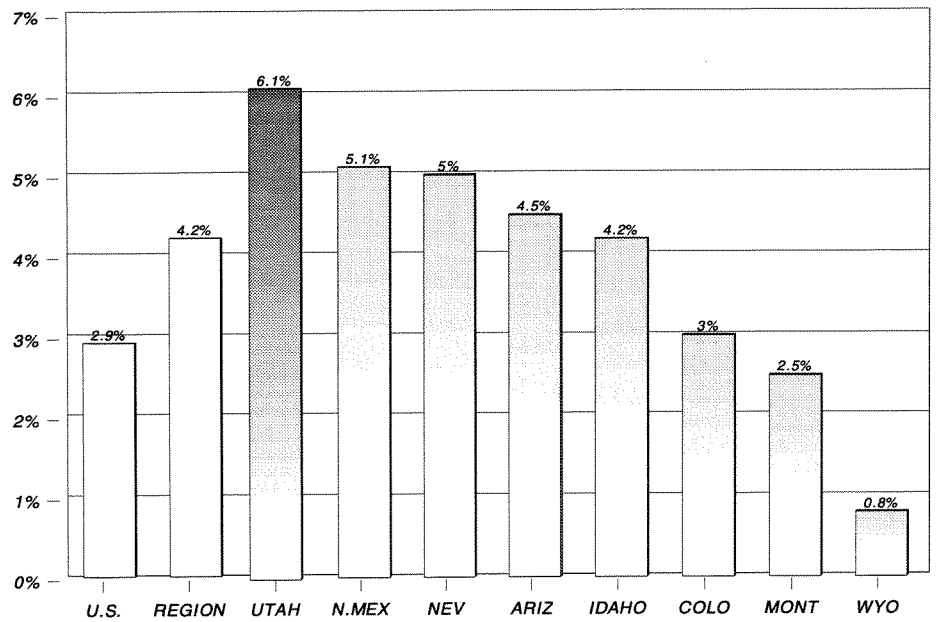
Figure 33
Average Annual Pay as a Percent of U.S.--Mountain Division States: 1993



*For workers covered by unemployment insurance

Source: U.S. Bureau of Labor Statistics

Figure 34
Nonagricultural Employment Growth--U.S. and Mountain Division States: Oct. 1993 to Oct. 1994



Source U.S. Bureau of Labor Statisitcs

Table 50
Population and Households--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Population (July 1 Estimates) 1988 (thousands)	1992 (thousands)	1993 (thousands)	Rates of Population Change: Avg. Ann. Growth Rate 1988-93	Percent Change 1992-93	Households (July 1 Estimates) 1993 (thousands)	Persons per Household	Rankings: Rank by Population 1993	Rank by Avg. Ann. Growth Rate 1988-93	Rank by Percent Change 1992-93	Rank by Persons per Household 1993
United States	244,534	255,078	257,908	1.1%	1.1%	95,133	2.64				
Mountain States	13,305	14,379	14,776	2.1%	2.8%	5,432	2.66				
Arizona	3,536	3,832	3,936	2.2%	2.7%	1,467	2.63	23	4	4	18
Colorado	3,263	3,465	3,566	1.8%	2.9%	1,385	2.52	26	11	3	49
Idaho	986	1,066	1,099	2.2%	3.1%	392	2.75	42	3	2	5
Montana	800	822	839	1.0%	2.1%	320	2.55	44	22	9	39
Nevada	1,075	1,336	1,389	5.3%	4.0%	537	2.54	38	1	1	45
New Mexico	1,491	1,582	1,616	1.6%	2.1%	577	2.75	36	13	7	5
Utah	1,690	1,811	1,860	1.9%	2.7%	582	3.15	34	8	5	1
Wyoming	465	465	470	0.2%	1.1%	173	2.65	51	44	23	15
Other States											
Alabama	4,024	4,138	4,187	0.8%	1.2%	1,565	2.62	22	25	20	19
Alaska	542	588	599	2.0%	1.9%	206	2.81	48	7	12	4
Arkansas	2,343	2,394	2,424	0.7%	1.3%	916	2.58	33	28	19	29
California	28,468	30,895	31,211	1.9%	1.0%	10,779	2.82	1	9	25	3
Connecticut	3,272	3,279	3,277	0.0%	-0.1%	1,231	2.58	27	47	49	29
Delaware	648	691	700	1.6%	1.3%	261	2.61	46	15	18	22
D.C.	631	585	578	-1.7%	-1.2%	240	2.24	49	51	51	51
Florida	12,308	13,483	13,679	2.1%	1.5%	5,381	2.49	4	5	16	50
Georgia	6,317	6,773	6,917	1.8%	2.1%	2,535	2.66	11	10	8	12
Hawaii	1,080	1,156	1,172	1.6%	1.4%	379	2.99	40	12	17	2
Illinois	11,392	11,613	11,697	0.5%	0.7%	4,290	2.66	6	35	36	12
Indiana	5,493	5,658	5,713	0.8%	1.0%	2,139	2.59	14	26	28	26
Iowa	2,769	2,803	2,814	0.3%	0.4%	1,074	2.53	30	42	43	48
Kansas	2,462	2,515	2,531	0.6%	0.6%	961	2.55	32	33	37	39
Kentucky	3,681	3,754	3,789	0.6%	0.9%	1,420	2.60	24	30	29	24
Louisiana	4,289	4,279	4,295	0.0%	0.4%	1,529	2.74	21	48	45	9
Maine	1,204	1,236	1,239	0.6%	0.2%	472	2.55	39	31	47	39
Maryland	4,659	4,917	4,965	1.3%	1.0%	1,822	2.66	19	19	27	12
Massachusetts	5,981	5,993	6,012	0.1%	0.3%	2,258	2.57	13	45	46	31
Michigan	9,219	9,434	9,478	0.6%	0.5%	3,497	2.65	8	32	41	15
Minnesota	4,297	4,468	4,517	1.0%	1.1%	1,697	2.59	20	21	22	26
Mississippi	2,581	2,615	2,643	0.5%	1.1%	934	2.75	31	37	24	5
Missouri	5,082	5,191	5,234	0.6%	0.8%	1,996	2.55	16	29	33	39
Nebraska	1,572	1,601	1,607	0.4%	0.4%	610	2.56	37	38	44	34
New Hampshire	1,083	1,115	1,125	0.8%	0.9%	420	2.61	41	27	31	22
New Jersey	7,713	7,820	7,879	0.4%	0.8%	2,849	2.71	9	39	35	10
New York	17,944	18,109	18,197	0.3%	0.5%	6,691	2.64	2	43	40	17
North Carolina	6,482	6,836	6,945	1.4%	1.6%	2,637	2.55	10	17	13	39
North Dakota	655	634	635	-0.6%	0.2%	240	2.54	47	50	48	45
Ohio	10,800	11,021	11,091	0.5%	0.6%	4,185	2.59	7	34	38	26
Oklahoma	3,168	3,205	3,231	0.4%	0.8%	1,227	2.56	28	40	34	34
Oregon	2,742	2,972	3,032	2.0%	2.0%	1,170	2.54	29	6	10	45
Pennsylvania	11,847	11,995	12,048	0.3%	0.4%	4,556	2.57	5	41	42	31
Rhode Island	997	1,001	1,000	0.1%	-0.1%	376	2.56	43	46	50	34
South Carolina	3,413	3,603	3,643	1.3%	1.1%	1,321	2.67	25	18	21	11
South Dakota	698	708	715	0.5%	1.0%	263	2.62	45	36	26	19
Tennessee	4,823	5,025	5,099	1.1%	1.5%	1,938	2.57	17	20	15	31
Texas	16,669	17,683	18,031	1.6%	2.0%	6,420	2.75	3	14	11	5
Vermont	550	571	576	0.9%	0.9%	217	2.56	50	23	32	34
Virginia	6,038	6,394	6,491	1.5%	1.5%	2,418	2.60	12	16	14	24
Washington	4,641	5,143	5,255	2.5%	2.2%	2,009	2.56	15	2	6	34
West Virginia	1,830	1,809	1,820	-0.1%	0.6%	699	2.55	35	49	39	39
Wisconsin	4,823	4,993	5,038	0.9%	0.9%	1,875	2.62	18	24	30	19

Source: U.S. Bureau of the Census.

Table 51
Total Personal Income--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Total Personal Income 1988 (millions)	Total Personal Income 1992 (millions)	Total Personal Income 1993 (millions)	Rates of Total Personal Income Change: Avg. Ann. Growth Rate 1988-93	Rates of Total Personal Income Change: Percent Change 1992-93	Total Personal Income (saar): 2nd Quarter 1993 (millions)	Total Personal Income (saar): 2nd Quarter 1994 (millions)	Total Personal Income (saar): Percent Change 1993-94	Rankings: Rank by Total Personal Income 1993	Rankings: Rank by Avg. Ann. Growth Rate 1988-93	Rankings: Rank by Percent Change 1992-93	Rankings: Rank by Percent Change (saar) 1993-94
United States	$4,061,806	$5,135,062	$5,359,589	5.7%	4.4%	$5,348,392	$5,644,488	5.5%				
Mountain States	195,669	260,146	279,073	7.4%	7.3%	277,168	299,006	7.9%				
Arizona	53,251	67,001	71,317	6.0%	6.4%	70,950	76,650	8.0%	24	25	9	7
Colorado	53,966	71,292	76,581	7.3%	7.4%	76,026	81,182	6.8%	22	9	5	14
Idaho	12,668	17,775	19,279	8.8%	8.5%	19,130	20,658	8.0%	43	2	2	8
Montana	10,269	13,469	14,617	7.3%	8.5%	14,521	15,402	6.1%	46	8	1	18
Nevada	19,253	29,210	31,593	10.4%	8.2%	31,328	34,495	10.1%	35	1	3	1
New Mexico	18,713	24,550	26,402	7.1%	7.5%	26,172	28,376	8.4%	39	11	4	4
Utah	20,915	28,078	30,010	7.5%	6.9%	29,805	32,372	8.6%	36	6	6	3
Wyoming	6,633	8,770	9,275	6.9%	5.8%	9,235	9,871	6.9%	51	13	14	12
Other States												
Alabama	52,521	68,254	71,620	6.4%	4.9%	71,206	75,269	5.7%	23	19	21	27
Alaska	9,720	13,074	13,785	7.2%	5.4%	13,752	14,477	5.3%	47	10	17	36
Arkansas	28,793	37,312	38,776	6.1%	3.9%	38,708	40,728	5.2%	33	23	40	37
California	532,444	667,318	683,002	5.1%	2.4%	682,488	708,555	3.8%	1	42	49	50
Connecticut	75,790	89,043	91,625	3.9%	2.9%	91,619	96,856	5.7%	21	49	48	26
Delaware	11,371	14,579	15,220	6.0%	4.4%	15,254	16,285	6.8%	45	27	29	15
D.C.	13,420	16,569	17,259	5.2%	4.2%	17,142	18,015	5.1%	44	41	34	39
Florida	205,127	265,418	283,297	6.7%	6.7%	282,490	299,154	5.9%	4	16	7	22
Georgia	97,819	125,116	132,832	6.3%	6.2%	132,731	141,408	6.5%	12	21	10	16
Hawaii	18,924	25,912	27,389	7.7%	5.7%	27,446	28,462	3.7%	38	4	16	51
Illinois	201,919	252,938	263,591	5.5%	4.2%	262,946	276,988	5.3%	5	34	32	34
Indiana	81,901	104,022	109,465	6.0%	5.2%	108,955	115,732	6.2%	16	28	18	17
Iowa	39,681	50,953	51,564	5.4%	1.2%	51,433	54,234	5.4%	30	37	50	30
Kansas	38,778	48,341	50,295	5.3%	4.0%	50,324	52,607	4.5%	31	38	37	47
Kentucky	46,930	61,698	64,237	6.5%	4.1%	64,011	67,756	5.9%	26	18	35	23
Louisiana	53,911	67,831	71,252	5.7%	5.0%	71,170	77,078	8.3%	25	31	20	5
Maine	18,486	22,460	23,271	4.7%	3.6%	23,176	24,373	5.2%	41	46	41	38
Maryland	91,790	114,075	118,759	5.3%	4.1%	118,499	124,893	5.4%	14	39	36	31
Massachusetts	124,327	141,578	147,148	3.4%	3.9%	146,626	155,117	5.8%	10	51	39	24
Michigan	152,142	185,665	194,687	5.1%	4.9%	194,399	208,919	7.5%	9	44	22	9
Minnesota	70,914	91,654	94,942	6.0%	3.6%	94,929	99,553	4.9%	19	26	42	42
Mississippi	28,854	36,744	38,869	6.1%	5.8%	38,509	41,946	8.9%	32	22	13	2
Missouri	79,134	98,441	102,369	5.3%	4.0%	102,512	108,344	5.7%	17	40	38	28
Nebraska	23,908	30,775	31,754	5.8%	3.2%	31,834	33,357	4.8%	34	29	45	44
New Hampshire	20,888	24,229	24,947	3.6%	3.0%	24,815	26,294	6.0%	40	50	47	20
New Jersey	167,602	204,091	210,622	4.7%	3.2%	211,087	219,876	4.2%	8	47	44	49
New York	353,658	437,119	450,754	5.0%	3.1%	452,253	472,825	4.5%	2	45	46	46
North Carolina	93,560	121,880	129,790	6.8%	6.5%	129,079	139,474	8.1%	13	15	8	6
North Dakota	7,816	10,859	10,872	6.8%	0.1%	10,921	11,408	4.5%	50	14	51	48
Ohio	169,902	208,560	217,693	5.1%	4.4%	216,662	228,732	5.6%	7	43	30	29
Oklahoma	42,158	52,807	55,047	5.5%	4.2%	54,830	57,522	4.9%	29	33	31	41
Oregon	41,327	55,615	58,962	7.4%	6.0%	58,575	62,827	7.3%	28	7	12	10
Pennsylvania	196,483	247,115	255,921	5.4%	3.6%	255,459	267,496	4.7%	6	36	43	45
Rhode Island	17,261	20,256	21,204	4.2%	4.7%	21,094	22,309	5.8%	42	48	24	25
South Carolina	45,018	58,262	61,236	6.3%	5.1%	61,033	64,309	5.4%	27	20	19	32
South Dakota	8,962	12,286	12,860	7.5%	4.7%	12,763	13,632	6.8%	48	5	25	13
Tennessee	68,379	88,553	93,894	6.5%	6.0%	93,072	99,568	7.0%	20	17	11	11
Texas	246,122	326,230	345,009	7.0%	5.8%	344,008	364,445	5.9%	3	12	15	21
Vermont	8,581	10,742	11,193	5.5%	4.2%	11,138	11,675	4.8%	49	35	33	43
Virginia	106,011	133,452	139,831	5.7%	4.8%	139,428	146,904	5.4%	11	32	23	33
Washington	77,352	109,570	114,422	8.1%	4.4%	114,055	119,733	5.0%	15	3	28	40
West Virginia	22,193	28,086	29,392	5.8%	4.6%	29,383	30,933	5.3%	37	30	26	35
Wisconsin	$74,260	$95,434	$99,860	6.1%	4.6%	$99,407	$105,411	6.0%	18	24	27	19

saar = seasonally adjusted annual rate.

Source: U.S. Bureau of Economic Analysis.

Table 52
Per Capita Personal Income-U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Per Capita Personal Income 1988	Per Capita Personal Income 1992	Per Capita Personal Income 1993	Rates of Per Capita Personal Income Change: Avg. Ann. Growth Rate 1988-93	Rates of Per Capita Personal Income Change: Percent Change 1992-93	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1988	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1992	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1993	Rankings: Rank by Per Capita Personal Income 1993	Rankings: Rank by Average Annual Growth Rate 1988-93	Rankings: Rank by Percent Change 1992-93
United States	$16,610	$20,131	$20,781	4.6%	3.2%	100.0%	100.0%	100.0%			
Mountain States	14,706	18,092	18,887	5.1%	4.4%	88.5%	89.9%	90.9%			
Arizona	15,061	17,483	18,119	3.8%	3.6%	90.7%	86.8%	87.2%	37	48	27
Colorado	16,540	20,577	21,475	5.4%	4.4%	99.6%	102.2%	103.3%	16	19	13
Idaho	12,850	16,676	17,540	6.4%	5.2%	77.4%	82.8%	84.4%	39	5	5
Montana	12,832	16,379	17,413	6.3%	6.3%	77.3%	81.4%	83.8%	40	6	1
Nevada	17,907	21,857	22,747	4.9%	4.1%	107.8%	108.6%	109.5%	9	32	17
New Mexico	12,554	15,520	16,333	5.4%	5.2%	75.6%	77.1%	78.6%	47	16	3
Utah	12,379	15,503	16,138	5.4%	4.1%	74.5%	77.0%	77.7%	49	14	16
Wyoming	14,260	18,871	19,724	6.7%	4.5%	85.9%	93.7%	94.9%	25	4	10
Other States											
Alabama	13,051	16,496	17,106	5.6%	3.7%	78.6%	81.9%	82.3%	42	12	25
Alaska	17,931	22,244	23,008	5.1%	3.4%	108.0%	110.5%	110.7%	8	25	30
Arkansas	12,289	15,584	15,994	5.4%	2.6%	74.0%	77.4%	77.0%	50	15	43
California	18,703	21,599	21,884	3.2%	1.3%	112.6%	107.3%	105.3%	12	50	49
Connecticut	23,160	27,154	27,957	3.8%	3.0%	139.4%	134.9%	134.5%	2	47	41
Delaware	17,555	21,102	21,735	4.4%	3.0%	105.7%	104.8%	104.6%	14	41	40
D.C.	21,284	28,313	29,836	7.0%	5.4%	128.1%	140.6%	143.6%	1	2	2
Florida	16,666	19,686	20,710	4.4%	5.2%	100.3%	97.8%	99.7%	20	39	4
Georgia	15,485	18,472	19,203	4.4%	4.0%	93.2%	91.8%	92.4%	30	40	19
Hawaii	17,522	22,420	23,378	5.9%	4.3%	105.5%	111.4%	112.5%	7	7	14
Illinois	17,725	21,781	22,534	4.9%	3.5%	106.7%	108.2%	108.4%	10	31	29
Indiana	14,911	18,384	19,161	5.1%	4.2%	89.8%	91.3%	92.2%	31	24	15
Iowa	14,332	18,178	18,324	5.0%	0.8%	86.3%	90.3%	88.2%	36	28	50
Kansas	15,748	19,219	19,874	4.8%	3.4%	94.8%	95.5%	95.6%	22	33	32
Kentucky	12,751	16,436	16,954	5.9%	3.2%	76.8%	81.6%	81.6%	44	9	36
Louisiana	12,568	15,852	16,588	5.7%	4.6%	75.7%	78.7%	79.8%	46	10	9
Maine	15,354	18,167	18,775	4.1%	3.3%	92.4%	90.2%	90.3%	33	45	34
Maryland	19,703	23,199	23,920	4.0%	3.1%	118.6%	115.2%	115.1%	6	46	38
Massachusetts	20,787	23,625	24,475	3.3%	3.6%	125.1%	117.4%	117.8%	5	49	28
Michigan	16,502	19,681	20,542	4.5%	4.4%	99.3%	97.8%	98.8%	21	38	12
Minnesota	16,504	20,513	21,017	5.0%	2.5%	99.4%	101.9%	101.1%	19	30	45
Mississippi	11,181	14,050	14,708	5.6%	4.7%	67.3%	69.8%	70.8%	51	11	8
Missouri	15,570	18,965	19,559	4.7%	3.1%	93.7%	94.2%	94.1%	27	35	37
Nebraska	15,211	19,228	19,757	5.4%	2.8%	91.6%	95.5%	95.1%	24	18	42
New Hampshire	19,292	21,729	22,169	2.8%	2.0%	116.1%	107.9%	106.7%	11	51	48
New Jersey	21,729	26,098	26,732	4.2%	2.4%	130.8%	129.6%	128.6%	3	42	46
New York	19,709	24,138	24,771	4.7%	2.6%	118.7%	119.9%	119.2%	4	34	44
North Carolina	14,435	17,828	18,688	5.3%	4.8%	86.9%	88.6%	89.9%	34	21	6
North Dakota	11,925	17,127	17,123	7.5%	-0.0%	71.8%	85.1%	82.4%	41	1	51
Ohio	15,732	18,923	19,627	4.5%	3.7%	94.7%	94.0%	94.4%	26	36	22
Oklahoma	13,310	16,475	17,035	5.1%	3.4%	80.1%	81.8%	82.0%	43	27	33
Oregon	15,074	18,716	19,447	5.2%	3.9%	90.8%	93.0%	93.6%	28	22	21
Pennsylvania	16,584	20,601	21,241	5.1%	3.1%	99.8%	102.3%	102.2%	17	26	39
Rhode Island	17,321	20,229	21,203	4.1%	4.8%	104.3%	100.5%	102.0%	18	44	7
South Carolina	13,192	16,171	16,810	5.0%	4.0%	79.4%	80.3%	80.9%	45	29	20
South Dakota	12,835	17,344	17,977	7.0%	3.6%	77.3%	86.2%	86.5%	38	3	26
Tennessee	14,177	17,622	18,415	5.4%	4.5%	85.4%	87.5%	88.6%	35	17	11
Texas	14,765	18,449	19,134	5.3%	3.7%	88.9%	91.6%	92.1%	32	20	23
Vermont	15,607	18,801	19,442	4.5%	3.4%	94.0%	93.4%	93.6%	29	37	31
Virginia	17,558	20,870	21,544	4.2%	3.2%	105.7%	103.7%	103.7%	15	43	35
Washington	16,669	21,306	21,773	5.5%	2.2%	100.4%	105.8%	104.8%	13	13	47
West Virginia	12,124	15,527	16,148	5.9%	4.0%	73.0%	77.1%	77.7%	48	8	18
Wisconsin	$15,397	$19,115	$19,822	5.2%	3.7%	92.7%	95.0%	95.4%	23	23	24

Source: U.S. Bureau of Economic Analysis.

Table 53
Total Personal Income per Household--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Total Personal Income per Household 1988	1992	1993	Rates of Change for Total Personal Income per Household: Avg. Ann. Growth Rate 1988-93	Percent Change 1992-93	Total Personal Income per Household as a Percent of U.S. Personal Income per Household 1988	1992	1993	Rankings: Rank by Total Personal Income per Household 1993	Rank by Average Annual Growth Rate 1988-93	Rank by Percent Change 1992-93
United States	$44,900	$54,400	$56,300	4.6%	3.5%	100.0%	100.0%	100.0%			
Mountain States	39,900	49,100	51,400	5.2%	4.7%	88.9%	90.3%	91.3%			
Arizona	40,300	46,900	48,600	3.8%	3.6%	89.8%	86.2%	86.3%	38	47	34
Colorado	42,500	52,800	55,300	5.4%	4.7%	94.7%	97.1%	98.2%	20	17	12
Idaho	35,900	46,600	49,200	6.5%	5.6%	80.0%	85.7%	87.4%	35	4	4
Montana	33,500	42,600	45,700	6.4%	7.3%	74.6%	78.3%	81.2%	45	5	1
Nevada	46,200	56,400	58,900	5.0%	4.4%	102.9%	103.7%	104.6%	12	30	17
New Mexico	35,000	43,300	45,800	5.5%	5.8%	78.0%	79.6%	81.3%	44	14	3
Utah	39,700	49,600	51,600	5.4%	4.0%	88.4%	91.2%	91.7%	30	20	24
Wyoming	38,300	50,900	53,500	6.9%	5.1%	85.3%	93.6%	95.0%	22	3	7
Other States											
Alabama	35,000	44,100	45,800	5.5%	3.9%	78.0%	81.1%	81.3%	43	13	29
Alaska	52,200	64,600	66,900	5.1%	3.6%	116.3%	118.8%	118.8%	6	27	35
Arkansas	32,400	41,000	42,300	5.5%	3.2%	72.2%	75.4%	75.1%	49	16	42
California	53,600	62,300	63,400	3.4%	1.8%	119.4%	114.5%	112.6%	9	49	49
Connecticut	61,900	72,100	74,400	3.7%	3.2%	137.9%	132.5%	132.1%	1	48	41
Delaware	43,000	56,500	58,400	6.3%	3.4%	95.8%	103.9%	103.7%	13	6	38
D.c.	56,800	68,300	71,800	4.8%	5.1%	126.5%	125.6%	127.5%	4	34	6
Florida	42,000	49,800	52,700	4.6%	5.8%	93.5%	91.5%	93.6%	24	37	2
Georgia	42,400	50,300	52,400	4.3%	4.2%	94.4%	92.5%	93.1%	26	41	22
Hawaii	54,500	69,100	72,200	5.8%	4.5%	121.4%	127.0%	128.2%	3	9	16
Illinois	48,200	59,100	61,400	5.0%	3.9%	107.3%	108.6%	109.1%	10	31	27
Indiana	40,000	49,000	51,200	5.1%	4.5%	89.1%	90.1%	90.9%	32	28	15
Iowa	37,400	47,500	48,000	5.1%	1.1%	83.3%	87.3%	85.3%	40	25	50
Kansas	41,300	50,400	52,400	4.9%	4.0%	92.0%	92.6%	93.1%	25	32	25
Kentucky	34,100	43,700	45,200	5.8%	3.4%	75.9%	80.3%	80.3%	46	8	36
Louisiana	35,400	44,400	46,600	5.7%	5.0%	78.8%	81.6%	82.8%	41	11	10
Maine	40,500	47,500	49,300	4.0%	3.8%	90.2%	87.3%	87.6%	34	45	31
Maryland	53,900	63,100	65,200	3.9%	3.3%	120.0%	116.0%	115.8%	7	46	39
Massachusetts	55,700	62,800	65,200	3.2%	3.8%	124.1%	115.4%	115.8%	8	50	30
Michigan	44,900	53,300	55,700	4.4%	4.5%	100.0%	98.0%	98.9%	19	39	14
Minnesota	43,800	54,300	56,000	5.0%	3.1%	97.6%	99.8%	99.5%	18	29	44
Mississippi	31,600	39,500	41,600	5.7%	5.3%	70.4%	72.6%	73.9%	51	10	5
Missouri	40,600	49,500	51,300	4.8%	3.6%	90.4%	91.0%	91.1%	31	35	33
Nebraska	39,900	50,500	52,100	5.5%	3.2%	88.9%	92.8%	92.5%	27	15	43
New Hampshire	52,000	58,100	59,500	2.7%	2.4%	115.8%	106.8%	105.7%	11	51	48
New Jersey	60,100	71,900	73,900	4.2%	2.8%	133.9%	132.2%	131.3%	2	42	46
New York	53,400	65,400	67,400	4.8%	3.1%	118.9%	120.2%	119.7%	5	36	45
North Carolina	38,000	46,900	49,200	5.3%	4.9%	84.6%	86.2%	87.4%	36	22	11
North Dakota	31,600	45,100	45,200	7.4%	0.2%	70.4%	82.9%	80.3%	47	1	51
Ohio	41,700	49,900	52,000	4.5%	4.2%	92.9%	91.7%	92.4%	28	38	20
Oklahoma	34,700	43,100	44,900	5.3%	4.2%	77.3%	79.2%	79.8%	48	23	21
Oregon	38,800	48,300	50,400	5.4%	4.3%	86.4%	88.8%	89.5%	33	21	18
Pennsylvania	43,800	54,200	56,200	5.1%	3.7%	97.6%	99.6%	99.8%	17	26	32
Rhode Island	46,000	53,700	56,400	4.2%	5.0%	102.4%	98.7%	100.2%	16	43	8
South Carolina	36,600	44,600	46,400	4.9%	4.0%	81.5%	82.0%	82.4%	42	33	23
South Dakota	34,500	46,700	48,900	7.2%	4.7%	76.8%	85.8%	86.9%	37	2	13
Tennessee	37,300	46,200	48,500	5.4%	5.0%	83.1%	84.9%	86.1%	39	18	9
Texas	41,300	51,700	53,700	5.4%	3.9%	92.0%	95.0%	95.4%	21	19	28
Vermont	41,700	49,900	51,600	4.4%	3.4%	92.9%	91.7%	91.7%	29	40	37
Virginia	47,400	56,000	57,800	4.0%	3.2%	105.6%	102.9%	102.7%	14	44	40
Washington	43,300	55,500	56,900	5.6%	2.5%	96.4%	102.0%	101.1%	15	12	47
West Virginia	31,600	40,300	42,000	5.9%	4.2%	70.4%	74.1%	74.6%	50	7	19
Wisconsin	$41,300	$51,200	$53,200	5.2%	3.9%	92.0%	94.1%	94.5%	23	24	26

Source: Base data from the U.S. Bureau of the Census and the U.S. Bureau of Economic Analysis; Personal income per household estimate calculated by Utah Foundation.

Table 54
Average Annual Pay For All Workers Covered by Unemployment Insurance--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Average Annual Pay 1988	Average Annual Pay 1992	Average Annual Pay 1993	Rates of Change for Average Annual Pay: Avg. Ann. Growth Rate 1988-93	Rates of Change for Average Annual Pay: Percent Change 1992-93	Average Annual Pay as a Percent of U.S. Average Annual Pay 1988	Average Annual Pay as a Percent of U.S. Average Annual Pay 1992	Average Annual Pay as a Percent of U.S. Average Annual Pay 1993	Rankings: Rank by Average Annual Pay 1993	Rankings: Rank by Avg. Ann. Growth Rate 1988-93	Rankings: Rank by Percent Change 1992-93
United States	$21,872	$25,897	$26,362	3.8%	1.8%	100.0%	100.0%	100.0%			
Mountain States	19,895	23,025	23,546	3.4%	2.3%	91.0%	88.9%	89.3%			
Arizona	20,383	23,153	23,501	2.9%	1.5%	93.2%	89.4%	89.1%	29	49	41
Colorado	21,472	25,040	25,682	3.6%	2.6%	98.2%	96.7%	97.4%	16	31	10
Idaho	17,648	20,649	21,188	3.7%	2.6%	80.7%	79.7%	80.4%	45	27	9
Montana	16,957	19,378	19,932	3.3%	2.9%	77.5%	74.8%	75.6%	48	43	7
Nevada	20,548	24,743	25,461	4.4%	2.9%	93.9%	95.5%	96.6%	19	7	6
New Mexico	18,259	21,051	21,731	3.5%	3.2%	83.5%	81.3%	82.4%	43	37	3
Utah	18,910	21,976	22,250	3.3%	1.2%	86.5%	84.9%	84.4%	37	42	46
Wyoming	19,097	21,215	21,745	2.6%	2.5%	87.3%	81.9%	82.5%	42	51	11
Other States											
Alabama	19,003	22,340	22,786	3.7%	2.0%	86.9%	86.3%	86.4%	31	29	27
Alaska	28,033	31,825	32,336	2.9%	1.6%	128.2%	122.9%	122.7%	5	48	37
Arkansas	17,023	20,108	20,337	3.6%	1.1%	77.8%	77.6%	77.1%	47	35	47
California	24,126	28,902	29,468	4.1%	2.0%	110.3%	111.6%	111.8%	7	15	30
Connecticut	26,234	32,603	33,169	4.8%	1.7%	119.9%	125.9%	125.8%	2	4	36
Delaware	21,977	26,596	27,143	4.3%	2.1%	100.5%	102.7%	103.0%	11	9	23
D.C.	30,253	37,951	39,199	5.3%	3.3%	138.3%	146.5%	148.7%	1	1	2
Florida	19,523	23,145	23,571	3.8%	1.8%	89.3%	89.4%	89.4%	28	23	33
Georgia	20,504	24,373	24,867	3.9%	2.0%	93.7%	94.1%	94.3%	23	19	25
Hawaii	20,444	25,538	26,325	5.2%	3.1%	93.5%	98.6%	99.9%	12	2	4
Illinois	23,608	27,910	28,420	3.8%	1.8%	107.9%	107.8%	107.8%	8	25	34
Indiana	20,437	23,570	24,109	3.4%	2.3%	93.4%	91.0%	91.5%	24	38	20
Iowa	17,928	20,937	21,441	3.6%	2.4%	82.0%	80.8%	81.3%	44	32	15
Kansas	19,030	21,982	22,430	3.3%	2.0%	87.0%	84.9%	85.1%	35	39	24
Kentucky	18,545	21,858	22,170	3.6%	1.4%	84.8%	84.4%	84.1%	38	34	43
Louisiana	19,330	22,342	22,632	3.2%	1.3%	88.4%	86.3%	85.9%	34	45	45
Maine	18,347	21,808	22,026	3.7%	1.0%	83.9%	84.2%	83.6%	39	28	48
Maryland	22,515	27,145	27,684	4.2%	2.0%	102.9%	104.8%	105.0%	10	11	29
Massachusetts	24,143	29,664	30,229	4.6%	1.9%	110.4%	114.5%	114.7%	6	5	31
Michigan	24,193	27,463	28,260	3.2%	2.9%	110.6%	106.0%	107.2%	9	46	5
Minnesota	21,481	25,324	25,711	3.7%	1.5%	98.2%	97.8%	97.5%	15	30	40
Mississippi	16,522	19,237	19,694	3.6%	2.4%	75.5%	74.3%	74.7%	49	36	16
Missouri	20,295	23,550	23,898	3.3%	1.5%	92.8%	90.9%	90.7%	26	41	42
Nebraska	17,190	20,355	20,815	3.9%	2.3%	78.6%	78.6%	79.0%	46	21	21
New Hampshire	20,749	24,866	24,962	3.8%	0.4%	94.9%	96.0%	94.7%	21	26	51
New Jersey	25,748	32,073	32,716	4.9%	2.0%	117.7%	123.8%	124.1%	4	3	26
New York	26,347	32,399	32,919	4.6%	1.6%	120.5%	125.1%	124.9%	3	6	38
North Carolina	18,636	22,249	22,770	4.1%	2.3%	85.2%	85.9%	86.4%	32	14	18
North Dakota	16,508	18,945	19,382	3.3%	2.3%	75.5%	73.2%	73.5%	50	44	19
Ohio	21,501	24,845	25,339	3.3%	2.0%	98.3%	95.9%	96.1%	20	40	28
Oklahoma	19,098	21,698	22,003	2.9%	1.4%	87.3%	83.8%	83.5%	40	50	44
Oregon	19,637	23,514	24,093	4.2%	2.5%	89.8%	90.8%	91.4%	25	12	13
Pennsylvania	21,485	25,785	26,274	4.1%	1.9%	98.2%	99.6%	99.7%	13	13	32
Rhode Island	20,206	24,315	24,889	4.3%	2.4%	92.4%	93.9%	94.4%	22	10	17
South Carolina	18,009	21,398	21,928	4.0%	2.5%	82.3%	82.6%	83.2%	41	17	12
South Dakota	15,424	18,016	18,613	3.8%	3.3%	70.5%	69.6%	70.6%	51	24	1
Tennessee	19,209	22,807	23,368	4.0%	2.5%	87.8%	88.1%	88.6%	30	18	14
Texas	21,130	25,088	25,545	3.9%	1.8%	96.6%	96.9%	96.9%	17	22	35
Vermont	18,640	22,360	22,704	4.0%	1.5%	85.2%	86.3%	86.1%	33	16	39
Virginia	21,053	24,940	25,496	3.9%	2.2%	96.3%	96.3%	96.7%	18	20	22
Washington	20,806	25,553	25,760	4.4%	0.8%	95.1%	98.7%	97.7%	14	8	50
West Virginia	19,341	22,168	22,373	3.0%	0.9%	88.4%	85.6%	84.9%	36	47	49
Wisconsin	$19,743	$23,008	$23,610	3.6%	2.6%	90.3%	88.8%	89.6%	27	33	8

Source: U.S. Bureau of Labor Statistics.

Table 55
Employees on Nonagricultural Payrolls--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Employees on Nonagricultural Payrolls 1988 (thousands)	1992 (thousands)	1993 (thousands)	Rates of Change for Employees on Nonagricultural Payrolls: Avg. Ann. Growth Rate 1988-93	Percent Change 1992-93	Employees on Nonagricultural Payrolls (not seasonally adjusted): October 1993 (thousands)	October (p) 1994 (thousands)	Percent Change 1993-94	Rankings: Rank by Employees on Nonagricultural Payrolls 1993	Rank by Average Annual Growth Rate 1988-93	Rank by Percent Change 1992-93	Rank by Percent Change (unadjusted) 1993-94
United States	105,210.0	108,604.0	110,525.0	1.0%	1.8%	111,977.0	115,272.0	2.9%				
Mountain States	5,420.9	6,061.4	6,314.4	3.1%	4.2%	6,454.0	6,724.6	4.2%				
Arizona	1,419.3	1,517.0	1,571.2	2.1%	3.6%	1,603.6	1,676.5	4.5%	24	21	11	4
Colorado	1,436.1	1,596.9	1,665.6	3.0%	4.3%	1,688.6	1,740.0	3.0%	22	6	4	15
Idaho	348.5	416.4	437.2	4.6%	5.0%	453.8	472.8	4.2%	43	1	2	7
Montana	282.9	316.6	326.4	2.9%	3.1%	335.7	344.0	2.5%	46	8	12	23
Nevada	537.6	638.7	670.0	4.5%	4.9%	689.4	723.9	5.0%	37	2	3	3
New Mexico	547.5	601.5	623.9	2.6%	3.7%	636.3	668.5	5.1%	39	10	9	2
Utah	660.0	768.7	810.3	4.2%	5.4%	831.7	882.2	6.1%	34	3	1	1
Wyoming	189.0	205.6	209.8	2.1%	2.0%	214.9	216.7	0.8%	51	18	26	45
Other States												
Alabama	1,558.7	1,674.5	1,712.2	1.9%	2.3%	1,731.3	1,752.6	1.2%	21	25	23	40
Alaska	213.7	247.2	252.5	3.4%	2.1%	255.4	259.1	1.4%	50	5	24	39
Arkansas	865.4	963.1	989.5	2.7%	2.7%	1,004.6	1,045.0	4.0%	33	9	19	9
California	12,103.4	12,153.5	11,999.7	-0.2%	-1.3%	12,005.8	12,000.4	-0.0%	1	44	51	49
Connecticut	1,674.9	1,526.2	1,528.8	-1.8%	0.2%	1,541.2	1,552.1	0.7%	27	50	47	47
Delaware	334.2	341.3	347.8	0.8%	1.9%	350.7	359.9	2.6%	45	39	29	20
D.C.	673.6	673.6	670.3	-0.1%	-0.5%	669.7	667.9	-0.3%	36	43	49	50
Florida	5,066.6	5,358.7	5,567.4	1.9%	3.9%	5,615.7	5,822.8	3.7%	4	24	7	11
Georgia	2,875.9	2,987.2	3,106.1	1.6%	4.0%	3,171.5	3,305.7	4.2%	11	32	5	6
Hawaii	478.1	542.8	539.4	2.4%	-0.6%	537.1	530.8	-1.2%	40	12	50	51
Illinois	5,097.5	5,234.9	5,316.3	0.8%	1.6%	5,396.8	5,478.8	1.5%	5	37	35	38
Indiana	2,395.6	2,554.2	2,589.1	1.6%	1.4%	2,632.6	2,686.8	2.1%	14	31	38	32
Iowa	1,156.2	1,252.6	1,277.1	2.0%	2.0%	1,301.9	1,329.5	2.1%	29	23	28	31
Kansas	1,035.4	1,115.0	1,134.9	1.9%	1.8%	1,153.1	1,172.1	1.6%	31	26	31	36
Kentucky	1,381.9	1,508.5	1,534.0	2.1%	1.7%	1,550.7	1,600.2	3.2%	26	17	32	14
Louisiana	1,511.6	1,626.9	1,643.1	1.7%	1.0%	1,653.8	1,724.5	4.3%	23	28	43	5
Maine	527.1	511.9	518.7	-0.3%	1.3%	533.4	542.2	1.6%	41	45	39	35
Maryland	2,102.3	2,081.3	2,099.8	-0.0%	0.9%	2,124.3	2,140.5	0.8%	20	42	45	46
Massachusetts	3,126.2	2,795.1	2,841.5	-1.9%	1.7%	2,895.1	2,966.7	2.5%	13	51	34	22
Michigan	3,819.2	3,927.4	3,982.1	0.8%	1.4%	4,043.0	4,195.5	3.8%	8	38	37	10
Minnesota	2,028.1	2,184.9	2,241.5	2.0%	2.6%	2,286.7	2,345.5	2.6%	19	22	21	21
Mississippi	896.2	960.3	998.1	2.2%	3.9%	1,019.5	1,042.8	2.3%	32	14	6	27
Missouri	2,258.9	2,333.7	2,394.6	1.2%	2.6%	2,442.4	2,514.0	2.9%	16	34	20	18
Nebraska	688.1	750.1	762.7	2.1%	1.7%	775.8	794.5	2.4%	35	20	33	25
New Hampshire	529.0	486.5	500.3	-1.1%	2.8%	512.5	523.8	2.2%	42	47	16	29
New Jersey	3,659.5	3,455.4	3,493.0	-0.9%	1.1%	3,529.4	3,592.0	1.8%	9	46	42	33
New York	8,186.9	7,729.9	7,735.7	-1.1%	0.1%	7,805.5	7,889.5	1.1%	2	48	48	42
North Carolina	2,986.6	3,125.5	3,244.6	1.7%	3.8%	3,312.0	3,390.0	2.4%	10	29	8	26
North Dakota	256.7	277.2	285.0	2.1%	2.8%	291.8	299.5	2.6%	48	16	17	19
Ohio	4,700.6	4,847.7	4,905.4	0.9%	1.2%	4,967.4	5,023.8	1.1%	7	36	41	41
Oklahoma	1,131.5	1,221.7	1,239.7	1.8%	1.5%	1,246.5	1,276.7	2.4%	30	27	36	24
Oregon	1,156.0	1,274.2	1,310.4	2.5%	2.8%	1,343.4	1,389.0	3.4%	28	11	15	13
Pennsylvania	5,041.7	5,075.5	5,110.2	0.3%	0.7%	5,162.4	5,242.1	1.5%	6	40	46	37
Rhode Island	459.4	424.8	428.7	-1.4%	0.9%	436.6	439.5	0.7%	44	49	44	48
South Carolina	1,449.0	1,527.7	1,569.6	1.6%	2.7%	1,589.7	1,604.3	0.9%	25	30	18	43
South Dakota	266.1	308.7	317.9	3.6%	3.0%	323.9	337.0	4.0%	47	4	13	8
Tennessee	2,092.1	2,245.0	2,327.5	2.2%	3.7%	2,374.4	2,427.7	2.2%	17	15	10	28
Texas	6,677.8	7,269.1	7,478.8	2.3%	2.9%	7,588.2	7,814.8	3.0%	3	13	14	17
Vermont	256.1	251.0	256.0	-0.0%	2.0%	262.7	265.1	0.9%	49	41	27	44
Virginia	2,772.5	2,848.4	2,919.5	1.0%	2.5%	2,966.2	3,056.2	3.0%	12	35	22	16
Washington	1,943.2	2,222.4	2,249.8	3.0%	1.2%	2,285.6	2,323.5	1.7%	18	7	40	34
West Virginia	609.8	640.0	651.7	1.3%	1.8%	663.2	686.1	3.5%	38	33	30	12
Wisconsin	2,168.5	2,357.9	2,406.7	2.1%	2.1%	2,450.9	2,504.8	2.2%	15	19	25	30

(p)=preliminary

Note: This data varies slightly from data reported by the State of Utah Department of Employment Security.

Source: U.S. Bureau of Labor Statistics.

Table 56
Unemployment Rates--U.S., Mountain Division, and States: 1988, 1992, and 1993

Division/State	Unemployment Rate 1988	Unemployment Rate 1992	Unemployment Rate 1993	Unemployment Rate Percent Change 1988-93	Unemployment Rate Percent Change 1992-93	Unemployment Rate (not seasonally adjusted) October 1993	Unemployment Rate (not seasonally adjusted) October (p) 1994	Rankings: Rank by Unemployment Rate 1988	Rankings: Rank by Unemployment Rate 1992	Rankings: Rank by Unemployment Rate 1993	Rankings: Rank by Unemployment Rate (unadjusted) 1993	Rankings: Rank by Unemployment Rate (unadjusted) 1994
United States	5.5	7.4	6.8	1.3	-0.6	6.3	5.4					
Mountain States	6.2	6.4	5.9	-0.3	-0.5	5.5	4.8					
Arizona	6.3	7.4	6.2	-0.1	-1.2	6.5	6.5	16	20	28	18	6
Colorado	6.4	5.9	5.2	-1.2	-0.7	4.7	3.5	14	38	40	39	45
Idaho	5.8	6.5	6.1	0.4	-0.2	4.8	4.5	19	33	26	37	34
Montana	6.8	6.7	6.0	-0.6	-0.5	5.3	4.4	12	29	32	33	36
Nevada	5.2	6.6	7.2	2.1	0.7	7.0	5.7	26	31	15	11	16
New Mexico	7.8	6.8	7.5	-0.3	0.7	7.2	5.2	6	27	9	9	23
Utah	4.9	4.9	3.9	-1.0	-1.1	3.2	3.4	29	45	49	48	46
Wyoming	6.3	5.6	5.4	-0.9	-0.0	4.7	4.0	15	41	36	38	40
Other States												
Alabama	7.2	7.3	7.5	0.3	0.2	7.5	5.3	10	21	11	5	21
Alaska	9.3	9.1	7.6	-1.5	-1.3	7.3	7.1	3	3	6	8	4
Arkansas	7.7	7.2	6.2	-1.5	-1.0	5.2	4.4	7	23	29	34	37
California	5.3	9.1	9.2	3.9	0.1	9.4	7.4	25	2	2	2	2
Connecticut	3.0	7.5	6.2	3.2	-1.3	5.6	4.6	49	13	27	29	30
Delaware	3.2	5.3	5.3	2.2	0.2	5.5	4.0	46	42	38	32	39
D.C.	5.0	8.4	8.5	3.7	0.1	7.9	6.5	31	8	3	3	7
Florida	5.0	8.2	7.0	2.0	-1.2	6.6	6.1	28	10	20	17	10
Georgia	5.8	6.9	5.8	-0.0	-1.2	6.0	5.1	21	25	34	26	24
Hawaii	3.2	4.5	4.2	1.2	-0.2	3.9	5.9	47	48	47	46	14
Illinois	6.8	7.5	7.4	0.6	-0.1	7.0	5.7	11	14	12	10	15
Indiana	5.3	6.5	5.3	0.0	-1.2	4.6	4.5	24	32	39	40	35
Iowa	4.5	4.6	4.0	-0.5	-0.7	3.1	2.7	34	47	48	49	48
Kansas	4.8	4.2	5.0	0.2	0.8	5.0	4.7	32	49	42	36	28
Kentucky	7.9	6.9	6.2	-1.7	-0.8	5.5	4.8	5	26	31	31	26
Louisiana	10.9	8.1	7.4	-3.5	-0.7	6.9	7.7	1	12	13	14	1
Maine	3.8	7.1	7.9	4.2	0.9	7.0	6.0	42	24	4	12	12
Maryland	4.5	6.6	6.2	1.7	-0.4	6.1	5.0	35	30	30	23	25
Massachusetts	3.3	8.5	6.9	3.6	-1.6	6.2	5.9	45	7	21	22	13
Michigan	7.6	8.8	7.0	-0.6	-1.8	6.5	4.7	8	5	19	19	27
Minnesota	4.0	5.1	5.1	1.0	-0.1	4.5	3.2	38	43	41	42	47
Mississippi	8.4	8.1	6.3	-2.1	-1.8	5.6	5.2	4	11	25	30	22
Missouri	5.7	5.7	6.4	0.7	0.7	5.9	3.8	23	39	24	27	42
Nebraska	3.6	3.0	2.6	-1.0	-0.4	2.2	2.2	44	51	51	51	51
New Hampshire	2.4	7.5	6.6	4.1	-0.9	5.8	3.6	51	18	22	28	44
New Jersey	3.8	8.4	7.4	3.6	-1.0	6.3	6.3	41	9	14	21	8
New York	4.2	8.5	7.7	3.5	-0.8	7.5	6.2	37	6	7	6	9
North Carolina	3.6	5.9	4.9	1.3	-1.1	4.3	4.6	43	37	44	44	29
North Dakota	4.8	4.9	4.3	-0.4	-0.4	3.5	2.6	30	46	46	47	49
Ohio	6.0	7.2	6.5	0.5	-0.7	6.0	4.5	18	22	23	25	33
Oklahoma	6.7	5.7	6.0	-0.7	0.4	6.1	5.4	13	40	33	24	20
Oregon	5.8	7.5	7.2	1.4	-0.3	6.4	4.5	20	19	16	20	31
Pennsylvania	5.1	7.5	7.0	1.9	-0.5	6.6	5.7	27	17	17	16	17
Rhode Island	3.1	8.9	7.7	4.8	-1.0	7.9	6.8	48	4	5	4	5
South Carolina	4.5	6.2	7.5	3.0	1.3	7.5	6.0	33	36	8	7	11
South Dakota	3.9	3.1	3.5	-0.6	0.2	2.6	2.5	39	50	50	50	50
Tennessee	5.8	6.4	5.7	-0.1	-0.7	5.2	4.3	22	35	35	35	38
Texas	7.3	7.5	7.0	-0.3	-0.5	6.9	5.6	9	15	18	15	18
Vermont	2.8	6.6	5.4	2.7	-1.4	4.4	3.9	50	28	37	43	41
Virginia	3.9	6.4	5.0	1.1	-1.4	4.5	4.5	40	34	43	41	32
Washington	6.2	7.5	7.5	1.4	0.0	6.9	5.6	17	16	10	13	19
West Virginia	9.9	11.3	10.8	0.8	-0.5	9.8	7.2	2	1	1	1	3
Wisconsin	4.3	5.1	4.7	0.4	-0.4	4.0	3.8	36	44	45	45	43

(p)=preliminary

Source: U.S. Bureau of Labor Statistics.

Industry Focus

✧ Agriculture

Weather conditions, especially rainfall, commonly have a major impact on agricultural production. These influences were probably no more evident than in the changes that occurred nationally and in Utah between 1993 and 1994.

National Perspective

Agricultural production in 1993 was dominated by the floods in the mid-West. As a result, crop production declined in most areas in the heart of America's "breadbasket." While production in 1993 was not favorable, 1994 production was nearly ideal in many areas of the United States. This is expected to result in record production of many crops. For example, corn production is expected to increase from the 6.3 billion bushels that was harvested in 1993 to nearly 9.3 billion bushels in 1994. Production of other crops is not expected to increase as much as corn and the impact will be small because corn is the "king of crops" grown in the United States. This large increase in production has resulted in decreased prices for most grains.

The decrease in grain prices would generally be a blessing for livestock producers. But in 1994, livestock production also increased--especially hogs and poultry. As a result, the prices received by livestock farmers in 1994 decreased from those prices received in 1993. For example, hog prices in Omaha on 3 November declined from $44 per hundred in 1993 to less than $30 in 1994. If the price of feed grains had not declined, most livestock producers would be facing a very grim year.

The price declines outlined above would normally result in decreased farm income, but the increase in production is expected to offset decreases in the prices received. As a result, net farm income is expected to increase from the $43 billion in 1993 to a projected level of between $53 and $57 billion, according to the latest data from USDA. The increased production, with its associated decrease in prices, will generally be viewed very favorably by consumers who will be the primary beneficiaries of this bounteous harvest.

Utah Perspective

While many farmers in the U.S. were blessed with nearly ideal growing conditions in 1994, Utah farmers faced one of the driest growing seasons on record. Drought conditions commonly dictated the actions taken by farmers in Utah in 1994. For example, in some areas of the state, livestock were removed from federal lands a month or more before they are usually removed. Livestock that were removed from federal lands were either forced to use private lands that had produced ample supplies of feed or were sold at prices that were significantly less than those received in 1993. As a result, net farm income in 1994 in Utah should decline from the amount earned in 1993 (Figure 35). Further declines are also expected in 1995, because the price of most agricultural products will likely not increase and many will decline even further (e.g., milk, cattle). This would normally lead to financial stress for many producers, but the financial status of agriculture in Utah is not expected to decline. The data in Figure 36 and Table 57 indicate that the value of farm assets and the net worth of farmers increased in 1992 as compared to 1991. Data for 1993 and 1994 are not available, but it is likely that this upward trend will continue through 1995 because land prices are not expected to decline. This suggests that those producers who are heavily in debt may be forced out of production as income declines, but most farmers in Utah will be able to survive this decline in net income.

The data in Figure 37 show that the production of livestock and livestock products is the most important part of agricultural production in Utah. The percentage of gross receipts from livestock declined from 75.4 percent in 1992 to 74.8 percent in 1994, but animal production is expected to continue to dominate agriculture in Utah in the foreseeable future.

There are only a few areas where Utah is a major producer of farm products. Utah ranks high in the production of some fruits (especially cherries and apricots), sheep and lambs, and some grains (e.g., spring wheat and barley). Mink production has always been a major industry in the state, but 1993 was an

especially eventful year because Utah became the leading state in the production of mink pelts. When the production that exists in the Cache Valley area of southern Idaho is added to Utah's production (Utah, Morgan, Summit, Cache, and Salt Lake Counties are Utah's leading mink production counties), Utah and southern Idaho are easily the leading mink production area in the nation.

1992 Census of Agriculture

The *1992 Census of Agriculture* was published late in 1994. This publication contains the most descriptive information on agriculture available. The Census indicated that over 9.6 million acres of land were in farms, which represents about 18 percent of the land in Utah. Of this total amount of land, nearly 70 percent is pasture and rangeland. The amount of land in farms has not, however, remained constant over time. For example, there were 12.7 million acres of land in farms in 1959. This indicates that the amount of land in farms declined by more than 3 million acres between 1959 and 1992, or about a million acres per decade. This decline is one of the reasons why some groups are strongly advocating methods that will preserve farmlands and open space in Utah. This concern is especially evident in the counties along the Wasatch Front, where the conversion of land from farming to other uses is most evident. Most of this conversion has not affected the total amount of cropland in the state. The amount of cropland has remained essentially static. While cropland acreage was static, the acres of irrigated land increased by nearly 100,000 acres between 1959 and 1992. This suggests that the acres of land in farms may have declined, but the use of other inputs (e.g., water, machinery, fertilizer) was used to increase the productivity of those lands that are farmed. Changes in the number of acres of land in farms, acres of cropland, and acres irrigated have not been static by county. For example, the largest increase in the number of acres of irrigated land between 1987 and 1992 occurred in Box Elder and Duchesne Counties.

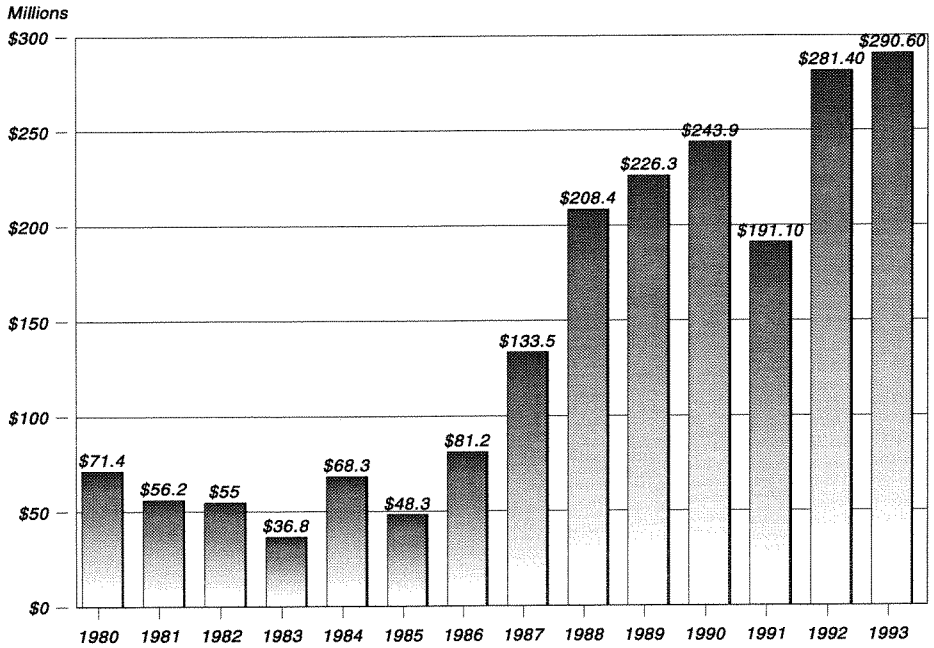
The Census data indicate that more than 80 percent of the farms in the state are owned by individuals or families, 12 percent are partnerships, and less than 5 percent are corporations (many of these are family corporations). More than 40 percent of those who run farms in Utah work off the farm for more than 200 days per year. In addition, nearly 54 percent of the farms are run by individuals whose principal occupation is not farming (this is one of the highest percentages in the nation). The average age of farm operators was nearly 55 years and had increased from the previous census.

County Perspective

Farmers in Cache, Box Elder, Utah, and Sanpete Counties in 1992 received about 44 percent of all farm cash receipts in the state (Figure 38 and Table 59). Cache County is the leading dairy county, while Sanpete County is synonymous with turkey production. Box Elder and Utah Counties are the leading fruit production counties, but the production of other commodities is also important in each of these counties. The production of livestock and livestock products is important in most counties. But, it clearly dominates production in counties such as Summit and Sanpete, where more than 85 percent of the cash receipts from farming are from the production of livestock and livestock products (Figure 39).

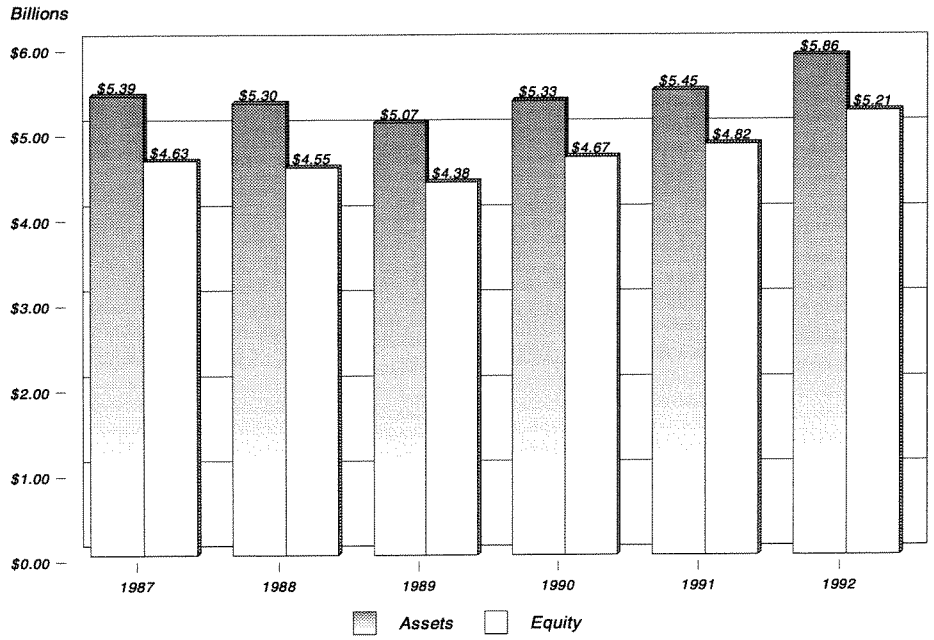
While receipts are the primary source of income for a business, net income (receipts less expenses) is what is important to the owner. The data in Table 58 indicate that farming is only a small portion of the personal income obtained by individuals in some counties (e.g., in Salt Lake County, only about 0.1 percent of the personal income is derived from farming). Some indication of the role of farming in the various counties over time is shown in Figure 40. Figure 41 and Table 60 provide information about farm and nonfarm earning by county. These data indicate that income from farming has grown at a faster rate than has income from other sources in Rich County, while in Millard County, the opposite trend has occurred. It should be noted that agricultural income has become more important in many of the rural counties of the state. It is, therefore, not surprising that agriculture is a leading factor in the growth of these counties where the ability to obtain income from other sources is limited. ✧

Figure 35
Net Farm Income in Utah: 1980 to 1993



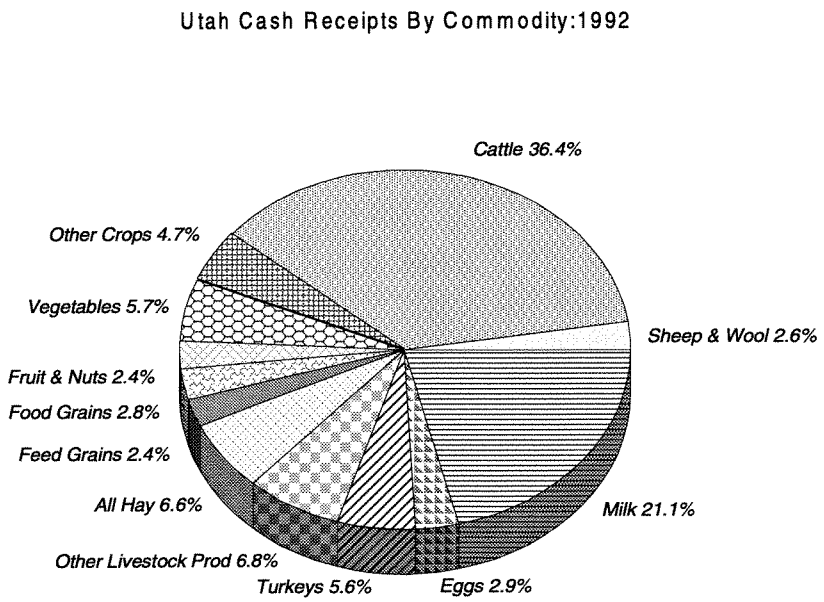
Source : USDA

Figure 36
Farm Assets and Net Worth in Utah: 1987 to 1992



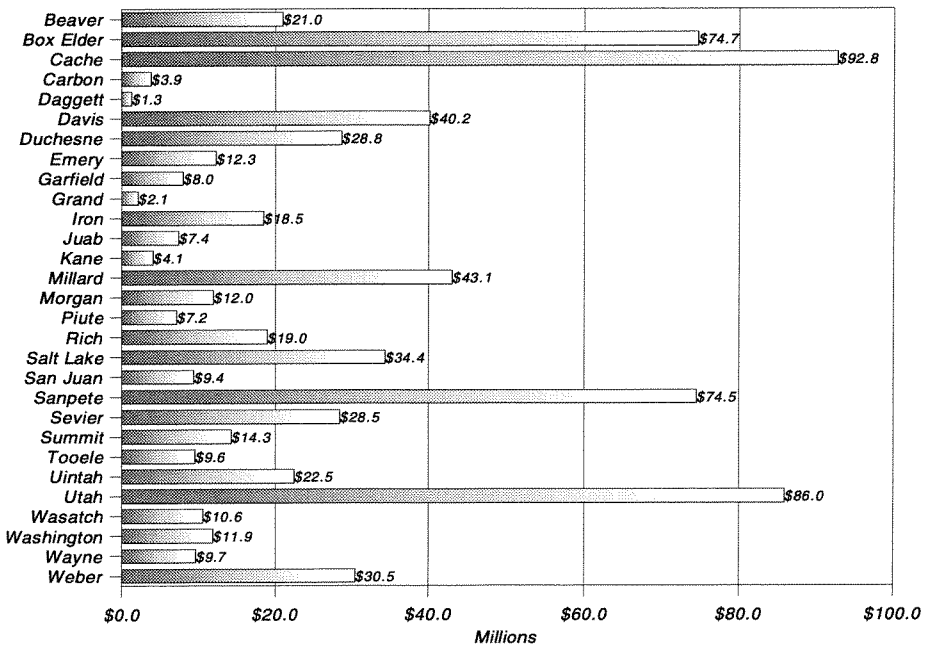
Source: Utah Agricultural Statistics

Figure 37
Utah Cash Receipts by Commodities: 1992



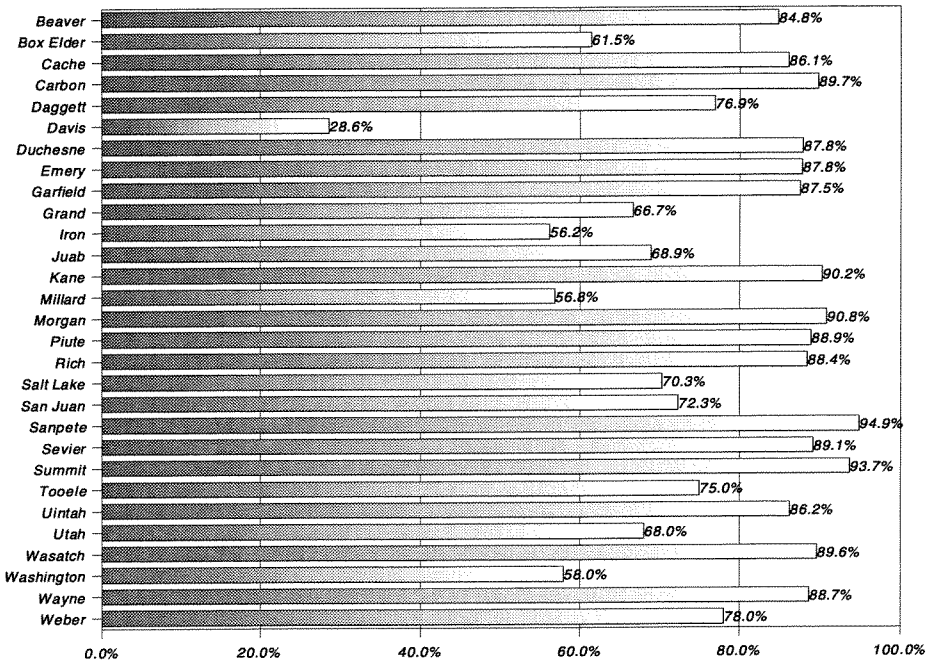
Source: Utah Agricultural Statistics

Figure 38
Farm Cash Receipts by County in Utah: 1992



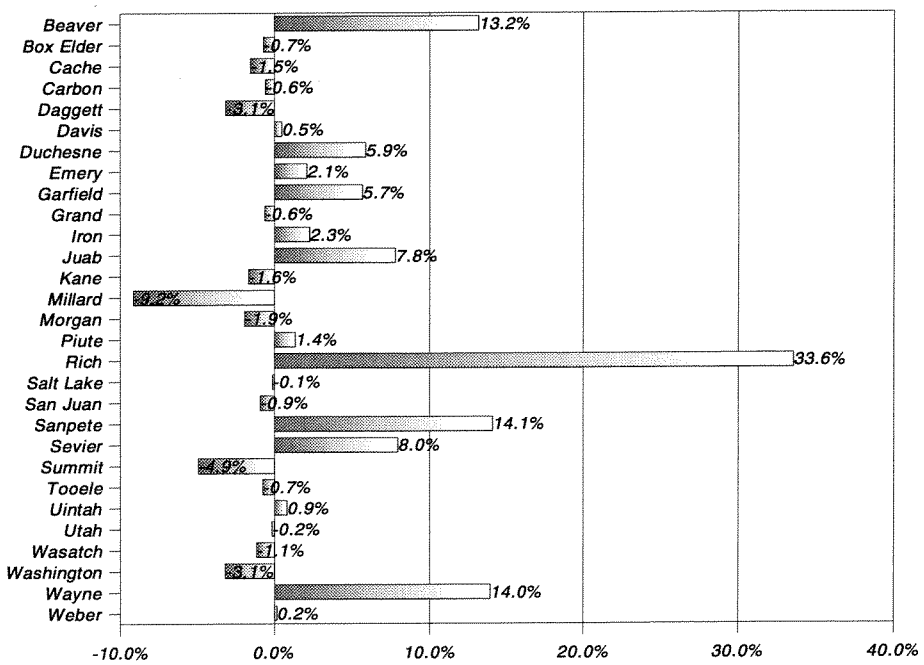
Source: Utah Agricultural Statistics

Figure 39
Livestock and Products as a Percentage of Total Farm Receipts by County: 1992



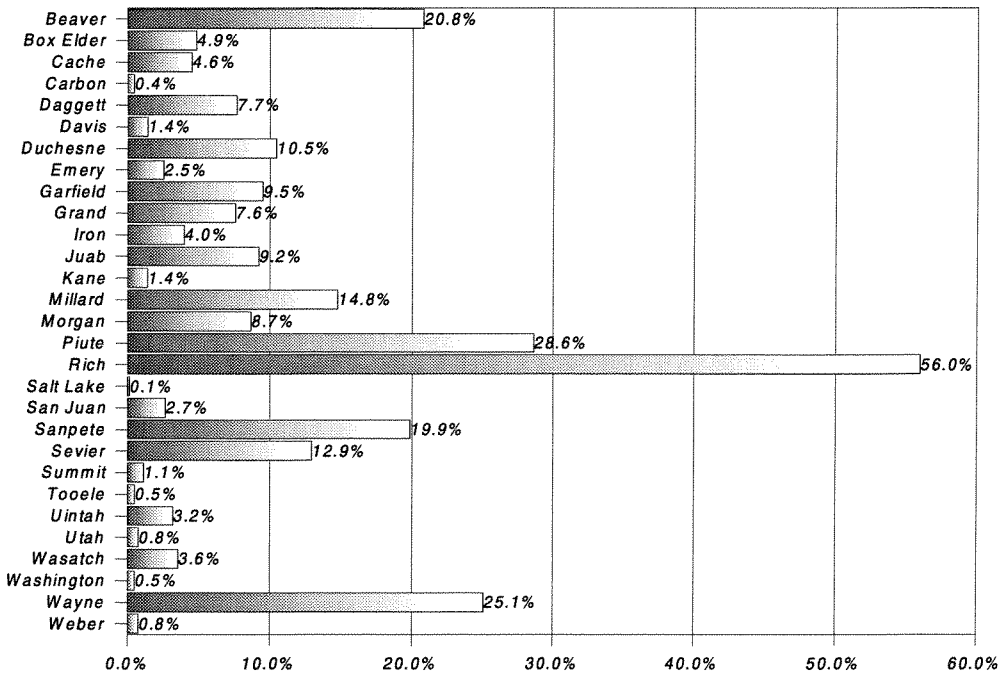
Source: Utah Agricultural Statistics

Figure 40
Total Percent Change in Personal Income from Farming: 1980 to 1992



Source: Bureau of Economic Analysis

Figure 41
Farm Earnings as a Percent of Total Earnings by County: 1992



Source: Bureau of Economic Analysis

Table 57
Utah Farm Balance Sheet (Millions of Dollars): December 31, 1987 to December 31, 1992

Category	1987	1988	1989	1990	1991	1992
Assets	5390.3	5296.3	5063.0	5333.0	5427.8	5857.5
Real Estate	4197.0	4112.7	3881.0	4068.0	4240.8	4616.2
Livestock and Poultry	484.4	536.5	572.0	582.7	566.3	637.9
Machinery & Motor Vehicles	429.1	428.7	444.6	459.1	472.5	471.0
Crops	112.4	123.5	94.9	114.6	95.0	90.2
Purchased Inputs	7.6	12.2	12.4	15.5	20.8	28.8
Financial	159.8	82.7	58.1	93.1	32.4	13.4
Claims	756.3	743.0	683.1	657.8	610.0	651.3
Real Estate Debt	447.0	428.2	390.3	368.6	305.0	351.9
Non Real Estate Debt	309.3	314.8	292.8	289.2	305.0	299.4
Equity	4634.0	4553.3	4379.9	4675.2	4817.8	5206.2
Debt/ Equity	16.3	16.3	15.6	14.1	12.7	12.5

Source: Utah Agricultural Statistics.

Table 58
Personal Income from Farming as Percent of Total Personal Income--Counties: 1980, 1990, 1992

County	1980	1990	1992	Percent Change 1980-92
Beaver	7.6	30.1	20.8	13.2
Box Elder	5.6	5.8	4.9	-0.7
Cache	6.1	5.0	4.6	-1.5
Carbon	0.5	1.3	0.4	-0.1
Daggett	10.8	9.3	7.7	-3.1
Davis	0.9	1.0	1.4	0.5
Duchesne	4.6	13.4	10.5	5.9
Emery	0.4	5.4	2.5	2.1
Garfield	3.8	15.4	9.5	5.7
Grand	1.4	1.6	0.8	-0.6
Iron	1.7	7.7	4.0	2.3
Juab	1.4	12.5	9.2	7.8
Kane	3.0	6.4	1.4	-1.6
Millard	23.9	15.0	14.8	-9.2
Morgan	10.6	15.9	8.7	-1.9
Piute	27.2	47.2	28.6	1.4
Rich	22.4	54.7	56.0	33.6
Salt Lake	0.2	0.1	0.1	-0.1
San Juan	3.6	7.9	2.7	-0.9
Sanpete	5.8	20.9	19.9	14.1
Sevier	5.0	8.5	12.9	8.0
Summit	6.0	5.2	1.1	-4.9
Tooele	1.2	2.0	0.5	-0.7
Uintah	2.4	6.8	3.2	0.8
Utah	0.9	1.1	0.8	-0.2
Wasatch	4.7	7.5	3.6	-1.1
Washington	3.6	1.5	0.5	-3.1
Wayne	11.1	24.3	25.1	14.0
Weber	0.6	0.7	0.8	0.2
State	1.2	1.6	1.2	0.1

Source: Bureau of Economic Analysis

Table 59
Cash Receipts by Source (Millions of Dollars)--Counties: 1984,1986,1988,1990 and 1992

	1984			1986			1988			1990			1992		
County	Crops	Livestock	Total	Crops	Livestock	Total	Crops	Livestock	Total	Crops	Livestock	Total	Crops	Livestock	Total
Beaver	$2.9	$14.0	$16.9	$2.5	$12.6	$15.0	$3.3	$15.2	$18.5	$3.9	$17.1	$21.0	$3.2	$17.8	$21.0
Box Elder	20.6	38.7	59.3	19.9	36.7	56.6	26.6	42.7	69.3	26.4	47.3	73.7	28.8	45.9	74.7
Cache	10.6	54.3	64.9	9.8	55.8	65.5	12.4	67.2	79.6	13.4	78.6	92.0	12.9	79.9	92.8
Carbon	0.7	3.9	4.6	0.6	3.4	4.0	0.8	4.9	5.7	0.6	4.3	4.9	0.4	3.5	3.9
Daggett	0.5	0.8	1.3	0.4	0.8	1.2	0.3	1.3	1.6	0.2	1.7	1.9	0.3	1.0	1.3
Davis	10.7	9.3	20.0	10.0	9.0	19.0	20.6	10.6	31.2	22.4	12.4	34.8	28.7	11.5	40.2
Duchesne	3.0	19.2	22.2	2.9	17.3	20.2	4.8	22.9	27.7	4.4	26.0	30.4	3.5	25.3	28.8
Emery	1.8	7.4	9.2	1.6	6.8	8.4	2.2	8.4	10.6	2.0	10.6	12.6	1.5	10.8	12.3
Garfield	1.0	5.8	6.8	1.0	5.0	6.0	1.5	6.7	8.2	1.2	7.7	8.9	1.0	7.0	8.0
Grand	0.4	1.9	2.3	0.3	1.8	2.2	0.5	2.8	3.3	0.6	2.1	2.7	0.7	1.4	2.1
Iron	7.6	9.8	17.4	7.8	9.7	17.5	8.4	11.0	19.4	9.7	12.1	21.8	8.1	10.4	18.5
Juab	3.0	4.8	7.8	2.5	3.9	6.4	2.7	5.0	7.7	2.9	5.3	8.2	2.3	5.1	7.4
Kane	0.3	2.1	2.4	0.3	2.2	2.5	0.3	3.7	4.0	0.4	4.0	4.4	0.4	3.7	4.1
Millard	19.2	23.1	42.3	20.4	19.5	39.8	18.6	25.2	43.8	21.5	27.8	49.3	18.6	24.5	43.1
Morgan	0.7	9.8	10.5	0.8	10.7	11.5	1.1	12.4	13.5	1.3	11.5	12.8	1.1	10.9	12.0
Piute	0.8	5.3	6.1	0.6	5.1	5.7	0.8	5.9	6.7	1.0	7.0	8.0	0.8	6.4	7.2
Rich	1.7	11.4	13.1	1.3	9.9	11.3	3.2	14.9	18.1	1.7	17.1	18.8	2.2	16.8	19.0
Salt Lake	4.1	21.8	25.9	6.3	17.5	23.8	8.5	21.0	29.5	9.0	23.1	32.1	10.2	24.2	34.4
San Juan	4.1	5.9	10.0	3.2	5.3	8.5	3.1	7.0	10.1	1.6	8.1	9.7	2.6	6.8	9.4
Sanpete	4.3	53.4	57.7	4.1	70.9	75.0	5.0	74.4	79.4	4.7	75.7	80.4	3.8	70.7	74.5
Sevier	4.1	18.1	22.2	4.1	20.6	24.7	3.4	21.3	24.7	4.2	24.1	28.3	3.1	25.4	28.5
Summit	1.1	12.8	13.9	1.0	12.8	13.8	1.5	16.8	18.3	0.9	15.6	16.5	0.9	13.4	14.3
Tooele	2.3	7.5	9.8	3.2	6.7	9.9	3.0	8.7	11.7	2.9	8.7	11.6	2.4	7.2	9.6
Uintah	3.0	14.1	17.1	3.0	12.6	15.6	3.9	16.9	20.8	3.9	20.2	24.1	3.1	19.4	22.5
Utah	17.5	46.4	63.9	18.0	45.7	63.8	22.5	54.9	77.4	22.5	56.5	79.0	27.5	58.5	86.0
Wasatch	1.1	8.9	10.0	0.9	8.3	9.3	1.4	8.6	10.0	1.3	9.9	11.2	1.1	9.5	10.6
Washington	3.3	5.9	9.2	3.6	5.3	8.3	5.4	6.7	12.1	6.0	7.6	13.6	5.0	6.9	11.9
Wayne	1.2	6.9	8.1	1.1	6.1	7.2	1.3	7.9	9.2	1.5	8.6	10.1	1.1	8.6	9.7
Weber	4.1	21.1	25.2	3.3	20.0	23.3	5.9	23.3	29.2	6.6	25.4	32.0	6.7	23.8	30.5
Total	$135.7	$444.4	$580.1	$133.8	$442.0	$575.8	$173.0	$528.3	$701.3	$178.7	$576.1	$754.8	$182.0	$556.3	$738.3

Source: Utah Agricultural Statistics.

Table 60
Farm and Nonfarm Earnings (Thousands of Dollars)--Counties: 1980, 1990, and 1992

County	1980 Farm	1980 Nonfarm	1980 Total	1990 Farm	1990 Nonfarm	1990 Total	1992 Farm	1992 Nonfarm	1992 Total
Beaver	$1,365	$16,541	$17,906	$11,295	$26,266	$37,561	$9,297	$35,407	$44,704
Box Elder	12,101	205,175	217,276	30,739	499,961	530,700	26,769	522,494	549,263
Cache	15,569	239,901	255,470	29,493	564,103	593,596	31,862	667,582	699,444
Carbon	771	154,072	154,843	2,670	202,042	204,712	964	218,577	219,541
Daggett	636	5,264	5,900	684	6,675	7,359	710	8,530	9,240
Davis	7,499	815,373	822,872	16,060	1,674,144	1,690,204	26,746	1,866,052	1,892,798
Duchesne	3,340	69,866	73,206	14,445	93,135	107,580	11,724	100,432	112,156
Emery	432	101,858	102,290	6,840	120,971	127,811	3,663	140,985	144,648
Garfield	949	23,843	24,792	5,231	28,767	33,998	3,320	31,567	34,887
Grand	744	53,282	54,026	782	49,390	50,172	493	64,713	65,206
Iron	1,283	73,880	75,163	12,864	154,329	167,193	7,545	180,846	188,391
Juab	328	23,070	23,398	4,587	32,137	36,724	3,959	39,004	42,963
Kane	382	12,213	12,595	1,913	27,976	29,889	510	36,259	36,769
Millard	8,153	25,914	34,067	16,592	94,176	110,768	17,010	98,194	115,204
Morgan	2,053	17,330	19,383	4,741	25,080	29,821	3,010	31,653	34,663
Piute	1,239	3,308	4,547	3,050	3,416	6,466	1,802	4,492	6,294
Rich	1,217	4,207	5,424	6,886	5,694	12,580	9,158	7,193	16,351
Salt Lake	11,474	4,712,579	4,724,053	12,477	9,526,423	9,538,900	12,978	11,383,923	11,396,901
San Juan	2,048	55,548	57,596	5,902	68,955	74,857	2,291	83,834	86,125
Sanpete	2,139	34,911	37,050	19,998	75,703	95,701	22,014	88,798	110,812
Sevier	3,829	73,229	77,058	10,583	114,577	125,160	18,250	122,798	141,048
Summit	3,498	54,395	57,893	9,074	165,540	174,614	2,722	235,127	237,849
Tooele	2,152	171,706	173,858	6,262	304,141	310,403	1,818	353,335	355,153
Uintah	3,190	130,614	133,804	12,900	175,574	188,474	6,615	197,932	204,547
Utah	8,620	911,262	919,882	23,743	2,120,998	2,144,741	20,412	2,586,536	2,606,948
Wasatch	1,486	29,939	31,425	4,226	52,283	56,509	2,264	60,605	62,869
Washington	3,031	80,418	83,449	4,819	314,586	319,405	2,051	421,041	423,092
Wayne	917	7,328	8,245	3,241	10,084	13,325	4,410	13,176	17,586
Weber	4,261	717,303	721,564	10,762	1,519,717	1,530,479	14,002	1,797,123	1,811,125
State	$104,706	$8,824,329	$8,929,035	$292,859	$18,056,843	$18,349,702	$268,369	$21,398,208	$21,666,577

Source: Utah Agricultural Statistics.

✧ Construction

Residential Construction

Residential construction continued its upward surge in 1994, though the rate of increase slowed. Both single-family and multifamily construction activity increased. Strong economic growth and in-migration increased the demand for housing, while higher mortgage interest rates hindered the expansion of the residential market. Multifamily construction benefitted from low vacancy rates (in the range of 2 percent) and the population growth spurred by net in-migration. Total units for 1994 are estimated to be 19,100, an increase of 7.7 percent over 1993 figures.[2] This figure is the highest in total new dwelling units since the late 1970's. The value of residential construction is estimated to reach $1.73 billion, an increase of 15.6 percent.

The factors that have driven the increases in construction activity during the last five years remained the major factors behind 1994's activity:

- ✧ population growth enhanced by net in-migration,
- ✧ strong economic and job growth,
- ✧ low vacancy rates,
- ✧ and low mortgage interest rates.

The recent increases in mortgage interest rates were the major factor in moderating the growth of residential construction.

The surge in residential activity will have peaked in 1994. The factors that have driven the increase in residential construction for the last five years are showing signs of change, and as a result the outlook for 1995 is for decreased growth rates in residential construction activity. A major change that slowed residential activity in 1994 was higher mortgage interest rates. Mortgage interest rates will continue to climb into next year and will depress future housing construction. Another expected change is that the rates of net migration should decline, also slowing demand for new housing. Lastly, economic and job growth should moderate in 1995 and that will likewise reduce demand. The picture is not as bleak as it may seem for residential construction. Vacancy rates remain low and so demand for multifamily housing will remain relatively strong. Utah will experience continued economic growth but at a more moderate pace; and even though mortgage interest rates have increased, they are still within a competitive range for building.

Residential construction activity was widespread throughout the state but demand was strongest along the Wasatch Front (including Summit County) and in the southwest corner of the state during 1994. State wide new dwelling units will decrease to 16,500 in 1995. Single-family homes will be around 11,000 while multifamily units will be close to 4,300. Demand for multifamily units will be strong, particularly along the Wasatch Front and in areas with colleges and universities, but new development will be hindered by resistance to high density housing developments on the part of some communities . Mobile homes and cabins will increase slightly to 1,200 units in 1995. Residential construction activity since 1970 is summarized in Table 61 and Figure 42.

Nonresidential Construction

Like residential construction, nonresidential construction has been very strong throughout the state in 1994. Every major sector is showing growth, as shown in Table 62. Nonresidential construction values are

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[2] Through the first three quarters of 1994 (January-September), a total of 15,204 units were authorized. An additional 3,896 units are estimated to be added to this figure during the fourth quarter of 1994 (October-December).

estimated to rise 63.3 percent to $760.0 million in 1994 compared to $465.5 million in 1993. Several major projects have helped boost nonresidential construction activity including:

- the $34.0 million FingerHut Distribution Center in Spanish Fork;
- the $30.0 million in Kennecott improvements in Salt Lake County;
- the $18.0 million LDS Temple in American Fork;
- the $17.0 million Utah Valley Hospital in Spanish Fork;
- the $13.0 million Chevron Refinery in Davis County;
- the $11.6 million O'Sullivan industrial building and a $10.0 million junior high school in Cedar City; and
- construction projects at the Salt Lake International Airport totaling $10.0 million.

Among major nonresidential sectors, Industrial Buildings improved from $131.1 million in 1993 to an estimated $185.0 million in 1994. Vacancy rates remain very low for industrial buildings, currently at close to 3.0 percent. This low rate keeps demand high and should spur further developments in industrial buildings in 1995. Office Buildings ($100.0 million) and Retail Buildings ($120.0 million) experienced significant improvement in 1994. A growing economy and population have increased the demand for these buildings and their vacancy rates have also been declining. Office vacancy rates have continued to drop and currently hover around 7.4 percent. These sectors should expand again in 1995.

Nonresidential construction activity grew for Hotels and Motels ($20.0 million), Religious Buildings ($60.0 million), and Public Buildings ($130.0 million) in 1994 compared to 1993. Increased visitation to Utah, and preparation for the possible hosting of the 2002 Olympics, has driven the demand for new lodging facilities, as well as having an impact on retail and eating and drinking establishments. The construction of the LDS Temple in American Fork was a major factor in the rise in Religious Building construction in 1994 while Public Buildings jumped dramatically as demand for services, economic growth, and increased population combine to require more from the public sector. The outlook for these sectors is for a slight decrease in activity in 1995 due to more moderate economic and population growth rates.

Overall, nonresidential construction in 1995 should enjoy another year of strong activity. Continued work on the Kennecott expansion project, and low vacancy rates for industrial, office and retail buildings should maintain nonresidential valuations at a level similar to that reported in 1994. Nevertheless, with projected decreases in Hotels and Motels, Religious Buildings, and Public Buildings, the overall valuation should drop slightly to $650.0 million in 1995. It should be remembered that the economic impacts of nonresidential building projects extends outward due to a longer time frame required to build large projects. It is not unusual for these economic impacts to be stretched over several months (or longer) during the construction phase.

Additions, Alterations, and Repairs

Additions, alterations and repairs to residential and nonresidential structures are estimated to decrease slightly to $320.0 million in 1994 compared to $324.6 million in 1993. Higher interest rates and the dedication of construction labor to new construction have hampered significant increases in renovations. Additions, alterations and repairs will remain at the same level in 1995, an estimated $320.0 million due to moderated economic growth.

Total Construction Activity

The value of permit-authorized construction activity rose 22.9 percent to an estimated $2.81 billion in 1994. Figure 43 provides the value of new construction by component. With the outlook for declining rates of growth in residential and nonresidential construction in 1995 the total value of construction is projected to reach $2.57 billion. Even though construction activity should decline in 1995, it should be pointed out that the construction sector will continue to have a significant impact on the economy in 1995. Construction will benefit from more diverse economic structure and the expected moderate growth in Utah's economy. Also, the scenario of over-building which caused such dramatic decreases in construction in the late 1980's has not repeated itself in the current market. The supply of housing is much more in balance with the demand for housing and this bodes well for the long-term health and vitality of residential construction.

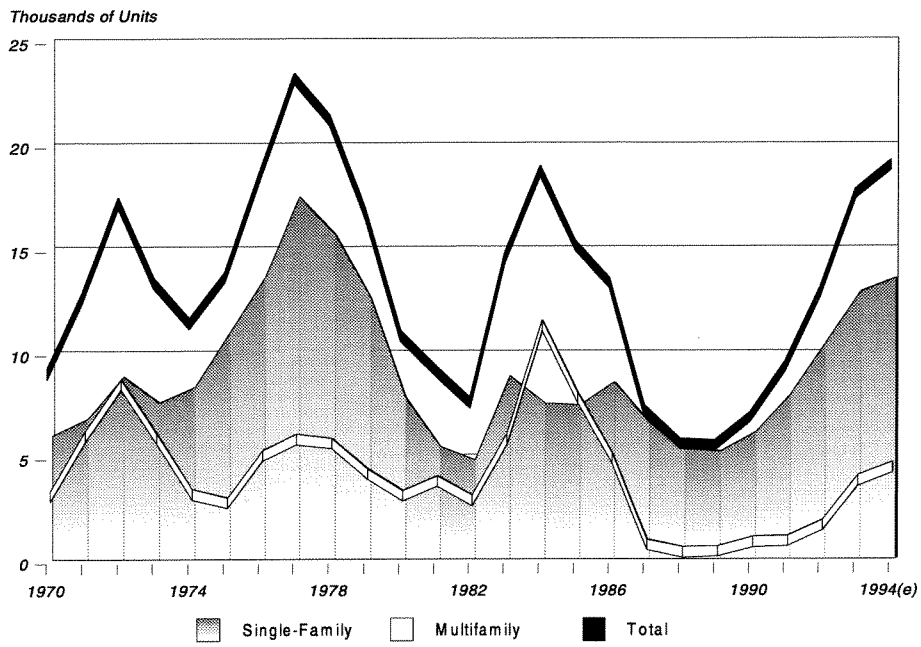
Nonresidential construction is not burdened with an over-supply of space, but instead enjoys very competitive and strong market forces. The lack of over-building means that the down turn expected should be less severe and more gradual and in the long term puts Utah's construction industry in a strong position for the next upswing in construction activity.

Nonbuilding Construction

Nonbuilding construction is an important contributor to Utah's construction industry. Major projects such as highways, bridges, dams and power plants are included in this category. Most of these construction activities do not require a permit so data are not readily available. Nonbuilding construction values were obtained by telephone interviews with personnel from the Utah Department of Transportation, Utah Department of Water Resources, Utah Division of Facilities Management and Construction, and the Bureau of Reclamation.

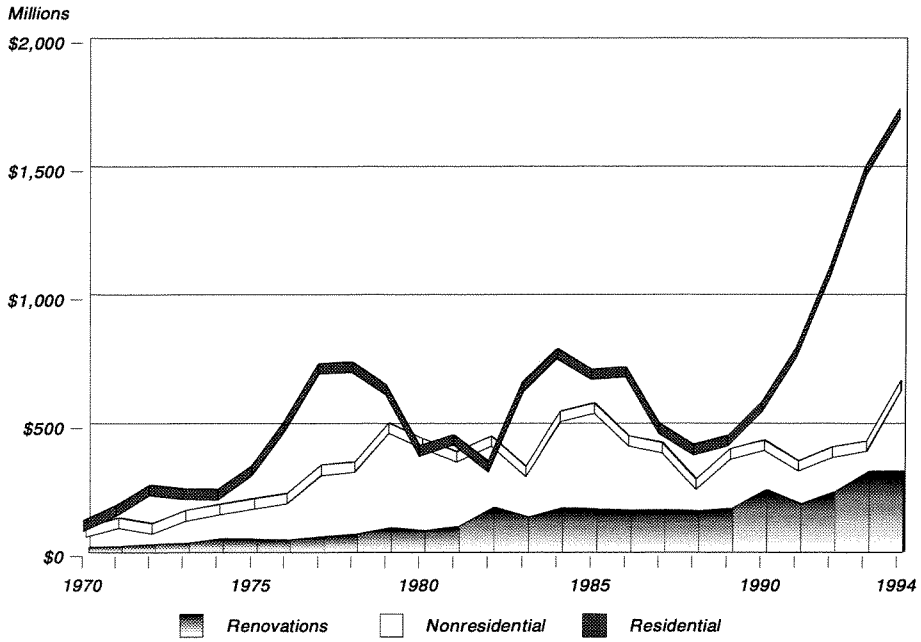
Nonbuilding construction grew very slightly in 1994 to approximately $450.0 million. The outlook for 1995 is for nonbuilding construction to expand to an estimated $460.0 million. Increased highway construction, the Central Utah Project and other non-permit authorized activities in the public sector should grow as this sector keeps pace with the growth experienced in the last five years and the moderate growth projected for 1995 in other construction categories. ✧

Figure 42
Utah Residential Construction Activity: 1970 to 1994



Source: University of Utah, Bureau of Economic and Business Research

Figure 43
Value of New Construction in Utah: 1970 to 1994



Source: University of Utah, Bureau of Economic and Business Research

Table 61
Residential and Nonresidential Construction Activity in Utah: 1970 to 1994

Year	Single Family Units	Multi-Family Units	Mobile Homes/ Cabins	Total Units	Construction Value* (millions of dollars) Residential	Nonresidential
1970	5,962	3,108	na	9,070	$117.0	$87.3
1971	6,768	6,009	na	12,777	176.8	121.6
1972	8,807	8,513	na	17,320	256.5	99.0
1973	7,546	5,904	na	13,450	240.9	150.3
1974	8,284	3,217	na	11,501	237.9	174.2
1975	10,912	2,800	na	13,712	330.6	196.5
1976	13,546	5,075	na	18,621	507.0	216.8
1977	17,424	5,856	na	23,280	728.0	327.1
1978	15,618	5,646	na	21,264	734.0	338.6
1979	12,570	4,179	na	16,749	645.8	490.3
1980	7,760	3,141	na	10,901	408.3	430.0
1981	5,413	3,840	na	9,253	451.5	378.2
1982	4,767	2,904	na	7,671	347.6	440.1
1983	8,806	5,858	na	14,664	657.8	321.0
1984	7,496	11,327	na	18,823	786.7	535.2
1985	7,403	7,844	na	15,247	706.2	567.7
1986	8,512	4,932	na	13,444	715.5	439.9
1987	6,530	775	na	7,305	495.2	413.4
1988	5,297	418	na	5,715	413.0	272.1
1989	5,179	453	na	5,632	447.8	389.6
1990	6,099	910	na	7,009	579.4	422.9
1991 (r)	7,911	958	572	9,441	791.0	342.6
1992	10,375	1,722	904	13,001	1,113.6	396.9
1993	12,860	3,855	1,018	17,733	1,496.9	465.5
1994 (e)	13,500	4,500	1,100	19,100	1,730.0	760.0

(r) = revised to be comparable to 1992 data.
(e) = estimate
na = not available

*Excludes additions, alterations, and repairs, and nonbuilding construction (such as highways).

Source: University of Utah, David Eccles School of Business, Bureau of Economic and Business Research, November 1994.

Table 62
Utah Nonresidential Construction by Sector (Millions of Dollars): 1990 to 1994

Sector	1990	(r) 1991	1992	1993	(e) 1994	Average Percent of (a) Total
Hotels and Motels	$8,331.3	$3,634.2	$15,342.1	$15,696.7	$20,000.0	2.6
Churches and Religious Buildings	$15,401.7	$35,846.0	$39,355.3	$32,169.1	$60,000.0	7.7
Industrial Buildings	$92,655.1	$44,266.0	$108,116.8	$131,101.9	$185,000.0	23.5
Offices, Banks and Professional Buildings	$47,838.1	$28,035.3	$56,780.1	$49,206.5	$100,000.0	11.8
Stores and Other Mercantile Buildings	$86,717.5	$71,808.8	$68,432.7	$49,964.7	$120,000.0	16.6
Publicly Owned Buildings (b)	$55,003.2	$29,565.3	$26,654.5	$41,967.2	$130,000.0	11.9
Other Nonresidential Construction	$116,999.0	$129,204.6	$82,248.1	$145,403.3	$145,000.0	25.9
Total Nonresidential Construction	$422,945.9	$342,360.2	$396,929.6	$465,509.4	$760,000.0	100.0

(e) = estimate
(r) = revised
(a) = Data represents five-year average, 1990 to 1994.
(b) = Includes only those structures built by public agencies such as state and local governments, for which permits were issued. Not all local entities require public projects to obtain a permit.

Source: University of Utah, David Eccles School of Business, Bureau of Economic and Business Research, November 1994.

✧ Defense / Aerospace

Downsizing of Nation's Military

Restructuring of the nation's military has brought the closure of military installations and the reduction of procurement purchases from defense contractors. Constant dollar[3] defense spending has been falling since the mid-1980s, and the pace of this decline accelerated in the 1990s. Weapons procurement will have been reduced by nearly two-thirds in constant dollar terms from 1986 through 1995 while combined military and civilian Department of Defense personnel will be reduced to 1980 levels by the year 1996[4]. Unless the recent shift in national political power translates into a reordering of federal expenditure priorities, these downsizing trends should extend through the next several years after which defense budgets and operations should stabilize. Table 63 provides U.S. defense-related spending.

Utah has certainly been impacted by the downsizing of the nation's military as defense procurement contract awards have declined and military installations have either been realigned, as is the case at Tooele Army Depot, or have had reductions in levels of activity. The single most important defense issue that Utah faces in 1995 is the outcome of the Base Realignment and Closure Commission (BRAC) process which will determine the fate of the air logistics center at Hill Air Force base and Defense Depot Ogden. Hill Air Force Base has long been the largest defense installation in the state.

Composition, Size, and Trend of the Defense Sector in Utah

The defense sector continues to make a significant though declining contribution to the economic base of Utah. Federal defense-related spending has fallen from a peak of approximately $2.57 billion in fiscal year 1986 to about $1.56 billion in fiscal year 1993; the decrease is attributable to reductions in defense contract procurement awards[5]. Certainly defense contractors in the state will continue to be adversely affected by reductions in defense procurement nationally. Further, future levels of activity at existing military installations are uncertain. Meanwhile, the state's economy continues to expand and diversify so that, while it is certainly adversely impacted by defense downsizing, expansion and diversification has somewhat softened the adjustment process.

Utah's defense sector is among the most important basic industries in the state[6]. The defense industry in the state includes defense installations (such as Hill Air Force Base) and federal government defense procurement purchases from Utah firms (such as Air Force purchases from Thiokol). Defense-related expenditures in Utah consist of wages and salaries paid to military personnel and civilian Department of Defense personnel, Department of Defense procurement contracts with firms with Utah operations, military retirement pay, and Department of Defense grants to state and local governments. About 55 percent of the

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[3] Constant dollars have been adjusted to remove the effects of inflation.

[4] L.R. Jones, "The Pentagon Squeeze," *Government Executive*, pages 21-27, February, 1992; and William E. Kovacic and Dennis E. Smallwood, "Competition Policy, Rivalries, and Defense Industry Consolidation," *Journal of Economic Perspectives*, Pages 91-110, (8:4), Fall, 1994.

[5] Fiscal year in this chapter refers to the Federal fiscal year which begins in July.

[6]Economists distinguish between basic and non-basic employment. In general, basic employment is employment associated with economic activities that result in the export of goods or services from the state and therefore generate income from the outside. Non-basic employment serves the internal needs of the residents of the region. The other largest employers in the state are Brigham Young University and the University of Utah, both of which are primarily non-basic entities. For a further explanation of basic employment, *Exports from Utah's Regional Economies, Utah State and Local Government Fiscal Impact Model Series: 94-2,* Governor's Office of Planning and Budget, June 1994, is an excellent source.

$1.56 billion in defense-related spending in the state in fiscal year 1993 was wages and salaries of Department of Defense employees, while 36 percent was Department of Defense procurement awards to Utah firms[7]. Figure 44 and Table 64 present Utah's defense-related spending.

Defense-related spending in Utah has been declining rapidly since the peak year in fiscal year 1986. Total defense spending in the state has declined by about $1.0 billion or about a 39 percent decrease from fiscal year 1986 to fiscal year 1993. When adjusted for inflation this is a 53 percent decline. Because all of the other components of defense-related spending (i.e., wages and salaries paid to military personnel and civilian Department of Defense personnel, military retirement pay, and grants to state and local governments) have increased (in nominal or current dollar terms) since 1986, the reduction in Department of Defense procurement contract awards is the only source for this decline in total defense spending in Utah. Defense procurement contract awards have fallen from a high of $1.7 billion in fiscal year 1986 to $0.6 billion in fiscal year 1993, a decrease of 67 percent. Further, while defense procurement awards were 66 percent of the state's defense-related spending in fiscal year 1986, this proportion had fallen to 36 percent by fiscal year 1993.

Defense procurement contracts include the production and maintenance of weapon systems or military equipment. Contractors also provide goods and perform services for military installations. For example, Hill Air Force Base in fiscal year 1993 purchased nearly $200 million in goods and services from Utah firms including contracts for construction, utilities, equipment and supplies to operate the base, and goods and services to maintain weapons systems.

For fiscal year 1993, the firm with the largest amount of new defense procurement contract awards in Utah was EG&G Defense Materials, Inc. This firm received a multi-year contract in 1989 to construct, initialize, operate, and eventually (in the year 2001) decommission the Tooele Chemical Agent Disposal Facility (TOCDF). The most recent award is an increment to the multi-year contract and is associated with a modification in the facility. Table 65 provides a listing of the top 25 defense procurement award recipients in Utah in fiscal year 1993.

Thiokol Corporation and Hercules Incorporated have for over a decade been among the top defense procurement award recipients in Utah. Both have been involved in the nation's missile defense program. As has been true for weapons procurement in general, procurement awards for the missile defense program have declined significantly and this has affected a large number of Utah defense contractors, including Thiokol and Hercules.

While defense spending has declined in Utah, it still constitutes a significant portion of the state's economic base. It is estimated that the value added in the defense sector was approximately $2.7 billion in fiscal year 1993[8]. The total measure of production (or value added), called Gross State Product, or GSP, for Utah for fiscal year 1993 is estimated to be $39.03 billion[9]. By this measure defense is about 7.0 percent of the Utah

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[7]Defense procurement contract awards in this context refers to "the value of obligations for contract actions, and do not reflect actual Federal Government expenditures." (Bureau of the Census, *Federal Expenditures by State for Fiscal Year 1993*, page ix.) The amounts recorded here are the amounts of contract awards at the time of the award. The actual spending associated with this may occur over a period of years. The Federal Procurement Data Center (FPCD) reports these by place of performance rather than the location of the prime contractor.

[8]This includes direct, indirect, and induced effects.

[9]This estimate of the gross product originating from the defense sector is based on the total defense expenditures for fiscal year 1993, which, for the purposes of this calculations were estimated to total $1.6 billion. The procurement contract awards (PCAs) have been assigned to particular industries. For the methodology, Exhibit 3 of *Utah's Defense Economy*, Bureau of Economic and Business Research, April, 1992 can be referenced. These PCAs, along with other defense spending components, have been analyzed by using the Utah State and Local Government Fiscal Impact Model, one component of which is

economy. By the same measure, the value added for Hill AFB is estimated to be $1.6 billion. Thus, Hill constituted 58 percent of defense value added in Utah in fiscal year 1993.[10]

Relationship to National Trend

Department of Defense spending includes both domestic and international spending for operations. For example, in fiscal year 1993, the Department of Defense had $130.0 billion in procurement awards associated with domestically[11] produced goods and services and $4.4 billion in foreign procurement awards. When considering only the domestic component, defense-related spending in Utah has fallen relatively more rapidly than has total domestic defense-related spending. Figure 44 and Table 64 present defense-related spending in Utah and Figure 45 and Table 63 present defense-related spending for all states and territories. From fiscal year 1986 to fiscal year 1993, defense-related spending in Utah fell by 39 percent compared to an increase of less than a one percent for total domestic defense-related expenditures. Inflation-adjusted declines were, of course larger for both. Over this same period, Department of Defense wages and salaries increased by 8 percent in Utah and by 20 percent for all states and territories. Utah's defense procurement awards declined by 67 percent from fiscal year 1986 to fiscal year 1993, proportionately much larger than the 13 percent decline for all domestic defense procurement awards.

Per capita defense-related comparisons between Utah and the U.S. provide another perspective on Utah's relatively more rapid, defense-related spending declines. It should be noted that per capita spending comparisons between Utah and the U.S. must be interpreted with caution, especially in light of Utah's distinctive age distribution. Even with this qualification, per capita comparisons of this type are a measure of relative spending levels. As is shown on Table 66, per capita defense salaries (both military and civilian) and defense procurement awards have declined in constant dollar terms between fiscal years 1986 and 1993 for Utah and the U.S. Inflation-adjusted per capita defense procurement awards have decreased by a much greater proportion than have per capita military wages and salaries. Constant dollar defense procurement awards have declined by 37 percent for the U.S. and by 78 percent for Utah and constant dollar per capita civilian defense wages and salaries in Utah decreased by more than double the proportion of the U.S. as a whole. These per capita defense expenditure amounts also show that Utah's per capita civilian defense wages and salaries were nearly three-and-a-half times as large as that of the U.S. in fiscal year 1986; and almost three times as great in fiscal year 1993. In contrast, Utah's per capita defense procurement contract awards were 65 percent greater than the national average in fiscal year 1986 while, by fiscal year 1993, Utah's per capita defense procurement awards were 42 percent less than the national average. So, Utah had a higher-than-average share of defense procurement awards in 1986 and, by 1993, a lower-than-average share. Meanwhile, Utah continues to have a relatively high share of civilian defense employment; for fiscal year 1993, about 60 percent of this was Hill Air Force Base civilian employment.

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the Utah Multiregional Input-Output Model. The PCAs are treated as if they are expended fully in the year awarded. In reality the spending may occur over a number of years. Fiscal year 1993 GSP has been estimated by Regional Financial Associates.

[10]More precisely: Utah's GSP for fiscal year 1993 is estimated to be $39.03 billion; Utah's defense sector value-added for fiscal year 1993 is estimated to be $2.67 billion; and HAFB's value-added for fiscal year 1993 is estimated to be $1.56 billion. These are comparable measures such that defense value added and Hill's value added may both be measured relative to Utah's GSP. This yields a measure of Utah's defense sector and Hill's contribution to it. The information source is Demographic and Economic Analysis Section, GOPB, *Hill Air Force Base and Utah's Defense Sector: An Economic Analysis of Two Realignment Scenarios*, September 21, 1994.

[11]The Bureau of Census produces *Federal Expenditures by State* each fiscal year. This publication presents Federal Government expenditures by state and territory (i.e., American Samoa, Guam, Northern Marianas, Puerto Rico, and the Virgin Islands).

Current Defense Dependency

Even as defense spending in Utah has declined, by some measures Utah is among the upper third of the most defense-dependent states in the country. Utah ranks 16th among states (including the District of Columbia) in total defense expenditures as a percent of personal income, (Figure 46). In terms of employment, Utah ranks 10th in total defense employment (meaning active duty military, civilian defense, and reserves) as a percent of total employment (Figure 47). It is important to note that this does not count direct, indirect, or induced civilian employment resulting from procurement contracts, grants, or military retirement payments.

The distinctive characteristic of Utah's defense dependency, as noted above, is the relatively high level of civilian Department of Defense employment. Utah ranks fourth among states in civilian defense salary and wage expenditures as a percent of personal income (Figure 48). The three states that rank higher are the major strategic locations of the District of Columbia, Virginia, and Hawaii. In terms of employment, Utah also ranks fourth in civilian defense employment as a percent of total employment. Utah ranks first among states in terms of civilian Air Force salaries and wages as a percent of total personal income[12].

Defense Dependency over Time

Defense dependency may also be measured by the amount of non-retirement defense expenditures per $1,000 of personal income presented in Figure 49 and Table 67[13]. By this measure, Utah's defense dependency and associated rankings among the states have declined. In 1987, there were approximately $57 of non-retirement defense expenditures per $1,000 personal income for the nation. By 1993 this had fallen by 30.3 percent to just less than $40. The comparable figures for Utah were about $105 for 1987 and about $46 for 1993, representing a decline of nearly 56 percent for Utah. This demonstrates that defense expenditures relative to personal income have fallen much more rapidly in Utah than for the nation in the last six years. Certainly Utah's personal income has grown more rapidly than that of the nation over this period. However, this trend of declining non-retirement defense spending per $1,000 of personal income is explained by the rapid decline of military spending in Utah in general, and particularly the reduction in defense procurement contract awards. Utah's ranking by this measure (non-retirement defense spending per $1,000 of personal income) has changed as well. In 1987 Utah ranked fifth in the nation and by 1993 the state's ranking was 15th.[14]

Geographic Distribution

Defense spending by county in Utah is primarily concentrated in Davis, Tooele, Salt Lake, Weber, Box Elder, and Cache Counties as shown in Table 68. However, the economic and fiscal impacts of this spending affect the entire state. Further, defense spending does occur throughout the state. For example, firms located in 17 of Utah's 29 counties are defense procurement contractors. Because of the widespread

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[12]Sources used to calculate these measures of dependency are: Department of Defense, *Atlas/Data Abstract for the United States and Selected Areas: Fiscal Year 1993*; Department of Commerce, Bureau of Economic Analysis, SQ25 quarterly personal income by state data files; and Department of Commerce, *Federal Expenditures by State: Fiscal Year 1993.*

[13]This is the "defense-related spending" referred to throughout this chapter less military retirement payments (i.e., Department of Defense wages and salaries, defense contract procurement awards, and Department of Defense grants to state and local governments).

[14]Sources for this data are the Governor's Office of Planning and Budget, *Utah Data Guide* (March, 1988); Department of Commerce, Bureau of Economic Analysis, SQ25 quarterly personal income by state data files; and Department of Commerce, *Federal Expenditures by State: Fiscal Year 1993.*

impacts of defense spending in Utah and the relative magnitude of recent spending reductions, declining defense spending is clearly a statewide issue.[15]

Significance of Hill AFB to Utah's Defense Sector and Overall Economy

Hill Air Force Base constitutes the largest single component of Utah's defense economy[16]. Distinguishing Hill AFB from an "ordinary" Air Force base is the Ogden Air Logistics Center (ALC), which is the primary operation at Hill and accounts for about 60 percent of the employment at the base. The ALC is particularly the subject of the 1995 BRAC process. In general, ALCs manage, maintain, and support weapons systems. The Ogden ALC is one of only five Air Force ALCs and has for over 50 years been a major aircraft support and maintenance center. At present, the Ogden ALC manages and/or maintains the F-16 Fighting Falcon, the F-4 Phantom, the C-130 Hercules, conventional munitions, and our nation's fleet of Silo-Based Inter-Continental Ballistic Missiles (ICBMs). Besides these logistics functions, the ALC has base support functions that administer/manage and support the operation of the entire base. These operations include financial management, personnel, infrastructure maintenance, the base hospital and commissary, and others. These operations provide support to the ALC and to the tenants on the base.

Since 1986, employment at Hill has been between 61 percent and 65 percent of total civilian Department of Defense employment in the state. Similar to overall declines in defense activity in Utah, employment at Hill Air Force Base (including both military and civilian) has dropped from 20,604 in 1983 to 16,371 in 1993[17]. Civilian Department of Defense employment, which was in fiscal 1993 about two thirds of the employment on the base, has dropped by a greater proportion and magnitude than has military employment[18].

The combined economic impact of Hill Air Force Base ranks it as the largest basic employer in the state. Hill AFB's payroll in fiscal year 1993 was $569.4 million for the civilian and military personnel and $8.6 million for reservists. This combined payroll of $578.0 million is about 3.3 percent of the state's 1993 non-agricultural payroll. In fiscal year 1993, the base directly employed 11,652 civilians, 4,719 military personnel, and 1,498 reservists. Besides these direct employees, Hill purchased goods and services from Utah firms amounting to $196.8 million.

Further, the combined direct economic activity of Hill Air Force Base has led to additional increases in employment and income through what is often called the multiplier process. This research indicates that in fiscal year 1993 the indirect and induced employment amounted to an additional 12,446 jobs in the state. Therefore, the estimated total employment attributable to the operation of Hill Air Force Base in fiscal year 1993 was 29,115[19]. Hill AFB clearly makes a significant economic contribution to the state and certainly has an even greater impact on the areas in the immediate proximity of the base.

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[15]The totals for the counties are not the same as the state totals reported previously. This is because variations in the accounting conventions result in timing differences in the reported amounts.

[16]Sources for this data are Demographic and Economic Analysis Section, GOPB, *Hill Air Force Base and Utah's Defense Sector: An Economic Analysis of Two Realignment Scenarios*, September 21, 1994.

[17]This figure does not count reservists.

[18]Civilian employment has a greater impact on a dollar-for-dollar basis on the Utah economy than does military employment. This is particularly the case for military personnel who reside on-base.

[19]This total treats the 4,719 reserves as a full-time equivalent of 298 and also counts all military employees, including those who reside on the base.

The 1995 BRAC Process

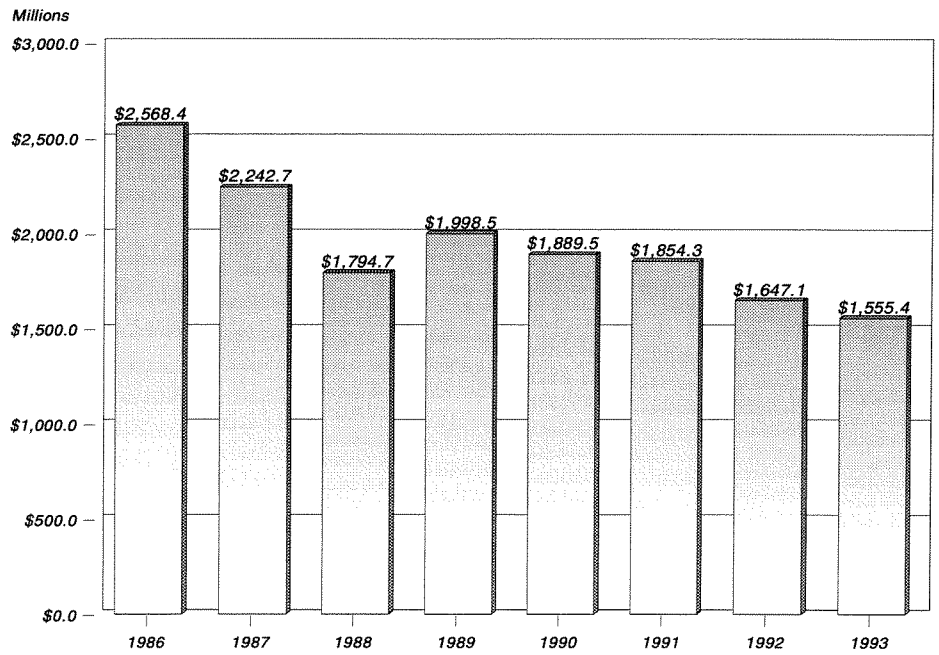
In the 1995 BRAC process will determine next "hit list" for Department of Defense installations. All five ALCs, including the Ogden ALC, will be considered for closure or realignment. The 1995 BRAC process will proceed as follows:

- ✧ January 3, 1995: The President nominates BRAC commissioners. These nominations must be confirmed by the Congress within 60 days.
- ✧ February 1, 1995: The Air Force makes its recommendations to the Secretary of Defense.
- ✧ March 1, 1995: The Secretary of Defense makes recommendations about realignment and closure.
- ✧ March 1 - June 30, 1995: The BRAC discusses and debates the Secretary's recommendations; it is not required to accept these.
- ✧ July 1, 1995: BRAC presents its recommendations to the President, who must respond within two weeks. The President may make changes, as has occurred in the past.
- ✧ Congress has two months to either accept or reject all of the President's recommendations.

The Future of Utah's Defense Economy

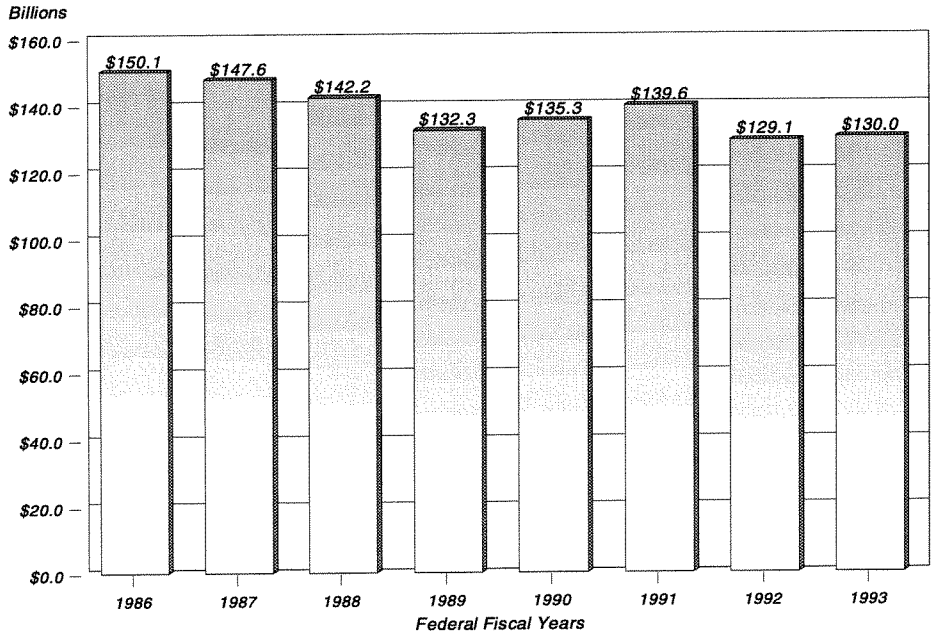
Given current trends in defense spending nationally, the future of Utah's defense economy is, in many ways, determined by the future of Hill Air Force Base. For the foreseeable future, defense procurement for weapons systems will not grow in total. Given that defense wages and salaries are over one half of federal defense-related spending in the state, and given that Hill Air Force Base constitutes the majority of this, the future of Hill AFB will have a very significant influence on the future contribution of the defense sector to the state. If the state is able to continue to grow and diversify, its capacity to absorb these negative impacts will be increased; although the defense sector, is without question, currently very significant. ✧

Figure 44
Federal Defense-Related Spending in Utah: FY 1986 to 1993



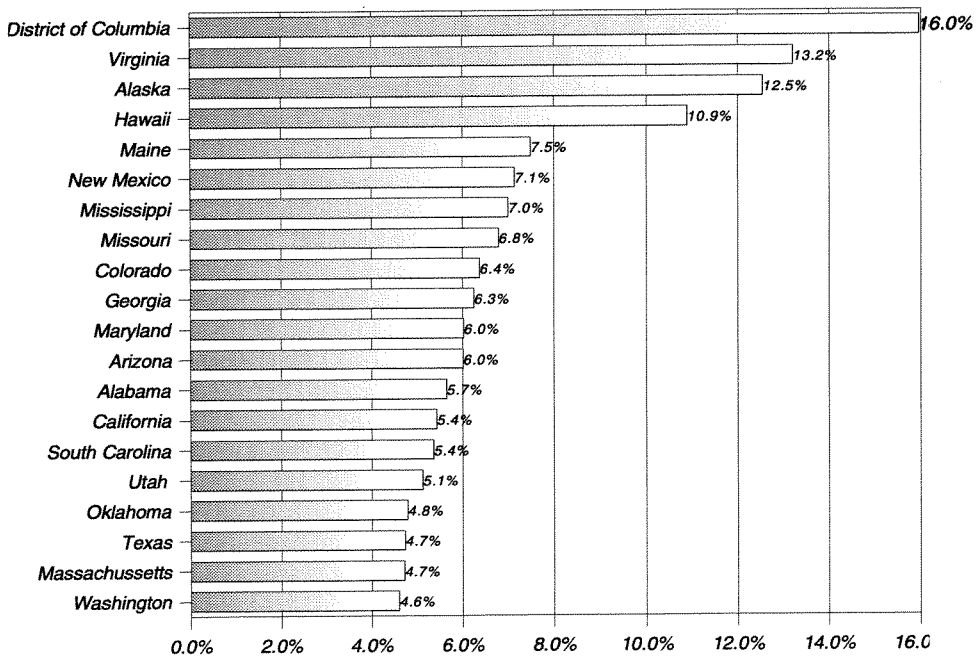
Sources: Bureau of the Census and Department of Defense

Figure 45
Federal Defense Related Spending in U.S.--Total for All States and Territories: 1986 to 1993



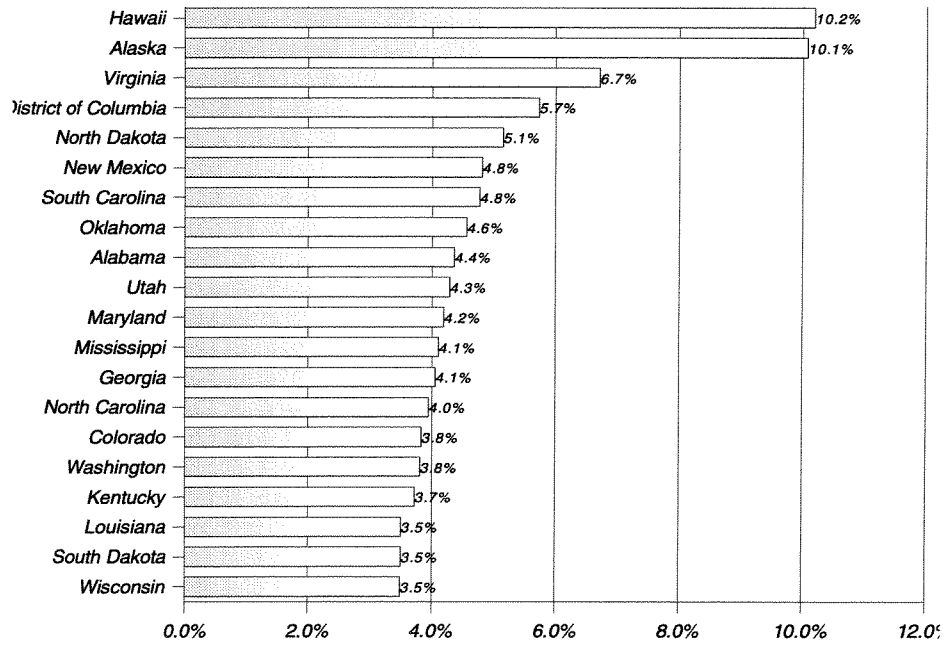
Source: U.S. Department of Commerce, Bureau of the Census

Figure 46
Direct Federal Defense Expenditures as a Percent of Personal Income--Top 20 States: FY 1993



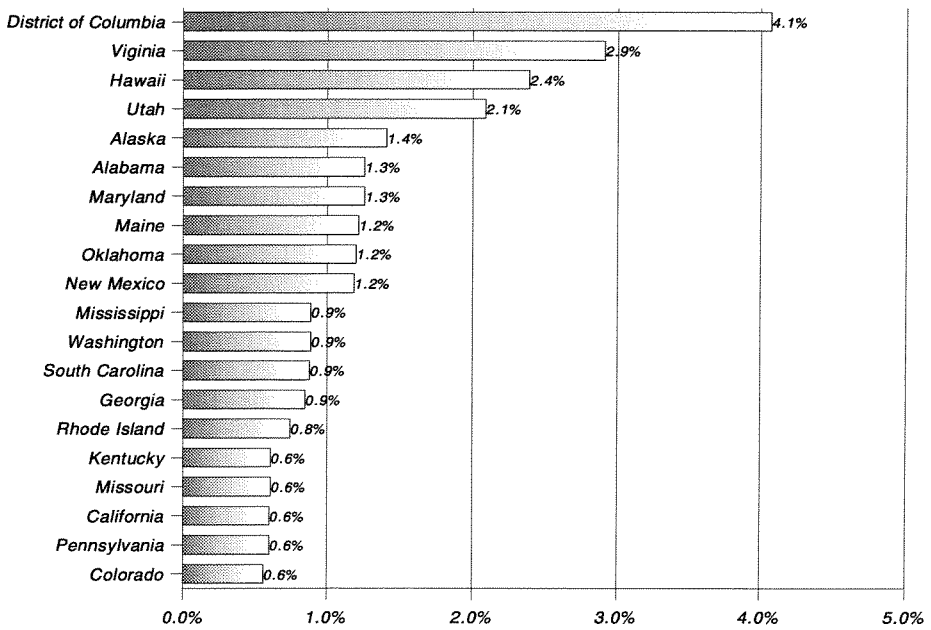
Sources: Bureau of the Census and Bureau of Economic Analysis

Figure 47
Direct Defense Employment as a Percent of Total Employment--Top 20 States: FY 1992



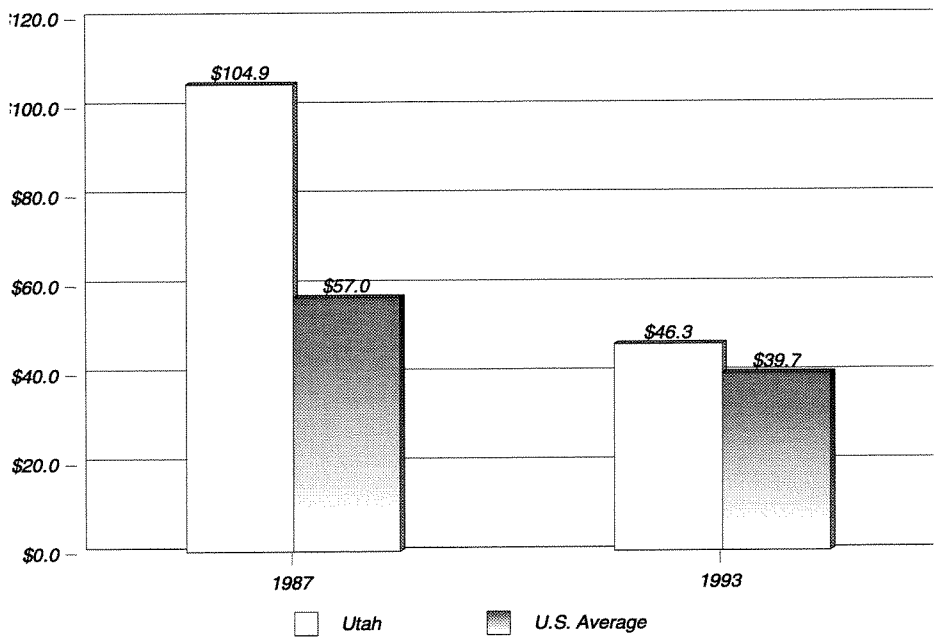
Sources: Bureau of the Census and Bureau of Economic Analysis

Figure 48
Civilian Defense Salaries and Wages as a Percent of Personal Income--Top 20 States: FY 1993



Sources: Bureau of the Census and Bureau of Economic Analysis

Figure 49
Non-Retirement Defense Spending per $1,000 of Personal Income--Utah and U.S.: 1987 and 1993



Sources: Bureau of the Census and Bureau of Economic Analysis

Table 63
U.S. Federal Defense Related Spending--All States and Territories (Thousands of Dollars): FY 1986 to 1993

Fiscal Year	Wages and (a) Salaries	Procurement Contract Awards	Military Retirement	State/ Local Grants	Total
1986	$61,900,746	$150,055,345	$17,769,127	$111,366	$229,836,584
1987	65,097,948	147,616,385	18,732,723	127,430	231,574,486
1988	67,270,619	142,175,108	18,640,881	113,637	228,200,245
1989	72,771,040	132,259,473	20,669,532	172,125	225,872,170
1990	69,103,253	135,259,039	21,235,041	175,978	225,773,311
1991	75,254,721	139,570,721	22,669,073	111,454	237,605,969
1992	73,851,077	129,124,509	24,024,591	223,899	227,224,076
1993	73,947,670	129,996,047	25,752,104	241,816	229,937,637
Percent Change 1986-93	19.5%	-13.4%	44.9%	117.1%	0.0%
Absolute Change 1986-93	$12,046,924	($20,059,298)	$7,982,977	$130,450	$101,053

(a) Does not include fringe benefits.

Source: U.S. Department of Commerce, Bureau of the Census.

Table 64
Federal Defense Related Spending--Utah Total (Thousands of Dollars): FY 1986 to 1993

Fiscal Year	Wages and (a) Salaries	Procurement Contract Awards	Military Retirement	State/ Local Grants	Total
1986	$784,567	$1,688,947	$94,612	$301	$2,568,427
1987	794,294	1,358,327	98,743	5,766	2,257,130
1988	817,787	876,681	98,876	1,318	1,794,662
1989	870,295	1,010,016	108,005	10,186	1,998,502
1990	890,892	881,947	115,442	1,232	1,889,513
1991	922,035	806,169	125,526	598	1,854,328
1992	852,772	651,076	134,844	8,431	1,647,123
1993	847,053	555,653	146,743	5,932	1,555,381
Percent Change 1986-93	8.0%	-67.1%	55.1%	n/a	-39.4%
Absolute Change 1986-93	$62,486	($1,133,294)	$52,131	n/a	($1,013,046)

(a) Does not include fringe benefits.

Sources: Wages and salaries, military retirements, state/local government grants -- U.S. Department of Commerce, Bureau of the Census; prime contract awards -- Federal Procurement Data System, U.S. Department of Defense.

Table 65
Top 25 Firms with Utah Operations Receiving DOD Federal Contract Awards: FY 1993

Rank	Contractor	Number of Awards	Aggregate Awards (thousands)
1	EG&G	1	$70,245
2	Thiokol Corporation	2	58,962
3	Hercules Incorporated	1	42,976
4	Utah State University/USU Foundation	3	25,241
5	Crysen Refining Inc.	1	23,131
6	James M. Montgomery Consulting	10	13,024
7	Beneco Enterprises Inc.	3	12,802
8	Teleflex Incorporated	1	10,241
9	Utah Power & Light Company	6	9,565
10	E-Systems Inc.	1	9,284
11	Chevron USA Inc.	1	9,051
12	Phillips Petroleum Company	1	8,828
13	Eaton Kenway Incorporated	2	8,685
14	Envirocare of Utah Inc.	2	8,552
15	Lockheed Engineering & Science	1	6,494
16	Unisys Corp./Paramax Systems Corp.	3	5,803
17	EDO/EDO Western Corporation	2	4,553
18	A & A General Contractors Inc.	3	4,284
19	Lawrence Construction Co.	1	3,940
20	Cleaning Network Corporation	2	3,438
21	Dale B. Stevens Construction	4	3,186
22	Digital Equipment Corporation	3	3,156
23	Northwest Toxicology Inc.	2	3,008
24	Varian Associates Inc.	1	2,904
25	Sarcos/Sarcos Research Group	3	2,842

Source: DOD Federal Contract Awards over $25,000 for all 50 states, performed in Utah in fiscal year 1993 (DOD Summary Report), March 22, 1994.

Table 66
Per Capita Defense Wages/Salaries and Procurement Contract Awards--Utah & U.S.: 1986 and 1993

Current Dollars

Year	Region	Wages and Salaries: Military per Capita	Military Utah/US	Civilian per Capita	Civilian Utah/US	Procurement Contract Awards: per Capita	Utah/US
1986	Utah	$106	71%	$366	349%	$1,014	165%
	U.S.	$148	--	$105	--	$613	--
1993	Utah	$120	72%	$335	290%	$286	58%
	U.S.	$167	--	$116	--	$497	--

Constant FY 1993 Dollars

Year	Region	Wages and Salaries: Military per Capita	Military Utah/US	Civilian per Capita	Civilian Utah/US	Procurement Contract Awards: per Capita	Utah/US
1986	Utah	$135	71%	$467	349%	$1,295	165%
	U.S.	$189	--	$134	--	$783	--
1993	Utah	$120	72%	$335	290%	$286	58%
	U.S.	$167	--	$116	--	$497	--

1993 Amounts/ 1986 Amounts Constant FY 1993 Dollars

Region	Wages and Salaries: Military per Capita	Military Utah/US	Civilian per Capita	Civilian Utah/US	Procurement Contract Awards: per Capita	Utah/US
Utah	89%	--	72%	--	22%	--
U.S.	88%	--	87%	--	63%	--

Note: U.S. includes all states and territories.

Sources: Department of Census, Federal Expenditures by State for Fiscal Years 1986 and 1993, Table 8; and Federal Procurement Data System, U.S. Department of Defense.

Table 67
Non-Retirement Defense Spending per $1,000 Personal Income--Top 20 States: 1987 and 1993

1987

Rank	State	Non-Retirement Defense Expenditures Per $1,000 Personal Income
1	Virginia	157.0
2	District of Columbia	148.7
3	Hawaii	140.6
4	Alaska	125.7
5	Utah	104.9
6	Missouri	95.2
7	Maryland	86.4
8	Arizona	85.5
9	Massachusetts	84.6
10	Mississippi	83.9
11	Connecticut	81.8
12	Colorado	75.2
13	Washington	72.9
14	New Mexico	71.1
15	California	70.4
16	Georgia	67.4
17	Alabama	66.0
18	Maine	65.6
19	South Carolina	58.9
--	U.S. Average	57.0
20	Texas	56.1

1993

Rank	State	Non-Retirement Defense Expenditures Per $1,000 Personal Income
1	District of Columbia	156.5
2	Alaska	119.3
3	Virginia	117.3
4	Hawaii	100.9
5	Maine	68.7
6	Missouri	63.9
7	Mississippi	62.4
8	New Mexico	59.9
9	Georgia	55.3
10	Maryland	54.7
11	Colorado	54.6
12	Arizona	50.5
13	California	49.2
14	Alabama	47.6
15	Utah	46.3
16	Massachusetts	45.3
17	South Carolina	42.5
18	North Dakota	42.0
19	Oklahoma	40.2
--	U.s. Average	39.7
20	Texas	39.7

Source: U.S. Bureau of the Census, and U.S. Bureau of Economic Analysis.

Table 68
Department of Defense Contract Awards by County (Thousands of Dollars): 1983 to 1993

County	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Beaver	$0	$0	$0	$0	$0	$38	$0	$0	$47	$120	$0
Box Elder	151,158	281,643	179,409	226,967	572,965	186,480	286,668	159,787	141,986	69,538	58,735
Cache	13,780	10,543	19,696	31,376	13,281	17,535	35,659	47,643	44,248	31,582	28,270
Carbon	1,673	2,270	845	1,844	650	7,323	4,215	0	1,010	2,893	2,680
Davis	112,951	145,684	222,453	352,129	154,528	211,153	143,119	113,247	114,041	136,223	153,486
Duchesne	0	0	0	0	98	0	4,029	1,316	0	0	0
Emery	0	0	0	0	0	237	0	0	0	0	0
Grand	9,077	5,944	451	451	0	0	0	0	0	0	0
Iron	0	0	0	0	0	0	0	(1,432)	1,787	610	0
Juab	0	0	0	0	91	217	0	0	55	52	46
Kane	0	0	0	0	0	0	0	0	0	0	1,079
Millard	0	0	0	0	0	0	0	82	295	1,281	468
Morgan	0	0	109	145	62	35	0	0	0	65	1,048
Rich	0	0	0	30	0	56	0	0	0	0	0
Salt Lake	377,225	358,195	596,535	896,425	485,485	333,418	318,662	336,058	233,121	189,112	121,151
San Juan	1,513	339	2,115	2,974	972	794	1,410	626	0	490	0
Sanpete	156	0	0	0	92	0	0	0	0	0	31
Sevier	129	206	1,126	1,747	532	357	605	29	0	0	77
Summit	0	44	92	121	45	0	1,232	655	7,223	2,189	5,036
Tooele	19,918	26,055	32,774	77,377	44,989	47,187	131,824	115,036	148,102	170,016	140,189
Uintah	0	0	0	0	135	392	225	0	296	321	104
Utah	9,813	23,264	21,558	33,928	23,023	35,542	34,727	41,685	23,992	13,054	17,330
Washington	182	161	9,679	9,679	0	489	199	1,500	3,785	3,013	402
Weber	24,649	31,198	29,037	53,754	61,379	35,428	47,442	65,715	86,181	30,517	25,521
State	$722,224	$885,546	$1,115,879	$1,688,947	$1,358,327	$876,681	$1,010,016	$881,947	$806,169	$651,076	$555,653

Source: U.S. Department of Defense, Federal Procurement Data Systems.

✧ Energy and Minerals

Energy Production

Utah's economy enjoys a strong energy industry built upon reserves of coal, crude oil, natural gas, and uranium. The production of these primary fuels, as well as their conversion into other forms of energy such as petroleum products and electricity, has formed the basis of Utah's energy industry. Utah's primary energy-producing sectors will produce an estimated 989 trillion BTU of primary energy during 1994 (Figure 50). This energy production will be used for consumption in Utah, shipped to other states, and exported to overseas markets. In 1994, coal will account for 56 percent of the total primary energy production in Utah, while natural gas production will contribute 30 percent. An additional 12 percent will be produced in the form of crude oil, and electricity generated from non-fossil fuel resources such as hydro and geothermal energy will make up the remaining one percent.

At the point of extraction, the value of Utah energy production is estimated to be $1.3 billion in 1994. Coal, valued at $512 million, will rank first in value among Utah's primary energy resources and will account for 39 percent of the total value of all energy produced. The value of natural gas and crude oil production is expected to be $445 million and $328 million respectively, while electricity generated from non-fossil fuel sources will contribute $51 million.

Crude Oil

In 1994 crude oil prices continued the downward trend that began in 1991. At $14.13 per barrel, January 1994 crude oil prices were almost $4 per barrel below those of January 1993. Prices in 1994 began to pick up in May and by July had reached nearly $19 per barrel. However, prices again declined yielding a projected average for 1994 of approximately $16 per barrel.

Continuing low crude oil prices have flattened drilling activity in Utah. The number of active rotary rigs in Utah has remained unchanged at five from 1993 to 1994. Oil well completions are projected to be slightly higher in 1994 increasing from 63 to an estimated 65 completions. With the increase in crude oil prices in the second quarter of 1994 came an increase in applications for drilling permits. Drilling permits increased 78 percent in the second and third quarters of 1994 pulling Utah out of the 1993 slump for drilling permits.

Utah crude oil production will continue the eight year decline that began in 1986. Production from oil wells in Utah's producing fields will fall to a projected 20.5 million barrels in 1994, a decrease of six percent from 1993's 21.8 million barrels. San Juan again leads all Utah counties with an estimated 6.6 million barrels of production, most of which was exported to New Mexico and Texas refineries. Duchesne County is expected to be the second largest producing county with 5.9 million barrels followed by Summit County, whose production fell from 4.5 to a projected 4.4 million barrels in 1994, and Uintah County with an estimated 3.1 million barrels of production. Table 69 provides the supply and disposition of crude oil in Utah.

Petroleum Products

The production of petroleum products by Utah's six refineries is projected to exceed 2.1 billion gallons in 1994. After all of the down time in 1993 resulting from changes made at the refineries in response to the Clean Air Act amendment of 1990, refinery crude oil inputs have rebounded by approximately three percent. Refinery utilization rates are now back to 1992 levels of 88 percent. Fourth quarter 1994 production of petroleum products may be affected due to the closure of the Pennzoil's Roosevelt Refinery as of September 30, 1994. Crude oil once refined by Pennzoil will now be trucked to two Salt Lake refineries where it will be partially refined and the wax portion then shipped by rail car to Pennzoil facilities in Pennsylvania. The future of the refinery in Roosevelt in currently uncertain.

Continued strong demand for petroleum products in Utah during 1994 led to an increase in the total production of petroleum products by a projected 5.7 percent. Utahns are expected to consume a record

830 million gallons of motor fuel, 385 million gallons of distillate fuels, and 229 million gallons of aviation fuel in 1994. Although exports of petroleum products increased by an estimated 11 percent, imports increased by 5 percent. When combined with the increase in production, this resulted in a net increase in the total supply of product to the Utah market during 1994. Coupled with the rise in supply and demand was a slight decrease in prices, particularly in motor fuel. Motor fuel prices fell by a projected 9 percent in 1994.

Due to requirements of the 1990 Clean Air Act Amendments, oxygenated motor fuels were again required in Utah County beginning November 1, 1994. Salt Lake, Davis and Weber Counties were again exempt from mandatory use of oxygenated motor fuels due to a pending decision on Utah's request for a waiver from the oxygenated fuels mandate.

Production of low sulfur diesel fuels began in 1993. However, the growing pains of this new market were still being felt in 1994. According to the Oil Price Information Service, 1993 prices for low sulfur diesel in Salt Lake City were among the highest in the nation due to shortages resulting from increased demand and refinery problems. Production of diesel fuels rebounded in 1994 increasing by a projected 22 percent, driving prices for the Salt Lake City area below those of surrounding markets. As a result of the existing price gap, there were reports of jobbers from Las Vegas coming to Salt Lake City for low sulfur diesel. The supply and consumption of petroleum products in Utah are shown in Table 70.

Natural Gas

The number of completed natural gas wells is expected to be much lower than last year. The projected 33 gas well completions in 1994 represents a 75 percent decline from 1993. Expiration of the federal non-conventional fuel tax credit on December 31, 1992 coupled with a decline in natural gas prices removed much of the incentive to drill for natural gas. The average wellhead natural gas price for 1994 is projected to be $1.65 per thousand cubic feet, 11 percent below 1993's average price.

Utah production of natural gas, however, continues to reach new highs. A record 348 billion cubic feet of natural gas is expected to be produced by Utah's wells in 1994. This represents a three percent increase over gross production in 1993 and partially reflects production from new wells drilled to take advantage of the non-conventional tax credit. Net production, gross production less reinjected and flared gas, is also expected to reach a new high of 276 billion cubic feet. Again, this reflects production from new tax-credit wells. It also reflects an increase in net production from the prolific Anchutz Ranch field as it enters its "blow down" phase. Expected net production in 1994 reflects a 22 percent increase over 1993's level. Table 71 shows the supply and consumption of natural gas in Utah. Oil and natural gas development are shown in Table 72.

Coal

Utah coal production in 1994 is expected to exceed 24 million tons. This will be the first time in the 125 year history of recorded coal production in Utah that this much coal will be produced. Coal in Utah is produced in Carbon, Emery and Sevier Counties. Emery County will account for 67 percent of Utah's total production in 1994 with Carbon and Sevier Counties accounting for 19 and 14 percent.

The value of coal produced in 1994 is expected to surpass the $500 million mark. The average price for Utah coal has fallen precipitously since 1982 but appears to be stabilizing around $21 per ton. However, on an inflation-adjusted basis, prices during the next few years are expected to continue their downward trend.

Higher demand on the part of eastern U.S. electric utilities as well as Pacific Rim countries will lead to this increased Utah production. In order to comply with the Clean Air Act Amendments of 1990, eastern electric utilities are beginning to switch to Utah coal which has a lower sulfur content than most of the coal found in the eastern U.S. Exports of Utah coal in 1994, primarily to Pacific Rim countries, is expected to increase to 3.1 million tons, a 20 percent increase over 1993's level. By the end of the decade, Utah's coal industry is expected to be exporting 5 million tons of coal to Pacific Rim countries.

Almost 74 percent of Utah coal production will be consumed by electric utilities in the U.S., over 72 percent of which will be consumed by electric utilities in Utah. Approximately 13 percent of Utah coal production will be exported overseas with the remaining production being consumed by industrial consumers, coke plants, and residential and commercial consumers in Utah and other states.

As a result of a high degree of mechanization and a highly skilled work force, productivity continues to rise in the Utah coal industry. Productivity in Utah coal mines, which was just under two tons per miner-hour (tpmh) in 1980 and 1981, is expected to reach a new high of 5.61 tpmh in 1994. This rising worker productivity has led to more competitive prices for Utah coal and bodes well for the future of the Utah coal industry. Table 73 provides the supply and consumption of coal in Utah. Energy prices in Utah are shown in Table 74.

Electricity

An estimated 34,387 gigawatthours of electricity were generated in 1994, primarily from coal, hydro, natural gas, geothermal and petroleum energy resources. A little over half of this amount was consumed in Utah and the other half exported to California and other states. Coal-fired generation continued to account for the majority of Utah electricity generation, accounting for about 95 percent of the state's total. Utah's hydro resources provided the second greatest source of generation in 1994. Contributing over two percent of the state's total, hydro generation was about 44 percent higher than in 1992. This substantial increase is primarily due to increased precipitation which ended six years of drought in Utah.

Natural gas fired generation provided nearly two percent of the state's total generation and is expected to rise as Utah Power's Gatsby Plant units #1 and #2 come on line. However, electricity generation from natural gas decreased slightly in the first half of 1994, presumably resulting from down time as the Gatsby units were coming on line.

Output from Utah's geothermal resources increased by roughly 73 percent in 1994 after a forced outage at Utah Power's Blundell Plant in January 1993 was restored. Even the contribution of petroleum as a source of electricity generation continued to increase in 1994, rising by about 34 percent from 1993. Table 75 provides the supply and consumption of electricity in Utah.

Uranium

Uranium is not produced at this time. Current international prices of uranium make production of Utah uranium cost-prohibitive. However, it was announced in late 1994 that Energy Fuels, Concord, and Uranium Resources, Inc. would jointly mine and process uranium in Arizona and Utah beginning sometime in 1995. Most likely, ore would be mined in northern Arizona, which would then be processed at Energy Fuels' White Mesa mill in Blanding, Utah. The extent of this effort is still uncertain and is being monitored by the Department of Natural Resources.

Energy Industry Employment

Employment in Utah's energy industry is estimated to be 14,288 workers in 1994, down 2 percent from 1993 (Table 76). As a percent of total Utah non-agricultural employment, 1994 employment in Utah's energy industry will account for an estimated two percent. The energy industry's share of total Utah non-agricultural employment has been declining since 1982 when it reached a peak of four percent.

Employment in the three primary energy producing sectors, uranium, coal, and oil and gas, increased by 23 percent in 1993 over the previous year, the first significant increase in employment in 12 years. Although, estimated employment for 1994 is down slightly from 1993 (5,400 vs. 5,800), it still remains above 1992's level.

Employment in the oil and gas production sector reached a nine year high in 1993 of 3,600. Although this is the highest level since 1985, it was still 39 percent less than the peak employment year of 1981. Employment in 1994 is expected to be a little over 3,000 workers, which represents a 16 percent decline

from 1993's level. This projected decline is the result of reduced drilling and workover activity during 1994.

A decrease in petroleum refinery employment is expected in 1995 as a result of the closure of Pennzoil's Roosevelt refinery. Current employees are being retained to help with mothballing the refinery. Since Pennzoil plans to continue to purchase crude oil, there is no anticipated reduction in employment in the oil and gas production sector as a result of the refinery closure. Closure will result in the ultimate loss of 75 jobs at the Pennzoil refinery.

Employment in the Utah coal industry has fallen from a high of 4,300 workers in 1982 to an estimated 2,350 in 1994. Rising productivity and a reduction in the number of operating mines were contributing factors.

The seven-year decline in employment in the electricity industry has leveled off with a projected modest two percent increase in 1994. The long decline is primarily the result of the Utah Power/Pacific Power merger of 1986. The decline in employment is expected to continue to level off because the price reductions required by the merger agreement have been completed and the majority of personnel cost reductions made possible by the merger have been accomplished.

Minerals

The value of Utah's mineral production in 1994 is estimated at $2.2 billion, an increase of more than $318 million from 1993 and an all-time high for the value of produced minerals. Contributions from each of the major industry segments are estimated as follows:

- base metals, $921 million (42 percent of total),
- coal, $512 million (24 percent of total),
- industrial minerals, $428 million (20 percent of total), and
- precious metals, $306 million (14 percent of total).

These data are shown in Figure 51.

Production of precious metals showed a decline in 1994 although the overall value increased, while production of industrial minerals, coal, and base metals increased. Commodity prices for all base metals, especially copper, and precious metals increased significantly over 1993 price levels, while prices for industrial minerals and coal improved slightly.

Outlook

The outlook for 1995 is bright. Market prices should increase or remain at present levels for all industry segments. Increased production is also forecast in all industry segments. Several ongoing exploration and development projects may lead to new base and precious metals production in 1995.

Coal production should show a solid gain in both pricing and production as several new coal contracts were awarded during 1994.

Precious metal production will increase slightly with both increases and decreases in production being forecast among present operators. Precious metal prices are expected to increase modestly in 1995.

Base metals production should increase modestly as modernization and expansion projects are completed for several major producers. Base metal prices are expected to remain strong as the U.S. economy continues to expand.

Industrial minerals production will be mixed; salt producers especially are expected to increase production. Industrial mineral prices are expected to remain steady or improve slightly. Through November 15, 1994, the Utah Division of Oil, Gas, and Mining received applications for 47 new Small Mine permits (less than 5 acres disturbance) and four Regular Mine permits (5 acres and larger disturbance). As of the same date,

53 regular mines and 214 small mines were classified as active operations. One hundred and eight mines reported production in 1992.

National Rankings

The U.S. Bureau of Mines ranked Utah seventh in the nation in the value of nonfuel mineral production in 1993. Utah ranked:

- first in beryllium (Utah remains the only mined source in the nation);
- second in copper;
- third in gold, magnesium metal, iron ore, and molybdenum;
- fourth in magnesium compounds; and
- sixth in silver production.

These rankings are not expected to change in 1994.

Nonfuel Minerals Production Trends

From 1983 through 1993, the value of nonfuel mineral production in Utah has increased from $657 million to over $1.3 billion (Figure 52). In 1993 the value of nonfuel minerals reached an all-time high of $1.35 billion, exceeding 1992's total by only $745,000.

Mineral exploration statewide has slowed significantly. Notices of Intent to explore on public lands filed to November 15, 1994 totaled 33 compared to 54 for 1993, 65 for 1992, 52 for 1991, and 73 for 1990. Due to changes in the holding cost for mineral claims, and proposed changes in the mining law, mineral exploration is expected to continue at a slower pace for the foreseeable future.

Base and Precious Metals

Copper

Copper production from Kennecott's Bingham Canyon mine in Salt Lake County will increase in 1994 over the 1993 production of more than 325,000 tons and will account for over half of the value of all metals produced from Utah's mines. Increased production, as a result of the ongoing expansion and modernization program, coupled with a nearly 25 percent increase in copper prices led to the substantial increase in the value of base metal production. In addition to copper, Kennecott recovers substantial amounts of gold, silver, and molybdenum as by-products through the milling, smelting, and refining processes.

Kennecott is in the second year of an $880 million smelter-rebuilding and refinery-expansion project which is scheduled for completion in 1995. When complete, Kennecott will be able to refine all smelter products on-site. At present, a substantial amount of copper concentrate is shipped overseas for smelting.

Magnesium metal

Magnesium metal was the second largest contributor to the value of base metals in the state. Magnesium metal is produced by Magnesium Corporation of America (Magcorp) at its electrolytic plant at Rowley in Tooele County. The plant has a capacity to produce 38,000 tons of magnesium metal (99.9 percent purity) per year and is the third largest magnesium plant in the world. Magnesium compounds are derived from brines from Great Salt Lake. The market price for magnesium metal has increased substantially over the past two years.

Beryllium

Brush Wellman, Inc. continued to be the nation's leading producer of beryllium metal. Beryllium ore is mined at its Topaz-Spor Mountain mine and processed along with imported beryl at the company's facility a

few miles north of Delta in Millard County. In 1994, over 300,000 pounds of beryllium oxide will be produced at the Delta plant and sent to the company-owned refinery and finishing plant in Ohio. The demand for beryllium is expanding due to new markets in the computer, airline, and automobile industries.

Molybdenum

The sole molybdenum producer in Utah is Kennecott's Bingham Canyon mine which will produce over 15 million pounds of molybdenum concentrate in 1994. Molybdenum is recovered as a by-product from the milling operation. The market price for molybdenum has increased substantially over the past two years and is expected to continue to improve in 1995.

Iron Ore

In 1994, Geneva Steel will produce less than 200,000 tons of iron ore from its operations west of Cedar City in Iron County for use in its steel plant at Vineyard, Utah County. This is a significant decrease over 1993 production.

The increase in hot metal requirements for steel making at Geneva has necessitated an increase in the use of higher iron, lower silica content pellets from Minnesota and less usage of lower iron content ore from their Cedar City mine. The change from an open hearth process to the new Q-BOP process has also lowered the use of limestone in the iron-making process.

Gold

Gold production statewide in 1994 is estimated to be less than 750,000 Troy ounces, a decrease of over 100,000 Troy ounces from the 1993 production of 848,000 Troy ounces. Four of five Utah gold producers reported lower or no production for the year. Kennecott's Bingham Canyon mine was the largest gold (as a by-product) producer in the state. The largest primary producer was American Barrick's Mercur mine located in Tooele County. Other primary producers are, in descending order of production: Kennecott's Barneys Canyon mine in Salt Lake County, and USMX's Goldstrike mine in Washington County. The North Lily Mining Company leaching operation at Mammoth in Juab County was idle during the year.

Silver

Kennecott's Bingham Canyon mine is the largest producer of silver (as a by-product) in Utah, with lesser amounts coming from other precious metals producers. The estimate for 1994 production is nearly 4 million Troy ounces, a slight decrease from 1993 production levels.

Industrial Minerals

Industrial rocks and minerals continued to be an important segment of Utah's mineral industry. Major commodities produced include:

- sodium chloride,
- Portland cement,
- lime,
- phosphate,
- potash,
- gilsonite,
- common clay,
- dolomite,
- magnesium chloride,
- gypsum.

Commodities produced in lesser amounts include bentonite and fuller's earth, building stone, lightweight aggregate, masonry cement, gemstones, and industrial sand.

Salt, Magnesium Chloride, Potash, and Sulfate of Potash

Salt and salt brine-derived products are the largest contributors to the value of industrial minerals in Utah. In addition to salt (sodium chloride), other products including magnesium chloride, potash, and sulfate of potash are produced from Great Salt Lake brines.

Salt production statewide is estimated to exceed 2.5 million tons in 1994 with most of the production coming from operators utilizing brine water from the Great Salt Lake. The three industrial mineral producers around the lake are; (1) GSL Minerals Inc., (2) Morton International, and (3) Akzo Salt Company. In addition, three other companies produce salt and or potash from operations not related to the Great Salt Lake; (1) Reilly Chemical Company at Wendover in Tooele County, (2) Moab Salt Company near Moab in Grand County, and (3) Redmond Clay and Salt Company near Redmond in Sanpete County (salt only).

Great Salt Lake Minerals Company (GSL) is the largest domestic supplier of sulfate of potash, a key ingredient in a specialty fertilizer marketed primarily to Pacific Rim countries as well as to Kentucky and North Carolina. GSL has increased its solar evaporation pond acreage to over 40,000 acres during the past several years and will produce well over 1 million tons of salt products in 1994.

Akzo Salt Company inaugurated production from its new Timpie facility located near the southern end of Stansbury Bay in October 1994. The new facility has the capacity to process over 350,000 tons of salt products annually. Morton International continues to be the second largest producer of salt products in the state.

Portland Cement, Lime and Limestone

Portland cement and processed limestone were the second and third largest contributors, respectively, to the value of industrial minerals. Two operators produce Portland cement in Utah: Holnam, Inc., and Ash Grove Cement Company, Inc., Holnam's Devils Slide operation is located east of Morgan in Morgan County, and Ash Grove's Leamington plant is located east of Lynndyl in Juab County. The two plants are operating at capacity and will produce nearly 1.5 million tons of cement products in 1994.

Lime usage continues to expand. Chemstar, Inc. and Continental Lime, Inc. are the two commercial suppliers of calcined limestone (quick lime), hydrated lime, and dolomitic lime in Utah, with a combined capacity of over one million tons per year. Both operations serve markets in Utah and surrounding states. Chemstar's operation is located near Grantsville in Tooele County. Continental Lime's facility is located in the Cricket Mountains, approximately 35 miles southwest of Delta in Millard County. In addition, a substantial amount of limestone is utilized in electric power generation for flue stack emissions reduction.

Phosphate

Utah's only phosphate operation (FS Industries' Little Brush Creek mine) is located 11 miles north of Vernal in Uintah County. FS Industries is a partnership comprised of Farmland Industries of Kansas City, Missouri and J. R. Simplot of Boise, Idaho.

Approximately 2.5 million tons of ore are processed annually into 900,000 tons of concentrate and transported in slurry form to the company's Rock Springs, Wyoming fertilizer plant via a 90-mile-long underground pipeline. The mine operates at a nearly constant annual rate of production as its product is used exclusively in its own manufacturing facility.

Potash and Sulfate of Potash

Potash production (KCl) is estimated at about 200,000 tons in 1994. Two companies produce potash in Utah: Reilly Chemical Company, (from subsurface brines near Wendover), and Moab Salt Company (from solution mining of a sylvite bed near Moab in Grand County). In addition, a substantial quantity of Sulfate of Potash (K_2SO_4) is produced by GSL Minerals from Great Salt Lake brines.

Gilsonite

Gilsonite is an unusual hydrocarbon mineral which has been mined in Utah for over 100 years. The three mines which produce gilsonite are all located in the Uinta Basin near the town of Bonanza in Uintah County. In descending order of production they are; (1) American Gilsonite Company, (2) Zeigler Chemical and Minerals Company, and (3) Lexco, Inc. Total production is estimated at nearly 75,000 tons in 1994. Gilsonite is used in over 150 products ranging from printing inks, to explosives and is marketed worldwide.

Clay

Three companies mine most of the clay produced statewide although numerous small mines are intermittently active. In descending order of production the major producers are: (1) Interstate Brick Company, (2) ECDC Environmental LC, and (3) Western Clay Company. Clay is utilized mainly in the production of bricks and for use as a sealant for open-pit storage of drilling fluids and oil, heap-leach pads in the mining industry, irrigation ditches, and industrial and municipal waste landfills. Total clay production is estimated at approximately 600,000 tons in 1994.

Dolomite

In addition to mining iron ore, Geneva Steel produces over 200,000 tons of dolomite annually from a quarry located near the southeast end of Utah Lake. The majority of the dolomite is used in the blast furnace operation at the Geneva plant while the remainder is crushed to a fine powder and marketed as rock dust for use as a coal dust suppressant in underground coal mines. Dolomitic limestone is also produced by Chemstar Inc. for use in making quicklime.

Gypsum

Gypsum production from five operating mines expanded to nearly 300,000 tons in 1994. The two major producers are T. J. Peck & Sons and United States Gypsum Company. The majority of gypsum production is utilized in wallboard manufacturing facilities located near Sigurd in Millard County. Several small operators supply raw gypsum to these two plants as well as to regional cement companies, where it is used as an additive to retard the setting time of cement.

Events Affecting Utah's Mineral Industry

Buena Ventura Resources, a subsidiary of Crown Energy Corporation, completed a demonstration plant test for recovery of bitumen from a tar sand deposit near Vernal in Uintah County. The test was completed successfully in June 1994, and plans are currently underway to design a commercial scale facility to produce up to 3,000 barrels of bitumen per day.

Chief Consolidated Mining Company entered into a joint venture agreement with Akiko Gold Resources Ltd. to explore and develop Chief Consolidated's properties in the Tintic area in Utah County, including the Burgin mine. The Apex No. 2 shaft has been rehabilitated to provide access to the Burgin mine and 10,000 feet of underground drilling and 1,000 feet of new drift is scheduled to confirm and increase the Proven and Probable reserves, currently at approximately 1 million tons of lead-zinc-silver ore. A feasibility study is expected to be completed in 1995. In addition, the Chief No. 2 shaft in the Main Tintic district has been rehabilitated and underground drilling from the 1600 level is scheduled for 1995.

Energy Fuels Nuclear has acquired certain mining and milling properties of Umetco Corporation. The acquisition includes the White Mesa mill near Blanding in San Juan County and a number of uranium-vanadium mines in southeastern Utah and in Colorado. Energy Fuels plans to reactivate the White Mesa mill in 1995.

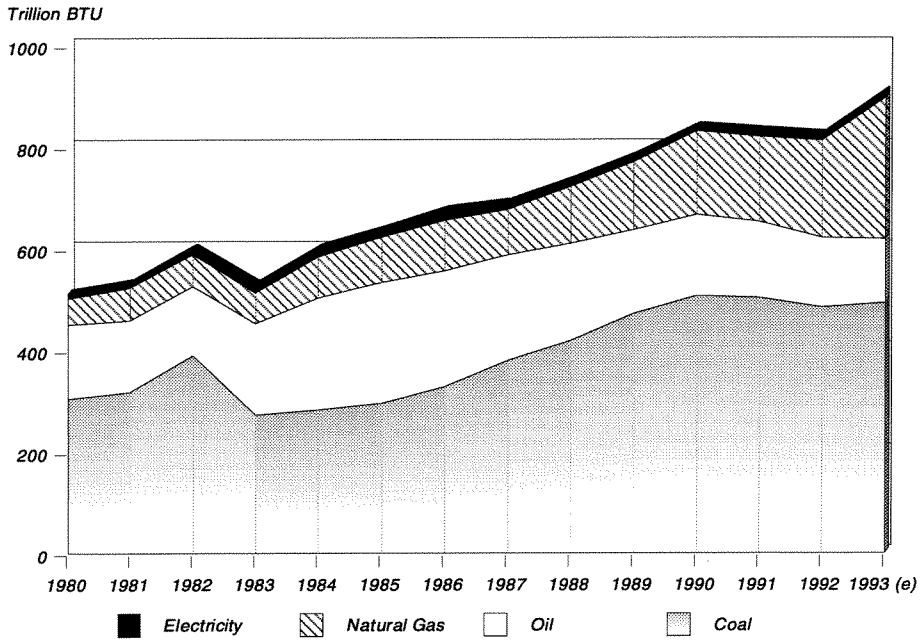
Great Salt Lake Minerals Company has signed a letter of intent to purchase from Reilly Industries Inc., the Wendover chemical plant. The sale is expected to be completed by the end of 1994. The purchase should

result in increased production from the current 100,000 tons of annual production for the Wendover operation.

Kennecott Utah Copper has awarded a contract to Morrison Knudsen Co. to provide engineering and management services for a $500 million tailings impoundment project for its Bingham Canyon operation. The project is scheduled for completion in late 1998 and will add an estimated 6 square miles of tailings storage to the existing 9 square miles of storage currently in use.

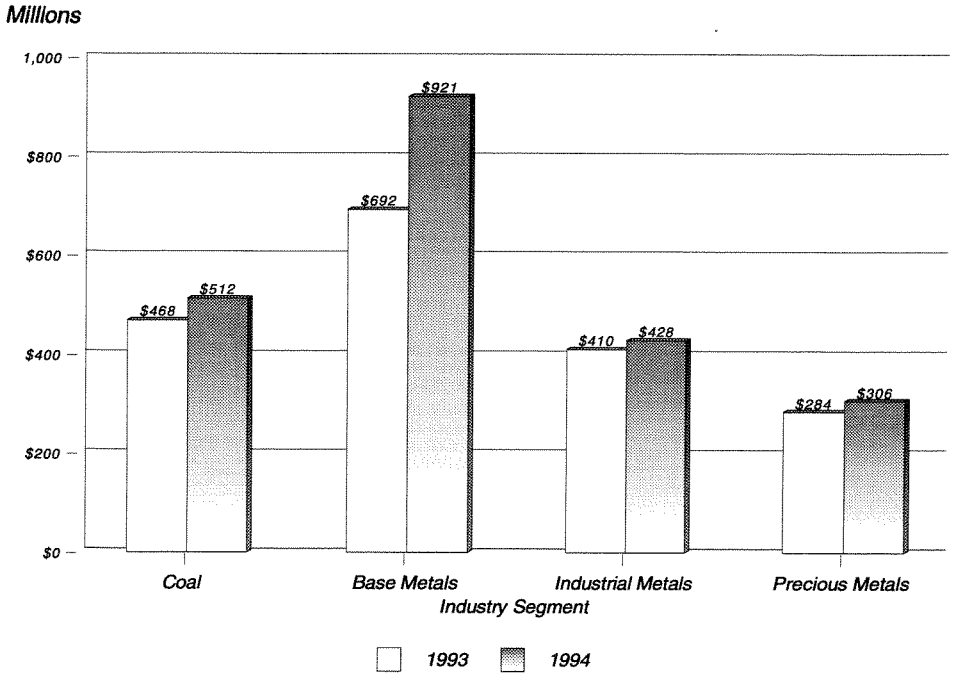
USMX Inc. has announced the closure of its Goldstrike mine in Washington County citing both environmental and financial considerations. Mining has stopped but leaching of dumps will continue into 1995. Reclamation is currently projected to be finished in 1996. ✧

Figure 50
Utah Energy Production by Primary Source: 1980 to 1993



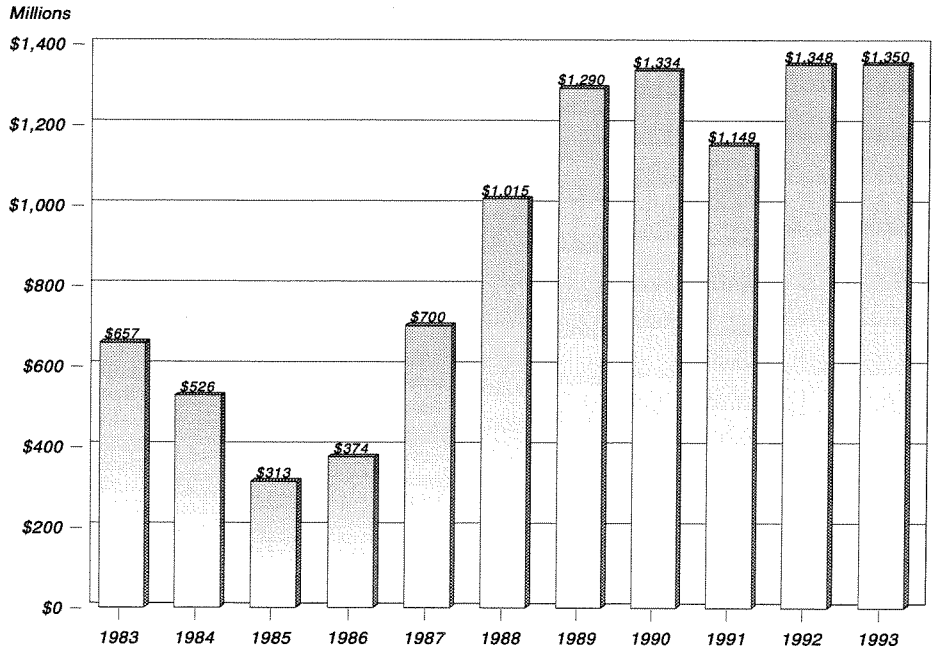
Source: Utah Office of Energy

Figure 51
Mineral Valuation--Gross Value Estimate: 1993 and 1994



Source: Utah Geological Survey

Figure 52
Value of Nonfuel Minerals: 1983 to 1993



Source: Bureau of Mines

Table 69
Supply and Disposition of Crude Oil (Thousand Barrels) in Utah: 1980 to 1994

	Supply			Disposition			
Year	Field Production	Marketed Production	Imports	Utah Crude Exports	Refinery Receipts	Refinery Inputs	Refinery Stocks
1980	24,979	24,529	28,769	8,232	45,516	45,599	665
1981	24,309	25,744	27,257	7,866	43,700	42,673	762
1982	23,595	22,966	25,477	7,826	41,246	40,368	614
1983	31,045	31,043	20,886	8,316	43,615	43,185	632
1984	38,054	41,693	19,234	13,616	43,672	43,746	607
1985	41,144	41,167	19,002	14,597	45,549	45,021	695
1986	39,244	39,233	21,609	15,721	45,132	45,034	559
1987	35,835	35,779	21,966	12,137	45,664	44,483	612
1988	33,346	33,263	23,947	8,411	48,882	47,618	599
1989	28,513	28,606	24,441	6,179	46,775	46,767	609
1990	27,712	27,623	29,117	7,725	49,104	48,985	656
1991	25,930	25,941	31,677	8,961	48,646	48,852	749
1992	24,077	23,962	32,903	6,901	50,079	49,776	513
1993	21,819	21,766	34,493	7,758	48,554	48,307	645
1994 (e)	20,495	20,297	37,389	8,160	49,725	49,247	713

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 70
Supply and Consumption of Petroleum Products (Thousand Gallons) in Utah: 1980 to 1994

	Supply			Consumption by Product					
Year	Refined in Utah	Imports	Refinery Stocks	Motor Fuel	Aviation Fuel	Distillates	Other	Total	Exports
1980	1,694,260	313,903	93,954	652,428	116,592	357,126	390,600	1,516,746	929,710
1981	1,617,812	367,721	89,754	653,016	107,688	304,626	232,890	1,298,220	992,451
1982	1,508,690	434,236	92,778	663,306	120,834	278,460	227,430	1,290,030	929,006
1983	1,790,822	340,139	77,746	670,068	142,254	270,690	278,670	1,361,682	1,062,499
1984	1,651,342	422,376	83,244	678,342	146,622	291,606	268,338	1,384,908	1,013,079
1985	1,765,248	394,479	80,430	681,912	163,884	250,824	251,874	1,348,494	981,323
1986	1,776,367	337,091	78,246	736,722	186,690	308,112	234,570	1,466,094	839,288
1987	1,797,929	349,466	66,402	749,784	212,856	285,516	245,616	1,493,772	870,198
1988	1,918,644	361,879	75,936	763,224	213,738	308,826	244,776	1,530,564	979,726
1989	1,913,310	393,766	91,980	726,726	218,442	259,980	272,412	1,477,560	937,692
1990	1,929,270	503,917	72,786	698,376	226,254	308,784	252,546	1,485,960	1,069,984
1991	1,894,201	477,078	76,566	721,812	253,470	327,852	276,402	1,579,536	1,105,248
1992	1,931,817	442,428	67,998	752,178	241,080	338,772	245,028	1,577,058	1,105,889
1993	1,948,257	449,694	71,064	788,709	225,456	344,731	249,970	1,608,865	1,127,940
1994 (e)	2,058,907	473,894	0	829,926	228,604	385,454	265,622	1,709,606	1,246,666

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 71
Supply and Consumption of Natural Gas (Million Cubic Feet) in Utah: 1980 to 1994

	Supply			Consumption by End-Use					
Year	Gross Production	Lease Use	Net Production	Residential	Commercial	Industrial	Electric Utilities	Other	Total
1980	87,766	39,909	47,857	42,949	22,503	38,386	4,758	8,445	117,041
1981	90,936	32,071	58,865	40,589	21,753	35,568	2,732	1,231	101,873
1982	100,628	44,260	56,368	53,003	27,798	34,574	2,573	7,091	125,039
1983	96,933	42,233	54,700	42,813	23,640	29,632	740	5,756	102,581
1984	183,062	109,908	73,154	47,719	27,023	31,606	576	9,390	116,314
1985	208,803	129,897	78,906	44,884	25,120	27,072	657	10,202	107,935
1986	239,411	148,375	91,036	47,199	25,434	21,589	704	14,391	109,317
1987	262,045	165,685	96,360	40,597	21,685	16,914	556	18,493	98,245
1988	278,463	176,538	101,925	43,356	20,672	25,310	537	18,251	108,126
1989	278,437	157,992	120,445	45,438	20,537	29,032	758	17,248	113,013
1990	323,151	173,757	149,394	43,408	20,660	31,094	516	20,594	116,272
1991	329,470	179,175	150,295	52,605	28,056	34,236	4,684	14,602	134,183
1992	317,755	143,904	173,851	47,635	25,248	36,969	5,558	13,895	129,304
1993	337,852	110,781	227,071	51,539	25,662	39,067	5,014	14,673	135,956
1994 (e)	347,573	75,329	269,480	46,680	23,135	37,569	7,212	13,873	128,469

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 72
Oil and Natural Gas Development in Utah: 1980 to 1994

			Wells Completions			
Year	Drilling Permits	Average Active Rotary Rigs	Oil	Gas	Dry	Total
1980	523	43	71	99	140	310
1981	678	68	199	168	205	572
1982	664	41	172	136	156	464
1983	588	36	167	110	150	427
1984	622	46	228	80	141	449
1985	392	28	201	71	102	374
1986	219	13	109	53	57	219
1987	195	8	55	24	46	125
1988	165	6	62	27	44	133
1989	97	5	44	16	23	83
1990	252	5	49	16	28	93
1991	402	11	80	92	37	209
1992	372	13	62	177	48	287
1993	171	5	63	131	28	222
1994 (e)	322	5	65	33	34	131

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 73
Supply and Consumption of Coal (Thousand Short Tons) in Utah: 1980 to 1994

	Supply				Consumption by End-Use				
Year	Utah Production	Marketed Production	Imports	Exports	Residential & Commercial	Coke Plants	Industrial	Electric Utilities	Total
1980	13,236	13,014	1,215	6,728	237	1,528	446	4,895	7,106
1981	13,808	14,627	1,136	8,764	196	1,567	714	4,956	7,432
1982	16,912	15,397	797	8,261	177	841	822	4,947	6,787
1983	11,829	12,188	937	6,133	191	839	629	5,223	6,882
1984	12,259	12,074	1,539	6,432	259	1,386	548	5,712	7,905
1985	12,831	14,361	1,580	6,549	252	1,288	438	6,325	8,303
1986	14,269	13,243	1,145	5,366	191	814	351	6,756	8,112
1987	16,521	16,989	1,165	5,633	123	231	276	11,175	11,806
1988	18,164	18,244	2,448	5,925	196	1,184	589	12,544	14,513
1989	20,517	21,289	2,367	7,283	231	1,178	686	12,949	15,044
1990	22,012	21,680	2,137	7,467	181	1,318	676	13,563	15,738
1991	21,945	21,673	2,007	7,954	320	1,310	535	12,829	14,834
1992	21,015	21,339	2,155	8,332	347	1,182	497	13,136	15,162
1993	21,723	21,935	2,100	8,761	228	1,089	614	13,343	15,274
1994 (e)	24,135	24,164	2,621	10,273	250	1,281	637	14,344	16,512

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 74
Energy Prices in Utah: 1984 to 1994

	Field Price (dollars per unit)			Average End-Use Price (dollars per unit)					
						Petroleum Products			
Year	Coal (tons)	Crude Oil (barrels)	Natural Gas (MCF)	Coal (tons)	Electricity (Kwh)	No. 2 Distillate (gallons)	Motor Fuel (gallons)	Aviation Fuel (gallons)	Natural Gas (MCF)
1980	$25.63	$19.79	$1.86	$29.63	$0.045	–	–	–	$3.12
1981	$26.87	$34.14	$1.87	$32.79	$0.047	–	–	–	$3.43
1982	$29.42	$30.50	$2.47	$33.38	$0.051	–	–	–	$3.10
1983	$28.32	$28.12	$2.56	$30.64	$0.054	$0.832	$0.864	–	$3.15
1984	$29.20	$27.21	$3.16	$32.14	$0.064	$0.851	$0.819	–	$3.52
1985	$27.69	$23.98	$3.23	$31.62	$0.067	$0.796	$0.814	$0.844	$3.23
1986	$27.64	$13.33	$2.90	$31.33	$0.069	$0.497	$0.529	$0.547	$3.00
1987	$25.67	$17.22	$1.80	$26.90	$0.068	$0.631	$0.580	$0.565	$4.58
1988	$22.85	$14.24	$1.70	$28.58	$0.065	$0.524	$0.562	$0.533	$4.27
1989	$22.00	$18.63	$1.61	$27.87	$0.060	$0.632	$0.654	$0.631	$4.33
1990	$21.78	$22.61	$1.70	$26.47	$0.056	$0.733	$0.750	$0.796	$4.52
1991	$21.56	$19.99	$1.56	$26.20	$0.054	$0.653	$0.680	$0.767	$4.56
1992	$21.83	$19.39	$1.62	$26.51	$0.052	$0.652	$0.695	$0.736	$4.62
1993	$21.17	$17.46	$1.85	$25.89	$0.053	$0.678	$0.586	$0.711	$3.84
1994 (e)	$21.23	$16.00	$1.65	$25.93	$0.053	$0.598	$0.537	$0.615	$3.87

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 75
Supply and Consumption of Electricity (Gigawatthours) in Utah: 1980 to 1994

	Supply			Consumption by End-Use				
Year	Fossil Fuel	Renewables	Total	Residential	Commercial	Industrial	Other	Total
1980	11,291	823	12,114	3,293	3,569	3,800	512	11,174
1981	11,139	623	11,762	3,476	3,909	3,930	530	11,845
1982	10,867	1,024	11,891	3,630	3,033	4,610	745	12,018
1983	11,030	1,394	12,424	3,678	3,375	4,786	769	12,608
1984	12,359	1,429	13,788	3,825	3,935	4,656	950	13,366
1985	14,283	1,128	15,411	3,996	4,272	4,663	658	13,589
1986	15,235	1,584	16,819	3,984	4,262	4,583	662	13,491
1987	25,326	1,020	26,346	3,991	4,127	4,570	784	13,472
1988	28,870	767	29,637	4,186	4,356	5,259	765	14,566
1989	29,761	735	30,496	4,134	4,365	5,622	782	14,902
1990	31,622	638	32,260	4,188	4,713	5,553	772	15,225
1991	29,368	789	30,160	4,458	5,009	5,674	722	15,862
1992	32,155	766	32,921	4,458	5,170	6,085	668	16,381
1993	32,494	966	33,460	4,680	5,109	6,086	921	16,797
1994 (e)	33,317	1,069	34,387	4,936	6,044	6,214	944	18,132

(e) = estimate

Source: Utah Office of Energy, Energy Data Information System.

Table 76
Energy Employment in Utah: 1980 to 1994

Year	Uranium	Coal	Oil/Gas Production	Petroleum Refineries	Petroleum Distribution	Electricity	Natural Gas Distribution	Total
1980	1,532	4,536	4,519	879	2,075	3,777	2,863	20,181
1981	1,471	4,512	5,915	939	2,363	3,948	2,769	21,917
1982	1,113	5,063	5,401	875	2,302	4,163	2,960	21,877
1983	744	3,148	4,493	859	2,236	4,249	2,992	18,721
1984	376	2,784	3,962	811	1,952	4,736	2,809	17,430
1985	281	2,858	3,845	816	1,997	5,031	2,451	17,278
1986	353	2,770	2,426	794	1,933	5,262	2,360	15,898
1987	344	2,577	1,903	778	1,677	5,046	2,308	14,633
1988	290	2,575	2,023	788	1,418	4,687	2,279	14,060
1989	261	2,506	1,891	826	1,452	4,592	2,233	13,761
1990	235	2,535	2,138	897	1,371	4,452	2,238	13,866
1991	96	2,265	2,451	905	1,390	4,386	2,243	13,736
1992	91	2,216	2,455	843	1,379	4,172	2,212	13,367
1993	44	2,196	3,600	1,013	1,298	4,168	2,262	14,581
1994 (e)	47	2,333	3,024	1,026	1,247	4,238	2,373	14,279

(e) = estimate

Note: This data differs from State of Utah Department of Employment Security data found elsewhere in this report.

Source: Utah Office of Energy, Energy Data Information System.

✧ High Technology

Growth Slows in Utah's High Technology Sector

Utah's high technology sector[20] experienced a net employment decline of 4.4 percent since the end of 1992. The biggest losses occurred in Aerospace (-1,575), Software (-689), Electronic Components (-634) and Computer Equipment (-402). Offsetting these losses were gains in Automotive Products (+1,787) and Pharmaceuticals (+423). A brief analysis of selected sectors is included below.

Aerospace Components

Declines in the aerospace components sector have continued unabated since 1988 when employment totaled 14,286. By the second quarter of 1994, employment in the sector had dropped to 7,765, a 47 percent drop in six years. The two largest companies in the aerospace components sector are Hercules Aerospace Company and Thiokol Corporation. In the past, reductions at these companies accounted for most of the sector's decline. However, it appears that employment has stabilized at both firms, and much of the 1993-1994 loss was due to labor reductions in the sector's small and medium-sized companies in response to declining defense budgets and increased competition in the aerospace industry.

While employment in this sector is at its lowest point in eight years, further erosion is anticipated. Industry analysts do not expect the industry as a whole to plateau until late 1997. Defense budget cuts are expected to continue and the adaption to a post cold-war environment will be a struggle for most aerospace and defense companies. As these companies position themselves to compete in an increasingly challenging market, business consolidations and further labor force reductions are likely. Restructuring and possible consolidations such as the pending merger between Hercules and Alliant Technologies, may mean negligible employment growth in Utah's high tech aerospace sector over the next two to three years.

Biomedical/Medical Products

Utah's biomedical/medical products sector is well-established, having evolved from a pool of talented entrepreneurs and institutions based in Utah. Technologies being commercialized at many companies in this sector originated at the University of Utah and other Utah-based medical companies.

In 1994, high tech medical companies in Utah employed nearly 4,200 people, up slightly from 1992 despite a tightening health care environment nationwide. A recent study completed by the Bureau of Economic and Business Research showed that Utah's biomedical industry has outperformed the nation in measures of employment and revenue growth. The largest companies in the sector are Becton-Dickinson Vascular Access, Ballard Medical, Merit Medical Systems, Inc. and Ballard Medical Products.

One exciting area of Utah's biomedical sector is genetics research. Several companies are using technologies initially developed at the University of Utah and Howard Hughes Medical Institute to develop

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[20]The Bureau of Labor Statistics uses a range of concepts to define high tech. The criteria used for the data reported here are the utilization of technology-oriented workers, and research and development expenditures. Manufacturing companies that have a proportion of technology-oriented workers greater than the average for all manufacturing industries (6.3 percent); and have a ratio of research and development expenditures to sales about the same as the average for all manufacturing industries (3.1 percent) are defined as high tech. Two service sectors are also considered high tech: research and development laboratories, and software development companies. (*Monthly Labor View*, November 1983.) The high tech sector of Utah's economy includes many of the state's largest employers and represents 30 percent of all manufacturing employment in the state. (Software-related employment is not included in this percentage as software companies are classified under "Business Services", rather than manufacturing).

genetically-based diagnostic products. An example is Myriad Genetics which focuses on the identification and commercialization of genes that predispose individuals to diseases such as cancer and heart disease.

Factors that will affect the overall growth of the biomedical/medical sector are the Food and Drug Administration (FDA) and basic structural changes occurring within the industry itself. For many medical product companies the regulatory actions of the FDA have become especially onerous. The FDA is a powerful and formidable force with broad responsibility to strictly regulate, prevent or ban any unsafe medical device or substance from the U.S. market. Due to limited budgets and dramatic increases in the number of pre-market approval applications for new medical devices, the FDA in-house review period generally exceeds 250 days. This situation, combined with numerous requests for additional information from the companies by FDA, costs medical companies thousands of dollars and endless delays in product development. Recently, FDA streamlined its product approval process but the outcome has yet to be evaluated.

The structural change most evident in the health care industry is the emergence of large, managed-care organizations. These groups wield greater clout in negotiating national contracts for medical equipment and supplies at significant savings than do more traditional health care companies. These large organizations are informed and powerful purchasers which have kept increases in medical product pricing to a minimum.

The ultimate impact of these factors on Utah medical companies is difficult to assess. However, Utah is perceived as a ``business friendly" state with a reasonable regulatory environment, responsive leadership and low business cost compared to areas where biomedical/medical concentrations presently exist. Though no major expansions in this sector are projected in this sector, it should remain a viable and stable component of Utah's economy.

Electronic Components

Utah's electronic component sector includes a highly diverse group of companies which manufacture components used by producers of computers, telecommunications and networking equipment. Thus, the stability of this sector is dependent on the strength of its sister industries and tends to be more volatile than other high technology sectors.

Although Utah has about 30 electronic component manufacturers, the sector is characterized by large employment concentrations in relatively few firms. For the most part, these large facilities are manufacturing arms of very large companies headquartered outside the state and are essentially the ``manufacturing overflow". As such, they are particularly vulnerable to employment and product cutbacks. This vulnerability was demonstrated with the elimination of a product line at National Semiconductor in 1993 which resulted in the loss of approximately 400 Utah workers. Overall, the sector reported an employment decline of 634 workers from year-end 1992.

Software

Shake-outs in Utah's software sector culminated in an overall employment decline for the first time in eight years. By the end of the second quarter of 1994, employment losses in the Software sector totaled 689 workers with total employment reported at 10,002. Much of the sector's employment loss was the result of the merger of WordPerfect and Novell, Inc.--two of the five largest software companies in the U.S. The aftermath of this merger has been consolidation and employment reductions at both companies totaling slightly more than 800 jobs.

Even with the recent loss of more than 600 jobs, software is still Utah's largest high tech sector. Nevertheless, the industry is faced with serious challenges. The software industry has matured rapidly over the past five years. Presently there are only three or four software powerhouses which effectively dominate the market. It is becoming increasingly difficult for small and medium-sized companies to compete for product shelf space, and ultimately market share.

In the future, the industry will see further tightening, formation of alliances between small and medium-sized firms, and an overall decline in the number of software businesses. In Utah, employment losses will continue and the incidence of software business failures will rise.

Pharmaceuticals

Closely aligned with the medical products sector is pharmaceuticals. Utah companies do not have a large presence in the development of new prescription drugs or in the manufacture of over-the-counter generic medicines. Rather, Utah-based companies in this group manufacture products such as fetal bovine serum used to grow cells for biotechnical research experiments, drug fluids, and prescription test kits that detect antibodies in blood samples that have been exposed to certain viral, bacterial and parasitic diseases.

From 1992 to second quarter 1994, companies in this sector employed 932 people, an increase of 432 workers in 18 months. This component of Utah's high tech base has done extremely well over the past two years with the expansion of Fresenius, Inc., a primary manufacturer of drug fluids. Utah's pharmaceutical sector is projected to report modest growth rates over the short term but presently faces challenges similar to those of the medical industry.

Automotive Products

Presently, the brightest spot in Utah's high tech industry is automotive products. This sector includes companies that manufacture a diversity of products used in the automobile industry. Morton International Automotive Safety Products Group (Morton) is the largest employer in the group accounting for about 4,300 workers. Morton, which split off from Morton Thiokol in 1989, is a leader in the manufacture of air bags. Much of Morton's growth has resulted from the adoption of passenger-side air bags in cars sold in the U.S. and the penetration of driver-side air bags in automobiles, light trucks, vans and recreational vehicles. The demand for air bags in the U.S., Europe and Japan will keep Morton's growth on an uphill climb.

Conclusion

Utah's high technology sector is concentrated in two major industries: aerospace and software. In years past, gains in software have outpaced the losses in aerospace. The result has been steady growth throughout much of the past decade. Since the end of 1992, this situation has changed. Now, both aerospace and software are reporting employment losses. Given the economic pressures on these two industries, little relief is in sight. Fortunately, the high tech industry is showing strong growth in other sectors. Growth in automotive, pharmaceuticals, and communications products helped offset some of the aerospace and software losses. Nonetheless, it may be difficult for the smaller sectors in Utah's high technology industry to offset future anticipated declines in aerospace and software. ✧

✧ Tourism, Travel, and Recreation

Overview

The travel, tourism and recreation industry is an important component of overall world, national, and state economic activity. The WEFA Group (international economic consultants) estimates that the industry accounts for 11.0 percent of world GDP and 10.3 percent of U.S. GDP. Employment shares are estimated at 10.5 percent and 11.1 percent, respectively. Early indications are that the industry experienced a record year in 1994 in the United States.

The travel, tourism and recreation industry is usually defined to include the activities of persons traveling to and staying in places outside their usual environment. The travel may be for virtually any purpose but is generally limited to a length of stay of less than one year. The "usual environment" is meant to exclude regular commuting between home and work or other frequently visited places. Some researchers attempt to count only overnight visits or visits to places more than 100 miles from home. Others allow the traveler or person being surveyed to determine whether his or her travel was outside the "usual environment." In any event, the industry includes an array of goods and services produced and consumed by both travelers and non-travelers alike and is, therefore, subject to some difficulty in measurement. For example, a waitress, a construction worker, and a truck driver might owe their jobs to either traveler spending or to the economic activity of residents; and usually a combination of both is involved. Measurement, then, of the magnitude of the travel, tourism and recreation industry is a difficult proposition. Even the methodology or formula used by the U.S. National Park Service and others to count visitors is subject to change from year to year. Users of the data in this section are cautioned to keep this in mind.

Tourism in Utah

Utah's tourism industry is large and diverse. Table 77 provides a profile of the Utah travel industry. The state boasts an enviable array of attractions that include:

- ✧ Five national parks
- ✧ Utah Jazz NBA basketball
- ✧ Salt Lake Buzz Triple A baseball
- ✧ Six national monuments
- ✧ World-class skiing
- ✧ Two national recreation areas
- ✧ Numerous historic and prehistoric sites
- ✧ One national historic site
- ✧ LDS genealogical library and Temple Square
- ✧ Seven national forests
- ✧ 45 state parks
- ✧ Abundant wildlife and wilderness
- ✧ Great Salt Lake
- ✧ Mountains, deserts, rivers
- ✧ A major metropolitan area and convention facilities

While final visitor number by attraction for 1994 are not yet available, the top ten most visited attractions and their visitation numbers in the state for 1993 were:

✧ Temple Square	(e) 5,000,000
✧ Glen Canyon National Recreation Area	3,584,158
✧ Zion National Park	2,361,434
✧ Flaming Gorge National Recreation Area	1,980,000
✧ Wasatch Mountain State Park	1,201,004
✧ Bryce Canyon National Park	1,107,951

✧ Park City Resort	(e) 1,100,000
✧ Lagoon Amusement Park	1,005,000
✧ Utah Jazz Basketball	(e) 800,000
✧ Hogle Zoo	788,579

(e) estimated

Review of 1994

When all of the numbers are counted, 1994 is expected to be a record year or near-record year for Utah tourism (Table 78 and 79). Most traveler destinations and parks have experienced the highest level of visitation ever. It is estimated that over 15 million out-of-state visitors came to or through Utah during 1994. The major travel indicators and/or destinations experiencing the largest increase from 1993 are the Salt Lake International Airport (12 percent increase in passengers), Capitol Reef National Park (16 percent increase in visitors), and Glen Canyon National Recreation Area (12 percent increase in visitors). With Utah's exceptionally strong overall economy, business-related and convention travel has been an important part of the growth in tourism this past year. Figures 53 through 57 provide an indication of tourism growth in Utah over time.

However, several "soft spots" became evident in the industry. The 1993-1994 ski season was slightly off the record pace from the year before, primarily because of a mediocre snowfall for the season. Still, it was the second biggest year ever for Utah skiing. With an estimated 2.80 million skier visits for the season , compared with 2.85 million for the previous year. The 1994-1995 ski season is off to a fast start with heavy snowfalls in late 1994.

The other "soft spot" was the summer season in Southern Utah, which was a bit slower than expected, even though both the spring and fall seasons were quite strong. Two reasons have been put forward as being somewhat responsible for this softening. Somewhere between one-fourth and one-third of visitors to the Southern Utah parks are foreigners. Some observers believe that the World Cup Soccer Games diverted foreign visitors to other U.S. destinations during the summer of 1994. Another reason could be the success of marketing efforts to convince people to visit the parks at less crowded times of the year--in other words, not to come during the peak summer season.

Economic Impact

Travelers spent approximately $3.35 billion in Utah in 1994. Because the industry includes a portion of the activities from other industries--construction, retail and wholesale trade, services, finance and other sectors of the economy--it is not generally ranked in terms of being the first or second largest industry in the state (the problem lies in what constitutes an industry). It is safe to say that travel, tourism and recreation comprises one of the largest and most important economic activities in Utah and in the country. Traveler spending in Utah now exceeds the contribution to GDP of the agriculture and mining industries combined.

Traveler spending in Utah accounts for roughly 69,000 jobs. The $3.35 billion in spending generates some $247 million in direct tax impact for state and local governments.

Industry Concentration and Dependency

While there are a wide variety of attractions spread throughout the state, tourism activity and developed infrastructure are concentrated in Utah along the Wasatch Front metropolitan area, Summit County, and in Southern Utah near the national parks. Figure 55 ranks Utah's counties in terms of travel-related jobs as a percent of all jobs. The graph shows that travel, tourism and recreation account for more than 40 percent of the jobs in Garfield, Summit, Grand, and Kane Counties.

Outlook

Utah's tourism industry is expected to continue to be one of the fastest growing segments of the state's economy. Several factors will contribute to this growth:

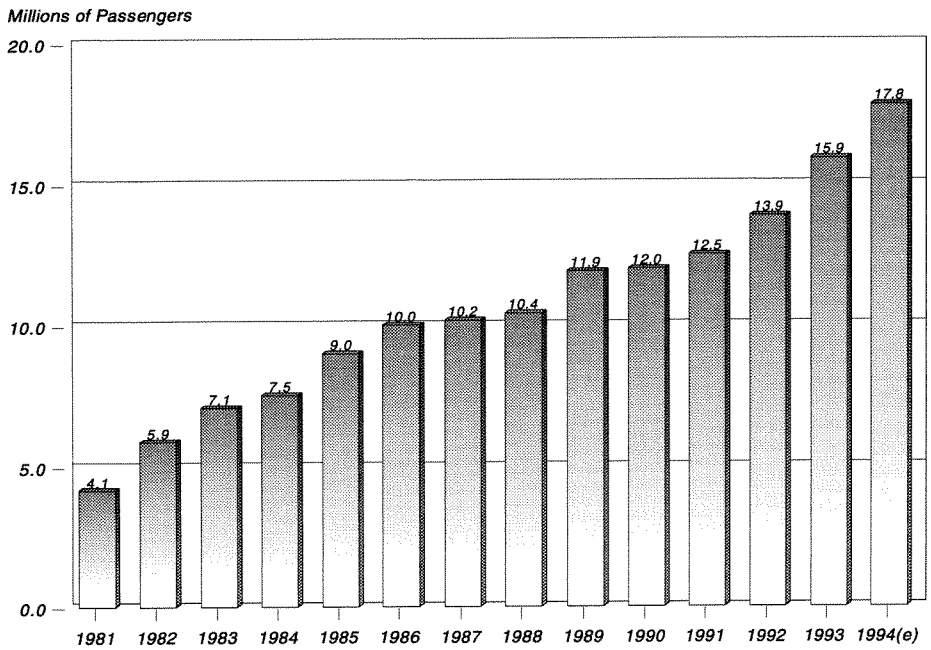
- ✧ Large increases in foreign travelers
- ✧ Favorable exchange rates for foreign travelers
- ✧ Improved national economic conditions
- ✧ Favorable exposure of the state due to the bid to host the 2002 Winter Olympics
- ✧ Growth in the LDS Church
- ✧ Popularity of national parks, the American Southwest, and historic and prehistoric sites
- ✧ Favorable demographics, including aging of the population
- ✧ Favorable airfares and relatively inexpensive gasoline

Some other factors could work to offset the growth in the industry:

- ✧ Capacity constraints. The peak seasons in the national parks and on the ski slopes are relatively crowded. Where possible and appropriate, the public and private infrastructure should be expanded.
- ✧ National and international economic uncertainties.
- ✧ A trend to take shorter, but more frequent vacations, closer to home.

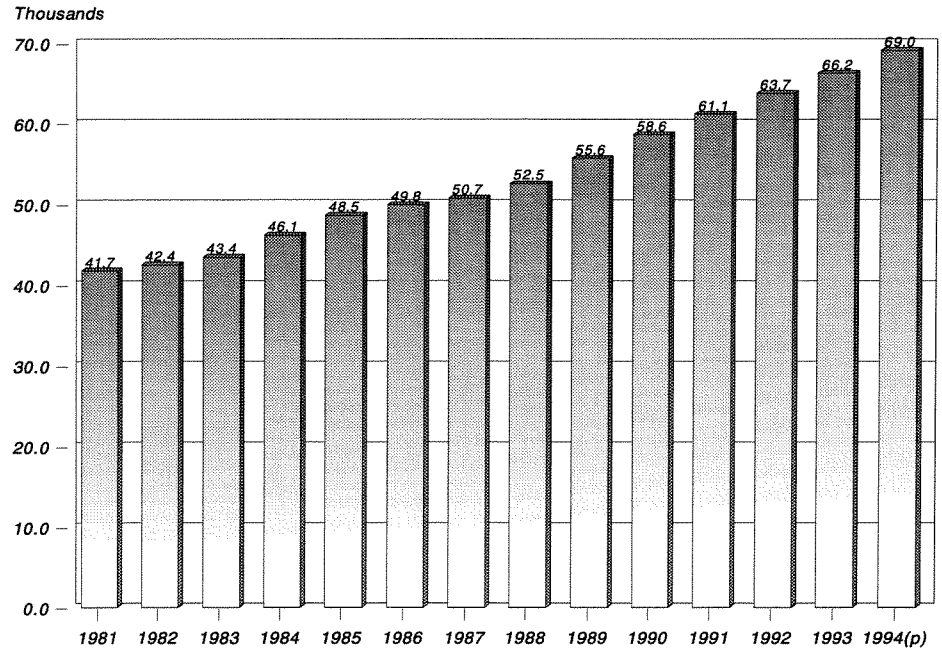
Overall, Utah's tourism industry is expected to continue to grow at rates similar to those of recent years. ✧

Figure 53
Salt Lake International Airport Passengers: 1981 to 1994



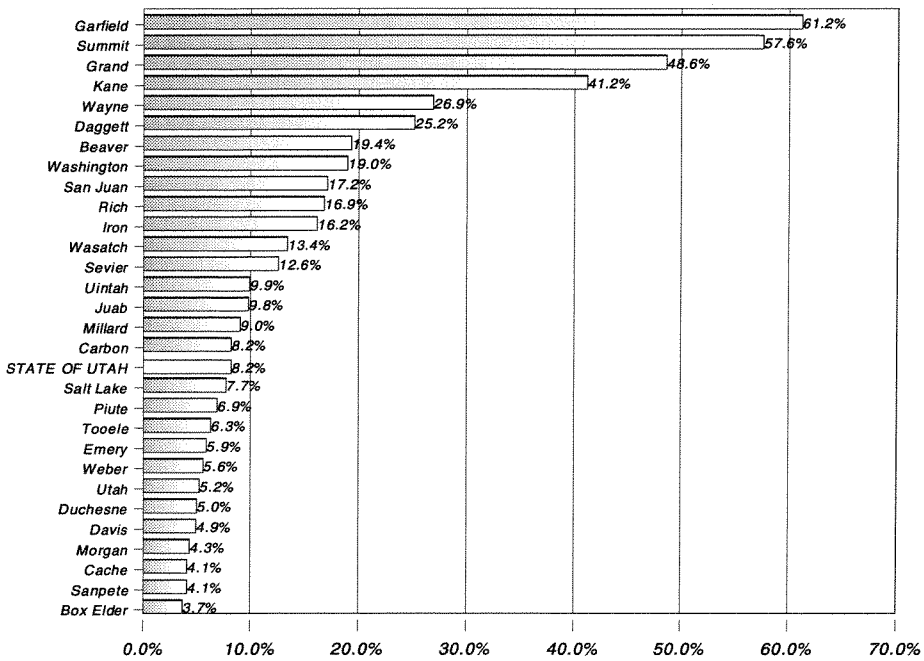
Source: Salt Lake Airport Authority

Figure 54
Travel-Related Employment in Utah: 1981 to 1994



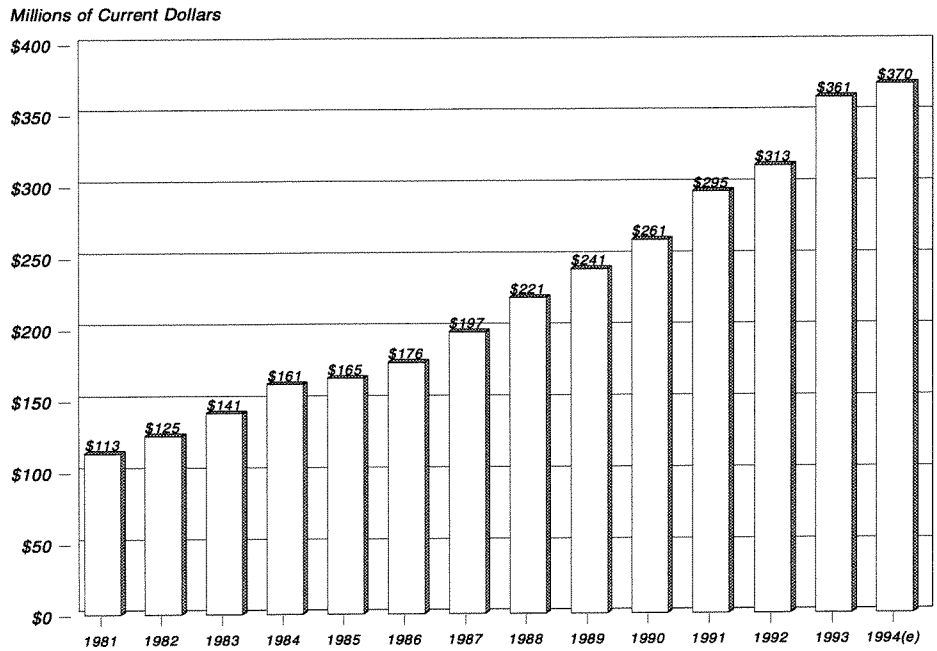
Source: Governor's Office of Planning and Budget

Figure 55
Travel-Related Jobs as a Percent of All Jobs by County: 1993



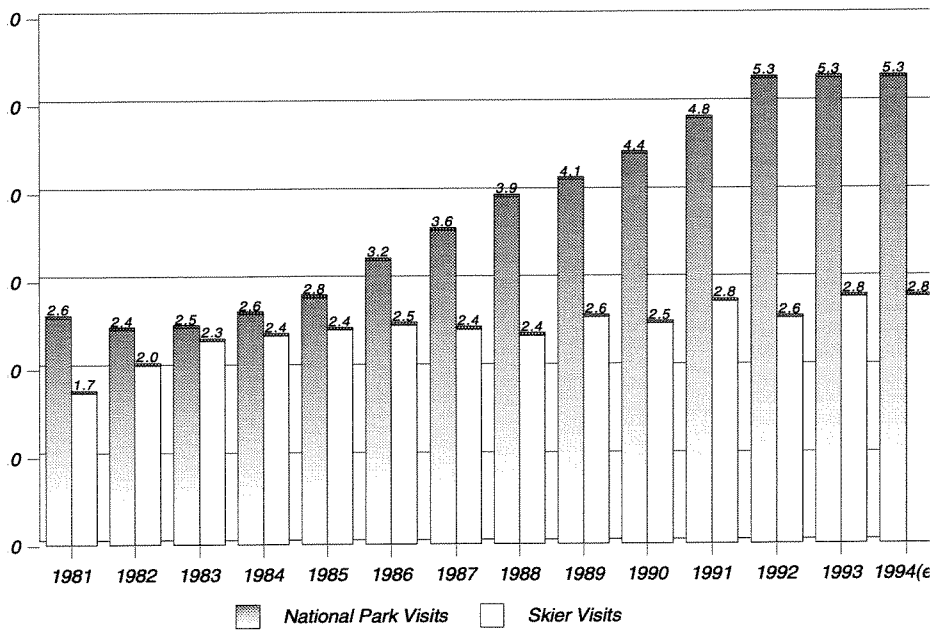
Source: Governor's Office of Planning and Budget

Figure 56
Utah Tourism Indicators--Hotel Room Rents: 1981 to 1994



Source: Utah State Tax Commission

Figure 57
Utah Tourism Indicators--National Park and Skier Visits: 1981 to 1994



Source: Utah State Tax Commission, National Park Service, & Utah Ski Association

Table 77
Profile of the Utah Travel Industry: 1990 to 1994

Category	1990	1991	1992	1993	(p) 1994
Total Spending by Out-of-State Travelers (billions)	$2.66	$2.90	$3.05	$3.25	$3.35
Total Number of Out-of-State Visitors (millions)	13.0	14.0	14.4	15.0	15.2
Number of U.S. Visitors	12.4	13.3	13.6	14.1	14.3
Number of Foreign Visitors	0.6	0.7	0.7	0.9	0.9
Total Travel and Recreation Related Employment	58,560	61,100	63,700	66,200	69,000
Percent of All Utah Jobs	8.1%	8.2%	8.3%	8.3%	8.1%
Total State and Local Taxes Generated by Travel Spending (millions)	$196	$214	$225	$240	$247
State Government Portion	147	161	169	180	185
Local Government Portion	49	53	56	60	62
Total National Park Recreation Visits (millions)	4.4	4.8	5.3	5.3	5.4
Total Skier Visits (millions)	2.5	2.8	2.6	2.9	2.8
Taxable Room Rents (millions)	$261	$295	$313	$361	$370

(p) = preliminary estimate

Source: Estimates based on information from U.S. Travel Data Center (Washington D.C.), Utah State Tax Commission, Utah Department of Transportation, The National Park Service, and Ski Utah.

Table 78
Utah Tourism Indicators: 1981 to 1994

Year	Hotel Room Rents (Current$)	Hotel Room Rents (1994$)	National Park and Monument Visits	State Park Visits	Salt Lake Int'l Airport Passengers	Skier Visits	Travel, Tourism and Recreation Employment
1981	$113,273,174	$184,801,009	3,604,759	6,430,174	4,149,316	1,726,000	41,694
1982	124,787,207	191,771,428	3,547,385	6,436,488	5,861,477	2,038,544	42,442
1983	140,728,877	209,539,081	3,538,331	5,214,498	7,059,964	2,317,255	43,378
1984	161,217,797	230,111,639	3,819,315	4,400,103	7,514,113	2,369,901	46,072
1985	165,280,248	227,797,963	3,975,100	4,846,637	8,984,780	2,436,544	48,533
1986	175,807,344	237,885,302	4,562,393	5,387,791	9,990,986	2,491,191	49,845
1987	196,960,612	257,123,757	4,844,947	5,489,539	10,163,883	2,440,668	50,689
1988	220,687,694	276,652,452	5,369,296	5,072,123	10,408,233	2,368,985	52,485
1989	240,959,095	288,179,305	5,520,983	4,917,615	11,898,847	2,572,154	55,637
1990	261,017,079	296,165,515	5,764,409	5,033,776	11,982,276	2,500,134	58,560
1991	295,490,324	321,741,667	6,220,786	5,425,129	12,477,926	2,751,551	61,100
1992	312,895,967	330,737,505	6,668,900	5,908,000	13,870,609	2,560,805	63,700
1993	361,097,743	370,593,739	6,834,273	6,950,063	15,894,404	2,850,000	66,200
1994 (e)	370,000,000	370,000,000	7,109,000	7,026,000	17,800,000	2,800,000	69,000
Percent Change							
1981-94	226.6%	100.2%	97.2%	9.3%	329.0%	62.2%	65.5%
1993-94	2.5%	-0.2%	4.0%	1.1%	12.0%	-1.8%	4.2%
Average Annual Rate of Change							
1981-94	9.5%	5.5%	5.4%	0.7%	11.9%	3.8%	4.0%

(e) = estimate

Source: Utah State Tax Commission, National Park Service, Utah Division of Parks and Recreation, Salt Lake Airport Authority, Utah Ski Association, and Governor's Office of Planning and Budget.

Table 79
National Park and Monument Recreation Visits: 1981 to 1994

NATIONAL PARKS

Year	Arches	Bryce Canyon	Canyonlands	Capitol Reef	Zion	Total National Parks
1981	326,508	474,092	89,915	397,789	1,288,808	2,577,112
1982	339,415	471,517	97,079	289,486	1,246,290	2,443,787
1983	287,875	472,633	100,022	331,734	1,273,030	2,465,294
1984	345,180	495,104	102,533	296,230	1,377,254	2,616,301
1985	363,464	500,782	116,672	320,503	1,503,272	2,804,693
1986	419,444	578,018	172,987	383,742	1,670,503	3,224,694
1987	468,916	718,342	172,384	428,808	1,777,619	3,566,069
1988	520,455	791,348	212,100	469,556	1,948,332	3,941,791
1989	555,809	808,045	257,411	515,278	1,998,856	4,135,399
1990	620,719	862,659	276,831	562,477	2,102,400	4,425,086
1991	705,882	929,067	339,315	618,056	2,236,997	4,829,317
1992	799,800	1,018,200	395,700	675,800	2,390,600	5,280,100
1993	773,678	1,107,951	434,844	610,707	2,361,434	5,288,614
1994 (e)	774,000	1,108,000	435,000	709,000	2,267,000	5,293,000
Percent Change						
1981-94	137.1%	133.7%	383.8%	78.2%	75.9%	105.4%
1993-94	0.0%	0.0%	0.0%	16.1%	-4.0%	0.1%
Annual Average Rate of Change						
1981-94	6.9%	6.7%	12.9%	4.5%	4.4%	5.7%

NATIONAL MONUMENTS

Year	Cedar Breaks	Dinosaur	Natural Bridges	Rainbow Bridge	Timpanogos Cave	Total National Monuments	Total National Parks and Monuments
1981	402,680	345,784	60,131	114,555	104,497	1,027,647	3,604,759
1982	374,695	396,938	55,209	172,126	104,630	1,103,598	3,547,385
1983	329,268	427,375	56,368	161,551	98,475	1,073,037	3,538,331
1984	353,092	493,140	59,123	177,971	119,688	1,203,014	3,819,315
1985	385,381	418,187	61,179	177,038	128,622	1,170,407	3,975,100
1986	425,732	430,891	73,069	283,597	124,410	1,337,699	4,562,393
1987	430,559	412,089	88,243	210,708	137,279	1,278,878	4,844,947
1988	477,493	474,452	98,559	238,307	138,694	1,427,505	5,369,296
1989	480,276	436,303	103,822	238,307	126,876	1,385,584	5,520,983
1990	417,330	450,368	101,958	255,420	114,247	1,339,323	5,764,409
1991	456,000	447,781	124,596	258,346	104,745	1,391,468	6,220,785
1992	392,600	480,400	139,200	256,200	120,400	1,388,800	6,668,900
1993	557,824	534,274	151,504	211,254	90,803	1,545,659	6,834,273
1994 (e)	859,000	492,000	128,000	253,000	84,000	1,816,000	7,109,000
Percent Change							
1981-94	113.3%	42.3%	112.9%	120.9%	-19.6%	76.7%	97.2%
1993-94	54.0%	-7.9%	-15.5%	19.8%	-7.5%	17.5%	4.0%
Annual Average Rate of Change							
1981-94	6.0%	2.7%	6.0%	6.3%	-1.7%	4.5%	5.4%

Source: National Park Service, Socio-Economic Statistical Unit.

Special Topics

✧ Utah Wage Levels

Wage and Income Measures

A variety of complex and sometimes conflicting measurements are involved in the calculation of the amount of money received by Utahns. These measurements of income take the form of different income concepts such as wage and salary income, total income, earnings, personal income, money income, and pay, to mention just a few. Income measurements are complicated further by the use of different statistical calculations such as median, mean, per household, per capita, per family, per adult, and per worker. Add the further intricacies of adjusting for inflation and/or cost-of-living, reporting for different years, and/or drawing from varying sources, and the confusion surrounding wage and income measurements becomes clear.

While there are many different measurements of income that can be used in describing money received in the Utah economy, several points are worthy of mentioning in summarizing Utah income levels. First, Utah's median household income is about equal to the national average. According to the 1990 Census, Utah's 1989 median household income was $29,470 and ranked 21st among the states and the District of Columbia. Second, the most distinguishing feature about Utah's household income is the proportion of Utah households that are middle income.[21] Utah ranks first among all states in the proportion of its households with incomes in the range of $12,500 to $60,000. Third, per capita measurements of Utah income levels are low, but can be misleading because of Utah's young population. Utah's 1993 per capita personal income of $16,140 ranked only 48th among the 50 states. For the same year Utah's per household personal income of $51,600 ranked 30th among the states. Per capita measures are useful, however, in understanding year to year changes in Utah income levels and/or trends over time. Per capita income is the most common measure used in national reports.

Another area of great interest pertaining to income measures is how Utah's current economic expansion is impacting income and wage levels in the state. This 1995 *Economic Report to the Governor* includes a variety of income measures and compares them to the nation. For instance, Utah's per capita income as a percent of the nation's has reversed a 12-year long trend of losing ground with respect to the nation and has now increased for six straight years (Personal Income chapter). This trend is a very positive sign and is to be expected given Utah's strong economic performance, especially relative to the nation, over the past several years. Of concern, however, are other measures of income, and in particular, Utah pay levels relative to the nation. It is this trend that this chapter attempts to investigate.

Understanding Utah's Average Annual Pay

In 1982, the average annual pay of Utah's workers was 95 percent of the U.S. average. By 1990 that figure had dropped to 85 percent, where it remained through 1992. In 1993 it slipped to 84.4 percent. These declines have occurred at a time of unprecedented growth in employment in Utah and very low unemployment rates. If labor markets behave similarly to other markets, the law of supply and demand should apply. A dramatic rise in the demand for labor combined with declining unemployment rates should have caused a relative rise in wage rates. After all, the Federal Reserve seems convinced that falling unemployment rates, created by a demand for labor that exceeds supply, will lead to higher wage rates. However, there is no evidence in the wage rate data that the state's low unemployment rate has caused wage rates to rise more rapidly in Utah than in those states with high unemployment rates.

Why haven't wages in Utah responded to these tight labor market conditions? Public policy makers, among many others, are concerned about the relative decline of annual pay in Utah. What are the causes, can

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[21] *Utah Economic and Business Review*, Volume 53, Number 1, January 1993, Bureau of Economic and Business Research.

they be mitigated, and what are the implications for the state? This report explores the factors that may have contributed to the performance of wage rates in Utah.

To begin, a little historical perspective should be considered. The 1982-1992 comparison period is convenient and produces somewhat dramatic results, but as shown in Figure 58, Utah's average annual pay, as a percentage of the U.S. figure, was unusually high in 1982. In 1976, the earliest year for which there are data, Utah's average wage was 92 percent of the U.S. figure. Because of reasons not yet identified, the late 1970's were a period of relatively rapid but temporary increases in average wages in Utah. Thus, using 1982 as a point of reference exaggerates the losses somewhat; nevertheless, much of the analysis in this report employs 1982-1992 comparisons because data for earlier years are sketchy or not available. Most states surrounding Utah similarly experienced an increase, then a larger decrease in relative annual pay. All but Utah and Arizona made slight improvements in 1993.

There may be some consolation in knowing that from 1982 to 1992, all six of Utah's neighboring states' average annual pay dropped with respect to the U.S. level. In related comparisons, each state lost rank, and the annual pay of each failed to grow as rapidly as that of the U.S. As shown in Table 80, Utah's performance was about average among its neighbors. However, the factors (demographic and social) which have contributed most heavily toward Utah's low-wage conditions are generally unique to Utah.

Demographic/Social Factors

One of the most important factors in the low-wage discussion is the age distribution of the population. In relative terms, Utah has 35 percent more workers age 16-24 than does the U.S. (Table 81). Moreover, since 1982 the share of young workers in the U.S. has dropped more rapidly than in Utah. United States data for 1992 show that the median earnings of workers age 16-24 is only 47 percent of the median for workers age 25 and older. If everything else were equal, this factor would account for nearly one-fifth of the 15 percent annual pay difference between Utah and the U.S. in 1992.

In Utah and in the U.S., the percentage of workers working part-time (less than 35 hours per week) has declined slightly since 1982. However, in both 1982 and 1992, Utah's part-time percentage was far greater than that of the U.S. A related indicator is average hours worked per week. Utah's average, second lowest in the U.S., is 3.3 percent lower than the U.S. figure. If everything else were equal, Utah's fewer hours worked would account for more than one-fifth of the 1992 annual pay difference between Utah and the U.S. Utah's young labor force is undoubtedly part of the reason for this. But the main cause of the higher part-time rate in Utah is that Utah's women are much more likely to work part-time than women in the U.S. Why? This tendency probably stems from some notable demographic and social differences between Utah and the U.S.: (1) Utah women are younger and thus have younger families, (2) Utah women are more likely to have children, and to have more children. (Utah women are more likely to be married and far less likely to have abortions. Abortion rates per 1000 women age 15-44 in 1988: U.S.-27.3, Utah-12.8). In addition, the jobs available to Utah women may run more part-time/fewer full-time than the U.S. average.

Although comprehensive data on the extent of labor union affiliation of Utah's workers are not available, limited data suggest that Utah is one of the lowest states in percentage of union membership. Thus, since nationwide the median full-time weekly earnings of union members is much higher than that of non-union workers ($547 to $413 in 1992), Utah's low percentage of union workers probably contributes to its low pay status.

A slightly greater share of Utah's employed are men, who, for a number of reasons, generally have higher earnings than women. Thus, by itself, this characteristic would tend to raise Utah's average wage with respect to the nation's, but it is far overpowered by the factors retarding Utah's average.

Four of Utah's neighboring states, Arizona, Colorado, Idaho, and New Mexico, are much more like the U.S. with respect to their share of young workers and, except New Mexico, with respect to part-time/hours worked. Thus, these characteristics do not generally seem to be a factor in their low- or declining-wage conditions. However, these four states apparently have, like Utah, relatively low percentages of union members, which may contribute to their low-wage conditions.

Structural Changes and Annual Pay in the Utah Economy

During the 1980s Utah's economy, like the nation's, experienced considerable restructuring due primarily to improving technologies, productivity gains and international economic pressures. This restructuring of the economy had some significant impacts on employment and average annual pay in Utah. Between 1982 and 1987, employment dropped from 18,200 to 8,000 in mining and from 6,800 to 3,300 in primary metals. Thus, two of the highest wage industries in Utah each lost more than 50 percent of their employment as new technologies displaced workers at Geneva Steel, Kennecott Copper and Utah's coal fields.

These structural shifts in mining and primary metals certainly contributed to the slide in Utah's ranking in average annual pay. In 1982 Utah ranked 27th among all states in average annual pay but by 1987 the state ranking had dropped to 36th. During this period the average annual pay of workers in Utah declined from 95.3 percent of the national average to 87.8 percent. The rate of decline has slowed considerably during recent years. Between 1987-1993 the average annual pay of workers in Utah dropped from 87.8 percent to 84.4 percent.

During the 1982 to 1992 period, employment in a variety of service-producing and goods-producing industries expanded rapidly. For example, business services jobs nearly tripled, and health services jobs nearly doubled. Further bolstering Utah's economy were the openings of several financial service centers, catalog order facilities, and large variety stores. Also making an important contribution to the economy was the resurgence of Utah's manufacturing industry. From 1982 to 1987, manufacturing jobs in Utah increased by 7.8 percent; from 1987 to 1992 they increased by 14.9 percent. In contrast, the comparable U.S. figures are 1.2 and -5.0 percent. A shift-share analysis conducted by the Federal Reserve Bank of San Francisco shows that Utah's "exceptional growth during the past seven years cannot be explained by a fortuitous industry mix...employment growth in Utah has been much stronger than the national average across a wide range of industries."

The recent employment growth in Utah may not be due to a favorable industry mix, however, the changing industry mix, particularly in the early 1980's, did have a significant impact on Utah's average annual pay. To identify the extent to which industry mix affected Utah's relative position in comparison to other states', average annual pay was calculated assuming that Utah's industry mix was the same as the nation's. This methodology removes any distortion in the average annual pay created by industry mix or specialization; that is, if employment in the state were distributed among all industries in the same proportion as the nation, the difference between Utah's actual average annual pay and the average annual pay derived by the standardization methodology would be attributable to industry mix.

Using this methodology to analyze wage and salary data for 1982, 1987 and 1992, it is clear that Utah's relative position was improved significantly in 1982 by the structure or industry mix of the Utah economy. If Utah's industry mix had been the same as the nation's in 1982, the state's ranking for average annual pay would have been 33rd rather than 27th. Therefore, in 1982 the Utah economy's specialization in high wage industries significantly boosted the state's average annual pay. By 1987, however, the advantage provided by a favorable industry mix had nearly vanished. In 1987 industry mix improved the state's ranking from 37th to 36th and in 1992 from 39th to 37th. Thus, unlike 1982, the present industry mix in Utah has almost no effect on Utah's relative position among all states with respect to average annual pay.

The net effect of industrial restructuring in Utah and in the U.S. during the 1980's and 1990's is that most of the jobs eliminated were high-pay and probably high benefit; the new service-producing jobs average far lower pay and presumably fewer benefits. The structural changes are evident in the percentage distribution columns of Table 82; showing that both the Utah and the U.S. economies were undergoing structural change. The most important observation from this table is that in nearly every industry, Utah's average annual pay as a percentage of the comparable national figure has fallen considerably.

At present the demographic considerations discussed earlier seem to play a larger role than industry mix in explaining the relatively low annual pay in Utah in 1992. Another factor contributing to disparity between Utah and high wage states is probably a willingness of Utahns to give up some income for improved quality of life. On the other hand, the high annual pay in California, Connecticut, New York and New Jersey

represents the premium employers must pay to induce employees to stay in congested, high-cost, urban centers.

Other Data

Other earnings/pay data present Utah in a somewhat better light. Average hourly earnings of production workers on manufacturing payrolls as reported by the U.S. Bureau of Labor Statistics (BLS) show that Utah and most of its neighboring states were slightly above the U.S. in 1992 (Table 83).

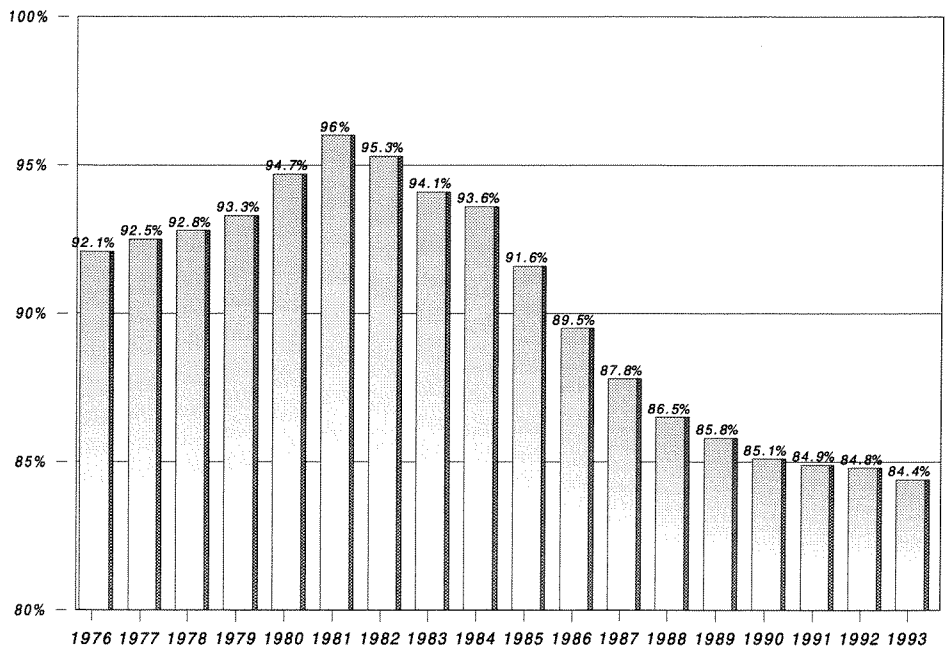
The 1992 Occupational Compensation Surveys conducted by BLS report that, in the Salt Lake City-Ogden Metropolitan Area, professional and administrative occupations were compensated at virtually the same rate as the U.S. level. However, technical, clerical, and maintenance occupations were paid somewhat less than the U.S. average (95, 90, and 91 percent respectively).

These last two sources of data report on relatively small sectors of the labor force. Thus, they do not necessarily contradict the foregoing BLS average annual pay data. But they do show that Utah's annual pay differences are not universal; certain classes of workers receive compensation more in line with national levels.

Conclusions

The foregoing analysis indicates that Utah's relatively low annual pay is largely the result of demographic and social factors. Regional economic pressures apparently play a part too. Many of the state's economic development activities are focussed on attracting high-paying jobs to Utah. Although that is probably the appropriate state policy, it may not be successful in bring up the average wage because of the overriding demographic and social factors. ✧

Figure 58
Utah Average Annual Pay as a Percent of U.S.: 1976 to 1993



Note: For workers covered by unemployment insurance
Source: Utah Dept. of Employment Security

Table 80
Average Annual Pay of Workers Covered by State & Federal Unemployment Insurance Programs--Selected Mountain States: 1982 and 1992

Category	Utah	Arizona	Colorado	Idaho	Nevada	New Mexico	Wyoming	U.S.
As a Percentage of U.S.								
1982	95.3	96.0	104.0	87.9	98.8	92.2	107.8	100
1992	84.8	89.4	96.7	79.7	95.5	81.3	81.9	100
Rank Among All States								
1982	27	25	13	40	18	31	6	-
1992	37	27	17	45	21	43	42	-
Percentage Change 1982-92								
Amount	38.1	44.6	44.2	40.8	50.1	36.8	17.9	55.2
Rank	43	32	33	42	24	44	50	-

Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages, 1982 and 1992; Table prepared by Utah Department of Employment Security, LMI.

Table 81
Selected Employment/Demographic Characteristics--Utah and U.S.: 1982 and 1992

Category	1982 Utah	1982 U.S.	1992 Utah	1992 U.S.	Percentage Change in Share 1982 to 1992 Utah	Percentage Change in Share 1982 to 1992 U.S.
Total Employed - Percent	100.0%	100.0%	100.0%	100.0%		
Men as a Percent of Total Employed	59.1	56.5	55.1	54.3	-6.8	-3.9
Percent of Men Employed Part-Time	15.7	13.1	14.6	12.8	-7.0	-2.3
Percent of Men Employed Full-Time	84.3	86.9	85.4	87.2	1.3	0.3
Women as a Percent of Total Employed	40.9	43.5	44.9	45.7	9.8	5.1
Percent of Women Employed Part-Time	39.7	30.1	36.3	26.8	-8.6	-11.0
Percent of Women Employed Full-Time	60.3	69.9	63.7	73.2	5.6	4.7
Ages 16-24 as a Percent of Total Employed (a)	26.9	21.3	21.2	15.7	-21.3	-26.2
Ages 65+ as a Percent of Total Employed (a)	2.6	3.1	2.6	3.3	-1.0	4.6
Part-Time Workers as a Percent of Total Employed	25.6	20.5	24.3	19.2	-5.3	-6.3
Part-Time Workers Ages 16-19 as a Percent of Total Employed Ages 16-19	61.8	63.9	68.2	69.3	10.4	8.5
Percent Union: Mfg Emp ('89 and '84)	7.2	27.3	(d) 4.4	23.8	-38.9	-12.8
Average Hours Worked per Week	37.4	38.0	(b) 37.6	38.9	0.5	2.4
Men	41.2	40.9	41.5	41.6	0.7	1.7
Women	(c) 31.8	34.1	(c) 32.8	35.6	3.1	4.4
Ages 16-19	25.9	25.6	25.0	24.3	-3.5	-5.1

(a) 1990 and 1980 Census estimates.
(b) Second-lowest in U.S.
(c) Lowest in U.S.
(d) Fourth-lowest in U.S.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, various reports; U.S. Bureau of the Census, 1980 and 1990 Census reports, Statistical Abstract - 1993; Table prepared by Utah Department of Employment Security, LMI.

Table 82
Comparison of Employment and Wages for Employees by Industry--Utah and U.S.: 1982 and 1992 Annual Averages

	Utah				U.S.			
	Employment		Annual Wage		Employment		Annual Wage	
Category	Number (thousands)	Percent of Total	Amount	Percent of U.S.	Number (thousands)	Percent of Total	Amount	Percent of U.S.
1982 ANNUAL AVERAGES								
Total	532.3	100.0	$15,912	95.3	89,070.2	100.0	$16,692	100.0
Covered Ag, etc.	2.5	0.5	9,871	97.1	1,122.0	1.3	10,164	100.0
Mining	18.2	3.4	28,852	104.5	1,125.5	1.3	27,613	100.0
Construction	26.9	5.1	19,706	97.1	3,896.0	4.4	20,297	100.0
Manufacturing	85.4	16.0	18,619	92.0	18,964.9	21.3	20,242	100.0
Trans, Com, P.U.	31.5	5.9	22,184	97.3	4,658.9	5.2	22,795	100.0
Wholesale Trade	34.5	6.5	18,501	89.5	5,335.8	6.0	20,663	100.0
Retail Trade	96.3	18.1	8,756	91.6	15,246.7	17.1	9,563	100.0
Finance, Ins, R.E.	26.6	5.0	15,333	85.9	5,261.5	5.9	17,857	100.0
Services	92.9	17.5	13,440	93.0	17,617.8	19.8	14,454	100.0
Federal Govt.	37.2	7.0	20,253	89.0	2,922.5	3.3	22,761	100.0
State Govt.	28.1	5.3	16,514	99.2	3,588.3	4.0	16,644	100.0
Local Govt.	52.2	9.8	14,206	92.2	9,102.5	10.2	15,404	100.0
1992 ANNUAL AVERAGES								
Total	738.7	100.0	$21,976	84.8	107,420.7	100.0	$25,903	100.0
Covered Ag, etc.	5.1	0.7	13,169	86.9	1,478.2	1.4	15,147	100.0
Mining	8.5	1.2	38,609	93.0	634.4	0.6	41,535	100.0
Construction	34.9	4.7	22,540	82.3	4,449.4	4.1	27,382	100.0
Manufacturing	105.7	14.3	26,967	84.7	18,069.7	16.8	31,836	100.0
Trans, Com, P.U.	41.3	5.6	31,075	94.6	5,447.3	5.1	32,861	100.0
Wholesale Trade	39.6	5.4	26,953	81.8	6,056.0	5.6	32,931	100.0
Retail Trade	143.5	19.4	11,992	86.8	19,399.1	18.1	13,810	100.0
Finance, Ins, R.E.	37.3	5.0	25,101	72.1	6,461.8	6.0	34,824	100.0
Services	175.7	23.8	20,992	86.2	27,229.2	25.3	24,346	100.0
Federal Govt.	37.7	5.1	31,670	90.2	3,125.4	2.9	35,094	100.0
State Govt.	38.9	5.3	23,601	84.9	4,043.4	3.8	27,795	100.0
Local Govt.	70.4	9.5	19,752	77.7	10,895.8	10.1	25,434	100.0

Note: These data are for workers covered by the unemployment insurance program, and do not match employment data found in other chapters of this report.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages, 1992 and 1982; Table prepared by Utah Dept. of Employment Security, LMI.

Table 83
Average Hourly Earning of Production Workers on Manufacturing Payrolls--Selected Mountain States: 1982 and 1992

State	1982 Amount	1982 % of U.S.	1992 Amount	1992 % of U.S.	Percent Change 1982-92
Arizona	$8.73	105.8	$10.96	100.1	25.5
Colorado	8.63	104.6	11.32	103.4	31.2
Idaho	8.62	104.5	11.42	104.3	32.5
Nevada	8.80	106.7	11.55	105.5	31.3
New Mexico	7.21	87.4	9.68	88.4	34.3
Utah	8.40	101.8	11.09	101.3	32.0
Wyoming	8.53	103.4	11.10	101.4	30.1
United States	8.25	100.0	10.95	100.0	32.7

Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, May, 1994; and Employment, Hours, and Earnings, January 1984.

✧ Primary Metals: Production and Investment

New Records for Production and Investment

Utah's primary metals sector has made remarkable achievements over the past seven years. The output of the two largest firms has steadily increased as production costs have been dramatically reduced by large capital investments in new technology, resulting in improved productivity. Also of great importance have been the significant improvements in the environmental impacts of these two firms. The purpose of this brief discussion is to review the record since the mid-1980s when both Kennecott Copper and Geneva Steel ceased operations and were shut down.

In 1993 Kennecott produced 690 million pounds of copper and 448,000 troy ounces of gold, while Geneva Steel produced 2 million net tons of raw steel and shipped 1.5 million net tons--new record highs for production in both firms. During the decade of the 1970s, Kennecott's production declined from 591 million pounds in 1970 to 374 million pounds by 1983.

Eight years ago these two premier Utah firms were virtually shut down. High production costs and relatively low prices had resulted in significant losses and the outlook for both costs and prices offered little encouragement.

Today, after commitments to the largest capital investments made by stockholder-owned companies in Utah's history[22], with new marketing strategies, and with prices at much more favorable levels, these two firms have increased production capacity and are setting new records for production and shipments. More importantly both firms are among the low cost producers in their respective industries. Geneva is the only fully integrated steel mill west of the Mississippi River. Prior to the adjustments of the 1980s, Geneva was one of three or four such mills. Foreign competition, while formidable, is not viewed as the threat it was a few years ago. The future of both firms appears at this time to be assured for many years to come.

Of tremendous importance has been the impact of present and pending capital investments on the impacts which these two firms have had on air, water and related environmental areas. The improvements in environmental impacts have been enormous, a fact that is slowly being recognized within Utah.

As with the re-engineering of American firms, increases in productivity and dramatic reductions in production costs have been achieved with new technology requiring fewer workers. Hence the record output is being achieved with a work force that is approximately one-third the previous levels during the 1970s.

Kennecott

When Kennecott resumed operations in 1987, it did so with a commitment to modernize the facilities through a capital investment of $450 million. These involved adding a crusher in the mine, a conveyor transportation system from the mine to the new Copperton grinding and concentration mill, and a new slurry pipeline to transport concentrated copper from the flotation facility to the smelter in Magna. This modernization program was most impressive, providing an automated ball mill with the largest grinding machine found in American industry. Kennecott also received from the employee unions reductions in wages and benefits of approximately $5.00 per hour, and changes in work rules and staffing patterns enabling the firm to use labor more efficiently.

Once this set of projects was nearing completion, the results were sufficiently promising that the corporation made an even larger investment commitment of $880 million to build a new smelter. This decision was the

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[22]Kennecott Utah Corporation is a wholly owned subsidiary of RTZ Corporation, the world's largest private mining company.

first such undertaking in the United States in over 40 years and resulted in significant improvements in the refinery--the final process where copper is produced. These facilities will come on line during 1995. A third level of expanded investment will be required and is now committed for an enlargement of the tailings impoundment facility at a cost of an additional $500 million.

Thus the total capital investment between 1986 and the completions of presently scheduled projects in 1997 or 1998 will be approximately $2 billion. These investments are the largest ever committed by a private firm in Utah's history.

Table 84 shows copper production in the western states for the period 1964 through 1993. Production in Utah during 1992 surpassed the previous records set in 1969 and 1970. As noted in the minerals section of this report, new production records for copper are expected in 1994.

Table 85 shows the history of copper prices in terms of the annual average price over the period 1964 through 1992. Prices prevailing since 1988 have been much more favorable for copper producers and have given strong support for the sizeable investments in new technology.

The economic impact of Kennecott Copper on the Utah economy is very substantial. No other firm has provided a stronger economic impact during the 20th century. The payrolls for Utah workers and the purchases from more than 7,000 Utah vendors, both for operations and construction, have had a very substantial impact on Utah, especially since the firm reopened and began its modernization program in the late 1980s. This firm has accounted for more than 1 percent of Utah's personal income, and its tax payments are an important source of revenues for state and local governments.

Geneva Steel

The Geneva Steel Mill was built by the U.S. Government during World War II at a cost of over $200 million. The mill was sold to U.S. Steel (later USX) in 1947 for $47.5 million along with a commitment to spend another $18.6 million to convert the plant from war to peace-time production. The mill was shut down for a second time in 1986 and was sold to Basic Manufacturing and Technology, led by Joseph Cannon and Robert Grow, for $44 million in 1987.

Production began in 1987 and the mill has operated under this new management since that time. USX's decision to sell the mill was based partly upon a belief that the cost required to modernize the mill was approximately $1 billion, and that steel could be imported at lower cost.

Since operations began in September 1987, Geneva Steel management spent more than $370 million on capital expenditures in an effort to modernize the production facility. These expenditures have been designed to reduce costs, improve quality and improve the environment. Included in these expenditures was the installation of two Q-BOP furnaces which reduced heat cycles from six hours to 45 minutes, at a cost of $80 million. Several projects were undertaken to increase the size of hot rolled band products from 25,000 to 60,000 pounds. Some $32 million was spent on an in-line slab conditioning facility, a coilbox facility and coil handling equipment. A new continuous casting facility began operations in April 1994. The caster replaces ingot casting and includes a ladle metallurgy furnace. This system cost $150 million.

Geneva put in place a biological waste water treatment facility, a coke oven, gas sulfur removal system and related facilities. In addition the company budgeted $60 million for capital repair and maintenance. Geneva has other capital improvement programs underway that will be completed in the near term, including the installation of a plate coiler designed to coil plate up to 126 inches wide. Geneva will have the widest coil processing rolling mill in the world, a combination six-strand 132-inch rolling mill. These latter improvements will cost $31 million.

The goal for all capital modernization projects is to reduce costs, improve the quality of products and thereby expand the markets, and to improve the environment. As the only fully integrated steel mill west of the Mississippi River, Geneva should remain both competitive and profitable for the foreseeable future.

Geneva's Production Record

Production information for the years 1967 through 1994 is shown in Table 86. Total production was hampered by the installation of the continuous caster and the subsequent heating problems causing the numbers of tons shipped for fiscal 1994 to decline slightly below 1993 results to 1,467,000 tons. However, by October 1995, production had again risen an estimated 154,000 tons, or at an annual rate exceeding all previous records set by current management.

Unlike the copper industry, the steel industry has been affected by price reductions in recent years, and Geneva in particular has been challenged with maintaining production while modernization programs were put in place. Table 87 shows average steel prices in cents per pound from 1976 through 1990. Most of the price volatility has occurred since 1990. If Geneva's goal of achieving the least cost position in the industry is realized (and the expectation is that this will happen), then the Geneva Mill will be positioned to operate successfully in the Utah economy for many years. Company forecasts show total shipments rising to 2,500,000 tons by 1997 and total revenues rising to $920 million for that year.

Economic Impact

The cost reductions achieved through modernization with new technology have meant that a work force of 2,600 has achieved production levels which required more than twice the number of workers during the 1960s and 1970s. Geneva, like Kennecott, received wage and benefit concessions from its employee unions which also helped reduce costs. Geneva Steel also purchases goods and supplies from over 1,000 vendors in the Utah economy and its payments in wages, benefits, and purchases have a significant multiplier effect on the Utah economy. This firm accounts for approximately 1 percent of Utah's total personal income.

Another way of looking at this impact is to note that while Utah has over 50,000 business establishments operating in the state, if all firms had the economic impact of Kennecott and Geneva, it would take only 100 firms to produce Utah's total personal income. No one suggests that such an economy would be preferable to what Utah now has. But by the same token, no one should underestimate the importance of Utah's two primary metal firms to the health and well-being of the Utah economy. The continuing success of these two firms will help to insure Utah's economy in the years ahead.

Note: Utah has another steel maker in the NUCOR mini-mill in Box Elder County. This mill produces primarily construction steel from scrap and has a rated capacity of 400,000 tons per year.

Table 84
Copper Production (Metric Tons)--Western States: 1964 to 1993

Year	Arizona	Montana	Nevada	New Mexico	Utah	Utah as % of U.S.
1964	626,854	94,171	61,028	78,112	181,063	16.0
1965	638,093	104,770	64,711	89,501	235,086	19.1
1966	670,926	116,175	71,414	98,533	240,751	18.5
1967	455,172	59,405	46,059	68,046	152,960	17.6
1968	569,677	63,031	70,046	82,344	207,060	18.9
1969	726,984	93,725	94,614	108,822	269,161	19.2
1970	832,721	109,236	96,786	150,845	268,289	17.1
1971	744,047	80,359	87,932	142,808	238,999	16.9
1972	824,279	111,684	91,734	152,438	235,421	15.5
1973	841,206	120,171	85,005	185,739	232,774	14.9
1974	779,075	118,960	76,295	178,339	209,191	14.4
1975	737,733	79,795	73,672	132,688	160,712	12.5
1976	947,248	82,655	52,762	156,362	168,245	11.5
1977	838,033	78,202	60,836	149,411	176,111	12.9
1978	891,405	67,325	20,453	127,827	186,329	12.4
1979	946,002	69,854	NA	164,281	193,082	12.1
1980	770,118	37,749	NA	149,394	157,775	12.1
1981	1,040,813	62,485	NA	154,114	211,276	12.4
1982	769,521	64,951	NA	NA	189,090	15.1
1983	678,216	33,337	NA	NA	169,751	14.8
1984	746,453	NA	NA	NA	NA	--
1985	796,556	15,092	NA	NA	NA	--
1986	789,175	NA	NA	NA	NA	--
1987	751,073	NA	NA	246,532	137,892	11.1
1988	842,728	NA	NA	258,660	211,828	15.0
1989	898,466	NA	NA	259,640	229,518	15.3
1990	978,767	NA	NA	262,815	227,704	14.3
1991	1,024,066	NA	NA	252,859	231,332	14.2
1992	1,153,225	NA	NA	211,337	278,506	15.8
1993	1,156,756	NA	NA	224,958	294,835	16.6

NA= Not available
One metric ton = 2,204.62 lbs or 1.102311 short tons

Note: This data differs from production figures found elsewhere in this report which were taken from RTZ Annual Reports.

Source: Minerals Yearbook, United States Department of the Interior, 1964-1992.

Table 85
U.S. and World Copper Prices: 1964 to 1992

Year	U.S. Price (cents per pound)	World Price (cents per pound)
1964	32.6	43.88
1965	35.4	58.52
1966	36.6	69.04
1967	38.6	51.19
1968	42.2	56.13
1969	47.9	66.24
1970	58.2	62.96
1971	52.0	48.49
1972	51.2	48.53
1973	59.5	80.86
1974	77.3	93.13
1975	64.2	56.08
1976	69.6	63.92
1977	66.8	59.44
1978	66.51	61.88
1979	93.33	90.07
1980	102.42	99.25
1981	85.12	79.35
1982	74.31	67.17
1983	76.53	72.13
1984	66.85	62.45
1985	66.97	64.27
1986	66.05	62.28
1987	82.5	80.88
1988	120.51	117.92
1989	130.95	128.91
1990	123.16	121.02
1991	109.33	106.21
1992	107.42	103.72

U.S. Price (1964-77): Weighted average, cents per pound.
U.S. Price (1978-82): Weighted average, wirebar, cents per pound.
U.S. Price (1983-92): Weighted average, cathode, cents per pound, producers.
World Price (1964-77): London, average cents per pound.
World Price (1978-87): London, high-grade, average cents per pound.
World Price (1988-92): London, Grade A, average cents per pound.

Note: This data differs from price figures found elsewhere in this report which were taken from RTZ Annual Reports.

Source: Minerals Yearbook, United States Department of the Interior, 1964-1992.

Table 86
Geneva Steel Mill--Steel Shipments: 1967 to 1994

Year	Tons (thousands)
1967	1,463
1968	1,676
1969	1,718
1970	1,615
1971	1,429
1972	1,599
1973	1,739
1974	1,724
1975	1,394
1976	1,606
1977	1,748
1978	1,774
1979	1,754
1980	1,618
1981	1,597
1982	1,048
1983	1,229
1984	1,559
1985	1,610
1987	181
1988	1,325
1989	1,368
1990	1,375
1991	1,274
1992	1,323
1993	1,511
1994	1,467

Source: Geneva Steel Company

Table 87
Steel Prices: 1976 to 1990

Year	(a) Price (cents per pound)
1976	14.2
1977	15.6
1978	18.0
1979	20.0
1980	21.7
1981	24.2
1982	25.3
1983	26.2
1984	27.3
1985	27.6
1986	24.8
1987	25.4
1988	25.4
1989	26.3
1990	26.3

(a) Price rounded to the nearest tenth of a cent.

1976-83: Finished steel annual average composite price, cents per pound.
1984-90: Annual average composite price for steel mill products.

Source: Minerals Yearbook, United States Department of the Interior, 1980, 1984, 1988, and 1990. (Data assembled from Iron Age.)

✧ Growth in Utah

Growth in the Utah Economy, 1970 to 1993

Utah has experienced substantial growth since 1970. Growth, in its variety of forms and locations that can be directly measured, is usually measured in terms of increases in population, personal income, employment, wages paid or earnings, gross taxable sales, assessed valuation of property, and the volume of construction activity for dwellings and for nonresidential facilities.

Between 1970 and 1993, Utah's population increased by 800,000 persons, total employment increased by 486,000 jobs, and personal income increased by $26.6 billion. Wages paid increased by $15.2 billion. The valuation of permit-authorized new dwelling units totaled $14.5 billion while the permit-authorized value of nonresidential construction was over $8.8 billion. Gross taxable sales have increased slightly over $17 billion and the assessed valuation of all property has increased by $45.9 billion.

While this record of growth is impressive by any standard, the growth in Utah has been similar--but not identical--to the growth that has occurred throughout the Rocky Mountain Region. Arizona, Colorado, New Mexico, Idaho, and Nevada have all experienced strong growth during this same period. Throughout the region some states have experienced higher growth, while others have experienced less growth than Utah. Montana and Wyoming in particular have grown less than the other states in the region.

The purpose of this chapter is to look within Utah to examine how the growth has been distributed among Utah's 29 counties; more precisely, what is the share of the total growth that is accounted for by each of Utah's 29 counties? While all of Utah's counties have experienced growth during the period under review, the data indicate that five counties with the largest total growth account for 80 to 85 percent of all the growth in Utah. When the 10 counties accounting for the largest share of growth are considered, these 10 counties account for between 90 and 95 percent of all the growth. The remaining 19 counties account for between 5 and 10 percent of the total growth that occurred within Utah over the 23-year period, 1970 to 1993.

While the purpose here is to review the growth in Utah, the patterns indicated are similar to those experienced in the other Rocky Mountain States, i.e., a few counties within each state account for the greater share of total growth. The similarity of growth patterns seems to indicate that growth is driven by market forces and not by public policy intervention.

The Aggregate Measures of Growth

The measures of growth used in this analysis are the changes between 1970 and 1993 in:

- ✧ population, or the total number of persons living in each county;
- ✧ total personal income within each county;
- ✧ total employment in terms of the growth in the number of persons employed;
- ✧ the total wages paid to workers within the county;
- ✧ total gross taxable sales occurring within each county;
- ✧ total assessed valuation reported; and
- ✧ the total value of permit-authorized construction for both dwelling units and for nonresidential facilities.

Explaining Utah Growth Patterns

The growth in Utah, like the growth in surrounding states, has been concentrated to a large degree in a few counties or regions of the state. It is instructive to review the location of growth to see how the structure of the state's economy has changed and also to see the relative stability of growth rates over time. With very few exceptions the measures of growth show a relatively stable pattern throughout Utah's counties. The shares are much the same by any of the measures used in this report.

For Utah there are some interesting characteristics of growth that have changed the Utah economy. The metropolitan area of the state--generally referred to as the Wasatch Front--has broadened out with growth extending to additional counties. The traditional notion of the Wasatch Front was limited to four counties: Utah, Salt Lake, Davis and Weber. This notion no longer fits the metropolitan description. Today Summit, Wasatch, Tooele, Morgan, Box Elder, and Cache display employment and trade patterns that make these counties increasingly a part of the metropolitan area.

The second significant change has been the emergence of two new urban areas in Washington and Iron Counties. With growth centered around but not confined to St. George and Cedar City, these two areas have become strong, emerging urban areas with an economic base that is very different from what was there in earlier years. Each has reached a size sufficient not only to sustain, but broaden and diversify the growth patterns in these communities.

There are other growth patterns that are interesting. During the decade of the 1970s six or seven non-metropolitan counties were impacted by energy projects such as oil exploration, power plants, coal mines, uranium mining and milling as well as work on oil shale and tar sands. The growth that was induced by those activities came to a halt and in the case of the uranium mining and milling, and oil shale and tar sands, the activity has virtually ceased. The subsequent impact of these activities on growth within the respective counties is most interesting. One characteristic of these activities, however, is the impact which large power plants built in Millard and Emery Counties had upon measures of growth in assessed valuation.

The energy project work did not attract other forms of economic development or growth. However, subsequent growth in tourism has caused growth in recent years in some energy counties, Grand County in particular. The growth in tourism, however, is not related in any significant way to the decline in energy activity.

Distribution of Growth by County

Table 88 shows the total state growth by seven measures and the share of the total accounted for by each county for each of the seven measures. Of the five counties accounting for the largest share of growth, only one county would not have been found in the list for years prior to 1970. The addition of Washington County to the list of counties accounting for a relative high share of total growth and its rank above one of the Wasatch Front counties is most surprising. Salt Lake County continues to account for the largest share of total growth accounting for between 39 percent of population growth to 56 percent of wage growth. Utah and Davis Counties account for the second and third largest shares of Utah's growth. Utah County accounts for between roughly 12 and 19 percent of total growth depending upon which measure is used. Davis shows a somewhat more diversified picture with 13 percent of population growth but only 7.5 percent of growth in wages paid. The commuting patterns of Davis residents and the changes in defense activity probably explain the diversity in Davis County growth measures.

Washington County ranks fourth among all counties in population growth, accounting for 5.6 percent of all population growth over the period. A review of the other measures also shows the diversity found in Washington County's growth as well. While Weber County's share of population growth ranks below the share of Washington County, Weber is above Washington County in all other measures relating to shares of growth.

These five counties--Salt Lake, Utah, Davis, Washington and Weber--account for more than 80 percent of growth by every measure except assessed valuation.

Looking at the next group of counties, those ranking between 6th and 10th in shares of population growth, Cache County ranks 6th in population growth and the County's share of growth by other measures ranges from 2.6 to 4.5 percent. Ranking 7th in the share of population growth is Summit County. However, Summit's share of population growth, at 1.7 percent, is less than half of the next county above and only 0.3 percent higher than the next county below which is Iron County. These five counties--Cache, Summit, Iron, Uintah, and Box Elder--account for an additional 10 percent of Utah's growth.

Thus, 10 counties, out of 29 total, account for more than 90 percent of Utah's growth between 1970 and 1994. Without reviewing in detail the data presented in Table 88, the 19 counties with the smaller share of Utah's growth account for 6 to 7 percent of Utah's total growth during the period 1970 to 1994.

Will these patterns change in the future? No one can answer that question for certain, but if trends in Utah and the surrounding states hold, as is widely expected, the shares of growth over the next 20 years or so will reflect the shares of the past 20 years. Economic growth is driven by market forces primarily and there is only a limited impact with which public policy can alter these patterns. ✧

Table 88
Measures of Growth by County and Percent Distribution of Total Change--Ranked by Population Growth: 1970-1993

County	Population		Total Personal Income		Total Employment		Total Wages		Gross Taxable Sales		Total Assessed Valuation		New Residential Value		New Nonresidential Value	
	Amount of Growth	Percent Distribution of Growth	Amount of Growth (Millions)	Percent Distribution of Growth	Amount of Growth	Percent Distribution of Growth	Amount of Growth (Thousands)	Percent Distribution of Growth	Amount of Growth (Thousands)	Percent Distribution of Growth	Amount of Growth (Thousands)	Percent Distribution of Growth	Amount of Growth (Thousands)	Percent Distribution of Growth	Amount of Growth (Thousands)	Percent Distribution of Growth
Salt Lake	315,500	39.4%	12,574.6	47.3%	215,974	44.4%	$8,564,950	56.1%	$8,230,699	48.3%	$17,737,000	38.6%	$5,681,286	39.3%	$4,131,292	46.7%
Utah	151,700	19.0%	3,467.2	13.0%	82,491	17.0%	$1,911,028	12.5%	$2,033,845	11.9%	$5,305,034	11.6%	$2,081,571	14.4%	$1,311,011	14.8%
Davis	106,400	13.3%	2,840.2	10.7%	60,059	12.4%	$1,151,407	7.5%	$1,347,196	7.9%	$3,314,464	7.2%	$1,973,603	13.6%	$692,919	7.8%
Washington	44,800	5.6%	789.2	3.0%	19,970	4.1%	$312,367	2.0%	$621,267	3.6%	$1,634,739	3.6%	$950,381	6.6%	$301,769	3.4%
Weber	42,300	5.3%	2,399.7	9.0%	33,404	6.9%	$1,238,739	8.1%	$1,277,902	7.5%	$3,185,251	6.9%	$1,091,163	7.5%	$627,562	7.1%
Total (1)		82.6%		83.0%		84.8%		86.4%		79.2%		67.9%		81.4%		79.9%
Cache	33,550	4.2%	973.8	3.7%	21,692	4.5%	$495,915	3.3%	$469,751	2.8%	$1,180,014	2.6%	$451,815	3.1%	$227,284	2.6%
Summit	13,800	1.7%	441.7	1.7%	7,081	1.5%	$163,954	1.1%	$365,917	2.1%	$2,452,579	5.3%	$796,426	5.5%	$210,235	2.4%
Iron	11,500	1.4%	259.4	1.0%	5,672	1.2%	$126,675	0.8%	$213,316	1.3%	$657,595	1.4%	$165,425	1.1%	$152,655	1.7%
Uintah	10,800	1.4%	234.9	0.9%	4,677	1.0%	$123,248	0.8%	$187,627	1.1%	$1,188,514	2.6%	$161,338	1.1%	$145,461	1.6%
Box Elder	9,950	1.2%	502.2	1.9%	5,347	1.1%	$407,410	2.7%	$248,357	1.5%	$1,055,476	2.3%	$178,656	1.2%	$120,813	1.4%
Total (2)		92.5%		92.1%		93.9%		95.0%		87.9%		82.1%		93.6%		89.5%
Sanpete	7,100	0.9%	180.3	0.7%	2,175	0.4%	$55,670	0.4%	$59,522	0.3%	$242,342	0.5%	$70,521	0.5%	$50,941	0.6%
Tooele	6,500	0.8%	332.8	1.3%	4,163	0.9%	$199,313	1.3%	$136,490	0.8%	$698,959	1.5%	$127,348	0.9%	$181,759	2.1%
Sevier	6,250	0.8%	190.1	0.7%	2,421	0.5%	$84,558	0.6%	$116,273	0.7%	$339,867	0.7%	$63,529	0.4%	$44,944	0.5%
Duchesne	5,800	0.7%	160.1	0.6%	2,453	0.5%	$71,951	0.5%	$76,328	0.4%	$507,585	1.1%	$52,753	0.4%	$39,351	0.4%
Emery	5,250	0.7%	116.2	0.4%	1,874	0.4%	$90,440	0.6%	$47,269	0.3%	$1,420,413	3.1%	$34,937	0.2%	$26,450	0.3%
Wasatch	5,250	0.7%	133.7	0.5%	2,681	0.6%	$30,137	0.2%	$59,965	0.4%	$351,728	0.8%	$112,486	0.8%	$39,956	0.5%
Carbon	4,950	0.6%	260.6	1.0%	2,985	0.6%	$133,739	0.9%	$182,277	1.1%	$593,256	1.3%	$87,018	0.6%	$150,914	1.7%
Millard	4,650	0.6%	133.8	0.5%	1,558	0.3%	$66,426	0.4%	$60,991	0.4%	$2,609,102	5.7%	$51,751	0.4%	$38,988	0.4%
San Juan	3,400	0.4%	119.3	0.4%	1,901	0.4%	$58,850	0.4%	$53,688	0.3%	$339,278	0.7%	$23,451	0.2%	$28,252	0.3%
Kane	3,000	0.4%	68.9	0.3%	1,699	0.3%	$20,930	0.1%	$56,734	0.3%	$191,918	0.4%	$49,271	0.3%	$26,164	0.3%
Morgan	2,100	0.3%	71.7	0.3%	1,152	0.2%	$17,439	0.1%	$21,743	0.1%	$136,422	0.3%	$41,475	0.3%	$15,300	0.2%
Juab	1,600	0.2%	64.2	0.2%	1,259	0.3%	$23,607	0.2%	$30,079	0.2%	$220,831	0.5%	$24,718	0.2%	$125,270	1.4%
Beaver	1,150	0.1%	57.0	0.2%	460	0.1%	$19,096	0.1%	$23,601	0.1%	$246,893	0.5%	$27,883	0.2%	$17,098	0.2%
Garfield	1,050	0.1%	46.4	0.2%	901	0.2%	$19,589	0.1%	$38,646	0.2%	$124,008	0.3%	$20,471	0.1%	$45,572	0.5%
Grand	900	0.1%	90.1	0.3%	1,645	0.3%	$36,496	0.2%	$88,044	0.5%	$218,551	0.5%	$31,547	0.2%	$25,156	0.3%
Wayne	750	0.1%	24.4	0.1%	396	0.1%	$7,562	0.0%	$11,595	0.1%	$46,467	0.1%	$5,271	0.0%	$3,314	0.0%
Piute	200	0.0%	11.8	0.0%	27	0.0%	$1,790	0.0%	$1,740	0.0%	$24,216	0.1%	$2,294	0.0%	$430	0.0%
Rich	200	0.0%	23.7	0.1%	199	0.0%	$3,865	0.0%	$10,923	0.1%	$123,124	0.3%	$12,767	0.1%	$11,401	0.1%
Daggett	50	0.0%	8.2	0.0%	164	0.0%	$5,791	0.0%	$6,641	0.0%	$94,466	0.2%	$2,762	0.0%	$3,892	0.0%
State Total	800,000	100.0%	26,576.0	100.0%	486,000	100.0%	$15,257,470	100.0%	$17,056,000	100.0%	$45,906,000	100.0%	$14,463,111	100.0%	$8,847,003	100.0%

(1) Total distribution of growth in Salt Lake, Utah, Davis, Washington, and Weber Counties.
(2) Total distribution of growth in Salt Lake, Utah, Davis, Washington, Weber, Cache, Summit, Iron, Uintah, and Box Elder Counties.

Notes: Totals for the state may not include data from counties for which data were not available;
Construction data represent cumulative data while other indicators show the difference as measured from 1970 to 1993;
1993 figures are preliminary;
Totals may not add due to rounding.

Sources: Utah Department of Employment Security -- Employment, wages, and most recent personal income;
Utah Population Estimates Committee -- Population and migration;
U.S. Bureau of Economic Analysis -- Personal income except most recent;
Utah Depatment of Health -- Births and deaths;
Utah State Tax Commission -- Assessed valuations and gross taxable sales;
Bureau of Economic and Business Research -- Construction.

✧ Diversification of the Utah Economy

Recent Structural Changes

The strength of Utah's economy over the past several years has occurred at the same time that it has become more diversified. That is, the distribution of the state's employment has become less specialized across industries while the level of total employment has increased. The result of this restructuring in the midst of economic growth is that sectors in which Utah's employment has been disproportionately concentrated in the past (such as the federal government and extractive industries) have lost in employment share, while sectors other than these have increased in share. Meanwhile, the level of total employment has increased. Utah continues to be specialized in certain traditional industries, such as national defense and primary metals. However, the relative dependency upon these as the primary drivers of Utah's economic growth has diminished steadily since 1970. And, importantly, this diversification has most recently occurred within the context of an expanding economy.

Diversification of the state's economy per se does not necessarily have positive implications for the economic well-being of its residents. For example, when Geneva and Kennecott closed in the mid-1980s, Utah's economy became less specialized as its share of employment in the corresponding industries declined significantly. However, this decrease in specialization, or increase in diversity, occurred at a time when Utah was more vulnerable to employment changes in a few key export industries. So, while at least on paper, Utah became more diversified with these layoffs, the economic reality was a severe contraction of the state's economic base as key export industries collapsed.

The diversification process that has characterized the Utah economy more recently may be clearly distinguished from these events of the mid-1980s. Subsequent to that time, the state's export base has been broadened to include additional industries and industry clusters. These include the information technology, tourism, bio-technology, financial services, telemarketing, other business services, and specialized manufacturing. A more diversified economic base in this context has meant that the state is not as vulnerable to employment fluctuations in two or three key industries as it was 10 years ago. Certainly major export industries, such as the defense sector, continue to make significant contributions to the employment and income of the state. However, the diversification of the Utah economy into additional export base industries combined with strong economic growth has meant that, even in the midst of industrial restructuring in mining and manufacturing and defense downsizing, the Utah economy has continued to out-perform that of the nation[23].

Defining and Measuring Industrial Diversification

Many possible approaches are available in evaluating a state economy's degree of relative industrial specialization or, conversely, diversification. One approach is to compare a state's distribution of employment across industries with that of the U.S. economy. Within this framework, the sectoral composition of the nation's employment (which also changes over time) is taken to define the limits of diversification. Accordingly, a state's employment will be more specialized, and therefore less diversified, than that of the nation. This way of conceptualizing industrial diversity is effectively capturing how similar

[23]This is *not* to argue that the diversification process has *caused* economic expansion. The point here is that job expansion (both absolute and relative) has occurred in export base industries other than those that are the traditional export industries of Utah. This, by definition, is diversification of the Utah economy.

the state's industrial structure is to that of the nation. The implicit assumption is that the national economy is fully diversified.[24]

Individual industries of specialization for a state may be identified by comparing employment shares in any given industry with the corresponding share for the national economy. Location quotients for industries are computed in this way. For example, if 5.0 percent of Utah jobs are in business services while only 4.0 percent of the jobs nationally are, then the location quotient for this industry is 1.25 and this indicates that Utah is relatively specialized in business services.

Location quotients apply to individual industries and therefore do not provide a summary measure of the degree of diversity of the state's economy. A more comprehensive measure is given by the Hachman Index[25]. Mathematically it is calculated by taking the inverse of a state economy's mean location quotient where each industry's location quotient is weighted by the state's share of employment in the given industry. The value of the index is between zero and one. As the value of the index approaches one, this means that a state's industrial composition (as approximated by labor shares, in this case) is more similar to that of the nation. And, given the assumption that the nation's economy is diversified, a larger value of the Hachman Index means that a state's economy is more diversified and, conversely, less specialized.

Utah's Relatively High and Increasing Industrial Diversity

Table 89 shows that Utah ranks seventh among all states for the past six years in terms of the Hachman Index measure. The simple average of the index values for all states has increased over the same period, meaning that, on average, the industrial structures (as measured by the industrial distribution of labor shares) of all states have tended to become more like that of the nation. Further, as is illustrated in Figure 59, the value of the Hachman Index for Utah has increased significantly and fairly steadily from 1969 through 1992. Assuming equivalence between similarity with the national employment distribution and industrial diversity, Utah's economy is among the most diverse of all states and it continues to become more so.[26]

While the Hachman Index calculation indicates that the diversification of the Utah economy has proceeded in a mostly continuous process over time, there is no necessary relation between this and economic growth. For example, the value of the index increased sharply from 1984 to 1986, and then declined in 1987. A disaggregation of the index calculation shows that this movement of the index is almost wholly explained by a significant reduction in the metal mining industry employment. Metal mining employment has historically been an industry in which Utah has specialized and this particular reduction in employment, which was associated with the closure of operations at Kennecott, dramatically increased the value of the diversity

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[24]This approach is taken by Regional Financial Associates (RFA) in the calculation of their industrial diversity index. The RFA index has been taken from the work of the San Francisco Federal Reserve Bank economists. Carolyn Sherwood-Call, "Assessing Regional Economic Stability: A Portfolio Approach," *Economic Review of the Federal Reserve Bank of San Francisco*, Winter, 1990.

[25]The Hachman Index (HI) is, in its most general form, an index of similarity that measures how closely the employment distribution of a state resembles that of the nation. A memorandum documenting the derivation and characteristics of this index was produced by Frank Hachman, Bureau of Business and Economic Research, University of Utah, Salt Lake City, Utah (December 8, 1994). The index is calculated as follows:

EMP_{UTAHjt} is the share of Utah's employment in industry j in year t. EMP_{USjt} is the share of U.S. employment in industry j in year t.

$$HI_t = 1/(\sum_j (EMP_{UTAHjt}/EMP_{USjt}) x (EMP_{UTAHjt}))$$

[26]These results are consistent with the findings of Regional Financial Associates, who characterize Utah as having a high level of industrial diversity.

index. The reopening of Kennecott at reduced employment levels after its restructuring lowered the value of the index from its high point in 1986. Thereafter, the index resumed its upward movement, consistent with the continued diversification process occurring in the Utah economy. The continuation of the increase in the index more recently has been associated with the emergence of new export industries, while labor shares of the industries of Utah's traditional specialization have diminished relative to the size of the growing economy in employment terms.

Shifts in Utah's Industries of Specialization

The location quotient is one method of identifying a state's industries of relative specialization. Another approach is to simply calculate the difference between the share of Utah's employment in a given industry and that of the same industry for the U.S. economy. These industry employment share differences may be tracked across time to indicate changes in the relative specialization or dependence upon these industries for the state's employment.

Table 90 presents the industry-specific share deviations of the Utah economy as compared with the U.S. economy. The industry share of employment for the U.S. is subtracted from that of Utah for each year shown. For example, in 1970 the U.S. federal civilian employment share was 3.7 percent, the Utah share was 10.4 percent, and the difference was 6.7 percentage points. By 1992 the federal civilian share of Utah's employment had fallen to 4.6 percent as compared with 2.7 percent for the nation, a difference of 1.9 percentage points. Therefore, although employment share of civilians working for the federal government has declined for Utah and the nation, Utah continues to have a higher share than the nation. However, the share difference has narrowed so that Utah's relative specialization or dependence on federal civilian employment has declined over time.

In Table 90 these employment share deviations have been ranked by size so that the table reveals Utah's industries of specialization over time. By this measure, civilian federal employment remains the most specialized of all of the detailed industries in terms of employment. The degree of specialization has decreased over time, but the ranking has remained the same. Much of this employment is associated with civilian employment at military installations in the state, especially at Hill Air Force Base.

A similar pattern of share deviation rankings is shown for state and local government employment, which continues to rank number two by this measure, and educational services (i.e., private education), which ranks among the top five, although the value of these deviations has declined as well. The high shares in these sectors is mostly attributable to the relatively large school age population of the state and the associated commitment in terms of education.

Table 90 also shows a similar pattern among other industries in which Utah has for some time been specialized. However, the level of specialization for these has diminished more rapidly such that the rankings have changed. Metal mining was ranked number three in 1970 and by 1992 the ranking has fallen to number nine. Railroad transportation and primary metal industries have also fallen from among the top 10 to the top 25 by this measure. Farming and nonmetallic minerals (except fuels) have fallen significantly, and coal mining has fallen somewhat, by this measure as well. It is important to note that modernization efforts in coal and metal mining were labor-replacing such that production and productivity increased as employment diminished. The pattern that emerges is that, for many of the extractive industries and for civilian federal employment, the state continues to depend upon these for employment, although the degree of dependency as measured by share differences has diminished.

Industries that have ascended significantly in terms of this measure of specialization are:

- transportation equipment (including motor vehicle parts such as air bags, aircraft equipment and engines, space propulsion units and parts, and others),
- membership organizations (including religious, business, and civic organizations),
- business services (including computer software, financial services, temporary services, and telemarketing),
- miscellaneous manufacturing (such as sporting goods, jewelry),

- transportation by air (related to commerce and tourism),
- several of the construction sectors (cyclically driven by the recent construction boom),
- hotels and lodging (associated with tourism), and
- trucking and warehousing (associated with the transportation hub functions and private postal services).

Conclusions

In general, this review of Hachman Index calculations and changing industrial labor shares of Utah relative to the nation must be interpreted in light of the limitations of the concepts and measures utilized. However, given these qualifications, this review tends to confirm some basic understandings about the Utah economy that:

- Extractive industries and miliary installations continue to contribute significantly to employment in the Utah economy, although our relative dependence on these has diminished over time.

- Certain industries have emerged and these have contributed to the diversification of the economy as the export base of the state has broadened. These include tourism, computer software, financial services, and others.

- Most importantly, the fact that this diversification has recently occurred in an expanding state economy has meant that, as employment in traditional export industries has declined in share, expansion of employment in other sectors has occurred so that, in net, employment has expanded. Diversification need not necessarily be associated with economic expansion. It is the good fortune of the State of Utah that the two have occurred simultaneously over the past several years.

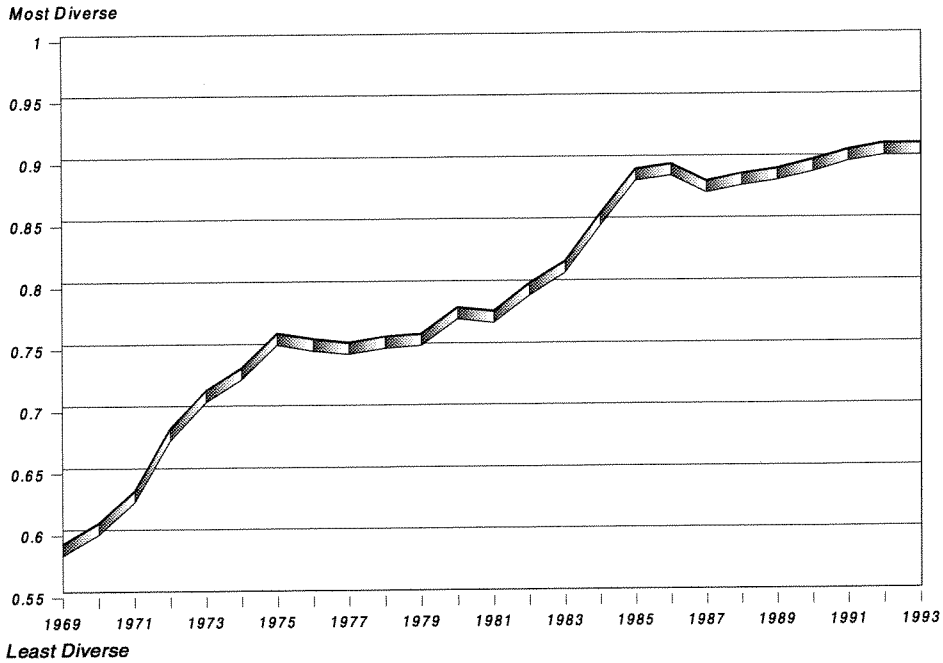
Important Limitations

The most important limitation of this analysis is the assumption that as a state's industrial structure is more similar to that of the nation, the state's economy is necessarily more diversified. The converse of this statement is that the more a state's industrial structure differs from that of the U.S., the more specialized it is.

Another limitation of this discussion concerns the important distinction between the processes of economic growth and increasing industrial diversity over time. Increasing industrial diversity (as measured and defined here) does not necessarily: a) result in improvements for the citizens of the state, or b) imply economic growth. The example given above was the sharp increase in the value of the index when there were major layoffs at Kennecott in the mid-1980s.

Finally, the indices calculated here are based on full and part-time wage and salary employment. Results will vary somewhat if monetary measures of compensation to labor are instead used. The value of the Hachman Index will also be affected if a broader measure of industrial activity, such as Gross State Product, is used. This would particularly affect industries where restructuring has dramatically altered labor productivity, such as coal and metal (especially copper) mining, while industry output has increased. ✧

Figure 59
Hachman Index of State Employment Diversity: 1970 to 1993



Source: Frank Hachman, Bureau of Business and Economic Research, University of Utah;

Table 89
Hachman Index of State Employment Diversity: 1988 to 1993

State	1988	Rank	1989	Rank	1990	Rank	1991	Rank	1992	Rank	1993	Rank	Average
Missouri	0.93	3	0.93	2	0.93	2	0.94	2	0.94	2	0.95	1	0.94
California	0.95	1	0.95	1	0.95	1	0.95	1	0.95	1	0.95	2	0.95
Illinois	0.93	2	0.93	3	0.93	3	0.93	3	0.93	3	0.93	3	0.93
Pennsylvania	0.92	4	0.92	4	0.92	4	0.93	4	0.93	4	0.93	4	0.92
Florida	0.91	5	0.91	6	0.92	6	0.92	5	0.92	5	0.92	5	0.92
Colorado	0.91	6	0.91	5	0.92	5	0.92	6	0.92	6	0.91	6	0.92
Utah	0.89	7	0.89	7	0.90	7	0.90	7	0.91	7	0.91	7	0.90
Minnesota	0.89	9	0.89	9	0.89	9	0.89	9	0.89	8	0.90	8	0.89
Tennessee	0.89	8	0.89	8	0.89	8	0.89	8	0.89	9	0.89	9	0.89
Iowa	0.88	13	0.88	12	0.88	12	0.89	11	0.89	11	0.89	10	0.88
Ohio	0.88	11	0.88	10	0.89	10	0.89	10	0.89	10	0.89	11	0.89
Kansas	0.88	14	0.87	15	0.88	13	0.88	12	0.88	12	0.89	12	0.88
New Jersey	0.88	12	0.88	11	0.88	11	0.88	13	0.88	13	0.88	13	0.88
Texas	0.85	17	0.86	16	0.86	17	0.86	17	0.87	15	0.87	14	0.86
Maryland	0.87	15	0.87	14	0.87	14	0.87	14	0.87	14	0.87	15	0.87
Massachusetts	0.88	10	0.88	13	0.87	15	0.86	16	0.86	16	0.86	16	0.87
New York	0.85	16	0.86	17	0.86	16	0.86	15	0.86	17	0.86	17	0.86
Arizona	0.84	19	0.85	18	0.85	18	0.84	20	0.85	19	0.86	18	0.85
Washington	0.85	18	0.84	20	0.85	19	0.85	19	0.85	18	0.85	19	0.85
Wisconsin	0.83	21	0.84	22	0.84	22	0.84	21	0.85	20	0.85	20	0.84
Indiana	0.84	20	0.85	19	0.84	20	0.85	18	0.84	21	0.84	21	0.84
New Hampshire	0.81	27	0.82	26	0.84	21	0.84	22	0.84	22	0.84	22	0.83
Virginia	0.82	24	0.83	23	0.83	23	0.83	23	0.83	23	0.83	23	0.83
Georgia	0.82	25	0.82	25	0.82	27	0.82	24	0.82	24	0.83	24	0.82
Connecticut	0.83	22	0.84	21	0.83	24	0.82	26	0.82	25	0.83	25	0.83
Alabama	0.82	26	0.82	27	0.82	26	0.82	27	0.82	27	0.82	26	0.82
Nebraska	0.83	23	0.82	24	0.83	25	0.82	25	0.82	26	0.82	27	0.82
Vermont	0.78	31	0.79	30	0.80	29	0.81	28	0.81	28	0.82	28	0.80
South Dakota	0.79	30	0.78	31	0.79	31	0.80	29	0.81	30	0.82	29	0.80
New Mexico	0.80	29	0.80	28	0.80	28	0.80	30	0.81	29	0.81	30	0.80
North Dakota	0.77	32	0.77	32	0.78	32	0.79	31	0.80	31	0.81	31	0.79
Arkansas	0.80	28	0.80	29	0.80	30	0.79	32	0.80	32	0.79	32	0.80
Oregon	0.69	39	0.71	37	0.74	35	0.76	34	0.78	33	0.79	33	0.75
Oklahoma	0.72	35	0.73	34	0.74	34	0.76	35	0.78	34	0.78	34	0.75
Michigan	0.76	33	0.77	33	0.78	33	0.78	33	0.78	35	0.78	35	0.77
Kentucky	0.71	37	0.73	36	0.73	36	0.75	37	0.77	36	0.77	36	0.74
Idaho	0.71	36	0.71	38	0.72	38	0.75	36	0.77	37	0.77	37	0.74
Montana	0.71	38	0.70	39	0.71	39	0.74	38	0.74	38	0.75	38	0.72
Mississippi	0.74	34	0.73	35	0.73	37	0.72	39	0.72	39	0.73	39	0.73
Louisiana	0.66	40	0.67	40	0.67	40	0.68	40	0.71	40	0.72	40	0.68
Maine	0.62	41	0.64	41	0.65	41	0.66	41	0.66	41	0.66	41	0.65
South Carolina	0.57	42	0.58	42	0.60	42	0.61	42	0.62	42	0.64	42	0.60
Delaware	0.52	44	0.52	45	0.51	45	0.51	46	0.55	45	0.59	43	0.53
Hawaii	0.54	43	0.55	43	0.56	43	0.56	43	0.56	43	0.57	44	0.56
North Carolina	0.51	45	0.53	44	0.53	44	0.55	44	0.56	44	0.57	45	0.54
Rhode Island	0.49	46	0.50	46	0.50	46	0.51	45	0.52	46	0.54	46	0.51
Alaska	0.47	47	0.50	47	0.49	47	0.49	47	0.50	47	0.51	47	0.49
West Virginia	0.36	49	0.37	49	0.35	49	0.37	49	0.39	48	0.42	48	0.38
Wyoming	0.39	48	0.39	48	0.39	48	0.39	48	0.39	49	0.39	49	0.39
Nevada	0.20	50	0.20	50	0.19	50	0.21	50	0.21	50	0.22	50	0.21
Average	0.76		0.76		0.76		0.77		0.77		0.78		0.77

Note: Equation used -- (1/(Mean Location Quotient))

Sources: Index -- Frank Hachman, Bureau of Business and Economic Research, University of Utah. Data -- Hachman Index calculated from Regional Financial Associates computations of Diversity Index.

Table 90
Industry Share Differences--Utah and U.S.: Selected Years

Industry	1970	Rank	1975	Rank	1980	Rank	1985	Rank	1990	Rank	1992	Rank
Federal, Civilian	0.0676	1	0.0429	1	0.0325	1	0.0300	1	0.0241	1	0.0188	1
State and Local	0.0308	2	0.0167	2	0.0130	3	0.0146	2	0.0135	2	0.0108	2
Metal Mining	0.0221	3	0.0139	3	0.0132	2	0.0027	12	0.0034	10	0.0031	9
Educational Services	0.0123	4	0.0104	4	0.0079	4	0.0090	4	0.0095	4	0.0084	3
Railroad Transportation	0.0067	5	0.0036	10	0.0028	12	0.0028	10	0.0012	18	0.0009	23
Eating and Drinking Places	0.0052	6	0.0059	5	(0.0005)	43	(0.0002)	38	(0.0002)	37	0.0013	20
Primary Metal Industries	0.0049	7	0.0029	12	0.0020	18	(0.0004)	45	0.0011	19	0.0017	16
Automotive Dealers and Service Stations	0.0046	8	0.0038	9	0.0027	13	0.0026	13	0.0030	11	0.0025	11
Wholesale Trade	0.0036	9	0.0019	15	0.0043	8	(0.0011)	49	(0.0034)	65	(0.0040)	70
Trucking and Warehousing	0.0025	10	0.0047	6	0.0053	5	0.0025	15	0.0059	6	0.0055	6
Miscellaneous Retail	0.0023	11	0.0032	11	0.0033	9	0.0010	24	(0.0004)	40	0.0002	32
Farm	0.0018	12	(0.0014)	53	(0.0031)	64	(0.0027)	63	(0.0015)	51	(0.0028)	65
Building Materials and Garden Equipment	0.0018	13	0.0020	14	0.0024	15	0.0015	18	0.0001	27	0.0006	28
Coal Mining	0.0016	14	0.0026	13	0.0053	6	0.0025	14	0.0020	14	0.0016	17
Food and Kindred Products	0.0013	15	(0.0011)	48	(0.0023)	59	(0.0017)	57	0.0012	17	0.0002	31
Nonmetallic Minerals, Except Fuels	0.0013	16	0.0006	26	0.0004	28	0.0003	31	0.0001	26	0.0002	33
Motion Pictures	0.0012	17	0.0009	22	0.0010	22	0.0005	28	0.0007	24	0.0006	27
Food Stores	0.0010	18	0.0012	19	0.0020	17	0.0028	11	0.0037	8	0.0024	12
Miscellaneous Repair Services	0.0010	19	0.0012	20	0.0010	23	0.0007	25	0.0010	21	0.0002	30
Home Furniture and Furnishings Stores	0.0010	20	0.0013	17	0.0008	26	0.0003	29	(0.0007)	45	0.0006	26
Amusement and Recreation Services	0.0009	21	0.0004	27	0.0002	30	0.0013	19	0.0009	22	0.0014	19
Auto Repair, Services, and Parking	0.0007	22	0.0006	25	0.0012	21	0.0012	20	0.0010	20	0.0012	21
Depository and Nondepository Credit Inst.	0.0006	23	0.0007	24	0.0010	24	0.0011	23	(0.0024)	62	(0.0003)	46
Heavy Construction Contractors	0.0001	24	0.0002	28	0.0016	19	0.0011	22	(0.0015)	53	(0.0004)	47
Transportation Equipment Excl. Motor Vehicles	0.0001	25	0.0010	21	0.0025	14	0.0091	3	0.0095	3	0.0067	4
Electric, Gas, and Sanitary Services	0.0001	26	0.0008	23	0.0028	11	0.0032	8	0.0017	15	0.0011	22
Holding and Other Investment Companies	0.0000	27	(0.0004)	38	(0.0006)	44	(0.0004)	44	(0.0004)	39	0.0000	34
Social Services	0.0000	29	(0.0038)	66	(0.0055)	69	(0.0054)	71	(0.0060)	76	(0.0065)	77
Engineering and Management Services	0.0000	28	0.0000	31	0.0000	32	0.0000	33	(0.0035)	66	(0.0034)	68
Other	(0.0001)	30	(0.0001)	33	(0.0001)	36	(0.0001)	35	(0.0001)	34	(0.0001)	40
Pipelines, Except Natural Gas	(0.0001)	31	(0.0000)	32	(0.0000)	35	(0.0001)	34	(0.0001)	32	(0.0001)	38
Museums, Botanical, Zoological Gardens	(0.0001)	32	(0.0001)	35	(0.0001)	37	(0.0002)	40	(0.0003)	38	(0.0004)	48
Forestry	(0.0001)	33	(0.0001)	34	(0.0002)	40	(0.0002)	39	(0.0002)	36	(0.0002)	44
Real Estate	(0.0002)	34	0.0001	29	(0.0011)	50	(0.0020)	62	(0.0029)	63	(0.0029)	67
Fisheries	(0.0002)	35	(0.0002)	36	(0.0002)	39	(0.0001)	37	(0.0001)	35	(0.0001)	39
Petroleum and Coal Products	(0.0003)	36	(0.0005)	39	(0.0003)	42	(0.0004)	43	(0.0001)	33	(0.0002)	43
Ordnance	(0.0004)	37	0.0000	30	0.0000	33	0.0000	32	0.0000	29	0.0000	35
Personal Services	(0.0004)	38	(0.0008)	45	(0.0016)	57	(0.0019)	61	(0.0017)	57	(0.0012)	53
Combined Real Estate, Insurance, Etc.	(0.0004)	39	(0.0003)	37	(0.0002)	41	(0.0001)	36	0.0000	28	0.0000	36
Transportation Services	(0.0005)	40	(0.0006)	41	(0.0008)	46	(0.0005)	46	(0.0004)	42	(0.0002)	42
Insurance Agents, Brokers, and Services	(0.0005)	41	(0.0007)	43	(0.0011)	49	(0.0016)	54	(0.0010)	47	(0.0006)	50
Oil and Gas Extraction	(0.0006)	42	0.0017	16	0.0020	16	0.0003	30	(0.0006)	44	(0.0000)	37
Hotels and Other Lodging Places	(0.0007)	43	0.0013	18	0.0009	25	0.0016	17	0.0017	16	0.0020	15
Local and Interurban Passenger Transit	(0.0008)	44	(0.0007)	42	(0.0000)	34	(0.0015)	52	(0.0016)	55	(0.0019)	57
Legal Services	(0.0008)	45	(0.0012)	50	(0.0013)	54	(0.0016)	55	(0.0023)	60	(0.0026)	62
Tobacco Products	(0.0010)	46	(0.0009)	46	(0.0007)	45	(0.0006)	47	(0.0004)	41	(0.0004)	49
Apparel and Accessory Stores	(0.0011)	47	(0.0013)	52	(0.0013)	53	(0.0018)	59	(0.0020)	58	(0.0011)	52
Security & Commodity Brokers and Services	(0.0012)	48	(0.0011)	49	(0.0012)	51	(0.0016)	56	(0.0015)	52	(0.0024)	60
Communications	(0.0013)	49	(0.0008)	44	(0.0008)	47	(0.0002)	41	(0.0022)	59	(0.0023)	59
Agricultural Services	(0.0014)	50	(0.0017)	55	(0.0023)	60	(0.0018)	60	(0.0031)	64	(0.0029)	66
Stone, Clay, and Glass Products	(0.0015)	51	(0.0005)	40	0.0005	27	0.0012	21	(0.0000)	31	(0.0002)	45
Transportation by Air	(0.0016)	52	(0.0018)	56	(0.0013)	52	0.0017	16	0.0027	12	0.0027	10
Miscellaneous Services	(0.0017)	53	(0.0015)	54	(0.0009)	48	(0.0011)	50	(0.0000)	30	0.0009	24
Miscellaneous Manufacturing Industries	(0.0024)	54	(0.0011)	47	0.0002	29	0.0006	27	0.0038	7	0.0046	8
Water Transportation	(0.0027)	55	(0.0021)	61	(0.0019)	58	(0.0018)	58	(0.0015)	50	(0.0015)	55
Military	(0.0030)	56	(0.0019)	59	0.0001	31	0.0030	9	0.0024	13	0.0007	25
General Building Contractors	(0.0035)	57	0.0046	7	0.0033	10	0.0037	7	(0.0016)	56	0.0023	14
Furniture and Fixtures	(0.0036)	58	(0.0028)	64	(0.0016)	56	(0.0003)	42	(0.0004)	43	(0.0001)	41
Special Trade Contractors	(0.0036)	59	0.0044	8	0.0052	7	0.0046	6	(0.0045)	72	0.0024	13
Leather and Leather Products	(0.0038)	60	(0.0028)	65	(0.0024)	61	(0.0015)	53	(0.0011)	48	(0.0009)	51
Instruments and Related Products	(0.0041)	61	(0.0024)	62	0.0013	20	(0.0013)	51	(0.0009)	46	0.0005	29
Lumber and Wood Products	(0.0041)	62	(0.0013)	51	(0.0014)	55	(0.0009)	48	(0.0016)	54	(0.0014)	54
Membership Organizations	(0.0041)	63	(0.0019)	57	(0.0002)	38	0.0063	5	0.0079	5	0.0060	5
Printing and Publishing	(0.0047)	64	(0.0027)	63	(0.0027)	62	(0.0032)	65	(0.0012)	49	(0.0019)	56
Business Services	(0.0048)	65	(0.0047)	67	(0.0082)	76	(0.0072)	76	0.0036	9	0.0052	7
Apparel and Other Textile Products	(0.0049)	66	(0.0021)	60	(0.0030)	63	(0.0027)	64	(0.0024)	61	(0.0027)	63
General Merchandise Stores	(0.0049)	67	(0.0019)	58	(0.0031)	65	(0.0038)	66	0.0003	25	0.0015	18
Insurance Carriers	(0.0050)	68	(0.0054)	69	(0.0049)	67	(0.0052)	69	(0.0047)	73	(0.0046)	71
Health Services	(0.0050)	69	(0.0090)	75	(0.0073)	75	(0.0088)	78	(0.0075)	77	(0.0108)	78
Rubber and Misc. Plastics Products	(0.0053)	70	(0.0050)	68	(0.0048)	66	(0.0053)	70	(0.0043)	70	(0.0046)	72
Paper and Allied Products	(0.0079)	71	(0.0064)	71	(0.0059)	71	(0.0048)	68	(0.0040)	69	(0.0039)	69
Motor Vehicles and Equipment	(0.0092)	72	(0.0074)	74	(0.0062)	73	(0.0063)	73	(0.0038)	68	(0.0028)	64
Chemicals and Allied Products	(0.0095)	73	(0.0067)	72	(0.0061)	72	(0.0057)	72	(0.0044)	71	(0.0050)	73
Fabricated Metal Products	(0.0102)	74	(0.0069)	73	(0.0057)	70	(0.0046)	67	(0.0038)	67	(0.0026)	61
Machinery and Computer Equipment	(0.0114)	75	(0.0057)	70	(0.0053)	68	0.0007	26	(0.0080)	78	(0.0061)	76
Textile Mill Products	(0.0122)	76	(0.0101)	76	(0.0086)	78	(0.0065)	74	(0.0054)	75	(0.0052)	74
Private Households	(0.0142)	77	(0.0109)	77	(0.0073)	74	(0.0069)	75	(0.0051)	74	(0.0054)	75
Electronic Equipment, Excl. Computer Equipment	(0.0163)	78	(0.0129)	78	(0.0086)	77	(0.0081)	77	0.0008	23	(0.0023)	58

Notes: Figures represent Utah labor shares less U.S. labor shares in industries; Industries ranked by size of share difference.

Source: Calculated from BEA CA27 Files (Full and Part-Time Employees)

Appendix

✧ Appendix

Select Publications of the Organizations Comprising the Economic Coordinating Committee. This list includes only the reports which are particularly relevant to the *Economic Report to the Governor*. To obtain a complete list of the publications of each agency or copies of reports, contact the appropriate agencies.

Governor's Office of Planning and Budget
116 State Capitol, S.L.C., Ut. 84114 (801) 538-1036

Regular Reports

Economic Report to the Governor (Annually)
Economic and Demographic Projections Report (Biennially)
Executive Budget (Annually)
Governor's Summary of Legislative Action (Annually)
State Planning Report (Annually)
Utah Data Guide (Quarterly)
Utah Demographic Report (Annually)
Utah Economic and Demographic Profiles (Annually)
Utah Economic and Demographic Projections (Triennially)
Utah Planning Newsletter (Quarterly)

Special Reports

Utah Local Government Fiscal Database: An Overview and Evaluation
State of Utah Economic and Demographic Projections 1994: Highlights
Utah Migration Database: Sources, Methods, Limitations, and Analysis
The Base Period 1992 Utah Multiregional Input-Output (UMRIO-92) Model: Overview, Data Sources, Methods, Limitations, and Analysis
Exports from Utah's Regional Economies
Fiscal Impact Model: Analytical Foundations, Research Findings, and Sensitivity Analysis
Utah Ski Database
Andalex Resources and the Smoky Hollow Mine: A Fiscal Impact Analysis and Overview
1990 Census Briefs: Age Distribution, Cities and Counties, Equal Employment Opportunity Data, Income and Poverty, Minorities
2002 Utah Winter Olympic Games: Preliminary Economic Impact Analysis
Federal Land Payments in Utah
Rural Utah Tourism Report
The Value of the 1990 Census to Utah
Utah's Defense Economy
Utah in the Global Economy

Utah Geological Survey
2363 Foothill Dr., S.L.C., Ut. 84109-1491 (801) 467-7970

Survey Notes (Quarterly)

Utah Department of Community and Economic Development
324 South State, Suite 500, S.L.C., Ut. 84111 (801) 538-8700

Regular Reports
Legislative Report of the Permanent Community Impact Fund (Annually)
Legislative Report of the Utah Disaster Relief Board (Annually)
Small Cities Community Development Block Grant Program (Annually)
Utah Directory of Business and Industry (Annually)
Utah Export Directory (Bi-Annually)
Utah Facts (Annually)
Environmental Permit Brochure (Annually)
Directory of Agribusiness Financial Resources (Annually)

Special Reports
Going Into Business in Utah
Governor's Blueprint for Utah's Economic Future
Poverty in Utah (Triennially)
Utah's Rural Development Strategy
Tourism Indicators
Zions Capital And Business Resource Guide (Published by Zions Bank)

Utah Department of Employment Security
140 East 300 South, S.L.C., Ut. 84111 (801) 536-7400

Regular Reports
Annual Report of Labor Market Information
Employment, Wages and Reporting Units by Firm Size (Annually)
Labor Market Information by Planning District (Quarterly)
Occupations in Demand (Semi-Annually)
Utah Job Outlook for Occupations (Biennially)
Utah Labor Market Report (Monthly)

Special Reports
Utah Workforce 2000
Women in the Utah Labor Force
Utah Equal Employment Opportunity Information--1990 Census
Wage and Compensation Surveys
County-Level Demographic Reports

Utah State Tax Commission
210 North 1950 West, S.L.C., Ut. 84134 (801) 297-2200

Regular Reports
Annual Report of the Utah State Tax Commission (Annually)
Gross Taxable Retail Sales and Purchases (Quarterly)
Hotel Sales, Room Rents and Transient Room Taxes in Utah (Annually)
New Car and Truck Sales (Quarterly)
Statistical Study of Assessed Valuations (Annually)
Utah Consumer Sentiment Index (Quarterly)
Utah Statistics of Income (Annually)

Special Reports
An Evaluation of Utah's Business Tax Competitiveness
Broadening the Base: An Evaluation of a Sales Tax on Services
Distribution of Local Sales Tax Revenue
Initial Tax Burdens on Business and Households in Ten Western States
Outlook for Utah's Defense Industry in the Post-Cold-War Era
Selected State Tax Rates in the U.S.
The Review of Sales and Use Tax Exemption for Manufacturing Machinery
Salt Lake Valley Zip Code Sales, 1992
Utah Household Taxes: Levels and Burdens

Bureau of Economic and Business Research
University of Utah, S.L.C., Ut. 84112 (801) 581-6333

Regular Reports
Statistical Abstract of Utah (Triennially)
Utah Construction Report (Quarterly)
Utah Economic and Business Review (9 Per Year)

Special Reports
Great Salt Lake Mineral Royalties
The 1990-91 Utah Skier Survey, Final Report
The Brine Shrimp Industry of the Great Salt Lake
Utah's High Technology Directory

Utah Department of Natural Resources, Office of Energy and Resource Planning
3 Triad Center, Suite 450, S.L.C., Ut. 84180-1204 (801) 538-5428

Regular Reports
Gasoline Price Update
Utah Energy Statistical Abstract, 1990
Annual Review and Forecast of Utah Coal Production and Distribution

Special Reports
1994 Utah Highway Gasoline Forecast

First Security Bank Corporation
79 South Main, #201, P.O. Box 30006, S.L.C., Ut. 84111 (801) 350-5259

Regular Reports
Insights (Quarterly)
Local Index of Leading Economic Indicators (Monthly)
Wasatch Front Cost of Living Index (Monthly)

Utah Foundation
10 West 100 South, 323 Crandall Bldg., S.L.C., Ut. 84101 (801) 364-1837

Regular Reports
Research Briefs (Monthly)
Research Reports (Monthly)
Statistical Review of Government in Utah (Annually)

Special Reports
State and Local Government in Utah
(Textbook published approximately every five years with annual updates in Statistical Review of Government in Utah)

Utah State University
Economics Department, Logan, Ut. 84322-3530 (801) 750-2290

Perspectives (Quarterly)