2000

ECONOMIC REPORT TO THE GOVERNOR

STATE OF UTAH
MICHAEL O. LEAVITT
GOVERNOR

2000

ECONOMIC

REPORT TO THE

GOVERNOR

State of Utah
Michael O. Leavitt
Governor

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Planning and Budget
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First Printing
January 2000

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OLENE S. WALKER
LIEUTENANT GOVERNOR

January 6, 2000

My Fellow Utahns:

As we begin a new millennium and century, it is an honor to receive the *2000 Economic Report to the Governor*. I accept this report from my Council of Economic Advisors with an appreciation of its value. The *Economic Report* is the most comprehensive assessment of the Utah economy and will meet a variety of data, research and planning needs during the next year.

The economic landscape continues to change with the progression of the information age. This report documents this transition by helping us to understand the past, measure the present, and forecast the future. I believe the driving forces of the new economy are ideas, knowledge, and higher-order skills. In order to succeed in today's economy, workers, businesses and government must continuously reinvent themselves. I am deeply committed to helping state government fulfill its responsibility in this re-invention process.

In order to be successful, we must continue to refine state government's role in this new economic climate. In my mind, this includes a stronger commitment to public and higher education, a focus on efficient infrastructure investment, active promotion of research and development activities within the state, and continued vigilance in protecting and enhancing Utah's quality of life. We must also capitalize on the opportunities that new information technologies allow as we provide government services.

I ask you to join me in defining and supporting an agenda that will keep Utah's economy among the most prosperous in the country. And, I thank you for the opportunity to be of public service during these exciting times.

Sincerely,

Michael O. Leavitt
Governor

Preface

The *2000 Economic Report to the Governor* is the 15th annual publication of its kind in Utah. The *Economic Report* is the principal source for data, research, and analysis about the Utah economy. It includes a national and state economic outlook, a summary of state government economic development activities, an analysis of economic activity based on the standard indicators, and a more detailed review of industries and issues of particular interest. The primary goal of the report is to improve readers' understanding of the Utah economy. With an improved economic literacy, decision makers in the public and private sector will then be able to plan, budget, and make policy with an awareness of how their actions are both influenced by and impact economic activity.

Council of Economic Advisors. The Council of Economic Advisors (CEA) provides guidance for the contents of this report. The CEA is an advisory committee to the Governor and includes representatives from state government agencies, First Security Bank, Thredgold Economic Associates, Federal Reserve Bank of San Francisco, Utah Foundation, and all of Utah's major research universities. The mission of the CEA is to provide information and analysis that enhances economic decision-making in Utah. This report is the primary means of the CEA to communicate economic information to the general public.

Collaborative Effort/Contributors. Chapter authors, many of whom are special advisors to the CEA and who represent both public and private entities, devote a significant amount of time to this report, making sure that it contains the latest economic and demographic information. While this report is a collaborative effort which results in a consensus forecast for the next year, each chapter is the work of the contributing organization, with review and comment by the Governor's Office of Planning and Budget. More detailed information about the findings in each chapter can be obtained by contacting the authoring entity (see list of Contributors).

Statistics Used in This Report. The statistical contents of this report are from a multitude of sources which are listed at the bottom of each Table and Figure. Statistics are generally for the most recent year or period available as of mid-December 1999. Since there is a quarter or more of lag time before economic data become final, the data for 1999 are preliminary estimates. Final estimates can be obtained later in 2000 from the contributing entities. All of the data in this report are subject to error arising from a variety of factors, including sampling variability, reporting errors, incomplete coverage, non-response, imputations, and processing error. If there are questions about the sources, limitations, and appropriate use of the data included in this report, the relevant entity should be contacted.

Statistics for States and Counties. This report focuses on the state, multi-county, and county geographic level. Additional data at the metropolitan, city, and other sub-county level may be available. For information about data for a different level of geography than shown in this report, the contributing entity should be contacted.

New This Year. While the content of this report, other than introducing a new year of data and analysis, is similar to prior years, several updates and new data series or research efforts are worthy of highlighting. The Special Topics section of this report contains five chapters, including: The Value of Census 2000; Quality Growth; Transportation Funding; Water Pricing and Economic Development Incentives.

Electronic Access. This report is available on the Governor's Office of Planning and Budget's Internet website at http://www.governor.state.ut.us/dea.

Glossary. Terms and definitions used in this report are available on the Governor's Office of Planning and Budget website at the address listed above.

Suggestions and Comments. Users of the *Economic Report to the Governor* are encouraged to write or call with suggestions that will improve future editions. Suggestions and comments for improving the coverage and presentation of data and quality of research and analysis should be sent to the Governor's Office of Planning and Budget, 116 State Capitol, Salt Lake City, Utah 84114. The telephone number is (801) 538-1036. ⁕

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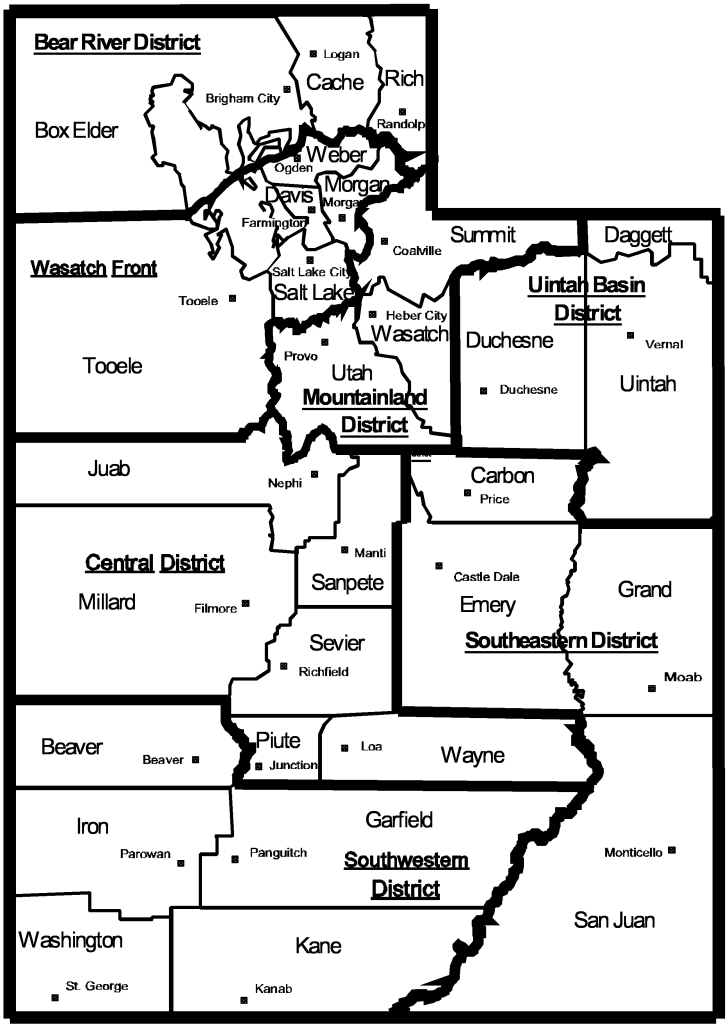
Map of Utah


Bear River District
Logan
Cache
Rich
Brigham City
Box Elder
Randolp
Weber
Ogden
Davis
Morgan
Morga
Farmington
Summit
Daggett
Coalville
Wasatch Front
Salt Lake Cit
Salt Lake
Tooele
Uintah Basin District
Heber City
Wasatch
Duchesne
Vernal
Provo
Tooele
Utah
Mountainland District
Duchesne
Uintah
Juab
Nephi
Carbon
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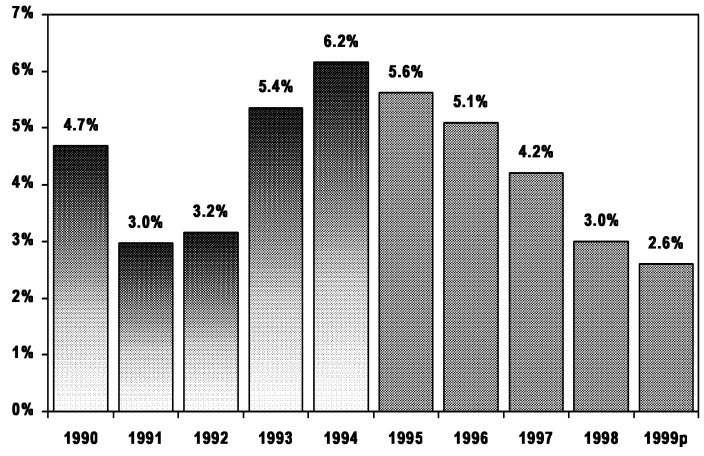
Central District
Manti
Sanpete
Castle Dale
Grand
Millard
Filmore
Emery
Southeastern District
Sevier
Richfield
Moab
Beaver
Beaver
Piute
Junction
Loa
Wayne
Iron
Garfield
Parowan
Panguitch
Southwestern District
Monticello
San Juan
Washington
Kane
St. George
Kanab

Executive Summary

Executive Summary

Utah's economy continued to perform well in 1999, but the pace of growth continues to moderate. The rate of job growth has fallen gradually since 1994 in each year, dropping from a peak of 6.2% to 2.6% in 1999. This orderly deceleration appears now to have stabilized and analysts expect job growth rates to remain similar in the next couple of years.

Figure A. Utah's Rate of Job Growth has Fallen for the Past Five Years

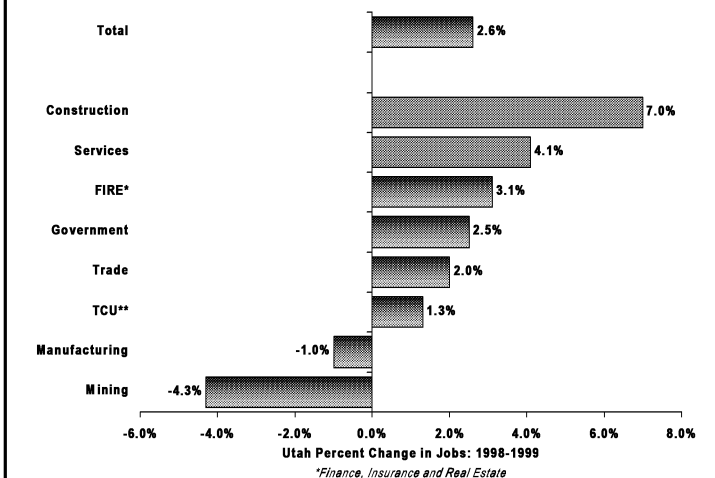


Source: Utah Department of Workforce Services

During 1999, economic activity in the state maintained the pattern of recent years. Construction activity remains the major catalyst for growth, the national economic expansion continues to augment economic activity, and the growth in international exports remains quite flat as it has now for six consecutive years. Most dramatic, however, is the continuing structural shift within the Utah economy away from natural resource extraction and defense activity toward emerging, information-based and service industries. This transformation continued in 1999 as evidenced by contraction in the oil, gas, mineral, and agricultural industries, and rapid growth in service industries where 11,600 new jobs were created.

The outlook calls for the state to weather a few disruptions as the current construction boom subsides and the state prepares for, hosts, and moves past the 2002 Olympic Winter Games. As Utah enters the new millennium, however, the state appears to be well-positioned to prosper in an information age where an attractive workforce, quality infrastructure, and favorable quality of life become increasingly more important.

Figure B. Construction and Services are the Major Catalysts for Growth



**Finance, Insurance and Real Estate*
***Transportation, Communication and Utilities*
Source: Utah Department of Workforce Services

International, National, and Regional Context

Utah's current prosperity occurs within a backdrop of a rebounding international economy, a sizzling national economy, and a slowing, but still expanding regional economy. The world economy appears to be recovering from the troubles of the last two years. The worst of the Asian financial crisis seems to have ended and Utah's currently flat level of exports should increase slightly in 2000.

The national economy remains poised to post its longest expansion on record in February of 2000. As of December 1999, the current expansion is nearly nine years old and shows few signs of abating. Jobs remain plentiful, real wages are rising, and inflation is low. Worker productivity continues to grow. Inflation-adjusted gross domestic product increased by a very respectable 3.8% during 1999. The main concerns at present are the potential downside risks of tight labor markets, a widening trade deficit, low household savings rates, a severe correction in the stock market, and accelerating prices and wages if productivity does not keep pace. Still, the U.S. economy appears to have more to give and federal budget surpluses, strong productivity gains, minimal inflation, upbeat consumers, and an improving global marketplace bode well for the U.S. economy during 2000.

Within the United States the rate of growth in the West remains the strongest of the four regions. The California economy remains vibrant with a rate of job growth that ranks 8th fastest in the country (November 1998-November 1999). The Mountain States continue to perform well with population, employment, pay, and per capita income growth rates above the national average.

Themes of the Past Year

In many respects, 1999 was a repeat of recent years. The economy remains strong, but has moderated steadily and significantly, just as it has in each of the previous five years. Despite the tempering of activity, growth remains a dominant theme of the past year. *Even though the economy is slowing, growth is still occurring and the economy remains prosperous.*

Other themes include a slight turnaround in the key industries of defense and tourism, leveling-off in growth of high tech and export activity, and contractions in energy, minerals and agricultural industries.

Growth Continues

Population

Utah's population reached just over 2,121,000 persons in 1999, with an increase of 38,500 persons. The 1.9% rate of annual increase is lower than the state's trend rate of 2.3% over the past 50 years, but continues to exceed that of the nation. During 1999, births reached a record level of 45,434 and net in-migration remained positive for the ninth consecutive year. The state continues to have a distinctive demographic profile, as compared to other states. Utah residents, on average, are younger, live longer, have higher fertility rates and have larger households.

On April 1, 2000, Utahns, like their counterparts in other states, have the opportunity to be counted in the 2000 Census. The Census is expected to further document Utah's growth– an estimated 2.16 million residents are expected to be counted in what is the largest peacetime undertaking of the federal government.

And, over the longer term, newly released long term economic and demographic projections also confirm Utah's growth trajectory. It is expected that Utah's population will reach approximately 2.7 million in 2010, surpass 3.0 million by 2020, and tally roughly 3.7 million by 2030.

Jobs and Wages

Economic activity in Utah, as measured by the rate of job growth, has slowed for the past five years, falling from 6.2% in 1994 to 2.6% in 1999. Despite this moderation, however, Utah is currently the sixth fastest growing state in terms of job creation (November 1998-November 1999). During 1999, Utah added 29,400 net new jobs, and the unemployment rate remained unchanged at 3.8%. The majority of these new jobs were in the service sector which now comprises slightly more than one in every four jobs in the state.

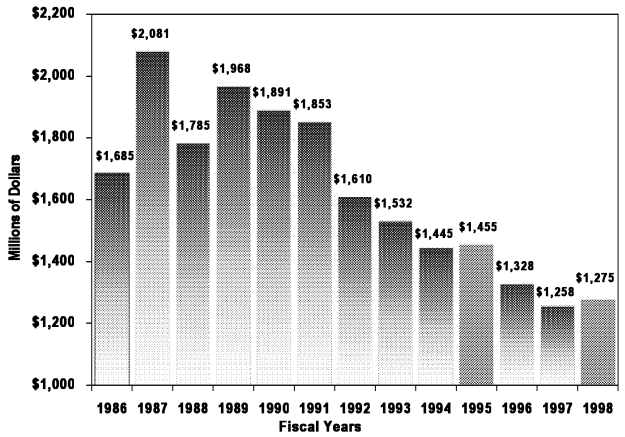
The average Utah wage increased by 3.6% in 1999. This is slightly slower than 1998's 4.4% rate, but still more rapid than the 2.2% increase in consumer prices. Wages have now increased faster than inflation for five consecutive years.

Better Year for Defense and Tourism

Defense

Utah's defense industry rebounded slightly in 1999, as base closures and realignments in other states shifted jobs and military spending to Utah. Hill Air Force Base has been selected as headquarters for one of 10 new "expeditionary" forces to deal with trouble spots around the world. Consequently, the base is expected to add between 2,700 and 3,000 new jobs from 1999 through 2001. These additions are in sharp contrast to the downward trend the defense industry has experienced since the end of the Cold War. During 1998, defense spending in Utah totaled $1.27 billion, an increase of 1.3% and only the second increase in the past decade. Even with this increase, Utah's defense industry is still much smaller than it once was, and is a smaller portion of total economic activity.

Figure C. Defense-Related Spending in Utah Increased for Only the Second Time in the Past Decade



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

Tourism

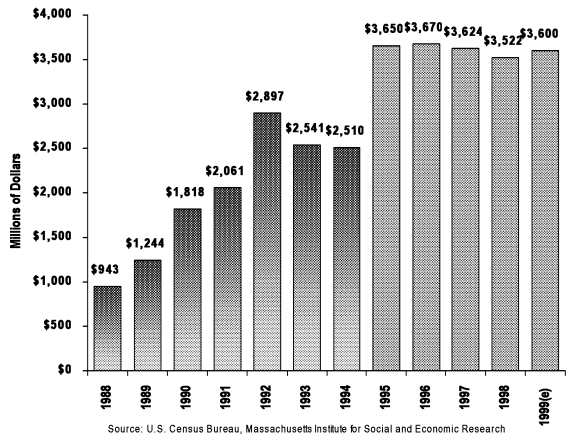
Utah's tourism industry posted a slightly better year in 1999. During 1999, an estimated 18.2 million non-resident travelers visited the state, an increase of approximately 2% from 1998. These visitors spent an estimated $4.2 billion, generating $336 million in state and local tax revenues. And, best of all, growth in visitor spending outpaced visitor arrivals once again, indicating a shift toward higher quality tourism. Travel and tourism-related industries provided an estimated 118,500 direct and indirect jobs during 1999. This means that tourism jobs account for nearly one in nine jobs in the state, making tourism one of the state's largest industries.

Level Performance of Exports and High Tech

Exports

International merchandise exports from Utah have remained at approximately $3.6 billion for six consecutive years. While this measure of exports excludes business services (such as financial services or computer software), educational services (international students studying in Utah), and tourist services (an estimated 700,000 foreigners visited Utah during 1999), it is clear that exports of primary metals, transportation equipment, electric and industrial machinery, instruments, chemicals, food, coal, and other manufactured merchandise have not been a source of new growth for Utah since 1995. Still, even a stable level of exports is a positive sign in light of the recent Asian economic crisis. The share of Utah's exports to Asia has fallen from 43% in 1996 to under 25% for 1999 without a significant drop in export activity. With improving economies throughout Asia and progress in opening up the vast market in China, Utah's exports are expected to increase in coming years.

Figure D. International Exports from Utah have been Flat for Five Years



Source: U.S. Census Bureau, Massachusetts Institute for Social and Economic Research

High Technology

Utah's high technology sector has been on a decade-long roller coaster ride that shows signs of continuing into the next century. Many segments within the industry have undergone a series of peaks, valleys, and steady decline over the past 10 years. Most notable has been the rapid drop in aerospace activity, along with the rise and fall of software development. Offsetting these negative trends has been growth in the medical instruments sector and the emergence of a healthy automotive components sector.

Intel Corporation's decision to build a research campus in the city of Riverton is a very positive development for Utah's high tech industry. If fully developed, Intel will build a seven-building research facility that may eventually employ 6,000 to 8,000 people. An estimated 80% of Intel's workforce will be engineers and other technical workers who will earn an average wage of $50,000. Still, Utah's high tech sector requires money and innovation to grow. Utah scores average in these areas with a ranking among states of 22nd in the amount of venture capital as a percent of gross state product, and 13th among states in patents per 1,000 workers.[1]

Contraction in the Energy, Mineral, and Agricultural Industries

Energy

Crude oil and natural gas production declined in 1999 after several years of stabilized production. Crude oil production dropped a significant 14% below the 1998 level and natural gas production dropped 2%. Oil and gas drilling fell off in response to sustained low oil prices. Wellhead prices are tracking between $13 and $20 per barrel and remain too low to spur significant exploration. Fortunately, in the coming years, new production from coalbed methane will likely boost statewide production.

Utah coal production decreased slightly in 1999, falling from 26.6 million tons in 1998 to 26.3 million tons in 1999. Coal mining employment continues to trend downwards from 2,091 in 1997 to 1,950 in 1998 and to 1,917 in 1999.

Mineral

The value of mineral production in Utah during 1999 is estimated to be $1.79 billion, a decrease of $64 million from the previous year. Base-metal production (which includes resources like copper, magnesium metal, molybdenum, and beryllium) was essentially the same as last year. Precious metal production (which includes gold and silver) was split with gold production being slightly higher and silver production being lower. Industrial mineral production (which includes resources like sand, gravel, crushed stone, potash, lime, gypsum, and others) reached a new high in 1999 largely because of Utah's construction boom.

Agriculture

Utah's agricultural industry experienced many challenges during 1999. While the industry as a whole is very solvent, with the lowest debt to equity ratio in many years, low lamb, wool, and crop prices have hurt Utah farmers. The cold wet spring in 1999 also had a major impact on crop production in Utah. Apple production was essentially zero in some areas because of killing frosts and the value of a large volume of hay was diminished by low prices.

Significant Issues

The dominant characteristics of the past year have been growth and the expansion, leveling, and contraction of key industries. However, analysts are also carefully watching two other significant economic issues: construction cycles and Utah's placement in the emerging economic environment of the information age.

Construction Cycles

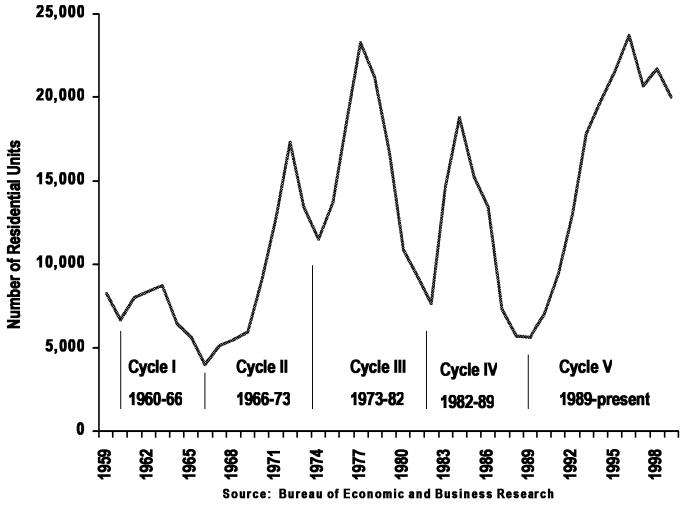
Once again, Utah's construction industry reached new highs during 1999. The total value of permit-authorized construction reached a record level of $3.8 billion. This includes $2.2 billion in residential construction – an all-time high; $1.1 billion in non-residential construction; and, $550 million in additions, alterations and repairs – also an all-time high.

Utah's construction boom is now in its ninth year. There are currently 73,000 construction jobs in the state, nearly three times as many as existed at the start of the decade. The volume of residential construction has been so pronounced that one in every six housing units that presently exist in the state was built since 1990. And, non-residential construction was strong as well during 1999, with the $312 million TRAX light rail line completed, the $240 million LDS Conference Center nearly completed, and the $1.6 billion I-15 reconstruction project now over 60% complete.

The present residential construction cycle demonstrates extraordinary post-peak strength. For example, in the 1982-1989 period, the three-year post-peak decline registered a drop in residential construction activity of 61%. In sharp contrast, the current cycle, which peaked in 1996, has registered only a 16% decline in the past three years. Reasons for this strength include relatively low mortgage rates, a slow-down in the increase in housing prices which has improved housing affordability, the stock market boom and associated wealth effect, and more lenient down payment requirements for first-time buyers.

Despite the gradual softening of the current construction boom, analysts remain concerned about the drop-off of construction jobs in future years. Indeed, construction has been the major catalyst for growth in the state for nine years running. The current boom is already four years longer than the previous two cycles (1973-1982 and 1985-1989). Moreover, analysts recognize an acceleration

Figure E. Utah's Residential Construction Cycle Shows Extraordinary Post-Peak Strength



[1] Progressive Policy Institute, *The State New Economy Index*, July 1999

and 1985-1989). Moreover, analysts recognize an acceleration effect associated with Utah's hosting of the 2002 Olympic Winter Games and worry about losing as many as 25,000 construction jobs as the current boom shifts to a pause. Opinions remain mixed on the timing, duration, and severity of the expected contraction, however, currently and for the upcoming year, construction activity is expected to remain solid and will be another source of growth during 2000, extending the current cycle to an entire decade.

Utah and the Information Economy

Economists continue to debate whether new economic rules have emerged that defy past theories about economic growth. Evidence of some sort of structural transformation continues to mount as the U.S. economy keeps generating real growth in an environment of very low inflation. The advent of a knowledge economy in place of an industrial economy, increasing globalization, more intense competition, and an accelerating pace of technological change have been identified as salient features of a new economic environment.

Technology is at the center of this debate. The emergence of personal computers, wireless phones, fiber optic networks, the Internet, and e-commerce continue to impact economic activity. And, it is not just the accelerated pace of technological change, but the rapid diffusion of technology and the effective implementation of it that continue to shape market activity.

Market activity is also influenced by an even more competitive landscape which has forced several mega-mergers and buyouts to occur. In Utah, the union of Zion and First Security Bank, American Stores and Albertsons, and ZCMI and May Company will result in an estimated total loss of 2,000 to 3,000 jobs in Utah during 1999 and 2000. Clearly, the changing economy has the potential to diminish as well as create new jobs.

Figure F. Utah Ranks Favorably Among States in Several Measures of Readiness for the Information Economy

Measure	Ranking
Concentration -- Information Technology Jobs as a Share of Total Jobs	15
Workforce Education -- Weighted Measure of Workforce Education Considering Advanced, Bachelor's, and Associate Degrees, and other College Work	3
Innovation Capacity -- Civilian Scientists and Engineers as a Percent of the Workforce	11
Digital Economy – Percent of Adult Population with Internet Access	4
Business -- Number of Commercial Internet Domain Names Per Firm	5
Education Technology -- Weighted Measure of % of Classrooms Wired for the Internet, Teachers with Technology Training, and Teachers with School-Based E-Mail Accounts	5

Source: Regional Financial Associates and The Progressive Policy Institute

So where does Utah fit in this new economic environment? A variety of studies and statistics illuminate Utah's position in this rapidly changing economy vis-a-vis other states. While flat growth in exports and high tech activity would suggest Utah is not leading this trend, Utah's workforce, investment in infrastructure, and attention to quality of life issues bode well for the state's future.

Utah's Workforce and Information Technology Firms

Information technology firms comprise 11% of total jobs in the state, ranking Utah 15th among states and employing approximately 111,000 people.[1] As evidenced by Intel and Gateway's decision to operate here, Utah's workforce continues to be very attractive to new and expanding information technology companies. Many call centers have also found Utah attractive. Ebay Inc., Marketing Ally, Reesebrothers Inc., McLeodUSA, and Communications & Commerce are call centers in Utah that increased employment by a 100 or more workers in 1999.

Information technology firms are attracted to locate and expand in Utah because of the workforce. Utah ranks 13th among states in the percentage of the population with a Bachelor's degree or higher and 11th in the percentage of civilian scientists and engineers in the workforce.[2] In addition, Utah has a very computer-literate population. An estimated 46% of the adult population is on-line. This ranks Utah 4th among the states.[3] The benefits of a well-educated workforce and computer-literate population are further strengthened by sufficiently low business costs, where Utah ranks 18th lowest among states.[4]

Infrastructure Investment

In addition to the $100 million worth of ongoing annual investment in Utah's highways, the state is now in its second year of an ambitious ten-year, $2.6 billion plan to improve Utah's transportation infrastructure. The largest of these, I-15 ($1.6 billion), is 60% complete. Moreover, a $312 million light rail system has begun operations; and construction will start on another $105 million spur this Spring if federal dollars are appropriated. And, the Salt Lake International Airport is planning a $1.26 billion expansion in coming years.

Also, in anticipation of the 2002 Olympic Winter Games, communication companies are spending $200 million to install more than 400 miles of fiber optic cable, 10 high-speed SONET telecommunications rings, and an extensive high-speed network system. These and other infrastructure investments will help keep Utah competitive in the future.

Quality Growth Planning

The state has partnered with Envision Utah, a public/private community partnership, to invite residents to think more pro-actively about growth issues such as traffic congestion, air quality, housing affordability, land conservation, and taxes. After two and a half years of study, including over 150 public meetings, Envision Utah has now released a Quality Growth Strategy for the northern metropolitan region. The strategy includes seven goals and 32 strategies intended to maintain and enhance the quality of life.

The state has also established a Quality Growth Commission to advise and recommend to the Legislature principles of quality growth and implementation policies. The Commission has participated in the funding of several planning activities, held public

[1] Regional Financial Associates, *Regional Financial Review*, "Information Economy I", September 1999. Note that the information technology industry is defined to be industries that intensively use IT-related labor and capital in their production process. It includes both IT producing and IT using industries. See the *Review* for a listing of 3-digit SIC codes included in this definition.

[2] Progressive Policy Institute, *The State New Economy Index*, July 1999

[3] *Ibid.*

[4] Regional Financial Associates, *Regional Financial Review*, "Cost of Doing Business", November 1999.

meetings around the State, and begun the process of making legislative recommendations regarding quality growth. A preliminary allocation of approximately $2 million has been designated for the preservation of agricultural land and open space. Further, nearly $200 thousand have been granted to 21 communities statewide to conduct quality growth planning activities.

Together, these very purposeful, inclusive, broad, and coordinated efforts to improve the quality of life in Utah have the potential to benefit Utah's economy long term as residents take pro-active steps to keep Utah attractive.

Poised for the New Millennium

Utah enters the new millennium in the midst of a sustained period of economic prosperity. Many things are right about the state currently. Chief among these is the state's investment in infrastructure, educational attainment, and focus on quality growth planning. However, many challenges remain.

Two of the most important are a construction boom which will eventually turn negative (i.e., job losses in construction) and the potential for the national economy to slow significantly. The state's official forecast assumes the same level of construction jobs next year and no national recession in 2000.

The outlook for 2000 is for slower construction activity to dampen job growth slightly. Job growth is also expected to slow due to lower net in-migration; a tight labor market; expensive housing compared to the national average; building moratoriums and restrictions; and, continued improvement in the business climates and economies of other states (especially California). Job and population growth in 2000 is forecast to be 2.4% and 1.7%, respectively. Unemployment is expected to remain low at 3.9%. The average wage is forecast to once again outpace inflation.

It these indicators prove correct, Utah will once again be among the most prosperous states in the country next year.

Economic Outlook

National Outlook

Overview

The national economy should continue to grow at a moderate pace through 1999 and 2000. Business investment remains strong. In 2000 inflation should average approximately 2.4% while unemployment should hold at about 4.4%. Wage pressure will remain in place as labor markets continue to remain tight. Over the past year global markets have stabilized, this should continue into 2000.

1999 Summary

The U.S. economy continues to grow. Gross Domestic Product growth should be approximately 3.8% this year. The weak point in the economy has been the slowing of job growth across the country, however, robust consumer spending continues to help offset any slowing in economic growth.

For consumers, the economy is wonderful. Jobs are plentiful, real wages are rising and inflation is contained. Labor markets remain very tight, especially in the retail and service sectors. The unemployment rate will be approximately 4.3% for 1999. Reports from most Federal Reserve Districts indicate continued moderate-to-strong economic growth. Wages and salaries continue their rise. Currently, the primary inflation pressure is coming from wages. For the present, consumers will continue to spend more than they receive in income.

American workers' productivity grew in 1999, while labor costs declined – key ingredients for low inflation. Productivity growth has been a factor behind higher living standards. It is a measure of worker efficiency in relation to overall economic growth. The U.S. currently leads the industrialized world in both hours worked and in productivity level. However, other industrialized countries are beginning to catch up. As long as workers are increasingly productive, employers can afford to pay them more because of increased output without needing to raise prices. But if productivity falters, pressures for higher wages can result in inflation.

2000 Outlook

The growth in trade reflects strong demand in America and improvement in foreign economies. Businesses are revising their investment plans to meet that demand. The passing of Y2K will free up funds for more productive investments in 2000. Personal consumption should slow to approximately 3.1%. Both residential and non-residential construction in the U.S. are expected to slow in 2000.

Significant Issues

Potential risks to the economy include the possibility of a stock market correction, the low savings rate for households, labor supply shortages, accelerating prices and wages and a widening trade deficit.

Conclusion

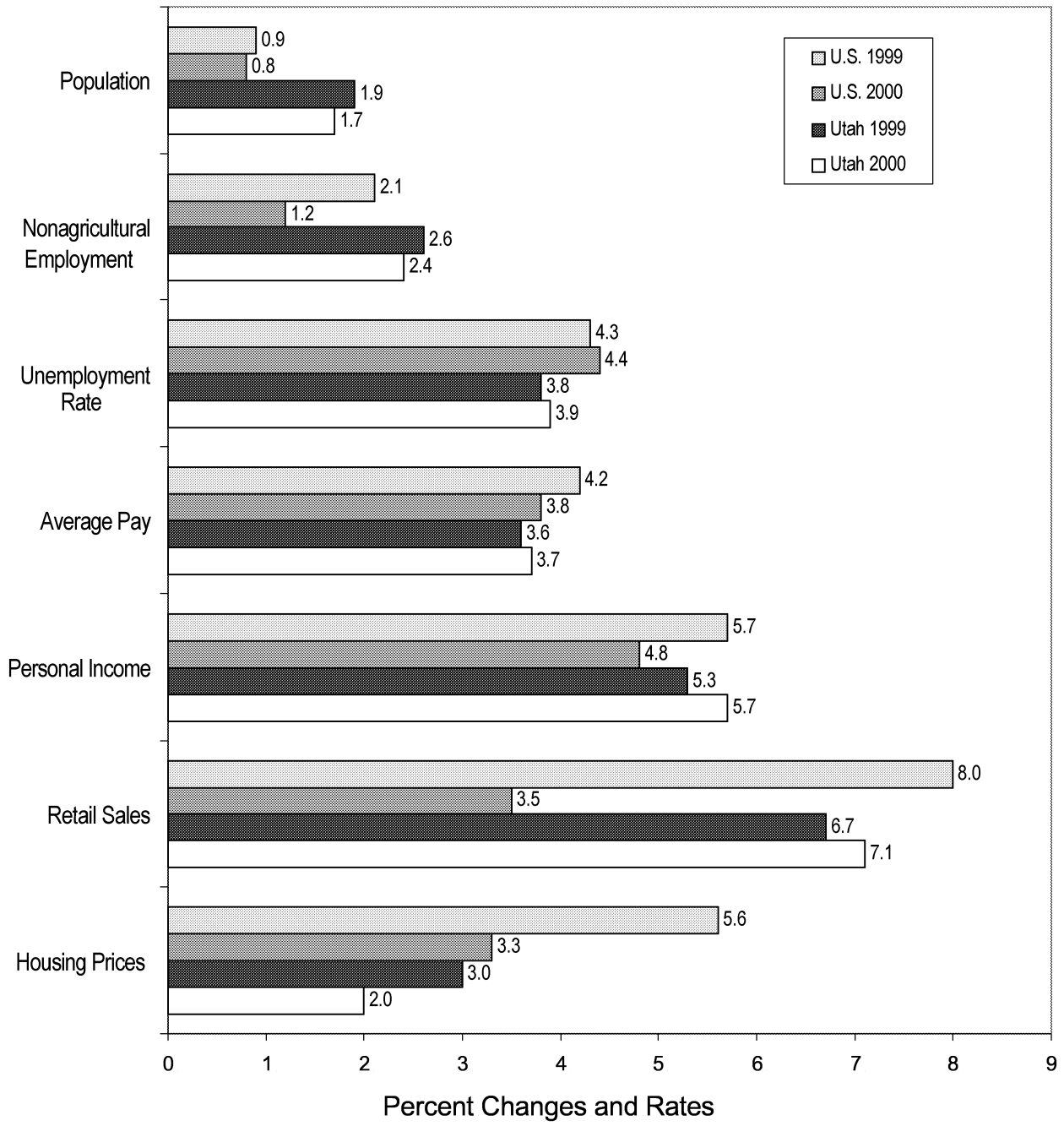
The gradual slowdown in the rate of labor-force expansion continues to be one of the fundamental forces shaping the employment outlook. With low inflation and slow labor growth, increased productivity may be necessary in order to preserve non-inflationary Gross Domestic Product growth.

The economy's average sustainable growth rate has historically been between 2.5% and 3.0%. Rapid economic expansion, growth in excess of the average sustainable rate, is generally short-lived, since it leads to inflation and, in turn, causes the Federal Reserve to tighten monetary policy in order to slow growth.

The Federal Reserve has already raised interest rates three times this year to try to prevent inflation. Maintaining high productivity, is going to be an important factor in curtailing inflationary pressure over the next couple of years.

Currently the U.S. economy is growing without significant inflation. A major reason is the rise in productivity . After decades when productivity was dropping, it now seems to be rising steadily. That means America can pay itself more with less inflationary risk. It also means the country is becoming more internationally competitive which could help boost the long-term growth of the economy. ✻

Figure 1
Comparison of Utah and U.S. Economic Indicators
1999 Estimates and 2000 Forecasts



Source: Council of Economic Advisors' Revenue Assumptions

Utah Outlook

Overview

Growth in Utah's economy has slowed over the past 5 years (1995 to 1999). This slower growth is largely due to no growth in exports, rapid escalation in housing prices (less affordable housing), and economic improvements in other state economies (especially California). In 1994 California began its sustained economic recovery after three years of negative job growth (1991 to 1993). In 1995 median, existing-housing prices in Utah became more expensive than the national average; and, in 1996 exports out of Utah stopped growing.

Summary of Economic Conditions

Construction. Construction continues to be the fastest growing industry in the Utah economy (at 7.0% job growth in 1999). Construction employment growth averaged a phenomenal 10.9% per year over the past ten years (1989 to 1999). Construction employment in 1999 was nearly 3 times as large as it was in 1989 (73,000 versus 25,900 jobs). Permitted construction values also reached new historic highs of around $3.8 billion in 1998 and 1999.

Approximately 1 out of 6 housing units were added to the total stock of housing in Utah between 1990 and 1998, according to a just released Census report. This ranked Utah 2nd in the nation in housing units growth (behind Nevada which added 1 in 3 units to its housing stock). By comparison, only 1 out of 11 units were added to the total stock of housing in the U.S. over the same time period.

Construction values and job growth will weaken in 2000 due to higher office and apartment vacancy rates, lower hotel occupancy rates, fewer new business and government projects, higher interest rates, and continued low net in-migration. Four large projects just completed or about to be completed are the $108 million Jordan Commons project, the $135 million Salt Lake County Adult Detention Center Complex, the $240 million LDS Conference Center, and the $312 million North-South TRAX (Light Rail) project.

Exports. From 1995 through 1998, Utah's exports remained constant around $3.6 billion, and should remain in that range in 1999. If the Asian economies were as strong today as they were in the early 1990s, Utah's exports would likely be over $4.0 billion in 1999. Since 1995, the share of Utah's exports to Asia (mostly coal, copper, equipment, and chemicals) has fallen from about 40% to about 25%. Over the long term, economic globalization will spur both trade and growth; but, Utah's exports will not show significant growth in 1999.

Average Pay and Net migration. Despite slower job growth, average annual pay in Utah, when adjusted for inflation, has been stronger over the past 5 year period than at anytime since 1977. This strong growth in inflation-adjusted pay is expected to continue through 2000 due to a tight labor market and low unemployment rates. Utah also continues to experience positive net in-migration, but at much lower levels than in the last several years. Utah's net in-migration increased from 1,300 in 1998 to 4,800 in 1999, and will be around 2,300 in 2000.

Outlook for 2000. Slower construction activity will dampen overall economic job growth in 2000. Construction is the least stable (sustainable) industry and the most volatile (with large job growth cycles). Job growth will also slow due to low net in-migration; a tight labor market; expensive housing compared to the national average; building moratoriums and restrictions; and, continued improvement in the business climates and economies of other states (especially California).

Still, Utah's economy should continue to do well into 2000 for many of the same reasons it did well in 1999. Utah has a low cost of doing business (93.3% of the national average); a pro-business regulatory environment; low business taxes (the 5th lowest workers' compensation costs in the nation); 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; and, a strong work ethic that should continue to favorably influence business location and expansion decisions.

Utah ranked 8th in the nation for job growth for September 1999 compared to September 1998, according to Regional Financial Associates (RFA) a national economic research and consulting firm. And, RFA forecasts Utah to place 3rd in job growth in 2000 even though it expects Utah to only rank 8th in job growth for all of 1999. Utah's 2000 employment growth will be double that of the nation and its unemployment rate will be lower. This will continue the trend of higher job growth rates and lower unemployment rates in Utah than in the nation.

Nationwide Reports and Rankings in 1999

Utah was recognized by several independent, nationwide reviews and studies in 1999 as an excellent place in which to live and conduct business. Some of these studies included, but were not limited to:

1) Utah tied with Colorado as having the best economy in the nation in a report published by the Corporation for Enterprise Development in 1999. The Development Report Card for the States is an annual assessment of each state's economy and its potential for future growth based upon over 70 data measures. The Report Card compares states to arrive at letter grades in three categories: economic performance, business vitality, and development capacity. Utah received an A grade in all three categories. Utah's ranking reflected strong employment growth, a low poverty rate, an even income distribution, strong charitable giving, and high home ownership.

2) The Progressive Policy Institute ranked Utah's economy 6th in the nation, based on 17 indicators of which states are poised to capitalize on the "New Economy". Indicators were broken into five groups: knowledge jobs, globalization, economic dynamism, digital economy and innovation capacity. Utah ranked 3rd in the overall digital economy measurement which considered: the percentage of adults online; commercial Internet domain names per company; the use of information technology in elementary and secondary public education; and use of digital technology in providing government services. The survey placed Utah 4th in the nation with the adult population online at 46%. In another study, Scarborough Research found that 50% of Utah's adult population uses the Internet (for a ranking of 5th in the nation).

3) Salt Lake/Ogden area was ranked 2nd by Dun & Bradstreet and

Entrepreneur magazine as the best area for small businesses activity. The ranking was based on firms with fewer than 20 employees. Separately, *Business Start-Ups*, a sister magazine to Entrepreneur, ranked Salt Lake/Ogden as the 3rd best high-tech area based on small businesses with high-tech-related SIC codes.

4) Clemson University's Department of Economics ranked Utah 3rd in market freedom from the mid-to-late 1990s. The report used 125 variables in five categories. It's Economic Freedom Index categories included welfare spending, the judicial system, fiscal freedom, regulations, and the size of government.

5) *PC Week* magazine ranked Utah's university system and state government as 1st and 5th respectively for having the best information technology networks in the nation. The magazine's "Fast-Track 100" list scored 260,000 government and non-government organizations on their use of high-technology. Utah was also ranked 12th in the nation by Standard and Poor's DRI for high-tech jobs as a percent of total employment.

6) *Places Rated Almanac* ranked the Salt Lake City/Ogden metropolitan area as the best place to live in all of North America. The nine categories used in the rankings included jobs, cost of living, transportation, education, recreation, arts, health care, climate, and crime. Provo was ranked 4th out of 300 cities by *Money* magazine with the best future job-growth potential. The ranking was part of a forty-eight criteria ranking of the best places to live.

7) *Inc.* magazine ranked Salt Lake City-Provo as the 2nd best metropolitan area in the country to launch and grow a new business. The criteria included access to airports, proximity of universities, availability of a skilled work force, and local culture and infrastructure that support new business. Finally, Sprint Business (the marketing arm of Sprint Communications) ranked both Provo/Orem and Salt Lake/Ogden in the top ten out of 313 metropolitan areas for economic productivity. The ranking was based on eight factors dealing with output per worker, income and job growth, education and work-force training, and proximity to air transportation.

Economic Activity

Job Growth and Net Migration. Economic activity in Utah economy has slowed for the past 5 years, after accelerating during the prior 7 year period (1988 to 1994). The Utah economy started to recover from its 1986/87 recession in 1988. Employment, net in-migration, and housing price appreciation all peaked in 1994.

Beginning in 1989 job growth in Utah exceeded that in California and the nation. California job growth rates began to deteriorate in 1989 and did not begin to recover until 1993. California actually experienced negative job growth rates for 3 years (1991 to 1993). Net migration began to improve in Utah in 1989, after reaching a low of 14,600 net out-migrants in 1988. Net migration improved steadily until 1994 when it reached a peak of 22,800 net in-migrants. During that year 17,223 Californians moved to Utah, and 5,098 Utahns moved to California (Internal Revenue Service data). California has been the largest, single-state contributor to net in-migration into Utah from 1990 to 1997 (latest data available).

Job growth in Utah peaked at 6.2% in 1994 (California's job growth that year was only 0.9%). By 1998, however, California's job growth of 3.4% exceeded Utah's growth of 3.0%. California's job growth of 2.7% is expected to continue to exceed Utah's growth– job growth in Utah is expected to slow to 2.6% in 1999. For comparison, Utah's long-term 1950 to 1998 average job growth rate is 3.6%.

Housing Prices and Home Ownership

National Association of Realtors. In the early 1990's out-of-state employers and workers were attracted to Utah by employment growth opportunities and inexpensive housing. Employers were also attracted by inexpensive labor. Although average pay in Utah has remained at 85% of the national average in the late 1990's, housing prices and job opportunities have changed. Median, existing-housing prices in Utah began to exceed the national average as of 1995, and job opportunities became more abundant in California than in Utah as of 1998. By the 3rd quarter of 1999 the national median, existing-home price for all U.S. metropolitan areas was $136,000 compared to the Salt Lake/Ogden metropolitan area's median price of $139,200 (National Association of Realtors).

Office of Federal Housing Enterprise Oversight (OFHEO). The growth rate in prices has softened steadily in Utah over the last 5 years. The OFHEO median, house-price index measures the average price in repeat sales of the same single-family homes with Fannie Mae or Freddie Mac mortgages. The median price is the average price above and below which half of all (old) existing homes sold.

Housing prices in Utah increased an astonishing 18.9% in the 2nd quarter of 1994 compared to 2nd quarter 1993, and have since declined to 1.8% growth in the 3rd quarter of 1999 compared to the same quarter in 1998. For comparison, the national average housing price appreciation for 3rd quarter 1999 was 5.9%. This 1.8% growth for the period ended September 30, 1999 ranked Utah as the 2nd worst state in the nation (behind Hawaii) for repeat-sales, existing house price appreciation. Utah had the 2nd best (as opposed to the 2nd worst) housing price appreciation in the nation as recently as the 3rd quarter of 1997.

Softening Housing Prices. The softening of housing prices is largely due to the high home-ownership rate in Utah (73.7% in Utah versus 66.3% nationwide in 1998, 10th highest in the nation) and the 36.5% run up in housing prices over the last 5 years. Housing price growth in Utah has lagged behind growth in housing prices in the U.S. for the last 5 quarters for which data is available. This is expected to continue through 2000.

Income and Pay Measurements

Per Capita Income. Utah's 1998 per capita income of $21,096 was 77.8% of (or $6,099 less than) the national average of $27,195. Utah's per capita income is lower than the nation's per capita income because average-annual pay in Utah is only 85% of the national average, and because Utahns have more children compared to other states.

Utah ranked 1st in the nation in 1998 for the percentage of the population under 18 at 33.4%. This compares to the U.S. average of only 25.8%, according to the U.S. Bureau of the Census. Utah's 1998 average household size also leads the nation with 3.06 persons per household compared to the U.S. average of 2.61. And, data from the 1990 Census shows that Utah ranks 1st in the percent of the population in family households at 88.5% (compared to a national average is 83.7%).

Average-Annual Pay. Average-annual pay in Utah is expected to remain below 85% of the national average in the near-term. Data released in December 1999 by the Bureau of Labor Statistics data shows that Utah ranked 32nd in the U.S. at $26,869 in average

annual pay for 1998. This was 84.2% of the national average pay of $31,908. Lower pay in Utah is usually attributed to more part-time workers and a younger work force than in the rest of the nation.

Median-Household Income. This low pay, relative to the nation, would be a much more serious problem for most Utahns were it not for more wage earners per household in Utah than in the nation. Median household income data recently released by the U.S. Department of Commerce shows that Utah continues to have household incomes that are significantly above the national average. Median household income in Utah ranked 10th highest in the nation at $42,073 for the 3-year period 1996 to 1998. This was 11.4%, or $4,294, higher than the national 3-year average of $37,779. The Bureau of Census recommends using 3-year averages when ranking states due to the small sample size in certain states like Utah.

Higher median household income, despite lower average-annual pay, is due to more wage earners per household in Utah than in the nation. The average household size in Utah (3.06 in 1998) is the highest in the nation, and ranks far higher than the national average of 2.61 persons per household. And, according to the 1990 Census, 64.8% of Utah households are comprised of married-couple families (which ranks Utah 1st in the nation). Utah also has the lowest ranking in the nation for the percent of families with children headed by a single parent. Married couples, who combine two or more incomes, help raise median-household incomes in Utah.

Economic Condition of Households. Utah households are more likely to be headed by two parents, with more than one wage earner helping to support the family. But, because these families are apt to have more children than the national average, each worker is likely to be supporting more children than the national average. These families, on the other hand, have higher incomes than their national counterparts and they are more likely to own their own homes. This is not to minimize the plight of single, wage-earning families. These lower income families on average earn only 84% of national pay, and must compete with dual-earning families for housing and services. Still, median-household incomes that are the 10th highest in the nation (along with the 2nd lowest poverty rate in the nation) means that Utah households are generally in good economic condition.

Hotel, Office and Apartment Vacancies and Rents

Hotels. Hotel occupancy rates continue to decline as new units continue to be built. Hotel construction over the past 5 years has increased the number of available rooms by 47%. And, the Salt Lake Convention and Visitors Bureau estimates that an additional 1,100 rooms will be built in 2000 (adding 7% to the current supply). Occupancy rates for Salt Lake City declined the first 9 months of 1999 to 78.4%, compared to 84.4% for the prior year, according to *Rocky Mountain Lodging Report*.

Statewide occupancy rates also declined on average from 66% last year to an estimated 64.6% for the first three quarters of 1999. Statewide hotel/motel occupancy rates were around 74% as recently as 1995. Finally, average statewide room rates were $67.61 in October 1999 compared to $71.45 in October 1998.

Offices. CB Richard Ellis Inc. reported that the Salt Lake Metropolitan area office, market vacancy was almost 12% as of 3rd quarter 1999. This represents a 75% increase in the vacancy rate from a year ago. The increase is due to an additional two million square feet of available office space during 1999. The merger of American Stores with Albertsons contributed to the available space. The 25 story, $100 million American Stores headquarters (completed downtown in June of 1998), had only 8 floors occupied by 600 Albertsons' employees as of December 1999. The Salt Lake Organizing Committee (for the 2002 Olympics) has agreed to lease 7 of the floors in the building as of March 1, 2000. But, SLOC will also vacate the two buildings they currently occupy in Salt Lake City. The staff of SLOC is expected to increase to 1,000, from the current 300, by February of 2002.

Additionally, large firms such as Dean Witter's and Intermountain Health Care have relocated from the Central Business District to multi-tenant and single-tenant buildings. Over the past four years the suburban market has added almost three million square feet of new office space. The suburban office market has nearly doubled over the last five years and now accounts for 55% of the entire Salt Lake City office market. Construction of new office space should slow in 2000 due to high vacancy rates and land prices; and, to allow the market demand to catch-up with supply.

Apartments. According to EquiMark Properties, apartment vacancies in the Greater Salt Lake Area reached 7.1% in the 2nd quarter of 1999 (compared to 6.4% for the same period last year). Apartment vacancy rates have steadily increased since 1993. Property owners are currently offering move-in specials such as a months free rent, free washer/dryer, and discounted security deposits in response to the rising vacancy rates. Low net in-migration is the principal reason for the higher vacancy rates according to EquiMark.

Firm Openings in 1999 and 2000

New Firm Openings and Expansions in 1999. New firm openings and major expansions of existing firms with 100 or more workers in 1999 included, but were not limited to:

- TheraTech Inc. (drug patches)
- Select Comfort (manufacturing, distribution of beds)
- Iomega (computer hardware)
- Alliant Techsystems (aerospace)
- Gateway (computers)
- Hill Air Force Base (Air Force)
- MarketStar Corp. (marketing company)
- Pagenet (wireless messaging)
- Bureau of the Census (decennial census)
- Specialized Bicycles (bicycles)
- Utility Trailer Company (trailer manufacturing)
- Dana Corporation (vehicle parts distribution)
- Reesebrothers Inc. (call centers)
- Sterling Truck (truck service center)
- Mikohn Gaming Corp. (jackpot displays)
- Micropoint Inc. (electronic components for toys)
- Rivers West Apparel (sewing plant)
- Penco (storage units manufacturing)
- Marketing Ally (call centers)
- Tartan Textiles (laundry plant)
- Ebay Inc. (online auction call center)
- Yankee Candle Co. (candlemaker)
- Watkins Motor Lines Inc (distribution terminal)
- First USA Paymentech (commercial credit card)
- Caldera (software manufacturing)
- Geneva (steel manufacturing)
- Huntsman Cancer Institute (cancer research)
- Jet Blue Airways (reservations center)
- Costco (discount warehouse)
- ICON Health and Fitness (manufacturing of health equip)
- Pulp Mold Packaging Global Inc. (food packaging products)

- McLeodUSA (customer call service center)
- Communications & Commerce (call center)
- Western Distribution Inc. (distributor for eToys)

New Firm Openings and Expansions in 2000. New firm openings and major expansions of existing firms with 100 or more workers in 2000 will included, but will not be limited to:

- First USA Paymentech (commercial credit card)
- Malt-O-Meal plant (cereal)
- Hill Air Force Base (Air Force)
- MarketStar Corp. (marketing)
- Salt Lake Organizing Committee (Olympics)
- Ebay Inc, (online auction call center)
- Bureau of the Census (population survey for 6 weeks)
- Intel (research & development)
- Salt Lake County Adult Detention Center Complex (incarceration)
- Sysco Intermountain Foods (food distribution facility)
- U. S. West (communications)
- Fresenius Medical Care (kidney dialysis products)
- Ingenix (software and consulting to control health-care costs)
- Wall-Mart (retail)
- Jet Blue Airways (reservations center)

Firm Closings in 1999 and 2000

Contractions and Closures in 1999. Contractions or closures with 100 more workers in 1999 included, but were not limited to layoffs at:

- American Stores (Albertsons food stores merger)
- Utah Test & Training Range (Air Force)
- Nordstroms (retail)
- International Home Foods Inc. (marshmallows)
- Nimbus CD International Inc. (cd-roms manufacturing)
- Zions/First Security (bank merger)
- Packard Bell (call center)
- Winair Airlines (commercial airline)
- Dick Simon Trucking (truck line)
- Eagle OPG Inc. (sports bag manufacturing)
- Daw Technologies (computer chip manufacturing)
- Franklin Covey Co. (day planners)

Contractions and Closures in 2000. Contractions or closures with 100 more workers in 2000 will include, but will not be limited to layoffs at:

- Zions/First Security (bank merger)
- Rite Aid (distribution center)
- Franklin Covey Co. (day planners)
- ZCMI (retail)
- Packard Bell (call center)

Construction Activity in 2000

Construction Projects. Construction projects are usually listed in reports at either their project value or construction value. Construction values are the value of "sticks and bricks and land." Project values include construction values as well as architectural and engineering costs. For the most part, the projects listed below are project values and include both building-permitted and non-permitted projects.

All private, nonresidential construction in Utah requires building permits. State government buildings are not permitted. Private universities are issued permits, but not state universities. Public schools are usually not permitted, but federal buildings are usually permitted (except for Hill Air Force Base). Municipal buildings may or may not be permitted, and heavy construction such as roads, dams, sewers, and flood projects are not permitted.

Nonresidential construction projects of $30 million or more that will begin or continue into 2000 include, but are not limited to:

- East-West TRAX (light rail) Extention ($105 million)
- Little America Hotel ($185 million)
- The LDS Conference Center ($240 million)
- Zermatt Swiss Resort ($30 million)
- I-15 Reconstruction ($1.59 billion)
- Logan Canyon Highway ($60 million)
- SnowBasin Resort ($67 million)
- Park City Ski Resort Expansion ($150 million)
- University of Utah Olympic Village ($120 million)
- Winter Sports Park Expansion ($45 million)
- Tooele Army Depot Endeavor business park ($56 million)
- The Canyons Hotel & Village ($202 million)
- Jordan Landing ($100 million)
- Solitude Resort Expansion ($100 million)
- SouthTowne Convention Center ($65 million)
- Hill Air Force Base Mobile Hospital Facility ($31 million)
- Salt Lake City Library ($53 million)
- Layton Conference/Business Center ($48 million)
- South Jordan South Gate Project ($130 million)
- Park City Capital Project ($35 million)
- Thanksgiving Point Phase 2 ($250 million)
- Wal-Mart Distribution Center ($30 million)
- Davis County I-15 Expansion ($50 million)
- Intel Research Campus ($60 million)
- McKay-Dee Hospital Complex ($150 million)
- SouthTowne Hotel ($35 million)
- Chimney Ridge ($100 million)
- Moss Federal Courthouse annex ($75.8 million)
- Salt Lake Community College 90th South Campus ($143 million)
- Hamilton Partners Tower ($65 million)
- Round Valley Golf Resort ($100 million)
- Salt Lake City Gateway Project ($375 million)
- Salt Lake City Library ($53 million)
- University of Utah Chill Water Plant ($50 million). ❊

Figure 2
Construction Jobs as a Percent of Total Jobs

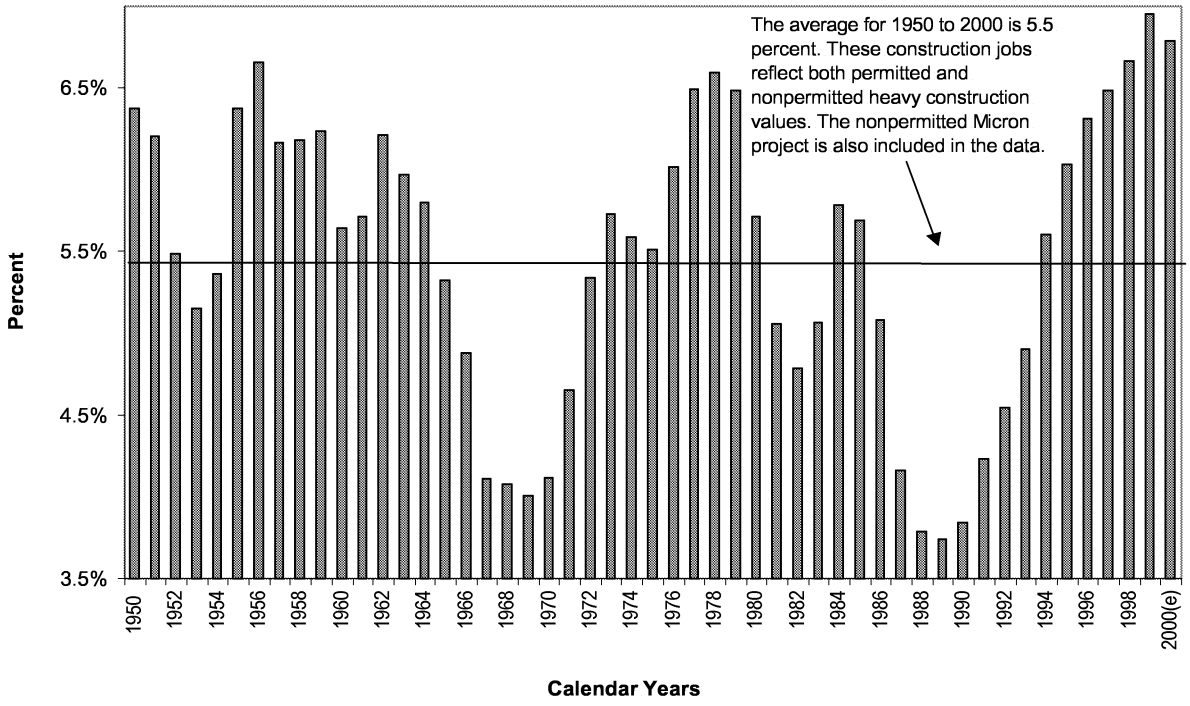


Table 1
Actual and Estimated Economic Indicators for Utah and the Nation

ECONOMIC INDICATORS	UNITS	1997 ACTUAL	1998 ACTUAL	1999 ESTIMATES	2000 FORECAST	% CHG 1997-98	% CHG 1998-99	% CHG 1999-00
PRODUCTION AND SPENDING								
U.S. Real Gross Domestic Product	Billion Chained $96	8,165.1	8,516.3	8,839.9	9,105.1	4.3	3.8	3.0
U.S. Real Personal Consumption	Billion Chained $96	5,433.8	5,698.6	5,989.2	6,174.9	4.9	5.1	3.1
U.S. Real Fixed Investment	Billion Chained $96	1,316.0	1,471.9	1,594.1	1,689.7	11.8	8.3	6.0
U.S. Real Defense Spending	Billion Chained $96	299.4	291.4	289.9	290.2	-2.7	-0.5	0.1
U.S. Real Exports	Billion Chained $96	985.4	1,007.1	1,043.4	1,118.5	2.2	3.6	7.2
Utah Coal Production	Million Tons	26.4	26.6	26.3	27.1	0.7	-1.1	3.0
Utah Oil Production Sales	Million Barrels	19.6	19.2	16.5	15.7	-2.0	-13.9	-5.0
Utah Natural Gas Production Sales	Billion Cubic Feet	183.4	201.4	211.0	221.5	9.8	4.8	5.0
Utah Copper Mined Production	Million Pounds	672.6	657.4	700.2	705.5	-2.3	6.5	0.8
SALES AND CONSTRUCTION								
U.S. New Auto and Truck Sales	Millions	15.0	15.6	16.7	15.4	3.9	7.2	-7.6
U.S. Housing Starts	Millions	1.48	1.62	1.65	1.45	9.5	1.9	-12.1
U.S. Residential Construction	Billion Dollars	329.2	368.7	409.3	421.1	12.0	11.0	2.9
U.S. Nonresidential Structures	Billion Dollars	254.1	272.8	272.5	274.4	7.4	-0.1	0.7
U.S. Repeat-Sales House Price Index	1980Q1=100	205.1	216.4	228.4	236.0	5.5	5.6	3.3
U.S. Existing S.F. Home Prices (NAR)	Thousand Dollars	121.4	128.0	133.3	137.7	5.4	4.1	3.3
U.S. Retail Sales	Billion Dollars	2,617.9	2,746.1	2,965.8	3,069.6	4.9	8.0	3.5
Utah New Auto and Truck Sales	Thousands	82.4	84.1	87.4	84.8	2.1	4.0	-3.0
Utah Dwelling Unit Permits	Thousands	20.7	21.7	20.0	18.0	4.8	-7.8	-10.0
Utah Residential Permit Value	Million Dollars	1,943.5	2,188.7	2,200.0	2,100.0	12.6	0.5	-4.5
Utah Nonresidential Permit Value	Million Dollars	1,370.9	1,148.4	1,100.0	900.0	-16.2	-4.2	-18.2
Utah Additions, Alterations and Repairs	Million Dollars	407.1	461.3	550.0	600.0	13.3	19.2	9.1
Utah Repeat-Sales House Price Index	1980Q1=100	225.2	237.3	244.3	249.2	5.4	3.0	2.0
Utah Existing S.F. Home Prices (NAR)	Thousand Dollars	128.6	133.5	138.7	142.0	3.8	3.9	2.4
Utah Taxable Retail Sales	Million Dollars	14,873	15,657	16,705	17,888	5.3	6.7	7.1
DEMOGRAPHICS AND SENTIMENT								
U.S. July 1st Population (CENSUS)	Millions	268.0	270.6	273.0	275.2	1.0	0.9	0.8
U.S. Consumer Sentiment of U.S.	1966=100	103.2	104.6	105.4	102.6	1.4	0.8	-2.7
Utah July 1st Population (UPEC)	Thousands	2,048.8	2,082.5	2,121.1	2,157.7	1.6	1.9	1.7
Utah July 1st Net Migration (UPEC)	Thousands	15.1	1.3	4.8	2.3	na	na	na
Utah July 1st Population (Census)	Thousands	2,065.7	2,100.3	2,130.1	2,166.2	1.7	1.4	1.7
Utah Consumer Sentiment of Utah	1966=100	106.6	107.0	106.1	101.6	0.4	-0.9	-4.3
PROFITS AND RESOURCE PRICES								
U.S. Corporate Profits Before Tax	Billion Dollars	803.2	802.8	803.6	816.5	-0.0	0.1	1.6
U.S. Domestic Profits Less Fed. Reserve	Billion Dollars	779.8	778.2	777.5	781.8	-0.2	-0.1	0.5
U.S. Oil Refinery Acquisition Cost	$ Per Barrel	19.1	12.6	16.9	18.7	-34.2	34.3	10.7
U.S. Coal Price Index	1982=100	96.3	93.6	90.5	87.9	-2.8	-3.3	-2.9
Utah Coal Prices	$ Per Short Ton	18.3	17.8	17.5	17.8	-2.8	-1.8	1.6
Utah Oil Prices	$ Per Barrel	18.6	12.5	17.0	17.9	-32.5	36.0	5.0
Utah Natural Gas Prices	$ Per MCF	1.85	1.73	1.83	2.02	-6.5	5.8	10.4
Utah Copper Prices	$ Per Pound	0.78	0.67	0.72	0.81	-14.1	6.9	13.1
INFLATION AND INTEREST RATES								
U.S. CPI Urban Consumers (BLS, NSA)	1982-84=100	160.5	163.0	166.6	170.6	1.6	2.2	2.4
U.S. GDP Chained Price Indexes	1996=100	101.7	102.9	104.2	105.6	1.2	1.3	1.3
U.S. Federal Funds Rate	Percent	5.46	5.35	5.02	5.50	na	na	na
U.S. 3-Month Treasury Bills	Percent	5.06	4.78	4.66	5.04	na	na	na
U.S. T-Bond Rate, 30-Year	Percent	6.61	5.58	5.79	6.10	na	na	na
U.S. Mortgage Rates, Fixed FHLMC	Percent	7.6	6.9	7.4	7.6	na	na	na
EMPLOYMENT AND WAGES								
U.S. Establishment Employment (BLS)	Millions	122.7	125.8	128.4	130.0	2.6	2.1	1.2
U.S. Average Annual Pay (BLS)	Dollars	33,353	31,908	33,252	34,500	5.1	4.2	3.8
U.S. Total Wages & Salaries (BLS)	Billion Dollars	3,723	4,014	4,271	4,484	6.7	6.4	5.0
Utah Nonagricultural Employment (WS)	Thousands	994.0	1,023.5	1,050.0	1,075.0	3.0	2.6	2.4
Utah Average Annual Pay (WS)	Dollars	25,367	26,484	27,429	28,400	4.4	3.6	3.7
Utah Total Nonagriculture Wages (WS)	Million Dollars	22,215	27,105	28,800	30,600	7.6	6.3	6.2
INCOME AND UNEMPLOYMENT								
U.S. Personal Income (BEA)	Billion Dollars	6,951	7,359	7,778	8,152	5.9	5.7	4.8
U.S. Unemployment Rate (BLS)	Percent	4.9	4.5	4.3	4.4	na	na	na
Utah Personal Income (BEA)	Million Dollars	41,681	44,297	46,645	49,304	6.3	5.3	5.7
Utah Adjusted Gross Income (UTC)	Million Dollars	32,136	34,341	36,292	38,359	6.9	5.7	5.7
Utah Unemployment Rate (WS)	Percent	3.1	3.8	3.8	3.9	na	na	na

Note:
Totals differ in this table from other tables in this report due to different release dates or data sources.

Source: Council of Economic Advisors, Revenue Assumptions Committee

Table 2
Median Household Income, Homeownership Rates, Per Capita Income, and Mean Annual Pay

Area	1996 to 1998 Median Household Income*	Rank	1998 Homeownership Rates	Rank	1998 Per Capita Income	Rank	1998 Mean Average Pay Per Job	Rank
UNITED STATES	$37,779	-	66.3%	-	$27,195	-	$31,908	-
Alabama	33,394	39	72.9%	10	21,500	40	27,035	30
Alaska	51,422	1	66.3%	38	25,771	20	33,839	8
Arizona	34,402	37	64.3%	41	23,152	35	29,317	22
Arkansas	27,470	49	66.7%	35	20,393	46	24,422	45
California	40,522	17	56.0%	48	27,579	12	35,349	4
Colorado	44,349	6	65.2%	39	28,821	9	32,246	11
Connecticut	44,978	4	69.3%	27	37,700	1	40,915	1
Delaware	41,999	13	71.0%	18	29,932	6	33,996	7
District of Columbia	32,999	-	40.3%	-	37,325	-	48,727	-
Florida	33,234	40	66.9%	34	25,922	19	28,143	28
Georgia	36,553	26	71.2%	17	25,106	23	30,873	17
Hawaii	41,932	14	52.8%	50	26,210	17	29,029	24
Idaho	35,554	31	72.6%	12	21,080	44	24,866	43
Illinois	42,065	11	68.0%	32	28,976	8	34,704	5
Indiana	38,580	19	72.6%	11	24,302	29	29,107	23
Iowa	35,276	32	72.1%	13	24,007	32	26,035	37
Kansas	35,867	29	66.7%	36	25,049	24	26,842	33
Kentucky	34,633	36	75.1%	3	21,551	39	26,689	34
Louisiana	32,317	42	66.6%	37	21,385	42	26,905	31
Maine	34,989	34	74.6%	6	23,002	36	25,875	38
Maryland	47,710	3	68.7%	29	30,023	5	33,306	9
Massachusetts	42,017	12	61.3%	46	32,902	3	37,787	3
Michigan	40,639	16	74.4%	7	25,979	18	34,542	6
Minnesota	44,579	5	75.4%	2	27,667	11	32,073	12
Mississippi	28,592	48	75.1%	4	18,998	50	23,822	46
Missouri	37,640	23	70.7%	19	24,447	28	28,907	25
Montana	30,348	46	68.6%	30	20,247	47	22,644	49
Nebraska	35,660	30	69.9%	23	24,786	26	25,535	40
Nevada	39,751	18	61.4%	45	27,360	14	30,201	19
New Hampshire	42,511	9	69.6%	25	29,219	7	30,943	16
New Jersey	49,303	2	63.1%	43	33,953	2	na	na
New Mexico	29,386	47	71.3%	16	20,008	48	25,716	39
New York	36,846	25	52.8%	49	31,679	4	40,678	2
North Carolina	36,407	27	71.3%	14	24,122	31	28,107	29
North Dakota	31,717	43	68.0%	31	21,708	38	22,990	47
Ohio	37,006	24	70.7%	20	25,239	21	30,395	18
Oklahoma	31,357	44	69.7%	24	21,056	45	25,122	42
Oregon	37,922	21	63.4%	42	24,775	27	29,542	21
Pennsylvania	37,791	22	73.9%	8	26,889	16	31,582	13
Rhode Island	38,150	20	59.8%	47	26,924	15	30,148	20
South Carolina	34,692	35	76.6%	1	21,387	41	26,151	36
South Dakota	31,206	45	67.3%	33	22,201	37	22,754	48
Tennessee	32,397	41	71.3%	15	23,615	33	28,457	27
Texas	35,254	33	62.5%	44	25,028	25	31,512	14
Utah	42,073	10	73.7%	9	21,096	43	26,869	32
Vermont	36,196	28	69.1%	28	24,217	30	26,615	35
Virginia	42,572	8	69.4%	26	27,489	13	31,384	15
Washington	43,593	7	64.9%	40	28,066	10	33,076	10
West Virginia	26,950	50	74.8%	5	19,373	49	25,269	41
Wisconsin	41,032	15	70.1%	21	25,184	22	28,542	26
Wyoming	33,783	38	70.0%	22	23,225	34	24,747	44
Utah as a % of U.S.	111.37%	-	111.16%	-	77.57%	-	84.21%	-

*In estimating Median Household Income, because the number of households contacted in Utah is relatively few, the data collected for three years is averaged to calculate less variable estimates. The Census Bureau recommends using 3-year averages when ranking states.

Sources: 1996 to 1998 Median Household Income: U.S. Census Bureau: 1998 Homeownership Rates: U.S. Census Bureau; 1998 Per Capita Income: U.S. Bureau of Economic Analysis; 1998 Mean Average Pay Per Job: U.S. Bureau of Labor Statistics.

Utah's Long-Term Projections

Overview

Utah's population surpassed 2.12 million in 1999 and is expected to reach 3.68 million by the year 2030. This is about 1.6 million more people or a 74% increase. This rate of population growth, which exceeds that of the nation, will be sustained by a rapid rate of natural increase and a strong and diversified economy. The state's employment growth rate is also expected to be more rapid than that of the nation. The most rapid rates of population growth are expected in southwestern Utah (Washington, Iron, and Kane Counties), the Wasatch Back, (Summit and Wasatch Counties), and Tooele and Utah Counties.

State Level Results

A new set of long term demographic and economic projections for the state of Utah has been produced by the Demographic and Economic Analysis Section of the Governor's Office of Planning and Budget (GOPB). These provisional projections represent the State's official view of Utah's future and inform a multitude of planning efforts. This chapter presents the summary findings of these new county level baseline projections to the year 2030.

Utah's population surpassed 2.12 million in 1999 and is expected to reach 3.68 million by the year 2030. This is about 1.6 million more people or a 74% increase. This rate of population growth, which exceeds that expected for the nation, will be sustained by: 1) a rapid rate of natural increase (i.e., births exceeding deaths); and 2) a strong and diversified economy. The state's employment growth rate is also expected to be more rapid than that of the nation. If these rates of economic growth are obtained, Utah will experience sustained net in-migration over nearly the entire projection period. This net-in-migration will occur because, even though the state's population is quite young and fertility rates are relatively high, there will not be adequate internal growth of the labor force to match the demand for labor.

In absolute numbers, the majority of the 1.6 million new Utahns will reside on the Wasatch Front. The most rapid rates of population growth are expected in southwestern Utah (Washington, Iron, and Kane Counties), the Wasatch Back (Summit and Wasatch Counties), and Tooele and Utah Counties.

Population Growth Rates. The growth rate of Utah's population has historically exceeded that of the nation; this trend is expected to continue throughout the projection period. The average annual rate of growth of Utah's population over the projection period (1999 to 2030) is expected to be 1.8%. This rate compares with an average rate of growth of 2.3% in the historical period (1948 to 1999). Corresponding rates of growth for the nation are 1.2% in the historical period and 0.9% in the projected period. Population growth rates fluctuate over time according to economic conditions, specific events, and population dynamics. Even when Utah experienced difficult economic times in the 1980s, the rate of growth of the population for the decade still exceeded that of the nation. The largest growth rate differential occurred in the 1970s, when Utah's average annual rate of population growth was 3.3% while that of the nation was 1.1%. A similar, yet smaller differential is projected for the first ten years of the next century, when Utah's annual average population growth rate is projected to be 2.2% while the nation's is projected to be 0.8%.

Population Increases. In the 1948-to-1999 period, total population of the state has consistently increased, although the amounts of annual increase have varied cyclically. Population increased an average of 40,800 persons per year throughout the decade of the 1970s, and 25,510 in the 1980s. Projections indicate that population will increase by an average amount of about 41,500 in the 1990s, by 47,750 in the 2000s, and by 54,000 in the 2010s, and 49,400 in the 2020s. So, while rates of population growth are expected to decelerate in the later years of the projection period, absolute amounts of growth are expected to be quite high relative to history.

Natural Increase and Migration. Utah's rapid rate of population growth is primarily attributable to natural increase rather than in-migration.[1] The rapid rate of natural increase occurs because of the state's young population (with a greater share of the population in childbearing years) in combination with a high fertility rate. A relatively low death rate and high life expectancy have also contributed to natural increase, although to a lesser extent. In addition to births and deaths, the third component of population change is net migration. Net in-migration was quite small in the 1950s and net out-migration occurred in the 1960s and 1980s. Over the last half century, with only three exceptions (1954, 1964, and 1988), even in times of net out-migration (the 1980s), Utah's rate of population increase has consistently exceeded that of the nation. These projections indicate that Utah's higher survival and fertility rates (relative to the nation) will continue and that natural increase will contribute 81% of the population increase over the next 30 years. Median age for the state has increased from 24 in 1980 to 27 in 1999, and is projected to increase to 31 by the year 2030. The national median age was 30 in 1980, 35 in 1999, and is projected to increase to 39 in the year 2030.

Age Structure. Age structure may be summarized by the dependency ratio, which is the number of people in the population not in the working age group per 100 working age persons (18 through 64 years old). Utah's dependency ratio is consistently among the highest in the nation. In 1970 it was 90 for Utah compared with 79 nationally. By 1999 it had fallen to 70 in Utah and 64 for the nation. By 2030, the projected dependency ratio for Utah and the nation is 78. For both Utah and the nation, the increasing dependency ratio from about 2010 through 2030 is attributable to the retirement age component– the aging of the Baby Boom generation. For the state, the retirement component was 21% of the total dependency ratio in 1999 and is projected to increase to 30% by 2030. In the case of the nation, the retirement age component of the dependency ratio was about 33% in 1999 and is projected to increase to 46% in 2030. The Utah school age (ages 5 though 17) dependency ratio component is projected to fall from 39 to 38 over the projection period. The median age of Utah's population will increase over the projection period, as will that of the nation. However, Utah's population will continue to be about 8 years younger than that of the nation by this measure. So, although the Utah's dependency ratio will converge with that of the nation by 2030 primarily because of the growth of the retirement age population, it will still have a younger population.

1 The amount of natural increase for a given population is the amount by which the number of births exceeds the number of deaths for a particular year. If deaths exceed births then there is a natural decrease.

Employment Growth Rates. Non-agricultural payroll employment is projected to increase by about 71% from around 1.05 million in 1999 to 1.8 million in the year 2030. Total employment for Utah is projected to increase from 1.3 million in 1999 to 2.3 million in 2030; an increase of 74%.[1] The employment growth rate of Utah has quite consistently out-paced that of the nation and this is projected to continue. The average annual rate of growth of non-agricultural payroll employment from 1948 through 1998 was 3.4% for Utah as compared to 2.1% for the nation. The projected rates for total employment for 1999 through 2030 are 1.8% and 1.0% respectively. The decade with the highest rate of employment growth for the state was the 1970s, when non-agricultural payroll employment increased at an average annual rate of 4.5%; this increase compares to the national rate of 2.7%.

Employment Growth by Sector. With the exception of agriculture and mining, employment increases are projected for all major sectors of Utah's economy. Services and non-farm proprietors are projected to have the most rapid rates of increase (i.e., average annual rates of growth in excess of 2.0% in the years 1998 through 2030). About a third of the roughly 1 million new jobs created will be in services while nearly one-fourth will be non-farm proprietors. Employment is projected to grow more rapidly (or in the case of agriculture decrease less rapidly) in every sector in the state than in the nation, excepting mining. The state is expected to have location quotients greater than one relative to the nation in mining, construction, TCPU (transportation, communication, and public utilities), and non-farm proprietors. [2]

At the detailed industry level, the most rapidly growing sectors are: business services; museums, galleries, etc.; agricultural services; health services; miscellaneous services; engineering and management services; miscellaneous repair; and membership organizations. These sectors have average annual rates of growth for the 1998 to 2030 period in excess of 2.5%. The industry that is projected to create the largest number of jobs in the next 30 years is non-farm proprietors (about 237,000 jobs), followed by business services (about 107,000), medical and health services (86,000), and eating and drinking places (41,500).

Diversification. The state's economy has become more diverse (i.e., more similar to the economic structure of the nation) over time as employment has grown more rapidly in industries in which it was relatively unspecialized. This increasing diversification of the state's economy is evident at both the major industry and detailed industry levels as measured by the Hachman Index.[3] A value of one for the Hachman Index indicates an identical distribution of employment shares between the subject region (the state) and the reference region (the nation). The increase in the value of the index in the 1980 to 1998 period is primarily the result of the simultaneous occurrence of: 1) restructuring of mining and metals industries and the downsizing of the federal government, and 2) emergence and/or growth of service industries (e.g., computer software development / production, financial services, temporary services, telemarketing, etc.), tourism related industries (e.g., hotels and lodging, transportation by air, etc.), and particular types of manufacturing (e.g., motor vehicle parts (air bags), aircraft equipment, sporting goods, etc.).

This restructuring and diversification process has nearly run its course. The Hachman Index for the state is approaching one (its theoretical maximum) when calculated at the major industry level and approaching 0.90 at the two-digit detailed industry level. These projections indicate that the industrial structure of the state will become somewhat more diversified (i.e., more similar to that of the nation) over the next 30 years, although a differential as measured by the Hachman Index will be sustained.

County Projections

All 29 counties are expected to gain population, households, and employment in the years 1999 to 2030. The most rapid rates of population growth are expected in southwestern Utah (Washington, Iron, and Kane Counties), the Wasatch Back, (Summit and Wasatch Counties), and Tooele and Utah Counties. In terms of amounts of population, much of the increase is concentrated in the Wasatch Front counties (Salt Lake, Utah, Davis, and Weber.)

Population. The population of the state is geographically concentrated in the Wasatch Front Counties (Salt Lake, Utah, Davis, and Weber). These counties have 76% of the population and 79% of the employment of the state. These proportions are projected to decline somewhat over the next three decades. The counties with the largest projected absolute increases in the population from 1999 to 2030 are Salt Lake, Utah, Davis, Washington, Weber, and Cache.

Median Age. The median age of the population is projected to increase for all counties over the projection period except Iron County, with the median age projected to drop slightly. The counties with the youngest population in 1990 were: San Juan, Utah, Cache, and Sanpete; while the counties with the oldest population were: Beaver, Grand, and Piute. By 2030, the counties with the youngest population, as measured by median age, are projected to be Utah, Cache, Iron, and Weber, while those projected to have the highest median age are Emery, Daggett, Piute, and Grand.

Households. Household growth is projected to be more rapid than population growth, although the growth rate differentials vary from county to county. The rankings of counties by growth rates of households over the projection period differs slightly from that of population. In terms of rates of growth, the number of households is projected to grow most rapidly in Washington, Kane, Summit, Wasatch, and Tooele. The average number of persons per household is projected to decline for all counties. In 1990, the counties with the highest number of persons per household were San Juan, Utah, Morgan, Davis, and Emery. By 2030, the counties with the highest projected number of persons per household are Utah, Iron, Cache, and Beaver.

Employment. Employment growth is projected to be most rapid from 1998 to 2030 for Washington, Kane, Wasatch, Tooele, and Summit, while the largest number of jobs created in the 1998 to 2030 are projected for Salt Lake, Utah, Weber, Davis, and Washington counties. For most counties the Hachman Index is projected to remain fairly constant from 1998 to 2030.[4] The exceptions are Uintah, Duchesne, and Utah Counties for which the

1 Total employment for projection purposes is non-agricultural payroll employment plus agriculture (payroll employment and proprietors) plus private household employment plus non-farm proprietors. The Bureau of Economic Analysis estimates the latter three.

2 Location quotients are measures of relative shares. The employment share of a given industry in the subject area (Utah) is compared to that of the reference region (the nation.) A location quotient greater than one indicates specialization in a subject area relative to the reference region. Here it means that the Utah has a larger share of its employment in the industry than the nation.

3 "Diversification of the Utah Economy," pages 207 through 213, *1995 Economic Report to the Governor*.

4 Hachman Indices are computed at the detailed industry level for employment.

value of the index increased. The state's largest counties all have Hachman Indices closest to one: Salt Lake, Weber, Washington, and Utah Counties. Emery County's Hachman Index indicates its sectoral distribution is most different from that of the nation; this is because of the specialization in coal mining and electric generation.

Methods, Procedures and Assumptions

Models. The long-term baseline projections were produced using the UPED Model System. The UPED Model is a combination of a three component cohort population model and an economic base employment model. It produces projection of population, components of population change (births, deaths and migration), households, labor force, and employment at the Multi-County or regional level. The UCAPE and CASA Models allocate population, components of population change, and employment to counties.

Trend Assumptions. For the projections a long-term look at possible reasonable ranges for the major demographic and economic parameters and exogenous variables was undertaken for the purpose of developing assumptions for the baseline projection. Included in the analysis of eleven different scenarios were high, medium and low projections of basic employment growth (jobs used to produce goods and services for export), labor force participation and fertility, and high and low projections of life expectancy. Scenarios of no growth, growth sufficient to generate zero migration, and growth convergent to the projected U.S. growth rate in 2050 were also considered.[1]

From this analysis birth rates were assumed to remain constant at their 1999 estimated level, in effect maintaining a constant difference between Utah total fertility rates and U.S. white fertility rates into the future. Survival rates were assumed to increase along with projected U.S. rates, such that the observed differences between Utah and U.S. life expectancy (1970-1990) are maintained. Labor force participation rates were assumed to trend with the projected U.S. rates, except where U.S. rates were projected to decline. In effect, this assumes little or no change in Utah male participation rates and increases in middle and old age Utah female rates. Basic employment growth was based on a demographic assumption, but was consistent with the middle growth assumption of the scenario analysis. Growth in export employment is assumed sufficient to generate cumulative net in-migration equal to 17.5% of total population change and to generate cumulative natural increase (births minus deaths) equal to 82.5% of total population change over the interval 2000 to 2050. These percents correspond to those of the 1948 to 1998 period.[2]

Short Term. Over the 1999 to 2004 interval, employment growth is constrained to the short-term major industry employment projections produced by the Governor's Office of Planning and Budged (GOPB). This projection incorporates a special study of the impacts of the Salt Lake 2002 Winter Olympics, the post Olympics adjustment as well as over fifty specific economic events relating to individual employers or specific industries.

With the assistance of economists and analysts from various departments of state government and from the local associations of government (AOG's) an additional thirty-three events were included in the projections. In addition, specific assumptions for individual industries by region or county were included based on the work of these analysts.

Review. A set of preliminary projections was produced and posted on the web. State and local users of projection data were invited to Salt Lake City for instruction on accessing the site and interpreting the information. They were asked to participate in the review and evaluation of these preliminary projections. The comments, suggestions and constructive criticism received from these users as well as from advisors, administrators, economists and analysts were very helpful in improving the quality of the projections.

Specific Assumptions. While all the special study, industry and event assumptions had effects on the projections, several are noteworthy. Oil and gas extraction in the Uintah Basin and the Southeast MCDs is anticipated to decline to almost nothing as the resource is exhausted. Coal resources are sufficient to last beyond the projection period and electric power generation remains at current locations. Stampin Up relocates from Kane County to the Wasatch Front in 2002. Washington County gets a new airport in 2015. Except for expansion at Hill Air Force Base, federal employment, other than the postal service, is anticipated to remain relatively constant. Construction employment reverts to its historical mean share of total employment in the early- to mid-2000s. The post Olympics no-migration unemployment rate rises four-tenths of one percentage point in the Wasatch Front and Mountainland MCDs, then reverts to the pre-Olympic level.

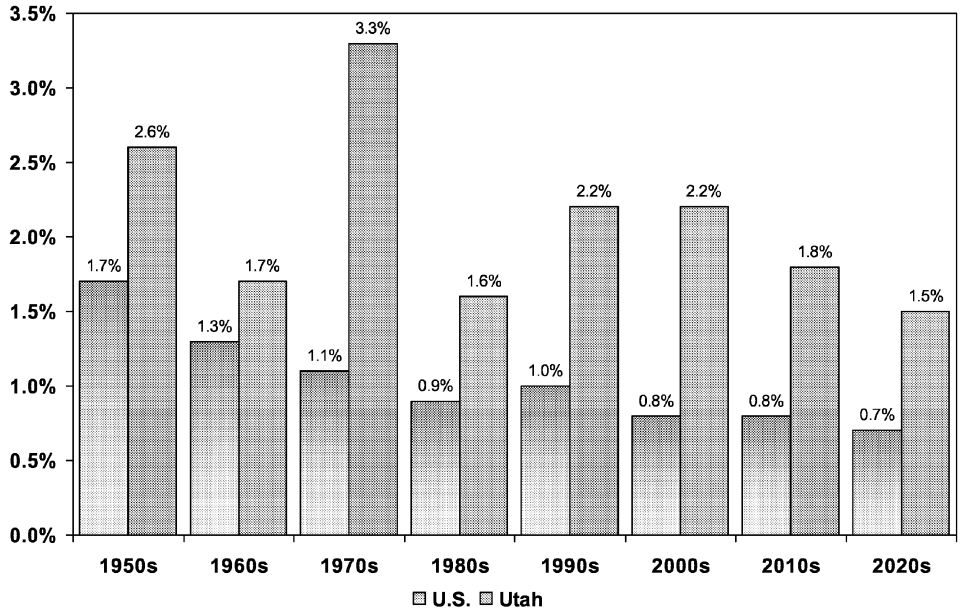
Additional Information

For additional historical and projected economic and demographic information, visit the web site: www.qget.state.ut.us/projections/. ✻

1 See http://www.qget.state.ut.us/projections/Utah2050

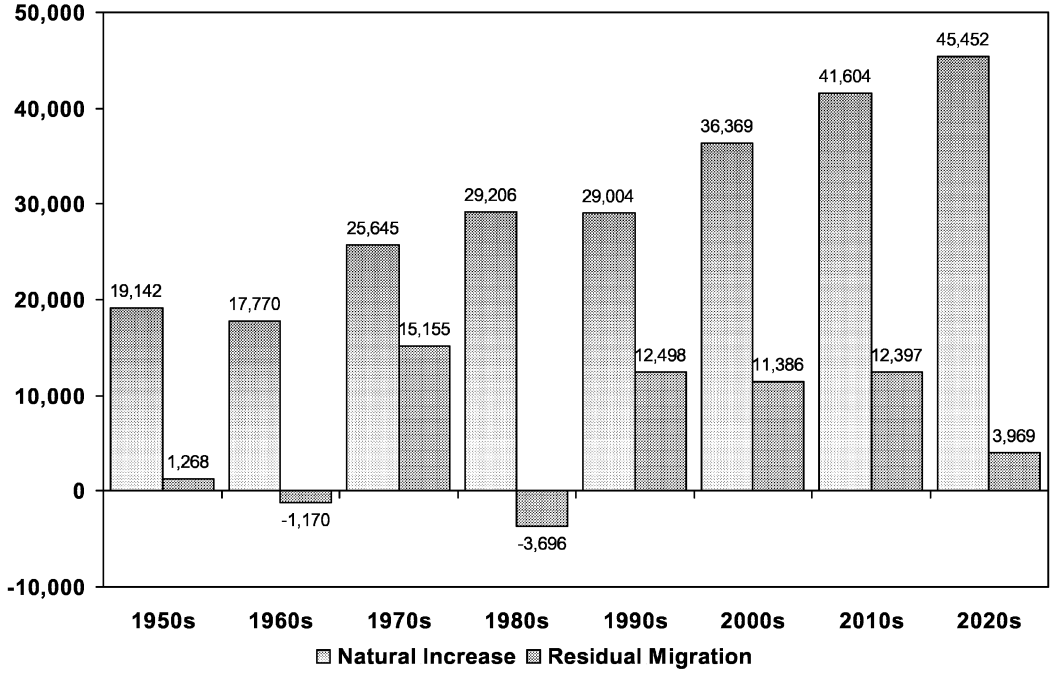
2 Hachman, Frank C. "The Macro-Dynamics of Population Change in Utah and the Mountain States: 1948-1998," *Utah Economic and Business Review*, Volume 58, Numbers 9 and 10, September/October 1998.

Figure 3
Decade Average Annual Rates of Change of Population: Utah and U.S.



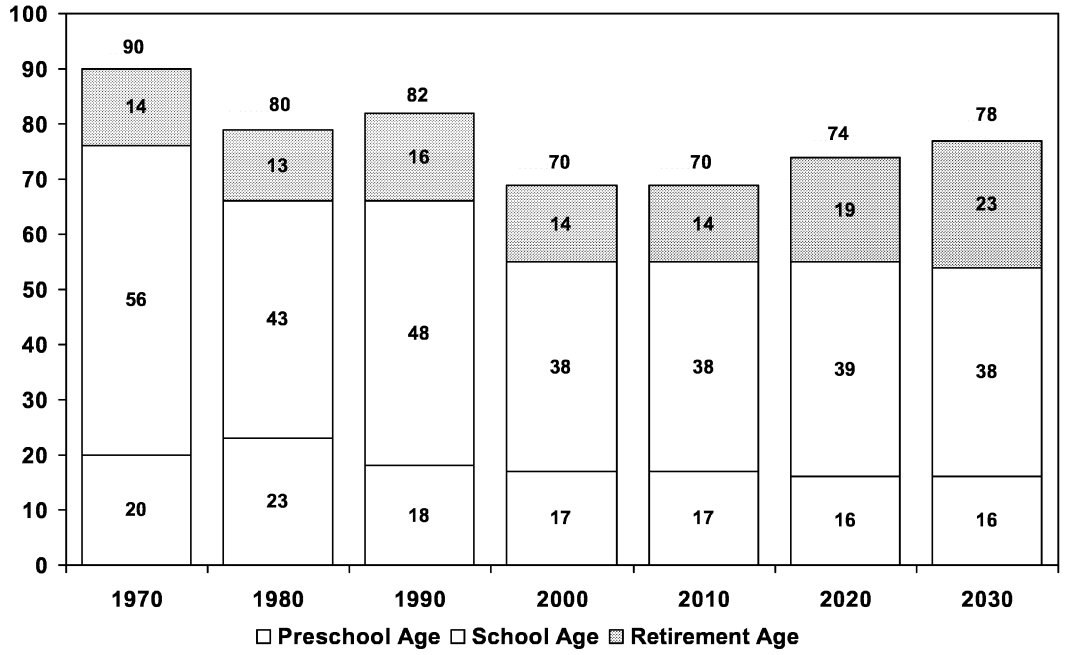
Source: Governor's Office of Planning and Budget, UPED Model

Figure 4
Utah Historical and Projected Population Increases: Components of Change (Number)



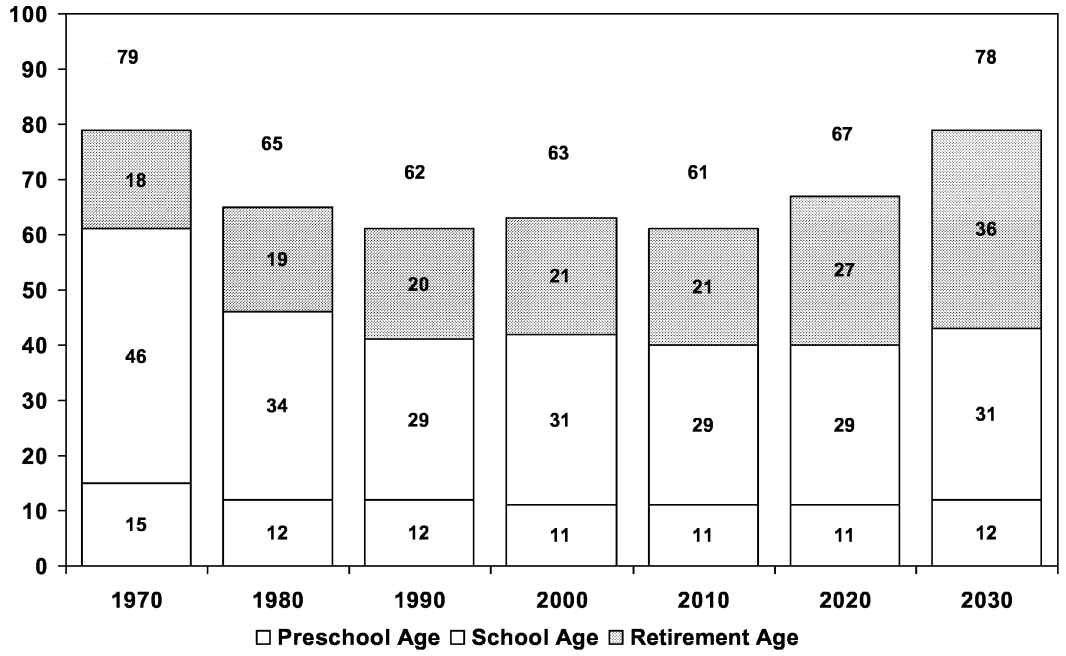
Source: Governor's Office of Planning and Budget, UPED Model

Figure 5
Utah Dependency Ratio Components



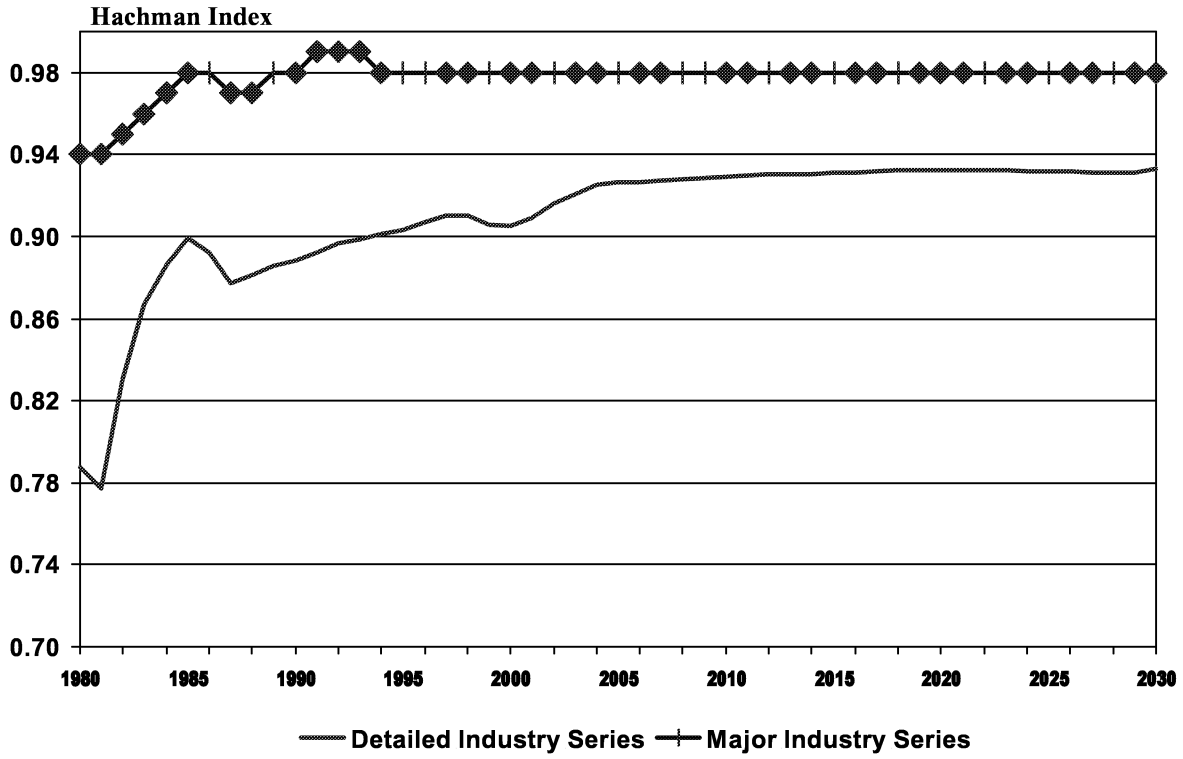
Note: These ratios show the number of non-working age persons in each component for every one hundred persons of working-age (ages 16 through 64).
Source: Governor's Office of Planning and Budget, UPED Model

Figure 6
U.S. Dependency Ratio Components



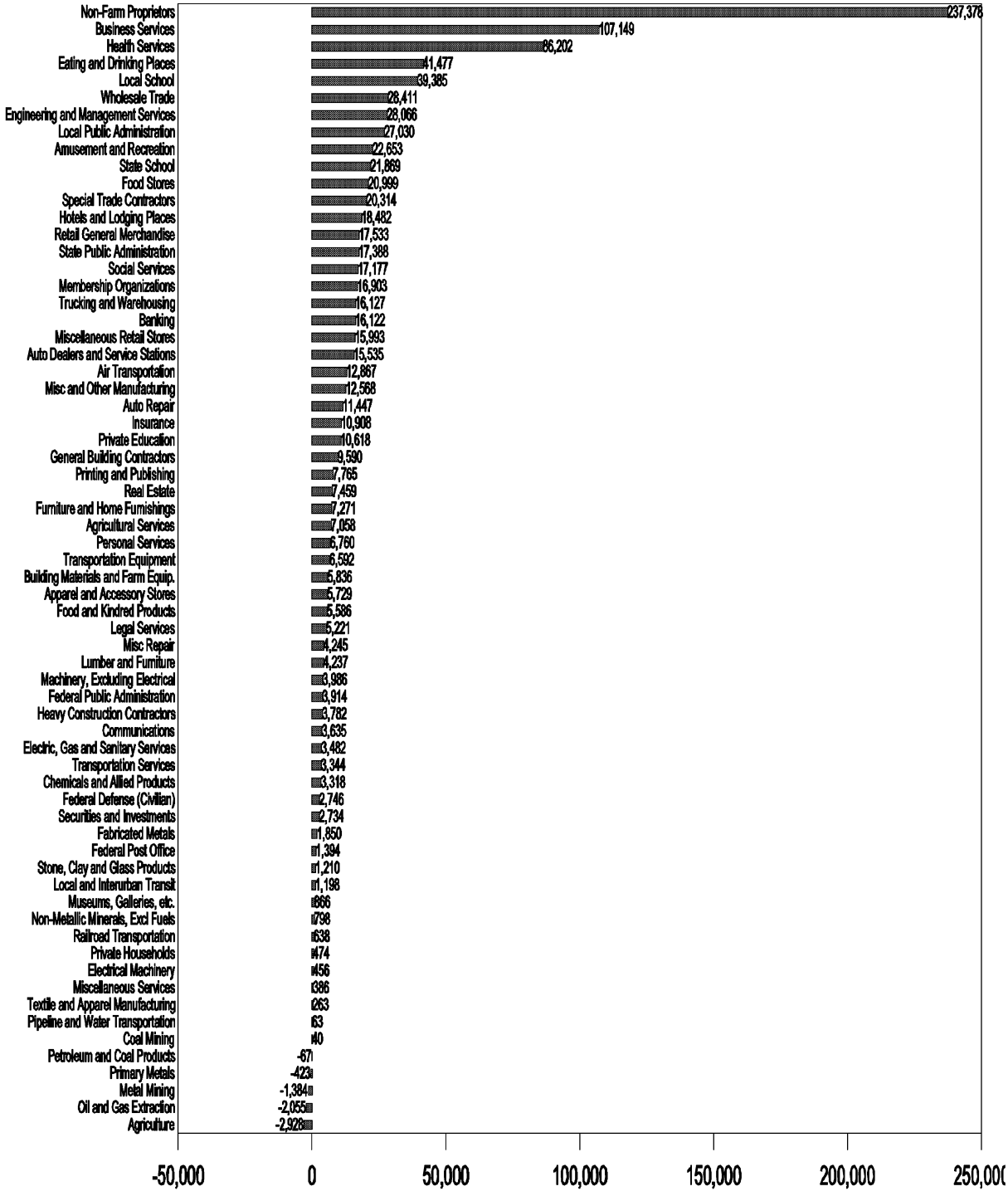
Note: These ratios show the number of non-working age persons in each component for every one hundred persons of working-age (ages 16 through 64).
Source: Governor's Office of Planning and Budget, UPED Model

Figure 7
Economic Diversity: Utah Relative to the Nation



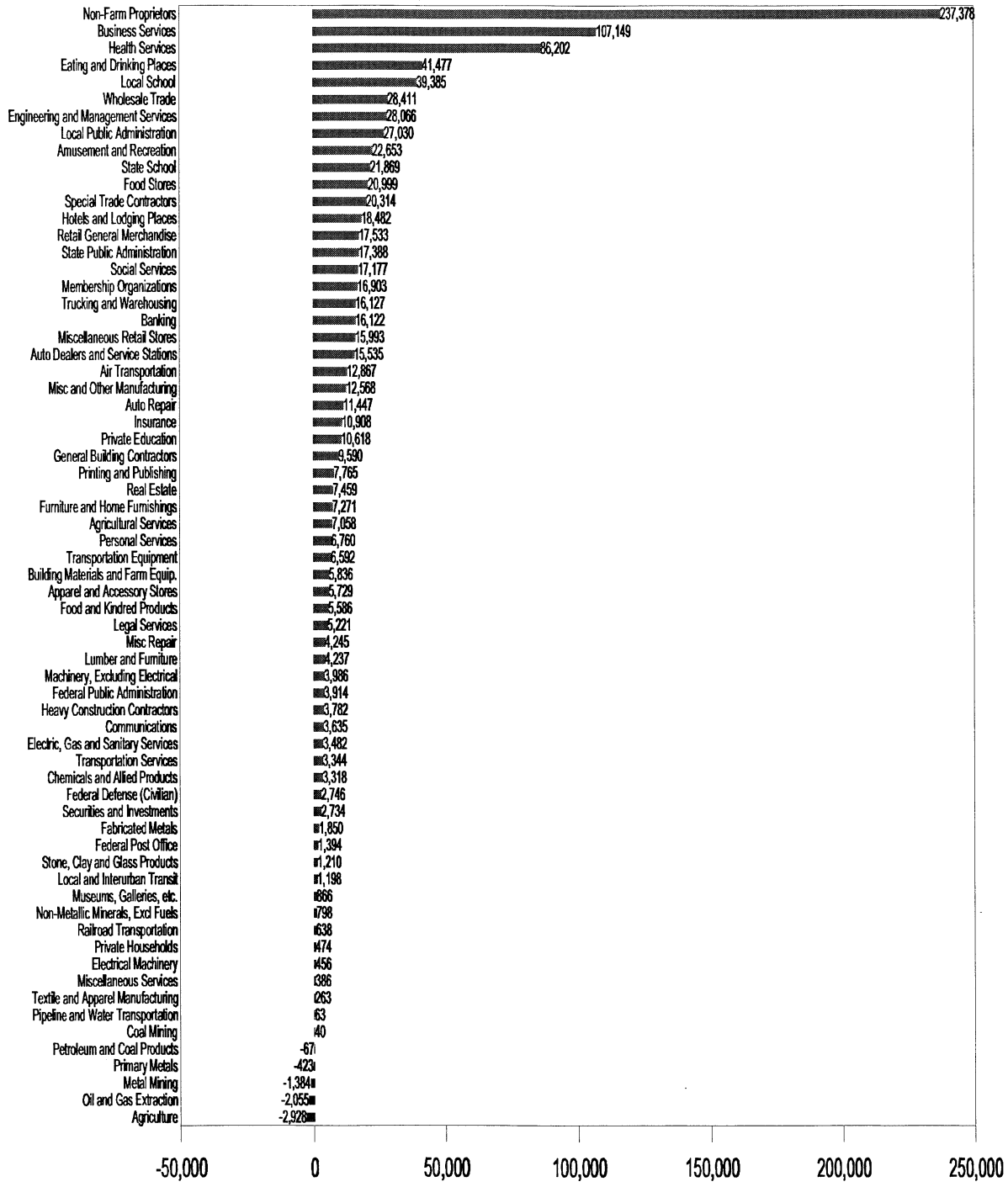
Source: Governor's Office of Planning and Budget, UPED Model

Figure 8
Utah Industry Employment Ranked by Average Annual Rates of Change:1998 to 2030



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

Figure 9
Utah Industry Employment Ranked by Absolute Amounts of Change:1998 to 2030



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

Table 3
Utah Economic and Demographic Projections Summary

	Population		School Age Population		Total Employment		NonAg Payroll Employment		Households		
Year	Total	Percent Change*	Total	Percent Change*	Total	Percent Change*	Total	Percent Change*	Total	Percent Change*	Average Size**
1990	1,729,100		456,783		902,717		724,013		538,348		3.16
1995	1,959,344	2.5%	485,336	1.2%	1,131,613	4.6%	908,371	4.6%	630,664	3.2%	3.05
1998	2,082,471	2.1%	485,320	0.0%	1,283,149	4.3%	1,024,070	4.1%	681,936	2.6%	3.00
1999	2,121,033	1.9%	483,559	-0.4%	1,319,531	2.8%	1,050,227	2.6%	697,800	2.3%	2.98
2000	2,150,205	1.4%	484,305	0.2%	1,353,792	2.6%	1,074,995	2.4%	710,387	1.8%	2.97
2001	2,187,276	1.7%	486,511	0.5%	1,391,464	2.8%	1,102,607	2.6%	725,500	2.1%	2.96
2002	2,216,175	1.3%	490,578	0.8%	1,411,762	1.5%	1,115,090	1.1%	737,907	1.7%	2.95
2003	2,254,500	1.7%	498,321	1.6%	1,440,368	2.0%	1,134,573	1.7%	753,285	2.1%	2.94
2004	2,301,301	2.1%	509,237	2.2%	1,471,998	2.2%	1,157,343	2.0%	771,497	2.4%	2.93
2005	2,355,120	2.3%	523,315	2.8%	1,508,311	2.5%	1,185,255	2.4%	792,017	2.7%	2.92
2006	2,409,802	2.3%	537,825	2.8%	1,545,329	2.5%	1,213,844	2.4%	812,600	2.6%	2.91
2007	2,470,278	2.5%	552,893	2.8%	1,584,490	2.5%	1,244,175	2.5%	835,046	2.8%	2.91
2008	2,532,770	2.5%	567,730	2.7%	1,624,442	2.5%	1,275,200	2.5%	858,097	2.8%	2.90
2009	2,598,568	2.6%	583,356	2.8%	1,665,387	2.5%	1,307,078	2.5%	882,208	2.8%	2.90
2010	2,661,902	2.4%	598,775	2.6%	1,704,144	2.3%	1,337,090	2.3%	905,258	2.6%	2.89
2011	2,723,333	2.3%	614,935	2.7%	1,741,610	2.2%	1,366,159	2.2%	927,645	2.5%	2.89
2012	2,784,211	2.2%	630,848	2.6%	1,778,185	2.1%	1,394,582	2.1%	949,930	2.4%	2.88
2013	2,843,786	2.1%	646,079	2.4%	1,813,581	2.0%	1,422,118	2.0%	971,926	2.3%	2.88
2014	2,899,066	1.9%	659,974	2.2%	1,846,857	1.8%	1,448,034	1.8%	992,624	2.1%	2.87
2015	2,951,006	1.8%	672,057	1.8%	1,878,173	1.7%	1,472,429	1.7%	1,012,556	2.0%	2.86
2016	2,999,680	1.6%	682,585	1.6%	1,907,492	1.6%	1,495,298	1.6%	1,031,698	1.9%	2.86
2017	3,046,746	1.6%	691,834	1.4%	1,935,604	1.5%	1,517,238	1.5%	1,050,563	1.8%	2.85
2018	3,093,597	1.5%	700,467	1.2%	1,963,134	1.4%	1,538,751	1.4%	1,069,609	1.8%	2.84
2019	3,138,573	1.5%	708,420	1.1%	1,989,590	1.3%	1,559,452	1.3%	1,088,203	1.7%	2.83
2020	3,183,388	1.4%	715,815	1.0%	2,015,686	1.3%	1,579,919	1.3%	1,106,905	1.7%	2.83
2021	3,232,739	1.6%	723,738	1.1%	2,042,952	1.4%	1,601,359	1.4%	1,127,319	1.8%	2.82
2022	3,280,563	1.5%	731,085	1.0%	2,069,601	1.3%	1,622,375	1.3%	1,147,374	1.8%	2.81
2023	3,329,881	1.5%	738,390	1.0%	2,096,620	1.3%	1,643,713	1.3%	1,168,067	1.8%	2.80
2024	3,377,841	1.4%	745,189	0.9%	2,123,249	1.3%	1,664,775	1.3%	1,188,368	1.7%	2.79
2025	3,428,230	1.5%	752,349	1.0%	2,150,902	1.3%	1,686,612	1.3%	1,209,420	1.8%	2.78
2030	3,683,687	1.4%	791,043	1.0%	2,290,819	1.3%	1,796,816	1.3%	1,313,991	1.7%	2.75

Note:

*Some percent changes are annual and others are average annuals.

**Totals differ in this table from other tables in this report due to different release dates or data sources.

All Populations are dated July 1.

Total population is the population in households plus the population in group quarters.

Persons per household is population in households divided by the number of households.

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 4
Utah Employment Projections by Major Industry

Industry Name	1980	1990	1995	1998	1999	2000	2001	2002
Agriculture (4)	19,660	19,146	17,206	19,293	19,965	19,927	19,888	19,837
Mining	18,502	8,604	8,114	8,045	7,702	7,706	7,629	7,564
Construction	31,548	27,927	54,793	68,261	73,031	73,030	71,864	64,610
Manufacturing	87,707	107,102	123,865	133,508	132,222	133,977	135,187	135,946
TCPU (1)	34,127	42,286	51,496	58,453	59,192	60,596	62,287	63,395
Trade	128,692	172,394	220,026	244,117	248,993	253,493	258,033	261,114
FIRE (2)	25,768	34,133	47,678	55,257	56,999	58,492	59,844	60,634
Services (3)	105,839	185,865	243,716	285,618	296,851	308,096	323,161	333,937
Government	124,929	150,557	163,669	175,640	180,107	184,510	189,560	192,867
Non-Farm Proprietors (4)	90,616	154,703	201,050	234,957	244,469	253,965	264,011	271,858
TOTAL EMPLOYMENT	667,388	902,717	1,131,613	1,283,149	1,319,531	1,353,792	1,391,464	1,411,762
Non-Farm Payroll Employment (5)	551,833	724,013	908,371	1,024,070	1,050,227	1,074,995	1,102,607	1,115,090

Industry Name	2003	2004	2005	2010	2015	2020	2025	2030
Agriculture (4)	19,775	19,704	19,588	19,092	18,422	17,666	16,715	16,365
Mining	7,493	7,427	7,474	7,391	7,262	6,984	7,059	5,444
Construction	61,411	59,830	61,944	73,847	81,470	88,278	95,031	101,947
Manufacturing	137,351	138,376	139,586	146,692	154,401	162,372	171,261	180,849
TCPU (1)	64,274	65,444	66,723	73,543	80,245	86,446	93,083	99,807
Trade	264,570	267,972	273,042	302,246	329,242	351,722	375,486	402,901
FIRE (2)	61,548	62,382	63,603	70,504	76,841	81,816	86,880	92,480
Services (3)	346,472	361,174	374,069	440,434	499,361	544,783	587,882	629,325
Government	196,459	199,760	203,845	227,609	248,849	262,737	275,096	289,366
Non-Farm Proprietors (4)	281,015	289,929	298,437	342,786	382,080	412,882	442,409	472,335
TOTAL EMPLOYMENT	1,440,368	1,471,998	1,508,311	1,704,144	1,878,173	2,015,686	2,150,902	2,290,819
Non-Farm Payroll Employment (5)	1,134,573	1,157,343	1,185,255	1,337,090	1,472,429	1,579,919	1,686,612	1,796,816

Note:

(1) Transportation, Communications, and Public Utilities
(2) Finance, Insurance, and Real Estate
(3) Includes Private Households and Agricultural Services employment (SICs 88, 07, 08, and 09)
(4) Excludes Agriculture, Private Households, and Non-Farm Proprietors

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 5
Utah Components of Population Change

Year	Beginning Population*	Births	Deaths	Natural Increase	Residual Migration	Ending Population*	Percent Change
1995	1,915,998	39,064	10,581	28,483	14,864	1,959,344	2.26%
1998	2,048,749	44,248	11,847	32,401	1,319	2,082,471	1.65%
1999	2,082,471	45,434	11,637	33,797	4,765	2,121,033	1.85%
2000	2,121,033	46,358	12,448	33,910	(4,733)	2,150,205	1.38%
2001	2,150,205	46,874	12,496	34,378	2,692	2,187,276	1.72%
2002	2,187,276	47,631	12,575	35,056	(6,158)	2,216,175	1.32%
2003	2,216,175	48,036	12,682	35,354	2,966	2,254,500	1.73%
2004	2,254,500	48,676	12,849	35,827	10,970	2,301,301	2.08%
2005	2,301,301	49,488	13,058	36,430	17,396	2,355,120	2.34%
2006	2,355,120	50,478	13,292	37,186	17,496	2,409,802	2.32%
2007	2,409,802	51,362	13,553	37,809	22,677	2,470,278	2.51%
2008	2,470,278	52,356	13,837	38,519	23,976	2,532,770	2.53%
2009	2,532,770	53,350	14,127	39,223	26,579	2,598,568	2.60%
2010	2,598,568	54,345	14,441	39,904	23,425	2,661,902	2.44%
2011	2,661,902	55,181	14,765	40,416	21,024	2,723,333	2.31%
2012	2,723,333	55,920	15,076	40,844	20,029	2,784,211	2.24%
2013	2,784,211	56,655	15,368	41,287	18,293	2,843,786	2.14%
2014	2,843,786	57,344	15,662	41,682	13,608	2,899,066	1.94%
2015	2,899,066	57,925	15,968	41,957	9,979	2,951,006	1.79%
2016	2,951,006	58,441	16,278	42,163	6,503	2,999,680	1.65%
2017	2,999,680	58,938	16,587	42,351	4,711	3,046,746	1.57%
2018	3,046,746	59,442	16,860	42,582	4,274	3,093,597	1.54%
2019	3,093,597	60,036	17,184	42,852	2,124	3,138,573	1.45%
2020	3,138,573	60,666	17,512	43,154	1,662	3,183,388	1.43%
2021	3,183,388	61,349	17,897	43,452	5,894	3,232,739	1.55%
2022	3,232,739	62,281	18,311	43,970	3,849	3,280,563	1.48%
2023	3,280,563	63,217	18,724	44,493	4,812	3,329,881	1.50%
2024	3,329,881	64,255	19,166	45,089	2,875	3,377,841	1.44%
2025	3,377,841	65,289	19,633	45,656	4,735	3,428,230	1.49%
2030	3,632,794	71,067	22,475	48,592	2,303	3,683,687	1.40%

Note:

All populations are dated July 1.

* Totals differ in this table from other tables in the report due to different release dates or data sources.

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 6
Utah Projections by Five Year Age Group

Age	1980	1990	2000	2005	2010	2015	2020	2030
Less than 5 years old	189,962	172,252	219,157	242,697	267,670	286,733	298,285	345,067
5-9 years old	146,187	183,402	191,840	220,325	250,646	273,160	287,028	318,094
10-14 years old	125,681	182,953	180,419	192,925	227,425	255,344	273,232	298,941
15-19 years old	138,903	152,885	192,954	184,099	202,434	234,535	258,446	290,661
20-24 years old	155,676	138,216	204,341	209,652	208,876	223,291	248,023	293,249
25-29 years old	135,087	137,009	167,959	197,185	214,843	211,433	216,724	265,859
30-34 years old	105,688	137,815	145,562	164,403	202,692	217,290	206,472	234,575
35-39 years old	79,178	123,377	147,994	146,093	172,185	207,308	216,926	211,129
40-44 years old	63,628	100,585	147,532	148,773	152,858	175,728	206,209	205,374
45-49 years old	57,021	76,405	129,817	147,205	154,045	155,711	174,961	214,671
50-54 years old	55,845	61,285	103,706	129,091	150,475	155,801	154,696	203,255
55-59 years old	52,701	54,672	77,046	102,270	130,476	150,785	153,878	171,285
60-64 years old	46,260	52,512	60,073	74,895	101,857	128,691	146,915	148,985
65-69 years old	38,183	48,517	51,322	57,000	72,766	98,277	122,775	143,393
70-74 years old	29,637	39,443	46,219	47,047	53,413	67,830	90,851	130,118
75-79 years old	20,242	29,268	38,362	39,907	41,651	47,113	59,459	100,344
80-84 years old	12,306	18,811	26,333	30,105	32,206	33,566	37,817	65,121
85 years old and over	8,852	13,443	19,569	21,448	25,384	28,410	30,691	43,566
Total	1,461,037	1,722,850	2,150,205	2,355,120	2,661,902	2,951,006	3,183,388	3,683,687
Median Age	24	26	28	28	29	30	30	31

Note:

1980 and 1990 populations are April 1 U.S. Census Modified Age, Race and Sex (MARS) populations; all others are July 1 populations.

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 7
Population Projections by Selected Age Groups

Age	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Less than 5 years old	189,962	172,252	175,762	180,013	183,632	187,197	190,253	194,184	199,801	206,004	213,130
5-17 years old	350,143	456,783	466,478	472,890	477,708	483,136	485,336	486,846	488,378	485,320	483,559
18-29 years old	351,391	337,682	346,478	356,225	366,199	379,755	394,030	409,045	425,018	438,188	450,943
30-39 years old	184,866	261,192	271,417	279,102	285,070	290,099	292,179	292,899	293,866	291,716	291,912
40-64 years old	275,455	345,459	360,872	375,187	391,550	409,655	427,823	446,178	465,857	483,434	501,651
65 years and older	109,220	149,482	154,500	158,535	162,290	166,156	169,723	173,246	175,829	177,809	179,838
15-44 years old	678,160	789,887	822,144	849,906	876,666	906,916	932,674	956,534	978,344	990,538	1,002,238
16-64 years old	864,989	1,003,330	1,040,496	1,075,784	1,113,036	1,154,285	1,190,639	1,227,395	1,266,165	1,291,657	1,320,871
60 years and older	155,480	201,994	207,632	211,622	215,535	219,497	223,879	227,990	231,890	235,044	238,700
Total	1,461,037	1,722,850	1,775,507	1,821,952	1,866,449	1,915,998	1,959,344	2,002,398	2,048,749	2,082,471	2,121,033
Median Age	24	26	26	26	27	27	27	27	27	27	27

Age	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Less than 5 years old	219,157	225,285	229,555	233,897	238,158	242,697	247,309	252,201	257,302	262,631	267,670
5-17 years old	484,305	486,511	490,578	498,321	509,237	523,315	537,825	552,893	567,730	583,356	598,775
18-29 years old	453,208	457,065	461,101	466,776	474,320	480,871	486,361	491,507	496,962	502,528	505,449
30-39 years old	293,556	297,957	297,625	298,907	303,056	310,496	320,067	333,683	348,305	362,882	374,877
40-64 years old	518,174	536,388	551,380	568,156	584,955	602,234	618,146	635,440	650,907	668,418	689,711
65 years and older	181,805	184,070	185,936	188,443	191,575	195,507	200,094	204,554	211,564	218,753	225,420
15-44 years old	1,006,342	1,014,276	1,015,524	1,021,764	1,034,093	1,050,205	1,065,905	1,086,620	1,106,894	1,130,497	1,153,888
16-64 years old	1,340,543	1,364,820	1,382,442	1,404,801	1,432,766	1,465,867	1,499,482	1,537,507	1,574,281	1,612,492	1,649,561
60 years and older	241,878	246,118	249,634	256,207	263,242	270,402	277,151	288,716	301,287	313,834	327,277
Total	2,150,205	2,187,276	2,216,175	2,254,500	2,301,301	2,355,120	2,409,802	2,470,278	2,532,770	2,598,568	2,661,902
Median Age	28	28	28	28	28	28	28	28	29	29	29

Age	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030
Less than 5 years old	272,262	276,559	280,503	283,886	286,733	289,193	291,464	293,712	295,899	298,285	345,067
5-17 years old	614,935	630,848	646,079	659,974	672,057	682,585	691,834	700,467	708,420	715,815	791,043
18-29 years old	506,726	511,349	514,959	519,775	525,706	532,237	540,854	550,294	558,990	567,638	675,761
30-39 years old	384,583	395,881	407,906	417,608	424,598	429,145	429,189	428,004	426,393	423,398	445,704
40-64 years old	713,305	727,755	741,306	754,148	766,716	779,234	794,431	808,516	822,141	836,659	943,570
65 years and older	231,522	241,819	253,033	263,675	275,196	287,286	298,974	312,604	326,730	341,593	482,542
15-44 years old	1,177,915	1,203,493	1,229,175	1,252,060	1,269,585	1,283,251	1,301,224	1,319,123	1,336,476	1,352,800	1,500,847
16-64 years old	1,686,411	1,719,582	1,752,233	1,783,111	1,811,644	1,837,679	1,863,240	1,887,149	1,909,276	1,930,706	2,180,637
60 years and older	341,366	355,130	370,886	387,047	403,887	420,824	437,537	454,718	471,315	488,508	631,527
Total	2,723,333	2,784,211	2,843,786	2,899,066	2,951,006	2,999,680	3,046,746	3,093,597	3,138,573	3,183,388	3,683,687
Median Age	29	29	30	30	30	30	30	30	30	30	31

Note:

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

1980 and 1990 populations are April 1 U.S. Census Modified Age, Race and Sex (MARS) populations; all others are July 1 populations.

Table 8
Utah Population by Selected Age Groups as a Percent of Total

Age	1980	1990	2000	2005	2010	2015	2020	2030
Less than 5 years old	13.0%	10.0%	10.2%	10.3%	10.1%	9.7%	9.4%	9.4%
5-17 years old	24.0%	26.5%	22.5%	22.2%	22.5%	22.8%	22.5%	21.5%
18-29 years old	24.1%	19.6%	21.1%	20.4%	19.0%	17.8%	17.8%	18.3%
30-39 years old	12.7%	15.2%	13.7%	13.2%	14.1%	14.4%	13.3%	12.1%
40-64 years old	18.9%	20.1%	24.1%	25.6%	25.9%	26.0%	26.3%	25.6%
65 years and older	7.5%	8.7%	8.5%	8.3%	8.5%	9.3%	10.7%	13.1%
15-44 years old	46.4%	45.8%	46.8%	44.6%	43.3%	43.0%	42.5%	40.7%
16-64 years old	59.2%	58.2%	62.3%	62.2%	62.0%	61.4%	60.6%	59.2%
60 years and older	10.6%	11.7%	11.2%	11.5%	12.3%	13.7%	15.3%	17.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note:

1980 and 1990 populations are April 1 U.S. Census Modified Age, Race and Sex (MARS) populations; all others are July 1 populations.

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 9
Utah Dependency Ratios

	1980	1990	2000	2005	2010	2015	2020	2030
Dependency Ratio	80	82	70	69	70	72	74	78
Pop 0-4 per 100 Pop age 18-64	23	18	17	17	17	17	16	17
Pop 5-17 per 100 Pop age 18-64	43	48	38	38	38	39	39	38
Pop 65+ per 100 Pop age 18-64	13	16	14	14	14	16	19	23

Note:

1980 and 1990 populations are April 1 U.S. Census Modified Age, Race and Sex (MARS) populations; all others are July 1 populations.

Source: 2000 Baseline Projections, Governor's Office of Planning and Budget, UPED Model System.

Table 10
Population Projections by County and District

MCD/County	1980	1990	2000	2005	2010	2015	2020	2030	AARC 1990-2030
BEAR RIVER	92,498	108,393	133,246	146,692	163,984	180,460	193,189	215,926	2.50
Box Elder	33,222	36,485	43,083	47,896	53,855	59,137	63,209	70,755	2.38
Cache	57,176	70,183	88,320	96,904	108,150	119,272	127,896	143,040	2.58
Rich	2,100	1,725	1,843	1,892	1,979	2,051	2,084	2,131	0.88
WASATCH FRONT	941,172	1,104,356	1,319,638	1,427,643	1,606,875	1,779,180	1,917,301	2,176,633	2.38
Davis	146,540	187,941	240,460	261,297	292,173	322,395	346,203	392,003	1.97
Morgan	4,917	5,528	7,292	7,856	8,829	9,810	10,659	12,435	3.04
Salt Lake	619,066	725,956	848,083	914,190	1,028,508	1,136,706	1,223,218	1,383,907	2.39
Tooele	26,033	26,601	36,816	42,450	50,333	58,487	65,852	80,938	3.93
Weber	144,616	158,330	186,987	201,850	227,032	251,782	271,369	307,350	2.39
MOUNTAINLAND	236,827	289,197	402,419	454,011	524,651	584,866	632,920	769,392	3.45
Summit	10,198	15,518	27,095	29,176	35,202	42,009	48,207	60,852	4.72
Utah	218,106	263,590	361,213	408,220	469,691	520,353	559,907	677,304	3.33
Wasatch	8,523	10,089	14,111	16,615	19,758	22,504	24,806	31,236	3.97
CENTRAL	47,087	52,294	66,121	71,338	76,693	82,101	85,395	92,385	2.10
Juab	5,530	5,817	8,332	9,435	10,572	11,732	12,589	14,338	3.15
Millard	8,970	11,333	12,047	12,539	13,057	13,576	13,747	14,167	1.02
Piute	1,329	1,277	1,669	1,789	1,889	1,973	2,009	2,062	1.53
Sanpete	14,620	16,259	22,296	23,920	25,571	27,230	28,177	30,242	2.19
Sevier	14,727	15,431	19,160	20,635	22,155	23,686	24,598	26,498	2.00
Wayne	1,911	2,177	2,617	3,020	3,449	3,904	4,275	5,078	3.24
SOUTHWEST	55,489	83,263	133,298	156,056	185,326	214,415	241,521	310,730	4.53
Beaver	4,378	4,765	6,006	6,938	7,558	8,089	8,477	9,653	2.45
Garfield	3,673	3,980	4,609	5,030	5,602	6,123	6,563	7,764	2.52
Iron	17,349	20,789	32,564	36,911	41,656	46,076	49,892	60,191	3.62
Kane	4,024	5,169	6,338	6,730	8,238	9,757	11,243	14,924	3.96
Washington	26,065	48,560	83,781	100,447	122,272	144,370	165,346	218,198	5.10
UINTAH BASIN	33,840	35,546	40,378	41,735	43,861	46,698	48,172	50,038	1.34
Daggett	769	690	742	770	813	869	898	937	1.27
Duchesne	12,565	12,645	14,518	15,253	16,247	17,492	18,216	19,212	1.59
Uintah	20,506	22,211	25,118	25,712	26,801	28,337	29,058	29,889	1.19
SOUTHEAST	54,124	49,801	55,105	57,645	60,512	63,286	64,890	68,583	1.31
Carbon	22,179	20,228	21,876	22,951	24,091	25,245	25,732	27,248	1.27
Emery	11,451	10,332	10,395	10,772	11,243	11,684	12,322	12,984	1.03
Grand	8,241	6,620	9,106	9,349	9,665	9,954	9,989	10,288	1.52
San Juan	12,253	12,621	13,728	14,573	15,513	16,403	16,847	18,063	1.47
STATE OF UTAH	1,461,037	1,722,850	2,150,205	2,355,120	2,661,902	2,951,006	3,183,388	3,683,687	2.70

Notes:

January 2000 Baseline Projections

AARC is average annual rate of change.

1980 and 1990 populations are April 1 U.S. Census modified age, race and sex (MARS) populations; all others are July 1 populations.

*Totals differ in this table from other tables in this report due to different release dates or data sources.

Sources: U.S. Bureau of the Census; Utah Population Estimates Committee; Governor's Office of Planning and Budget, 2000 Baseline, UPED Model System.

Table 11
Projections of Households by County and District

MCD/County	1980	1990	2000	2005	2010	2015	2020	2030	AARC 1990-2030
BEAR RIVER	28,020	32,638	42,154	47,267	53,192	58,662	63,418	73,056	2.82
Box Elder	9,808	11,060	14,265	16,414	18,532	20,290	21,943	25,994	2.95
Cache	17,558	21,055	27,225	30,147	33,911	37,615	40,734	46,223	2.78
Rich	654	523	664	706	749	757	741	839	1.47
WASATCH FRONT	298,700	357,257	451,145	498,050	567,651	634,150	691,593	805,177	2.74
Davis	39,994	53,643	78,228	88,092	100,687	112,546	122,617	143,966	2.70
Morgan	1,355	1,555	2,396	2,708	3,104	3,501	3,882	4,683	3.87
Salt Lake	201,742	240,367	293,241	322,249	367,346	410,068	446,941	517,780	2.71
Tooele	7,966	8,581	13,017	15,285	18,243	21,295	24,230	30,389	4.37
Weber	47,643	53,111	64,263	69,716	78,271	86,740	93,923	108,359	2.53
MOUNTAINLAND	64,491	78,499	116,257	131,888	153,863	173,271	190,566	237,617	3.82
Summit	3,381	5,296	10,188	11,200	13,740	16,635	19,443	25,347	5.28
Utah	58,515	70,011	101,139	114,724	132,983	148,444	161,951	200,258	3.62
Wasatch	2,595	3,192	4,930	5,964	7,140	8,192	9,172	12,012	4.51
CENTRAL	14,526	16,237	22,984	25,690	28,029	30,405	32,340	36,852	2.80
Juab	1,707	1,870	2,867	3,347	3,820	4,310	4,766	5,706	3.76
Millard	2,728	3,390	4,078	4,571	4,856	5,100	5,240	5,788	1.89
Piute	435	450	629	692	748	802	846	911	2.21
Sanpete	4,454	4,916	7,522	8,233	8,879	9,507	10,022	11,248	2.76
Sevier	4,587	4,911	6,943	7,717	8,442	9,215	9,820	11,142	2.80
Wayne	615	700	945	1,130	1,284	1,471	1,646	2,057	3.88
SOUTHWEST	16,879	26,138	44,942	52,990	63,249	73,580	84,083	111,350	4.91
Beaver	1,428	1,583	2,067	2,396	2,554	2,709	2,881	3,407	2.61
Garfield	1,196	1,321	1,664	1,850	2,060	2,240	2,416	2,908	2.87
Iron	5,168	6,258	10,343	11,549	12,914	14,248	15,547	18,960	3.67
Kane	1,286	1,728	2,362	2,577	3,173	3,765	4,371	5,984	4.47
Washington	7,801	15,248	28,506	34,618	42,548	50,618	58,868	80,091	5.56
UINTAH BASIN	9,692	10,633	13,811	15,083	16,415	17,896	18,935	20,926	2.30
Daggett	244	258	310	336	362	395	412	449	2.01
Duchesne	3,499	3,726	4,868	5,373	5,901	6,518	6,950	7,713	2.49
Uintah	5,949	6,649	8,633	9,374	10,152	10,983	11,573	12,764	2.19
SOUTHEAST	16,295	15,794	19,094	21,049	22,859	24,592	25,970	29,013	2.13
Carbon	7,242	6,863	7,881	8,547	9,083	9,671	10,053	11,161	1.81
Emery	3,276	3,002	3,463	3,901	4,269	4,583	5,013	5,612	2.15
Grand	2,759	2,536	3,712	3,985	4,267	4,516	4,658	5,083	2.20
San Juan	3,018	3,393	4,038	4,616	5,240	5,822	6,246	7,157	2.64
STATE OF UTAH	448,603	537,196	710,387	792,017	905,258	1,012,556	1,106,905	1,313,991	3.06

Notes:

January 2000 Baseline Projections

AARC is average annual rate of change.

1980 and 1990 populations are April 1 U.S. Census modified age, race and sex (MARS) populations; all others are July 1 populations.

Sources: U.S. Bureau of the Census; Utah Population Estimates Committee; Governor's Office of Planning and Budget, 2000 Baseline, UPED Model System.

Table 12
Projections of Average Household Size by County and District

MCD/County	1980	1990	2000	2005	2010	2015	2020	2030	AARC 1990-2030
BEAR RIVER	3.21	3.28	3.12	3.07	3.05	3.04	3.01	2.92	-0.32
Box Elder	3.31	3.29	3.00	2.90	2.89	2.90	2.87	2.71	-0.55
Cache	3.16	3.28	3.19	3.17	3.14	3.13	3.10	3.05	-0.19
Rich	3.21	3.25	2.70	2.61	2.59	2.66	2.76	2.48	-0.59
WASATCH FRONT	3.11	3.05	2.88	2.82	2.79	2.77	2.73	2.66	-0.37
Davis	3.58	3.44	3.01	2.91	2.85	2.82	2.77	2.67	-0.73
Morgan	3.63	3.55	3.04	2.90	2.84	2.80	2.75	2.66	-0.80
Salt Lake	3.03	2.98	2.85	2.80	2.76	2.73	2.70	2.63	-0.32
Tooele	3.23	3.07	2.79	2.74	2.73	2.71	2.68	2.63	-0.43
Weber	2.99	2.94	2.87	2.85	2.86	2.86	2.85	2.79	-0.14
MOUNTAINLAND	3.54	3.57	3.36	3.35	3.31	3.28	3.22	3.14	-0.34
Summit	3.02	2.90	2.63	2.57	2.53	2.49	2.45	2.37	-0.54
Utah	3.59	3.64	3.45	3.45	3.42	3.39	3.34	3.27	-0.28
Wasatch	3.26	3.14	2.84	2.77	2.75	2.73	2.69	2.58	-0.53
CENTRAL	3.19	3.17	2.81	2.72	2.68	2.65	2.59	2.46	-0.70
Juab	3.21	3.06	2.85	2.77	2.72	2.68	2.60	2.47	-0.61
Millard	3.28	3.32	2.93	2.72	2.66	2.64	2.60	2.42	-0.87
Piute	3.06	2.84	2.65	2.59	2.53	2.46	2.37	2.26	-0.67
Sanpete	3.17	3.20	2.84	2.80	2.79	2.77	2.72	2.59	-0.56
Sevier	3.19	3.11	2.72	2.64	2.59	2.54	2.48	2.35	-0.79
Wayne	3.11	3.07	2.73	2.63	2.65	2.62	2.56	2.44	-0.61
SOUTHWEST	3.23	3.13	2.91	2.89	2.88	2.87	2.83	2.75	-0.36
Beaver	3.06	2.97	2.86	2.85	2.92	2.94	2.90	2.80	-0.17
Garfield	3.00	2.99	2.75	2.70	2.70	2.71	2.70	2.65	-0.34
Iron	3.28	3.21	3.04	3.10	3.13	3.13	3.10	3.07	-0.05
Kane	3.12	2.98	2.66	2.59	2.57	2.57	2.55	2.48	-0.50
Washington	3.28	3.14	2.90	2.86	2.84	2.82	2.78	2.69	-0.44
UINTAH BASIN	3.48	3.33	2.91	2.75	2.65	2.59	2.53	2.37	-0.95
Daggett	3.15	2.70	2.39	2.29	2.25	2.20	2.18	2.09	-0.75
Duchesne	3.57	3.38	2.96	2.82	2.73	2.67	2.60	2.47	-0.90
Uintah	3.44	3.33	2.89	2.73	2.62	2.56	2.49	2.32	-0.99
SOUTHEAST	3.30	3.12	2.85	2.70	2.61	2.54	2.46	2.33	-0.83
Carbon	3.03	2.91	2.73	2.64	2.61	2.57	2.52	2.40	-0.53
Emery	3.48	3.43	2.98	2.74	2.61	2.53	2.44	2.29	-1.12
Grand	2.98	2.59	2.43	2.31	2.23	2.17	2.11	1.99	-0.71
San Juan	4.04	3.68	3.36	3.12	2.92	2.78	2.66	2.48	-1.17
STATE OF UTAH	3.20	3.15	2.97	2.92	2.89	2.86	2.83	2.75	-0.36

Notes:

January 2000 Baseline Projections

AARC is average annual rate of change.

1980 and 1990 average household sizes are April 1 U.S. Census household sizes; all others are July 1 household sizes.

Sources: U.S. Bureau of the Census; Utah Population Estimates Committee; Governor's Office of Planning and Budget, 2000 Baseline, UPED Model System.

Table 13
Projections of Employment by County and District

MCD/County	1980	1990	2000	2005	2010	2015	2020	2030	AARC 1990-2030
BEAR RIVER	41,773	56,907	82,121	92,166	102,819	112,499	120,090	133,977	2.16
Box Elder	15,232	19,598	26,476	29,990	33,667	36,748	39,168	43,756	2.03
Cache	25,798	36,535	54,579	61,065	67,989	74,553	79,708	88,982	2.25
Rich	743	774	1,066	1,111	1,163	1,198	1,214	1,239	1.18
WASATCH FRONT	456,950	614,966	895,107	988,358	1,110,262	1,217,713	1,300,960	1,454,692	2.18
Davis	53,246	77,171	114,499	127,850	142,910	156,518	166,989	187,069	2.24
Morgan	1,797	1,895	2,776	2,961	3,224	3,438	3,585	3,855	1.79
Salt Lake	331,115	443,349	650,838	715,405	802,175	877,327	935,061	1,040,223	2.15
Tooele	11,562	12,559	14,982	17,294	20,076	22,664	24,801	28,882	2.10
Weber	59,230	79,992	112,012	124,848	141,877	157,766	170,524	194,663	2.25
MOUNTAINLAND	88,244	133,676	218,697	246,802	285,201	318,185	344,797	408,521	2.83
Summit	5,528	11,454	22,591	24,449	28,692	32,992	36,504	43,087	3.37
Utah	79,565	118,344	189,386	214,465	247,153	274,569	296,602	351,179	2.76
Wasatch	3,151	3,878	6,720	7,888	9,356	10,624	11,691	14,255	3.31
CENTRAL	19,434	22,329	32,179	35,753	39,030	42,020	43,994	47,466	1.90
Juab	2,416	2,455	3,730	4,335	4,911	5,466	5,884	6,643	2.52
Millard	3,769	5,363	6,111	6,566	6,955	7,288	7,447	7,691	0.91
Piute	512	382	492	544	584	615	635	652	1.35
Sanpete	5,562	6,299	10,263	11,343	12,334	13,226	13,800	14,819	2.16
Sevier	6,313	6,850	9,918	11,025	12,044	12,975	13,592	14,678	1.92
Wayne	862	980	1,665	1,940	2,202	2,450	2,636	2,983	2.82
SOUTHWEST	22,297	37,087	75,637	90,844	108,690	126,153	142,260	178,909	4.01
Beaver	1,823	2,033	3,307	3,960	4,338	4,652	4,881	5,425	2.48
Garfield	2,321	2,165	3,177	3,564	4,004	4,394	4,723	5,468	2.34
Iron	7,357	9,987	19,112	22,264	25,309	28,084	30,461	35,935	3.25
Kane	1,523	2,269	4,040	4,438	5,487	6,538	7,542	9,797	3.72
Washington	9,273	20,633	46,001	56,618	69,552	82,485	94,653	122,284	4.55
UINTAH BASIN	15,194	15,842	20,899	22,432	23,859	25,446	26,395	27,608	1.40
Daggett	405	444	607	652	698	747	778	814	1.53
Duchesne	5,963	5,849	7,823	8,531	9,192	9,909	10,371	11,012	1.59
Uintah	8,826	9,549	12,469	13,249	13,969	14,790	15,246	15,782	1.26
SOUTHEAST	23,496	21,910	29,152	31,956	34,283	36,157	37,190	39,646	1.49
Carbon	9,922	9,302	12,366	13,600	14,600	15,445	15,784	16,879	1.50
Emery	5,401	4,901	5,207	5,670	6,062	6,355	6,777	7,217	0.97
Grand	4,016	3,365	5,701	6,141	6,493	6,750	6,792	7,065	1.87
San Juan	4,157	4,342	5,878	6,545	7,128	7,607	7,837	8,485	1.69
STATE OF UTAH	667,388	902,717	1,353,792	1,508,311	1,704,144	1,878,173	2,015,686	2,290,819	2.36

Notes:

January 2000 Baseline Projections

AARC is average annual rate of change.

Total Employment includes Agriculture, Private Household and Non-Farm Proprietors employment.

Totals differ in this table from other tables in this report due to different release dates or data sources.

Sources: U.S. Bureau of of Economic Analysis; Utah Department of Work Force Services;
Governor's Office of Planning and Budget, 2000 Baseline, UPED Model System.

Economic Development Activities

Economic Development Activities

Overview

The rapid pace of change in the economy over the past 20 years is having a profound effect at both the national and state level. These changes have been the result of dramatic technological advances over the last several decades, an increased globalization of the economy, and the on-going deregulation of key sectors of the economy such as transportation, communications, financial services and utilities. In turn, these changes are having equally dramatic effects on the factors of production, especially the labor force; which in turn has important ramifications for state economic development activities.

The "New Economy"

New information technologies have been instrumental in the emergence of a "global" economy in the last ten years. Consumers are buying more foreign goods, a growing number of firms now operate across national borders, and savers are investing more than ever before in far-flung places. Indeed, globalization has become the buzzword of the 1990s, and national economies are undoubtedly becoming steadily more integrated as cross-border flows of trade, investment and financial capital increase.

However, a global economy does not necessarily mean an economy where foreign trade is predominant -- which is certainly not the case in the United States. Although the external trade sector (imports and exports) is increasing rapidly in the US, it was only 6% of Gross Domestic Product in 1970, a little over 10% at the start of the decade, and is still less than 20% of GDP.

In addition, despite popular perception, while the globalization of the economy undoubtedly puts competitive pressure on firms, most international trade is and will remain for the foreseeable future, between the industrial countries, limiting the impact of newly industrializing economies on domestic labor markets. Furthermore, the expansion of the world economy to newly industrializing areas in Asia and in Latin America creates new markets, raises demand for goods and services, and thus increases employment in both developing and developed economies.

A global economy is, however, one in which strategic, core activities function in real time on a worldwide scale. And this globalization became possible only recently because of technological infrastructure provided by telecommunications, information systems, electronic machinery, and computer-based transportation networks. Thus much of capital, technology, management, information, and core markets are global. Further, it is projected that new technology will encourage further integration. Telecommunication prices will probably fall even more sharply over the next decade.

As the "new economy" grows, it alters ever more aspects of American business and is affecting even more parts of the country. Productivity figures are finally starting to show that the accessibility of up-to-date information offered by information technology has allowed substantial improvements in corporate efficiency. Production planning is made easier; inventories can be reduced; delivery lead-times fall; and the nature of distribution is altered. The Internet and its associated technologies will help make markets progressively more transparent by disseminating real time information, allowing buyers and sellers to compare prices in different countries. All of these factors increase the flexibility of capital goods, making capital investment more attractive and productive.

On the other hand, we are all familiar with the negative side of the ledger: the worry that US living standards are falling and Americans aren't as well off as they were 25 years ago. By some calculations, after adjusting for inflation, average wages have been stagnant or declining since the mid-70's, and it now takes two workers to maintain a middle-class lifestyle. The perception is that the United States, with a widening trade deficit and fewer manufacturing jobs, is falling behind as other nations grow faster.

In one sense, the scope of the problem tends to be exaggerated. In many economies, competition (domestic as much as foreign) and new technology are touching people who were hitherto immune from such forces. As the Economist puts it, "While it seems to many that the world has changed in a terrifying way; often it is merely that their corner has become more like the world at large". Moreover, crucial aspects of "living standards" are debatable. Have real household earnings stagnated, as is so often reported? It depends what you mean by "real", because inflation adjustments have been notoriously problematic. It depends what you mean by "household", because the composition of American households has changed a lot over the last twenty-five years. It depends what you mean by "earnings", because employers now pay their workers a significantly larger share of total compensation in the form of non-wage benefits.

Indeed, the complexity of the new interactions in the new global economy can barely be captured by traditional measures. According to a report by the Organization for Economic Cooperation and Development, the evidence increasingly shows that the impact of trade on the labor force has been underestimated. The best estimates are now that between 1960 and 1990, skilled workers in Europe and the US benefited from the process of globalization, both in employment and wages. But unskilled workers were buffeted by competition from developing countries. By most statistics, demand for unskilled labor has dropped by some 20 per cent, and real wages have declined.

In reality, technology simultaneously creates and destroys employment. The balance between the two is affected by individual attributes, firms' strategies, and government policies. Globalization of production does put pressure on workers and eliminates many unskilled manufacturing jobs in the advanced economies, but it also creates jobs, both in skilled professional occupations as well as unskilled services. Aren't most new jobs in the low-skilled, MacDonald-type jobs? This is another of the myths that seem to dominate the debate. High-skilled jobs are more in demand by employers than low-skilled ones, and overall the occupational structure is being upgraded. Of the 50 jobs projected to be the fastest growing in Utah over the next decade, 36 would fit this pattern; as would half of the 50 occupations projected to have the most total new jobs. Overall, the dominant trend is towards the automation of routine tasks and the retraining and upgrading of work content in middle skill level job categories.

In a sense the "new economy", or "digital economy", or "technology economy" means no more than " the rapid growth of high-tech firms and workers". According to the US Commerce Department, in real terms, American companies increased their annual investment in computers fourteen-fold in the 1990s, while other capital investment

hardly rose at all. As a result, the info-tech industry has grown at a startling rate. Although perhaps somewhat overstated, it claims that between 1995 and 1998 the IT sector, despite accounting for only about 8% of America's GDP, contributed, on average, 35% of the country's economic growth. By 2006, according to its report "The Emerging Digital Economy II", almost half the American workforce will be employed in industries that are either big producers or intensive users of information technology.

Economic Development Activities

While the nature, or even the existence of the "new economy" may be debated, the trends in the US economy outlined are having a profound effect on industries and occupations. These, in turn, have important ramifications for state economic development activities.

Although every industry has different requirements, there are four main components of a state's "business climate". The first, essentially outside government control, is location. In Utah, with a central location among the markets of the west, abundant natural resources, and relatively low energy costs, economic development efforts have traditionally benefitted from location factors.

The second is the quality and availability of infrastructure, including such things as telecommunications, airports, highways, and railroads. The new economy has moved communications infrastructure to the top of the list. In anticipation of the 2002 Olympic Winter Games, communications companies are spending some $200 million to install more than 400 miles of fiber-optic cable, 10 high-speed SONET telecommunications rings, and an extensive high-speed networking system. This will be part of Utah's Olympic legacy. In other areas, Utah is stretching its resources to maintain a leading position. The state is spending some $2.8 billion over 10 years for roads and transportation infrastructure. The Salt Lake International Airport is planning a $1.26 billion expansion.

The component has been receiving the most attention the last few years is the state's "incentive packages" and the tax and regulatory environment. Although most experts agree incentives can play a critical role in picking one site over another, all other factors being equal, they also agree that incentives are almost never the primary consideration. According to Plants, Sites, and Parks, a site selection magazine, companies make their relocation decisions based on such key factors as the quality, cost, and availability of the labor pool, transportation network, market proximity, facility costs, utility infrastructure and executive lifestyle. They cite a 1998 survey which found that business people replied "no" by a 5-to-4 ratio when asked: "Do local or state government incentives play a part when considering a corporate relocation?"

By far the most important consideration is the quality and availability of labor. This is not surprising when on average labor accounts for 58% of total business costs. Further, labor costs are about 14 times that of state and local business taxes. In the past the other factors, such as natural resources and proximity to markets and suppliers were predominant, and are clearly still important; but in a technology driven economy, competitive advantage is based primarily on the education and skills of the labor force.

In their recent report "Economic Development Policies of the States", the Utah Foundation determined that, "Economic incentives are, at best, tools that can occasionally make the difference in attracting a company to the state or in helping an existing company expand in the state. This is true when other essential items, such as a good workforce, adequate infrastructure, stable fiscal environment and a generally high quality of life are already in place. Most important is the state's workforce. This means continued focus on a quality educational system, both public and higher education. There is substantial agreement among Utah economists that it is Utah's fast-growing and productive workforce that is the state's greatest asset. The state high birth rate assures the state of a fast growing workforce. The state's educational system (with sufficient financial, public and parental support) must mold this workforce into a well-educated one."

This rapid labor force growth has been a substantial advantage for Utah. Since 1960 the population in Utah has increased an average of 2.3% per year, compared to 1% for the US. And during this period, Utah often enjoyed substantial in-migration of skilled workers. Secondly, it is relatively well educated. Utah ranks 2nd, 81.5, in percent of the population completing high school. It ranks 4th in those with a high school diploma and a college education up to a Bachelors (62.9%), and it places 14th (22.2%) for those with a Bachelor's or higher. Third, it is comparatively young. The average age of the US labor force is over 41 years, while in Utah it is 37 years. With a young labor force comes competitive wage rates. The national average annual wage in 2000 is projected at $34,500 compared to $28,400 in Utah. Finally, surveys of companies and business executives routinely complement Utah workers on their strong work ethic.

On the other hand, the ability of the system to provide basic skills is being called into question. According to a recent survey conducted by the National Association of Manufacturers and Grant Thornton, 88% of US manufacturers report a shortage of qualified workers in at least one job category. 60% say their workers lack basic math skills, 55% find their workers are seriously weak in basic writing and comprehension skills, and 63% say their workers are tardy, chronically absent, or unwilling to work a full day. Half found it difficult to give employees more responsibility. Two thirds say they are having difficulty improving productivity and upgrading technology.

Employers also increasingly recognize that once hired, they need to retain their qualified employees. According to the National Association of Manufacturer's survey, just over 80% of respondents said that they offer educational and training opportunities, beyond remedial programs, to employees. In addition, 96% of respondents spent some amount on training their non-management workers, and nearly half invest 2% or more of payroll to train their shop floor and other hourly workers. This compares to 1991, when their survey found that companies were spending an average of less than 0.5%.

According to recent Bureau of Labor Statistics figures, employers with 50 or more employees spend about $330 per year per employee on training, not including the wages of the employees or the cost of materials and equipment. This figure alone is over $18 billion per year. The Progressive Policy Institute estimates that corporate training budgets are about 0.7 percent of GDP, or $58.6 billion. However, all employees are not equal. Training is more prevalent among highly educated workers than other workers: 61 percent of college-educated workers participated in on-the-job training in 1991, compared to 22 percent of workers with a high school degree. This may be in part because more-educated workers are in greater need of training to perform more complex jobs, but there are other possibilities discussed later.

An indication of Utah's lead in the training area is a survey of employers sponsored by the Department of Community and Economic Development, also in 1991. At that time, 87% of Utah

employers surveyed offered some "in-house" training, and of those 12% offered basic/remedial skills, 64% management training, and 86% training in technical skills. The percentages have undoubtedly increased since.

Nevertheless, a December 1995 survey conducted by Dan Jones and Associates for the Utah Partnership for Educational and Economic Development found that the primary challenge facing employers in Utah is finding qualified applicants (56%). 57% said they needed employees with basic reading, math, and communication skills. 20% cited a need for learning ability and technological literacy. Almost 40% claimed problems finding employees with a strong work ethic/positive character attributes.

The Contribution of Education to Economic Performance

"Human capital"-- the skills and competences of individuals -- is a powerful determinant of national and state economic performance, business productivity, and individual labor market outcomes. It is a long-standing fact in most countries that better-educated individuals have, on average, higher earnings, higher rates of labor force participation, and lower unemployment than those with fewer qualifications. According to a study by the Organization for Economic Cooperation and Development:

Labor force participation rates rise with educational attainment. The relationship is especially strong for women. In the US the participation rate rises from 45% for women without a high school diploma to 82% for those with a university education. The relationship is somewhat weaker for men, because their participation rates approach universal levels. However, even in the case of men, those with less than a high school diploma have markedly lower participation rates than any other group. The US numbers are a 72% participation rate for men with less than a high school diploma, rising to 93% for those with a university education.

The relationship between educational attainment and earnings is even stronger than for labor force participation. According to the Bureau of the Census, while it is true that only about 22% of all jobs require a bachelor's degree or more, and another 23% an associates degree or intensive on-the-job training, the economic return associated with increased schooling, especially a college education, is clear and growing. Since 1963 the importance of a college education has increased for men. College-educated men had a median income of $47,126 in 1997, a 22 percent increase since 1963 ($38,496 in current dollars). In all other educational groups, men's incomes have actually declined, in real terms, since 1963. The incomes of women have risen for all educational groups since 1963. The largest increase is among women with a bachelor's degree or higher, whose incomes have grown $10,338 to $29,781 in 1997, or 53.2%.

There is a strong relationship between educational attainment levels and unemployment. In all countries, the least qualified experience higher unemployment than anyone else, usually by a wide margin. In the US, the unemployment rate for persons with less than a high school diploma is twice that of graduates and over three times that of those with a university level education.

One line of reasoning goes that the better labor market experience of more educated workers is attributable to the fact that education provides skills, competencies, and knowledge that enhance productivity. Another argues that employers prefer to hire more educated persons not because of the productivity-enhancing qualities of education, but because educational attainment serves as a screening device enabling them to select individuals who are inherently more productive or who are more likely to succeed in high-productivity jobs. However, according to the OECD, research increasingly shows that education plays a significant role in human capital formation, over and above any function as a screening device. They support the view that human capital growth contributes positively to national economic performance.

Conclusion

In the US and other rich economies the mix of jobs is changing rapidly, away from manufacturing and towards services, both old and new. But what many of the new jobs have in common is that they are based to a greater extent than before on information. The new jobs in tomorrow's industries, in manufacturing and services alike, will call for more than learning fixed, structured tasks. They will require workers that are literate in both reading and numbers, adaptable and trainable- in a word educated.

It has also become apparent that labor market requirements are changing so quickly that in order to maintain their employability, individuals should seek to acquire new skills and competencies, over and above those acquired in initial education and training. One of the main reasons for the labor market success of people with high levels of educational qualifications is that they are more likely to have the skills and motivation to continue learning throughout their lives.

Technology will continue to power globalization, and by allowing more efficient use of world resources, globalization will boost average incomes. However, the costs and the benefits will be unevenly distributed. Many people- notably unskilled manufacturing workers in rich economies-will find the demand for their labor falling as the jobs they used to do are mechanized or performed more cheaply elsewhere. Employment figures for the US from the mid-80's to the mid-90's show that for 33 major industry groups and divisions, the share of jobs requiring less than a H.S. diploma declined in 28.

Thus, the high levels of investment in training by employers noted earlier also tend to widen the gap in learning and economic outcomes between the least- and most- qualified. Those with low educational qualifications tend to be doubly handicapped, first by a lower overall likelihood of participating in various forms of learning, and second by the fact that they are more likely to be concentrated in industries in which employment of less skilled workers is declining in relative, and in many cases, absolute terms.

In summary, the evidence on the contribution of continuing learning to enterprise performance and individual labor market outcomes show that there are potentially strong financial incentives for governments, businesses, and individuals to invest in training. Commenting on one of its own studies, the OECD observed "this emphasis on lifelong learning in an organization concerned primarily with economic development reflects the growing realization that knowledge is potentially the key factor input that determines comparative advantage in advanced modern economies".

However, Utah state and local government already spends some $3.5 billion on education. Other than striving to maintain adequate levels of funding for both public and higher education, what can government do to promote growth in productivity and raise overall living standards?

Perhaps most importantly, it can play a role in making learning more affordable by helping to reduce its costs. This can be accomplished by encouraging and disseminating innovations that enhance the efficiency and quality of learning, regardless of the setting in which it occurs. Possible measures include formally evaluating the cost-effectiveness of different teaching and learning approaches, including those that are technology-based; seeking ways to stimulate competition among training providers; or finding other means to strengthen incentives for providers to adopt cost-effective teaching and learning approaches.

The fact is; as noted above, the preponderance of training actually carried out in a modern economy provided at the employer's initiative. The evidence, supported by studies in Utah as far back as 1987, suggests that the skills companies seek in workers and which they are reluctant to teach themselves are the elementary ones of effective work habits, basic mathematics and literacy. Although entry-level industry-related skills are desirable, at a time of tight labor markets across the country, many firms mainly want not trained but trainable workers.

Future economic growth and prosperity depends on all potential workers having the skills, motivation and opportunities to learn, and keep learning, throughout their working lives. Without the adaptability and flexibility that learning can bring, individuals, businesses, states, and the nation will struggle in the face of economic and social changes. ❊

Economic Indicators

Demographics

Overview

Utah's July 1, 1999 population is estimated to be 2,121,053 persons. The 1.9% rate of annual increase is lower than the State's trend rate of 2.3% over the past fifty years. This population growth rate continues to exceed that of the nation, with natural increase accounting for most of the growth. Births and natural increase were at record levels for the State. Utah also continues to have a distinctive demographic profile, as compared to other states. Utah residents, on average, are younger, live longer, have higher fertility rates and more persons per household.

1999 Population Estimates

The Utah Population Estimates Committee has released its preliminary population estimates for July 1, 1999. State population reached 2,121,053 persons, a year over increase of 38,551 or 1.9%. This represents a slight increase over last year's population growth, both in absolute and relative terms. The natural increase component of population increase (births minus deaths of 33,798) and the implied net migration (of 4,753) exceed those of last year.

Growth rates vary considerably among counties. Ten of the state's 29 counties are estimated to have increased population by 3.0% or more in the July 1, 1998 to July 1, 1999 period. Four of these counties– Tooele (8.0%), Utah (3.8%), Summit (3.1%), and Wasatch (3.0%) Counties– are in the Greater Wasatch Area, the region that includes counties in and adjacent to Utah's northern metropolitan areas. Washington (3.6%), Iron (3.4%), and Beaver (3.3%) Counties, located in southwestern portion of the state, are also among the most rapidly growing counties. Piute (4.0%), Wayne (3.2%), and Daggett (3.4%) are also among the top ten growth rate counties but are among the four smallest counties in the state.

Nine counties are estimated to have had out-migration last year. These include Salt Lake, Carbon, Cache, San Juan, Emery, Millard, Sanpete, Duchesne, and Uintah Counties. The population of Salt Lake County is the largest and is estimated to have grown at a 0.6% rate. Carbon, Emery, Millard, and San Juan Counties are estimated to have fewer people on July 1, 1999 than on July 1, 1998.

So, of the state's four Wasatch Front Counties, one (Utah County) is among the fastest growing, one (Salt Lake County) is among the slowest growing, Davis County has experienced a more rapid than average 2.6% growth rate, and Weber County is growing at a just-below-average 1.6% rate in the most recent year-over period.

Utah's Young Population: Age Structure

Since 1940, Utah's rate of population growth has been about twice that of the nation. The state's population is younger, women tend to have more children, people on average live in larger households, and people tend to survive to older ages in comparison with the populations of other states. All of these factors lead to an age structure that is unique among States. According to the most recent estimates prepared by the Bureau of the Census, Utah has the lowest median age (26.7 years old) and the highest shares of its total population in the preschool age (9.7%) and school age groups (23.7%) and the smallest share of its total population in the working age group (57.8%). Only Alaska has a smaller share of its total population that is 65 years and older (retirement age) than does Utah (8.8%).

Another way to present this information is the "Dependency Ratio," which is a calculation of the number of non-working age persons (those less than 18 years old plus those 65 years and older) per 100 persons of working age (ages 18 to 65 years old).[1] The total dependency ratio for Utah in estimated by the Census to be 72.9 in 1998, the same as in 1997. Utah has had the highest dependency ratio among all states for some time. Florida has a large retirement age population and the second highest dependency ratio.

Components of Population Change

If population increase is examined in isolation from the underlying economic growth and capital accumulation, annual population increase can be classified according to natural increase (annual births less annual deaths) and net in-migration (gross in-migration less gross out-migration measured over a year). Fluctuations in net migration are much more volatile and more difficult to forecast than are fluctuations in natural increase. This simple framework provides an accounting but not an explanation of annual population change.

Total population increased by 38,551 persons from July 1, 1998 to July 1, 1999. Natural increase accounted for 33,798 (88%) while net in-migration account for 4,753 (12%) of the increase. Annual births (45,434) were at a record level and annual deaths were 11,636.

Fluctuations in the annual amount of natural increase may result from changes in the size, age structure, and vital rates (fertility and mortality) of the population. While vital rates do change over time, these changes are generally gradual, although extreme events (wars, famine, etc.) cause abrupt changes. Utah's total fertility rate (TFR), estimated to be 2.68 in 1999, continues to be higher than that of the nation, although the differential has recently narrowed, particularly since 1977.[2] Similarly, mortality rates generally change quite slowly over time.[3] Life expectancy has increased for men and women over time in both Utah and the nation, most recently in the oldest age groups.[4] According to the National Center for Health Statistics 1989-1991 decennial life tables, Utah currently ranks behind Hawaii and Minnesota for long life expectancy. From 1940 through 1999, natural increase contributed about 80% of the cumulative population increase in Utah. The young population combined with high fertility and low mortality rates contribute to this growth.

In contrast, much more volatile non-demographic processes govern in-migration to and out-migration from the state, although the age structure certainly affects and is affected by migration itself. Regional differences in economic opportunity; quality of life; wages;

1 While it is questionable to classify wealthy retirees as "dependents" along with toddlers in day care and young people in school, the Dependency Ratio has become a fairly standard measure of age structure.

2 The total fertility rate is the sum of observed age-specific fertility rates for a particular period of time. It is the total number of children a woman would have if she experiences at every age the observed fertility rate. It is a child per woman measure that is used to calculate completed family size.

3 Age specific mortality rates may be calculated from survival rates. These may be viewed as mutually exclusive and exhaustive probabilities. That is, the probability of surviving from age 70 to age 71 plus the probability of a 70 year old dying before their seventy first birthday is 100%. Either the person will or will not survive until their next birthday.

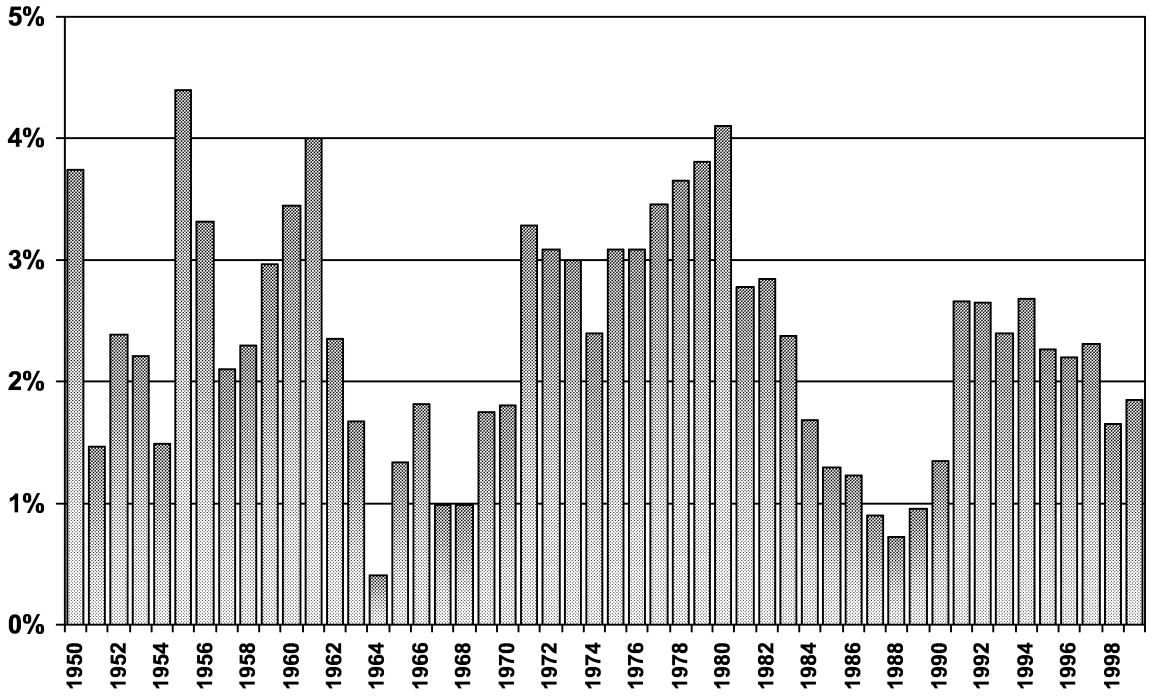
4 See National Center for Health Statistics. US Decennial Life Tables for 1989-91, Volume 1, No. 3, *Some Trends and Comparisons of United States Life Table Data: 1900-1991,* Hyattsville, Maryland, 1999. Available at http://www.cdc.gov/nchs/data/de89_1_3.pdf.

cost of living; and access to goods, services, education, and amenities are factors that motivate people to migrate. Among these, fluctuations in economic opportunity– cyclical changes in the annual growth rate of jobs– are the widest and most unpredictable. Employment related migration may be, and has historically been, positive or negative from one year to the next. The most recent cycle of in-migration to the state began in 1991, peaked in 1994, and continues at a decelerating rate through 1999, although the level is somewhat higher than 1998.

County Race and Hispanic Origins Estimates, State Household, and City Population Estimates

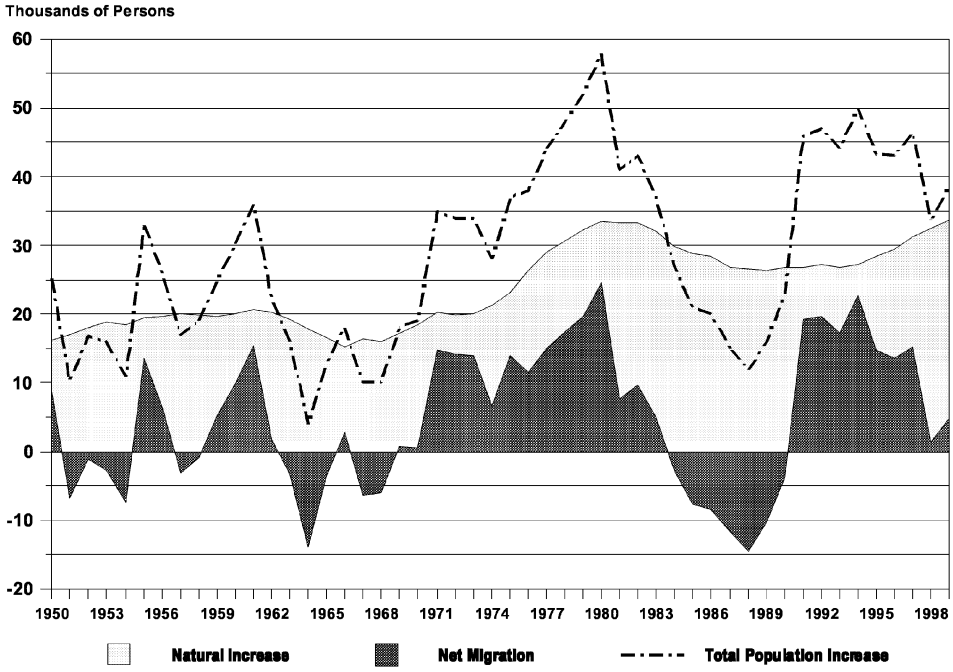
The most recent Census Bureau county level estimates of population, race and Hispanic origin (July 1, 1998) are included in this chapter as are Census Bureau state household estimates (July 1, 1998) and city population estimates (1990-1998). Although Utah is less racially and ethnically diverse than the nation, it is, over time, becoming more diverse. Within the state, Carbon, Salt Lake, San Juan, Tooele, Uintah, and Weber Counties are among the most diverse, according to these estimates. Utah's 3.06 persons per household is the highest in the nation. ✻

Figure 10
Utah Population-- Annual Percent Change



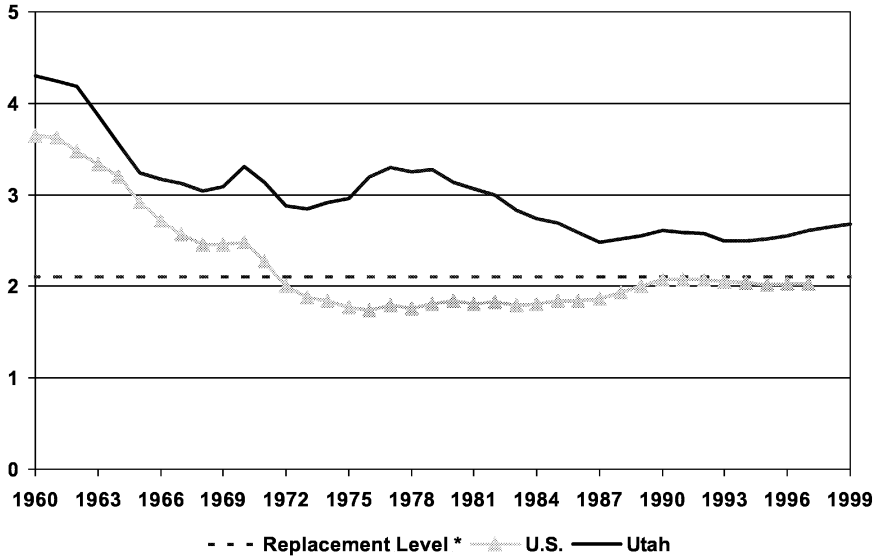
Source: Utah Population Estimates Committee

Figure 11
Utah Components of Population Change



Source: Utah Population Estimates Committee

Figure 12
Total Fertility for U.S. and Utah



*Fertility level at which current population is replaced
Source: National Center for Health Statistics, Governor's Office of Planning and Budget, UPED/CASA, Eileen Brown, "Fertility in Utah: 1960-1985"

Table 14
Utah Population Estimates, Net Migration, Births and Deaths

Year	July 1st Population	Percent Change	Increase	Net Migration** (r)	Net Migration as a Percent of Prev. Year's Population (r)	Natural Increase (r)	Fiscal Year Births (r)	Fiscal Year Deaths (r)
1940	551,800	---	---	---	---	8,419	13,038	4,619
1941	551,000	-0.14%	(800)	(9,631)	-1.75%	8,831	13,293	4,462
1942	571,200	3.67%	20,200	10,231	1.86%	9,969	14,357	4,388
1943	640,000	12.04%	68,800	57,284	10.03%	11,516	16,182	4,666
1944	604,700	-5.52%	(35,300)	(47,122)	-7.36%	11,822	16,536	4,714
1945	589,100	-2.58%	(15,600)	(26,992)	-4.46%	11,392	15,937	4,545
1946	638,000	8.30%	48,900	36,649	6.22%	12,251	16,955	4,704
1947	636,000	-0.31%	(2,000)	(19,178)	-3.01%	17,178	21,905	4,727
1948	653,000	2.67%	17,000	943	0.15%	16,057	20,856	4,799
1949	670,800	2.73%	17,800	2,207	0.34%	15,593	20,354	4,761
1950	695,900	3.74%	25,100	8,966	1.34%	16,134	21,027	4,893
1951	706,100	1.47%	10,200	(6,842)	-0.98%	17,042	21,801	4,759
1952	723,000	2.39%	16,900	(1,160)	-0.16%	18,060	23,116	5,056
1953	739,000	2.21%	16,000	(2,889)	-0.40%	18,889	23,573	4,684
1954	750,000	1.49%	11,000	(7,469)	-1.01%	18,469	23,439	4,970
1955	783,000	4.40%	33,000	13,484	1.80%	19,516	24,584	5,068
1956	809,000	3.32%	26,000	6,348	0.81%	19,652	24,975	5,323
1957	826,000	2.10%	17,000	(3,139)	-0.39%	20,139	25,443	5,304
1958	845,000	2.30%	19,000	(855)	-0.10%	19,855	25,760	5,905
1959	870,000	2.96%	25,000	5,259	0.62%	19,741	25,610	5,869
1960	900,000	3.45%	30,000	9,947	1.14%	20,053	26,011	5,958
1961	936,000	4.00%	36,000	15,371	1.71%	20,629	26,560	5,931
1962	958,000	2.35%	22,000	1,817	0.19%	20,183	26,431	6,248
1963	974,000	1.67%	16,000	(3,317)	-0.35%	19,317	25,648	6,331
1964	978,000	0.41%	4,000	(13,863)	-1.42%	17,863	24,461	6,598
1965	991,000	1.33%	13,000	(3,553)	-0.36%	16,553	23,082	6,529
1966	1,009,000	1.82%	18,000	2,810	0.28%	15,190	21,953	6,763
1967	1,019,000	0.99%	10,000	(6,350)	-0.63%	16,350	23,030	6,680
1968	1,029,000	0.98%	10,000	(6,029)	-0.59%	16,029	22,743	6,714
1969	1,047,000	1.75%	18,000	798	0.08%	17,202	24,033	6,831
1970	1,066,000	1.81%	19,000	612	0.06%	18,388	25,281	6,893
1971	1,101,000	3.28%	35,000	14,816	1.39%	20,184	27,400	7,216
1972	1,135,000	3.09%	34,000	14,096	1.28%	19,904	27,146	7,242
1973	1,169,000	3.00%	34,000	13,960	1.23%	20,040	27,562	7,522
1974	1,197,000	2.40%	28,000	6,621	0.57%	21,379	28,876	7,497
1975	1,234,000	3.09%	37,000	13,947	1.17%	23,053	30,566	7,513
1976	1,272,000	3.08%	38,000	11,611	0.94%	26,389	33,773	7,384
1977	1,316,000	3.46%	44,000	14,924	1.17%	29,076	36,707	7,631
1978	1,364,000	3.65%	48,000	17,420	1.32%	30,580	38,289	7,709
1979	1,416,000	3.81%	52,000	19,668	1.44%	32,332	40,216	7,884
1980	1,474,000	4.10%	58,000	24,486	1.73%	33,514	41,645	8,131
1981	1,515,000	2.78%	41,000	7,612	0.52%	33,388	41,509	8,121
1982	1,558,000	2.84%	43,000	9,662	0.64%	33,338	41,773	8,435
1983	1,595,000	2.37%	37,000	4,914	0.32%	32,086	40,555	8,469
1984	1,622,000	1.69%	27,000	(2,793)	-0.18%	29,793	38,643	8,850
1985	1,643,000	1.29%	21,000	(7,714)	-0.48%	28,714	37,664	8,950
1986	1,663,000	1.22%	20,000	(8,408)	-0.51%	28,408	37,309	8,901
1987	1,678,000	0.90%	15,000	(11,713)	-0.70%	26,713	35,631	8,918
1988	1,690,000	0.72%	12,000	(14,557)	-0.87%	26,557	35,809	9,252
1989	1,706,000	0.95%	16,000	(10,355)	-0.61%	26,355	35,439	9,084
1990	1,729,000	1.35%	23,000	(3,707)	-0.22%	26,707	35,830	9,123
1991	1,775,000	2.66%	46,000	19,235	1.11%	26,765	36,194	9,429
1992	1,822,000	2.65%	47,000	19,763	1.11%	27,237	36,796	9,559
1993	1,866,000	2.41%	44,000	17,317	0.95%	26,683	36,738	10,055
1994	1,916,000	2.68%	50,000	22,788	1.22%	27,212	37,623	10,411
1995	1,959,351	2.26%	43,351	14,868	0.78%	28,483	39,064	10,581
1996	2,002,400	2.20%	43,049	13,555	0.69%	29,494	40,495	11,001
1997	2,048,753	2.31%	46,353	15,090	0.75%	31,263	42,512	11,249
1998	2,082,502	1.65%	33,749	1,271	0.06%	32,478	44,126	11,648
1999	2,121,053	1.85%	38,551	4,753	0.23%	33,798	45,434	11,636

*In 1996, the Utah Population Estimates Committee changed its convention on rounded estimates so that it now publishes unrounded estimates. Accordingly, the estimates for 1995 and thereafter are not rounded.

**Previous to 1995, 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.

(r) = Components of Change have been revised. This includes Fiscal Year Births, Fiscal Year Deaths, Natural Increase, Net Migration and Net Migration Rates.

Sources:
Population: Utah Population Estimates Committee
Births: 1939-1949 and 1953-1972- Utah's Vital Statistics Reports, Utah Bureau of Vital Records; 1950-1952, 1973-1996- Birth Certificates held in the Utah Population Database, partially funded by the Huntsman Cancer Institute.
1997- Birth records file, Utah Bureau of Vital Records; 1998- Summary data file, Utah Bureau of Vital Records.
Deaths: 1939- Utah's Vital Statistics Reports, Utah Bureau of Vital Records; 1940-1996- Death Certificates held in the Utah Population Dat partially funded by the Huntsman Cancer Institute. 1997- Death records file, Utah Bureau of Vital Records; 1998- Summary data file, Utah Bureau of Vital Records

Table 15
Total Fertility Rates—Utah and U.S.

Year	Utah	U.S.	Year	Utah	U.S.
1960	4.30	3.65	1980	3.14	1.84
1961	4.24	3.63	1981	3.06	1.81
1962	4.18	3.47	1982	2.99	1.83
1963	3.87	3.33	1983	2.83	1.80
1964	3.55	3.21	1984	2.74	1.81
1965	3.24	2.91	1985	2.69	1.84
1966	3.17	2.72	1986	2.59	1.84
1967	3.12	2.56	1987	2.48	1.87
1968	3.04	2.46	1988	2.52	1.93
1969	3.09	2.46	1989	2.55	2.01
1970	3.31	2.48	1990	2.61	2.08
1971	3.14	2.27	1991	2.59	2.07
1972	2.88	2.01	1992	2.57	2.07
1973	2.84	1.88	1993	2.50	2.05
1974	2.91	1.84	1994	2.49	2.04
1975	2.96	1.77	1995	2.52	2.02
1976	3.19	1.74	1996	2.55	2.03
1977	3.30	1.79	1997	2.61	2.03
1978	3.25	1.76	1998	2.65	na
1979	3.28	1.81	1999	2.68	na

na = not available

note: Utah fertility rates were revised beginning in 1990.

Sources: Eileen Brown, "Fertility in Utah: 1960-1985."
The Governor's Office of Planning and Budget, UPED/CASA.
Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J.
Births: Final Data for 1997, NCHS, National Vital Statistics
Report Volume 47, Number 18, April 1999. Available online at
http://www.cdc.gov/nchs/data/nvs47_18.pdf .

Table 16
Life Expectancy at Birth for Utah and U.S.

	Utah			U.S.		
Year	Male	Female	Total	Male	Female	Total
1970	69.49	76.55	72.90	67.04	74.64	70.75
1980	72.38	79.18	75.76	70.11	77.62	73.88
1990	74.93	80.38	77.70	71.83	78.81	75.37

Source: National Center for Health Statistics, Vital Statistics of the United States, Decennial Life Tables.

Table 17
Utah Population Estimates by County

District/County	July 1, 1980	July 1, 1985	July 1, 1990	July 1, 1991	July 1, 1992	July 1, 1993	July 1, 1994	July 1, 1995	July 1, 1996*	July 1, 1997	July 1, 1998(r)	July 1, 1999 (p)	Avg. Ann. Percent Change 1980 to 99	Percent Change 1998 to 99	1999 Percent of Total Population
Bear River	93,350	102,750	108,750	110,700	113,250	116,000	118,650	120,975	123,403	126,209	128,787	131,007	1.9	1.7	6.2
Box Elder	33,500	35,500	36,500	37,100	37,500	38,100	38,500	38,910	39,484	40,235	40,927	41,732	1.2	2.0	2.0
Cache	57,700	65,200	70,500	71,900	74,000	76,100	78,300	80,259	82,098	84,186	86,067	87,440	2.3	1.6	4.1
Rich	2,150	2,050	1,750	1,700	1,750	1,800	1,850	1,806	1,821	1,788	1,793	1,835	-0.9	2.3	0.1
Wasatch Front	949,150	1,053,550	1,107,250	1,136,850	1,165,650	1,186,250	1,211,650	1,233,620	1,253,756	1,274,851	1,290,570	1,307,838	1.8	1.3	61.7
Davis	148,000	170,000	188,000	195,000	201,000	206,000	212,000	216,020	219,644	224,307	229,393	235,438	2.6	2.6	11.1
Morgan	4,950	5,250	5,550	5,650	5,850	6,150	6,350	6,497	6,693	6,875	7,101	7,262	2.2	2.3	0.3
Weber	145,000	154,000	159,000	162,000	166,000	169,000	172,000	175,276	178,066	181,045	183,014	186,020	1.4	1.6	8.8
Salt Lake	625,000	697,000	728,000	747,000	765,000	777,000	792,000	806,280	818,860	830,627	837,860	843,271	1.7	0.6	39.8
Tooele	26,200	27,300	26,700	27,200	27,800	28,100	29,300	29,547	30,493	31,997	33,202	35,847	1.8	8.0	1.7
Mountainland	239,050	267,200	291,800	299,700	308,200	321,900	331,900	342,287	354,028	368,403	379,289	393,306	2.8	3.7	18.5
Summit	10,400	13,000	15,700	17,000	18,400	19,700	21,100	22,367	23,562	24,675	25,669	26,459	5.3	3.1	1.2
Utah	220,000	245,000	266,000	272,000	279,000	291,000	299,000	307,741	317,881	330,803	340,303	353,136	2.7	3.8	16.6
Wasatch	8,650	9,200	10,100	10,700	10,800	11,200	11,800	12,179	12,585	12,925	13,317	13,711	2.6	3.0	0.6
Central	47,600	54,900	52,200	53,750	54,850	55,950	58,150	59,299	60,981	62,563	63,923	64,553	1.7	1.0	3.0
Juab	5,550	6,300	5,800	6,000	6,150	6,200	6,800	7,149	7,444	7,702	7,973	8,120	2.1	1.8	0.4
Millard	9,050	12,900	11,300	11,600	11,700	11,700	11,900	11,931	11,958	12,068	12,029	11,959	1.6	-0.6	0.6
Piute	1,350	1,300	1,250	1,350	1,350	1,350	1,450	1,424	1,508	1,534	1,581	1,644	1.1	4.0	0.1
Sanpete	14,800	16,300	16,300	16,900	17,500	18,100	18,800	19,240	19,999	20,581	21,268	21,408	2.1	0.7	1.0
Sevier	14,900	15,900	15,400	15,700	16,000	16,400	16,900	17,257	17,682	18,238	18,612	18,884	1.3	1.5	0.9
Wayne	1,950	2,200	2,150	2,200	2,150	2,200	2,300	2,298	2,390	2,440	2,460	2,538	1.5	3.2	0.1
Southwestern	56,050	70,900	83,900	87,600	91,750	97,150	103,650	110,883	116,874	121,992	125,163	129,297	4.8	3.3	6.1
Beaver	4,400	5,050	4,800	4,850	4,900	5,000	5,150	5,350	5,607	5,742	5,693	5,881	1.6	3.3	0.3
Garfield	3,700	4,000	3,950	4,100	4,100	4,200	4,200	4,308	4,386	4,525	4,482	4,550	1.2	1.5	0.2
Iron	17,500	20,100	20,900	21,500	22,400	23,800	25,200	26,866	28,032	29,338	30,495	31,518	3.3	3.4	1.5
Kane	4,050	4,950	5,150	5,250	5,350	5,450	5,700	5,884	5,957	6,039	6,078	6,144	2.3	1.1	0.3
Washington	26,400	36,800	49,100	51,900	55,000	58,700	63,400	68,475	72,892	76,348	78,415	81,204	6.4	3.6	3.8
Uintah Basin	34,150	40,300	35,500	36,600	37,200	37,500	38,950	38,652	39,111	39,792	39,739	40,147	0.9	1.0	1.9
Daggett	750	700	700	700	700	700	750	768	803	753	713	737	-0.1	3.4	0.0
Duchesne	12,700	14,700	12,600	12,800	12,900	13,200	13,500	13,549	14,032	14,402	14,256	14,381	0.7	0.9	0.7
Uintah	20,700	24,900	22,200	23,100	23,600	23,600	24,700	24,335	24,276	24,637	24,770	25,029	1.1	1.0	1.2
Southeastern	54,650	53,400	49,700	50,300	51,050	51,700	53,050	53,635	54,247	54,943	55,031	54,905	0.0	-0.2	2.6
Carbon	22,400	22,800	20,200	20,600	20,600	20,700	21,100	21,054	21,420	21,643	21,649	21,422	-0.2	-1.0	1.0
Emery	11,600	11,100	10,300	10,200	10,200	10,400	10,600	10,735	10,811	10,929	10,918	10,862	-0.4	-0.5	0.5
Grand	8,250	7,200	6,600	6,800	7,150	7,500	7,950	8,352	8,801	8,830	8,895	9,060	0.5	1.9	0.4
San Juan	12,400	12,300	12,600	12,700	13,100	13,100	13,400	13,494	13,215	13,541	13,569	13,561	0.5	-0.1	0.6
State	1,474,000	1,643,000	1,729,000	1,775,000	1,822,000	1,866,000	1,916,000	1,959,351	2,002,400	2,048,753	2,082,502	2,121,053	2.0	1.9	100.0

(p)=preliminary

(r)=revised

Note: Prior to 1995, totals may not add due to rounding.

*In 1996, the Utah Population Estimates Committee changed its convention on rounded estimates so that it now publishes unrounded estimates. Accordingly, the estimates for 1995 and thereafter are not rounded.

Source: Utah Population Estimates Committee.

Table 18
Rankings of States by Selected Age Groups as a Percent of Total Population: July 1, 1998

	All Ages		Under Age 5			Ages 5-17			Ages 18-64			Ages 65+			
Rank	State	Population	State	Population	Percent of Total	State	Population	Percent of Total	State	Population	Percent of Total	State	Population	Percent of Total	State	Median Age
	United States	270,298,524	United States	18,966,138	7.0%	United States	50,905,921	18.8%	United States	166,025,333	61.4%	United States	34,401,132	12.7%	United States	35.2
1	California	32,666,550	Utah	203,722	9.7%	Utah	497,578	23.7%	Oklahoma	2,670,025	79.8%	Florida	2,734,145	18.3%	Utah	26.7
2	Texas	19,759,614	Texas	1,615,384	8.2%	Alaska	142,903	23.3%	District of Columbia	347,455	66.4%	Pennsylvania	1,904,312	15.9%	Alaska	31.5
3	New York	18,175,301	Alaska	49,358	8.0%	New Mexico	371,207	21.4%	Virginia	4,379,691	64.5%	Rhode Island	154,327	15.6%	Texas	33.0
4	Florida	14,915,980	Arizona	368,186	7.9%	Idaho	259,691	21.1%	Vermont	376,963	63.8%	West Virginia	274,689	15.2%	Idaho	33.3
5	Illinois	12,045,326	California	2,564,274	7.8%	Wyoming	98,643	20.5%	Colorado	2,528,607	63.7%	Iowa	431,018	15.1%	California	33.3
6	Pennsylvania	12,001,451	Nevada	136,060	7.8%	South Dakota	150,843	20.4%	Georgia	4,864,764	63.7%	North Dakota	91,976	14.4%	Mississippi	33.4
7	Ohio	11,209,493	New Mexico	133,003	7.7%	Texas	4,013,816	20.3%	Maryland	3,256,073	63.4%	Connecticut	469,112	14.3%	Georgia	33.8
8	Michigan	9,817,242	Idaho	91,467	7.4%	Mississippi	554,803	20.2%	Alaska	388,193	63.2%	South Dakota	105,742	14.3%	Louisiana	33.9
9	New Jersey	8,115,011	Georgia	567,868	7.4%	Louisiana	878,063	20.1%	Tennessee	3,420,007	63.0%	Arkansas	363,232	14.3%	New Mexico	34.0
10	Georgia	7,642,207	Illinois	890,781	7.4%	Minnesota	942,066	19.9%	Delaware	468,206	63.0%	Maine	174,832	14.1%	Arizona	34.6
11	North Carolina	7,546,493	Mississippi	202,072	7.3%	Nebraska	330,989	19.9%	New Hampshire	744,140	62.8%	Massachusetts	860,604	14.0%	Illinois	34.9
12	Virginia	6,791,345	Louisiana	313,349	7.2%	Kansas	515,347	19.6%	South Carolina	2,408,260	62.8%	District of Columbia	72,710	13.9%	Virginia	35.2
13	Massachusetts	6,147,132	Hawaii	84,095	7.0%	Wisconsin	1,018,146	19.5%	Washington	3,564,803	62.7%	Nebraska	228,735	13.8%	Kansas	35.2
14	Indiana	5,899,195	Colorado	278,862	7.0%	Montana	171,598	19.5%	Maine	777,833	62.5%	Missouri	745,387	13.7%	South Carolina	35.2
15	Washington	5,689,263	North Carolina	527,045	7.0%	Oklahoma	651,067	19.5%	West Virginia	1,132,213	62.5%	New Jersey	1,105,816	13.6%	Indiana	35.2
16	Missouri	5,438,559	Indiana	410,739	7.0%	California	6,347,098	19.4%	Kentucky	2,455,350	62.4%	Kansas	354,113	13.5%	North Carolina	35.2
17	Tennessee	5,430,621	Kansas	182,105	6.9%	Michigan	1,894,530	19.3%	Massachusetts	3,828,825	62.3%	Oklahoma	448,388	13.4%	Nevada	35.2
18	Wisconsin	5,223,500	New York	1,253,472	6.9%	Colorado	761,718	19.2%	Alabama	2,699,512	62.0%	Ohio	1,500,851	13.4%	Minnesota	35.2
19	Maryland	5,134,808	Nebraska	114,653	6.9%	North Dakota	122,404	19.2%	North Carolina	4,679,966	62.0%	New York	2,423,797	13.3%	South Dakota	35.2
20	Minnesota	4,725,419	Arkansas	174,884	6.9%	Arizona	895,218	19.2%	New York	11,248,893	61.9%	Montana	117,038	13.3%	Washington	35.3
21	Arizona	4,668,631	Oklahoma	228,300	6.8%	Missouri	1,042,745	19.2%	New Jersey	5,018,756	61.8%	Hawaii	158,306	13.3%	Michigan	35.3
22	Louisiana	4,368,967	Washington	386,811	6.8%	Washington	1,085,679	19.1%	Nevada	1,079,456	61.8%	Arizona	617,538	13.2%	Nebraska	35.3
23	Alabama	4,351,999	South Dakota	50,094	6.8%	Illinois	2,296,551	19.1%	Indiana	3,642,242	61.7%	Wisconsin	690,786	13.2%	Colorado	35.5
24	Colorado	3,970,971	Alabama	294,802	6.8%	Georgia	1,454,483	19.0%	Hawaii	736,368	61.7%	Oregon	432,718	13.2%	Alabama	35.5
25	Kentucky	3,936,499	New Jersey	547,198	6.7%	New Hampshire	225,490	19.0%	Oregon	2,024,086	61.7%	Alabama	568,352	13.1%	Oklahoma	35.6
26	South Carolina	3,835,962	Minnesota	317,381	6.7%	Nevada	331,047	19.0%	California	20,140,546	61.7%	Delaware	96,326	13.0%	Kentucky	35.6
27	Oklahoma	3,346,713	Maryland	344,062	6.7%	Arkansas	478,837	18.9%	Michigan	6,042,587	61.6%	North Carolina	946,753	12.5%	Maryland	35.6
28	Oregon	3,281,974	Kentucky	263,567	6.7%	Iowa	539,958	18.9%	Wyoming	295,974	61.5%	Indiana	739,587	12.5%	New Hampshire	35.7
29	Connecticut	3,274,069	Michigan	657,085	6.7%	Indiana	1,106,627	18.8%	Connecticut	2,014,242	61.5%	Kentucky	492,856	12.5%	Delaware	35.7
30	Iowa	2,862,447	Missouri	363,871	6.7%	Ohio	2,101,841	18.8%	Texas	12,130,663	61.4%	Tennessee	679,212	12.5%	Wisconsin	35.7
31	Mississippi	2,752,092	Tennessee	362,037	6.7%	Oregon	608,229	18.5%	Ohio	6,864,637	61.2%	Michigan	1,223,040	12.5%	Wyoming	35.7
32	Kansas	2,629,067	Ohio	742,164	6.6%	North Carolina	1,392,729	18.5%	Montana	539,012	61.2%	Illinois	1,495,969	12.4%	Arkansas	35.8
33	Arkansas	2,538,303	Delaware	49,211	6.6%	South Carolina	706,248	18.4%	Louisiana	2,673,805	61.2%	Minnesota	583,097	12.3%	Ohio	35.8
34	Utah	2,099,758	Oregon	216,941	6.6%	Kentucky	724,726	18.4%	Illinois	7,362,025	61.1%	Vermont	72,573	12.3%	North Dakota	35.8
35	West Virginia	1,811,156	South Carolina	253,048	6.6%	Vermont	108,620	18.4%	Minnesota	2,882,875	61.0%	Mississippi	336,311	12.2%	Missouri	35.8
36	Nevada	1,746,898	Virginia	447,074	6.6%	Maryland	943,128	18.4%	Wisconsin	3,181,670	60.9%	South Carolina	468,406	12.2%	Tennessee	35.9
37	New Mexico	1,736,931	Connecticut	211,287	6.5%	Alabama	789,333	18.1%	Missouri	3,286,556	60.4%	New Hampshire	142,298	12.0%	New York	35.9
38	Nebraska	1,662,719	Massachusetts	393,289	6.4%	Maine	224,438	18.0%	Rhode Island	596,236	60.3%	Wyoming	55,527	11.5%	Massachusetts	36.2
39	Maine	1,244,250	Wyoming	30,763	6.4%	Hawaii	214,232	18.0%	Pennsylvania	7,237,311	60.3%	Louisiana	503,750	11.5%	Hawaii	36.2
40	Idaho	1,228,684	Florida	953,049	6.4%	New York	3,249,139	17.9%	Mississippi	1,658,906	60.3%	Maryland	591,545	11.5%	Rhode Island	36.4
41	Hawaii	1,193,001	Wisconsin	332,898	6.4%	Tennessee	969,365	17.8%	North Dakota	383,657	60.1%	Nevada	200,335	11.5%	Iowa	36.6
42	New Hampshire	1,185,048	Iowa	182,181	6.4%	Pennsylvania	2,140,017	17.8%	Idaho	738,400	60.1%	Washington	651,970	11.5%	Oregon	36.7
43	Rhode Island	988,480	North Dakota	40,207	6.3%	Rhode Island	175,805	17.8%	Kansas	1,577,502	60.0%	New Mexico	198,038	11.4%	New Jersey	36.7
44	Montana	880,453	Rhode Island	62,112	6.3%	New Jersey	1,443,241	17.8%	Arkansas	1,521,350	59.9%	Idaho	139,126	11.3%	Vermont	36.7
45	Delaware	743,603	New Hampshire	73,120	6.2%	Connecticut	579,428	17.7%	Iowa	1,709,290	59.7%	Virginia	766,976	11.3%	District of Columbia	36.7
46	South Dakota	738,171	Pennsylvania	719,811	6.0%	Virginia	1,197,604	17.6%	Arizona	2,787,689	59.7%	California	3,614,632	11.1%	Connecticut	37.0
47	North Dakota	638,244	Montana	52,805	6.0%	Delaware	129,860	17.5%	New Mexico	1,034,683	59.6%	Texas	1,999,751	10.1%	Maine	37.4
48	Alaska	614,010	District of Columbia	30,528	5.8%	Florida	2,586,883	17.3%	Nebraska	988,342	59.4%	Colorado	401,784	10.1%	Montana	37.5
49	Vermont	590,883	Vermont	32,727	5.5%	Massachusetts	1,064,414	17.3%	South Dakota	431,492	58.5%	Georgia	755,092	9.9%	Pennsylvania	37.6
50	District of Columbia	523,124	West Virginia	99,189	5.5%	West Virginia	305,065	16.8%	Florida	8,641,903	57.9%	Utah	184,098	8.8%	Florida	38.3
51	Wyoming	480,907	Maine	67,147	5.4%	District of Columbia	72,431	13.8%	Utah	1,214,360	57.8%	Alaska	33,556	5.5%	West Virginia	38.6

Note:

Totals differ in this table from other tables in this report due to different release dates or data sources.

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

Table 19
Dependency Ratios for States: July 1, 1998

Rank	State	Pre-School Age per 100 of Working Age	State	School Age per 100 of Working Age	State	Retirement Age per 100 of Working Age	State	Total Non-Working Age per 100 of Working Age
	United States	11.4	United States	30.7	United States	20.7	United States	62.8
1	Utah	16.8	Utah	41.0	Florida	31.6	Utah	72.9
2	Texas	13.3	Alaska	36.8	Pennsylvania	26.3	Florida	72.6
3	Arizona	13.2	New Mexico	35.9	Rhode Island	25.9	South Dakota	71.1
4	New Mexico	12.9	Idaho	35.2	Iowa	25.2	Nebraska	68.2
5	California	12.7	South Dakota	35.0	South Dakota	24.5	New Mexico	67.9
6	Alaska	12.7	Nebraska	33.5	West Virginia	24.3	Arizona	67.5
7	Nevada	12.6	Mississippi	33.4	North Dakota	24.0	Iowa	67.5
8	Idaho	12.4	Wyoming	33.3	Arkansas	23.9	Arkansas	66.8
9	Mississippi	12.2	Texas	33.1	Connecticut	23.3	Kansas	66.7
10	Illinois	12.1	Louisiana	32.8	Nebraska	23.1	Idaho	66.4
11	Louisiana	11.7	Minnesota	32.7	Missouri	22.7	North Dakota	66.4
12	Georgia	11.7	Kansas	32.7	Massachusetts	22.5	Mississippi	65.9
13	South Dakota	11.6	Arizona	32.1	Maine	22.5	Pennsylvania	65.8
14	Nebraska	11.6	Wisconsin	32.0	Kansas	22.4	Rhode Island	65.8
15	Kansas	11.5	North Dakota	31.9	Arizona	22.2	Missouri	65.5
16	Arkansas	11.5	Montana	31.8	New Jersey	22.0	Wisconsin	64.2
17	Hawaii	11.4	Missouri	31.7	Ohio	21.9	Minnesota	63.9
18	Indiana	11.3	Iowa	31.6	Montana	21.7	Illinois	63.6
19	North Carolina	11.3	California	31.5	Wisconsin	21.7	Louisiana	63.4
20	New York	11.1	Arkansas	31.5	New York	21.5	Montana	63.3
21	Missouri	11.1	Michigan	31.4	Hawaii	21.5	Ohio	63.3
22	Colorado	11.0	Illinois	31.2	Oregon	21.4	Texas	62.9
23	Florida	11.0	Nevada	30.7	Alabama	21.1	Connecticut	62.5
24	Minnesota	11.0	Ohio	30.6	District of Columbia	20.9	Wyoming	62.5
25	Alabama	10.9	Washington	30.5	Delaware	20.6	Michigan	62.5
26	New Jersey	10.9	Indiana	30.4	Illinois	20.3	California	62.2
27	Michigan	10.9	New Hampshire	30.3	Indiana	20.3	Oregon	62.1
28	Washington	10.9	Colorado	30.1	Mississippi	20.3	Hawaii	62.0
29	Ohio	10.8	Oregon	30.0	Michigan	20.2	Indiana	62.0
30	Kentucky	10.7	Florida	29.9	North Carolina	20.2	Nevada	61.8
31	Oregon	10.7	Georgia	29.9	Minnesota	20.2	New Jersey	61.7
32	Iowa	10.7	North Carolina	29.8	Kentucky	20.1	New York	61.6
33	Tennessee	10.6	Pennsylvania	29.6	Tennessee	19.9	North Carolina	61.3
34	Maryland	10.6	Kentucky	29.5	South Carolina	19.4	Alabama	61.2
35	Delaware	10.5	Rhode Island	29.5	Vermont	19.3	Massachusetts	60.5
36	South Carolina	10.5	South Carolina	29.3	New Mexico	19.1	Kentucky	60.3
37	Connecticut	10.5	Alabama	29.2	New Hampshire	19.1	West Virginia	60.0
38	North Dakota	10.5	Hawaii	29.1	Idaho	18.8	Maine	60.0
39	Wisconsin	10.5	Maryland	29.0	Louisiana	18.8	Washington	59.6
40	Rhode Island	10.4	New York	28.9	Wyoming	18.8	South Carolina	59.3
41	Wyoming	10.4	Maine	28.9	Nevada	18.6	New Hampshire	59.3
42	Massachusetts	10.3	Vermont	28.8	Washington	18.3	Delaware	58.8
43	Virginia	10.2	Connecticut	28.8	Maryland	18.2	Tennessee	58.8
44	Pennsylvania	9.9	New Jersey	28.8	California	17.9	Alaska	58.2
45	New Hampshire	9.8	Tennessee	28.3	Virginia	17.5	Maryland	57.7
46	Montana	9.8	Massachusetts	27.8	Oklahoma	16.8	Georgia	57.1
47	District of Columbia	8.8	Delaware	27.7	Texas	16.5	Colorado	57.0
48	West Virginia	8.8	Virginia	27.3	Colorado	15.9	Vermont	56.7
49	Vermont	8.7	West Virginia	26.9	Georgia	15.5	Virginia	55.1
50	Maine	8.6	Oklahoma	24.4	Utah	15.2	District of Columbia	50.6
51	Oklahoma	8.6	District of Columbia	20.8	Alaska	8.6	Oklahoma	49.7

Note: Totals may not add up due to rounding.

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

Table 20
Race and Hispanic Origin by County: July 1, 1998

County	Total Population	Total Hispanic	Total White	White Hispanic	White Non-Hispanic	Black	American Indian	Asian & Pacific Islander	% of Total White Non-Hispanic
Beaver	5,896	217	5,808	208	5,600	8	46	34	95.0%
Box Elder	41,949	2,616	40,794	2,505	38,289	27	476	652	91.3%
Cache	86,949	3,122	82,872	2,949	79,923	348	650	3,079	91.9%
Carbon	20,966	3,239	20,492	3,112	17,380	114	181	179	82.9%
Daggett	737	24	719	18	701	0	11	7	95.1%
Davis	233,013	12,726	222,710	11,578	211,132	3,413	1,401	5,489	90.6%
Duchesne	14,481	570	13,598	456	13,142	24	798	61	90.8%
Emery	10,989	335	10,879	318	10,561	1	52	57	96.1%
Garfield	4,272	53	4,185	47	4,138	0	74	13	96.9%
Grand	8,068	515	7,774	484	7,290	25	227	42	90.4%
Iron	28,659	711	27,557	623	26,934	80	837	185	94.0%
Juab	7,572	130	7,439	121	7,318	3	112	18	96.6%
Kane	6,200	174	6,061	170	5,891	5	95	39	95.0%
Millard	12,249	612	11,875	578	11,297	2	218	154	92.2%
Morgan	7,022	143	6,974	141	6,833	13	9	26	97.3%
Piute	1,402	25	1,390	24	1,366	1	10	1	97.4%
Rich	1,834	33	1,825	33	1,792	0	1	8	97.7%
Salt Lake	850,667	72,190	802,054	66,444	735,610	9,563	7,784	31,266	86.5%
San Juan	13,711	685	6,317	538	5,779	30	7,296	68	42.1%
Sanpete	21,452	1,200	20,745	1,083	19,662	68	271	368	91.7%
Sevier	18,452	497	18,010	467	17,543	13	382	47	95.1%
Summit	26,746	799	26,404	780	25,624	34	126	182	95.8%
Tooele	33,351	5,049	32,106	4,853	27,253	334	531	380	81.7%
Uintah	25,660	1,111	22,786	945	21,841	12	2,725	137	85.1%
Utah	335,635	15,063	325,814	14,236	311,578	629	2,485	6,707	92.8%
Wasatch	13,267	458	13,127	437	12,690	6	100	34	95.7%
Washington	82,115	2,080	80,141	1,922	78,219	133	1,170	671	95.3%
Wayne	2,379	59	2,324	47	2,277	12	41	2	95.7%
Weber	184,065	18,043	175,279	16,653	158,626	3,778	1,435	3,573	86.2%
State of Utah	2,099,758	142,479	1,998,059	131,770	1,866,289	18,676	29,544	53,479	88.9%

Note:
1. In the categories given above, American Indian includes Eskimo and Aleut.
2. The race and Hispanic origin categories used by the Census Bureau are mandated by the Office of Management and Budget (OMB). OMB requires the use of four race categories: White, Black, American Indian and Alaska Native, and Asian and Pacific Islander. OMB also requires the use of two ethnicity categories: Hispanic and non-Hispanic. This system treats race and ethnicity as separate and independent categories. Therefore, everyone is classified as both a member of one of the four race categories, and as either Hispanic or non-Hispanic.

Source: U.S. Bureau of the Census, Population Estimates Program, Population Division

Table 21
Housing Units, Households, and Persons Per Household by State (in Thousands)

State	April 1, 1990 Total Housing Units	April 1, 1990 Total Households	April 1, 1990 Persons per Household	April 1, 1990 Persons per Household Ranking	July 1, 1998 Total Housing Units	July 1, 1998 Total Households	July 1, 1998 Persons per Household	July 1, 1998 Ranking Persons per Household	1990-98 Percent Change: Total Housing Units	1990-98 Percent Change: Total Households	1990-98 Percent Change: Persons per Household
United States	102,262	91,946	2.63		112,499	101,041	2.61		10.0%	9.9%	-0.8%
Alabama	1,670	1,507	2.62	18	1,866	1,663	2.56	22	11.7%	10.4%	-2.3%
Alaska	233	189	2.80	3	248	215	2.78	4	6.4%	13.8%	-0.8%
Arizona	1,659	1,369	2.62	18	2,006	1,762	2.6	15	20.9%	28.7%	-0.7%
Arkansas	1,001	891	2.57	31	1,092	970	2.56	22	9.1%	8.9%	-0.5%
California	11,183	10,381	2.79	4	12,037	11,446	2.79	3	7.6%	10.3%	-0.2%
Colorado	1,477	1,282	2.51	49	1,722	1,561	2.49	43	16.6%	21.8%	-0.7%
Connecticut	1,321	1,230	2.59	26	1,379	1,238	2.57	20	4.4%	0.7%	-0.7%
Delaware	290	247	2.61	21	326	284	2.54	30	12.4%	15.0%	-2.7%
District of Columbia	278	250	2.26	51	265	225	2.15	50	-4.7%	-10.0%	-5.0%
Florida	6,100	5,135	2.46	50	7,007	5,881	2.48	44	14.9%	14.5%	0.8%
Georgia	2,638	2,366	2.66	13	3,184	2,843	2.63	12	20.7%	20.2%	-1.3%
Hawaii	390	356	3.01	2	440	401	2.87	2	12.8%	12.6%	-4.5%
Idaho	413	361	2.73	7	503	448	2.69	7	21.8%	24.1%	-1.5%
Illinois	4,506	4,202	2.65	15	4,777	4,438	2.65	11	6.0%	5.6%	-0.1%
Indiana	2,246	2,065	2.61	21	2,503	2,231	2.57	20	11.4%	8.0%	-1.4%
Iowa	1,144	1,064	2.52	47	1,208	1,103	2.5	41	5.6%	3.7%	-0.6%
Kansas	1,044	945	2.53	41	1,130	999	2.55	26	8.2%	5.7%	0.6%
Kentucky	1,507	1,380	2.60	25	1,664	1,497	2.56	22	10.4%	8.5%	-1.4%
Louisiana	1,716	1,499	2.74	6	1,806	1,599	2.66	10	5.2%	6.7%	-2.9%
Maine	587	465	2.56	34	626	490	2.48	44	6.6%	5.4%	-3.1%
Maryland	1,892	1,749	2.67	12	2,091	1,906	2.63	12	10.5%	9.0%	-1.5%
Massachusetts	2,473	2,247	2.58	29	2,568	2,349	2.52	37	3.8%	4.5%	-2.4%
Michigan	3,848	3,419	2.66	13	4,168	3,693	2.6	15	8.3%	8.0%	-2.1%
Minnesota	1,849	1,648	2.58	29	2,021	1,791	2.58	17	9.3%	8.7%	-0.1%
Mississippi	1,010	911	2.75	5	1,106	997	2.68	7	9.5%	9.4%	-2.4%
Missouri	2,199	1,961	2.53	41	2,394	2,089	2.53	36	8.9%	6.5%	-0.2%
Montana	361	306	2.53	41	383	346	2.47	48	6.1%	13.1%	-2.5%
Nebraska	661	602	2.54	39	711	636	2.54	30	7.6%	5.6%	-0.1%
Nevada	519	466	2.53	41	767	676	2.54	30	47.8%	45.1%	0.6%
New Hampshire	504	411	2.62	18	539	450	2.56	22	6.9%	9.5%	-2.3%
New Jersey	3,075	2,795	2.70	10	3,237	2,957	2.69	7	5.3%	5.8%	-0.5%
New Mexico	632	543	2.74	6	747	632	2.7	6	18.2%	16.4%	-1.4%
New York	7,227	6,639	2.63	16	7,455	6,766	2.61	14	3.2%	1.9%	-0.7%
North Carolina	2,818	2,517	2.54	39	3,367	2,883	2.54	30	19.5%	14.5%	-0.2%
North Dakota	276	241	2.55	36	293	247	2.48	44	6.2%	2.5%	-2.8%
Ohio	4,372	4,088	2.59	26	4,682	4,285	2.55	26	7.1%	4.8%	-1.5%
Oklahoma	1,406	1,206	2.53	41	1,459	1,288	2.52	37	3.8%	6.8%	-0.4%
Oregon	1,194	1,103	2.52	47	1,401	1,286	2.5	41	17.3%	16.6%	-0.6%
Pennsylvania	4,938	4,496	2.57	31	5,229	4,593	2.54	30	5.9%	2.2%	-1.0%
Rhode Island	415	378	2.55	36	431	376	2.53	36	3.9%	-0.5%	-0.9%
South Carolina	1,424	1,258	2.68	11	1,683	1,441	2.58	17	18.2%	14.5%	-3.7%
South Dakota	292	259	2.59	26	322	277	2.55	26	10.3%	6.9%	-1.4%
Tennessee	2,026	1,854	2.56	34	2,318	2,100	2.52	37	14.4%	13.3%	-1.6%
Texas	7,009	6,071	2.73	7	7,808	7,113	2.71	5	11.4%	17.2%	-0.8%
Utah	598	537	3.15	1	731	677	3.06	1	22.2%	26.1%	-2.9%
Vermont	271	211	2.57	31	289	231	2.46	49	6.6%	9.5%	-4.2%
Virginia	2,497	2,292	2.61	21	2,837	2,579	2.55	26	13.6%	12.5%	-2.2%
Washington	2,032	1,872	2.53	41	2,386	2,211	2.52	37	17.4%	18.1%	-0.6%
West Virginia	781	689	2.55	36	794	716	2.48	44	1.7%	3.9%	-2.8%
Wisconsin	2,056	1,822	2.61	21	2,279	1,973	2.58	17	10.8%	8.3%	-1.2%
Wyoming	203	169	2.63	16	213	185	2.54	30	4.9%	9.5%	-3.3%

Note: Numbers may not sum due to rounding.

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

Table 22
Bureau of the Census Sub-County Population Estimates

	1990	1998	AARC 90-98
State of Utah	1,722,850	2,099,758	2.5
Beaver County	4,765	5,896	2.7
Beaver	1,998	2,447	2.6
Milford	1,107	1,305	2.1
Minersville	608	715	2.0
Balance of Beaver Cnty	1,052	1,429	3.9
Box Elder County	36,485	41,949	1.8
Bear River City	700	826	2.1
Brigham City	15,644	16,960	1.0
Corinne	639	685	0.9
Deweyville	318	343	1.0
Elwood	575	684	2.2
Fielding	422	468	1.3
Garland	1,639	1,897	1.8
Honeyville	1,112	1,294	1.9
Howell	237	268	1.5
Mantua	665	708	0.8
Perry	1,211	2,023	6.6
Plymouth	267	291	1.1
Portage	218	215	-0.2
Snowville	251	273	1.1
Tremonton	4,262	5,116	2.3
Willard	1,298	1,535	2.1
Balance of Box Elder Cnty	7,027	8,363	2.2
Cache County	70,183	86,949	2.7
Amalga	366	503	4.1
Clarkston	645	641	-0.1
Cornish	205	196	-0.6
Hyde Park	2,190	2,953	3.8
Hyrum	4,829	5,452	1.5
Lewiston	1,532	1,571	0.3
Logan	32,771	40,272	2.6
Mendon	684	810	2.1
Millville	1,202	1,319	1.2
Newton	659	703	0.8
Nibley	1,236	1,634	3.6
North Logan	3,775	6,051	6.1
Paradise	561	754	3.8
Providence	3,344	4,331	3.3
Richmond	1,955	1,938	-0.1
River Heights	1,274	1,281	0.1
Smithfield	5,566	7,123	3.1
Trenton	464	454	-0.3
Wellsville	2,206	2,979	3.8
Balance of Cache Cnty	4,719	5,984	3.0
Carbon County	20,228	20,966	0.4
East Carbon	1,270	1,257	-0.1
Helper	2,148	2,094	-0.3
Price	8,712	8,834	0.2
Scofield	43	44	0.3
Sunnyside	339	353	0.5
Wellington	1,632	1,709	0.6
Balance of Carbon Cnty	6,084	6,675	1.2
Daggett County	690	737	0.8
Manila	207	227	1.2
Balance of Daggett Cnty	483	510	0.7
Davis County	187,941	233,013	2.7
Bountiful	37,544	40,427	0.9
Centerville	11,500	14,811	3.2
Clearfield	21,435	25,877	2.4
Clinton	7,945	11,514	4.7
Farmington	9,049	11,175	2.7
Fruit Heights	3,903	4,888	2.9
Kaysville	13,961	19,118	4.0
Layton	41,784	55,112	3.5
North Salt Lake	6,464	8,469	3.4
South Weber	2,863	3,958	4.1
Sunset	5,128	5,060	-0.2
Syracuse	4,658	7,540	6.2
West Bountiful	4,477	5,053	1.5
West Point	4,258	6,195	4.8
Woods Cross	5,384	5,887	1.1
Balance of Davis Cnty	7,588	7,929	0.6
Duchesne County	12,645	14,481	1.7
Altamont	167	196	2.0
Duchesne	1,308	1,493	1.7
Myton	468	524	1.4
Roosevelt	3,915	4,314	1.2
Tabiona	120	138	1.8
Balance of Duchesne Cnty	6,667	7,816	2.0
Emery County	10,332	10,989	0.8
Castle Dale	1,704	1,788	0.6
Clawson	151	167	1.3
Cleveland	498	531	0.8
Elmo	267	336	2.9
Emery	300	305	0.2
Ferron	1,606	1,703	0.7
Green River (pt.)	744	765	0.3
Huntington	1,875	2,055	1.2
Orangeville	1,459	1,513	0.5
Balance of Emery Cnty	1,728	1,826	0.7
Garfield County	3,980	4,272	0.9
Antimony	83	94	1.6
Boulder	126	141	1.4
Cannonville	131	153	2.0
Escalante	818	947	1.8
Hatch	103	101	-0.2
Henrieville	163	164	0.1
Panguitch	1,444	1,416	-0.2
Tropic	374	430	1.8
Balance of Garfield Cnty	738	826	1.4
Grand County	6,620	8,068	2.5
Castle Valley	211	273	3.3
Green River (pt.)	122	146	2.3
Moab	3,971	4,485	1.5
Balance of Grand Cnty	2,316	3,164	4.0
Iron County	20,789	28,659	4.1
Brian Head	109	96	-1.6
Cedar City	13,443	18,953	4.4
Enoch	1,947	3,260	6.7
Kanarraville	228	252	1.3
Paragonah	307	467	5.4
Parowan	1,873	2,053	1.2
Balance of Iron Cnty	2,882	3,578	2.7

-continued-

Table 22 (Continued)
Bureau of the Census Sub-County Population Estimates

	1990	1998	AARC 90-98
Juab County (1)	5,817	7,572	3.4
Eureka	562	661	2.0
Levan	416	556	3.7
Mona	584	898	5.5
Nephi	3,515	4,519	3.2
Balance of Juab Cnty (1)	740	938	3.0
Kane County	5,169	6,200	2.3
Alton	93	114	2.6
Big Water	326	406	2.8
Glendale	282	360	3.1
Kanab	3,289	3,895	2.1
Orderville	422	454	0.9
Balance of Kane Cnty	757	971	3.2
Millard County	11,333	12,249	1.0
Delta	2,998	3,123	0.5
Fillmore	1,956	2,006	0.3
Hinckley	658	695	0.7
Holden	402	449	1.4
Kanosh	386	433	1.4
Leamington	253	259	0.3
Lynndyl	120	124	0.4
Meadow	250	279	1.4
Oak City	587	597	0.2
Scipio	291	289	-0.1
Balance of Millard Cnty	3,432	3,995	1.9
Morgan County	5,528	7,022	3.0
Morgan	2,023	2,478	2.6
Balance of Morgan Cnty	3,505	4,544	3.3
Piute County	1,277	1,402	1.2
Circleville	417	431	0.4
Junction	132	138	0.6
Kingston	134	165	2.6
Marysvale	364	380	0.5
Balance of Piute Cnty	230	288	2.9
Rich County	1,725	1,834	0.8
Garden City	193	241	2.8
Laketown	261	263	0.1
Randolph	488	508	0.5
Woodruff	135	143	0.7
Balance of Rich Cnty	648	679	0.0
Salt Lake County (1)	725,956	850,667	2.0
Alta	397	411	0.4
Bluffdale	2,152	3,934	7.8
Draper (pt.)	7,143	19,147	13.1
Midvale (1)	11,886	11,628	-0.3
Murray	31,274	33,167	0.7
Riverton	11,261	20,410	7.7
Salt Lake City	159,928	174,348	1.1
Sandy	75,240	99,186	3.5
South Jordan	12,215	26,414	10.1
South Salt Lake (1)	10,129	9,957	-0.2
Taylorsville	51,550	56,753	1.2
West Jordan	42,915	60,804	4.5
West Valley City	86,969	99,372	1.7
Balance of Salt Lake Cnty(1)	222,897	235,136	0.7

	1990	1998	AARC 90-98
San Juan County	12,621	13,711	1.0
Blanding	3,162	3,516	1.3
Monticello	1,806	1,904	0.7
Balance of San Juan Cnty	7,653	8,291	1.0
Sanpete County	16,259	21,452	3.5
Centerfield	766	888	1.9
Ephraim	3,363	4,486	3.7
Fairview	960	1,065	1.3
Fayette	183	296	6.2
Fountain Green	602	916	5.4
Gunnison	1,298	2,101	6.2
Manti	2,268	2,643	1.9
Mayfield	438	482	1.2
Moroni	1,115	1,813	6.3
Mount Pleasant	2,092	2,401	1.7
Spring City	715	806	1.5
Sterling	191	314	6.4
Wales	189	304	6.1
Balance of Sanpete Cnty	2,079	2,937	4.4
Sevier County	15,431	18,452	2.3
Annabella	487	530	1.1
Aurora	911	998	1.1
Elsinore	608	663	1.1
Glenwood	437	471	0.9
Joseph	198	227	1.7
Koosharem	266	433	6.3
Monroe	1,472	1,670	1.6
Redmond	648	704	1.0
Richfield	5,593	6,880	2.6
Salina	1,943	2,119	1.1
Sigurd	385	560	4.8
Balance of Sevier Cnty	2,483	3,197	3.2
Summit County	15,518	26,746	7.0
Coalville	1,065	1,282	2.3
Francis	381	794	9.6
Henefer	554	687	2.7
Kamas	1,061	1,559	4.9
Oakley	522	897	7.0
Park City (pt.)	4,468	6,482	4.8
Balance of Summit Cnty	7,467	15,045	9.2
Tooele County	26,601	33,351	2.9
Grantsville	4,500	5,528	2.6
Ophir	25	34	3.9
Rush Valley	339	375	1.3
Stockton	426	497	1.9
Tooele	13,887	16,748	2.4
Vernon	181	202	1.4
Wendover	1,127	1,258	1.4
Balance of Tooele Cnty	6,116	8,709	4.5
Uintah County	22,211	25,660	1.8
Ballard	644	784	2.5
Naples	1,334	1,517	1.6
Vernal	6,640	7,366	1.3
Balance of Uintah Cnty	13,593	15,993	2.1

-continued-

Table 22 (Continued)
Bureau of the Census Sub-County Population Estimates

	1990	1998	AARC 90-98
Utah County (1)	263,590	335,635	3.1
Alpine	3,492	5,418	5.6
American Fork	15,722	19,215	2.5
Cedar Fort	284	254	-1.4
Cedar Hills	769	2,486	15.8
Draper (pt.)	0	0	--
Elk Ridge	771	1,721	10.6
Genola	803	868	1.0
Goshen	578	533	-1.0
Highland	5,007	6,315	2.9
Lehi	8,475	15,297	7.7
Lindon	3,818	6,380	6.6
Mapleton	3,572	4,804	3.8
Orem	67,561	78,937	2.0
Payson	9,510	10,951	1.8
Pleasant Grove	13,476	20,491	5.4
Provo	86,835	110,419	3.0
Salem	2,284	3,275	4.6
Santaquin	2,386	2,855	2.3
Spanish Fork	11,272	15,555	4.1
Springville	13,950	15,944	1.7
Vineyard	151	146	-0.4
Woodland Hills	301	1,307	20.1
Balance of Utah Cnty (1)	12,573	12,464	-0.1
Wasatch County	10,089	13,267	3.5
Charleston	336	450	3.7
Heber	4,782	5,872	2.6
Midway	1,554	2,376	5.5
Park City (pt.)	0	22	--
Wallsburg	252	338	3.7
Balance of Wasatch Cnty	3,165	4,209	3.6
Washington County	48,560	82,115	6.8
Enterprise	936	1,635	7.2
Hildale	1,325	2,245	6.8
Hurricane	3,915	7,193	7.9
Ivins	1,630	4,319	13.0
La Verkin	1,771	3,388	8.4
Leeds	254	263	0.4
New Harmony	101	167	6.5
Rockville	182	227	2.8
St. George	28,572	46,186	6.2
Santa Clara	2,322	4,407	8.3
Springdale	275	333	2.4
Toquerville	488	761	5.7
Virgin	229	279	2.5
Washington	4,198	6,906	6.4
Balance of Washington Cnty	2,362	3,806	6.1
Wayne County (1)	2,177	2,379	1.1
Bicknell	327	317	-0.4
Loa	444	487	1.2
Lyman	198	217	1.2
Torrey	122	135	1.3
Balance of Wayne Cnty (1)	1,086	1,223	1.5

	1990	1998	AARC 90-98
Weber County (1)	158,330	184,065	1.9
Farr West	2,178	2,714	2.8
Harrisville	3,019	3,728	2.7
Huntsville	561	636	1.6
North Ogden	11,593	14,811	3.1
Ogden	63,943	66,507	0.5
Plain City	2,722	3,424	2.9
Pleasant View	3,597	5,076	4.4
Riverdale	6,419	7,520	2.0
Roy	24,560	31,441	3.1
South Ogden	12,105	14,671	2.4
Uintah	760	1,114	4.9
Washington Terrace	8,189	8,821	0.9
West Haven	2,172	2,906	3.7
Balance of Weber Cnty(1)	16,512	20,696	2.9

Notes:
(1) The Utah Population Estimates Committee estimated the 1998 population for the following municipalities: Rocky Ridge, 293; Herriman, 950; Midvale, 27,893; South Salt Lake, 18,792; Eagle Mountain, 490; Saratoga Springs, 217; Hanksville, 309; and Marriott-Slaterville,1, Population totals for these cities will affect the Balance of the County estimates in their respective counties.

(pt.) indicates that the city crosses county boundaries, only part of the population is found within the specified county.

AARC is the average annual rate of change.

Estimates are for April 1, 1990 and July 1, 1998

Totals differ in this table from other tables in this report due to different release dates or data sources.

Source: U.S. Bureau of the Census, Population Estimates Program

Employment, Wages, Labor Force

Overview

Utah's employment growth rate slowed again in 1999. Expansion in the number of nonfarm jobs, at 2.6%, is down slightly from the 1998 rate of 3.0%. During the recent expansion, which lasted 11 years, Utah's annual employment growth peaked at 6.2% in 1994. The longest previous expansion since 1950 was only four years. In 1999, Utah added 29,400 net new jobs, and the unemployment rate remained unchanged at 3.8%. The average annual wage increase for Utah's nonfarm jobs in 1999 was 3.6%, slightly slower than 1998's 4.4%.

1999 Summary

Joblessness Steady. At 3.8, Utah's unemployment rate remained unchanged from the 1998 level, which was up considerably from 1997's 3.1%. It appears that 1997 was the peak year for labor shortages in Utah. Four previous years of rapid job growth, coupled with declining in-migration and very high labor force participation, had nearly exhausted the supply of available labor by 1997. Although spot shortages were still reported in 1998 and 1999, the 3.8 rate of those years seems to be an approximate equilibrium rate for Utah. There were an average of 41,000 individuals were out of work, about 3% more than in 1998.

Job Growth by Industry. On the heels of an economic expansion of unprecedented duration, 1998 and 1999 saw the Utah economy achieve a "soft landing" by making the transition to sustainable rates of growth. The rate of job growth in Utah's major industrial divisions ranged from -4% in mining to 7% in construction. Industrial diversity, where Utah ranks 13th among states, is one of the factors enabling Utah's economy to consistently prosper.[1]

Construction Industry. 1999 marked the 11th consecutive year of healthy expansion in Utah's construction industry. In fact, the industry's growth actually picked up a little from 1998's 5.9% pace to 7.0% in 1999. About 4,750 net new jobs were created in this industry in 1999. Residential building slowed slightly, but many large nonresidential projects, including a major reconstruction of I-15 through the Salt Lake Valley, are ongoing.

Manufacturing. During the economic expansion, the manufacturing division grew rapidly, achieving 6.2% job growth in 1995. The expansion gradually waned to 1998's 0.4 percent. To cap it off, 1999's global economic crisis stifled the production of durable goods exports, causing employment to contract to a level lower than the 1997 total. From 1998 to 1999, roughly 1,400 jobs were lost.

Transportation/Communications/Utilities. The transportation/communications/utilities division added only 800 net new jobs in 1999 for a growth rate of 1.3%. Only communications exhibited growth; the other industries were largely stagnant.

Trade. The trade division's job growth has slowed dramatically from its breakneck 7% pace of 1994 and 1995. Creation of 5,000 jobs in 1999 registered a growth rate of 2.0%. Robust expansion in this division is often followed by sluggish growth as new businesses seek to sustain their viability in the face of a slowing economy and fierce competition. Wholesale and retail trade both grew at about the same pace.

Finance/Insurance/Real Estate. The component industries of the finance/insurance/real estate division have experienced peaks and slumps associated with the overall economic expansion, their own evolutionary changes, and new employment centers locating in Utah. In 1999 the division's employment growth slowed to 1,700, a 3.1% expansion. However, in 2000, the merger of Utah's two largest banking companies will cause layoffs, resulting in only marginal net employment growth for the division.

Services. The services division created 11,600 new jobs during 1999 for a growth rate of 4.1%. The diverse industries in this category generally fall into three classes: some growing relatively rapidly, others growing slowly, and a group running about average for the division. Industries expanding employment slowly include medical-related; hotels, etc.; and legal/miscellaneous. On the other end of the scale, computer-services, other business services (largely "help-supply" services and telemarketing firms), and personal services/amusement each grew by 5% or greater.

Public Sector. Employment cutbacks by federal agencies finally ended in 1998, and by late 1999 federal defense and non-defense jobs were growing. Thus, 750 (2.4%) is the federal net job expansion for annual average 1999. Concurrently, state government employment, driven by higher education increases, expanded by 2.7%.; local government added about 2,200 positions, a 2.5% growth.

Wages Growing, but Losing Ground. In 1999, Utah's average annual nonagricultural pay was $27,400—up 3.6% from the 1998 average, which increased by 4.4%. This is the fifth year in a row that average wage increases in Utah have outpaced increases in inflation, as measured by the U.S. Consumer Price Index (CPI-U). By comparison, the 1997 to 1998 change in annual pay for the U.S. was 5.1%.

Since the early 1980s, growth in wages for Utahns covered under unemployment insurance laws lagged far behind national wage increases. Utah's annual pay as a percentage of U.S. annual pay declined from a high of 96.3% in 1981 to 84.4% in 1993. The ratio drifted gradually upward to 84.9% in 1996, but in 1998 dropped to 84.2%, the lowest recorded level since the comparisons began in 1976. Utah ranks 32nd among all states in 1998.

The loss of high-paying goods-producing jobs in the early and mid-80s helped contribute to the decline. However, Utah's demographics also play a part. Utah has a large percentage of young people in the labor market and a younger labor force. 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. Shortages of workers from 1996 through 1998 are thought to be a factor in the relatively rapid wage increases of those years.

Major Employers. With about 21,000 employees, the State of Utah ranks as the largest employer. Six of the next eight top employers provide educational services. The University of Utah (including the University Hospital) and Brigham Young University each have roughly 17,000 employees. Granite, Jordan, and Davis school districts and Utah State University each have between 6,500 and

[1] Industrial diversity has been estimated by Regional Financial Associates by calculating the Hachman Index using three-digit SIC codes.

8,000 workers. Hill Air Force Base, with 9,000 jobs, occupies the number four rank. Convergys, a multi-county telemarketing company, and Smith's Food King round out Utah's top ten largest employers. The U.S. Postal Service and the Internal Revenue Service, with 6,000 and 4,000 jobs, respectively, are prominent employers. Salt Lake County government, other major retail chains, IHC (a health-care organization), additional school districts and hospitals, Delta Airlines, Cordant Technologies (Thiokol Corp.), United Parcel Service, U.S. West Communications, and Icon Health and Fitness each occupy a strong presence in Utah's economy.

Labor Force Composition. An average of 72% of Utah's civilian, noninstitutionalized population over the age of 15 participated in the labor force in 1998. This rate ranks significantly higher than the national average of 67%. Both Utah women and men take part in the labor market at higher rates than their national counterparts.

One reason for Utah's high labor force participation is its young population. Moreover, Utah's teenagers and young adults are much more likely to work than their U.S. peers. In addition, Utah's population age 55 and older accounts for a relatively small share of its adult population, and these older people are also more likely to work than their U.S. peers. Other factors are: 1) Utah's large families and lower than average wages may influence families to have more than one wage earner, and 2) jobs are readily available.

Roughly 97.5% of Utah workers are employed in nonagricultural industries. Agriculture thus accounts for about 2.5%. Of the nonagricultural workers, over 7% are self-employed, or private household, or unpaid family workers. Thus, about 90% of employed people are nonagricultural wage and salaried workers.

Unemployment. About 13,500 (34%) of Utah's 39,900 unemployed in 1998 had lost their jobs, compared to 9,300 (29%) in 1997. On the other hand, job leavers numbered about the same–nearly 7,000–each year. Re-entrants increased by nearly 2,000, numbering 16,800 (34%) of the unemployed in 1998. Of course, Utah's strong economy enables an unknown number of people to move directly from out-of-the-labor-force to employment without a period of unemployment. Nearly 3,000 unemployed workers were new entrants to the labor force in 1998.

Utah Job Outlook

Occupational Composition of Utah Jobs. Occupational estimates and projections are produced for some 700 specific job titles. These are summarized, for 1998 and 2003, into eight job categories. The largest category, both in terms of employment and the number of job titles, is the production, operating, and maintenance group. Over 25% of all employment in Utah is accounted for by this category. These jobs are commonly called "blue collar" and contain all the skilled crafts along with many semi-skilled and unskilled occupations. The professional job group makes up about 16% of all employment. These occupations require training at a Bachelor's degree or higher. Accountants, engineers, teachers, and nurses are examples of titles in this group. Sales, clerical, and service job categories each claim a 13% to 15% share of the employment pie. The managerial and administrative group represents about 8% of total employment; the technical and agriculture-related categories are 5% and 3% respectively.

Employment Trends in Occupations. The future for occupations in Utah can be viewed in two lights. First, by the growth rates for occupations and occupational categories, and second by the occupations' change in the "share" of total employment.

Professional, technical, managerial, and service jobs are growing at the fastest rate. Each of these job groups will enjoy a 2.9% to 3.2% per year rate of growth over the 1999-to-2003 period. The average for all occupations and industries for the same period is 2.5% per year. Clerical, agriculture-related, and production, operating and maintenance categories will fall well below the 2.5% average with rates of 1.7%, 1.3%, and 1.9% respectively. Important to note is that two (professional and technical) of the three categories with the fastest growth also require a substantial educational investment.

In terms of the share of total employment, managerial, professional, technical, sales, and service occupations will experience an increased share in total employment from 1999 to 2003. Those that will be "losing share" of total jobs are the clerical, agricultural-related, and the production, operating and maintenance job titles. These structural changes are gradual and account for less than a 1% change over the projections period, but they do reflect the changing structure of the labor market.

The Measure of Demand– Job Openings. The growth of employment in an occupation provides only a portion of the true measure of labor demand in the labor market. Job openings also result from the need to replace workers who leave current employment positions for another occupation or who leave the labor force. These components comprise the demand for an occupation. An average of about 60,000 of these vacancies will occur each year over the 1999-to-2003 period. Of the 60,000, over one-half will be due to growth in the labor market with another 28,000 vacancies caused by the need to replace current workers.

The production, operating, and maintenance job category will provide the largest number–13,200–of job openings each year, followed closely by the professional, service, and sales occupational groups which will each add another 10,000 openings annually. These four categories will account for three out of every four job vacancies. The clerical group will contribute about 7,000, or 12%, of the total, with the technical adding another 2,800 and the agricultural group with about 1,100 vacancies.

Utah Jobs and Educational/Training Requirements. Of the roughly 138,000 vacant employment positions in 2003, about 22% will require a Bachelor's degree or higher. Those jobs that call for associate degrees or applied technology training will account for about 9% of the total, while another 9% of total jobs will need work-related experience. On-the-job training (including some formal classroom time) of one year or longer will account for about 11% of the total; jobs classified as moderate term (from one month to one year) on-the-job training add up to 12%. The largest group of all, containing semi-skilled and unskilled jobs (those that require less than a month of training), will claim 37% of total jobs.

The Utah Job Outlook, available from the Utah Department of Workforce Services, reports the projections of employment by occupation for Utah. Projections identify the occupations in demand over the 1998-2003 period in Utah and each of the nine districts.

Significant Issues

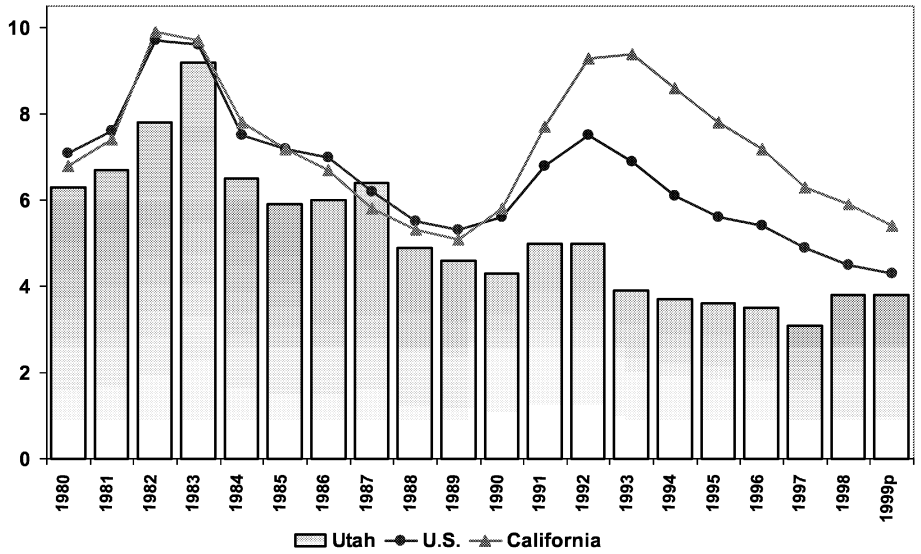
Labor Shortages. With job growth in Utah slowing to slightly lower than the long-term average, and unemployment increasing somewhat in 1998 and 1999 from its very low 1997 level, labor shortages are a diminishing problem. In the metropolitan counties and in certain occupations, spot shortages still exist, but this will probably not be a significant issue in 2000.

Mergers. Utah was hit with three major mergers during 1999. American Stores was purchased by Albertsons Food Stores; the year-old American Stores office tower is now largely vacant. First Security Corporation was acquired by Zion's First National Bank, also of Utah. Approval of this action has now been finalized, and will result in a substantial number of layoffs due to the duplication of many positions. ZCMI, America's first department store, was purchased by the May Company. A large number of layoffs are not anticipated as the transition occurs in 2000.

Conclusion

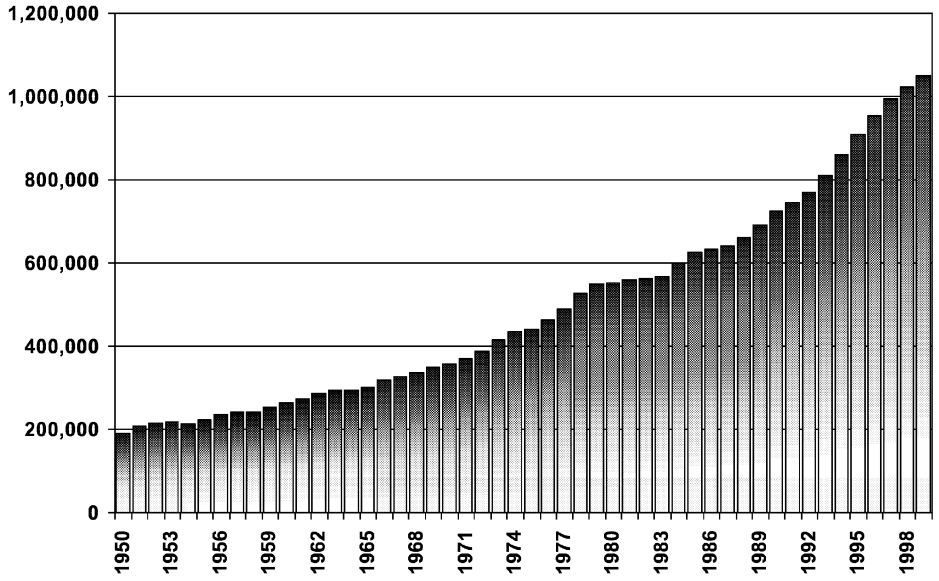
Utah's economy has achieved an orderly transition from robust growth to maintenance growth, but it is still thriving. Most industries are holding their own. Unemployment, while up from 1997, is stable and low. Moreover, wage increases continue to outpace inflation. ✻

Figure 13
Unemployment Rates for Utah, California, and the U.S.



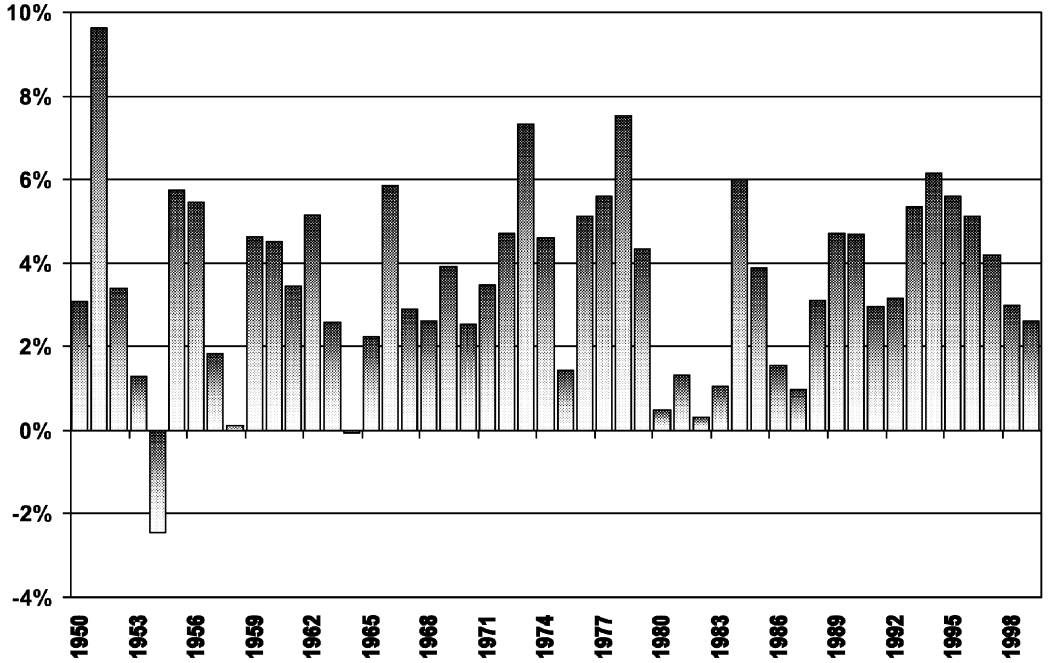
Source: Utah Department of Workforce Services, Regional Financial Associates, WEFA, Council of Economic Advisors

Figure 14
Utah Nonagricultural Employment: 1950 to 1999



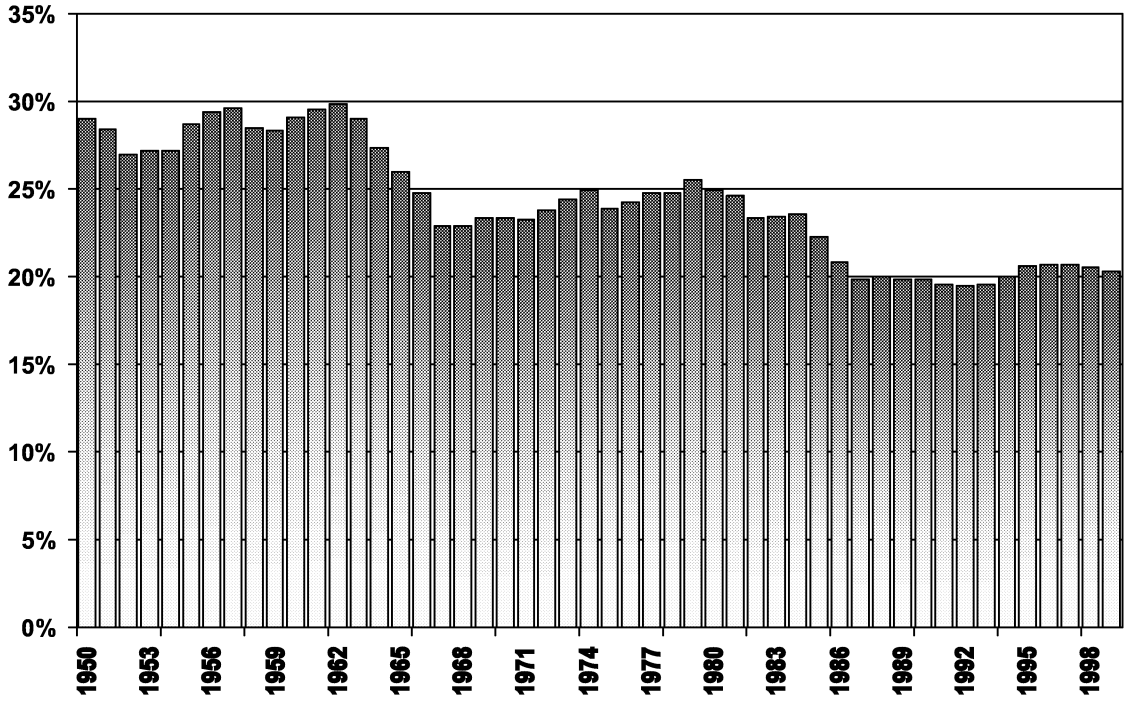
Source: Utah Deparment of Workforce Services

Figure 15
Utah Nonagricultural Employment--Annual Percent Change: 1950 to 1999



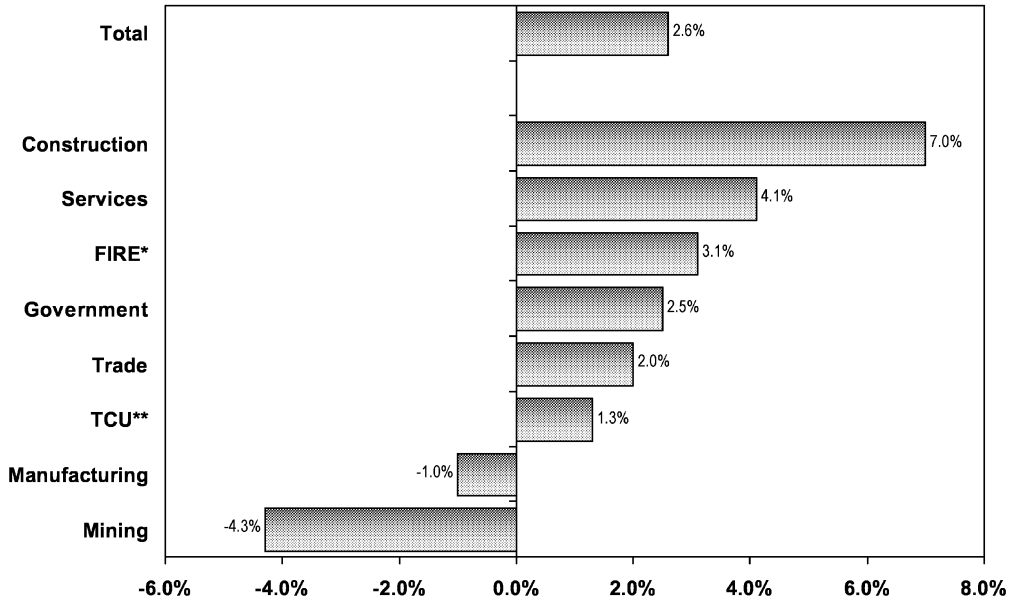
Source: Utah Department of Workforce Services

Figure 16
Percent of Utah Employment in Goods-Producing Industries: 1950 to 1999



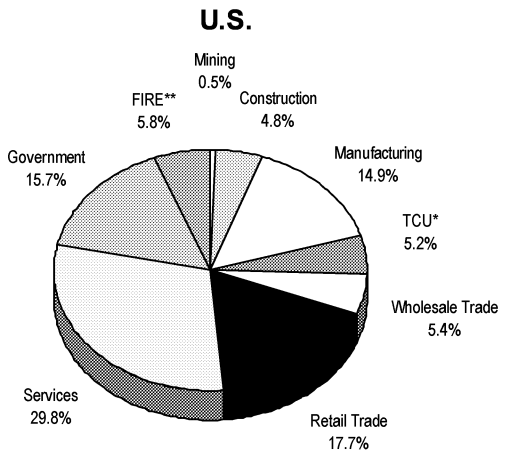
Source: Utah Department of Workforce Services

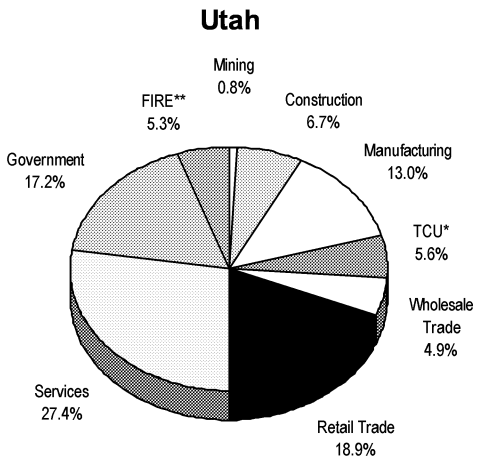
Figure 17
Percent Change in Utah Employment by Industry: 1998 to 1999



*Finance, Insurance and Real Estate
**Transportation, Communication and Utilities
Source: Utah Department of Workforce Services

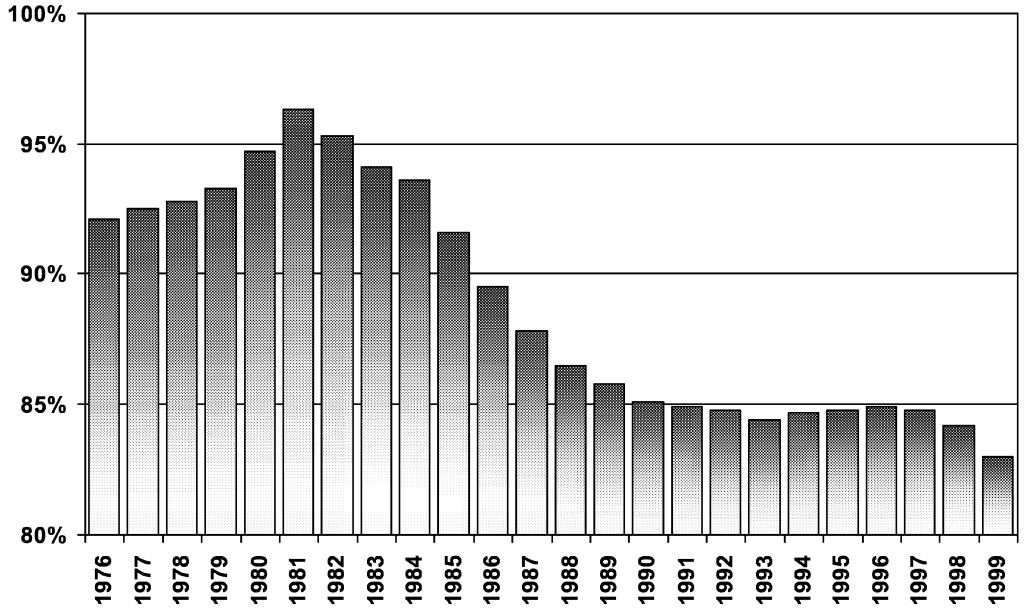
Figure 18
U.S. and Utah Nonagricultural Employment by Industry: 1998





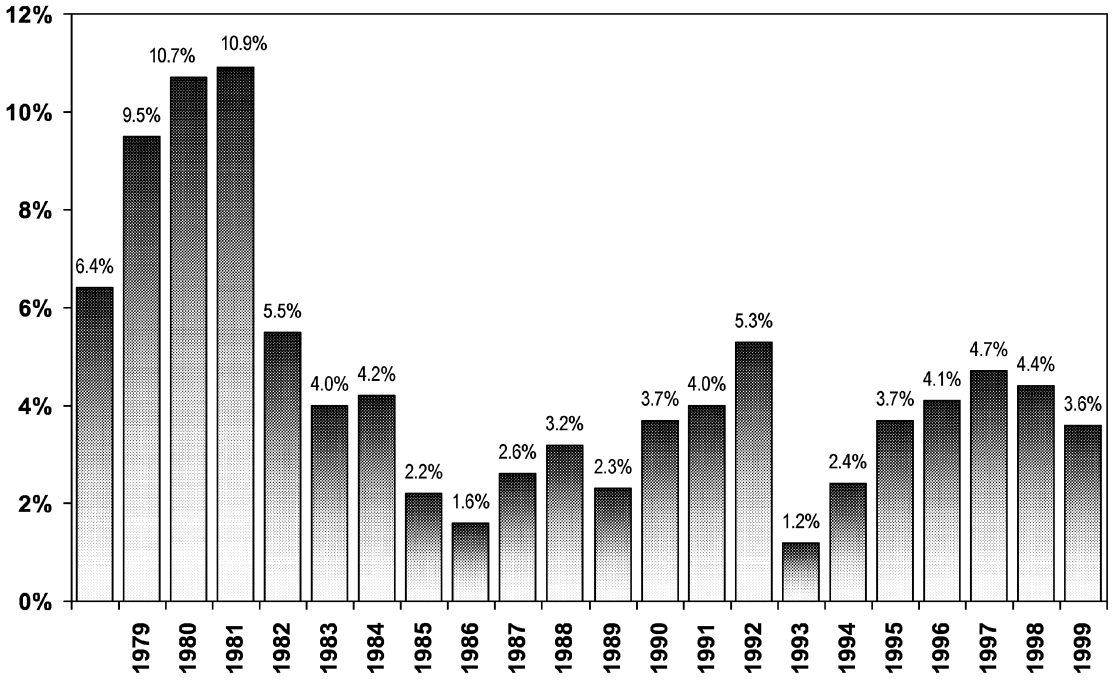
*Transportation, Communication and Utilities
**Finance, Insurance and Real Estate
Source: Utah Department of Workforce Services

Figure 19
Utah Average Annual Pay as a Percent of U.S.



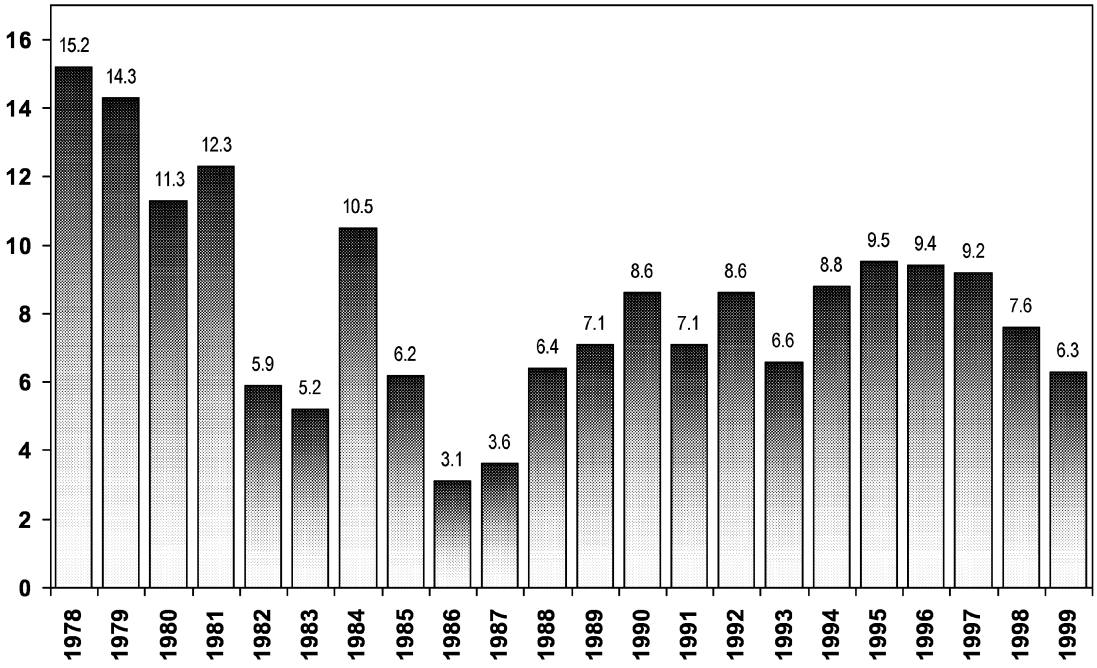
Note: For workers covered by unemployment insurance
Source: Bureau of Labor Statistics

Figure 20
Growth Rates for Utah Average Annual Pay



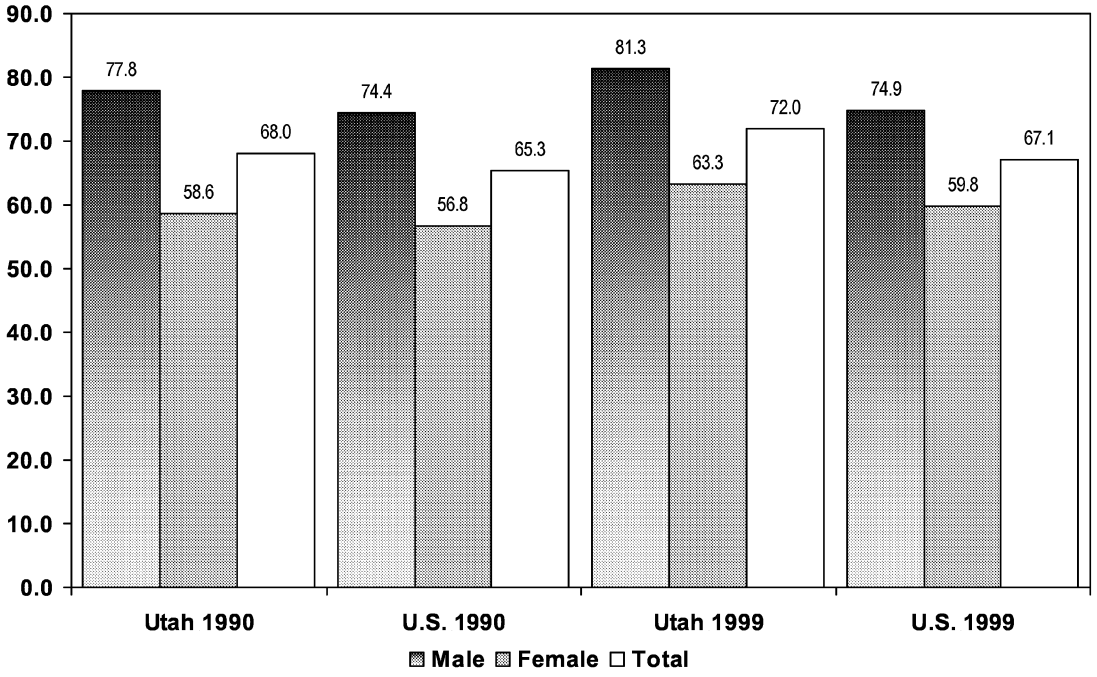
Source: Utah Department of Workforce Services, Council of Economic Advisors

Figure 21
Growth Rates for Utah Total Nonagricultural Wages and Salaries: Percent Change



Source: Utah Department of Workforce Services, Council of Economic Advisors

Figure 22
Utah and U.S. Civilian Labor Force Participation Rates: Persons 16 years and Older



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

Table 23
Utah Nonagricultural Payroll Employment, Industry Percent of Total and Unemployment Rates

	Total Employment			Industry Percent of Total								
Year	Number	Percent Change	Increase	Mining	Constru.	Manufact.	Trans.Comm. Pub.Util.	Trade	Fin.Ins.& Real Est.	Services	Govt.	Unemployment Rates
1940	115,000	4.6	5,100	9.7	3.7	15.5	14.1	23.6	3.2	11.1	19.3	na
1941	131,800	14.6	16,800	9.0	7.1	15.3	13.6	22.3	3.0	10.2	19.9	na
1942	170,800	29.6	39,000	7.6	12.3	18.1	11.8	18.3	2.3	8.4	21.1	na
1943	189,400	10.9	18,600	7.0	12.4	18.1	11.8	16.6	2.2	7.4	24.7	na
1944	173,100	-8.6	(16,300)	7.2	5.7	14.8	13.1	18.2	2.3	8.2	30.7	na
1945	168,800	-2.5	(4,300)	6.7	3.3	14.3	13.7	19.1	2.5	9.0	31.5	na
1946	168,500	-0.2	(300)	5.9	4.5	13.5	13.4	22.8	3.0	10.9	26.3	na
1947	178,000	5.6	9,500	7.5	5.1	15.4	12.4	23.1	3.1	11.1	22.4	na
1948	183,400	3.0	5,400	7.0	6.1	15.6	11.8	22.8	3.1	10.8	22.8	na
1949	183,500	0.1	100	7.1	5.9	15.7	11.6	22.7	3.3	10.7	23.2	na
1950	189,153	3.1	5,653	6.6	6.4	15.7	11.3	22.4	3.4	10.9	23.3	5.5
1951	207,386	9.6	18,233	6.5	6.2	15.7	10.6	21.4	3.2	10.1	26.2	3.3
1952	214,409	3.4	7,023	6.4	5.5	15.1	10.8	21.6	3.3	10.1	27.2	3.2
1953	217,194	1.3	2,785	6.4	5.2	15.7	10.8	22.1	3.5	10.4	25.9	3.3
1954	211,864	-2.5	(5,330)	6.3	5.4	15.6	10.6	22.5	3.9	10.8	25.0	5.2
1955	224,007	5.7	12,143	6.5	6.4	15.9	10.3	22.1	4.1	10.8	24.0	4.1
1956	236,225	5.5	12,218	6.7	6.6	16.1	9.7	22.0	4.0	10.8	23.2	3.4
1957	240,577	1.8	4,352	6.9	6.2	16.6	9.6	22.1	4.0	11.1	23.4	3.7
1958	240,816	0.1	239	6.0	6.2	16.3	9.3	22.2	4.2	11.6	24.2	5.3
1959	251,940	4.6	11,124	5.1	6.2	17.0	8.9	22.4	4.3	12.0	23.9	4.6
1960	263,307	4.5	11,367	5.4	5.6	18.1	8.5	22.3	4.3	12.2	23.6	4.8
1961	272,355	3.4	9,048	5.2	5.7	18.5	8.1	22.0	4.2	12.4	23.9	5.3
1962	286,382	5.2	14,027	4.7	6.2	18.9	7.7	21.9	4.2	12.4	23.9	4.9
1963	293,758	2.6	7,376	4.1	6.0	18.9	7.4	22.1	4.2	12.9	24.4	5.4
1964	293,576	-0.1	(182)	3.7	5.8	17.9	7.4	22.3	4.3	13.4	25.1	6.0
1965	300,164	2.2	6,588	4.0	5.3	16.7	7.2	22.3	4.3	13.8	26.5	6.1
1966	317,771	5.9	17,607	3.8	4.9	16.1	6.9	21.8	4.1	13.9	28.5	4.9
1967	326,953	2.9	9,182	3.2	4.1	15.6	7.0	21.7	3.9	14.5	30.0	5.2
1968	335,527	2.6	8,574	3.3	4.1	15.5	6.9	21.9	4.0	15.0	29.4	5.4
1969	348,612	3.9	13,085	3.7	4.0	15.7	6.6	22.1	4.1	15.3	28.6	5.2
1970	357,435	2.5	8,823	3.6	4.1	15.7	6.5	22.2	4.2	15.8	28.0	6.1
1971	369,836	3.5	12,401	3.3	4.7	15.3	6.3	22.4	4.2	15.9	27.9	6.6
1972	387,271	4.7	17,435	3.1	5.4	15.6	6.2	23.3	4.4	16.3	27.2	6.3
1973	415,641	7.3	28,370	3.0	5.7	15.7	6.1	23.4	4.4	16.3	25.4	5.8
1974	434,793	4.6	19,152	3.1	5.6	16.2	6.1	23.3	4.5	16.3	24.9	6.1
1975	441,082	1.4	6,289	3.0	5.5	15.3	6.1	23.7	4.5	16.9	25.0	6.5
1976	463,658	5.1	22,576	3.0	6.0	15.3	6.1	24.2	4.4	16.9	24.2	5.7
1977	489,580	5.6	25,922	3.0	6.5	15.2	6.0	24.1	4.6	17.0	23.7	5.3
1978	526,400	7.5	36,820	3.0	6.6	15.2	6.0	24.1	4.6	17.4	23.0	3.8
1979	549,242	4.3	22,842	3.2	6.5	15.8	6.1	23.5	4.7	17.7	22.4	4.3
1980	551,889	0.5	2,647	3.4	5.7	15.9	6.2	23.3	4.7	18.2	22.7	6.3
1981	559,184	1.3	7,295	3.6	5.1	16.0	6.2	23.4	4.7	18.7	22.3	6.7
1982	560,981	0.3	1,797	3.2	4.8	15.3	6.3	23.5	4.7	19.6	22.5	7.8
1983	566,991	1.1	6,010	2.5	5.1	15.1	6.3	23.5	4.9	19.8	22.7	9.2
1984	601,068	6.0	34,077	2.1	5.8	15.6	6.1	23.4	4.9	20.1	21.9	6.5
1985	624,387	3.9	23,319	1.6	5.7	15.1	5.9	23.7	5.0	21.0	22.1	5.9
1986	634,138	1.6	9,751	1.2	5.1	14.5	5.9	24.0	5.2	21.7	22.3	6.0
1987	640,298	1.0	6,160	1.2	4.2	14.4	5.9	23.8	5.3	23.0	22.1	6.4
1988	660,075	3.1	19,777	1.2	3.8	15.0	6.0	23.7	5.1	23.6	21.6	4.9
1989	691,244	4.7	31,169	1.2	3.7	14.9	5.9	24.1	4.8	24.2	21.2	4.6
1990	723,629	4.7	32,385	1.2	3.8	14.8	5.8	23.8	4.7	25.0	20.8	4.3
1991	745,114	3.0	21,485	1.2	4.2	14.2	5.7	24.0	4.8	25.3	20.7	5.0
1992	768,602	3.2	23,488	1.1	4.5	13.8	5.7	24.0	4.9	25.6	20.4	5.0
1993	809,731	5.4	41,129	1.0	4.9	13.6	5.8	23.6	5.1	26.2	19.7	3.9
1994	859,626	6.2	49,895	1.0	5.6	13.6	5.7	23.9	5.3	26.1	18.8	3.7
1995	907,886	5.6	48,260	0.9	6.0	13.6	5.7	24.2	5.3	26.2	18.0	3.6
1996	954,183	5.1	46,297	0.8	6.3	13.5	5.7	24.1	5.3	26.8	17.4	3.5
1997	993,999	4.2	39,816	0.8	6.5	13.4	5.6	24.0	5.3	27.1	17.3	3.1
1998	1,023,480	3.0	29,461	0.8	6.7	13.0	5.7	23.8	5.4	27.4	17.2	3.8
1999p	1,050,000	2.6	26,540	0.7	7.0	12.6	5.6	23.7	5.4	27.8	17.2	3.8

na = not available

Source: Utah Department of Workforce Services, Workforce Information.

Table 24
Utah Nonagricultural Payroll Employment by County and Major Industry: 1998

County	Mining	Construction	Manufacturing	Trans. Comm. & Pub. Util	Trade	Finance, Insurance & Real Estate	Services & Misc.	Government	1998 Total	1997 Total	1997-98 Percent Change
State Total	8,047	68,252	133,405	58,443	244,045	55,265	280,376	175,647	1,023,480	993,999	3.0%
Beaver	28	109	107	176	506	37	257	610	1,830	1,868	-2.0%
Box Elder	34	1,014	9,496	541	3,390	335	1,903	2,232	18,945	18,417	2.9%
Cache	1	2,121	10,267	1,023	7,584	919	8,530	9,793	40,238	38,918	3.4%
Carbon	1,048	268	458	493	2,244	169	2,207	2,291	9,178	9,082	1.1%
Daggett	0	4	2	35	49	0	104	215	409	390	4.9%
Davis	100	6,677	10,522	2,800	20,507	3,231	16,528	19,800	80,165	78,200	2.5%
Duchesne	582	227	209	505	1,007	116	509	1,638	4,793	4,662	2.8%
Emery	864	364	25	680	456	44	413	946	3,792	3,784	0.2%
Garfield	12	48	179	149	298	23	802	539	2,050	2,061	-0.5%
Grand	70	249	55	84	1,514	86	1,233	765	4,056	3,981	1.9%
Iron	54	766	1,792	364	3,242	468	3,055	3,566	13,307	12,689	4.9%
Juab	22	98	370	54	687	31	585	621	2,468	2,351	5.0%
Kane	1	102	367	27	688	51	836	628	2,700	2,543	6.2%
Millard	101	74	220	589	915	59	620	1,019	3,597	3,676	-2.1%
Morgan	0	300	298	13	467	29	89	364	1,560	1,528	2.1%
Piute	0	1	2	39	30	6	7	141	226	226	0.0%
Rich	0	29	12	11	96	36	137	209	530	507	4.5%
Salt Lake	2,717	32,787	57,950	41,049	125,724	38,896	145,186	74,929	519,238	504,458	2.9%
San Juan	335	282	250	222	698	38	904	1,501	4,230	4,106	3.0%
Sanpete	8	395	1,059	261	1,316	153	951	2,364	6,507	6,216	4.7%
Sevier	331	383	579	604	1,862	138	1,387	1,556	6,840	6,693	2.2%
Summit	102	1,217	848	408	4,359	1,227	4,393	1,794	14,348	13,764	4.2%
Tooele	68	815	1,517	1,273	1,825	295	1,445	3,366	10,604	10,392	2.0%
Uintah	1,342	395	201	535	2,084	169	2,016	1,781	8,523	8,328	2.3%
Utah	46	10,000	19,687	2,313	32,108	4,289	54,063	19,029	141,535	135,161	4.7%
Wasatch	3	490	318	109	1,210	98	1,010	866	4,104	3,816	7.5%
Washington	163	3,453	2,293	1,610	9,357	1,198	7,841	4,506	30,421	28,851	5.4%
Wayne	0	69	32	18	236	11	320	286	972	923	5.3%
Weber	15	5,515	14,290	2,458	19,586	3,113	23,045	18,292	86,314	86,408	-0.1%

Source: Utah Department of Workforce Services, Workforce Information .

Table 25
Nonagricultural Payroll Wages by County and Major Industry: 1998

County	Mining	Construction	Manufacturing	Trans. Comm. & Pub. Util	Trade	Finance, Real Estate	Services & Misc.	Government	1998 Total	Annual 1997 Total Wages	1997-98 Percent Change
State Total	$372,105,212	$1,857,102,315	$4,320,331,771	$2,067,450,813	$4,844,453,642	$1,905,506,079	$6,906,252,183	$4,831,667,187	$27,104,869,202	$25,214,750,836	7.6%
Beaver	793,731	2,138,755	2,295,617	9,626,833	4,698,460	691,183	3,569,098	13,112,615	36,926,292	34,476,383	7.1%
Box Elder	974,090	28,086,626	392,457,005	16,462,753	53,997,640	7,550,147	30,959,314	56,640,320	587,127,895	548,467,774	7.0%
Cache	10,487	44,827,603	253,681,613	28,829,507	97,545,852	21,072,993	154,519,932	217,094,710	817,582,697	770,714,802	6.1%
Carbon	57,725,324	7,209,052	13,081,943	20,520,112	35,046,306	4,337,543	40,512,557	48,250,164	226,683,001	217,612,462	4.2%
Daggett	0	23,902	26,400	1,043,421	341,550	0	1,608,448	5,941,974	8,985,695	8,941,852	0.5%
Davis	3,302,351	175,338,426	321,469,511	83,737,556	368,041,707	77,204,817	346,318,045	632,595,811	2,008,008,224	1,878,745,367	6.9%
Duchesne	20,350,344	5,202,578	6,636,801	15,505,024	13,814,229	1,843,273	7,981,482	35,379,600	106,713,331	99,322,691	7.4%
Emery	42,814,266	9,999,912	484,831	33,759,680	4,176,546	776,000	7,108,371	21,145,138	120,264,744	118,487,387	1.5%
Garfield	409,210	766,398	3,267,158	4,441,775	2,851,100	390,170	11,574,166	12,958,336	36,658,313	35,104,011	4.4%
Grand	2,713,753	5,177,488	707,192	3,385,277	19,330,597	1,420,445	20,653,084	19,465,952	72,853,788	65,415,762	11.4%
Iron	1,447,657	14,895,972	43,718,086	12,564,298	43,926,735	10,019,158	45,835,439	77,022,954	249,430,299	229,994,699	8.5%
Juab	679,432	1,823,885	10,880,089	1,557,292	7,498,797	706,119	12,709,603	11,788,952	47,644,169	43,694,553	9.0%
Kane	10,867	1,944,966	6,747,468	748,545	8,066,672	898,986	11,588,137	13,889,542	43,895,183	39,231,197	11.9%
Millard	4,438,507	1,219,055	4,942,445	29,151,050	9,283,537	1,226,366	11,286,088	23,633,097	85,180,145	84,242,992	1.1%
Morgan	0	7,567,342	9,149,707	340,113	9,294,042	654,800	1,574,975	7,865,180	36,446,159	35,264,494	3.4%
Piute	0	4,192	13,854	744,482	165,356	91,070	146,621	2,895,704	4,061,279	3,795,284	7.0%
Rich	0	396,242	101,897	339,136	910,315	391,102	1,369,298	4,299,210	7,807,200	7,178,529	8.8%
Salt Lake	144,586,147	995,805,216	1,945,982,638	1,473,358,956	2,977,633,267	1,475,434,283	3,926,160,624	2,221,294,062	15,160,255,193	14,110,801,634	7.4%
San Juan	10,999,618	7,181,257	5,549,252	4,067,112	11,100,699	606,733	12,977,513	35,013,344	87,495,528	77,464,102	12.9%
Sanpete	252,405	6,913,056	19,106,615	7,650,186	11,999,354	2,920,673	12,654,378	45,110,521	106,607,188	99,132,645	7.5%
Sevier	13,695,708	7,292,026	12,647,599	19,876,045	24,458,760	3,466,923	22,124,007	35,778,975	139,340,043	131,792,751	5.7%
Summit	4,093,428	33,292,811	26,818,156	11,169,366	69,650,921	39,297,406	104,437,440	44,060,018	332,819,546	298,428,257	11.5%
Tooele	6,092,139	23,361,319	51,786,973	53,270,409	22,861,830	6,736,455	33,274,263	115,642,458	313,025,846	298,954,201	4.7%
Uintah	49,780,543	7,747,650	3,448,769	18,487,432	31,597,003	3,508,548	34,125,270	45,708,389	194,403,604	185,621,718	4.7%
Utah	1,155,886	242,507,145	593,084,909	81,515,237	537,662,407	113,253,520	1,365,017,325	463,455,958	3,397,652,387	3,092,609,275	9.9%
Wasatch	35,531	9,797,834	7,757,985	3,592,199	16,319,720	2,203,237	17,096,811	21,259,110	78,062,427	66,570,806	17.3%
Washington	5,143,431	71,915,814	56,777,226	46,091,621	144,598,404	30,491,059	158,099,965	117,313,796	630,431,316	565,581,709	11.5%
Wayne	0	1,283,666	437,132	465,371	1,785,160	143,428	5,557,003	6,710,613	16,382,373	15,065,829	8.7%
Weber	600,357	143,382,127	527,272,900	85,150,025	315,796,676	98,169,642	505,412,926	476,340,684	2,152,125,337	2,052,037,670	4.9%

Source: Utah Department of Workforce Services, Workforce Information.

Table 26
Average Monthly Wage by Industry

Industry	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Nonagricultural Jobs	$1,501	$1,549	$1,585	$1,644	$1,710	$1,801	$1,823	$1,867	$1,936	$2,016	$2,114	$2,207
Mining	2,708	2,820	2,905	2,976	3,002	3,217	3,283	3,318	3,484	3,662	3,796	3,855
Construction	1,665	1,742	1,799	1,843	1,917	1,878	1,875	1,934	2,042	2,092	2,202	2,267
Manufacturing	1,896	1,968	2,009	2,066	2,125	2,246	2,250	2,302	2,384	2,509	2,618	2,699
Trans., Comm., & Pub. Util.	2,175	2,270	2,355	2,424	2,552	2,613	2,643	2,699	2,703	2,757	2,885	2,948
Trade	1,063	1,103	1,133	1,173	1,231	1,264	1,288	1,351	1,414	1,484	1,569	1,654
Finance, Ins., & Real Estate	1,641	1,702	1,760	1,818	1,907	2,092	2,177	2,169	2,303	2,467	2,648	2,873
Services	1,315	1,350	1,385	1,458	1,534	1,682	1,690	1,717	1,789	1,852	1,940	2,053
Government	1,597	1,625	1,663	1,735	1,805	1,891	1,922	1,983	2,054	2,140	2,223	2,292

Industry	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Total Nonagricultural Jobs	3.2	2.3	3.7	4.0	5.3	1.2	2.4	3.7	4.1	4.8	4.4
Mining	4.1	3.0	2.4	0.9	7.2	2.1	1.1	5.0	5.1	3.7	1.6
Construction	4.6	3.3	2.4	4.0	-2.0	-0.2	3.1	5.6	2.4	5.3	3.0
Manufacturing	3.8	2.1	2.8	2.9	5.7	0.2	2.3	3.6	5.2	4.3	3.1
Trans., Comm., & Pub. Util.	4.4	3.7	2.9	5.3	2.4	1.1	2.1	0.1	2.0	4.6	2.2
Trade	3.8	2.7	3.5	4.9	2.7	1.9	4.9	4.7	5.0	5.7	5.4
Finance, Ins., & Real Estate	3.7	3.4	3.3	4.9	9.7	4.1	-0.4	6.2	7.1	7.3	8.5
Services	2.7	2.6	5.3	5.2	9.6	0.5	1.6	4.2	3.5	4.8	5.8
Government	1.8	2.3	4.3	4.0	4.8	1.6	3.2	3.6	4.2	3.9	3.1

Source: Utah Department of Workforce Services, Labor Market Information Services.

Table 27
Utah Population, Labor Force, Nonagricultural Jobs and Wages

	1995	1996	1997	1998	1999(p)	2000(f)	Percentage change 95-96	96-97	97-98	98-99	99-00
Total Population	1,959,000	2,002,000	2,049,000	2,083,000	2,121,000	2,158,000	2.2	2.3	1.6	1.9	1.7
Civilian Labor Force	986,600	1,008,400	1,040,000	1,062,700	1,081,000	1,103,000	2.2	3.1	2.2	1.7	2.0
Employed Persons	951,400	973,400	1,007,700	1,022,800	1,040,000	1,060,000	2.3	3.5	1.5	1.7	1.9
Unemployed Persons	35,200	35,000	32,300	39,900	41,000	43,000	-0.6	-7.7	23.5	2.8	4.9
Unemployment Rate	3.6	3.5	3.1	3.8	3.8	3.9	-	-	-	-	-
Total Nonfarm Jobs	908,000	954,182	993,999	1,023,460	1,050,000	1,075,000	5.1	4.2	3.0	2.6	2.4
Mining	8,100	7,929	8,297	8,044	7,700	7,900	-2.1	4.6	-3.0	-4.3	2.6
Construction	54,800	60,283	64,470	68,253	73,000	73,000	10.0	6.9	5.9	7.0	0.0
Manufacturing	123,900	129,177	132,856	133,400	132,000	134,000	4.3	2.8	0.4	-1.0	1.5
Durable	82,200	86,433	88,307	87,932	-	-	5.1	2.2	-0.4	-	-
Nondurable	41,700	42,744	44,549	45,468	-	-	2.5	4.2	2.1	-	-
Transportation, Comm., and Utilities	51,500	54,045	55,995	58,442	59,200	60,600	4.9	3.6	4.4	1.3	2.4
Trade	220,100	230,229	238,290	244,046	249,000	253,500	4.6	3.5	2.4	2.0	1.8
Wholesale	45,800	48,234	49,066	50,226	50,500	51,000	5.3	1.7	2.4	0.5	1.0
Retail	174,300	181,995	189,224	193,820	198,500	202,500	4.4	4.0	2.4	2.4	2.0
Finance, Insurance, Real Estate	47,700	50,539	52,575	55,263	57,000	58,500	6.0	4.0	5.1	3.1	2.6
Services	238,300	255,509	269,680	280,366	292,000	303,000	7.2	5.5	4.0	4.1	3.8
Government	163,600	166,471	171,836	175,646	180,100	184,500	1.8	3.2	2.2	2.5	2.4
Federal	31,900	30,937	31,296	30,849	31,600	32,300	-3.0	1.2	-1.4	2.4	2.2
State	50,600	51,883	53,356	55,319	56,800	58,000	2.5	2.8	3.7	2.7	2.1
Local	81,100	83,651	87,184	89,478	91,700	94,200	3.1	4.2	2.6	2.5	2.7
Goods-producing	186,800	197,389	205,623	209,697	212,700	214,900	5.7	4.2	2.0	1.4	1.0
Service-producing	721,200	756,793	788,376	813,763	837,300	860,100	4.9	4.2	3.2	2.9	2.7
Percent Service-producing	79.4%	79.3%	79.3%	79.5%	79.7%	80.0%					
Total Nonag Wages (millions)	$21,096	$23,089	$25,215	$27,105	$28,800	$30,600	9.4	9.2	7.6	6.3	6.2
Avg. Annual Wage	$23,234	$24,198	$25,367	$26,484	$27,429	$28,400	4.1	4.8	4.4	3.6	3.7
Avg. Monthly Wage	$1,936	$2,016	$2,114	$2,207	$2,286	$2,400	4.1	4.8	4.4	3.6	3.7

p = preliminary
f = forecast

Note:
Totals differ in this table from other tables in this report due to different release dates or data sources.

Source: Utah Department of Workforce Services, Workforce Information; December, 1999.

Table 28
Utah's Civilian Labor Force and Components by Planning District and County: 1998

District/County	Civilian Labor Force	Total Employed*	Total Unemployed	Unemployment Rate
State Total	1,062,748	1,022,801	39,947	3.8
Bear River	62,727	60,445	2,282	3.6
Box Elder	18,634	17,734	900	4.8
Cache	43,144	41,795	1,349	3.1
Rich	949	916	33	3.5
Wasatch Front	696,707	671,503	25,204	3.6
North	215,836	206,971	8,865	4.1
Davis	114,255	110,252	4,003	3.5
Morgan	3,596	3,454	142	3.9
Weber	97,985	93,265	4,720	4.8
South	480,872	464,532	16,340	3.4
Salt Lake	469,213	453,458	15,755	3.4
Tooele	11,659	11,074	585	5.0
Mountainland	178,397	172,493	5,904	3.3
Summit	13,704	13,081	623	4.5
Utah	158,686	153,702	4,984	3.1
Wasatch	6,007	5,710	297	4.9
Central	26,768	25,373	1,395	5.2
Juab	3,507	3,348	159	4.5
Millard	4,527	4,309	218	4.8
Piute	510	486	24	4.7
Sanpete	8,755	8,223	532	6.1
Sevier	8,009	7,636	373	4.7
Wayne	1,460	1,371	89	6.1
Southwestern	57,817	55,446	2,371	4.1
Beaver	2,401	2,282	119	5.0
Garfield	2,657	2,425	232	8.7
Iron	14,204	13,642	562	4.0
Kane	2,469	2,368	101	4.1
Washington	36,086	34,729	1,357	3.8
Uintah Basin	16,800	15,700	1,100	6.5
Daggett	404	388	16	4.0
Duchesne	5,936	5,492	444	7.5
Uintah	10,460	9,820	640	6.1
Southeastern	23,532	21,841	1,691	7.2
Carbon	9,610	9,010	600	6.2
Emery	4,094	3,767	327	8.0
Grand	5,062	4,689	373	7.4
San Juan	4,766	4,375	391	8.2
Salt Lake-Ogden MSA	681,452	656,975	24,477	3.6

Note: Numbers have been left unrounded for convenience rather than to denote accuracy.

These are employed persons as opposed to non-agricultural employment (jobs) reported in other tables in this report.

Source: Utah Deptartment of Workforce Services, Workforce Information, 2/26/99.

Table 29
Utah's Largest Nonagricultural Employers: December 1998

Rank	Firm Name	Business	Approximate Employment
1	State of Utah	State Government	21,000
2	University of Utah (Incl. Hospital)	Higher Education	17,500
3	Brigham Young University	Higher Education	16,500
4	Hill Air Force Base	Military Installation	8,700
5	Granite School District	Public Education	8,000
6	Jordan School District	Public Education	7,500
7	Convergys (Matrixx Marketing)	Telemarketing	7,500
8	Utah State University	Higher Education	6,500
9	Davis School District	Public Education	6,500
10	Smith's Food King	Food Stores	6,500
11	U.S. Postal Service	Mail Distribution	6,000
12	Autoliv Asp (Morton International)	Automotive Products Division	6,000
13	Salt Lake County	County Government	5,000
14	Wal-mart Stores	Drug & Variety Stores	5,000
15	Alpine School District	Public Education	5,000
16	Delta Airlines	Air Transportation	4,500
17	Albertson's	Food Stores	4,500
18	IHC Hospitals (partial)	Hospitals and Clinics	4,000
19	ZCMI	Department Stores	4,000
20	Internal Revenue Service	Federal Government	4,000
21	LDS Hospital	Hospital	4,000
22	Salt Lake City School District	Public Education	4,000
23	Cordant Technologies (Thiokol Corp.)	Aerospace Manufacturing	3,500
24	United Parcel Service	Mail Carrier	3,000
25	K Mart Corporation	Drug & Variety Stores	3,000
26	Weber School District	Public Education	3,000
27	Salt Lake City Corporation	City Government	3,000
28	U.S. West Communications	Communications	3,000
29	Icon Health & Fitness	Sporting & Athletic Goods Mfg.	3,000
30	Salt Lake Community College	Higher Education	2,500
31	Weber State University	Higher Education	2,500
32	Zions First National Bank	Banking	2,500
33	J.C. Penney Company	Department Stores	2,500
34	Sears Roebuck & Co.	Department Stores	2,500
35	Utah Valley Regional Medical Center	Hospital	2,500
36	First Security Bank	Banking	2,500
37	C R England & Sons	Trucking	2,500
38	Pacificorp (Utah Power)	Electric Power	2,500
39	Novell	Computer Equipment	2,500
40	Geneva Steel	Steel Products	2,500
41	Utah Valley State College	Higher Education	2,500
42	McKay-Dee Hospital	Hospital	2,500
43	Fred Meyer	Food/Department Stores	2,500
44	Intermountain Employment	Temporary Placement	2,500
45	Unibase Data Entry	Data Entry Service	2,500
46	Super Target	Department Stores	2,000
47	Novus (Discover Card)	Consumer Loans	2,000
48	Kennecott Minerals	Copper Mining and Smelting	2,000
49	Kelly Services	Temporary Placement	2,000
50	Nebo School District	Public Education	2,000
51	Primary Children's Medical Center	Hospital	2,000
52	Shopko	Department Stores	2,000
53	Provo City School District	Public Education	2,000
54	Washington County School District	Public Education	2,000
55	Union Pacific Railroad	Railroad	2,000
56	RC Willey Home Furniture	Home Furnishings Stores	2,000
57	Alliant Techsystems	Mfg Space Propulsion	2,000
58	Snowbird Corporation	Lodging	1,500
59	Harmon's Grocery Stores	Food Stores	1,500
60	Pizza Hut	Restaurants	1,500

Source: Utah Department of Workforce Services, Workforce Information

Table 30
Utah Employment and Job Openings Summary by Major Occupational Category

Occupational Category	Employment 1998	Employment 2003	Annual Average Job Openings Total	Annual Average Job Openings Due to Growth	Annual Average Job Openings Due to Replacement
Total - All Categories	1,229,680	1,381,700	58,810	30,390	28,420
Managerial & Administrative	95,330	109,190	4,620	2,770	1,850
Professional & Paraprofessional	196,320	228,080	9,760	6,350	3,410
Technical	55,340	63,700	2,790	1,670	1,120
Sales & Related	159,750	183,150	9,970	4,680	5,290
Clerical & Administrative Support	187,150	203,410	6,920	3,250	3,670
Service	176,320	202,060	10,450	5,140	5,310
Agriculture, Forestry, & Fishing	30,270	32,290	1,110	410	700
Production, Operating, & Maintenance	329,200	359,820	13,190	6,120	7,070

Source: Utah Department of Workforce Services, Labor Market Information Services, November 1997.

Personal Income

Overview

Utah's 1999 total personal income of $46.6 billion is up 5.3% from the 1998 total.[1] The state's 1999 total personal income increased slightly slower than the U.S. growth of 5.7%. Utah's 1999 per capita income is an estimated $21,900, an increase of 3.8% over the 1998 estimate. Utah's 1998 per capita income ranks 43rd among the states. It is 77% of the U.S. average, a significant improvement from the low of 71% in both 1988 and 1989.

1999 Summary and Outlook

Utah's 1999 total personal income (TPI) is estimated at $46.6 billion, up 5.3% from the 1998 total, which increased 6.3% from the 1997 level. Utah's 1999 TPI grew slightly slower than the forecasted national TPI growth of 5.7%, which is virtually the same as the 1997-1998 growth of 5.9%. The relative strength of Utah's economy is reflected in these TPI growth comparisons

Per capita personal income (PCI) is an area's annual total personal income divided by the total population as of July 1 of that year. Utah's 1999 PCI is approximately $21,900, an increase of 3.8% over the 1998 estimate. From 1989 to 1998, Utah's percentage of the national PCI has increased by 6 points (from 71% to 77%).

For the year 2000, Utah's TPI expansion is anticipated to be about 5.7%, a slight gain over the 1999 growth rate. By contrast, the U.S. TPI growth rate is projected to slow in 2000 to 4.8%. This turnaround is due to the substantial slowdown (from 2.2% in 1999 to 1.2% in 2000) projected for the growth in U.S. nonfarm jobs, which will slow growth in wage and salary disbursements, the largest component of TPI. Whereas, Utah's nonfarm job growth rate for 2000 is anticipated to remain near 1999's level (2.4% and 2.6%, respectively).

Components of Total Personal Income

The largest single component of total personal income is "earnings by place of work." This portion consists of the total earnings from farm and nonfarm industries, including contributions for social insurance. In 1998, Utahns' earnings by place of work reached $34.8 billion, representing 79% of TPI. Approximately 10% of this figure was proprietors' income, while 90% was wages, salaries, and other labor income. Nonfarm earnings ($34.6 billion) was over 99% of total earnings; farm income comprised less than 1%. Private sector nonfarm earnings accounted for 84% of nonfarm earnings, while earnings from public (government) industries made up 16%. Although earnings from government employment have been declining as a share of Utah's total earnings, it is still relatively more important than the U.S. share (15.9% compared to 14.4%, respectively).

The other components of TPI are dividends, interest, and rent (DIR), and transfer payments. In 1998, DIR amounted to $5.7 billion, and transfer payments were $5.9 billion. Some of the major differences between the economic compositions of Utah and the United States lie in these two parameters. Perhaps the most significant is that Utah DIR comprise a much smaller (13.4% versus 16.7%) 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 is that Utah's average wage is only 85% (in 1997) of the U.S. average. Due to these two factors, Utah's TPI is relatively lower than the national total personal income.

Industrial Composition of TPI. The industrial composition of Utah's TPI has changed in recent years. In 1980, prior to the last two recessions, goods-producing industries (mining, construction, manufacturing) generated over 31% of Utah's total earnings. By 1992 that share had dropped to 22.9%, but it crept back to 23.8% by 1998. By comparison, 24.1% of U.S. earnings are from goods-producing jobs.

Four major industry sectors generate over three-fourths of Utah's total earnings. Services is the leader, providing 27% of earnings; government (including military) pays 16%. Trade (wholesale plus retail) accounts for roughly 17% of Utah's total earnings, while manufacturing has slipped to 14%. Transportation/ communications/ utilities, construction, and finance/ insurance/ real estate are all between 7% and 8%, while mining generates 1.3% of earnings. Agriculture/ agricultural services make up the remaining 1.1%.

Per Capita Personal Income

Utah's 1998 per capita personal income of $21,096 ranked 43rd among the 50 states, an improvement over the ranking of 48th in 1986. During the 1970s, Utah's PCI ranged between 80% and 82% of the United States' PCI. However, from 1977 to 1989, this parameter dropped 11 percentage points--from 82% to 71%. From 1989 to 1996, gradual improvements in this comparison occurred. But the progress stopped there: 1996 through 1998 are all around 77% to 78%.

County Total and Per Capita Personal Income

Four of Utah's 29 counties posted double-digit 1997 to 1998 growth in total personal income, a modest improvement over 1997 when only two counties did so. This rapid TPI county growth is generally tied to rapid increases in nonagricultural wages, which is the largest component of total personal income. On the other end of the scale, seven counties suffered TPI expansion one-half or less of the state rate. This typically occurs because of the slow growth of nonfarm jobs.

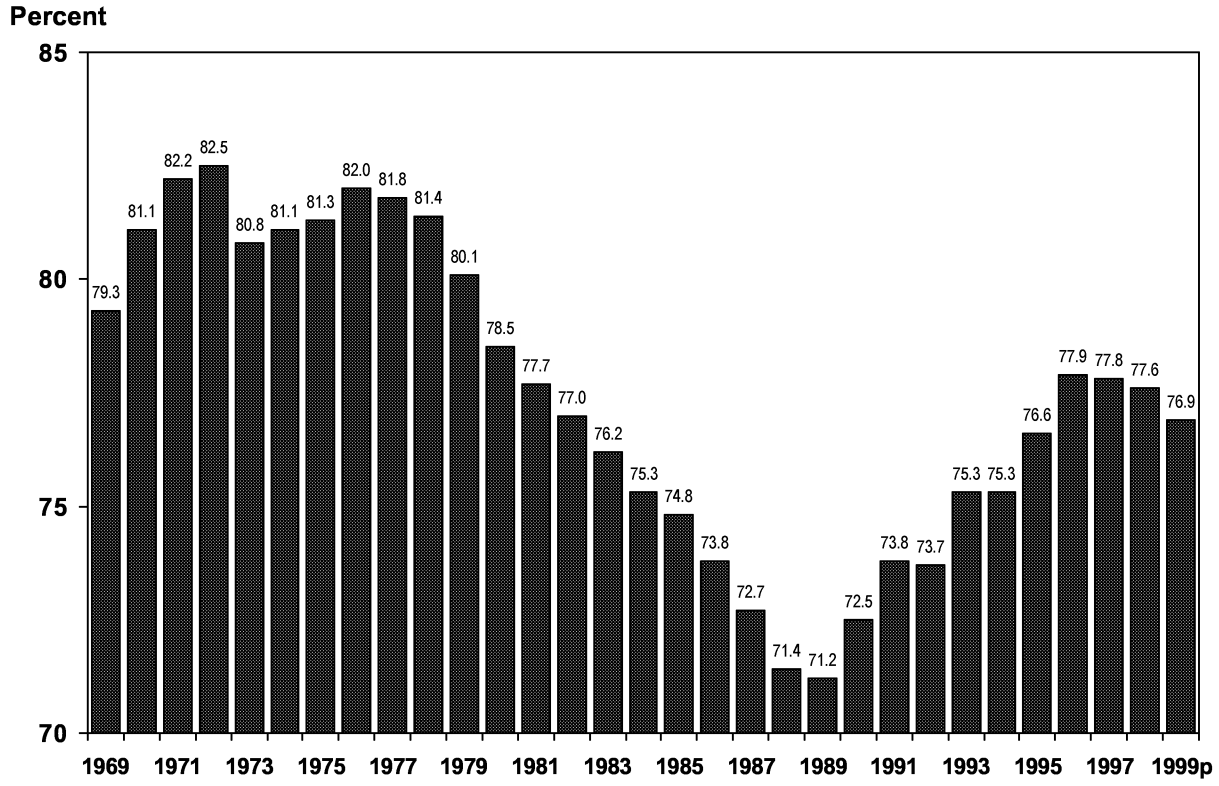
Only two counties, Summit and Salt Lake, have 1998 PCI estimates higher than the state average. Summit County's $37,000 is the highest in Utah; it exceeds the state average by 76%. San Juan County's $12,300 is lowest; it is only 59% of the Utah average. The 1998 per capita income of the United States, at $26,412, is higher than that of all of Utah's counties except Summit.

Conclusion

Utah's total and per capita personal income estimates for recent years comprise another important indicator of the strength of Utah's economy. Both of these parameters have been increasing at a more rapid rate than comparable national figures. However, Utahns are generally more dependent on earned income than the national average. And, since the average annual pay of Utah workers is somewhat lower than the U.S. average, Utah's total and per capita personal income are relatively lower. ✻

[1] Total personal income is defined as all income received by all residents of an area.

Figure 23
Utah Per Capita Personal Income as a Percent of U.S.



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

Table 31
Components of Utah's Total Personal Income

Components	1996(r)	1997(r)	1998(p)	Percentage Change 1996-97	Percentage Change 1997-98	1998 Percentage Distribution Utah	1998 Percentage Distribution U.S.	1998 Industry Distribution Utah	1998 Industry Distribution U.S.
Total Personal Income	$38,855.5	$41,681.3	$44,297.2	7.3	6.3	100.0	100.0		
Earnings by place of work	30,169.0	32,609.8	34,810.3	8.1	6.7	78.9	72.1		
less: Personal contrb. for social insurance	1,988.5	2,159.8	2,293.3	8.6	6.2	5.2	4.9		
plus: Adjustment for residence	1.0	1.3	3.3	25.0	160.0	0.0	-0.1		
equals: Net earnings by place of residence	28,181.5	30,451.5	32,520.3	8.1	6.8	73.7	67.2		
plus: Dividends, interest, and rent	5,227.8	5,525.3	5,685.5	5.7	2.9	12.9	16.7		
plus: Transfer payments	5,446.3	5,704.8	5,928.8	4.7	3.9	13.4	16.1		
Components of earnings	30,169.5	32,610.0	34,810.5	8.1	6.7	78.9	72.1		
Wage and salary disbursements	24,495.5	26,655.5	28,474.8	8.8	6.8	64.5	58.4		
Other labor income	2,646.3	2,717.5	2,795.0	2.7	2.9	6.3	5.7		
Proprietors' income	3,027.8	3,237.0	3,540.8	6.9	9.4	8.0	8.1		
Farm proprietors' income	75.8	81.8	120.5	7.9	47.4	0.3	0.4		
Nonfarm proprietors' income	2,951.8	3,155.3	3,420.0	6.9	8.4	7.7	7.7		
Earnings by industry	30,169.3	32,610.0	34,810.0	8.1	6.7	78.9	72.1	100.0	100.0
Farm earnings	168.5	181.8	232.0	7.9	27.6	0.5	0.6	0.7	0.8
Nonfarm earnings	30,000.8	32,428.3	34,578.0	8.1	6.6	78.3	71.5	99.3	99.2
Private earnings	24,941.0	27,076.0	29,052.5	8.6	7.3	65.8	61.2	83.5	84.8
Ag. services, forestry, fishing & other	117.3	129.5	146.5	10.4	13.1	0.3	0.5	0.4	0.7
Mining	419.3	453.8	447.3	8.2	-1.4	1.0	0.6	1.3	0.9
Construction	2,379.3	2,608.0	2,876.5	9.6	10.3	6.5	4.2	8.3	5.9
Manufacturing	4,525.3	4,837.0	4,961.8	6.9	2.6	11.2	12.5	14.3	17.4
Durable goods	3,238.3	3,410.5	3,495.3	5.3	2.5	7.9	7.8	10.0	10.7
Nondurable goods	1,286.8	1,426.5	1,466.5	10.9	2.8	3.3	4.8	4.2	6.6
Transportation and public utilities	2,253.8	2,423.5	2,573.3	7.5	6.2	5.8	4.9	7.4	6.8
Wholesale trade	1,747.8	1,873.5	2,044.3	7.2	9.1	4.6	4.6	5.9	6.4
Retail trade	3,234.8	3,548.0	3,712.3	9.7	4.6	8.4	6.5	10.7	9.0
Finance, insurance, and real estate	2,203.5	2,416.0	2,737.5	9.6	13.3	6.2	6.5	7.9	8.9
Services	8,061.0	8,787.5	9,553.5	9.0	8.7	21.6	20.8	27.4	28.8
Government and government enterprises	5,059.3	5,352.3	5,525.8	5.8	3.2	12.5	10.4	15.9	14.4
Federal, civilian	1,294.3	1,318.8	1,345.0	1.9	2.0	3.0	1.9	3.9	2.7
Military	255.3	254.5	251.3	-0.3	-1.3	0.6	0.7	0.7	0.9
State and Local	3,509.8	3,779.0	3,929.5	7.7	4.0	8.9	7.8	11.3	10.8
Population (thousands)	2,022.0	2,066.0	2,100.0	2.1	1.7				
Per capita personal income	$19,214	$20,185	$21,096	5.1	4.5				

(r) = revised
(p) = preliminary

Source: Bureau of Economic Analysis; State Personal Income, September, 1999

Table 32
Personal Income and Growth Rates—Utah and U.S.

Year	Total Personal Income (millions of dollars) Utah	U.S.	Growth Rates Utah	U.S.	Per Capita Personal Income (dollars) Utah	U.S.	Utah as % of U.S.
1960	1,826	412,700			$2,029	$2,283	88.9
1961	1,950	430,300	6.8	4.3	2,083	2,342	88.9
1962	2,117	457,900	8.6	6.4	2,210	2,454	90.1
1963	2,199	481,000	3.9	5.0	2,258	2,541	88.9
1964	2,308	515,800	5.0	7.2	2,360	2,688	87.8
1965	2,447	557,400	6.0	8.1	2,469	2,868	86.1
1966	2,601	606,400	6.3	8.8	2,577	3,085	83.5
1967	2,741	650,400	5.4	7.3	2,690	3,272	82.2
1968	2,944	714,500	7.4	9.9	2,861	3,559	80.4
1969	3,196	780,800	8.6	9.3	3,053	3,851	79.3
1970	3,546	841,100	10.9	7.7	3,327	4,101	81.1
1971	3,943	905,100	11.2	7.6	3,583	4,358	82.2
1972	4,432	994,300	12.4	9.9	3,906	4,736	82.5
1973	4,965	1,113,400	12.0	12.0	4,248	5,254	80.9
1974	5,575	1,225,600	12.3	10.1	4,651	5,730	81.2
1975	6,195	1,331,700	11.1	8.7	5,021	6,166	81.4
1976	7,070	1,475,400	14.1	10.8	5,556	6,765	82.1
1977	8,024	1,637,100	13.5	11.0	6,095	7,432	82.0
1978	9,240	1,848,300	15.2	12.9	6,773	8,302	81.6
1979	10,522	2,081,500	13.9	12.6	7,430	9,247	80.4
1980	11,812	2,323,900	12.3	11.6	8,021	10,205	78.6
1981	13,301	2,599,400	12.6	11.9	8,777	11,301	77.7
1982	14,309	2,768,400	7.6	6.5	9,182	11,922	77.0
1983	15,283	2,946,900	6.8	6.4	9,582	12,576	76.2
1984	16,919	3,274,800	10.7	11.1	10,429	13,853	75.3
1985	18,100	3,515,000	7.0	7.3	11,017	14,738	74.8
1986	18,924	3,712,400	4.5	5.6	11,380	15,425	73.8
1987	19,906	3,962,500	5.2	6.7	11,862	16,317	72.7
1988	21,032	4,272,100	5.7	7.8	12,450	17,433	71.4
1989	22,581	4,599,800	7.4	7.7	13,238	18,593	71.2
1990	24,586	4,903,200	8.9	6.6	14,213	19,614	72.5
1991	26,302	5,085,400	7.0	3.7	14,855	20,126	73.8
1992	28,303	5,390,400	7.6	6.0	15,561	21,105	73.7
1993	30,624	5,610,000	8.2	4.1	16,359	21,735	75.3
1994	33,021	5,888,000	7.8	5.0	17,004	22,593	75.3
1995	35,954	6,200,900	8.9	5.3	18,054	23,571	76.6
1996	38,855	6,547,400	8.1	5.6	19,214	24,660	77.9
1997	41,681	6,951,100	7.3	6.2	20,185	25,932	77.8
1998	44,297	7,358,900	6.3	5.9	21,096	27,195	77.6
1999(p)	46,645	7,778,000	5.3	5.7	21,900	28,500	76.9

(p) = preliminary

Source: U.S. Department of Commerce, Bureau of Economic Analysis, and the Council of Economic Advisors' Revenue Assumptions Committee.

Table 33
Per Capita Income by District and County

County/MCD	1995(r)	1996(r)	1997(p)	1998(f)	Percent Change 1996-97	Percent Change 1997-98	1998 Percent of State Average
State Total*	$18,054	$19,214	$20,185	$21,019*	5.1	4.1	100
Bear River	15,742	16,486	17,317	17,800	5.0	2.8	85
Box Elder	17,261	18,208	19,114	19,900	5.0	4.1	95
Cache	15,057	15,717	16,502	16,800	5.0	1.8	80
Rich	14,003	14,249	15,149	15,600	6.3	3.0	74
Wasatch Front	19,692	20,995	22,123	23,000	5.4	4.0	109
North	18,120	19,163	20,218	20,700	5.5	2.4	98
Davis	17,697	18,832	19,954	20,600	6.0	3.2	98
Morgan	15,557	16,660	17,454	18,000	4.8	3.1	86
Weber	18,735	19,666	20,650	20,900	5.0	1.2	99
South	20,431	21,867	23,032	24,000	5.3	4.2	114
Salt Lake	20,586	22,049	23,237	24,300	5.4	4.6	116
Tooele	16,090	16,864	17,542	17,200	4.0	-1.9	82
Mountainland	15,903	17,176	17,917	19,000	4.3	6.0	90
Summit	30,400	32,387	34,953	37,100	7.9	6.1	177
Utah	14,821	15,996	16,567	17,500	3.6	5.6	83
Wasatch	16,725	17,700	18,560	20,400	4.9	9.9	97
Central	13,244	13,812	14,349	14,600	3.9	1.7	69
Juab	13,415	13,741	14,194	14,500	3.3	2.2	69
Millard	13,471	14,557	15,208	15,600	4.5	2.6	74
Piute	11,809	11,813	12,693	13,200	7.4	4.0	63
Sanpete	12,278	12,576	12,834	12,800	2.1	-0.3	61
Sevier	14,244	14,913	15,619	16,000	4.7	2.4	76
Wayne	13,138	13,760	15,014	16,400	9.1	9.2	78
Southwestern	15,342	15,951	16,566	17,400	3.9	5.0	83
Beaver	13,212	13,664	14,139	15,000	3.5	6.1	71
Garfield	14,550	15,448	16,392	16,600	6.1	1.3	79
Iron	13,805	14,418	15,256	15,500	5.8	1.6	74
Kane	15,904	17,139	18,258	19,300	6.5	5.7	92
Washington	16,069	16,601	17,083	18,200	2.9	6.5	87
Uintah Basin	12,845	13,241	14,143	14,900	6.8	5.4	71
Daggett	14,644	14,353	13,925	14,500	-3.0	4.1	69
Duchesne	13,955	14,307	15,239	16,200	6.5	6.3	77
Uintah	12,175	12,609	13,535	14,200	7.3	4.9	68
Southeastern	14,222	14,921	15,645	16,300	4.9	4.2	78
Carbon	16,569	17,574	18,591	18,800	5.8	1.1	89
Emery	14,052	14,585	15,217	15,200	4.3	-0.1	72
Grand	15,009	15,442	16,247	18,000	5.2	10.8	86
San Juan	10,421	10,808	11,090	12,300	2.6	10.9	59
Salt Lake/Ogden	19,802	21,121	22,264	23,100	5.4	3.8	110
United States	23,059	24,164	25,288	26,412	4.7	4.4	126

(r) = revised
(p) = preliminary
(f) = forecast

* Totals differ in this table from other tables in this chapter due to different data sources.

Sources: 1995-1997: U.S. Dept. of Commerce, BEA, May 1999.

Gross State Product

Overview

Gross State Product (GSP) is the market value of final goods and services produced by the labor and property located in a state. It is the regional counterpart to the national Gross Domestic Product (GDP). Conceptually, GSP is gross output less intermediate inputs. The Bureau of Economic Analysis (BEA) has recently released its estimates of GSP for 1997 and revised estimates for 1995-1996.

Estimates of Real and Nominal GSP

GSP is a measure of production, as distinguished from income or spending. It is the sum of the value added by each industry in the state's economy and is expressed in dollars. Changes in nominal (current dollar) GSP from one year to the next result from quantity changes in production and product price changes. BEA attempts to separate these by calculating real (constant dollar) GSP, which theoretically holds prices constant. Changes in real gross product for an industry reflect changes in the quantity of output, not the price of the product in the market. In order to calculate real GSP, price indices are constructed to account for the inflationary or deflationary prices. There are alternative approaches to the construction of price indices, and these have significant implications for the measurement of prices and quantity over time. When price indices are used to adjust current dollar GSP, the result is real GSP.

BEA has historically used a fixed weight approach to calculate real GSP. Observed relative prices in a base year are assumed constant over time. This introduces what is called "substitution bias," and tends to understate real growth in rapidly growing industries and overstate it in slower growth industries. An alternative is a chain-type index that reduces substitution bias but introduces additional complexities in interpretation and use.[1] The most recent BEA estimates include current dollar GSP, and real GSP measured in chained 1992 dollars. But because of the problems mentioned earlier, real GSP measured in fixed weight 1992 dollars has not been included in the measurement.

Current Dollar GSP

Utah's current dollar GSP is estimated by BEA to be $55.417 billion in 1997 and $51.196 billion in 1996.

Real GSP

Utah's real GSP (measured in chain-weighted 1992 dollars) has been increasing since 1986. BEA estimates real GSP for Utah to be $46.6 billion in 1996 and $49.6 billion in 1997. Regional Financial Associate's estimate of real GSP for Utah in 1998 (measured in 1992 chained dollars) is $51.7 billion.

2000 Outlook

Regional Financial Associates forecasts real GSP for Utah (measured in 1992 chained dollars) to be $56.0 billion.

Significant Issues

Several major improvements have been incorporated into these new and revised estimates of GSP, released in June of 1999 by the Bureau of Economic Analysis. The revisions were centered in the manufacturing and financial service industries. As a result, 1996 manufacturing gross product was revised upwards 13% for Utah, and the state as a whole is more productive than previously estimated.

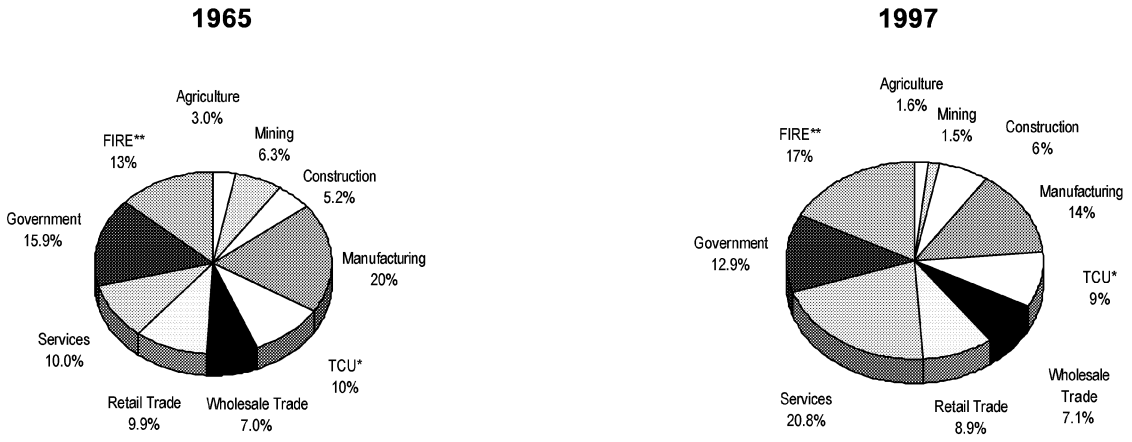
Another important change in GSP has to do with a recent reclassification of how GDP, or Gross Domestic Product is calculated. Until now software purchases have counted as an expense, but the changes now classify them as an investment. Expenses are not included in the figuring of GDP, but investments are, consequently software sales, which are growing much faster than the economy as a whole, are now factored into the GDP figures. The result is that productivity and inflation-adjusted GDP growth rate have been revised upward.

Conclusion

Gross State Product can be used to measure aggregate production in a state. For Utah this aggregate production has shown solid increases over the past ten years. This growth should continue at a somewhat slower pace in the future. GSP can also be utilized to show the change in industry composition over time and as such can prove useful in monitoring the diversity in the economic structure of Utah. ✻

[1] See J. Stephen Landefeld and Robert P. Perker, "BEA's Chain Indexes, Times Series, and Measures of Long-Term Economic Growth," *Survey of Current Business 77* (May 1997): 58-68; and Howard L Friedenberg and Richard M. Beemiller, "Comprehensive Revision of Gross State Product by Industry, 1977-94, " *Survey of Current Business 77 (June 1997): 15-41.*

Figure 24
Utah Gross State Product—Percent Share by Industry

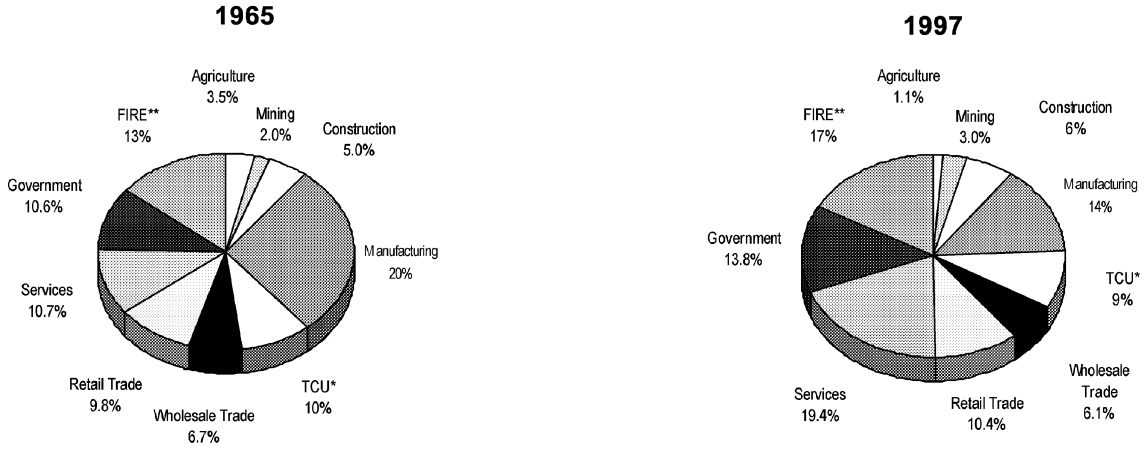


***Transportation, Communication and Utilities**

****Finance, Insurance and Real Estate**

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Figure 25
U.S. Gross Domestic Product—Percent Share by Industry



***Transportation, Communication and Utilities**

****Finance, Insurance and Real Estate**

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 34
Utah Gross State Product by Industry (Millions of Current Dollars): Selected Years

Industry	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Total Gross State Product	$15,457	$24,401	$31,061	$33,283	$35,193	$38,129	$42,007	$46,023	$51,196	$55,417
Private Industries	12,962	20,131	25,631	27,458	29,090	31,746	35,357	39,086	43,953	47,736
Agriculture, forestry, and fisheries	270	348	502	473	553	563	533	523	565	612
Farms	238	283	427	388	455	456	412	385	405	437
Agricultural services, forestry and fisheries	32	65	75	85	98	108	121	138	160	175
Mining	1,137	1,262	1,539	1,422	1,265	1,449	1,537	1,640	1,654	1,654
Metal mining	351	124	348	352	360	508	614	758	681	624
Coal mining	258	218	246	306	300	293	293	283	329	265
Oil and Gas	492	906	861	677	542	611	586	548	593	696
Nonmetallic minerals	37	14	85	87	63	38	44	52	51	69
Construction	914	1,308	1,244	1,400	1,525	1,727	2,170	2,552	2,864	3,132
Manufacturing	2,342	3,570	4,588	4,971	5,004	5,205	5,877	6,572	8,093	8,601
Durable goods	1,696	2,597	3,166	3,349	3,264	3,287	3,762	4,286	5,183	5,395
Lumber and wood	78	73	144	147	106	130	168	171	183	200
Furniture and fixtures	28	61	79	98	95	103	124	134	152	167
Stone, clay, and glass products	126	186	127	110	134	140	181	212	221	234
Primary metals	329	283	502	564	427	515	603	689	684	677
Fabricated metals	163	209	294	292	332	349	418	427	475	522
Industrial machinery	439	935	433	406	429	409	401	612	1,406	1,489
Electronic equipment	178	217	362	374	398	264	374	322	324	348
Motor vehicles	29	46	126	140	192	311	382	510	422	410
Other transportation equipment	208	431	696	724	676	572	590	565	567	584
Instruments and related	66	69	211	273	272	243	232	328	362	372
Misc. manufacturing services	51	86	192	220	202	251	287	316	387	392
Nondurable goods	646	974	1,422	1,622	1,740	1,918	2,115	2,285	2,909	3,205
Food and kindred products	158	264	375	455	503	494	488	588	582	659
Tobacco products	0	0	0	0	0	0	0	0	0	0
Textile mill products	1	2	24	24	15	16	16	20	17	14
Apparel and other textile products	69	77	65	70	93	87	88	76	81	79
Paper products	16	57	92	90	84	159	218	229	293	312
Printing and publishing	128	231	304	302	345	364	447	433	527	584
Chemicals	97	136	203	288	249	259	349	459	887	942
Petroleum products	146	167	263	294	358	440	396	342	346	422
Rubber and plastics	30	39	95	97	91	97	110	135	173	189
Leather products	1	1	1	1	2	3	2	5	4	4
Transportation, communications and utilities	1,707	2,743	3,066	3,175	3,200	3,595	3,957	4,168	4,414	4,709
Transportation	706	1,007	1,383	1,446	1,539	1,700	1,868	1,965	2,082	2,317
Railroad transportation	209	289	214	251	271	239	268	267	268	275
Local and interurban	36	21	20	22	24	25	26	28	32	35
Trucking and warehousing	325	409	611	639	684	738	833	911	919	995
Water transportation	6	1	1	1	1	1	1	1	2	4
Transportation by air	75	208	454	442	458	577	639	651	744	883
Pipelines, except natural gas	36	35	15	15	17	20	20	18	16	17
Transportation services	19	44	69	77	85	101	80	89	102	109
Communications	365	516	665	687	706	811	873	957	1,035	1,039
Electric, gas and sanitary	635	1,121	1,017	1,042	955	1,084	1,216	1,246	1,296	1,353
Wholesale trade	1,086	1,540	1,842	2,057	2,074	2,274	2,591	2,846	3,152	3,383
Retail trade	1,405	2,469	2,928	3,115	3,498	3,842	4,382	4,932	5,273	5,791
Finance, insurance, and real estate	2,226	3,363	4,159	4,550	5,018	5,513	5,982	6,782	8,053	9,119
Depository institutions	255	479	836	965	1,070	1,032	1,095	1,254	2,018	2,602
Nondepository institutions	46	117	95	122	165	281	311	327	390	493
Security brokers	27	59	76	73	72	99	128	123	178	189
Insurance carriers	134	139	243	280	304	445	450	519	551	652
Insurance agents	60	81	171	195	205	231	273	303	326	345
Real estate	1,692	2,416	2,681	2,874	3,148	3,347	3,749	4,131	4,486	4,706
Holding and investment	12	72	57	41	54	79	(25)	126	104	131
Services	1,874	3,527	5,763	6,294	6,953	7,576	8,327	9,072	9,886	10,735
Hotels and lodging	120	195	246	276	294	325	352	378	417	474
Personal services	88	147	204	208	229	264	303	302	311	339
Business services	284	627	1,079	1,238	1,507	1,631	1,816	2,062	2,345	2,615
Auto repair and parking	135	249	312	322	352	390	447	512	565	627
Misc. repair services	70	95	124	114	115	128	140	153	162	175
Motion pictures	38	63	84	78	98	138	131	170	202	207
Amusement and recreation	69	134	199	220	261	253	283	323	367	411
Health services	542	906	1,590	1,760	1,953	2,112	2,254	2,401	2,543	2,697
Legal services	87	181	279	303	305	332	359	371	387	411
Educational services	122	207	329	356	349	373	418	430	441	471
Social services	32	51	97	113	130	152	169	188	216	246
Membership organization	105	377	583	620	617	656	715	736	766	797
Other services	169	275	609	659	713	790	907	1,009	1,126	1,227
Private households	12	19	28	27	30	33	34	37	38	39
Government	2,494	4,270	5,430	5,825	6,103	6,383	6,650	6,936	7,243	7,682
Federal civilian	908	1,390	1,707	1,836	1,927	1,926	1,882	1,863	1,867	1,957
Federal military	177	347	392	422	436	417	410	412	430	428
State and local	1,409	2,533	3,332	3,567	3,740	4,040	4,358	4,662	4,946	5,297

Source: U.S. Bureau of Economic Analysis

Table 35
Utah Real Gross State Product by Industry (Millions of Chained 1992 Dollars): Selected Years

Industry	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Total Gross State Product	$25,401	$30,557	$32,867	$34,122	$35,193	$37,204	$40,183	$42,689	$46,627	$49,562
Private Industries	20,096	24,706	26,854	28,034	29,090	31,026	33,969	36,439	40,319	43,062
Agriculture, forestry, and fisheries	235	351	454	466	553	545	537	513	497	599
Farms	198	283	380	381	455	443	419	384	347	437
Agricultural services, forestry and fisheries	35	68	74	84	98	103	118	128	149	160
Mining	674	823	1,299	1,368	1,265	1,537	1,609	1,626	1,591	1,689
Metal mining	165	111	263	339	360	570	590	615	628	665
Coal mining	151	140	223	290	300	327	346	361	438	363
Oil and Gas	362	566	732	653	542	606	635	601	496	582
Nonmetallic minerals	43	16	84	87	63	39	44	51	50	66
Construction	1,527	1,642	1,256	1,401	1,525	1,669	2,017	2,265	2,466	2,613
Manufacturing	3,092	4,236	4,783	5,044	5,004	5,099	5,682	6,331	7,721	8,203
Durable goods	2,141	2,907	3,309	3,399	3,264	3,251	3,681	4,159	5,050	5,343
Lumber and wood	108	99	167	168	106	107	130	133	147	154
Furniture and fixtures	45	76	82	97	95	104	120	130	138	149
Stone, clay, and glass products	160	192	130	110	134	137	170	191	195	204
Primary metals	398	315	459	550	427	529	587	587	623	611
Fabricated metals	221	251	307	295	332	348	419	428	452	489
Industrial machinery	343	821	427	398	429	424	431	705	1,730	2,016
Electronic equipment	NA	NA	352	366	398	273	411	421	488	578
Motor vehicles	52	61	155	155	192	290	342	465	375	374
Other transportation equipment	437	588	795	746	676	560	568	531	508	508
Instruments and related	NA	NA	NA	NA	272	232	215	281	263	241
Misc. manufacturing services	66	106	210	229	202	245	279	309	367	364
Nondurable goods	940	1,314	1,474	1,645	1,740	1,847	2,001	2,174	2,672	2,859
Food and kindred products	244	356	411	470	503	497	474	601	531	594
Tobacco products	0	0	0	0	0	0	0	0	0	0
Textile mill products	1	3	25	25	15	16	18	21	18	14
Apparel and other textile products	90	87	69	72	93	86	88	79	82	78
Paper products	24	70	89	89	84	167	221	172	240	278
Printing and publishing	282	350	347	322	345	342	405	395	434	455
Chemicals	151	178	215	292	249	251	326	410	798	838
Petroleum products	131	255	227	280	358	390	360	367	377	388
Rubber and plastics	31	39	96	96	91	97	113	141	176	195
Leather products	2	1	1	1	2	2	2	4	4	4
Transportation, communications and utilities	2,715	3,032	3,116	3,177	3,200	3,522	3,875	4,012	4,304	4,528
Transportation	950	1,120	1,365	1,434	1,539	1,667	1,830	1,881	2,049	2,229
Railroad transportation	163	220	203	248	271	249	287	304	322	320
Local and interurban	70	31	23	23	24	24	25	26	27	29
Trucking and warehousing	625	594	594	644	684	731	779	828	856	887
Water transportation	10	1	1	1	1	1	1	1	2	3
Transportation by air	82	198	455	427	458	533	635	611	724	861
Pipelines, except natural gas	36	29	14	16	17	21	21	18	19	20
Transportation services	35	59	75	76	85	104	79	89	96	102
Communications	566	665	677	697	706	793	836	895	955	964
Electric, gas and sanitary	1,183	1,255	1,077	1,047	955	1,062	1,210	1,236	1,299	1,335
Wholesale trade	1,257	1,635	1,808	2,021	2,074	2,238	2,484	2,639	2,951	3,198
Retail trade	2,140	3,105	3,178	3,215	3,498	3,795	4,282	4,819	5,218	5,796
Finance, insurance, and real estate	4,653	4,778	4,547	4,675	5,018	5,303	5,742	6,033	6,933	7,386
Depository institutions	NA	NA	1,062	1,036	1,070	1,010	1,041	1,059	1,611	1,875
Nondepository institutions	NA	NA	113	136	165	241	293	268	312	345
Security brokers	40	67	79	75	72	101	135	131	192	214
Insurance carriers	299	255	247	252	304	382	378	399	395	418
Insurance agents	125	132	188	203	205	221	252	273	284	293
Real estate	3,160	3,164	2,820	2,931	3,148	3,249	3,541	3,802	4,020	4,101
Holding and investment	25	34	45	45	54	96	96	91	90	85
Services	3,985	5,192	6,421	6,661	6,953	7,321	7,755	8,207	8,650	9,089
Hotels and lodging	227	255	263	281	294	313	333	346	366	390
Personal services	181	209	223	216	229	254	281	275	276	290
Business services	NA	NA	1,173	1,318	1,507	1,637	1,753	1,964	2,152	2,317
Auto repair and parking	283	377	345	338	352	368	402	455	498	550
Misc. repair services	163	143	151	129	115	115	122	126	114	111
Motion pictures	72	91	91	81	98	136	124	157	179	180
Amusement and recreation	121	187	218	228	261	243	261	288	316	346
Health services	1,400	1,526	1,843	1,892	1,953	1,995	2,031	2,090	2,154	2,221
Legal services	252	290	316	321	305	316	329	329	330	335
Educational services	256	311	366	373	349	363	392	381	375	385
Social services	59	73	107	118	130	149	163	175	197	218
Membership organization	184	499	638	638	617	634	667	667	675	693
Other services	NA	NA	660	700	713	774	871	932	1,011	1,053
Private households	17	23	30	28	30	32	32	34	34	33
Government	5,465	5,880	6,021	6,089	6,103	6,287	6,345	6,270	6,349	6,553
Federal civilian	2,430	1,989	1,984	1,940	1,927	1,961	1,839	1,619	1,556	1,594
Federal military	358	439	439	455	436	414	407	400	392	380
State and local	2,764	3,457	3,602	3,694	3,740	3,911	4,091	4,256	4,410	4,589

NA = Not Available

Source: U.S. Bureau of Economic Analysis

Gross Taxable Sales

Overview

In 1999, gross taxable sales will grow nearly 6%. This is nearly as high as 1998 taxable sales growth,[1] which rose 6.8%. Following four years of 10 to 12% yearly growth rates, taxable sales slowed down a bit in 1997, rising less than 4%. Due to rising prices, nominal taxable sales will improve to nearly 7% growth in 2000. Taxable sales can be dissected into three major components: 1) Retail Trade at $16.6 billion, represents about 54% of taxable sales and grew almost 7% in 1999; 2) Taxable Business Investment and Utility Sales at $7.9 billion, represent 27% of taxable sales, and were flat in 1999 following a near 10% gain in 1998; 3) Taxable Services grew to $4.3 billion in 1999, represents 14% of taxable sales, and rebounded 9% in 1998 and another 9% in 1999.

Retail Trade

Retail Trade. Retail trade sales rose in double-digits four out of the five years between 1992 and 1996. An end to the economic boom came in 1997 when retail trade sales slowed down to a 3.3% growth rate. Retail trade sales improved in 1999 and are expected to end the year with a near 7% gain. Although, year-to-date growth through September was 5.5%, recent surges in the stock market suggest that consumers may again go to their wallets and charge cards for the second Christmas season in a row.

Retail Durable Goods. Just as the strength in single family housing starts surprised some housing economists in 1999, retail building and garden sector sales will improve nearly 10% in 1999, 4% more than expectations last year. Through the first nine months of 1999, these lumber store sales were up nearly 16%. Furniture and home furnishing store sales will rise 3% again in 1999, following the 2% gain in 1998 and flat sales in 1997. Year-to-date, furniture store sales were up slightly less than 3% through September. An 11% gain in computer and software store sales offsets a 20% drop in radio, TV and electronic store sales. But the large furniture and home furnishing store sector sales were up almost 5% during the first nine months of the year. Given the near 5% drop in prices for furniture and household equipment in 1999, the near 5% gain translates into a near 10% real dollar increase.

At almost $3.1 billion in 1999, motor vehicle dealer sales will be greater than the building and furniture sectors combined. Year-to-date new and used car sales were up more than 4.6% and, due to rising inflation and higher interest rates, are expected to moderate to 4% by the end of the year. Unit sales cars and trucks are expected to grow 5% in 1999, following a 2% gain in 1998. Nationwide, unit sales rose at recent-record levels and should grow to 16.7 million units. Prices fell for the second year in a row due in part to beefed up incentives and the falling dollar. Used car sales jumped nearly 15% during the first nine months of 1999. Bolstering sales in the motor vehicle sector were 15% growth of taxable gasoline store sales (gasoline is not taxable) and double-digit gains by boat, motorcycle and other automotive dealers. Recreation and utility dealer sales slowed down to near 5% growth after a hot 34% gain in 1998.

Retail Nondurable Goods. Nondurable sales rose 6.5% in 1999 to $10.6 billion. These sales represent 35% of the $30.2 billion in total taxable sales. These goods generally last less than three years, and consist mainly of food, clothing and household nondurable goods. Year-to-date sales are rising more than 6%, but Christmas sales are expected to boost year-end sales even further. General merchandise store sales were fairly typical. These sales grew 6.7% in 1998. While sales at the smaller, miscellaneous general merchandise stores reported near 20% gains, mainstream department and discount department store sales rose less than 5% in the first three quarters of 1999. Sales at apparel stores, which tend to follow general merchandise store trends, rose 7% in 1999. Since clothing prices fell 4%, the real dollar percentage gain was more than 10%. Many of the large "super" stores built over the past three years appear to be cannibalizing sales from food stores. Food store sales will rise 4% in 1999 for the second year in a row; this is almost 2% below their long-run growth rate of 5.8%.

In contrast to lackluster food store sales, eating and drinking place sales will rise more than 10% in 1999. Fast food and family restaurant sales, which were weak in 1998, made a 12% rebound. Family and theme restaurants also rose in double digits for the first nine months of 1999. Pizzerias and other eating places like ice cream and cookie store sales rose 13% in 1999. Prices for food away from home along the Wasatch Front rose 4.4%.[2]

Business Investment and Utility Sales

Following the near 10% gain in 1998, business investment and utility sales and purchases will be lucky to rise 2% in 1999. Investment in mining projects dived due to completion of large copper mine remodels and declining commodity prices in the first half of 1999. Additional declines in taxable investment were noted in the manufacturing sector. Warm weather and regulated price cuts dropped utility sales. Record high residential and nonresidential construction permit values, despite the fact that the total valuation edged up slightly from 1998's record year, pushed up construction purchases and final sales by wholesalers by 9% and 4% respective gains.[3] Communication sales surged nearly 15% in 1999 as consumers and businesses lapped up nifty, useful mobile phones and other new communication devices.

Soft commodity prices discouraged taxable mining investment in 1998 and early 1999 for the metal, coal and oil and gas extraction groups. Refunds for pollution control devices and replacement equipment offset metal mining purchases. Coal, oil and gas extraction purchases fell by half. Only the nonmetallic mineral group (except oil) recorded positive investment in 1999. A rebound in single family home starts led to the near 11% rise in purchases by general building contractors. Subcontracting special trade contractor purchases also rose 11%. Heavy construction purchases rose 3%, in large part due to reconstruction of I-15.

Following the 9% gain in manufacturing purchases in 1998, taxable investment by Utah's manufacturers will fall 3% in 1999. Part of the drop may be due to the final phase in of the "normal operating

1 Gross taxable sales consist of final sales of most tangible personal property in the state. Taxable sales of selected services such as hotel and lodging; leases, rents and repairs to tangible personal property; and admissions to most amusements and recreation activities are also taxable in Utah.

2 First Security Bank Cost of Living Index, Wasatch Front, October 1999.

3 While a large portion of these sales are sold by out-of-state vendors to Utah businesses and taxed under the "use" tax provisions, another significant share is sold to consumers in the form of a final retail sale. Significant consumer sales include truck (only) dealers and electrical goods store sales, which are categorized in the wholesale area.

replacement" equipment exemption, which rose to 100% on July 1, 1998. Strong, double-digit growth occurred in the lumber and wood products and apparel groups, while significant declines in investment occurred in chemicals, petroleum, rubber, primary metals, and industrial machinery. Three to 10% investment gains occurred in the important transportation (airbags), electronic, and instrument sectors. Tighter credit and lower commodity prices, in addition to growing use of the new and replacement exemption, inhibited taxable sales growth in 1999 for the manufacturing sector.

In the transportation, communication and public utility sector several groups exhibited brisk sales or purchases in 1999. Trucking and warehousing purchases were up 52% and air transportation purchases shot up 19%. Both of these groups saw big jumps in 1998. The influx of new technology spurred the radiotelephone sector with communications to make a 35% gain. These sales include pagers, mobile phones, satellite dishes, fax machines, and a host of other new inventions. Sales in this group will continue to grow rapidly until saturation levels are achieved. Despite cooler winter temperatures (Salt Lake Heating Degree Days were up 2%), natural gas sales fell 4% in 1999. But electric services fell nearly 3% due to a regulated 12% rate decrease beginning in April of 1999. Electric sales may have increased 10% due to the fact that air conditioning requirements increased, a result of more residential and businesses switching to air conditioning.

Final taxable sales by wholesalers climbed 3% in 1999. This is due to strong gains by wholesale motor vehicle, lumber and professional equipment dealers being offset by a near 7% drop in final taxable sales by machinery and equipment dealers (these are down due to more extensive use of the manufacturing exemption). Wholesale paper, drug and apparel group sales rose in double digits offsetting declines in chemical and petroleum products.

Taxable Services

Taxable services, which rose rapidly during the economic expansion between 1990 and 1996 paused to less than 4% growth in 1997. In 1998 taxable service growth improved to near 7%. By 1999 taxable services returned to their average growth over the decade of 10%. But the analysis of taxable services is not necessarily straightforward due to the way in which the services sector cuts a wide swath over the tourism, business and consumer areas.

Tourism improved somewhat during 1999. While hotel services rose only 2%, amusement and recreation sales rose 15%. Restaurant sales rose in double-digits in 1999. After two years of double-digit gains, auto rentals will increase 8% in 1999.

Following the 22% gain in 1998, business services will grow 12% in 1999. Computer and data processing (hardware leases and software development) services rose 13% in 1999. The second largest group, miscellaneous equipment rentals and leasing, will report sales of $225 million in 1999, a gain of 17% over 1998.

The largest services group is auto rentals, repair and other repair shop services, it will grow 10% in 1998. Following four consecutive years of double-digit growth, these sales rose 6% in 1997, and will improve 7% in 1999. Auto rentals, closely correlated to tourism, grew 8% in 1999. Auto repair, the largest group, which sometimes runs counter to new car sales, recorded a 15% increase. Since buying new products is often cheaper than repair, sales in electrical, watch, clock, jewelry, furniture and reupholstery repairs shops were mixed in 1999 after declining in 1998.

Following seven years of rapid double-digit growth, amusement and recreations sales rose only 5% in 1998. Sales in 1999 appear to be returning back to the 1990s growth rates. Motion picture sales will rise more than 20% in 1999. Almost half of the sales in this grouping were recorded in the miscellaneous group, which contains amusement park sales. This group recorded sales nearly 23%.

Another service sector, which has experienced strong growth in the early 1990s, is finance, insurance and real estate (FIRE). For the most part, most of the taxable sales here comprise automobile leasing (banking), rentals and leasing of large household durable items such as televisions and furniture (credit agencies), and leases of condominiums (real estate). Taxable sales and leases in this sector have risen five-fold from $79 million in 1990 to $423 million in 1998. Following the near 25% gain in 1998, sales and leases in 1999 will rise about 12%. A good portion of this phenomenal increase is due to the continuing trend to lease rather than purchase motor vehicles. Nationally, automobile leasing has risen from 7.5% of all vehicle sales in 1990 to more than 32% in 1997.

2000 Outlook

The Utah Consumer in 2000. Since almost 70% of taxable sales are paid initially by the Utah consumer, the consumer's economic health must be considered before making a forecast of taxable sales. The most important economic "driver" of taxable sales and consumer spending in Utah is nonfarm wages and salaries. In 1999, wage growth rose 6.3%, 1.3% less than in 1998 and almost 3% less than the peak growth in 1996. This reduction was due to the slip in nonfarm employment growth from 4.2% in 1997 to 3% in 1998 and then to 2.6% in 1999. In 2000, employment growth will slip to 2.4%. While 2.4% growth will be double the national job growth of 1.2%, it is important to note that it is more than 3% below the growth of only a few years ago. Average wages are expected to grow at nearly 4% per year from 1999 through 2000. The 6.2% expected growth in 2000 will be nearly identical to 1999's 6.3% gain. This bodes well for taxable sales in the forecast period.

How consumers "feel" about the economy is also an important consideration. Every quarter more than 500 Utah households are asked the same questions that the University of Michigan queries of households nationwide for its consumer sentiment index. Increases in consumer sentiment correlate with surges in durable goods sales. Record highs in 1997 of about 109 (1966=100, when the economy was at a high point) were eclipsed in the second quarter of 1998 when a reading of 109.9 was recorded. Readings in 1999 averaged 106, down from the 1998 average of 107.[1] The surging stock market late in 1999 should increase confidence in early 2000, but rising interest rates and rising inflation will knock a few points off the index in 2000. The index should vary within a 97 to 107 point range in 2000. It will average around 102, not bad by historical standards.

Lower inflation appears to be having a significant effect on taxable sales growth. If prices fall from 4% to the 2% level, all other things being constant, current dollar taxable sales will fall commensurately. Only if the consumer spends his budget surplus on other items will taxable sales stay even or improve. Since inflation appears to be increasing from 1.6% in 1998 to 2.2% in 1999 and to 2.4% in 2000, taxable sales may improve somewhat.

In Utah, prices along the Wasatch Front rose 3.3% in the middle of 1999 relative to 1998, 1% faster than prices rose across the

[1] Valley Research, "Utah Consumer Survey," October 1999, Page 10.

country.[1] Some of the largest price increases were felt in nontaxable sectors, i.e., transportation and health care. Lower price increases in taxable sectors of the economy will play a roll in the inability for taxable sales growth to keep up with wage growth in 2000.

Finally, demographic trends also play an important role in Utah consumer spending behavior over the near term. Trends in population cohorts in this report document the coming of age of the 1976-79 baby boom. Between 1990 and the year 2000 the 18 to 29 year old cohort will increase from 337,682 to 460,761, a gain of 36%. Even more spectacular is the gain in the 20 to 24 year old cohorts, which will increase from 138,000 in 1990 to 208,000 in 2000, for an increase of 50%. This cohort may not have an impact on overall spending, but will impact how that dollar gets spent. As soon as these young people get jobs they will start looking for automobiles, electronics and clothing. Once they break from their parents, they will start demanding apartments and condominiums. Four to six years from now they will place demands on new single family home construction.

Investment in Plant and Equipment. Last year's outlook for plant and equipment investment was turned on its head by the near 12% gain in U.S. business fixed investment. In 1999, business investment should grow between 8 and 9%, significantly higher than the forecast of 3% last year. The National Association of Business Economists, a bit more optimistic, foresees a gain of more than 7% in 2000, 4% more than the forecast by the Council of Economic Advisors. Five factors support the view for respectable 7% growth for Utah business investment in 2000:

- a shortening of the depreciable lives of capital equipment (as computers become a larger share of investment) in the past five years forces companies to reinvest more frequently,
- the connecting of "everything" through upgrading of communications equipment, from coaxial cables to satellite dishes,
- continued globalization with its resulting competitive pressures to reduce costs,
- relatively low wages in Utah tend to stimulate investment here rather than on the West and East Coasts,
- the influx of capital from stock market gains, and
- increasing demands from rebounding markets in Asia.

Next year there will continue to be several negative factors at play. First, corporate profits will only rise around 2%, after being flat in 1998 and 1999. Second, the removal of the 80% phase back of the replacement manufacturing equipment exemption by the 1999 Legislature has paved the way for this new or expanding exemption to be taken by more and more taxpayers. This will not reduce Utah business investment itself, but will cut into taxable sales.

Tourism. Following several years of brisk growth and a slowdown of tourism in Utah in 1998, taxable sales gains in 1999 indicate that tourism improved somewhat. Coincident economic indicators of Utah tourism were mixed in 1999. National park visitations were flat in 1999, but national monument and recreation area visitations were up 8% through October.[2] After dropping nearly 4% in 1998, Salt Lake International Airport passenger arrivals and departures fell only 1% in 1999, but part of the story here is a drop in people connecting to other flights. The 1998-99 ski season saw skier visits rise 1.4% to a record 3.14 million. But hotel and motel occupancy rates dropped again in 1999 to 61.5%.[3] These mixed effects left their mark on taxable sales. Restaurant sales grew briskly, increasing 11% in 1999, better than average increases of 9% from 1991 to 1996. Following 12% gains in 1995 and 1996, and a 6% gain in 1997, hotel sales dropped 1% in 1998. Hotel sales will rise only 2% in 1999, but part of this is due to falling prices because of a jump in the supply of rooms (Salt Lake County rooms were 10,714 in 1994 and were at 15,808 in 1999). And amusement and recreation sales returned to strong growth levels, rising 15% in 1999. The outlook for 1999 should be even brighter, especially as the trade-weighted dollar softens more. Hotel sales should grow 4%. Eating and drinking place sales should rise at least 9% in 2000.

Construction. The impacts of the 1990's Utah construction boom have been well documented in this report. Notwithstanding, the effects of primarily residential construction and secondarily of nonresidential construction on taxable sales are difficult to overstate. Purchases by contractors, whether from vendors in or out of the state are taxable. Secondary purchases by consumers, once the house or business site is completed, add to the impact. The rebound in residential construction and leveling of residential construction growth can be directly observed in the taxable sales of the following economic sectors: construction; manufacturing (lumber and wood products); wholesale durable goods (lumber and construction materials); building and garden stores; furniture and home furnishing stores; and business services (equipment rentals.

In 1999, total residential construction permit valuations have slowed to 0.5% due to the double-digit drop in multi-family permits. But a surge in the more expensive single family sector appears to have boosted most of the taxable sales sectors listed above. Rising, but still relatively lower interest rates over the next year will worsen the outlook somewhat. Declining nonresidential construction building, from the $1.1 billion level in 1999 to $900 million in 2000, will tend to dampen taxable sales in 2000.

County Taxable Sales

Taxable sales growth improved in 1999 for 21 of Utah's 29 counties. Salt Lake County, whose growth rate sets the pace for much of Utah, will record sales growth of more than 4% in 1999. This is quite a bit lower than its historical growth rate of almost 9%. The second largest county, Utah County, recorded 9% growth in 1999 with taxable sales of almost $4 billion. Davis County with $2.52 billion in taxable sales surpassed its northern neighbor, Weber County ($2.39 billion) in total taxable sales dollars and growth during 1999. It recorded an 8% gain, compared to Weber County's near 6% increase. Adjacent to the Wasatch Front, several counties also experienced strong growth: Cache County sales were up 7%, Box Elder County sales were up 6%, Morgan County sales were up 9% and both Tooele and Summit County taxable sales each rose more than 10% in 1999.

Slack commodity prices in early 1999 discouraged investment in mining equipment: 1) Emery County sales were off 18%, 2) Duchesne County sales were down 29%, and 3) Sevier County sales were down 16% (following a large purchase in 1998).

Improved tourism in 1999 pushed up taxable sales in several counties. In the Southwestern corner of the state, Washington County sales rose 9%. Its northern neighbor, Iron County, will record sales growth of nearly 11%. In the Southeast, Grand County, home of red-rock mountain biking and other recreational activities, saw its sales rise 23%, following 5% growth in 1998. Home of Bryce

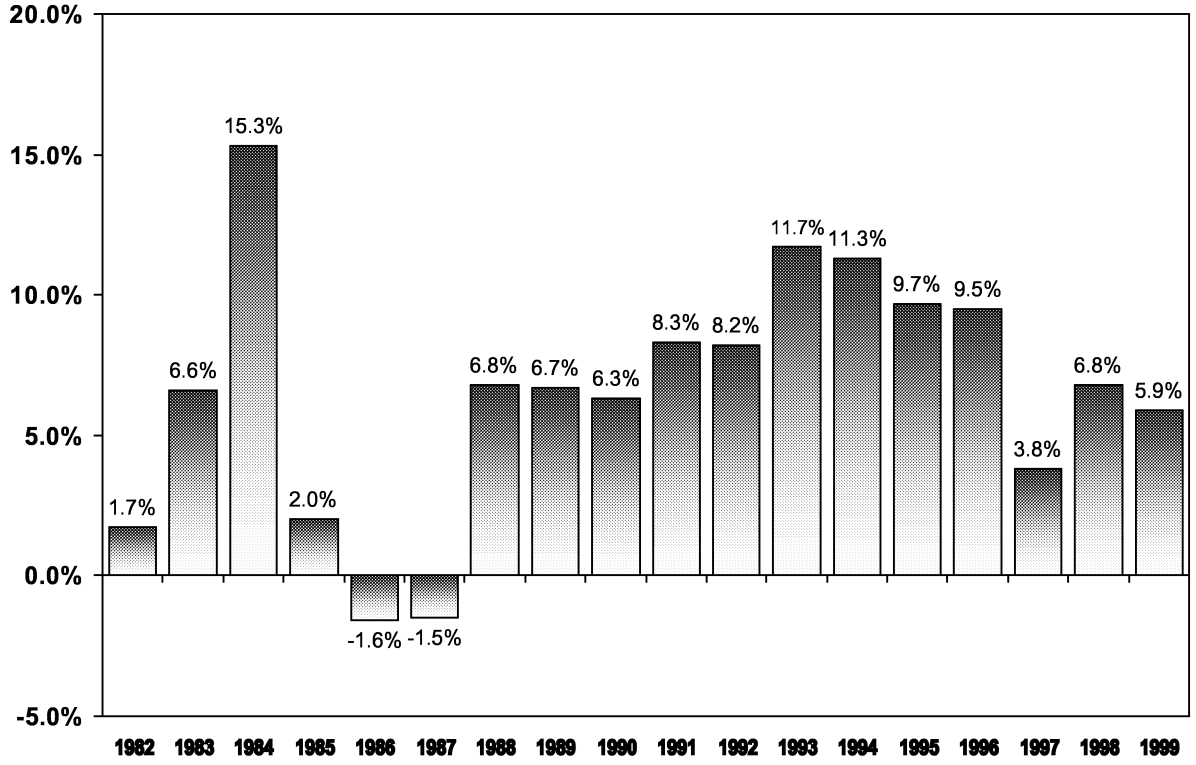
1 First Security Bank Cost of Living Index, Wasatch Front, October 1999.
2 Utah Travel Council
3 Utah Travel Council

Canyon National Park, Garfield County sales improved from 3% in 1998 to 7% in 1999.

In 2000, taxable sales along the Wasatch Front are expected improve, particularly in Salt Lake County. Utah County taxable sales growth will lead with a 9% growth rate. Davis County taxable sales will grow 8%. Salt Lake County taxable sales should improve from 4% in 1999 to 6% in 2000. Weber County taxable sales will grow slightly less than 5%. Summit County will see fairly strong 7% growth, and Tooele and Morgan county taxable sales may not necessarily slow down from their double-digit growth rates.

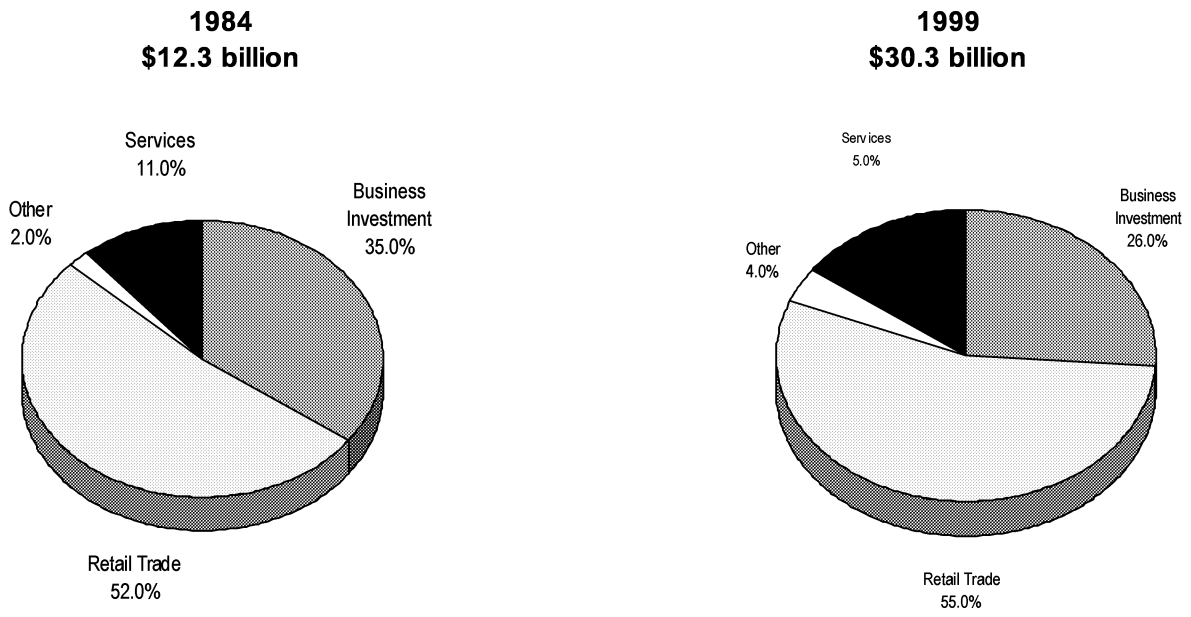
Down south, Washington County, with taxable sales at $1.2 billion will probably record at least a 10% gain. Iron County sales will improve 5% and Grand County's taxable sales may grow more than 10%. ✻

Figure 26
Annual Percent Change in Gross Taxable Sales



Source: Utah State Tax Commission

Figure 27
Shares of Utah's Sales Tax Base—Four Major Sectors



Source: Utah State Tax Commission

Table 36
Utah Gross Taxable Sales by Component

Dollar Amounts (millions)

Calendar Year	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Gross Taxable Sales
1981	$4,901	$3,821	$919	$217	$9,857
1982	5,200	3,513	1,062	244	10,020
1983	5,638	3,648	1,138	262	10,686
1984	6,401	4,254	1,385	284	12,324
1985	6,708	4,122	1,440	304	12,574
1986	7,010	3,689	1,414	265	12,378
1987	6,951	3,398	1,587	252	12,188
1988	7,346	3,684	1,718	269	13,017
1989	8,048	3,675	1,849	320	13,892
1990	8,407	3,874	1,829	664	14,774
1991	8,918	4,355	2,040	685	15,998
1992	9,860	4,342	2,223	888	17,313
1993	10,994	4,956	2,499	892	19,341
1994	12,097	5,609	2,802	1,019	21,527
1995	13,080	6,231	3,205	1,093	23,609
1996	14,404	6,878	3,594	968	25,844
1997	14,873	7,044	3,724	1,188	26,828
1998	15,657	7,729	4,122	1,137	28,645
1999(e)	16,705	7,873	4,557	1,194	30,329
2000(f)	17,888	8,232	4,914	1,254	32,288

Percent Change

Calendar Year	Retail Sales	Business Investment Purchases	Taxable Services	All Other	Total Gross Taxable Sales
1982	6.1%	-8.0%	15.6%	12.6%	1.7%
1983	8.4%	3.8%	7.2%	7.4%	6.6%
1984	13.5%	16.6%	21.7%	8.5%	15.3%
1985	4.8%	-3.1%	4.0%	7.0%	2.0%
1986	4.5%	-10.5%	-1.8%	-12.7%	-1.6%
1987	-0.8%	-7.9%	12.3%	-5.0%	-1.5%
1988	5.7%	8.4%	8.2%	6.7%	6.8%
1989	9.6%	-0.2%	7.6%	18.8%	6.7%
1990	4.5%	5.4%	-1.1%	107.8%	6.3%
1991	6.1%	12.4%	11.6%	3.2%	8.3%
1992	10.6%	-0.3%	9.0%	29.6%	8.2%
1993	11.5%	14.1%	12.4%	0.5%	11.7%
1994	10.0%	13.2%	12.1%	14.2%	11.3%
1995	8.1%	11.1%	14.4%	7.2%	9.7%
1996	10.1%	10.4%	12.1%	-11.4%	9.5%
1997	3.3%	2.4%	3.6%	22.7%	3.8%
1998	5.3%	9.7%	10.7%	-4.3%	6.8%
1999(e)	6.7%	1.9%	10.6%	5.0%	5.9%
2000(f)	7.1%	4.6%	7.8%	5.0%	6.5%

(e) = estimate
(f) = forecast

Source: Utah State Tax Commission

Table 37
Gross Taxable Retail Sales by Sector and Annual Percent Changes

	Dollar Amounts (millions) and Percent Change											Percent Change
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999(e)	2000(f)	Average 1990-1999
Retail trade	8,407	8,918	9,860	10,994	12,097	13,080	14,404	14,873	15,657	16,705	17,888	
		6.1%	10.6%	11.5%	10.0%	8.1%	10.1%	3.3%	5.3%	6.7%	7.1%	7.9%
Nondurables	5,757	6,144	6,657	7,140	7,656	8,295	9,047	9,481	10,006	10,648	11,390	
		6.7%	8.3%	7.3%	7.2%	8.3%	9 1%	4.8%	5.5%	6.4%	7.0%	7.1%
General Merchandise	1,362	1,484	1,619	1,717	1,816	2,033	2,256	2,328	2,463	2,640	2,861	
		9.0%	9.1%	6.1%	5.8%	12.0%	11.0%	3.2%	5.8%	7.2%	8.4%	7.6%
Apparel	415	452	506	581	591	614	665	693	757	810	859	
		8.9%	11.9%	14.8%	1.7%	3.9%	8.3%	4.2%	9.3%	7.0%	6.0%	7.7%
Food Stores	2,161	2,226	2,374	2,496	2,677	2,784	3,050	3,261	3,381	3,516	3,692	
		3.0%	6.6%	5.1%	7.3%	4.0%	9.5%	6.9%	3.7%	4.0%	5.0%	5.6%
Eating and Drinking	861	935	1,025	1,140	1,234	1,349	1,473	1,551	1677	1,878	2,066	
		8.6%	9.6%	11.2%	8.2%	9.3%	9.2%	5.3%	8.1%	12.0%	10.0%	9 1%
Miscellaneous Shopping Goods	958	1,047	1,133	1,206	1,338	1,515	1,603	1,648	1,728	1,804	1,913	
		9.3%	8.2%	6.4%	10.9%	13.2%	5 8%	2.8%	4.8%	4.4%	6 0%	7 3%
Durables	2,650	2,774	3,203	3,854	4,441	4,785	5,357	5,392	5,651	6,057	6,498	
		4.7%	15.5%	20.3%	15.2%	7.7%	12.0%	0.7%	4.8%	7.2%	7.3%	9.6%
Motor Vehicles	1,577	1,591	1,783	2,140	2,331	2,431	2,710	2,775	2,965	3,187	3,469	
		0.9%	12.1%	20.0%	8.9%	4.3%	11.5%	2.4%	6.8%	7.5%	8.8%	8.1%
Building & Garden	575	630	764	941	1,160	1,241	1,337	1,310	1,351	1,495	1,599	
		9.6%	21.3%	23.2%	23.3%	7.0%	7.7%	-2.0%	3.1%	10.6%	7.0%	11.2%
Furniture & Home Furnishings	498	553	656	773	950	1,112	1,310	1,307	1,335	1,375	1,430	
		11.0%	18.6%	17.8%	22.9%	17.1%	17.8%	-0.2%	2.1%	3.0%	4.0%	11.9%
Business Investment	3,874	4,355	4,342	4,956	5,609	6,231	6,878	7,044	7,729	7,873	8,232	
		12.4%	-0.3%	14.1%	13.2%	11.1%	10.4%	2.4%	9.7%	1.9%	4.6%	8 2%
Agriculture,Forestry & Fishing	10	10	13	23	19	13	17	26	22	32	33	
		0.0%	30.4%	72.9%	-17.4%	-31.6%	33.8%	48.3%	-13.2%	42.9%	2.0%	13.5%
Mining	150	186	153	142	149	176	174	245	259	130	163	
		24.0%	-17.7%	-7 2%	4.9%	18.1%	-0.9%	40.7%	5.6%	-50.0%	26.2%	-1.6%
Construction	203	207	228	247	290	343	371	389	400	421	380	
		2.0%	10.1%	8.3%	17.4%	18.3%	8.1%	4.8%	3.0%	5.2%	-9.8%	8.4%
Manufacturing	889	936	1,000	1,083	1,155	1,368	1,513	1,464	1,601	1,506	1,466	
		5.3%	6.8%	8.3%	6.6%	18.4%	10.6%	-3.2%	9.3%	-5.9%	-2.7%	6 0%
Transportation, Comm. & Public Utilities	1,351	1,644	1,407	1,552	1,657	1,776	1,935	2,062	2,290	2,565	2,819	
		21.7%	-14.4%	10.3%	6.8%	7.2%	8.9%	6.6%	11.0%	12.0%	9.9%	7.4%
Wholesale Trade	1,271	1,372	1,541	1,909	2,339	2,555	2,869	2,858	3,157	3,220	3,371	
		7.9%	12.3%	23 9%	22.5%	9.2%	12 3%	-0 4%	10.5%	2.0%	4.7%	10 9%
Services	1,829	2,040	2,223	2,499	2,802	3,206	3,594	3,724	4,122	4,557	4,914	
		11.5%	9.0%	12.4%	12.1%	14.4%	12.1%	3.6%	10.7%	10.6%	7.8%	10.7%
Hotels & Lodging	307	351	373	400	423	473	528	557	551	562	545	
		14.3%	6.3%	7 2%	5.8%	11.8%	11.6%	5.5%	-1.1%	2.0%	-3.0%	6.9%
Amusement & Recreation	194	228	256	303	378	451	495	544	572	658	737	
		17.5%	12.3%	18.4%	24.8%	19.4%	9.6%	9.9%	5.2%	15.0%	12.0%	14.5%
Personal	91	99	110	130	146	167	178	177	185	192	210	
		8.8%	11.1%	18.2%	12.3%	14.4%	6.5%	-0.2%	4.3%	4.0%	9.0%	8.7%
Health	76	68	77	85	84	91	90	92	88	92	94	
		-10.5%	13.2%	10.4%	-1.2%	8.0%	-1.2%	2.5%	-4.1%	5 0%	2 0%	2.2%
Education, Legal & Social	111	126	137	144	160	175	194	167	195	203	217	
		13.5%	8.7%	5 1%	11.1%	9.6%	10.6%	-13.8%	16.7%	4.0%	7.0%	6.9%
Auto rental & repairs	525	572	601	677	763	901	1,012	1,073	1,160	1,322	1,455	
		9.0%	5.1%	12.6%	12.7%	18.1%	12.2%	6.1%	8.1%	14.0%	10.0%	10.8%
Business	446	502	564	625	645	711	780	775	948	1,062	1,168	
		12.6%	12.4%	10.8%	3.2%	10.2%	9.7%	-0.6%	22.3%	12.0%	10.0%	10.1%
Finance Insurance & Real Estate	79	94	105	135	203	236	318	339	423	465	489	
		19.0%	11.7%	28.6%	50.4%	16.2%	34.9%	6.5%	24.9%	10.0%	5.0%	21.8%
All Other	664	685	888	892	1,019	1,092	968	1,188	1,137	1,194	1,254	
		3.2%	29.6%	0.5%	14.2%	7.2%	-11.4%	22.7%	-4.2%	5.0%	5.0%	6.7%
Grand Total Taxable Sales	14,774	15,998	17,313	19,341	21,527	23,609	25,844	26,828	28,645	30,329	32,288	
		8.3%	8.2%	11.7%	11.3%	9.7%	9.5%	3.8%	6.8%	5.9%	6.5%	8.3%

(e) = estimate
(f) = forecast

Source: Utah State Tax Commission, Economic and Statistical Unit

Table 38
Gross Taxable Sales by County

County	1993	1994	1995	1996	1997	1998	1999(e)	2000(f)	Average Growth 1993-98
Beaver	$30,298,695	$34,626,306	$36,412,579	$41,936,668	$45,761,964	54,028,444	57,267,000	62,649,000	12.3%
Box Elder	248,357,092	270,086,492	255,311,338	313,399,510	341,801,574	378,656,784	401,456,000	401,729,000	8.8%
Cache	539,899,911	592,265,682	643,424,439	700,827,166	738,962,198	815,747,488	870,486,000	937,740,000	8.6%
Carbon	215,595,511	243,379,366	246,727,509	270,180,228	302,766,134	350,262,447	364,953,494	368,825,340	10.2%
Daggett	7,613,965	16,367,912	8,026,924	9,433,030	8,931,045	10,152,206	9,136,000	9,109,000	5.9%
Davis	1,471,114,865	1,628,953,240	1,792,686,798	1,948,114,497	2,082,404,482	2,333,000,552	2,521,358,000	2,710,298,000	9.7%
Duchesne	89,830,818	91,128,287	92,152,625	103,539,767	138,833,857	148,993,949	106,362,000	107,296,000	10.6%
Emery	52,994,187	68,117,764	59,567,320	63,933,988	85,273,673	108,296,650	88,793,000	96,894,000	15.4%
Garfield	45,108,556	46,588,854	53,989,631	59,463,916	64,208,586	67,964,766	72,941,000	77,007,000	8.5%
Grand	104,986,304	98,898,658	123,463,929	125,597,997	136,682,724	143,307,479	176,681,000	195,185,000	6.4%
Iron	241,813,092	269,104,272	296,098,117	328,599,441	334,517,242	358,583,543	399,041,000	418,536,000	8.2%
Juab	38,724,493	41,049,378	44,498,957	52,093,322	58,330,085	61,049,366	69,451,000	75,807,000	9.5%
Kane	61,479,124	68,713,093	79,603,840	85,348,929	91,571,511	92,767,501	98,058,000	103,047,000	8.6%
Millard	73,032,681	80,606,243	84,805,492	86,426,974	102,956,430	102,324,784	41,137,000	81,439,000	7.0%
Morgan	25,957,057	28,204,835	32,975,103	36,673,879	34,597,815	43,190,274	47,223,000	45,046,000	10.7%
Piute	3,086,021	4,153,237	5,737,337	5,549,494	4,647,900	5,197,828	5,010,000	5,084,000	11.0%
Rich	10,923,445	11,515,077	10,252,664	10,848,221	12,425,163	14,599,275	16,782,400	14,639,000	6.0%
Salt Lake	9,516,302,745	10,526,443,225	11,456,330,532	12,495,049,840	13,279,889,848	14,480,792,082	15,299,049,000	16,212,726,000	8.8%
San Juan	64,729,156	65,840,801	73,747,605	83,951,301	79,420,183	102,358,862	99,726,000	105,604,000	9.6%
Sanpete	75,576,973	84,773,473	93,422,662	101,273,513	109,374,363	117,860,224	125,734,000	134,036,000	9.3%
Sevier	140,438,641	155,308,506	167,792,163	171,174,291	179,499,588	247,516,691	207,587,000	227,580,000	12.0%
Summit	376,790,969	424,263,835	481,055,880	532,065,605	585,960,819	631,299,089	699,650,000	746,938,000	10.9%
Tooele	162,867,836	189,412,717	204,822,816	229,458,354	247,597,886	282,754,708	326,143,000	363,445,000	11.7%
Uintah	217,434,884	225,274,014	238,265,849	249,885,277	300,310,299	335,704,139	304,951,000	315,691,000	9.1%
Utah	2,258,349,412	2,485,729,203	2,729,006,721	3,018,664,563	3,263,562,889	3,670,050,662	3,992,025,000	4,357,444,000	10.2%
Wasatch	70,176,331	77,853,975	91,141,976	104,349,093	118,482,941	136,583,244	158,080,000	179,060,000	14.2%
Washington	650,021,451	790,641,230	876,072,647	954,639,002	994,050,920	1,066,865,802	1,161,251,000	1,226,120,000	10.4%
Wayne	13,069,519	14,979,670	17,293,540	17,770,582	18,566,025	22,689,627	25,074,000	24,755,000	11.7%
Weber	1,556,831,699	1,716,143,480	1,871,898,257	2,039,495,130	2,151,273,281	2,264,121,035	2,390,762,000	2,500,940,000	7.8%
Subtotal	18,363,405,433	20,350,422,825	22,166,585,250	24,239,743,578	25,912,661,425	28,446,719,501	30,136,167,894	32,104,669,340	9.1%
Out-of-State Use Tax	977,667,517	1,176,245,745	1,442,191,794	1,604,193,876	916,001,490	200,035,296	192,834,025	183,192,324	-27.2%
Grand Total	19,341,072,950	21,526,668,570	23,608,777,044	25,843,937,454	26,828,662,915	$28,646,754,797	$30,329,001,920	$32,287,861,664	8.2%

(e) = estimate
(f) = forecast

Source: Utah State Tax Commission

Tax Collections

Overview

State government tax collections experienced a cumulative reduction for fiscal year 1995 through fiscal year 2001 of $1.053 billion. Nonetheless, an individual taxpayer may actually be paying more in taxes because non-state government taxes may have increased; and/or, an individual's income, spending, or property values may have increased resulting in higher taxes even at lower tax rates.

Slower economic growth in 1999 resulted in slower revenue growth. Combined state government General and School fund revenue grew by $131.3 million, from $3,059.5 million in fiscal year 1998 to $3,190.9 million in fiscal year 1999. Revenue growth should increase slightly in fiscal year 2000 – an increase of $147.0 million is projected based on stronger individual income and corporate tax collections.

State government tax collections experienced a net reduction of $188.5 million (on an annualized basis) due to statutory changes that occurred during the past six legislative sessions. The cumulative reduction in taxes authorized in these sessions for fiscal year 1995 through fiscal year 2001 is $1.143 billion. These tax collection changes do not, however, include tax increases due to income tax "bracket creep." Bracket creep has occurred in Utah since 1973 (the year in which the current brackets were established). Around $3.2 million per year is currently raised from income tax bracket creep. At this level, the cumulative effect from fiscal year 1995 to fiscal year 2001 is a tax increase of $89.6 million. Thus, the net reduction in state government taxes over this period will be $1.053 billion.

Nonetheless, an individual taxpayer may actually be paying more in taxes now than six years ago. This is because non-state government taxes may have increased; and/or, an individual's income, spending, or property values may have increased. More income or spending, or greater property values, can result in higher taxes even at lower tax rates. There were 576 taxing entities other than state government in Utah in 1999.

Combined state government General and School fund revenue growth slowed each of the last 4 years due to tax cuts over the past six years and slower economic growth in general. Revenue growth slowed from $247.1 million in fiscal year 1995 to $131.3 million in fiscal year 1999. Most of the revenue decrease in fiscal year 1999 was due to slower economic growth since no major tax cut occurred in fiscal year 1999. The size of the year-end General and School fund surplus also slowed from $60.2 million in fiscal year 1995 to $7.3 million in fiscal year 1999. For budgeting purposes, year-end surpluses are the beginning revenue balance for the start of the next fiscal year.

Income taxes were larger than sales taxes in fiscal year 1999 for the 2nd year in a row. Prior to fiscal year 1998, the sales tax made up the largest portion of state government's unrestricted revenues. This shift is largely due to stronger historic growth in sales tax-exempt services industries than in taxable goods industries; sales tax credits and exemptions; income tax bracket creep; and, the transfer of unrestricted general fund monies to restricted accounts.

Outlook

Revenue growth should increase by $147.0 million in fiscal year 2000. Reasons for the improvement include stronger individual income and corporate tax collections. Corporate tax collections declined in fiscal year 1999, but are expected to rebound somewhat this year in fiscal year 2000 due to higher growth in profits. Income tax collections in fiscal year 1999 were also weak due to lower capital gains, and lower than normal growth in interest, dividend, and sole proprietor and partnership income. These income sources are expected to improve slightly in fiscal year 2000.

Still, fiscal year 2000 revenue growth of $147.0 million will be below the inflation, tax rate, and tax base-adjusted average for the last twenty years of $151.0 million. The expected below average tax collections in fiscal year 2000 are due to no tax rate increases, higher cigarette prices, and increased sales over the Internet. Growth in cigarette tax revenues will decrease due to lower consumption brought on by higher cigarette prices. Cigarette prices were increased 45 cents a package in November 1998 in order to pay for the $206 billion tobacco settlement between the states and tobacco companies. Prices were increased again by 22 cents in August 1999. The federal cigarette tax is also scheduled to increase by 10 cents to a total of 34 cents as of January 2000. A 10% price increase leads to a 4.2% decrease in consumption according to the American Lung Association.

Finally, sales tax revenues will grow slower due to an increase in Internet sales. Two surveys in 1999 showed that Utahn's have a very high percentage of computer usage. A Progressive Policy Institute survey placed Utah 4th in the nation with the adult population online at 46%. And, Scarborough Research found that 50% of Utah's adult population uses the Internet (for a ranking of 5th in the nation).

Forrester Research has estimated that sales over the Internet will increase by 1.5 times per year nationwide. Thus, sales tax losses in Utah of around $6 million in fiscal year 1999 due to Internet sales could grow to $9 million in fiscal year 2000. Losses should grow much larger in future years. These losses all assume that consumers will not comply with paying the State of Utah Use Tax.

Annual Revenue Growth Changes

Historic tax collections, revenue growth, and surpluses are presented in tables and graphs with this chapter. Collections are also adjusted for inflation, tax rate and base changes, windfalls and payment accelerations, and transfers between revenue categories in order to determine the underlying trends in revenue collections when compared to general economic activity.

1983. General and School fund revenue growth in fiscal year 1983 decreased to only $4.6 million due to the calendar year 1982 national recession. Corporate income and severance taxes declined as corporate profits, oil prices and employment growth all declined. The surplus in fiscal year 1983 of $11.6 million exceeded the revenue growth due to budget cuts and the transfer of previously restricted funds.

1984. Revenue growth increased significantly in fiscal year 1984 to $229.2 million. This was due to tax increases and a one-time $61.5 million sales and severance tax acceleration of payments

windfall. The sales tax rate increased from 4.0% to 4.625% in calendar year 1983. Corporate tax rates also increased in calendar year 1983 and calendar year 1984 from 4% to 5%.

1986 and 1987. Revenue growth declined to $32.1 million in fiscal year 1986 and $35.2 million in fiscal year 1987. Net out-migration, downsizing at Geneva and Kennecott, the completion of the Intermountain Power Project, and lower oil prices all contributed to a general slowdown in these years. And, although federal income tax reform in calendar year 1986 resulted in a windfall of over $100 million in fiscal year 1987, this was more than offset by decreases in severance taxes and flat sales tax collections.

1988 and 1989. Due to the fiscal year 1986/87 downturn, tax increases occurred in fiscal year 1988. The 100% deductibility of federal income taxes was repealed ($50 million) and sales and cigarette taxes were increased. Sales tax rates were raised ½ cent ($50 million) and cigarette taxes went up 11 cents ($10 million) per pack.

Revenue growth rebounded to $122.6 million in fiscal year 1988 and to $127.3 million in fiscal year 1989. Beginning in calendar year 1989 job growth rates in Utah exceeded those in California and the nation. Strong economic recovery, tax growth, and surpluses ($70.6 million in fiscal year 1989) prompted income tax rate reductions in fiscal years 1989 and 1990.

1990 and 1991. Income tax rates were reduced in July 1988 (the top rate was cut from 7.75% to 7.35%) and in September 1989 (the top rate was cut from 7.35% to 7.2%). The deductibility of federal taxes paid was also partially restored to 50%. Taxes were further reduced in fiscal year 1990 by decreasing the sales tax rate 7/64th's of a cent. Consequently, revenue growth retracted to around $84 million in both fiscal years 1990 and 1991.

Recent Growth in Revenues. Economic recovery improved each year from 1989 to 1994. Utah started to experience net in-migration in calendar year 1991 (it peaked in calendar year 1994 at 22,800). Employment also peaked in calendar year 1994 at 6.2%. And, personal income growth peaked in calendar year 1995 at 8.9%.

Consequently, General and School fund revenue growth peaked in fiscal year 1995 at $247.1 million. There was also a revenue surplus that year of $60.2 million. Corporate taxes increased 93% from fiscal year 1993 to fiscal year 1995 due to strong economic recovery and limits on loss carry-backs in fiscal year 1994 (which reduced corporate refunds). And, individual income capital gains grew 18% in fiscal year 1995.

Due to strong revenue growth, the sales tax rate was cut 1/8th% in fiscal year 1995; and, the top income tax rate was reduced from 7.2% to 7.0% as of January 1996. The unrestricted sales tax rate was reduced another 1/4th percent in fiscal year 1998 (1/8th percent transfer to water and transportation projects, and a 1/8th percent tax cut).

Net migration began to decline in calendar year 1995 and dropped to 2,000 in calendar year 1998. Employment growth also began to slow in calendar year 1995 and dropped to 3% in calendar year 1998. Personal income growth began to decline in calendar year 1996 and dropped to 6.3% in calendar year 1998.

This slower economic growth coupled with tax rate decreases resulted in declining revenue growth. Revenue growth dropped to $229.4 million in fiscal year 1996; $211.1 million in fiscal year 1997; $180.3 million in fiscal year 1998; and, then $131.3 million in fiscal year 1999 (despite a cigarette tax increase of 25 cents per pack in fiscal year 1998).

Summary of Recent Tax Changes

State government tax and fee collections experienced a net reduction of $188.5 million (on an annualized basis) due to statutory changes that occurred during the past six legislative sessions. The cumulative reduction in taxes authorized in these sessions for fiscal year 1995 through fiscal year 2001 is $1.143 billion. These tax collection changes do not, however, include tax increases due to income tax "bracket creep." The most recent fiscal note estimate for indexing income taxes for inflation is $3.2 million (January 1999).

If $3.2 million per year is raised in each fiscal year from 1995 to 2001 due to income tax bracket creep, the cumulative effect over the 7 years will be a tax increase of $89.6 million. Thus, the net reduction in state government taxes over this period will be $1.053 billion. The state receives about $300 million per year that it would not receive had income tax brackets been indexed for inflation since 1973 (the year in which the current brackets were established). Tax increases due to "bracket creep" have been lessened in the 1990s due to lower inflation (than in the 1970s and 1980s) and because most taxpayers (62.3%) have "creeped" into the top income tax bracket.

Despite these state government tax savings of $1.053 billion, an individual taxpayer may actually be paying more in taxes now than six years ago. This is because local taxes may have increased; and/or, an individual's income, spending, or property values may have increased. More income or spending, or greater property values, can result in higher taxes even at lower tax rates. There were 576 taxing entities other than state government in Utah in 1999. These local governments (261), school districts (40), and special service districts (275) all have taxing authority.

1994 Legislative Session Tax Changes. Tax reductions of $18.8 million (in 1994 dollars) were enacted in the 1994 legislative session. The sales tax rate was reduced by 1/8th cent ($23.6 million in 1994 dollars), and the property tax residential exemption was raised from 29.5% to 32% while the minimum school program property tax rate was lowered from .004275 to .00422 ($8.5 million).

1995 Legislative Session Tax Changes. Another round of tax cuts during the 1995 general legislative session reduced taxes $141.9 million (in 1995 dollars). The largest tax reduction was a $150.1 million property tax cut. Property taxes were reduced $141.4 million by raising the residential exemption from 32% to 45% and by lowering the minimum school program rate from .00422 to .00264.

1996 General and Special Legislative Session Tax Changes. The basic state minimum school program property tax rate was reduced for the third time (in as many years) from .00264 to .002138 to accommodate another property tax cut ($30 million in 1996 dollars). Individual income taxes were decreased ($45 million); and the 1995 general session gross receipts tax increase on electric utilities was partially reversed through a gross receipts tax reduction ($4.8 million).

The November 1996 special legislative session modified the sales tax exemption for normal manufacturing operating replacements. The revenue loss from this exemption is estimated at $28.6 million for fiscal year 1999 (when it was fully implemented). The 1996

general session also reduced general fund sales tax collections by $36 million (1/8th cent) beginning in fiscal year 1998 (in 1998 dollars). This was done in order to earmark (redistribute) these taxes for water and local transportation projects. The earmarking was not a tax reduction since the 1/8th cent will be collected and deposited into a restricted account; however, the taxes are not available for general state appropriations.

1997 Legislative Session Tax Changes. Taxes, fines, and fees, were raised a net $89.7 million during the 1997 legislative session primarily to fund reconstruction of Interstate 15 and other roadways. The diesel and gasoline tax was increased 5 cents a gallon ($63.3 million in 1997 dollars); vehicle registration fees were increased ($16.5 million); a 2.5% tax on rental cars was implemented to pay for transportation corridors ($4.3 million); the diesel fuels tax collection point was changed from dealers to refineries ($10 million); and, cigarette taxes were increased 25 cents per pack ($21.8 million); Finally, sales taxes were reduced by 1/8th cent which partially offsets the tax and fee increases ($34.3 million in 1997 dollars).

1998 Legislative Session Tax Changes. The 1998 legislative session passed a 6.0% tax credit for qualified research activities conducted in the state, and a 6.0% individual or corporate income tax credit on the purchase price of machinery and equipment used primarily for research. This legislation carried a delayed fiscal impact in fiscal year 2000. The reduction to the Uniform School Fund that year is expected to be $5.2 million.

1999 Legislative Session Tax Changes. Major tax changes in the 1999 legislative session included the restoration of the manufacturing exemption to 100%, and the earmarking of all School Land Permanent Fund interest and dividends earnings to local school districts. The 1998 Session had previously reduced the manufacturing exemption to 80%. The cost of the 100% restoration is $5.6 million in fiscal year 2000. The loss of unrestricted revenue to the School fund from restricting the use of interest and dividends earnings is $4.8 million in fiscal year 2001.

Major Bills from the 1999 Legislative Session
Senate Bills:

S.B. 8 Research Tax Credits Modifications- Nielson, H.–Requires that equipment be used at least 1 year to qualify for the research tax credit. Also, allows new company method for computing eligible research activities above a base period if research expenditure data for 1984-1986 as required by federal law is unavailable. Estimated loss of revenue is $150,000 in fiscal year 2000.

S.B. 62 Individual Income Tax Credit for At-Home Parents- Muhlestein, R.–Gives a $100 income tax credit for stay-at-home parents with adjusted gross income of less than $50,000 and children less than 12 months old as of the last day of the taxable year for which the credit is claimed. Delayed revenue impact with an estimated loss of revenue in fiscal year 2001 of $500,000.

S.B. 69 Manufacturing Sales and Use Tax Exemption- Stephenson, H.–Reinstates the manufacturing sales tax exemption on replacement parts at 100% (from 80%). There are potentially 3,146 firms who could benefit from the exemption depending upon their eligible equipment purchases. Estimated loss of revenue is $5,600,000.

S.B. 76 Sales and Use Tax Exemption for Pollution Control Facilities-Valentine, J.–Reauthorizes firms utilizing pollution control equipment to continue to be eligible for the exemption for an additional five years. The average benefit per taxpayer is dependent on the types of equipment purchased in a given year. Estimated loss of revenue is $6,000,000.

S.B. 79 Sales Tax Exemption for Manufactured Homes- Hillyard, L. – Fifty five percent of the value of manufactured homes is taxed (about the same percentage as building materials taxed on construction of a regular home). This bill repeals the sunset date for the sales tax exemption for manufactured homes. Delayed revenue impact with an estimated loss of revenue in fiscal year 2001 of $1,000,000.

S.B. 132 Aviation Fuel Tax Amendments- Hillyard, L.–Increases revenues for small airports. Increases aviation fuel taxes for non-commercial uses by 2-cents in fiscal year 2000, 2-cents in fiscal year 2001, and 1-cent in fiscal year 2002 (currently at 4-cents). Phases out the point of collection distribution at Salt Lake International and reallocates these monies to the state fund. Estimated increase in revenues is $786,000 in fiscal year 2000 and $1,599,000 in fiscal year 2001.

House Bills:

H.B 25 Income Tax Deduction for Health Care Insurance- Styler, M.–Increases income tax deduction for amounts paid for health care insurance from 60% to 100% of amounts not deducted from federal taxes. Helps individuals who must purchase their own insurance. The average benefit to taxpayers that are eligible to take the deduction would be savings of approximately $115. Delayed revenue impact with an estimated loss of revenue of $1,770,000 in fiscal year 2001.

H.B. 181 Certified Tax Rate Notice Amendments- Tyler, A.–Requires additional information on "Notice of Proposed Tax Increase" advertisement that would indicate the percentage of increase as well as the increase in dollar amount per year and per month on an average residence. Truth in Taxation notice now will show the percent change in property taxes on an individual property as opposed to the percent change in total revenues collected. Excludes increases in tax collections due to new growth from the formula used to calculate the percent change in property taxes. No fiscal impact.

H.B. 268 Truth in Taxation–Judgement Levy- Short, R.–Provides that judgment levies are subject to truth-in-taxation. The bill also states that a judgment levy may not be imposed unless the taxing entity advertises its intention to impose a judgment levy and holds a public hearing on the issue, and indicates when the hearing must be held. No fiscal impact.

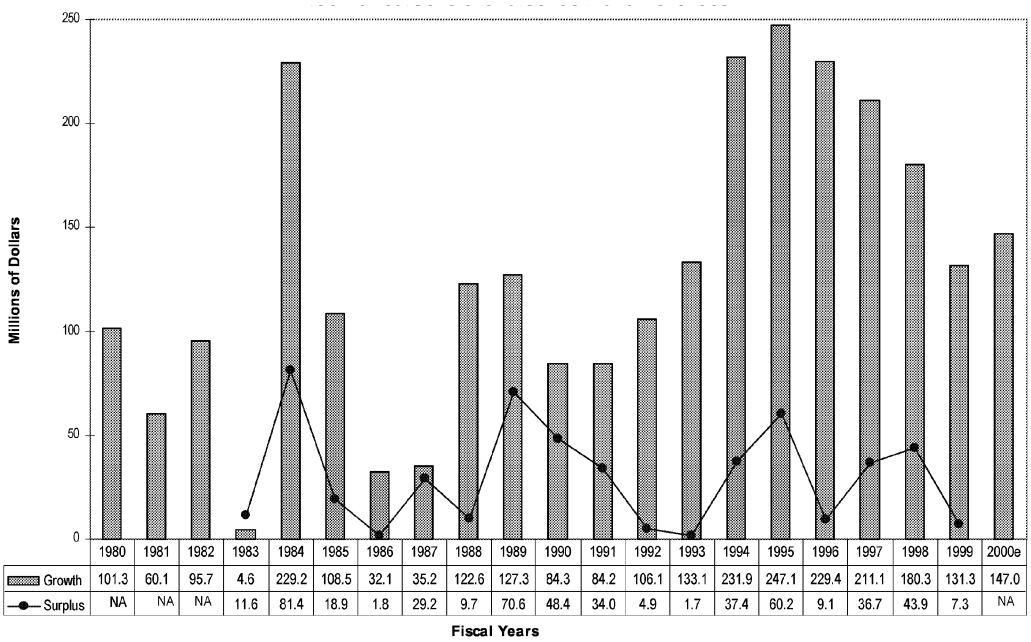
H.B. 275 Property Tax Exemption for Disabled Veterans- Tanner, J.–Expands the property tax exemption for disabled veterans from the first $82,500 of taxable value of a residence to the first $82,500 of taxable value of a residence (other than a rented dwelling), tangible personal property, or a combination of both. Helps 100% disabled veterans and their surviving spouses. In addition, it gives the exemption to unremarried surviving spouses of 100% disabled veterans. Minimal cost.

H.B. 350 Use of Interest on State School Fund- Brown, M. – Earmarks all School Land Permanent Fund interest and dividends earnings to local school districts. Creates a School Land Trust Program for each public school to improve educational excellence. Each district will have a committee to determine how to use the funds. Delayed impact with an estimated earmarking of Uniform School Fund revenue in fiscal year 2001 of $4.8 million.

H.B. 366 Sales and Use Tax Diversions- Ure, D.–Increases fiscal year 2000 revenue to local governments by moving up the termination date of local governments contribution. Establishes the Airport to University of Utah Light Rail Restricted Account to be funded by Salt Lake City's 1/64th percent sales tax rate. Gives to local governments, except Salt Lake City, the 1/64 percent sales tax rate (that they are paying into the Olympics fund) as of July 1, 1999. As of August 30,1999, funds in excess of $59 million are to be distributed to local governments. No fiscal impact.

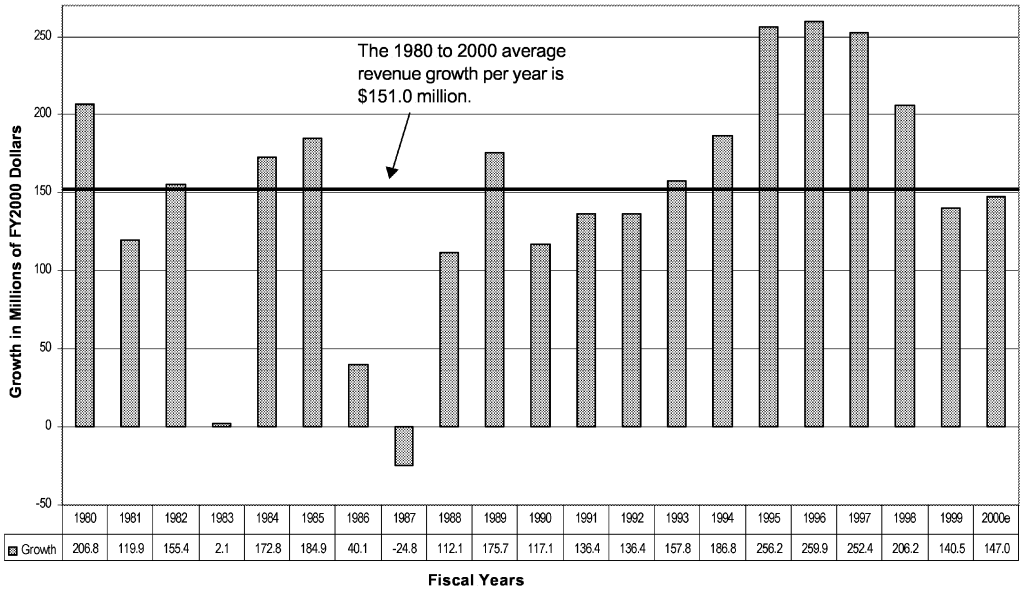
H.B. 396 Sales and Use Tax Exemption for Steel Mills- Throckmorton, M.–This bill includes replacement parts not already covered by the existing manufacturing exemption. Removes the sales tax from business inputs (steel refractory bricks). It reinstates a sales tax exemption previously given to steel manufacturers for replacement parts. Estimated loss of revenue is $617,500 in fiscal year 2000. ✻

Figure 28
Actual Revenue Growth and Surpluses for Combined General and School Revenues



	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000e
Growth	101.3	60.1	95.7	4.6	229.2	108.5	32.1	35.2	122.6	127.3	84.3	84.2	106.1	133.1	231.9	247.1	229.4	211.1	180.3	131.3	147.0
Surplus	NA	NA	NA	11.6	81.4	18.9	1.8	29.2	9.7	70.6	48.4	34.0	4.9	1.7	37.4	60.2	9.1	36.7	43.9	7.3	NA

Figure 29
Inflation, Windfall, Rate and Base-Adjusted Revenue Growth in Combined General and School Fund Revenues



	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000e
Growth	206.8	119.9	155.4	2.1	172.8	184.9	40.1	-24.8	112.1	175.7	117.1	136.4	136.4	157.8	186.8	256.2	259.9	252.4	206.2	140.5	147.0

Table 39
State Tax and Fee Changes from the 1994, 1995, 1996, 1997,1998 and 1999 Regular and Special Legislative Sessions (A) (B)

Bill Number and Effective Year	Bill Subject	Tax & Fee Changes	Cumulative to FY2000
FY 1995			
H.B. 145 (1994 Session)	Sales Tax Exemption - Replacement Parts for Steel Mills	($516,700)	
H.B. 162 (1994 Session)	Sales Tax - Repeal of Flood Tax Authorization	(23,600,000)	
H.B. 205 (1994 Session)	Tax Credit for Low-Income Housing	(226,600)	
Various Bills (1994 Session)	Sales Tax Exemptions Repealed	10,713,500	
S.B. 9 (1994 Session)	Property Tax Rate & Residence Exemption Changes	(8,500,000)	
S.B. 191 (1994 Session)	Treatment of Admission and User Fees	3,290,000	
	Subtotal FY 1995	**($18,839,800)**	**($131,878,600)**
FY 1996			
Various Bills (1995 Session)	Sales Tax Exemptions Authorized	($3,613,000)	
S.B. 254 (1995 Session)	Gross Receipts Taxes	9,400,000	
S.B. 56 and 254 (1995 Session)	Property Taxes (1)	(141,440,833)	
S.B. 56 and 254 (1995 Session)	Income Taxes (1)	4,500,000	
	Subtotal FY 1996	**($131,153,833)**	**(786,922,998)**
FY 1997			
S.B. 56 and 254 (1995 Session)	Property Taxes (Restricted to New Growth, 1995 Session) (1)	($8,703,800)	
H.B. 274 (1995 Session)	Additional Sales Tax on Construction Projects (1995 Session)	(2,000,000)	
H.B. 58 (1996 Regular Session)	Driving Under the Influence -- Repeat Offenders (2)	258,000	
Various Bills (1996 Session)	Reinstate Sales Tax Exemptions	(1,188,300)	
H.B. 349 (1996 Regular Session)	Gross Receipts Taxes - Modifications (3)	(4,750,000)	
H.B. 404 (1996 Regular Session)	Income Tax - Health Care Insurance Deduction (4)	(4,000,000)	
H.B. 405 (1996 Regular Session)	Minimum School Program Act (Property Taxes)	(30,000,000)	
H.B. 405 (1996 Regular Session)	Income Taxes (1)	1,500,000	
H.B. 1003 (1996 April Session)	College Savings Incentive Program (Tax Deduction, 1996 April Session)	(120,000)	
H.B. 3001 (1996 November Session)	Sales Tax - Manufacturing Exemption Modifications (1996 November Session) (5)	($8,700,000)	
S.B. 102 (1996 Regular Session)	Income Tax - Adoption Expenses Deduction	(140,000)	
S.B. 195 (1996 Regular Session)	Income Tax - Credit for Disabled Education Costs	(750,000)	
S.B. 237 (1996 Regular Session)	Income Tax Rate Reductions (6)	(41,000,000)	
S.B. 275 (1996 Regular Session)	Sales Tax - Ski Exemption (7)	(338,000)	
H.B. 27 (1997 Session)	Cigarettes Tax Increase and Regulation (8)	$462,000	
	Subtotal FY 1997	**($99,470,100)**	**($497,350,500)**
FY 1998			
S.B. 239 (1996 Regular Session)	Tax Credits for Rural Economic Resettlement Zones (Tax Credits)	($275,000)	
H.B. 1003 (1996 April Session)	Additional College Savings Incentive Program (Tax Deduction, 1996 April Session)	(120,000)	
H.B. 3001 (1996 November Session)	Additional Sales Tax - Manufacturing Exemption Modifications (1996 November Session) (	(8,700,000)	
Various Bills (1997 Session)	Sales Tax Exemptions	(172,900)	
S.B. 161 (1997 Session)	Motor Vehicle Compliance With Insurance, Registration, And Sales Tax Requirements	870,000	
S.B. 252 (1997 Session)	Collection of Fuel Tax (9)	10,000,000	
S.B. 253 (1997 Session)	Fuels Taxes, and Repeal of Environmental Surcharge on Petroleum (10)	63,250,000	
S.B. 253 (1997 Session)	Sales Tax Reduction (10)	(34,300,000)	
H.B. 27 (1997 Session)	Cigarettes Tax Increase and Regulation (8)	21,800,000	
H.B. 111 (1997 Session)	Transportation Corridor Funding (11)	4,300,000	
H.B. 225 (1997 Session)	Assessment on Workers' Compensation (12)	6,100,000	
H.B. 359 (1997 Session)	Endangered Species Mitigation Fund (13)	400,000	
H.B. 414 (1997 Session)	Registration Fee on Vehicles (14)	16,500,000	
	Subtotals FY 1998	**$79,652,100**	**$318,608,400**
FY 1999			
H.B. 3001 (1996 November Session)	Additional Sales Tax - Manufacturing Exemption Modifications (1996 November Session) (	($11,200,000)	
Various Bills (1997 Session)	Additional Sales Tax Exemptions (1997 Session)	(142,800)	
S.B. 252 (1997 Session)	Additional Collection of Fuel Tax	300,000	
H.B. 154 (1997 Session)	Property Tax Circuit Breaker	(215,000)	
H.B. 414 (1997 Session)	Additional Registration Fee on Vehicles	495,000	
S.B. 6 (1998 Session)	Enforcement and Penalties of Uninsured Motor Vehicle Violations	198,000	
S.B. 34 (1998 Session)	Sales Tax Exemption for Higher Education Athletic Events (15)	(402,000)	
S.B. 39 (1998 Session)	Penalties for Sale of Tobacco to Youth	135,000	
	Subtotals FY 1999	**($10,831,800)**	**($32,495,400)**
FY 2000			
H.B. 58 (1998 Session)	Oil and Gas Severance Tax Amendments (16)	($900,000)	
S.B. 47 (1998 Session)	Research Tax Credit (17)	(3,200,000)	
S.B. 185 (1998 Session)	Sales and Use Tax Exemption Amendments and Study (18)	5,600,000	
S.B. 220 (1998 Session)	Research and Development Credit for Machinery and Equipment (19)	(2,000,000)	
H.B. 73 (1999 Session)	Leaving the Scene of an Accident	172,600	
H.B. 396 (1999 Session)	Sales and Use Tax Exemption for Steel Mills	(617,500)	
S.B. 19 (1999 Session)	Sales and Use Tax Exemption for Hearing Aids and Accessories	(311,000)	
S.B. 54 (1999 Session)	Emergency Medical Services Systems Act	(125,000)	
S.B. 69 (1999 Session)	Manufacturing Sales and Use Tax Exemption (20)	(5,600,000)	
S.B. 150 (1999 Session)	Utilitites in Highway Rights-of-Way (21)	1,600,000	
	Subtotals FY 2000	**($5,380,900)**	**($10,761,800)**
FY 2001			
H.B. 25 (1999 Session)	Income Tax Deduction for Health Care Insurance (22)	($1,770,000)	
S.B. 9 (1999 Session)	Long Term Care Amendments	(175,000)	
S.B. 62 (1999 Session)	Individual Income Tax Credits for At-Home Parents	($500,000)	
	Subtotals FY 2001	**($2,445,000)**	**($2,445,000)**
Grand Total for Taxes and Fees FY 1995 to FY 2001 (A)(B)(C)		**($188,469,333)**	**($1,143,245,898)**

*See next page for footnotes

Table 39 (Continued)
State Tax and Fee Changes from the 1994, 1995, 1996, 1997 and 1998 Regular and Special Legislative Sessions (A) (B)

FOOTNOTES:
(A) This table is not adjusted for tax increases due to income tax "bracket creep." The most recent fiscal note estimate for indexing income taxes for inflation is $3.2 million (January 1999). If $3.2 million per year is raised in each fiscal year 1995 to 2001 from ncome tax bracket creep, the cumulative effect over the 7 years wiil be a tax increase of $89.6 million. The state currently receives about $300 million per year that it would not receive had income tax brackets been indexed for inflation since 1973 (the year in which the current brackets were established. Tax increases due to "bracket creep" have been lessened in the 1990's due to lower inflation (than in the 1970's and 1980's) and because most taxpayers (62.3 percent) have "creeped" into the top income tax bracket.
B) This table is not adjusted for inflation. Only fiscal notes for state tax and fee increases or decreases greater than or equal to $100,000 are listed. Changes in local taxes are excluded. Extentions of exiting laws are excluded. For example, SB76 (1999 Session) extended the sales tax exemption for pollution equipment at a cost of $6,000,000; and, S.B. 79 (1999 Sesssion) extended the sales tax exemption for manufactured homes at a cost of $1,000,000.
(C) This table does NOT include shifts within the total state budget due to earmarking or other diversions. For example, H.B. 393 (1996 Session) reduces General Fund sales tax revenues by $36 million beginning in FY1998 in order to earmark sales taxes to local water and local transportation projects; but, total budget sales taxes were not reduced by this bill. H.B. 413 (Sales Tax Revenues to Transportation Funding, 1997 Session) diverts $4,200,000 in FY 2001 in sales tax revenues currently earmarked for the Olympics to roads. Finally, H.B. 350 (1999 Session) diverts $4,800,000 in School Land Permanent Fund interest from the Uniform School Fund to local school districts.
(1) In 1995 the Legislature and Tax Commission increased the residential exemption from 32% to 45%, decreased the basic school rate from .00422 to .00264, and reduced the state assessing and collecting rate from .0003 to .000281. The 1995 Legislature also restricted the growth in taxable valuations to new growth only, effective in fiscal year 1997. In 1996 the Legislature further ordered the Tax Commission to reduce the basic school rate to a level sufficient to generate a $30 million tax cut.Income tax collections will increase due to lower property tax deductions on income tax forms.
(2) Increased fines and surcharges.
(3) Effective January 1, 1996, reduced gross receipts tax rates 53 percent to benefit electric utilities.
(4) Effective January 1, 1996, allows 60 percent of health care insurance, not already deductible against federal taxes, to be deducted against state taxes owed.
(5) As of July 1996 (FY97) 30% of the exemption is allowed, as of July 1997 60% is allowed, and as of July 1998 100% is allowed. The original fiscal note for FY99 was $28.6 million. The Tax Commission subsequently ruled that parts (in addition to equipment) were eligible for the exemption which raised the fiscal note for FY99 to $71.3 million. In November 1996 a special session of the legislature meet to modify the law in order to restore the fiscal note to $28.6 million in FY99.
(6) Reduced effective income tax rates as of January 1, 1996. Reduced top rate from 7.2 percent to 7.0 percent on taxable incomes over $7,500. The minimum income tax rate will be reduced from 2.55% to 2.3%.
(7) This is a consensus estimate. The Fiscal Analyst's estimate is $65,000.
(8) Increases the cigarette tax 25 cents per pack. FY1997 fiscal impact is from stocking up of inventories in order to partially avoid the July 1, 1997 tax increase.
(9) Changes the point of collection for the diesel fuels tax from dealers to refineries.
(10) Raises the diesel and gasoline tax 5 cents a gallon and reduces the sales tax by 1/8th cent. Enactment of this bill will generate $63,250,000 in increased revenue to the Transportation Fund due to the increase in the diesel and gas tax and the ½ cent diversion from underground storage tanks to highways. There will be a decrease in General Fund sales taxes of $34,300,000. The net tax change from this bill is $28,950,000.
(11) Implements a 2.5 percent tax on rental cars to pay for transportation corridors.
(12) Permits the Department of Workforce Services to impose an assessment related to the Employers' Reinsurance Fund.
(13) Creates an Endangered Species Mitigation Fund and imposes a royalty tax on brine shrimp harvesting.
(14) Increases the vehicle registration fee by $10 and trucking fees by about 10 percent. This restricted money goes into the Centennial Highway Trust Fund.
(15) Amounts paid for admission to an athletic event at an institution of higher education that is subject to the provisions of Title IX are exempt from sales and use tax.
(16) Extends the repeal date for a tax credit for workover credits and recompletions of oil wells.
(17) Gives a 6% tax credit for qualified research activities conducted in the state.
(18) Reduces the sales tax exemption for machinery and equipment from 100% in FY1999 to 80% in FY2000. After July 1, 1999, vendors shall collect sales tax on 20% of the sales price of normal operating replacements.
(19) Gives a 6% individual or corporate income tax credit on the purchase price of machinery, equipment or both.
(20) Reinstates the manufacturing sales tax exemption on replacement parts at 100%. S.B. 185 (1998 Session) had previously reduced this exemption to 80%.
(21) Permit fees and compensation paid into the Transportation Fund for access to rights-of-way on Interstate Highways by telecommunication companies.
(22) Increases income tax deduction for amounts paid for health care insurance from 60% to 100% of amounts not deducted from federal taxes.

Table 40
Cash Collection Unrestricted Revenues (Millions of Current Dollars): FY 1980 to FY2000

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000(e)
General Fund (GF)																					
Sales and Use Tax	320.5	347.4	385.4	389.5	526.2	555.4	558.6	559.0	617.6	667.4	707.4	740.3	802.4	881.9	978.2	1,055.1	1,162.5	1,252.1	1,251.8	1,316.4	1,366.0
Liquor Profits	15.1	17.6	19.2	19.0	19.5	18.9	19.0	17.2	15.9	16.0	16.6	17.6	16.6	18.1	17.9	20.1	22.2	24.3	26.3	26.9	27.6
Insurance Premiums	14.7	15.8	21.5	18.0	20.0	22.3	26.1	27.8	28.2	26.4	30.0	27.8	30.2	34.0	38.2	40.9	40.1	43.1	44.6	47.7	50.1
Beer, Cigarette, and Tobac	12.4	13.5	14.1	16.2	20.0	21.3	21.1	24.0	29.2	30.7	30.2	31.0	34.6	34.3	36.4	37.7	37.8	41.2	53.2	60.0	55.0
Severance Taxes	10.6	15.3	23.3	19.4	36.2	46.9	43.8	21.5	29.2	28.1	30.1	31.0	18.2	19.3	18.9	21.4	20.4	23.8	23.0	13.1	15.3
Inheritance Tax	1.7	2.0	4.5	2.0	3.1	4.8	4.7	2.3	3.4	9.8	7.6	4.8	4.0	7.6	8.2	25.0	8.3	10.3	25.4	8.2	9.5
Investment Income	22.4	14.7	21.5	11.3	11.2	14.4	12.0	3.8	10.7	19.2	17.9	11.0	7.0	4.4	6.4	12.3	16.8	16.3	15.7	15.0	13.0
Other	9.0	13.1	12.4	13.9	23.0	23.4	22.2	24.7	26.5	27.4	32.6	33.9	27.7	26.0	30.0	32.9	37.2	34.9	40.8	38.3	41.2
Circuit Breaker Credits	(2.9)	(2.4)	(2.5)	(2.3)	(1.8)	(2.2)	(1.5)	(1.2)	(1.2)	(1.4)	(3.4)	(3.5)	(4.1)	(4.2)	(4.5)	(4.7)	(4.6)	(4.4)	(4.5)	(5.3)	(4.5)
Subtotal GF	403.4	437.2	499.3	487.0	657.4	705.1	706.0	679.1	759.6	823.7	869.1	894.0	936.5	1,021.4	1,129.7	1,240.6	1,340.6	1,441.6	1,476.2	1,520.4	1,573.2
School Fund (SF)																					
Individual Income Tax	265.3	294.9	331.1	348.0	390.9	435.5	454.3	533.3	569.9	615.6	647.6	717.6	784.4	842.3	925.3	1,026.9	1,139.1	1,237.3	1,377.5	1,464.0	1,560.0
Corporate Franchise Tax	40.4	40.7	40.9	33.8	53.2	65.9	84.0	68.9	78.8	93.0	99.7	87.8	80.9	79.5	121.1	153.5	168.4	182.9	189.1	184.2	187.0
School Land Income	10.7	14.4	18.9	30.4	19.0	18.4	11.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Permanent Fund Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3.1	4.5	4.6	4.7	6.5	4.4	4.9	3.2	3.5	2.5	6.8	4.0
Gross Receipts Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.5	2.8	4.2	3.7	3.6	4.5	4.1	4.4	8.4	9.1	7.2	7.9	7.7
Federal Revenue Sharing	14.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	2.7	2.5	2.1	(2.3)	5.6	9.8	11.2	12.3	9.9	13.7	11.2	12.9	16.4	5.5	6.9	8.4	8.5	4.8	7.1	7.6	6.0
Subtotal SF	333.2	359.5	393.0	409.9	468.7	529.6	560.8	623.0	665.1	728.3	767.2	826.5	890.0	938.2	1,061.8	1,198.0	1,327.5	1,437.6	1,583.3	1,670.5	1,764.7
Transportation Fund (TF)																					
Motor Fuel Tax	60.5	56.5	67.7	68.7	69.0	89.3	92.2	100.0	129.4	131.2	132.5	131.1	136.4	141.3	150.4	155.5	163.2	168.4	217.7	224.7	238.0
Special Fuel Tax	10.5	10.1	12.7	12.6	14.4	17.8	19.4	20.6	27.6	29.3	29.1	36.8	33.4	35.6	36.2	40.7	43.7	46.2	72.4	73.7	76.0
Other	18.9	20.1	21.1	30.8	33.1	33.8	34.7	34.8	35.5	36.9	38.7	39.6	44.6	47.3	49.6	52.6	54.3	52.6	54.8	58.5	60.0
Subtotal TF	89.8	86.8	101.5	112.2	116.5	140.9	146.2	155.4	192.4	197.4	200.3	207.4	214.3	224.2	236.2	248.7	261.2	267.3	344.9	356.9	374.0
Mineral Lease Payments	14.9	18.2	26.9	36.2	37.5	34.2	32.6	22.4	28.8	50.8	34.9	32.4	32.5	30.3	33.3	29.1	34.7	34.1	33.5	31.5	31.0
TOTAL	841.3	901.6	1,020.7	1,045.2	1,280.1	1,409.8	1,445.6	1,479.9	1,645.9	1,800.2	1,871.4	1,960.3	2,073.4	2,214.1	2,461.0	2,716.4	2,964.0	3,180.6	3,437.9	3,579.2	3,742.9

(e) = estimate

Source: Comprehensive Annual Reports, Division of Finance; Utah State Tax Commission Annual Reports; Governor's Office of Planning and Budget

Table 41
Cash Collection Unrestricted Revenues (Current Dollars Percent Change): FY 1980 to FY2000

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000(e)
General Fund (GF)																					
Sales and Use Tax	na	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	10.9	7.9	10.2	7.7	-0.0	5.2	3.8
Liquor Profits	na	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	12.2	10.3	9.7	8.2	2.3	2.6
Insurance Premiums	na	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	12.3	7.3	-2.0	7.4	3.4	7.1	5.0
Beer, Cigarette, and Tobacco	na	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	6.3	3.4	0.3	9.0	29.2	12.8	-8.4
Severance Taxes	na	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	13.4	-4.9	16.8	-3.2	-43.3	17.2
Inheritance Tax	na	20.7	120.6	-56.2	57.9	53.3	-1.3	-50.9	48.5	183.6	-22.3	-36.6	-17.4	91.9	7.4	204.8	-66.6	23.5	147.2	-67.6	15.3
Investment Income	na	-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	93.4	36.5	-2.8	-3.6	-4.5	-13.5
Other	na	46.0	-5.5	12.3	65.5	1.6	-5.0	11.0	7.2	3.7	18.8	4.2	-18.4	-6.0	15.3	9.6	12.9	-6.1	16.8	-6.1	7.6
Circuit Breaker Credits	na	-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	5.7	-1.7	-4.4	1.8	17.0	-14.9
Subtotal GF	na	8.4	14.2	-2.5	35.0	7.3	0.1	-3.8	11.9	8.4	5.5	2.9	4.8	9.1	10.6	9.8	8.1	7.5	2.4	3.0	3.5
School Fund (SF)																					
Individual Income Tax	na	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	9.9	11.0	10.9	8.6	11.3	6.3	6.6
Corporate Franchise Tax	na	0.7	0.6	-17.4	57.6	23.8	27.5	-18.0	14.4	18.0	7.2	-12.0	-7.8	-1.8	52.3	26.8	9.7	8.6	3.4	-2.6	1.5
School Land Income	na	34.6	30.6	61.4	-37.6	-3.0	-39.0	-29.3	na	na	na	na	na	na	na	na	na	na	na	na	na
Permanent Fund Interest	na	na	na	na	na	na	na	na	na	49.9	45.8	1.3	2.8	37.5	-32.0	10.9	-35.5	9.8	-29.4	178.0	-41.1
Gross Receipts Tax	na	na	na	na	na	na	na	na	782.0	-37.4	48.3	-11.7	-2.9	25.9	-8.4	6.3	90.3	8.6	-20.8	10.3	-2.9
Federal Revenue Sharing	na	-50.2	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Other	na	-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	20.7	1.3	-42.7	45.9	7.1	-20.8
Subtotal SF	na	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	12.8	10.8	8.3	10.1	5.5	5.6
Transportation Fund (TF)																					
Motor Fuel Tax	na	-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	6.4	3.4	5.0	3.2	29.3	3.2	5.9
Special Fuel Tax	na	-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	1.8	12.3	7.6	5.7	56.7	1.8	3.1
Other	na	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	6.1	3.1	-3.0	4.1	6.7	2.6
Subtotal TF	na	-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	5.4	5.3	5.0	2.3	29.0	3.5	4.8
Mineral Lease Payments	na	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	-12.8	19.5	-1.8	-1.8	-6.1	-1.4
TOTAL	na	7.2	13.2	2.4	22.5	10.1	2.5	2.4	11.2	9.4	4.0	4.7	5.8	6.8	11.2	10.4	9.1	7.3	8.1	4.1	4.6
Average Annual Growth Rates	na	7.2	10.1	7.5	11.1	10.9	9.4	8.4	8.8	8.8	8.3	8.0	7.8	7.7	8.0	8.1	8.2	8.1	8.1	7.9	7.7

Source: Comprehensive Annual Reports, Division of Finance; Utah State Tax Commission Annual Reports; Governor's Office of Planning and Budget

International Merchandise Exports

Overview

Because East Asia has not fully recovered from economic recession, Utah's exports will not show significant growth during 1999. From 1995 through 1999, Utah's exports remained constant around $3.6 billion. If the Asian economies were as strong today as they were in the early 1990s, Utah's exports would likely be well over $4.0 billion. Since 1995, the share of Utah's exports to Asia (mostly coal, copper, equipment, and chemicals) has fallen from about 40% to under 25% for the first three quarters of 1999. Over the long term, continued World Trade Organization talks and economic globalization will spur both trade and growth. In the short term, however, Utah's exports will not be a force for growth.

1999 Summary

Value of Utah's Merchandise Exports. Utah ranked 34th among the states in the value of merchandise exports during the first three quarters of 1999. Relative to the first three quarters of 1998, exports have increased for 34 states. For the nation as a whole, year to date exports in 1999 are up 0.7% compared to 1998. While Utah's $2.6 billion in exports year to date in 1999 are up a healthy 4.5% relative to 1998, Utah's exports are still less than 4% of California's $77.8 billion. As the leading state, California accounted for almost one-sixth of the nation's $505.8 billion year to date exports during 1999. With $64.9 billion in exports, 2nd place Texas is not that far behind California, but at $29.7 billion, 3rd place New York has less than half California's exports. Though small relative to the leading states, Utah still has twenty times the merchandise exports of the Virgin Islands, which rank last.

Although the merchandise export data prior to 1996 are not strictly comparable with the data after 1996, Utah has become more integrated into the world economy since 1988, when the data first became available. Between 1988 and 1999, Utah's merchandise exports increased from $943 million to $3.5 billion, or more than 270%. Over this same period, Utah's gross state product (GSP), which is the broadest measure of economic activity, increased from $27.0 billion to $69.7 billion, or 153%. Thus, merchandise exports have increased from 3.4% of GSP in 1988 to 5.2% in 1999.

Utah's Merchandise Exports by Industry. During the first three quarters of 1999, exports of primary metal products (copper and steel) were $853.9 million, or almost one-third of the total. Other major export products include transportation equipment ($394.5 million, or 15.1%), electronic machinery ($299.6 million, or 11.5%), industrial machinery ($227.3 million, or 8.7%), instruments ($189.8 million, or 7.3%), chemicals ($122.7 million, or 4.7%), processed food ($119.7 million, or 4.6%), and coal ($74.5 million, or 2.9%).

Destination of Utah's Merchandise Exports. Utah's largest markets for merchandise exports are in Europe, Canada, and East Asia. To third quarter 1999, the top five destination countries for Utah's merchandise exports accounted for $1.7 billion of the $2.6 billion total, or about two-thirds, while the top ten accounted for $2.0 billion, or almost four-fifths.

Significant Issues

Asia. The upside of the Asian crisis is that to this point neither Utah's or the nation's exports have been substantially diminished. For 1999, it appears both the nation's and Utah's exports will be near to matching previous highs. Further on the positive side, most of Utah's largest Asian trading partners appear to have passed through their most difficult economic times. The Japanese economy appears to be growing. Thus Utah's exports to Japan should remain in the $400 million to $500 million range for the time being, where they were in the mid-1990s. As the Japanese economy accelerates over the next several years, Utah's exports there could move well above $500 million. Utah's other major Asian trading partners--Korea, Taiwan, the Philippines, Thailand, Singapore, Malaysia, and China--are, to varying degrees, similar to Japan in that their economies should be capable of purchasing more of Utah's products in the coming years.

The WTO and China's Entry into the WTO. The World Trade Organization (WTO) strengthens a process that began shortly after World War II with the General Agreement on Tariffs and Trade (GATT). First signed in 1947, GATT was designed to provide an international forum that encouraged free trade between member states by regulating and reducing tariffs on traded goods and by providing a common mechanism for resolving trade disputes. Since 1947, there have been several rounds of GATT, most recently the Uruguay round, which is the predecessor to the WTO. In an institutional sense, the WTO represents a dramatic improvement over GATT in the framework for international trade. Though the participants in GATT expected each round to lead to another, the institutional setting didn't require subsequent rounds. In contrast, the WTO is an organization as likely to continue in existence as the United Nations. In this sense, the WTO represents a tangible increase in the world's commitment to free trade. As a practical matter, the WTO is similar to a round of talks under GATT.

China has not been included in the group of countries conducting trade through GATT. U.S. and Chinese negotiators have agreed on terms for China's admission to the WTO, though this agreement needs to be ratified by the U.S. Senate. With its admission to the WTO, China will become part of the formal international trading process. Although both the U.S. and China stand to benefit from membership in the WTO, China's absence from GATT didn't impede rapid growth in trade with the United States. (Trade is defined as imports plus exports.) From 1985 to 1999, trade between the United States and China grew from $7.7 billion to over $90 billion. In every year since 1986, trade between the two countries has grown by over 10%, while in six of these years it grew by over 20%. Unfortunately for American makers of clothing, toys, and other products imported from China, the amount by which imports of Chinese goods exceeded exports of goods to China has ballooned from $1.6 billion in 1986 to almost $70 billion in 1999. Though certain businesses are hurt by the stiff competition from China, American consumers have benefitted richly from high quality low priced Chinese goods. And those firms nimble enough to benefit from the expanding opportunities in China have profited handsomely. Because of American willingness to buy Chinese goods, the Chinese have dramatically increased their purchase of our goods, from $3.8 billion in 1985 to around $13.0 billion in 1999. Utah's exports of goods to China have generally been in the range of $40 million since 1992, but are down almost 60% year-to-date third quarter 1999 compared to 1998. In the short term, China's WTO membership is unlikely to impact Utah's exports there. Over the longer term, however, as Chinese trade restrictions are eased and China's economy grows, China could come to rival Japan in terms of its demand for Utah goods.

Limitations of Data. The export data presented have been generated by the U.S. Census Bureau's Foreign Trade Division in cooperation with the U.S. Customs Service, and have been adjusted by the Massachusetts Institute for Social and Economic Research (MISER). There are two main reasons why this data series, called "Origin of Movement," may substantially underestimate the magnitude of Utah exports.

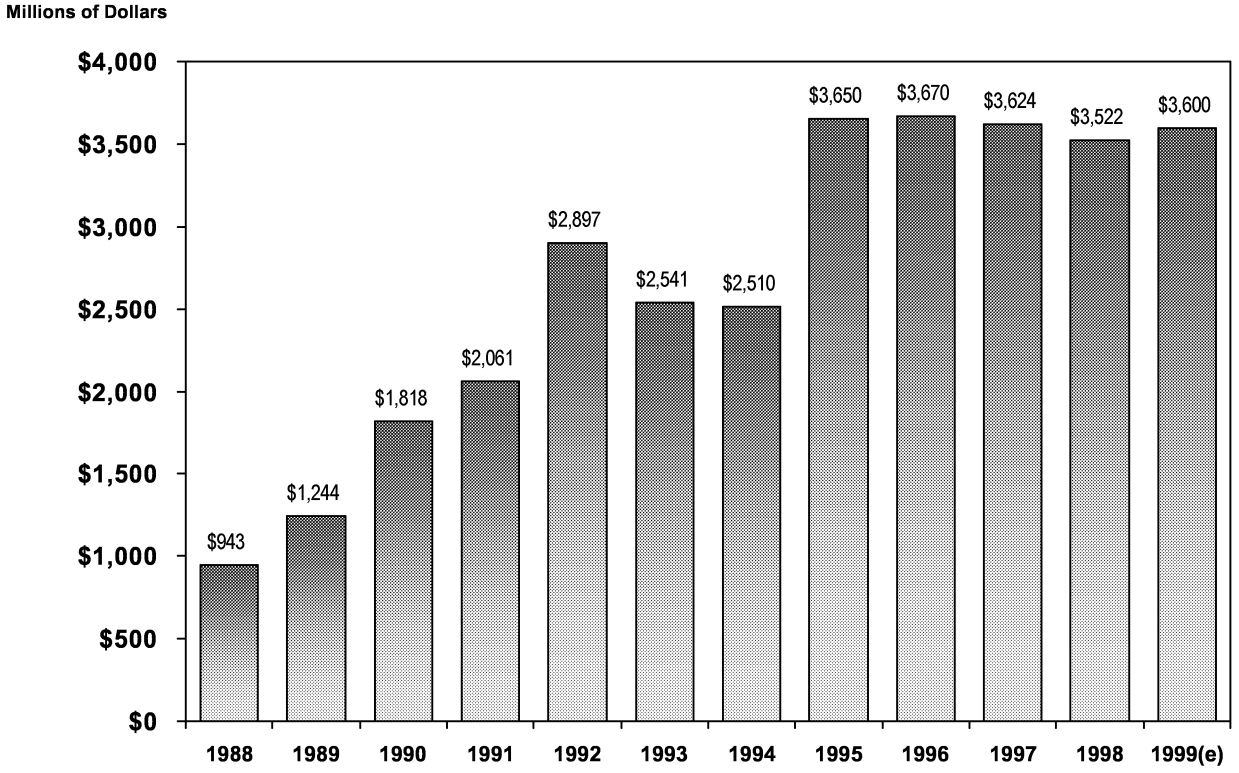
First, the data series is designed to measure the transportation origin of exports, and accounts for the value of merchandise exports but not service exports. This means that exports of business services (such as financial services or computer software), educational services (such as international students 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 included in the value of these exports.

Second, the "Origin of Movement" series tracks the merchandise from where it begins its export journey. The Shipper's Export Declaration (SED) accompanies each commodity shipment of $1,501 or more before 1990, and $2,501 or more since, that leaves the United States and provides the basis for the export information. In other words, the exporter is not necessarily the producer or the manufacturer of the merchandise shipped. For these two reasons, one must exercise caution when comparing this data with other data published by the U.S. Department of Commerce.

Conclusion

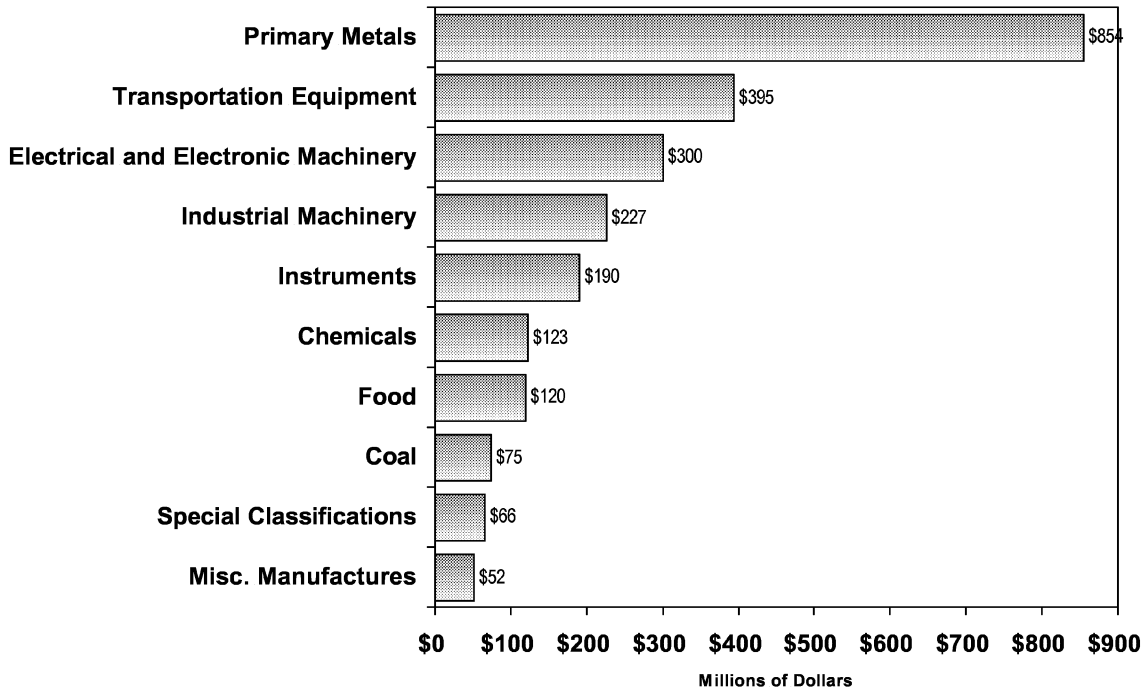
Utah's exports remained in the range of $3.6 billion during 1999. Since the Asian economies appear to be growing again, Utah's exports should begin to pick up in the next few years. The creation of the WTO and China's entry into the WTO should bode well for Utah, the Nation, and the world. Long term, the WTO can only improve the outlook for Utah's exports. ✻

Figure 30
Utah Merchandise Exports



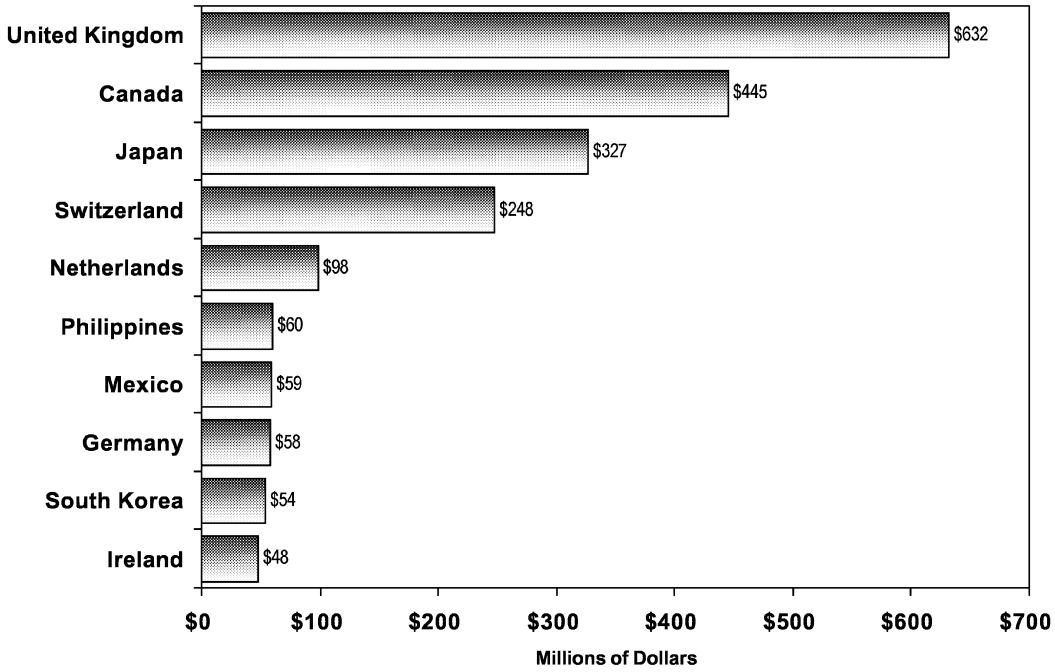
Source: U.S. Census Bureau, Massachusetts Institute for Social and Economic Research

Figure 31
Utah Merchandise Exports by Selected Industry for Year-to-Date Third Quarter 1999



Source: U.S. Bureau of the Census, Massachusetts Institute for Social and Economic Research

Figure 32
Utah Merchandise Exports to Selected Countries: Year-to-Date Third Quarter 1999



Source: U.S. Bureau of the Census, Massachusetts Institute for Social and Economic Research

Table 42
Utah Merchandise Exports by Industry (Thousands of Dollars)

SIC Code	Industry	Annual 1990	1991	1992	1993	1994	1995	1996	1997	1998	Year-to-Date Third Quarter 1998	1999	Percent Change	Industry as a Percent of 1999 Total
1	Agricultural Products	1,864.1	1,477.2	1,057.6	2,900.1	4,229.1	1,992.7	6,126.3	20,386.1	20,020.4	16,095.2	14,462.7	-10.1%	0.6%
2	Livestock and Livestock Products	153.6	98.4	173.8	486.4	87.4	576.2	194.6	360.9	349.5	238.7	426.9	78.9%	0.0%
8	Forestry Products	52.5	5.0	74.2	23.3	43.3	48.6	61.2	463.1	450.2	283.6	396.6	39.8%	0.0%
9	Fishing, Hunting, and Trapping	572.0	732.4	334.7	1,279.3	1,097.7	2,583.2	6,010.2	7,232.6	852.7	694.0	435.0	-37.3%	0.0%
10	Metallic Ores and Concentrates	209,220.6	196,613.3	282,205.1	224,861.2	283,769.2	424,845.9	218,327.4	208,140.4	51,161.2	39,459.6	20,520.8	-48.0%	0.8%
12	Bituminous Coal and Lignite	64,021.2	84,073.2	78,485.8	81,193.1	81,921.4	132,691.5	193,172.5	139,330.4	141,536.2	106,064.7	74,545.0	-29.7%	2.9%
13	Crude Petroleum and Natural Gas	0.0	2.6	0.0	0.0	0.0	7.4	10.8	13.5	0.0	0.0	0.0		0.0%
14	Nonmetallic Minerals, Except Fuels	5,166.0	7,833.0	11,766.7	8,153.6	8,962.7	10,174.5	9,914.4	10,072.3	8,110.7	5,663.7	5,659.8	-0.1%	0.2%
20	Food and Kindred Products	57,903.5	54,963.2	60,006.5	74,419.4	72,801.8	136,959.4	138,575.6	159,524.7	157,052.5	105,791.9	119,719.0	13.2%	4.6%
22	Textile Mill Products	2,162.2	1,644.9	1,590.6	2,107.2	2,836.0	3,062.3	2,127.0	4,479.2	3,686.1	2,552.0	3,659.3	43.4%	0.1%
23	Apparel and Related Products	3,368.5	4,969.3	7,538.9	6,276.2	8,154.2	13,427.0	14,844.8	8,025.5	6,056.1	4,624.5	7,923.3	71.3%	0.3%
24	Lumber and Wood Products, Except Furniture	1,687.3	947.0	3,098.8	917.0	894.3	1,976.9	2,139.9	1,485.9	1,443.2	1,073.0	1,369.5	27.6%	0.1%
25	Furniture and Fixtures	1,806.4	2,964.6	6,742.7	3,766.4	2,845.8	3,630.1	6,729.6	5,000.9	6,520.7	5,133.7	5,494.4	7.0%	0.2%
26	Paper and Allied Products	12,563.5	6,650.0	3,175.0	9,241.3	3,184.0	3,794.4	5,470.7	8,797.3	12,174.9	7,097.9	29,587.1	316.8%	1.1%
27	Printing, Publishing, and Allied Products	34,539.9	19,731.5	22,619.8	26,359.0	26,808.8	30,323.8	38,585.1	38,583.5	25,156.6	18,196.4	18,157.9	-0.2%	0.7%
28	Chemicals and Allied Products	66,567.4	60,072.8	94,803.4	98,883.0	157,377.4	148,209.9	210,758.8	230,667.0	219,190.3	175,488.7	122,690.8	-30.1%	4.7%
29	Petroleum Refining and Related Products	3,925.5	758.8	289.5	454.7	108.4	253.4	319.7	98.4	1,780.1	766.7	1,690.4	120.5%	0.1%
30	Rubber and Misc. Plastic Products	9,675.8	23,318.5	8,724.5	11,544.2	14,732.0	30,061.9	27,580.8	43,735.5	32,979.1	25,799.1	28,882.3	12.0%	1.1%
31	Leather and Leather Products	1,404.0	2,413.5	3,902.0	2,709.8	3,965.3	4,905.8	6,054.0	6,169.1	8,339.4	5,394.2	13,390.6	148.2%	0.5%
32	Stone, Clay, Glass, and Concrete Products	3,676.3	3,552.2	5,477.2	8,610.1	4,702.8	4,780.2	5,858.7	8,777.1	7,652.1	5,542.9	7,403.0	33.6%	0.3%
33	Primary Metal Products	322,645.9	616,094.1	1,313,756.9	931,868.6	915,393.7	1,252,373.5	1,097,705.7	1,102,071.9	1,286,250.6	830,397.7	853,905.0	2.8%	32.8%
34	Fabricated Metal Products, Except Mach./Tran.	36,721.2	65,105.2	62,682.0	51,831.0	38,392.7	106,340.8	96,508.8	70,850.4	59,990.3	48,523.4	39,309.8	-19.0%	1.5%
35	Industrial Machinery, Except Electrical	202,848.0	195,040.1	153,313.0	214,509.6	204,532.0	308,919.6	427,352.7	305,923.7	262,917.9	201,356.6	227,338.3	12.9%	8.7%
36	Electrical/Electronic Machinery, Equip., and Supp	446,497.0	402,726.3	325,596.4	329,298.6	228,041.7	323,976.5	368,227.1	412,868.0	451,126.9	317,886.4	299,565.6	-5.8%	11.5%
37	Transportation Equipment	144,321.3	140,653.5	277,191.4	253,965.1	214,563.0	248,791.5	393,312.8	455,364.3	428,365.0	318,741.4	394,525.8	23.8%	15.1%
38	Instruments and Related Products	128,715.6	109,561.9	111,647.5	124,175.8	141,979.5	156,699.0	191,855.8	218,379.7	202,120.0	151,083.6	189,809.4	25.6%	7.3%
39	Misc. Manufactured Commodities	22,642.4	31,033.1	39,975.9	47,299.8	67,586.0	77,294.2	78,697.3	107,277.8	83,639.3	66,281.5	52,401.9	-20.9%	2.0%
91	Scrap and Waste	20,099.5	14,665.8	8,700.7	12,598.5	10,622.1	208,184.3	86,135.2	6,895.7	3,737.8	2,899.6	3,264.7	12.6%	0.1%
92	Used or Second-Hand Merchandise	4,653.4	2,871.5	1,001.9	1,871.5	1,608.1	4,594.5	3,754.1	6,527.4	4,841.5	4,256.3	1,910.9	-55.1%	0.1%
	Special Classification Provisions	8,970.8	10,668.3	11,526.6	8,937.7	9,225.4	8,317.9	33,988.0	36,819.4	34,577.9	25,681.9	65,938.5	156.8%	2.5%
	Total	1,818,445.4	2,061,241.3	2,897,458.8	2,540,541.4	2,510,465.8	3,649,796.8	3,670,399.6	3,624,321.7	3,522,079.0	2,493,069.1	2,604,384.1	4.5%	100.0%

Notes:

1. Third quarter year to date (YTD) exports for 1998 and 1999 are based on exports from January 1 through September 30.

Source: Massachusetts Institute for Social and Economic Research processing of U.S. Census Bureau data.

Table 43
Utah Merchandise Exports to Selected Countries (Millions of Dollars)

	Annual							Year-to-Date Third Quarter			
	1992	1993	1994	1995	1996	1997	1998	1998	1999	Percent Change	1999 Percent of Total
United Kingdom	450.7	79.7	63.4	459.8	584.0	880.9	841.2	638.5	632.3	-1.0%	24.3%
Canada	361.4	362.1	360.7	410.6	429.0	523.4	516.1	378.9	446.0	17.7%	17.1%
Japan	315.3	313.6	353.4	555.6	677.3	586.0	453.9	327.4	328.6	0.4%	12.6%
Switzerland	28.9	244.6	98.3	155.8	97.2	95.6	466.2	202.3	248.6	22.9%	9.5%
Netherlands	69.2	145.8	119.2	87.8	136.4	124.5	106.8	78.2	100.2	28.2%	3.8%
Philippines	27.5	28.0	32.8	66.8	61.4	98.3	115.1	84.4	61.4	-27.3%	2.4%
Mexico	26.6	51.3	112.4	71.7	74.5	94.9	84.3	61.8	61.3	-0.9%	2.4%
Germany	103.2	166.3	197.8	201.1	180.4	156.1	92.8	70.5	58.9	-16.4%	2.3%
South Korea	114.5	63.5	94.5	167.6	282.9	128.9	58.6	45.9	54.5	19.0%	2.1%
Ireland	7.5	16.5	22.3	24.8	24.9	50.2	54.0	44.0	48.5	10.2%	1.9%
France	23.3	19.5	21.9	282.2	52.8	48.9	45.2	36.2	48.3	33.5%	1.9%
Belgium	25.5	34.2	85.1	134.1	53.3	77.4	46.9	32.7	42.4	29.6%	1.6%
Malaysia	37.6	66.9	14.8	9.6	26.6	60.4	72.9	52.9	41.1	-22.2%	1.6%
Italy	20.3	12.6	13.0	17.3	29.6	53.0	29.1	22.7	40.7	79.5%	1.6%
Singapore	68.3	50.9	27.5	89.0	111.8	67.1	40.4	32.6	35.2	7.8%	1.3%
Australia	42.5	31.6	29.6	37.0	41.3	37.0	49.7	38.4	35.0	-8.8%	1.3%
Taiwan	421.1	380.3	203.3	274.6	184.3	111.4	51.2	42.3	33.7	-20.4%	1.3%
Hong Kong	417.5	224.0	463.7	267.6	101.4	49.7	31.6	24.2	32.3	33.2%	1.2%
United Arab Emirates	2.1	2.6	2.1	0.5	1.9	9.0	13.2	5.7	23.9	323.6%	0.9%
Thailand	104.2	71.5	51.7	72.1	57.9	81.7	54.5	42.4	20.5	-51.6%	0.8%
Brazil	2.1	7.7	8.3	6.4	28.8	17.7	16.8	9.2	17.2	87.1%	0.7%
Turkey	39.8	22.4	2.5	0.0	1.3	4.5	9.1	3.7	16.9	354.6%	0.6%
China	49.7	87.5	17.2	33.1	36.6	28.3	37.3	32.3	13.4	-58.3%	0.5%
Spain	27.3	8.6	6.3	6.7	26.1	17.5	21.8	17.8	13.0	-26.8%	0.5%
Denmark	2.5	2.8	3.8	0.5	2.6	3.7	3.5	2.0	12.5	536.3%	0.5%
New Zealand	7.9	6.5	7.8	3.4	9.7	14.2	11.2	8.8	9.2	4.9%	0.4%
Israel	5.0	6.6	3.4	8.6	8.4	11.4	10.7	8.5	7.1	-15.6%	0.3%
Chile	12.2	17.8	18.0	69.0	49.6	38.0	23.1	20.9	5.7	-72.8%	0.2%
Sweden	6.0	5.0	6.8	3.9	15.6	23.8	25.8	22.7	5.7	-75.1%	0.2%
Saudi Arabia	7.5	4.7	3.0	2.7	0.0	2.4	5.7	2.6	5.1	101.1%	0.2%
Austria	4.2	5.0	5.0	1.0	4.3	4.9	4.6	3.9	5.0	28.2%	0.2%
India	1.4	4.1	2.2	7.2	4.3	9.1	5.1	3.5	5.0	40.8%	0.2%
Colombia	1.0	2.8	5.5	10.7	4.4	4.6	4.6	3.8	4.2	11.2%	0.2%
Venezuela	3.7	2.5	2.5	0.9	3.0	6.9	4.8	3.4	3.8	11.2%	0.1%
Norway	4.7	4.3	3.7	2.9	4.9	4.3	6.4	5.5	3.2	-42.9%	0.1%
South Africa	3.9	3.6	2.9	1.4	11.0	8.1	5.8	4.2	3.0	-27.9%	0.1%
Peru	0.0	2.1	4.5	1.3	3.7	4.9	4.3	3.5	2.7	-24.0%	0.1%
Dominican Republic	0.0	1.2	2.5	7.6	13.2	4.0	3.1	2.2	2.3	4.6%	0.1%
Indonesia	4.6	5.5	6.4	8.5	12.2	8.9	4.2	2.5	2.3	-10.0%	0.1%
Russian Federation	6.6	4.4	2.6	9.1	2.5	6.6	2.6	1.1	1.5	33.8%	0.1%
Exports to the World, Outside U.S.	2,897.5	2,540.5	2,510.5	3,649.8	3,564.0	3,624.3	3,522.1	2,493.1	2,604.4	4.5%	
Exports to Non-Asia	1,385.5	1,332.3	1,260.3	2,131.2	2,043.9	2,422.8	2,634.7	1,835.0	1,989.9	8.4%	
Exports to Asia	1,512.0	1,208.2	1,250.2	1,518.6	1,520.1	1,201.5	887.5	658.1	614.5	-6.6%	
Share of Exports to Non-Asia	47.8%	52.4%	50.2%	58.4%	57.3%	66.8%	74.8%	73.6%	76.4%	3.8%	
Share of Exports to Asia	52.2%	47.6%	49.8%	41.6%	42.7%	33.2%	25.2%	26.4%	23.6%	-10.6%	

Notes:

1. Third quarter year to date (YTD) exports for 1997 and 1998 are based on exports from January 1 through September 30.

Source: Massachusetts Institute for Social and Economic Research processing of U.S. Census Bureau data.

Table 44
U.S. Merchandise Exports by State (Thousands of Dollars)

Rank	State	Annual 1994	1995	1996	1997	1998	Year-to-Date Third Quarter 1998	1999	Percent Change	State as a Percent of 1999 Total
26	Alabama	4,654	5,407	5,849	6,702	7,036	5,126	5,147	0.4%	1.0%
36	Alaska	2,639	3,000	3,125	2,979	2,070	1,634	2,101	28.6%	0.4%
16	Arizona	9,033	10,222	11,378	14,920	12,240	9,083	9,462	4.2%	1.9%
39	Arkansas	1,894	2,245	2,245	2,576	2,546	1,961	1,721	-12.2%	0.3%
1	California	81,190	96,573	103,254	109,537	104,968	77,442	77,813	0.5%	15.4%
28	Colorado	4,574	5,237	5,332	5,602	5,718	4,219	4,719	11.9%	0.9%
25	Connecticut	6,389	6,545	6,829	7,784	8,112	6,136	5,779	-5.8%	1.1%
37	Delaware	1,767	1,701	1,841	2,316	2,395	1,762	1,784	1.3%	0.4%
50	District Of Columbia	690	312	367	612	385	247	320	29.6%	0.1%
7	Florida	20,514	23,671	24,664	27,600	28,677	20,806	20,895	0.4%	4.1%
14	Georgia	10,029	12,400	12,551	14,689	14,984	11,059	11,197	1.2%	2.2%
52	Hawaii	396	352	308	367	302	232	218	-6.2%	0.0%
40	Idaho	1,613	1,973	1,708	1,808	1,640	1,228	1,689	37.6%	0.3%
6	Illinois	21,980	25,573	26,773	29,186	31,544	23,530	23,374	-0.7%	4.6%
15	Indiana	9,261	11,628	12,039	13,136	13,403	10,091	10,297	2.0%	2.0%
30	Iowa	3,571	4,353	4,884	5,676	5,355	4,192	3,307	-21.1%	0.7%
29	Kansas	3,370	3,854	4,197	4,738	4,446	3,312	3,787	14.4%	0.7%
22	Kentucky	5,399	5,948	7,050	8,695	8,838	6,435	6,899	7.2%	1.4%
12	Louisiana	15,560	21,059	23,358	20,645	18,373	13,237	12,488	-5.7%	2.5%
42	Maine	1,205	1,487	1,512	1,880	1,966	1,444	1,632	13.0%	0.3%
31	Maryland	5,841	6,216	5,924	5,999	5,308	3,964	3,211	-19.0%	0.6%
9	Massachusetts	13,065	15,065	15,999	18,028	17,191	12,771	13,235	3.6%	2.6%
5	Michigan	28,497	28,431	29,771	34,776	31,438	23,423	24,798	5.9%	4.9%
21	Minnesota	7,856	8,830	9,776	10,460	9,913	7,326	7,407	1.1%	1.5%
38	Mississippi	2,033	2,774	2,994	2,714	2,542	1,978	1,774	-10.3%	0.4%
27	Missouri	4,040	4,373	6,405	7,348	6,412	4,790	4,793	0.1%	0.9%
51	Montana	360	392	469	564	450	331	304	-8.1%	0.1%
41	Nebraska	1,788	2,024	2,139	2,208	2,219	1,669	1,680	0.7%	0.3%
46	Nevada	694	827	1,395	1,164	761	581	818	40.7%	0.2%
43	New Hampshire	1,147	1,449	1,643	1,750	1,916	1,400	1,595	13.9%	0.3%
11	New Jersey	13,073	13,833	14,821	16,902	17,250	12,955	12,540	-3.2%	2.5%
33	New Mexico	570	457	1,013	1,877	1,976	1,426	2,734	91.7%	0.5%
4	New York	34,011	37,089	38,372	41,726	41,561	30,865	28,787	-6.7%	5.7%
13	North Carolina	14,060	16,820	17,635	18,257	17,217	12,819	12,035	-6.1%	2.4%
47	North Dakota	528	578	756	837	800	632	566	-10.5%	0.1%
8	Ohio	21,649	23,764	25,052	27,201	27,057	19,913	19,969	0.3%	3.9%
35	Oklahoma	2,423	2,426	2,627	3,031	3,096	2,334	2,563	9.8%	0.5%
18	Oregon	7,247	9,436	9,773	10,069	9,842	6,998	8,160	16.6%	1.6%
10	Pennsylvania	13,611	15,207	16,090	17,926	17,667	13,214	13,024	-1.4%	2.6%
23	Puerto Rico	na	5,195	5,593	6,057	6,742	4,624	6,699	44.9%	1.3%
45	Rhode Island	1,049	1,028	1,011	1,198	1,209	903	906	0.3%	0.2%
24	South Carolina	6,014	7,315	7,512	8,455	8,575	6,526	5,905	-9.5%	1.2%
48	South Dakota	338	438	477	557	478	344	359	4.3%	0.1%
19	Tennessee	7,686	8,828	8,974	10,221	10,542	7,854	7,858	0.1%	1.6%
2	Texas	59,972	68,819	74,001	84,309	86,853	64,708	64,948	0.4%	12.8%
53	U.S. Virgin Islands	na	240	214	265	105	88	126	42.6%	0.0%
34	Utah	2,510	3,650	3,670	3,624	3,522	2,493	2,604	4.5%	0.5%
32	Vermont	2,980	3,456	3,527	4,097	3,933	2,847	3,188	11.9%	0.6%
17	Virginia	11,343	12,906	13,529	14,148	13,642	10,301	9,432	-8.4%	1.9%
3	Washington	26,149	24,847	28,856	36,047	41,759	29,125	29,660	1.8%	5.9%
44	West Virginia	1,741	2,201	2,357	2,524	2,290	1,796	1,492	-16.9%	0.3%
20	Wisconsin	8,744	10,149	10,657	11,198	10,664	7,819	7,694	-1.6%	1.5%
49	Wyoming	378	426	529	612	544	424	355	-16.2%	0.1%
	Total	507,125	583,031	622,827	687,598	680,474	502,420	505,849	0.7%	

Notes:

1. Third quarter year to date (YTD) exports for 1998 and 1999 are based on exports from January 1 through September 30.
2. State export rank is based on third quarter YTD exports for 1999.

Source: Massachusetts Institute for Social and Economic Research processing of U.S. Census Bureau data.

Table 45
Utah Merchandise Exports to Top Ten Purchasing Countries by Industry (Thousands of Dollars): First Three Quarters 1999

Industry Code	Industry	Canada	Germany	Ireland	Japan	Mexico	Netherlands	Philippines	South Korea	Switzerland	United Kingdom
1	Agricultural Products	399	0	0	94	0	0	0	456	0	0
2	Livestock and Livestock Products	0	0	0	0	0	0	0	0	0	0
8	Forestry Products	291	0	0	0	0	0	0	0	0	0
9	Fishing, Hunting, and Trapping	0	0	0	0	0	0	0	0	0	0
10	Metallic Ores and Concentrates	1,967	0	0	0	0	5,554	0	0	0	0
12	Bituminous Coal and Lignite	0	0	0	68,101	0	0	0	0	0	0
14	Nonmetallic Minerals, Except Fuels	1,052	184	0	2,148	112	96	0	384	0	357
20	Food and Kindred Products	22,689	840	0	37,605	4,104	3,546	1,383	4,699	0	328
22	Textile Mill Products	. 556	0	0	0	438	0	0	0	0	0
23	Apparel and Related Products	1,007	737	0	890	84	0	0	0	276	839
24	Lumber and Wood Products, Except Furniture	637	0	0	92	0	0	0	0	0	0
25	Furniture and Fixtures	2,961	0	0	86	291	0	0	0	0	180
26	Paper and Allied Products	27,437	0	0	133	424	28	0	0	0	120
27	Printing, Publishing, and Allied Products	4,860	551	45	871	2,133	183	966	0	113	1,303
28	Chemicals and Allied Products	35,487	3,215	45	37,884	2,106	3,513	17	2,523	376	3,131
29	Petroleum Refining and Related Products	0	0	0	0	0	0	0	0	0	37
30	Rubber and Misc. Plastic Products	7,578	45	0	5,272	2,872	108	0	298	48	1,769
31	Leather and Leather Products	1,296	0	1,279	5,499	308	3,241	0	0	0	123
32	Stone, Clay, Glass, and Concrete Products	1,181	560	0	598	596	0	0	198	0	1,246
33	Primary Metal Products	33,502	222	411	1,132	4,734	5,913	0	5,029	239,515	546,419
34	Fabricated Metal Products, Except Mach./Tran.	9,853	806	646	1,484	1,321	568	0	182	0	2,819
35	Industrial Machinery, Except Electrical	46,309	6,946	25,336	24,475	10,340	6,119	369	2,031	271	8,549
36	Electrical/Electronic Machinery, Equip., and Supplies	54,353	14,066	13,492	15,634	6,789	6,698	56,207	6,166	291	17,177
37	Transportation Equipment	127,012	18,869	1,123	66,582	16,459	48,380	0	29,160	830	28,445
38	Instruments and Related Products	28,453	5,765	5,547	49,208	2,060	12,720	548	2,098	4,574	11,437
39	Misc. Manufactured Commodities	14,349	2,982	195	6,714	773	946	70	716	2,060	4,041
91	Scrap and Waste	0	0	0	0	1,758	0	0	0	0	0
92	Used or Second-Hand Merchandise	262	0	0	947	0	0	0	0	0	0
	Special Classification Provisions	21,225	2,555	186	1,232	1,582	591	0	0	128	3,489
	Total	444,713	58,341	48,305	326,681	59,284	98,203	59,559	53,942	248,481	631,809

Source: Massachusetts Institute for Social and Economic Research processing of U.S. Census Bureau data.

Prices, Inflation and Cost of Living

Overview

Inflation increased in 1999 to 2.2%, compared to 1.6% in 1998, as measured by the CPI-U. The gross domestic product chain-type price deflator increased 1.3% in 1999. Utah's cost-of-living index in selected cities remained near the national average. The second quarter 1998 composite index (national average equals 100) for Salt Lake City was 106.6; Provo-Orem, 97.9; Cedar City, 92.8; St. George, 101.8; and Logan, 101.2.

1999 Summary

Consumer Price Index. Due to another year of strong economic growth, a fully employed economy, and rising wages, the national rate of inflation increased slightly in 1999. The Consumer Price Index (CPI-U) is estimated to have increased by 2.2% in 1999, measured on an annual average basis, compared with 1.6% in 1998, and 1.7% in 1997. Although inflation picked up in 1999 relative to 1998 and 1997, during the 1990s it has been higher in every year except 1998 and 1997. So inflation is still very low.

Economic factors contributing to the low inflation rate include: (1) sustained labor productivity growth offsetting much of the gain in wages; (2) a relatively strong U.S. dollar exchange rate lowering the price of imported goods; (3) intense international and domestic competition minimizing sellers' ability to raise prices; and (4) continuing weakness in commodity prices.

Gross Domestic Product Deflators. In 1999 the Gross Domestic Product (GDP) chain-type implicit price deflator is estimated to increase 1.3% compared with 1.2% in 1998. The GDP personal consumption deflator in 1999 is expected to rise approximately 1.5% compared with 0.9% in 1998. Beginning in 1996, the Real Gross Domestic Product was reported using a chain-weighted inflation index. Under this method, the composition of economic output (the weighting) is updated each year.

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. The index consists of price comparisons for a single point in time, but does not measure inflation or price changes over time. The cost of consumer goods and services in the urban areas is measured and compared with a national average of 100.

The composite index is based on six components: 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.

The second-quarter 1999 composite index for Salt Lake City was 106.6, slightly higher than the national average for the quarter. Other Utah cities included in the second-quarter survey were Cedar City (92.8), Logan (101.2), Provo-Orem (97.9), and St. George (101.8).

2000 Outlook

The national Consumer Price Index for Urban Consumers (CPI-U) in 2000 is forecast to increase 2.4%, higher than the 2.2% increase in 1999, but still quite low. Labor productivity growth will have the most pronounced influence in restraining inflation. The exchange rate and competition between sellers will continue to be restraining influences. The oil market is currently very tight, which has sent the price of crude oil from the $15 per barrel range in 1998 to $25 recently. If the East Asian economic recovery picks up, then demand for oil will increase and the price of oil will continue to rise. So oil may no longer be a restraining influence on overall inflation, as it has been for most of the 1990s.

Significant Issues

Relationship between Measures of Inflation and Production–the revised CPI and GDP. For most of the 1990s, those interested in economic policy have been concerned that the CPI systematically overstates inflation. In addition to misleading the public about inflation, this bias in the CPI has lead to an understatement of gross domestic product (GDP). The principal sources of CPI bias are quality improvements and the changing composition of purchases. Even though better quality products cost more, the increased price shouldn't be counted as inflation, but the CPI has been counting these improvements as inflation. This is part of the reason GDP has been understated. Also, when the price of one good rises relative to others, people tend to purchase less of the higher price good. But the CPI was constructed as if people purchase the same amount, thus understating the amount available to spend on other goods and overstating the decline in purchasing power. This is another part of the reason GDP has been understated. Correcting the bias in the CPI increased estimated GDP growth from 3.1% to 3.5% between 1983 and 1998.[1]

Federal Reserve's Inflation Concerns. During much of 1999, the Federal Reserve policy was biased toward increasing interest rates. At its November meeting the federal funds rate (the rate banks charge each other on overnight loans) was increased from 5.25% to 5.50%, but the Federal Reserve's bias changed to neither increasing or decreasing interest rates. Despite its neutral stance on interest rates, the Federal Reserve remains concerned that tight labor markets and rising commodity prices, especially oil, could rekindle inflation.

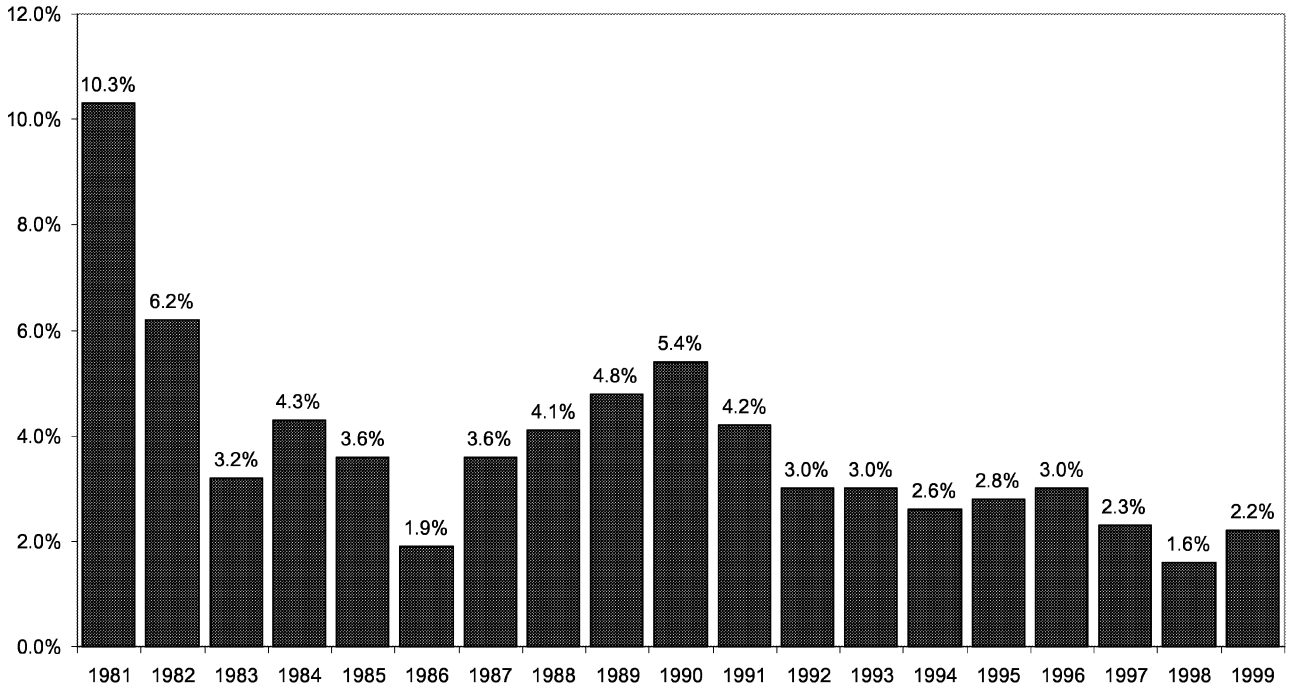
No Statewide Measure of Inflation. Measuring and understanding price changes over time and cost of living for a point in time are critical to understanding economic issues. In Utah there is no statistically significant, statewide measure of inflation (price change over time). The federal Bureau of Labor Statistics does sample price changes in Utah as part of the national indices of inflation, but the sample size is too small to render meaningful results at the state level. Consequently, monetary measures in Utah are generally adjusted for inflation using national indices such as the Consumer Price Index (CPI) and Gross Domestic Product Deflators.

Conclusion

Although inflation increased a bit in 1999 and is expected to increase a bit more in 2000, it is still very low. As long as CPI inflation remains below 3%, as it has in 1999 and will in 2000, it will not be an economic concern. While the increase in CPI inflation from a near post World War II low of 1.6% in 1998 to an estimated 2.2% in 1999 and a forecasted 2.4% in 2000 indicates inflation is not dead, it will not be a source of trouble in the near term. ✻

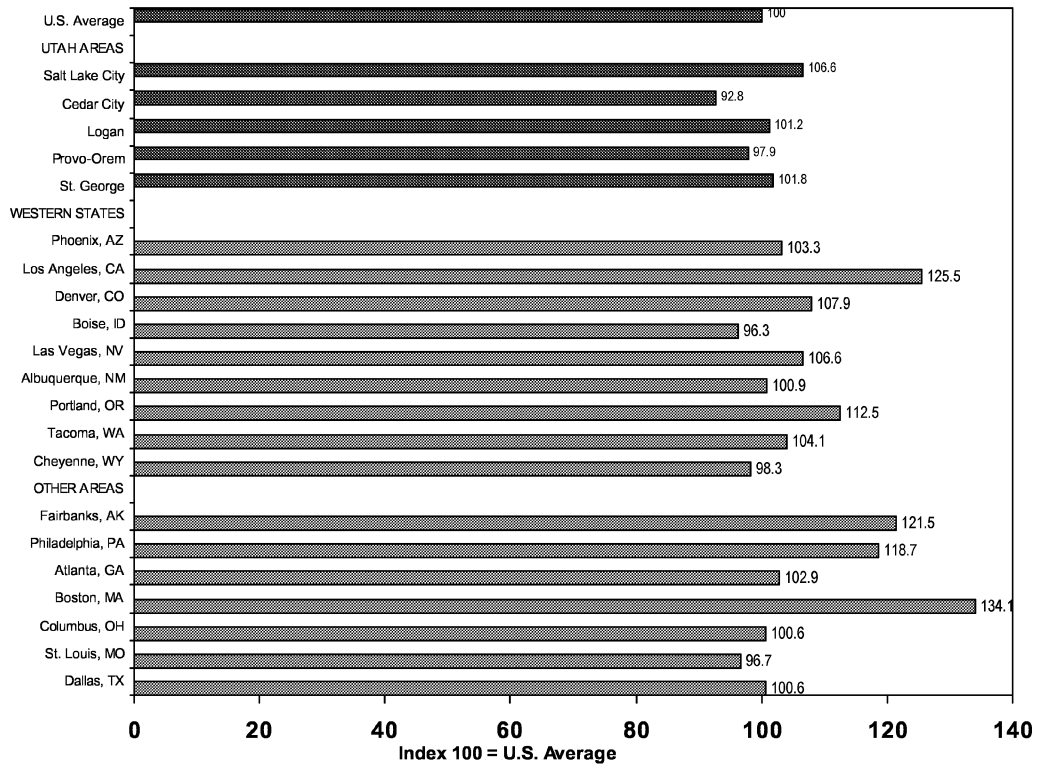
[1] Federal Reserve Bank of St. Louis, National Economic Trends (November 1999).

Figure 33
U.S. Consumer Price Index (CPI-U): Average Annual Percent Change



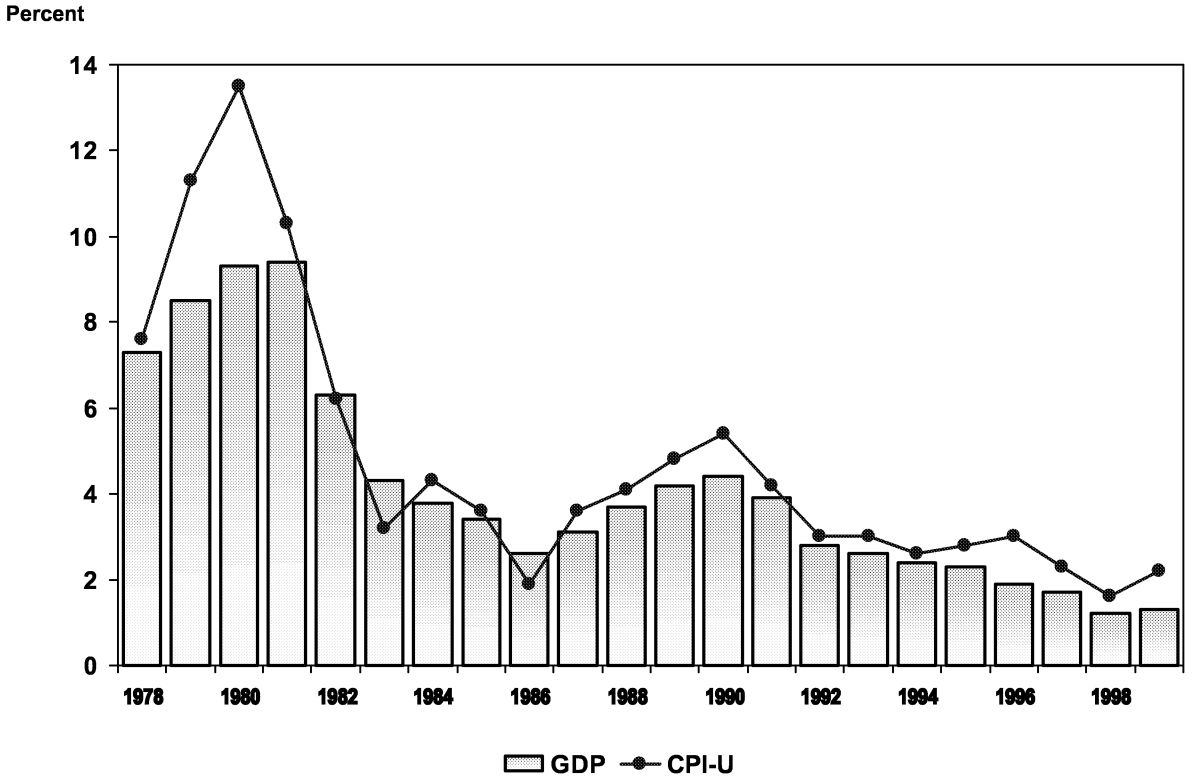
Source: U.S. Bureau of Labor Statistics

Figure 34
Cost of Living Comparisons for Selected Metropolitan Areas: Second Quarter 1999



Source: American Chamber of Commerce Researchers Association (ACCRA)

Figure 35
CPI-U and GDP Deflator Inflation



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Council of Economic Advisors

Table 46
U.S. Consumer Price Index for All Urban Consumers (1982-1984=100): (Not Seasonally Adjusted)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual Avg. Index	Dec.-Dec.	Annual Avg. Percent Change
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	30.4	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	120.5	118.3	4.4	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	149.7	149.7	148.2	2.7	2.6
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7	153.6	153.5	152.4	2.5	2.8
1996	154.4	154.9	155.7	156.3	156.6	156.7	157.0	157.3	157.8	158.3	158.6	158.6	156.9	3.3	3.0
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5	161.3	160.5	1.7	2.3
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0	164.0	163.9	163.0	1.6	1.6
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3	168.3(e)	166.6(e)	2.7(e)	2.2(e)

(e) = estimate

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

Table 47
Gross Domestic Product Price Deflators: 1996=100

Year	Gross Domestic Product (Chain-Type) Deflator	Change from Previous Year	Personal Consumption Expenditures (Chain-Type) Deflator	Change from Previous Year
1969	27.81		27.02	
1970	29.29	5.3	28.30	4.7
1971	30.83	5.3	29.59	4.6
1972	32.18	4.4	30.67	3.6
1973	34.01	5.7	32.37	5.5
1974	36.94	8.6	35.56	9.9
1975	40.37	9.3	38.43	8.1
1976	42.78	6.0	40.68	5.9
1977	45.58	6.5	43.43	6.8
1978	48.75	6.9	46.42	6.9
1979	52.69	8.1	50.39	8.6
1980	57.39	8.9	55.62	10.4
1981	62.71	9.3	60.49	8.8
1982	66.52	6.1	63.79	5.5
1983	69.24	4.1	66.63	4.5
1984	71.80	3.7	69.06	3.6
1985	74.05	3.1	71.42	3.4
1986	75.67	2.2	73.13	2.4
1987	77.84	2.9	75.81	3.7
1988	80.46	3.4	78.73	3.9
1989	83.56	3.9	82.22	4.4
1990	86.85	3.9	86.02	4.6
1991	89.76	3.4	89.03	3.5
1992	91.70	2.2	91.44	2.7
1993	94.17	2.7	93.94	2.7
1994	96.13	2.1	95.86	2.0
1995	98.19	2.1	98.01	2.2
1996	100.00	1.8	100.00	2.0
1997	101.66	1.7	101.67	1.7
1998	102.86	1.2	102.63	0.9
1999(e)	104.20	1.3	104.20	1.5

(e) = estimate

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

Table 48
American Chamber of Commerce Researchers Association
Cost of Living Comparisons for Selected Metropolitan Areas: Second Quarter 1999

Component Index Weights:	100% All Items	16% Groceries	28% Housing	8% Utilities	10% Trans-portation	5% Health Care	33% Misc. Goods & Services
U.S. Average	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Utah Areas							
Salt Lake City	106.6	106.5	117.8	79.6	103.8	99.7	105.6
Cedar City (nonmetro)	92.8	106.4	76.9	77.2	100.8	91.3	101.4
Logan (nonmetro)	101.2	102.7	111.3	83.4	99.7	90.2	98.3
Provo-Orem	97.9	99.3	99.7	78.9	111.3	87.8	97.7
St George (nonmetro)	101.8	106.8	100.8	94.7	104.7	95.9	102.0
Western Areas							
Phoenix AZ	103.3	103.7	101.4	103.2	123.0	113.9	97.3
Los Angeles CA	125.5	114.1	155.0	119.5	125.3	114.5	109.2
Denver CO	107.9	104.9	125.7	87.9	104.9	123.2	97.8
Boise ID	96.3	98.0	95.0	78.3	100.9	109.5	97.6
Las Vegas NV	106.6	115.1	96.8	87.0	131.8	125.1	105.1
Albuquerque NM	100.9	102.5	103.3	95.9	98.1	99.9	100.2
Portland OR	112.5	108.5	123.4	81.1	123.4	122.9	107.8
Tacoma WA	104.1	111.8	101.4	71.6	116.7	132.4	102.3
Cheyenne WY	98.3	100.0	96.2	81.0	97.3	105.0	102.7
Other Areas							
Fairbanks AK	121.5	114.6	124.6	141.3	113.1	159.4	114.2
Philadelphia PA	118.7	108.3	137.5	144.6	108.4	98.0	107.8
Atlanta GA	102.9	105.1	102.7	101.1	100.9	113.1	101.6
Boston MA	134.1	113.8	182.1	135.8	115.0	131.1	109.0
Columbus OH	100.6	104.1	98.5	124.5	99.3	87.6	97.3
St. Louis MO	96.7	99.6	96.4	96.3	93.9	105.5	95.1
Dallas TX	100.6	99.6	95.5	109.0	103.2	107.0	101.6

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

Social Indicators

Overview

Quality of life is a subjective notion and measuring it is difficult. However, the tie between economic performance and quality of life is indisputable. Another year of strong and stable economic growth brought with it opportunites and threats to the quality of life in Utah. Good economic times allow planning for the future in many ways including investing in education and transportation, but also bring challenges such as congestion, increased costs of housing and fears of crime. Indeed, during the past several years Utahns have consistently identified growth, crime and education as the most important issues facing the state.

Utah Quality of Life Information

Growth is of Concern to Utahns. The *Utah Consumer Survey* is conducted by Valley Research, Inc. and provides valuable information about consumer sentiment in addition to: policy issues, income and employment, purchase intentions and spending, motor vehicles, home buying and building, health care/health insurance, and demographic characteristics. The survey has been administered for several years and allows comparisons over time. The most recent survey was during October 1999. Interviews were conducted by telephone with 501 randomly selected adults throughout Utah. The survey report details the answers given by respondents. One of the questions asked is "what is the most important issue facing Utah today?" Growth has been identified as the most important issue facing Utah in 15 of the last 16 quarterly surveys. Other issues that were identified as being important were education and crime/legal.

Utah's Children are Utah's Future. One of the benefits to the current economic prosperity in Utah is that it allows the ability to invest in building our human capital. There is substantial agreement among Utah economists that it is Utah's fast-growing and productive workforce that is the state's greatest asset. The strong economic performance experienced throughout the 19990s allows the state to focus on and invest in a quality educational system.

The Annie E. Casey Foundation tracks indicators of child well-being by state. The Foundation uses 10 indicators: low birth weight babies, infant mortality, child death rate, teen violent death rates, teen birth rates, juvenile violent crime arrest rates, high school dropouts, idle teens, poverty, and single-parent headed families. Utah ranked fifth among states in caring for its children.

Current Data on Social Well-Being

Crime. Statistics for 1998 from the FBI's uniform crime reports show the rate of violent crimes per 100,000 persons to be 314.2 in Utah, significantly below the U.S. rate of 566. Fifteen states had lower rates than Utah.

Education. In 1998, Utah had the sixth highest percentage of persons age 25 and over with at least a high school degree (89.3%). Utah is ranked 13th for the percentage with a bachelor's degree or higher (27.6%).

Home Ownership. Home ownership rates for 1998 show that Utah has the 9th highest percent of home owners at 73.7%. The rate for the nation is 66.3%. The lowest rates were in D.C., Hawaii, California and New York.

Vital Statistics and Health. Utah's unique age structure affects its ranking among other states on many vital statistics. Utah has the highest percentage of the population under 18 years of age (33.4% in 1998) of any state and lowest median age (26.7 in 1998). Utah also has among the lowest percentage of the population age 65 and over(8.8% in 1998). The vital statistics, excluding health insurance coverage, are from the National Center for Health Statistics

Births. The birth rate in 1998 was estimated to be the highest of all states at 21.5 births per 1,000 people. Texas had the second highest rate at 17.3. The U.S. rate is 14.6.

Deaths. The overall death rate in Utah was 5.6 per 1,000 people in 1998, second lowest of the states. The age-adjusted rate was 4.1 per 1,000 and was also favorable among states, ranking third lowest. The infant mortality rate (deaths to infants less than 1 year-old per 1,000 live births) was 6.0 in Utah in 1996, ten states had lower rates. Utah ranks among the best for death from heart disease (second lowest) and cancer (lowest). The death rate per 100,000 people in 1996 from heart disease was 144.3 and from cancer, 105.2 in Utah. The death rate per 100,000 people in the U.S. in 1996 from heart disease was 276.4 and from cancer, 203.4.

Health Insurance Coverage. The Bureau of the Census estimated that approximately 13.1% of the Utah population was without health insurance coverage (a 3 year average for 1996-1998). Utah ranked 20th among states. The U.S. average is 16.0%.

Poverty. Utah is among the states with the lowest poverty rates. Statistics from the *Current Population Survey* show 8.5% of the population was in poverty in Utah for the 1996-1998 average. Only one state had a lower poverty rate (New Hampshire, 8.4%). In the U.S., it is estimated that 13.2% of the population was in poverty.

Public Assistance. Only 3.6% of the population were recipients of public aid in Utah in 1994, according to *Current Population Survey* data. With that figure Utah ranks 48th from the highest. The U.S. average was 7.7%. There were approximately 28,000 recipients of Temporary Assistance to Needy Families (TANF) in 1998, Utah rank 48th among states. Approximately 92,000 people in Utah received benefits from the Federal Food Stamp Program which dispersed $75 million worth of benefits in 1998. Utah ranked 13th highest in the number of people and the amount of benefits for the Food Stamp Program.

Significant Issues

The data shown as social indicators in this chapter are presented here to stimulate thought on the interaction of economic performance and social well-being. No effort has been made to give weights to the measure, or to develop a composite index that would allow the data to be compared over time or by geographic area.

Current Population Survey Data. It should also be noted that the source of the data on educational attainment, poverty, public aid, health insurance coverage, and home ownership is the U.S. Bureau of the Census and U.S. Bureau of Labor Statistics. These agencies provide state rankings from the *Current Population Survey.* The *Current Population Survey* is a monthly survey of approximately 50,000 households nationwide. The sampling variability in state estimates from the survey is problematic because of the small sample size. ✻

Table 49
Social Indicators: Crime, Education, Homeownership

	CRIME				EDUCATION				HOME OWNERSHIP	
					Educational Attainment, Persons 25 Years Old and Over, 1998:					
	Violent Crime* per 100,000 People,1998 (1)		Child Abuse Children that are Subject of a Report: 1997 (2)		High School or Higher (3)		Bachelor's Degree or Higher (3)		Home Ownership Rates 1998 (3)	
	Rate	Rank	Number	Rank	Percent	Rank	Percent	Rank	Percent	Rank
U.S.	566.0	–	2,700,369	–	82.8	–	24.4	–	66.3	–
Alabama	512.1	30	37,873	23	78.8	43	20.6	38	72.9	10
Alaska	653.9	41	11,616	10	90.6	2	24.2	20	66.3	38
Arizona	577.9	35	80,622	38	81.9	35	21.9	32	64.3	41
Arkansas	490.2	29	36,340	22	76.8	50	16.2	51	66.7	35
California	703.7	42	480,443	45	80.1	40	26.4	17	56.0	48
Colorado	377.9	20	18,893	12	89.6	4	34.0	2	65.2	39
Connecticut	366.3	19	34,152	21	83.7	30	31.4	4	69.3	27
Delaware	762.4	44	9,657	6	85.2	21	25.1	19	71.0	18
District of Colombia	1,718.5	51	11,518	9	83.8	29	36.5	1	40.3	51
Florida	938.7	49	186,726	43	81.9	35	22.5	26	66.9	34
Georgia	572.7	34	79,848	36	80.0	41	20.7	37	71.2	17
Hawaii	246.9	7	4,221	2	84.6	23	24.0	21	52.8	49
Idaho	282.2	11	32,522	20	82.7	33	20.3	41	72.6	11
Illinois	807.7	47	115,344	40	84.2	26	25.8	18	68.0	31
Indiana	431.0	26	47,170	30	83.5	31	17.7	48	72.6	11
Iowa	311.5	14	(NA)	–	87.7	11	20.3	41	72.1	13
Kansas	397.0	21	45,459	28	89.2	7	28.5	9	66.7	35
Kentucky	284.0	12	45,001	27	77.9	47	20.1	43	75.1	3
Louisiana	779.5	45	46,287	29	78.6	44	19.5	45	66.6	37
Maine	125.8	4	10,041	7	86.7	13	19.2	47	74.6	6
Maryland	796.6	46	48,528	31	84.7	22	31.8	3	68.7	29
Massachusetts	621.3	38	64,008	34	85.6	18	31.0	5	61.3	46
Michigan	620.8	37	147,628	41	85.4	20	22.1	30	74.4	7
Minnesota	310.2	13	26,252	16	89.4	5	31.0	5	75.4	2
Mississippi	410.7	22	(NA)	–	77.3	48	19.5	45	75.1	3
Missouri	555.7	32	80,185	37	82.9	32	22.4	28	70.7	19
Montana	138.8	5	21,568	13	89.1	8	23.9	22	68.6	30
Nebraska	451.4	28	16,654	11	87.7	11	20.9	36	69.9	23
Nevada	643.6	40	(NA)	–	89.1	8	20.6	38	61.4	45
New Hampshire	107.2	3	9,015	5	84.0	28	26.6	16	69.6	25
New Jersey	440.1	27	70,024	35	86.5	15	30.1	8	63.1	43
New Mexico	961.4	50	23,454	15	79.6	42	23.1	25	71.3	14
New York	637.8	39	234,205	44	81.5	37	26.8	15	52.8	49
North Carolina	579.4	36	104,950	39	81.4	38	23.3	23	71.3	14
North Dakota	89.3	1	6,870	4	84.3	25	22.5	26	68.0	31
Ohio	362.5	18	(NA)	–	86.2	17	21.5	34	70.7	19
Oklahoma	539.4	31	51,001	32	84.6	23	20.5	40	69.7	24
Oregon	419.8	23	27,499	18	85.5	19	27.7	12	63.4	42
Pennsylvania	420.5	24	22,688	14	84.1	27	22.1	30	73.9	8
Rhode Island	312.1	15	10,182	8	80.7	39	27.8	11	59.8	47
South Carolina	903.2	48	39,333	25	78.6	44	21.3	35	76.6	1
South Dakota	154.3	6	4,874	3	86.3	16	21.8	33	67.3	33
Tennessee	715.0	43	32,383	19	76.9	49	16.9	49	71.3	14
Texas	564.6	33	162,974	42	78.3	46	23.3	23	62.5	44
Utah	314.2	16	27,219	17	89.3	6	27.6	13	73.7	9
Vermont	106.3	2	2,309	1	86.7	13	27.1	14	69.1	28
Virginia	325.7	17	51,227	33	82.6	34	30.3	7	69.4	26
Washington	428.5	25	38,200	24	92.0	1	28.1	10	64.9	40
West Virginia	248.6	9	(NA)	–	76.4	51	16.3	50	74.8	5
Wisconsin	249.0	10	43,406	26	88.0	10	22.3	29	70.1	21
Wyoming	247.6	8	(NA)	–	90.0	3	19.8	44	70.0	22

Note: Rank is most favorable value to least favorable. When states share the same rank, the next lower rank is omitted.
* Violent crimes are offenses of murder, forcible rape, robbery, and aggravated assault.

Table 50
Social Indicators: Health

	VITAL STATISTICS AND HEALTH												
	Births per 1,000 People, 1998 (1)		Deaths per 1,000 People, 1998 (1)				Infant Deaths per 1,000 Live Births, 1996 (2)		Death Rate per 100,000 People, 1996: Heart Disease (2)		Cancer (2)		Persons Without Health Insurance, 3-year Average 1996-98(3)
					Age-Adjusted								
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Percent
U.S.	14.6	–	8.7	–	4.7	–	7.3	–	276.4	–	203.4	–	16.0
Alabama	14.3	21	10.1	42	5.7	47	10.5	49	315.9	41	222.4	37	15.1
Alaska	16.2	5	4.2	1	4.4	15	7.2	24	85.0	1	106.4	2	16.3
Arizona	16.8	3	8.2	15	4.6	24	7.6	30	231.3	12	187.9	12	24.3
Arkansas	14.5	19	10.8	48	5.5	45	9.3	48	331.6	44	237.5	46	21.6
California	16.0	6	*	–	*	–	5.9	9	214.0	9	160.2	6	21.2
Colorado	15.1	13	6.7	3	4.2	5	6.6	18	172.6	3	147.9	3	15.6
Connecticut	13.4	38	9.1	30	4.3	10	6.4	16	303.2	37	218.2	35	11.8
Delaware	14.2	23	8.9	23	5.0	36	7.6	30	277.9	26	232.9	44	13.7
District of Colombia	14.7	16	11.4	49	6.7	50	14.9	51	298.0	33	254.0	48	16.0
Florida	13.1	40	10.6	47	4.6	23	7.5	28	345.4	48	261.8	51	18.7
Georgia	16.0	6	7.9	10	5.4	41	9.2	46	238.2	14	169.1	9	17.6
Hawaii	14.7	16	6.8	4	3.7	1	5.8	8	206.6	7	157.2	4	8.7
Idaho	15.8	9	7.5	6	4.2	9	7.4	26	200.5	6	167.1	7	17.3
Illinois	15.2	12	8.7	19	4.8	30	8.6	42	289.8	30	209.2	26	12.9
Indiana	14.3	21	8.9	24	4.9	33	8.7	43	287.9	29	213.8	31	12.1
Iowa	13.0	41	9.9	40	4.2	7	7.0	20	322.0	42	227.7	40	11.0
Kansas	14.6	18	9.2	32	4.5	21	8.3	37	281.4	27	207.8	25	11.1
Kentucky	13.8	33	9.6	37	5.3	40	7.5	27	306.7	40	232.4	43	14.8
Louisiana	15.3	11	9.2	33	5.8	48	9.0	45	270.4	21	214.1	32	19.8
Maine	11.0	51	9.8	39	4.6	25	4.4	1	284.8	28	237.4	45	13.2
Maryland	14.0	27	8.2	14	5.0	35	8.5	39	235.5	13	200.4	16	13.8
Massachusetts	13.3	39	9.0	27	4.2	6	5.0	2	276.5	25	229.0	41	11.8
Michigan	13.6	36	8.7	20	4.8	32	8.1	36	292.0	32	204.1	20	11.2
Minnesota	13.8	33	7.9	9	4.0	2	5.9	9	215.4	10	189.9	13	9.6
Mississippi	15.6	10	10.1	43	6.1	49	11.0	50	351.2	49	212.0	30	19.6
Missouri	13.9	30	10.1	44	5.1	37	7.6	30	340.1	45	223.2	38	12.1
Montana	12.1	48	9.0	26	4.5	20	7.0	20	243.7	18	201.1	17	17.6
Nebraska	14.2	23	9.1	31	4.3	11	8.7	43	302.8	36	201.3	18	10.4
Nevada	16.4	4	8.3	16	5.4	41	6.2	13	241.0	17	199.1	15	18.1
New Hampshire	12.3	46	8.1	13	4.4	16	5.0	2	251.0	19	205.3	22	10.9
New Jersey	14.4	20	8.8	21	4.4	17	6.9	19	298.8	34	229.3	42	16.5
New Mexico	16.0	6	7.7	8	4.8	29	6.2	13	186.5	4	159.9	5	22.0
New York	14.2	23	8.6	18	4.4	19	7.0	20	345.0	47	209.8	28	17.2
North Carolina	14.8	14	9.0	28	5.2	38	9.2	46	271.3	22	207.5	24	15.5
North Dakota	12.4	45	9.3	34	4.2	4	5.3	5	291.7	31	216.3	34	13.1
Ohio	13.6	36	9.5	36	4.9	34	7.7	33	306.2	39	226.7	39	11.1
Oklahoma	14.8	14	10.2	45	5.3	39	8.5	39	342.8	46	215.9	33	17.7
Oregon	13.8	33	9.0	25	4.5	22	5.6	6	239.4	15	209.5	27	14.3
Pennsylvania	12.2	47	10.6	46	4.7	27	7.8	35	362.2	50	253.1	47	10.0
Rhode Island	12.7	44	9.7	38	4.3	13	5.2	4	329.7	43	254.1	49	10.0
South Carolina	14.0	27	9.1	29	5.5	44	8.4	38	273.0	23	206.0	23	16.4
South Dakota	13.9	30	9.3	35	4.4	18	5.7	7	300.0	35	210.4	29	11.9
Tennessee	14.2	23	10.0	41	5.6	46	8.5	39	305.3	38	218.4	36	13.9
Texas	17.3	2	7.2	5	4.7	27	6.3	15	221.8	11	167.3	8	24.4
Utah	21.5	1	5.6	2	4.1	3	6.0	11	144.3	2	105.2	1	13.1
Vermont	11.1	50	8.4	17	4.3	12	7.1	23	252.6	20	205.0	21	10.1
Virginia	13.9	30	8.0	12	4.8	30	7.7	33	240.8	16	190.4	14	13.1
Washington	14.0	27	7.5	7	4.2	8	6.0	11	212.1	8	181.9	11	12.4
West Virginia	11.5	49	11.5	50	5.5	43	7.4	26	386.4	51	255.9	50	16.5
Wisconsin	12.9	43	8.8	22	4.3	14	7.3	25	275.2	24	203.2	19	9.4
Wyoming	13.0	41	8.0	11	4.7	26	6.4	16	197.1	5	180.5	10	15.3

Note: Rank is most favorable value to least favorable. When states share the same rank, the next lower rank is omitted.

Sources: (1) National Center for Health Statistics, "National Vital Statistics Report"; (2) Bureau of the Census, "Statistical Abstract of the United States, 1999"; (3) U.S. Bureau of the Census, "March 1998 Current Population Survey".

Table 51
Social Indicators: Poverty and Public Assistance

	POVERTY		PUBLIC ASSISTANCE					
			Temporary Assistance for Needy Families (TANF)		Federal Food Stamp Program			
	All Ages in Poverty 3-year Average 1996-1998 (1)		June 1999 (2)		1998 (2) Thousands		1998 (2) Millions of Dollars	
	Percent	Rank	Recipients	Rank	Persons	Rank	Benefits	Rank
U.S.	13.2	–	6,889,315	–	19,744	–	16,822	–
Alabama	14.7	38	45,472	23	427	39	357	38
Alaska	8.8	6	25,393	10	42	4	50	8
Arizona	18.1	47	87,894	31	296	29	251	29
Arkansas	17.2	45	29,350	13	256	25	206	25
California	16.3	42	1,735,103	51	2,259	51	2,018	51
Colorado	9.3	8	35,469	19	191	20	157	20
Connecticut	9.9	13	83,458	29	196	22	162	21
Delaware	9.5	10	15,599	7	46	6	34	4
District of Colombia	22.7	51	46,840	24	85	12	85	15
Florida	13.9	35	173,341	44	991	48	849	48
Georgia	14.3	36	130,210	39	632	43	535	43
Hawaii	12.3	29	44,229	21	122	17	178	23
Idaho	13.2	32	4,365	2	62	8	47	7
Illinois	11.1	22	344,320	49	923	47	848	47
Indiana	8.6	3	108,986	35	313	30	263	31
Iowa	9.4	9	57,356	27	141	18	110	17
Kansas	10.1	15	32,532	16	119	16	83	14
Kentucky	15.5	40	93,444	33	412	37	346	37
Louisiana	18.6	49	100,577	34	537	41	468	42
Maine	10.6	18	35,313	18	115	15	100	16
Maryland	8.6	5	89,003	32	323	31	282	33
Massachusetts	10.3	16	123,933	36	293	28	222	26
Michigan	10.8	21	244,621	45	772	45	588	44
Minnesota	9.9	12	135,202	40	220	23	173	22
Mississippi	18.3	48	33,853	17	329	32	254	30
Missouri	10.4	17	125,981	38	411	36	345	36
Montana	16.4	43	14,079	5	62	9	52	9
Nebraska	10.8	20	32,228	15	95	14	68	12
Nevada	9.9	11	18,308	9	72	10	63	11
New Hampshire	8.4	1	15,416	6	40	3	30	3
New Jersey	9.0	7	159,721	42	425	38	384	39
New Mexico	22.4	50	77,896	28	175	19	145	19
New York	16.6	44	795,030	50	1,627	49	1,487	50
North Carolina	12.5	30	124,432	37	528	40	422	40
North Dakota	13.2	33	8,227	4	34	2	25	2
Ohio	11.6	25	258,773	46	734	44	607	45
Oklahoma	14.8	39	50,910	26	288	27	231	28
Oregon	12.8	26	44,565	22	238	24	198	24
Pennsylvania	11.3	24	304,451	48	907	46	765	46
Rhode Island	11.8	27	49,897	25	73	11	58	10
South Carolina	13.3	34	40,293	20	333	33	264	32
South Dakota	13.0	31	7,625	3	45	5	37	6
Tennessee	14.5	37	147,137	41	538	42	438	41
Texas	16.1	41	288,525	47	1,636	50	1,427	49
Utah	8.5	2	28,909	12	92	13	75	13
Vermont	10.6	19	17,585	8	46	7	34	5
Virginia	11.3	23	83,733	30	397	35	307	34
Washington	10.0	14	164,323	43	362	34	320	35
West Virginia	17.6	46	31,032	14	269	26	224	27
Wisconsin	8.6	4	27,140	11	193	21	130	18
Wyoming	12.0	28	1,621	1	25	1	21	1

Note: Rank is most favorable value to least favorable. When states share the same rank, the next lower rank is omitted.

Sources: (1) U.S. Bureau of the Census, "Current Population Survey"; (2) U.S. Bureau of the Census, "Statistical Abstract of the United States. 1999"

Regional / National Comparisons

Overview

The 1990s have been a period of sustained economic growth for the Mountain Division. The eight mountain states show a population, employment, average annual pay, and per capita personal income growth rates well above national averages. Among the mountain states, Utah ranked well above the national average in population, employment, and personal income growth rates for the 1990s.

Population Growth

The Mountain Division population growth is twice as fast as seen nationally. Between 1997 and 1998, the mountain states grew by 2%, while the nation grew by only 1%. The mountain region's 1998 population of 16.8 million, amounts to 6.2% of the nation's population. For the five years of 1993 to 1998, the population of the mountain states grew by an annual average rate of 2.5%. In fact, the Mountain Division had the five fastest growing states in the nation for this five-year period. Nevada was the fastest growing state in the nation with an annual average population growth rate of 4.8%. Arizona came in second at 3.2%, Utah ranked third at 2.3%, Idaho fourth and Colorado fifth with 2.2% each. New Mexico, which grew at an annual average rate of 1.5%, also grew at a rate well above the national average. Population growth is slowest in Montana and Wyoming at 0.9% and 0.5% respectively on average from 1993 to1998.

Personal Income Growth

Total personal income for the mountain region grew by an annual average rate of 7.4% between 1993 and 1998. This is faster than the national average of 5.5% for the same period and shows that the mountain region is still doing much better than the nation. The mountain region took the four top spots in personal income growth for the 50 states. Nevada lead the nation with a average 5 year personal income growth rate of 9.1%, Arizona came in second with an average rate of 8.2%, Colorado came in third at 7.8%, and Utah fourth with a rate of 7.7%. Idaho personal income also grew well at 5.9%, placing it 15th in the nation. New Mexico grew just below the national rate at 5.4% per year. Wyoming and Montana, had personal income growth rates below the national average for the five-year period. Wyoming an average growth rate of 4.0% and Montana at 3.8%. The mountain states, with a total personal income of $404.3 billion in 1998, accounted for 5.6% of the nation's total personal income of $7.2 trillion.

For the five-year period of 1993-1998, the mountain states had a per capita personal income growth rate of 4.7% per year. This is above the national rate of growth of 4.5% for the same period. Three states accounted for the region's higher than average rate of growth -- Colorado at 5.4%, Utah at 5.2%, and Arizona at 4.9%. These rates of growth ranked these three states first, fifth and 15th respectively among the 50 states. The rest of the mountain states all had per capita personal income growth rates below the national average. From 1993 to 1998, Montana had slowest per capita personal income growth per year in the region at just 2.9%.

The mountain states had an average per capita personal income of $24,045 in 1998. This is 90.8% of the national average of $26,482. Only two mountain states had a per capita personal income above the national average. Colorado had the highest per capita personal income of the eight mountain states at $28,821, 108.8% of the national average. This placed the state 10th nationally. Nevada had a per capita personal income of $27,360 in 1998, 103.3% of the national average, ranking it 15th nationally. No other mountain state is in the top half of the 50 states in per capita personal income. Wyoming ranked 35th at $23,225, Arizona ranked 36th at $23,152, Utah ranked 44th at $21,096, Idaho came in at 45th with per capita income of $21,080, Montana ranked 48th at $20,247, and New Mexico came in at 49th with a per capita income of $20,008.

Median Household Income Growth

For the three-year average of 1996-98, the mountain states had a median household income of about $37,598, or 99.5% of the national average. This average, though virtually equivalent to that of the nation's, belies significant household income differences among the eight mountain states. Median household income among the mountain states for the three-year average of 1996-98 ranked from sixth in the nation to 48th. Colorado had the highest median household income of the mountain states at $44,349 or 117.4% of the national average and placing it sixth in the nation. Utah ranked tenth in the nation, with a median household income of $42,073, or 111.4% of the national average for the 3-year average. Nevada claimed a median household income of $39,751 or 105.2% of the nation and ranked 18th among the states. No other mountain state ranked in the top 30 in median household income. Two mountain states ranked quite low. Montana, with a median household income of $30,348 ranked 47th and New Mexico, with a median household income of $29,386, ranked 48th.

Average Annual Pay

The most complete measure of relative wages is *average annual pay for all workers covered by unemployment insurance programs*. From 1993 to 1998, this measurement of wage growth for the mountain states averaged 4.1% per year compared to 3.9% for the U.S. Mountain states' wages increased from 89.3% of the U.S. average in 1993 to 90.2% by 1998. Growth rates above the national average show the strength of the regional economy relative to that of the nation's. Colorado ranked first among the mountain states and 12th in the nation with an annual average pay of $32,246 in 1998. Nevada, with an average annual pay of $30,201, ranked second among the mountain states and 20th in the nation. Arizona ranked 23rd nationally with $29,317 average pay. No other mountain state ranked in the top 25 among the states in average annual pay. Utah ranked 33rd with an annual average pay of $26,869. Following Utah were New Mexico with an average annual pay of $25,716 and a national ranking of 40th, Idaho with an annual average pay of $24,866 and a rank of 45th, Wyoming with an annual average pay of $24,747 and a rank of 46th and last, Montana with an average annual pay of $22,644 and a rank of 51st.

Nonagricultural Payrolls

Between 1993 and 1998, the mountain states had an average annual employment growth rate of 4.6%. This compares quite favorably to the 2.6% average annual employment growth rate for the nation. Every mountain state, except Wyoming, experienced an employment growth rate above that of the nation. In fact, the mountain states took the top four spots among the 50 states in employment growth rates. Nevada took top honors with an average annual employment growth rate of 6.6%, for the five-year period. Arizona ranked second among the states with an employment growth rate of 5.6%, Utah ranked third at 4.8%, and Colorado fourth

with an employment growth rate of 4.2%. Idaho ranked seventh at 3.6% average per year.

Despite the overall impressive growth rates of the mountain states relative to the nation over the last five years, there are now clear signs that the economies of the mountain states are slowing. Recent U.S. Department of Labor data shows that from November 1998 to November 1999 every mountain state except Wyoming has experienced slower employment growth rates than they had experienced for the five years of 1993-98.

The mountain state's unemployment rate of 4.4% for 1998 was just below the national average of 4.5%. The preliminary unemployment rate (not seasonally adjusted) for November 1999 of 3.6% compares to 3.8% for the nation. Nevertheless, there is substantial divergence among the mountain states in unemployment rates. In 1998, Utah and Colorado had the lowest unemployment rates of the mountain states at 3.8%. Arizona ranked third among the mountain states with an unemployment rate of 4.1%. Nevada ranked fourth in 1998 among the mountain states with an unemployment rate of 4.3%. New Mexico and Montana had the highest unemployment rates in the region with rates of 6.2% and 5.6% respectively. Not very long ago unemployment rate around 6% would have been considered quite good, yet at 6.2% New Mexico has the 4th worst rate of unemployment in the nation.

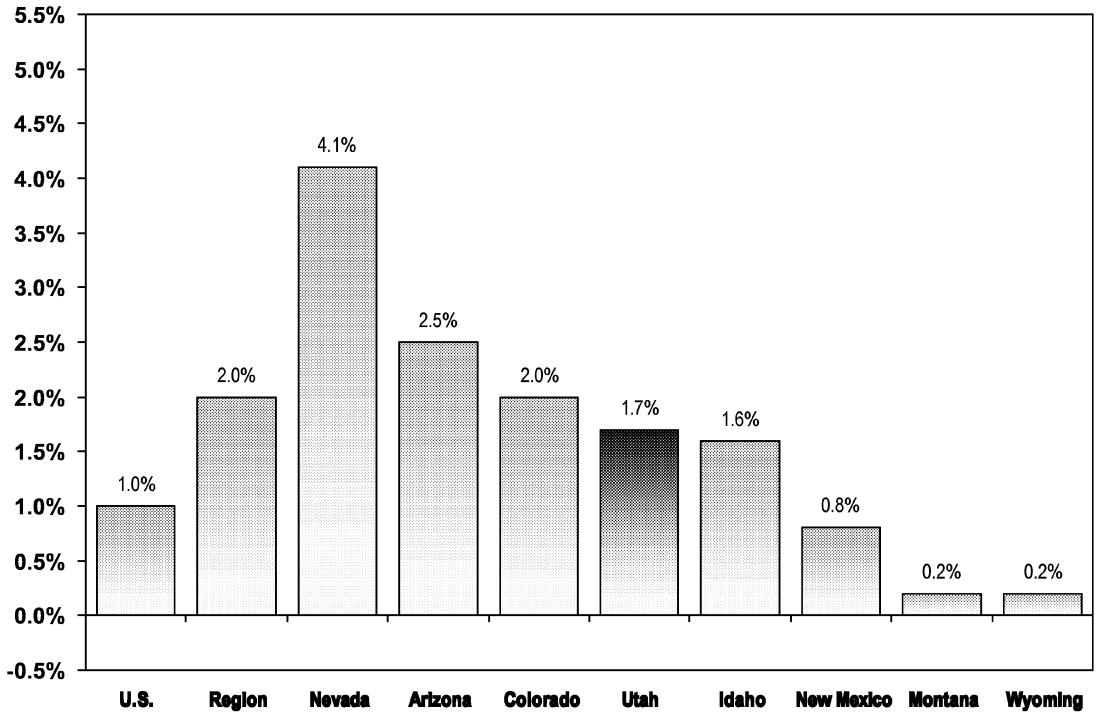
Poverty Rates

For the three-year average - 1996 to 1998, the mountain states had a poverty rate of 13.8%, slightly above the national average of 13.2%. As with median household income, there is a substantial spread among the eight mountain states in poverty rates. Using the three-year average for 1996-98, the mountain states ranged in poverty rates from a low of 8.5% in Utah to a high of 22.4% in New Mexico. Utah's low rate placed it as the second lowest poverty rate in the nation. Following Utah, was Colorado with a poverty rate of 9.3% placing the state eighth in the nation. Nevada and Wyoming also had a poverty rates below the national average. At 9.9%, Nevada ranked 11th in the nation and Wyoming ranked 27th with 12.0% poverty. The other four mountain states had poverty rates above the national average.

Conclusion

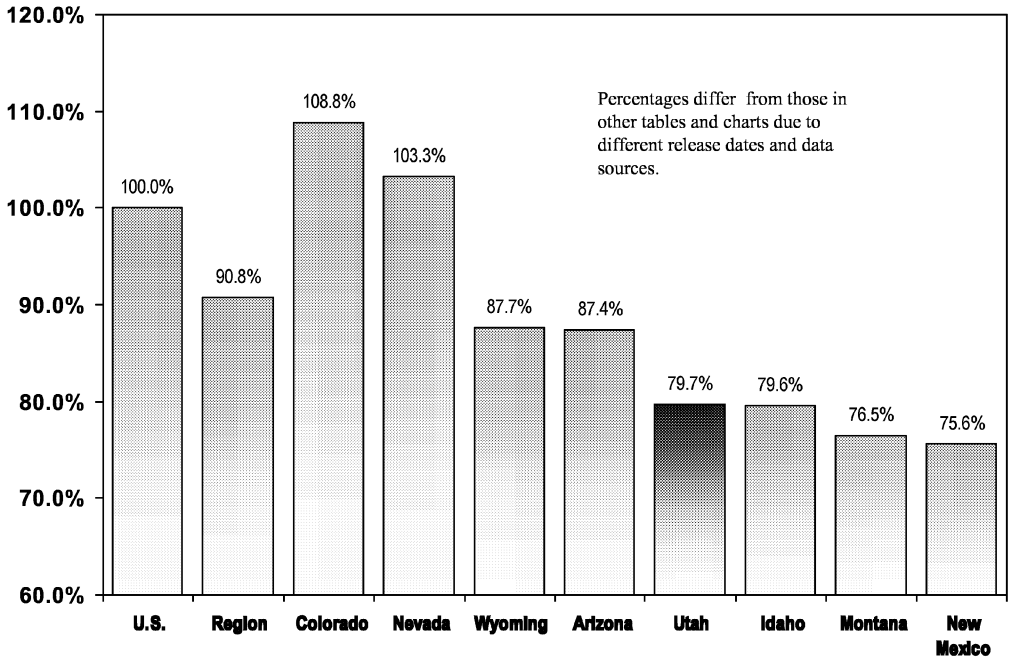
The national economy remains strong. From 1993 to 1998 the nation's employment growth rate grew by an annual average rate of 2.6%. From November 1998 to November 1999, slowed to 2.1%. Most mountain states also show growth rates in employment, population, and income that are still strong but have moderated from the rapid growth of mid-decade. Mountain Division states continue to the enjoy the benefits of the long lasting regional and national economic expansion of the 1990's. Of the eight mountain states, Montana and Wyoming show considerably slower growth by most indicators. Their economies are much more closely aligned with the "old west", dependent on extractive industries and agriculture. The other mountain states appear to be moving forward effectively in the information age. ✻

Figure 36
Population Growth Rates—U.S. and Mountain Division States: 1997 to 1998



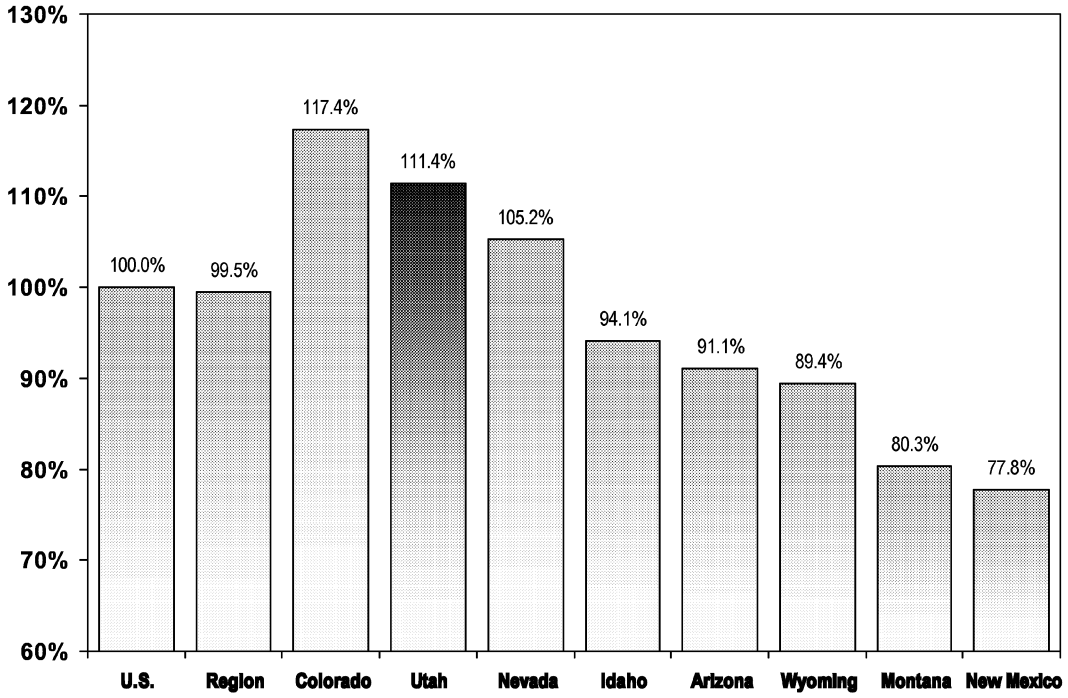
Source: U.S. Census Bureau

Figure 37
Per Capita Income as a Percent of U.S.—Mountain Division States: 1998



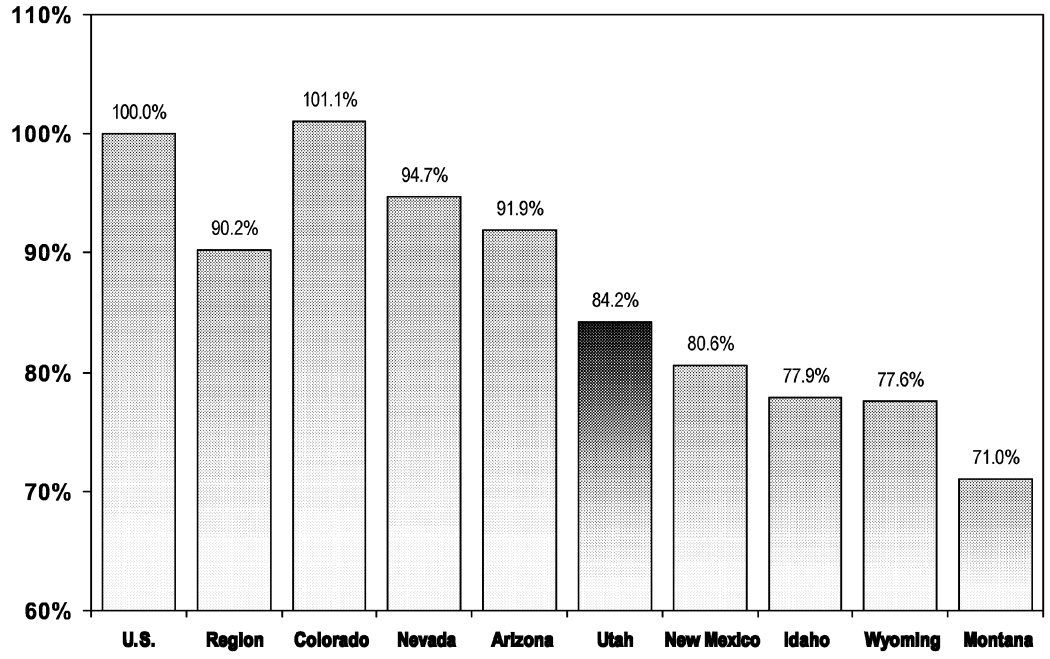
Source: U.S. Bureau of Economic Analysis

Figure 38
Median Household Income as a Percent of U.S.—Mountain Division States: 1996 to 1998 Three - Year Average



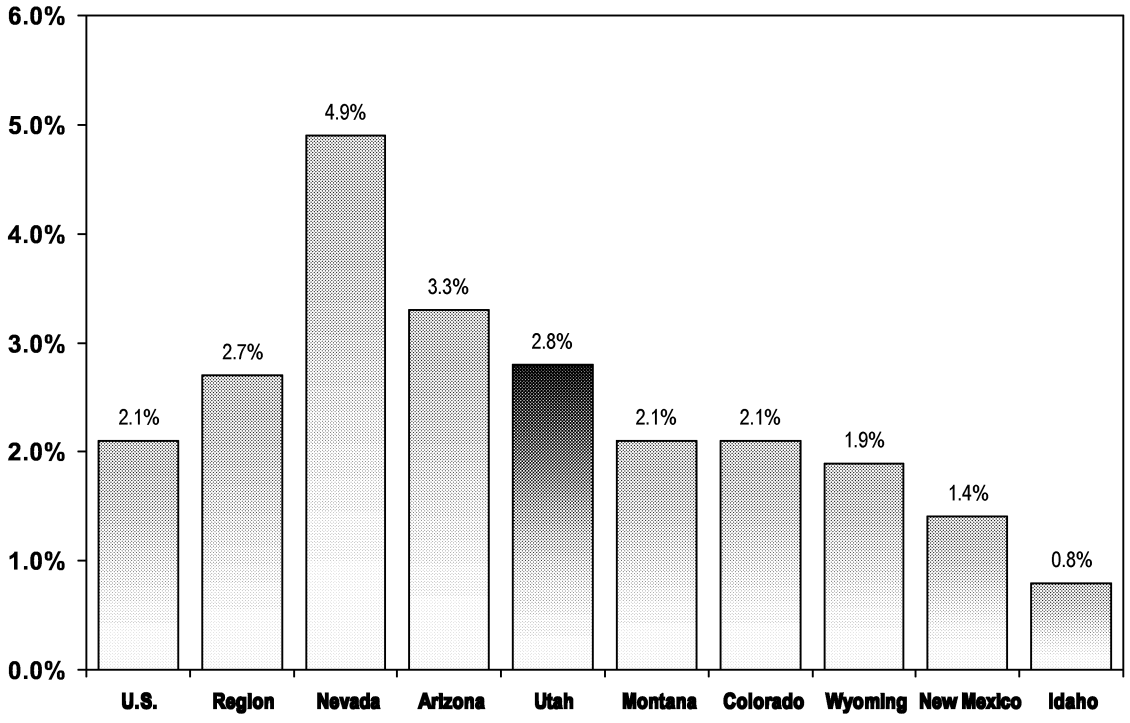
Source: U.S. Bureau of the Census

Figure 39
Average Annual Pay as a Percent of U.S.—Mountain Division States: 1998*



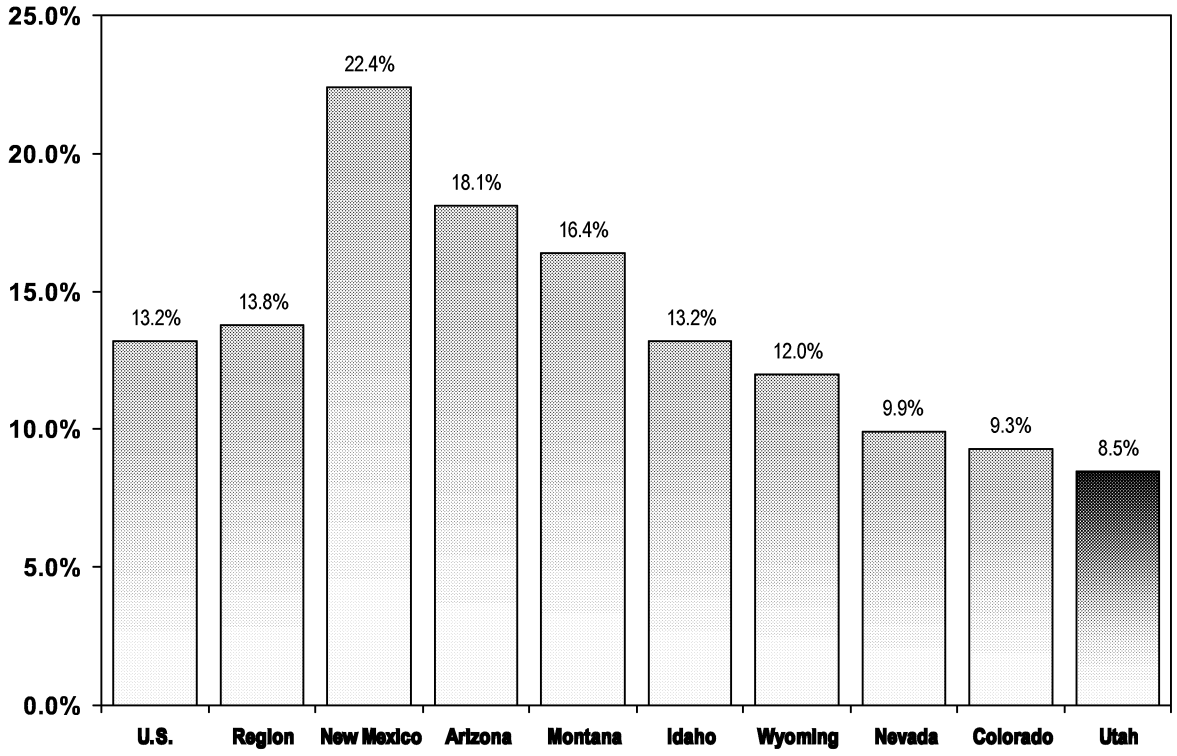
*For workers covered by unemployment insurance
Source: U.S. Bureau of Labor Statistics

Figure 40
Nonagricultural Employment Growth—U.S. and Mountain Division States: November 1998 to November 1999



Source: U.S. Bureau of Labor Statistics

Figure 41
Percent of Persons in Poverty: Three-Year Average 1996 to 1998



Source: U.S. Bureau of the Census

Table 52
Population and Households—U.S., Mountain Division, and States

Division/State	Population (July 1 Estimates) 1993 (thousands)	1997 (thousands)	1998 (thousands)	Rates of Population Change: Avg. Ann. Growth Rate 1993-98	Percent Change 1997-98	Households (July 1 Estimates) 1998 (thousands)	Persons per Household	Rankings: Rank by Population 1998	Rank by Avg. Ann. Growth Rate 1993-98	Rank by Percent Change 1997-98	Rank by Persons per Household 1998
United States	257,746	267,744	270,299	1.0%	1.0%	101,041	2.61				
Mountain States	14,835	16,481	16,813	2.5%	2.0%	6,287	2.62				
Arizona	3,994	4,553	4,669	3.2%	2.5%	1,762	2.60	21	2	2	16
Colorado	3,562	3,892	3,971	2.2%	2.0%	1,561	2.49	24	5	4	44
Idaho	1,100	1,209	1,229	2.2%	1.6%	448	2.69	40	4	7	7
Montana	840	879	880	0.9%	0.2%	346	2.47	44	19	40	49
Nevada	1,382	1,679	1,747	4.8%	4.1%	676	2.54	36	1	1	35
New Mexico	1,615	1,724	1,737	1.5%	0.8%	632	2.70	37	12	22	6
Utah	1,872	2,065	2,100	2.3%	1.7%	677	3.06	34	3	6	1
Wyoming	469	480	481	0.5%	0.2%	185	2.54	51	37	42	33
Other States											
Alabama	4,192	4,322	4,352	0.8%	0.7%	1,663	2.56	23	25	26	22
Alaska	597	610	614	0.6%	0.7%	215	2.78	48	35	24	4
Arkansas	2,424	2,523	2,538	0.9%	0.6%	970	2.56	33	20	28	25
California	31,124	32,182	32,667	1.0%	1.5%	11,446	2.79	1	18	10	3
Connecticut	3,270	3,267	3,274	0.0%	0.2%	1,238	2.57	29	47	39	21
Delaware	700	735	744	1.2%	1.2%	284	2.54	45	14	14	32
D.C.	577	530	523	-1.9%	-1.3%	225	2.15	50	51	51	51
Florida	13,712	14,677	14,916	1.7%	1.6%	5,881	2.48	4	8	8	45
Georgia	6,895	7,490	7,642	2.1%	2.0%	2,843	2.63	10	6	3	12
Hawaii	1,164	1,192	1,193	0.5%	0.1%	401	2.87	41	38	46	2
Illinois	11,718	11,989	12,045	0.6%	0.5%	4,438	2.65	5	36	32	11
Indiana	5,701	5,865	5,899	0.7%	0.6%	2,231	2.57	14	29	29	20
Iowa	2,821	2,854	2,862	0.3%	0.3%	1,103	2.50	30	42	38	43
Kansas	2,538	2,601	2,629	0.7%	1.1%	999	2.55	32	28	17	27
Kentucky	3,794	3,910	3,936	0.7%	0.7%	1,497	2.56	25	26	27	24
Louisiana	4,286	4,354	4,369	0.4%	0.4%	1,599	2.66	22	41	36	10
Maine	1,236	1,242	1,244	0.1%	0.2%	490	2.48	39	44	41	46
Maryland	4,943	5,095	5,135	0.8%	0.8%	1,906	2.63	19	23	20	13
Massachusetts	6,008	6,114	6,147	0.5%	0.5%	2,349	2.52	13	39	31	38
Michigan	9,523	9,780	9,817	0.6%	0.4%	3,693	2.60	8	32	35	15
Minnesota	4,524	4,687	4,725	0.9%	0.8%	1,791	2.58	20	21	18	18
Mississippi	2,636	2,732	2,752	0.9%	0.7%	997	2.68	31	22	23	9
Missouri	5,238	5,408	5,439	0.8%	0.6%	2,089	2.53	16	24	30	36
Nebraska	1,612	1,657	1,663	0.6%	0.3%	636	2.54	38	31	37	30
New Hampshire	1,122	1,172	1,185	1.1%	1.1%	450	2.56	42	15	15	23
New Jersey	7,873	8,058	8,115	0.6%	0.7%	2,957	2.69	9	33	25	8
New York	18,139	18,146	18,175	0.0%	0.2%	6,766	2.61	3	45	43	14
North Carolina	6,949	7,431	7,546	1.7%	1.6%	2,883	2.54	11	9	9	31
North Dakota	637	641	638	0.0%	-0.4%	247	2.48	47	46	50	48
Ohio	11,063	11,193	11,209	0.3%	0.1%	4,285	2.55	7	43	44	29
Oklahoma	3,229	3,322	3,347	0.7%	0.8%	1,288	2.52	27	27	21	40
Oregon	3,035	3,243	3,282	1.6%	1.2%	1,286	2.50	28	11	13	42
Pennsylvania	12,022	12,011	12,001	-0.0%	-0.1%	4,593	2.54	6	48	48	34
Rhode Island	998	987	988	-0.2%	0.1%	376	2.53	43	50	45	37
South Carolina	3,635	3,788	3,836	1.1%	1.3%	1,441	2.58	26	16	12	19
South Dakota	723	738	738	0.4%	0.1%	277	2.55	46	40	47	28
Tennessee	5,082	5,372	5,431	1.3%	1.1%	2,100	2.52	17	13	16	39
Texas	18,009	19,386	19,760	1.9%	1.9%	7,113	2.71	2	7	5	5
Vermont	574	589	591	0.6%	0.4%	231	2.46	49	34	34	50
Virginia	6,467	6,737	6,791	1.0%	0.8%	2,579	2.55	12	17	19	26
Washington	5,249	5,614	5,689	1.6%	1.3%	2,211	2.52	15	10	11	41
West Virginia	1,817	1,815	1,811	-0.1%	-0.2%	716	2.48	35	49	49	47
Wisconsin	5,056	5,201	5,224	0.7%	0.4%	1,973	2.58	18	30	33	17

Note:
Totals differ in this table from other tables in this report due to different release dates or data sources.

Source: U.S. Bureau of the Census.

Table 53
Total Personal Income—U.S., Mountain Division, and States

Division/State	Total Personal Income 1993 (millions)	Total Personal Income 1997 (millions)	Total Personal Income 1998 (millions)	Rates of Total Personal Income Change: Avg. Ann. Growth Rate 1993-98	Rates of Total Personal Income Change: Percent Change 1997-98	Total Personal Income (saar): 2nd Quarter 1997 (millions)	Total Personal Income (saar): 2nd Quarter 1998 (millions)	Total Personal Income (saar): Percent Change 1998-99	Rankings: Rank by Total Personal Income 1998	Rankings: Rank by Avg. Ann. Growth Rate 1993-98	Rankings: Rank by Percent Change 1997-98	Rankings: Rank by Percent Change (saar) 1998-99
United States	5,469,485	6,770,650	7,158,176	5.5%	5.7%	7,108,060	7,492,844	5.4%				
Mountain States	283,460	377,537	404,278	7.4%	7.1%	400,450	424,890	6.1%				
Arizona	72,962	100,160	108,087	8.2%	7.9%	106,967	113,141	5.8%	23	2	2	17
Colorado	78,783	105,143	114,449	7.8%	8.9%	113,255	120,606	6.5%	22	3	1	7
Idaho	19,474	24,651	25,901	5.9%	5.1%	25,622	27,369	6.8%	43	15	31	5
Montana	14,761	17,276	17,827	3.8%	3.2%	17,786	18,578	4.5%	46	47	49	36
Nevada	30,945	44,510	47,795	9.1%	7.4%	47,203	51,446	9.0%	34	1	6	1
New Mexico	26,749	33,269	34,753	5.4%	4.5%	34,543	35,539	2.9%	38	25	43	47
Utah	30,624	41,681	44,297	7.7%	6.3%	44,070	46,500	5.5%	35	4	11	20
Wyoming	9,163	10,847	11,169	4.0%	3.0%	11,004	11,711	6.4%	51	46	50	8
Other States												
Alabama	72,930	89,348	93,567	5.1%	4.7%	92,976	96,519	3.8%	24	34	37	43
Alaska	13,556	15,222	15,823	3.1%	3.9%	15,749	16,200	2.9%	48	49	46	48
Arkansas	39,704	49,442	51,763	5.4%	4.7%	51,403	53,734	4.5%	33	21	38	33
California	698,130	846,839	900,900	5.2%	6.4%	892,504	952,621	6.7%	1	30	9	6
Connecticut	95,588	117,173	123,431	5.2%	5.3%	122,052	128,463	5.3%	21	29	26	26
Delaware	16,482	20,946	22,258	6.2%	6.3%	22,118	23,476	6.1%	44	11	12	10
D.C.	17,264	18,919	19,526	2.5%	3.2%	19,408	20,251	4.3%	45	51	48	37
Florida	289,052	363,980	386,654	6.0%	6.2%	383,881	401,105	4.5%	4	13	13	34
Georgia	135,613	178,875	191,865	7.2%	7.3%	189,851	203,878	7.4%	11	5	7	3
Hawaii	27,511	30,514	31,268	2.6%	2.5%	31,192	31,901	2.3%	40	50	51	50
Illinois	268,281	331,966	349,029	5.4%	5.1%	346,668	367,511	6.0%	5	22	30	14
Indiana	112,016	136,073	143,362	5.1%	5.4%	142,285	149,775	5.3%	16	35	25	24
Iowa	52,073	65,993	68,720	5.7%	4.1%	67,830	71,949	6.1%	30	18	44	11
Kansas	50,883	62,363	65,854	5.3%	5.6%	65,385	69,334	6.0%	31	27	21	13
Kentucky	65,279	80,435	84,834	5.4%	5.5%	84,440	87,789	4.0%	26	24	23	41
Louisiana	73,424	89,067	93,430	4.9%	4.9%	93,334	95,947	2.8%	25	39	34	49
Maine	22,823	27,243	28,620	4.6%	5.1%	28,406	29,590	4.2%	41	41	32	38
Maryland	120,033	146,090	154,164	5.1%	5.5%	153,116	161,619	5.6%	15	33	22	19
Massachusetts	152,204	191,008	202,252	5.9%	5.9%	200,905	211,825	5.4%	10	16	15	23
Michigan	199,411	244,073	255,039	5.0%	4.5%	254,683	262,828	3.2%	9	36	41	46
Minnesota	97,202	123,010	130,737	6.1%	6.3%	129,951	137,024	5.4%	19	12	10	22
Mississippi	39,272	49,437	52,283	5.9%	5.8%	51,828	53,911	4.0%	32	14	16	40
Missouri	102,826	127,795	132,955	5.3%	4.0%	132,228	138,315	4.6%	17	28	45	31
Nebraska	31,785	39,135	41,212	5.3%	5.3%	40,820	43,344	6.2%	36	26	27	9
New Hampshire	25,484	32,546	34,626	6.3%	6.4%	34,124	36,135	5.9%	39	10	8	15
New Jersey	216,183	260,736	275,531	5.0%	5.7%	273,177	289,211	5.9%	8	38	18	16
New York	460,249	548,927	575,768	4.6%	4.9%	575,201	604,333	5.1%	2	43	35	28
North Carolina	132,981	172,154	182,036	6.5%	5.7%	180,852	188,290	4.1%	13	9	17	39
North Dakota	10,860	12,885	13,855	5.0%	7.5%	13,680	14,335	4.8%	50	37	5	30
Ohio	223,792	270,450	282,920	4.8%	4.6%	280,966	295,234	5.1%	7	40	40	27
Oklahoma	56,253	67,444	70,469	4.6%	4.5%	70,257	72,644	3.4%	29	42	42	45
Oregon	59,234	77,579	81,310	6.5%	4.8%	81,101	85,365	5.3%	28	8	36	25
Pennsylvania	260,109	308,325	322,706	4.4%	4.7%	321,031	335,400	4.5%	6	44	39	35
Rhode Island	21,688	25,340	26,614	4.2%	5.0%	26,370	27,681	5.0%	42	45	33	29
South Carolina	62,123	77,686	82,039	5.7%	5.6%	81,170	85,616	5.5%	27	17	20	21
South Dakota	12,717	15,549	16,388	5.2%	5.4%	16,185	17,110	5.7%	47	31	24	18
Tennessee	97,273	121,934	128,244	5.7%	5.2%	127,546	133,405	4.6%	20	19	28	32
Texas	353,092	459,585	494,544	7.0%	7.6%	490,352	520,128	6.1%	3	6	3	12
Vermont	11,128	13,549	14,309	5.2%	5.6%	14,230	14,781	3.9%	49	32	19	42
Virginia	143,137	175,911	186,686	5.5%	6.1%	184,931	198,419	7.3%	12	20	14	4
Washington	115,597	148,500	159,674	6.7%	7.5%	157,999	169,890	7.5%	14	7	4	2
West Virginia	29,620	33,988	35,087	3.4%	3.2%	34,911	35,594	2.0%	37	48	47	51
Wisconsin	101,159	125,081	131,547	5.4%	5.2%	130,512	135,475	3.8%	18	23	29	44

saar = seasonally adjusted annual rate.

Source: U.S. Bureau of Economic Analysis.

Table 54
Per Capita Personal Income-U.S., Mountain Division, and States

Division/State	Per Capita Personal Income 1993	Per Capita Personal Income 1997	Per Capita Personal Income 1998	Rates of Per Capita Personal Income Change: Avg. Ann. Grwth Rate 1993-98	Rates of Per Capita Personal Income Change: Percent Change 1997-98	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1993*	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1997*	Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income 1998*	Rankings*: Rank by Per Capita Personal Income 1998	Rankings*: Rank by Average Annual Grwth Rate 1993-98	Rankings*: Rank by Percent Change 1997-98
United States*	21,220	25,288	26,482	4.5%	4.7%	100.0%	100.0%	100.0%			
Mountain States	19,108	22,908	24,045	4.7%	5.0%	90.0%	90.6%	90.8%			
Arizona	18,270	21,998	23,152	4.9%	5.2%	86.1%	87.0%	87.4%	36	15	9
Colorado	22,117	27,015	28,821	5.4%	6.7%	104.2%	106.8%	108.8%	10	1	2
Idaho	17,699	20,392	21,080	3.6%	3.4%	83.4%	80.6%	79.6%	45	46	46
Montana	17,571	19,660	20,247	2.9%	3.0%	82.8%	77.7%	76.5%	48	49	49
Nevada	22,388	26,514	27,360	4.1%	3.2%	105.5%	104.8%	103.3%	15	43	48
New Mexico	16,559	19,298	20,008	3.9%	3.7%	78.0%	76.3%	75.6%	49	45	42
Utah*	16,359	20,185	21,096	5.2%	4.5%	77.1%	79.8%	79.7%	44	5	31
Wyoming	19,535	22,596	23,225	3.5%	2.8%	92.1%	89.4%	87.7%	35	47	50
Other States											
Alabama	17,398	20,672	21,500	4.3%	4.0%	82.0%	81.7%	81.2%	41	39	39
Alaska	22,711	24,969	25,771	2.6%	3.2%	107.0%	98.7%	97.3%	21	50	47
Arkansas	16,380	19,595	20,393	4.5%	4.1%	77.2%	77.5%	77.0%	47	31	37
California	22,430	26,314	27,579	4.2%	4.8%	105.7%	104.1%	104.1%	13	42	20
Connecticut	29,232	35,863	37,700	5.2%	5.1%	137.8%	141.8%	142.4%	1	4	13
Delaware	23,542	28,493	29,932	4.9%	5.1%	110.9%	112.7%	113.0%	7	13	14
D.C.	29,912	35,704	37,325	4.5%	4.5%	141.0%	141.2%	140.9%	2	27	28
Florida	21,080	24,799	25,922	4.2%	4.5%	99.3%	98.1%	97.9%	20	41	30
Georgia	19,668	23,882	25,106	5.0%	5.1%	92.7%	94.4%	94.8%	24	9	12
Hawaii	23,638	25,598	26,210	2.1%	2.4%	111.4%	101.2%	99.0%	18	51	51
Illinois	22,895	27,688	28,976	4.8%	4.7%	107.9%	109.5%	109.4%	9	16	27
Indiana	19,649	23,202	24,302	4.3%	4.7%	92.6%	91.8%	91.8%	30	36	23
Iowa	18,461	23,120	24,007	5.4%	3.8%	87.0%	91.4%	90.7%	33	2	40
Kansas	20,048	23,972	25,049	4.6%	4.5%	94.5%	94.8%	94.6%	25	23	32
Kentucky	17,207	20,570	21,551	4.6%	4.8%	81.1%	81.3%	81.4%	40	21	21
Louisiana	17,133	20,458	21,385	4.5%	4.5%	80.7%	80.9%	80.8%	43	26	29
Maine	18,463	21,937	23,002	4.5%	4.9%	87.0%	86.7%	86.9%	37	29	19
Maryland	24,283	28,674	30,023	4.3%	4.7%	114.4%	113.4%	113.4%	6	38	26
Massachusetts	25,333	31,239	32,902	5.4%	5.3%	119.4%	123.5%	124.2%	4	3	7
Michigan	20,939	24,956	25,979	4.4%	4.1%	98.7%	98.7%	98.1%	19	34	36
Minnesota	21,488	26,243	27,667	5.2%	5.4%	101.3%	103.8%	104.5%	12	6	5
Mississippi	14,900	18,098	18,998	5.0%	5.0%	70.2%	71.6%	71.7%	51	10	15
Missouri	19,632	23,629	24,447	4.5%	3.5%	92.5%	93.4%	92.3%	29	30	45
Nebraska	19,714	23,618	24,786	4.7%	4.9%	92.9%	93.4%	93.6%	27	20	16
New Hampshire	22,710	27,766	29,219	5.2%	5.2%	107.0%	109.8%	110.3%	8	7	10
New Jersey	27,457	32,356	33,953	4.3%	4.9%	129.4%	128.0%	128.2%	3	37	17
New York	25,373	30,250	31,679	4.5%	4.7%	119.6%	119.6%	119.6%	5	25	24
North Carolina	19,137	23,168	24,122	4.7%	4.1%	90.2%	91.6%	91.1%	32	18	35
North Dakota	17,040	20,103	21,708	5.0%	8.0%	80.3%	79.5%	82.0%	39	12	1
Ohio	20,228	24,163	25,239	4.5%	4.5%	95.3%	95.6%	95.3%	22	28	33
Oklahoma	17,419	20,305	21,056	3.9%	3.7%	82.1%	80.3%	79.5%	46	44	41
Oregon	19,518	23,920	24,775	4.9%	3.6%	92.0%	94.6%	93.6%	28	14	43
Pennsylvania	21,635	25,670	26,889	4.4%	4.7%	102.0%	101.5%	101.5%	17	32	22
Rhode Island	21,735	25,667	26,924	4.4%	4.9%	102.4%	101.5%	101.7%	16	35	18
South Carolina	17,091	20,508	21,387	4.6%	4.3%	80.5%	81.1%	80.8%	42	22	34
South Dakota	17,600	21,076	22,201	4.8%	5.3%	82.9%	83.3%	83.8%	38	17	6
Tennessee	19,139	22,699	23,615	4.3%	4.0%	90.2%	89.8%	89.2%	34	40	38
Texas	19,606	23,707	25,028	5.0%	5.6%	92.4%	93.7%	94.5%	26	8	4
Vermont	19,392	23,017	24,217	4.5%	5.2%	91.4%	91.0%	91.4%	31	24	11
Virginia	22,133	26,109	27,489	4.4%	5.3%	104.3%	103.2%	103.8%	14	33	8
Washington	22,024	26,451	28,066	5.0%	6.1%	103.8%	104.6%	106.0%	11	11	3
West Virginia	16,306	18,724	19,373	3.5%	3.5%	76.8%	74.0%	73.2%	50	48	44
Wisconsin	20,009	24,048	25,184	4.7%	4.7%	94.3%	95.1%	95.1%	23	19	25

Note:
Totals and rankings differ in this table from other tables in this report due to different release dates or data sources.

Source: U.S. Bureau of Economic Analysis.

Table 55
Median Income of Households—U.S., Mountain Division, and States

	Median Income of Households (1998 Dollars)				Median Income of Households (1998 Dollars) Two-year Moving Average*					Median Income of Households Three-year Average* (1998 Dollars)			
	1993	1997	1998		1996-1997	1997-1998					1996-1998		
	Amount	Amount	Amount	Standard Error	Amount	Amount	Standard Error	Two-year Average Difference	Pct. Chg.	Amount	Standard Error	Amount Rank	As a % of the U.S.
United States	$35,241	$37,581	$38,885	$230	$37,227	$38,233	$167	$1,006	2.7%	$37,779	$137		100.0%
Mountain States	36,069	37,253	39,568	NA	36,610	38,411	NA	1,800	4.9%	37,598	NA		99.5%
Arizona	34,416	33,250	37,090	1,255	33,059	35,170	1,057	2,111	6.4%	34,402	909	37	91.1%
Colorado	38,903	43,906	46,599	1,086	43,224	45,253	1,282	2,029	4.7%	44,349	1,075	6	117.4%
Idaho	34,980	33,924	36,680	1,090	34,991	35,302	1,009	311	0.9%	35,554	903	31	94.1%
Montana	29,859	29,667	31,577	1,133	29,733	30,622	943	889	3.0%	30,348	914	47	80.3%
Nevada	40,399	39,459	39,756	1,225	39,749	39,608	1,166	(141)	-0.4%	39,751	1,061	18	105.2%
New Mexico	30,184	30,555	31,543	1,398	28,308	31,049	1,058	2,741	9.7%	29,386	863	48	77.8%
Utah	40,368	43,441	44,299	1,375	40,960	43,870	1,316	2,910	7.1%	42,073	1,084	10	111.4%
Wyoming	33,211	33,944	35,250	1,316	33,050	34,597	1,142	1,547	4.7%	33,783	878	38	89.4%
Other States													
Alabama	28,293	32,436	36,266	1,307	31,958	34,351	1,211	2,393	7.5%	33,394	1,003	39	88.4%
Alaska	48,427	48,742	50,692	2,124	51,787	49,717	1,418	(2,070)	-4.0%	51,421	1,236	1	136.1%
Arkansas	25,989	26,569	27,665	1,160	27,373	27,117	958	(256)	-0.9%	27,471	784	50	72.7%
California	38,435	40,312	40,934	577	40,317	40,623	603	306	0.8%	40,522	548	17	107.3%
Connecticut	44,575	44,670	46,508	2,728	44,214	45,589	1,961	1,375	3.1%	44,978	1,832	4	119.1%
Delaware	40,681	43,703	41,458	1,753	42,270	42,581	1,583	311	0.7%	42,000	1,260	13	111.2%
Dist. of C.	30,800	32,356	33,433	1,311	32,783	32,895	953	112	0.3%	32,999	911	41	87.3%
Florida	32,205	32,961	34,909	767	32,397	33,935	560	1,538	4.7%	33,234	442	40	88.0%
Georgia	35,717	37,234	38,665	1,179	35,497	37,950	869	2,453	6.9%	36,553	891	26	96.8%
Hawaii	48,124	41,572	40,827	2,369	42,484	41,200	1,580	(1,284)	-3.0%	41,932	1,325	14	111.0%
Illinois	37,064	41,926	43,178	1,234	41,509	42,552	842	1,043	2.5%	42,065	730	11	111.3%
Indiana	33,249	39,495	39,731	1,589	38,004	39,613	1,151	1,609	4.2%	38,580	958	19	102.1%
Iowa	32,333	34,309	37,019	1,202	34,405	35,664	1,029	1,259	3.7%	35,276	954	32	93.4%
Kansas	33,581	37,039	36,711	1,617	35,446	36,875	1,338	1,429	4.0%	35,867	1,115	29	94.9%
Kentucky	27,497	33,973	36,252	1,511	33,823	35,113	1,314	1,290	3.8%	34,633	1,101	36	91.7%
Louisiana	29,681	33,778	31,735	1,660	32,609	32,757	1,329	148	0.5%	32,317	1,072	43	85.5%
Maine	30,951	33,282	35,640	1,049	34,664	34,461	977	(203)	-0.6%	34,989	854	34	92.6%
Maryland	45,052	47,412	50,016	2,161	46,558	48,714	1,515	2,156	4.6%	47,711	1,456	3	126.3%
Massachusetts	41,809	42,678	42,345	1,961	41,854	42,512	1,392	658	1.6%	42,017	1,236	12	111.2%
Michigan	36,844	39,345	41,821	917	40,048	40,583	841	535	1.3%	40,639	758	16	107.6%
Minnesota	37,994	43,227	47,926	2,115	42,906	45,577	1,508	2,671	6.2%	44,579	1,159	5	118.0%
Mississippi	25,032	28,943	29,120	1,158	28,329	29,032	1,056	703	2.5%	28,592	924	49	75.7%
Missouri	32,354	37,122	40,201	1,868	36,360	38,662	1,628	2,302	6.3%	37,640	1,307	23	99.6%
Nebraska	34,978	35,232	36,413	1,549	35,284	35,823	1,274	539	1.5%	35,661	1,086	30	94.4%
New Hampshire	42,824	41,637	44,958	1,866	41,288	43,298	1,438	2,010	4.9%	42,511	1,228	9	112.5%
New Jersey	45,685	48,769	49,826	1,436	49,041	49,298	1,184	257	0.5%	49,303	971	2	130.5%
New York	35,755	36,356	37,394	777	36,572	36,875	585	303	0.8%	36,845	508	25	97.5%
North Carolina	32,510	36,398	35,838	1,022	36,692	36,118	803	(574)	-1.6%	36,407	696	27	96.4%
North Dakota	31,718	32,154	30,304	1,179	32,424	31,229	1,054	(1,195)	-3.7%	31,717	891	44	84.0%
Ohio	35,290	36,697	38,925	1,576	36,046	37,811	1,038	1,765	4.9%	37,005	832	24	98.0%
Oklahoma	29,622	31,839	33,727	1,232	30,172	32,783	935	2,611	8.7%	31,357	789	45	83.0%
Oregon	37,381	37,827	39,067	1,927	37,350	38,447	1,538	1,097	2.9%	37,922	1,197	21	100.4%
Pennsylvania	34,963	38,101	39,015	1,080	37,179	38,558	846	1,379	3.7%	37,791	713	22	100.0%
Rhode Island	37,799	35,339	40,686	2,657	36,882	38,013	2,027	1,131	3.1%	38,150	1,464	20	101.0%
South Carolina	29,389	34,796	33,267	1,310	35,405	34,032	1,213	(1,373)	-3.9%	34,692	1,037	35	91.8%
South Dakota	31,288	30,157	32,786	1,013	30,416	31,472	895	1,056	3.5%	31,205	755	46	82.6%
Tennessee	28,316	31,113	34,091	1,307	31,550	32,602	1,104	1,052	3.3%	32,397	897	42	85.8%
Texas	32,405	35,621	35,783	662	34,990	35,702	643	712	2.0%	35,254	555	33	93.3%
Vermont	35,042	35,599	39,372	1,591	34,608	37,486	1,374	2,878	8.3%	36,196	1,097	28	95.8%
Virginia	41,097	43,626	43,354	2,195	42,181	43,490	1,695	1,309	3.1%	42,572	1,326	8	112.7%
Washington	40,220	45,256	47,421	1,379	41,679	46,339	1,286	4,660	11.2%	43,593	1,128	7	115.4%
West Virginia	25,292	27,916	26,704	780	27,073	27,310	883	237	0.9%	26,950	831	51	71.3%
Wisconsin	35,833	40,212	41,327	1,271	40,884	40,770	1,002	(114)	-0.3%	41,032	997	15	108.6%

*Because the sample of households contacted in small population states like Utah is relatively few in number, the data collected for two or three years is combined to calculate less variable estimates. The Census Bureau recommends using 2-year averages for evaluating changes in state estimates over time, and 3-year averages when comparing the relative ranking of states.

The Standard Error is a measurement that indicates the magnitude of sampling variability for the estimates. Note that the standard errors for U.S. estimates are much smaller than those for the states.

Ranking is done for the 50 states and the District of Columbia.

Source: March Current Population Survey, U.S. Bureau of the Census, Median Household Income by State.

Table 56
Average Annual Pay For All Workers Covered by Unemployment Insurance: U.S., Mountain Division, and States

Division/State	Average Annual Pay 1993	Average Annual Pay 1997	Average Annual Pay 1998	Rates of Change for Average Annual Pay: Avg. Ann. Grwth Rate 1993-98	Rates of Change for Average Annual Pay: Percent Change 1997-98	Average Annual Pay as a Percent of U.S. Average Annual Pay 1993	Average Annual Pay as a Percent of U.S. Average Annual Pay 1997	Average Annual Pay as a Percent of U.S. Average Annual Pay 1998	Rankings*: Rank by Average Annual Pay 1998	Rankings*: Rank by Avg. Ann. Grwth Rate 1993-98	Rankings*: Rank by Percent Change 1997-98
United States	26,361	30,353	31,908	3.9%	5.1%	100.0%	100.0%	100.0%			
Mountain States	23,548	27,251	28,795	4.1%	5.7%	89.3%	89.8%	90.2%			
Arizona	23,501	27,659	29,317	4.5%	6.0%	89.2%	91.1%	91.9%	23	6	7
Colorado	25,682	30,066	32,246	4.7%	7.3%	97.4%	99.1%	101.1%	12	2	2
Idaho	21,188	24,062	24,866	3.3%	3.3%	80.4%	79.3%	77.9%	45	43	46
Montana	19,932	21,946	22,644	2.6%	3.2%	75.6%	72.3%	71.0%	51	47	47
Nevada	25,461	28,672	30,201	3.5%	5.3%	96.6%	94.5%	94.7%	20	39	16
New Mexico	21,731	24,684	25,716	3.4%	4.2%	82.4%	81.3%	80.6%	40	41	38
Utah	22,250	25,736	26,869	3.8%	4.4%	84.4%	84.8%	84.2%	33	26	33
Wyoming	21,745	23,866	24,747	2.6%	3.7%	82.5%	78.6%	77.6%	46	46	44
Other States											
Alabama	22,786	26,139	27,035	3.5%	3.4%	86.4%	86.1%	84.7%	31	38	45
Alaska	32,336	33,156	33,839	0.9%	2.1%	122.7%	109.2%	106.1%	9	50	50
Arkansas	20,337	23,277	24,422	3.7%	4.9%	77.1%	76.7%	76.5%	47	31	23
California	29,470	33,525	35,349	3.7%	5.4%	111.8%	110.5%	110.8%	5	33	13
Connecticut	33,169	38,941	40,915	4.3%	5.1%	125.8%	128.3%	128.2%	2	13	21
Delaware	27,144	32,188	33,996	4.6%	5.6%	103.0%	106.0%	106.5%	8	3	10
D.C.	39,199	46,761	48,727	4.4%	4.2%	148.7%	154.1%	152.7%	1	7	37
Florida	23,571	26,673	28,143	3.6%	5.5%	89.4%	87.9%	88.2%	29	35	12
Georgia	24,865	29,037	30,873	4.4%	6.3%	94.3%	95.7%	96.8%	18	8	3
Hawaii	26,325	28,357	29,029	2.0%	2.4%	99.9%	93.4%	91.0%	25	49	48
Illinois	28,425	33,024	34,704	4.1%	5.1%	107.8%	108.8%	108.8%	6	19	20
Indiana	24,109	27,635	29,107	3.8%	5.3%	91.5%	91.0%	91.2%	24	27	17
Iowa	21,441	24,803	26,035	4.0%	5.0%	81.3%	81.7%	81.6%	38	21	22
Kansas	22,430	25,694	26,842	3.7%	4.5%	85.1%	84.7%	84.1%	34	34	29
Kentucky	22,170	25,577	26,689	3.8%	4.3%	84.1%	84.3%	83.6%	35	28	35
Louisiana	22,633	25,755	26,905	3.5%	4.5%	85.9%	84.9%	84.3%	32	37	30
Maine	22,026	24,899	25,875	3.3%	3.9%	83.6%	82.0%	81.1%	39	42	42
Maryland	27,686	31,763	33,306	3.8%	4.9%	105.0%	104.6%	104.4%	10	29	24
Massachusetts	30,229	35,716	37,787	4.6%	5.8%	114.7%	117.7%	118.4%	4	4	8
Michigan	28,260	32,780	34,542	4.1%	5.4%	107.2%	108.0%	108.3%	7	18	14
Minnesota	25,710	30,231	32,073	4.5%	6.1%	97.5%	99.6%	100.5%	13	5	6
Mississippi	19,693	22,778	23,822	3.9%	4.6%	74.7%	75.0%	74.7%	48	23	27
Missouri	23,898	27,780	28,907	3.9%	4.1%	90.7%	91.5%	90.6%	26	24	39
Nebraska	20,815	24,565	25,535	4.2%	3.9%	79.0%	80.9%	80.0%	41	15	41
New Hampshire	24,962	29,296	30,943	4.4%	5.6%	94.7%	96.5%	97.0%	17	9	9
New Jersey	32,722	37,514	NA	NA	NA	124.1%	123.6%	NA	44	NA	NA
New York	32,919	38,543	40,678	4.3%	5.5%	124.9%	127.0%	127.5%	3	10	11
North Carolina	22,773	26,684	28,107	4.3%	5.3%	86.4%	87.9%	88.1%	30	12	15
North Dakota	19,382	22,049	22,990	3.5%	4.3%	73.5%	72.6%	72.1%	49	40	36
Ohio	25,338	29,094	30,395	3.7%	4.5%	96.1%	95.9%	95.3%	19	32	28
Oklahoma	22,001	24,226	25,122	2.7%	3.7%	83.5%	79.8%	78.7%	43	45	43
Oregon	24,093	28,411	29,542	4.2%	4.0%	91.4%	93.6%	92.6%	22	16	40
Pennsylvania	26,274	30,163	31,582	3.7%	4.7%	99.7%	99.4%	99.0%	14	30	25
Rhode Island	24,889	28,662	30,148	3.9%	5.2%	94.4%	94.4%	94.5%	21	22	18
South Carolina	21,933	24,995	26,151	3.6%	4.6%	83.2%	82.3%	82.0%	37	36	26
South Dakota	18,613	21,648	22,754	4.1%	5.1%	70.6%	71.3%	71.3%	50	17	19
Tennessee	23,368	27,248	28,457	4.0%	4.4%	88.6%	89.8%	89.2%	28	20	31
Texas	25,523	29,699	31,512	4.3%	6.1%	96.8%	97.8%	98.8%	15	11	5
Vermont	22,704	25,496	26,615	3.2%	4.4%	86.1%	84.0%	83.4%	36	44	34
Virginia	25,504	29,548	31,384	4.2%	6.2%	96.7%	97.3%	98.4%	16	14	4
Washington	25,760	30,769	33,076	5.1%	7.5%	97.7%	101.4%	103.7%	11	1	1
West Virginia	22,373	24,716	25,269	2.5%	2.2%	84.9%	81.4%	79.2%	42	48	49
Wisconsin	23,610	27,337	28,542	3.9%	4.4%	89.6%	90.1%	89.5%	27	25	32

Note:
Rankings in this table differ from other tables due to the inclusion of the District of Columbia.

Source: U.S. Bureau of Labor Statistics.

Table 57
Employees on Nonagricultural Payrolls—U.S., Mountain Division, and States

Division/State	Employees on Nonagricultural Payrolls 1993 (thousands)	1997 (thousands)	1998 (thousands)	Rates of Change for Employees on Nonagricultural Payrolls: Avg. Ann. Grwth Rate 1993-98	Percent Change 1997-98	Employees on Nonagricultural Payrolls (not seasonally adjusted): November 1998 (thousands)	November 1999(p) (thousands)	Percent Change 1998-99	Rankings: Rank by Employees on Nonag. Payrolls 1998	Rank by Average Annual Grwth Rate 1993-98	Rank by Percent Change 1997-98	Rank by Percent Change (unadjust.) 1998-99
United States	110,713.0	122,690.0	125,826.0	2.6%	2.6%	127,902.0	130,583.0	2.1%				
Mountain States	6,336.7	7,656.4	7,921.3	4.6%	3.5%	8,096.3	8,312.1	2.7%				
Arizona	1,586.2	1,984.6	2,078.1	5.6%	4.7%	2,141.2	2,210.8	3.3%	21	2	1	4
Colorado	1,670.7	1,979.5	2,051.0	4.2%	3.6%	2,086.4	2,130.2	2.1%	22	4	6	15
Idaho	436.5	509.9	522.1	3.6%	2.4%	535.5	539.6	0.8%	43	7	26	39
Montana	325.6	364.9	372.9	2.7%	2.2%	379.1	387.2	2.1%	46	17	28	14
Nevada	671.4	890.7	924.5	6.6%	3.8%	953.2	999.8	4.9%	35	1	5	1
New Mexico	626.2	708.5	721.0	2.9%	1.8%	729.1	739.4	1.4%	37	15	42	29
Utah	809.8	993.8	1,023.9	4.8%	3.0%	1,045.6	1,074.5	2.8%	34	3	13	6
Wyoming	210.3	224.5	227.8	1.6%	1.5%	226.2	230.6	1.9%	51	45	48	18
Other States												
Alabama	1,716.8	1,866.3	1,906.0	2.1%	2.1%	1,931.3	1,949.0	0.9%	23	38	30	34
Alaska	252.9	268.7	275.4	1.7%	2.5%	269.3	271.7	0.9%	50	43	21	37
Arkansas	994.0	1,104.0	1,123.4	2.5%	1.8%	1,139.9	1,154.8	1.3%	33	27	43	31
California	12,045.3	13,129.7	13,584.1	2.4%	3.5%	13,854.3	14,222.8	2.7%	1	29	10	8
Connecticut	1,531.1	1,612.6	1,645.0	1.4%	2.0%	1,672.3	1,698.6	1.6%	27	46	36	28
Delaware	348.6	387.9	399.5	2.8%	3.0%	406.5	418.4	2.9%	45	16	14	5
D.C.	670.3	618.4	615.4	-1.7%	-0.5%	618.8	623.0	0.7%	39	51	51	42
Florida	5,571.4	6,414.4	6,677.3	3.7%	4.1%	6,809.6	7,071.4	3.8%	4	6	2	2
Georgia	3,109.2	3,614.4	3,740.4	3.8%	3.5%	3,819.6	3,961.1	3.7%	11	5	8	3
Hawaii	538.8	531.6	529.9	-0.3%	-0.3%	531.7	534.9	0.6%	42	50	50	44
Illinois	5,330.5	5,772.1	5,893.7	2.0%	2.1%	5,994.0	6,042.9	0.8%	5	39	32	38
Indiana	2,626.9	2,858.6	2,917.8	2.1%	2.1%	2,965.3	2,992.5	0.9%	14	37	33	33
Iowa	1,278.6	1,407.0	1,446.4	2.5%	2.8%	1,475.9	1,509.6	2.3%	29	26	17	13
Kansas	1,133.3	1,268.2	1,312.2	3.0%	3.5%	1,340.3	1,361.5	1.6%	31	12	9	26
Kentucky	1,547.9	1,711.2	1,753.1	2.5%	2.4%	1,778.8	1,815.5	2.1%	26	24	23	16
Louisiana	1,658.6	1,849.9	1,896.8	2.7%	2.5%	1,924.5	1,938.3	0.7%	24	18	19	41
Maine	519.4	553.7	569.6	1.9%	2.9%	584.8	598.7	2.4%	41	42	16	11
Maryland	2,102.4	2,267.1	2,324.1	2.0%	2.5%	2,367.4	2,411.8	1.9%	20	40	20	21
Massachusetts	2,840.2	3,109.2	3,177.2	2.3%	2.2%	3,229.3	3,273.2	1.4%	13	33	29	30
Michigan	4,005.8	4,448.2	4,514.4	2.4%	1.5%	4,596.3	4,630.5	0.7%	8	30	47	40
Minnesota	2,242.7	2,490.8	2,560.3	2.7%	2.8%	2,610.0	2,657.4	1.8%	19	19	18	23
Mississippi	1,002.3	1,107.1	1,131.5	2.5%	2.2%	1,142.3	1,139.7	-0.2%	32	28	27	50
Missouri	2,394.5	2,639.4	2,686.6	2.3%	1.8%	2,732.2	2,735.1	0.1%	16	32	40	49
Nebraska	767.2	854.3	875.3	2.7%	2.5%	891.0	888.5	-0.3%	36	20	22	51
New Hampshire	502.4	570.2	587.5	3.2%	3.0%	594.2	605.0	1.8%	40	10	12	22
New Jersey	3,493.1	3,724.6	3,800.8	1.7%	2.0%	3,850.5	3,917.7	1.7%	9	44	34	24
New York	7,752.0	8,067.1	8,228.7	1.2%	2.0%	8,386.5	8,552.7	2.0%	3	49	37	17
North Carolina	3,244.7	3,663.2	3,772.4	3.1%	3.0%	3,852.9	3,887.9	0.9%	10	11	15	35
North Dakota	284.8	314.1	317.7	2.2%	1.1%	320.6	321.9	0.4%	48	34	49	47
Ohio	4,918.3	5,392.4	5,474.7	2.2%	1.5%	5,550.3	5,579.7	0.5%	7	35	45	45
Oklahoma	1,247.0	1,392.5	1,441.4	2.9%	3.5%	1,461.7	1,498.5	2.5%	30	13	7	9
Oregon	1,308.4	1,526.4	1,556.6	3.5%	2.0%	1,589.2	1,614.3	1.6%	28	9	38	27
Pennsylvania	5,122.8	5,406.5	5,496.0	1.4%	1.7%	5,577.9	5,604.3	0.5%	6	47	44	46
Rhode Island	430.0	450.0	458.0	1.3%	1.8%	467.6	475.2	1.6%	44	48	41	25
South Carolina	1,570.1	1,720.2	1,787.1	2.6%	3.9%	1,811.2	1,854.5	2.4%	25	21	3	10
South Dakota	318.7	354.9	361.3	2.5%	1.8%	365.5	366.8	0.4%	47	23	39	48
Tennessee	2,328.5	2,584.0	2,636.6	2.5%	2.0%	2,677.8	2,702.8	0.9%	17	25	35	32
Texas	7,481.5	8,608.0	8,939.0	3.6%	3.8%	9,105.1	9,353.6	2.7%	2	8	4	7
Vermont	257.2	279.2	285.9	2.1%	2.4%	290.0	296.7	2.3%	49	36	25	12
Virginia	2,918.9	3,231.8	3,309.7	2.5%	2.4%	3,371.5	3,435.8	1.9%	12	22	24	19
Washington	2,253.0	2,514.2	2,596.3	2.9%	3.3%	2,647.8	2,697.6	1.9%	18	14	11	20
West Virginia	652.6	707.8	718.5	1.9%	1.5%	730.4	734.9	0.6%	38	41	46	43
Wisconsin	2,412.7	2,655.7	2,711.9	2.4%	2.1%	2,753.0	2,778.0	0.9%	15	31	31	36

(p)=preliminary

Note: This data varies slightly from data reported by the State of Utah Department of Workforce Services.

Source: U.S. Bureau of Labor Statistics.

Table 58
Unemployment Rates—U.S., Mountain Division, and States

Division/State	Unemployment Rate 1993	Unemployment Rate 1997	Unemployment Rate 1998	Unemployment Rate Percent Change 1993-98	Unemployment Rate Percent Change 1997-98	Unemployment Rate (not seasonally adjusted) November 1998	Unemployment Rate (not seasonally adjusted) November 1999(p)	Rankings by Unemployment Rate 1993	1997	1998	(unadjust.) 1998	(unadjust.) 1999
United States	6.9%	4.9%	4.5%	-2.4%	-0.4%	4.1%	3.8%					
Mountain States	5.8%	4.3%	4.4%	-1.4%	0.1%	3.9%	3.6%					
Arizona	6.2%	4.6%	4.1%	-2.0%	-0.5%	3.7%	3.7%	28	28	32	30	25
Colorado	5.2%	3.3%	3.8%	-1.4%	0.6%	3.3%	2.6%	40	44	34	33	41
Idaho	6.1%	5.3%	5.0%	-1.1%	-0.3%	4.4%	4.3%	31	16	13	15	12
Montana	6.0%	5.4%	5.6%	-0.4%	0.3%	5.6%	4.8%	33	15	8	6	7
Nevada	7.2%	4.1%	4.3%	-2.9%	0.2%	3.1%	3.9%	16	35	25	38	20
New Mexico	7.5%	6.2%	6.2%	-1.3%	-0.1%	6.0%	5.5%	10	7	4	2	4
Utah	3.9%	3.1%	3.8%	-0.1%	0.6%	3.2%	2.7%	49	48	38	37	39
Wyoming	5.4%	5.1%	4.8%	-0.6%	-0.3%	4.5%	4.1%	37	22	16	14	15
Other States												
Alabama	7.5%	5.1%	4.2%	-3.3%	-0.9%	3.9%	4.2%	11	24	28	28	14
Alaska	7.6%	7.9%	5.8%	-1.8%	-2.1%	5.5%	5.8%	7	2	6	7	2
Arkansas	6.2%	5.3%	5.5%	-0.7%	0.2%	4.9%	3.9%	27	17	11	12	22
California	9.2%	6.3%	5.9%	-3.3%	-0.4%	5.7%	4.6%	2	6	5	5	9
Connecticut	6.2%	5.1%	3.4%	-2.8%	-1.7%	2.9%	2.6%	26	21	42	42	42
Delaware	5.3%	4.0%	3.8%	-1.5%	-0.2%	3.0%	2.9%	39	36	37	40	36
D.C.	8.5%	7.9%	8.8%	0.4%	0.9%	8.0%	5.7%	3	1	1	1	3
Florida	7.0%	4.8%	4.3%	-2.7%	-0.5%	4.2%	4.0%	20	26	26	18	19
Georgia	5.8%	4.5%	4.2%	-1.6%	-0.3%	3.8%	3.4%	34	30	29	29	29
Hawaii	4.2%	6.4%	6.2%	2.1%	-0.2%	5.9%	5.2%	47	5	3	3	5
Illinois	7.4%	4.7%	4.5%	-3.0%	-0.2%	4.1%	3.9%	12	27	23	23	21
Indiana	5.3%	3.5%	3.1%	-2.2%	-0.4%	2.8%	2.8%	38	43	45	44	38
Iowa	4.0%	3.3%	2.8%	-1.2%	-0.5%	2.5%	2.0%	48	45	49	49	51
Kansas	5.0%	3.8%	3.8%	-1.1%	0.1%	3.7%	3.3%	43	40	35	31	32
Kentucky	6.2%	5.4%	4.6%	-1.6%	-0.8%	4.1%	3.7%	30	13	20	22	26
Louisiana	7.4%	6.1%	5.7%	-1.7%	-0.4%	4.9%	4.4%	14	8	7	10	10
Maine	7.9%	5.4%	4.4%	-3.5%	-1.0%	4.2%	3.6%	4	11	24	19	27
Maryland	6.2%	5.1%	4.6%	-1.6%	-0.5%	4.0%	3.1%	29	23	21	25	33
Massachusetts	6.9%	4.0%	3.3%	-3.5%	-0.7%	2.7%	2.8%	21	37	43	45	37
Michigan	7.0%	4.2%	3.9%	-3.1%	-0.3%	3.3%	3.3%	19	33	33	34	31
Minnesota	5.1%	3.3%	2.5%	-2.5%	-0.7%	2.1%	2.1%	41	46	51	51	50
Mississippi	6.3%	5.7%	5.4%	-1.0%	-0.4%	4.4%	3.8%	25	10	12	16	24
Missouri	6.4%	4.2%	4.2%	-2.2%	-0.1%	3.2%	2.3%	24	32	31	35	48
Nebraska	2.6%	2.6%	2.7%	0.1%	0.1%	2.3%	2.2%	51	50	50	50	49
New Hampshire	6.6%	3.1%	2.9%	-3.7%	-0.2%	2.9%	2.7%	22	47	47	43	40
New Jersey	7.4%	5.1%	4.6%	-2.8%	-0.5%	4.2%	4.0%	13	20	19	20	17
New York	7.7%	6.4%	5.6%	-2.1%	-0.8%	5.2%	4.8%	6	4	9	9	8
North Carolina	4.9%	3.6%	3.5%	-1.4%	-0.2%	3.1%	3.1%	44	42	39	39	34
North Dakota	4.3%	2.5%	3.2%	-1.1%	0.7%	2.6%	2.6%	46	51	44	48	43
Ohio	6.5%	4.6%	4.3%	-2.2%	-0.3%	4.0%	3.9%	23	29	27	24	23
Oklahoma	6.0%	4.1%	4.5%	-1.5%	0.4%	4.1%	2.9%	32	34	22	21	35
Oregon	7.2%	5.8%	5.6%	-1.6%	-0.2%	5.4%	4.9%	15	9	10	8	6
Pennsylvania	7.0%	5.2%	4.6%	-2.4%	-0.6%	4.2%	4.0%	17	19	18	17	16
Rhode Island	7.7%	5.3%	4.9%	-2.8%	-0.4%	3.9%	3.4%	5	18	14	26	30
South Carolina	7.5%	4.5%	3.8%	-3.7%	-0.7%	3.6%	4.3%	8	31	36	32	11
South Dakota	3.5%	3.1%	2.9%	-0.6%	-0.2%	2.6%	2.4%	50	49	48	47	47
Tennessee	5.7%	5.4%	4.2%	-1.5%	-1.2%	3.9%	3.5%	35	12	30	27	28
Texas	7.0%	5.4%	4.8%	-2.2%	-0.6%	4.6%	4.2%	18	14	15	13	13
Vermont	5.4%	4.0%	3.4%	-2.0%	-0.6%	2.9%	2.5%	36	38	40	41	46
Virginia	5.0%	4.0%	2.9%	-2.1%	-1.0%	2.7%	2.6%	42	39	46	46	44
Washington	7.5%	4.8%	4.8%	-2.8%	-0.0%	4.9%	4.0%	9	25	17	11	18
West Virginia	10.8%	6.9%	6.6%	-4.1%	-0.2%	5.8%	6.1%	1	3	2	4	1
Wisconsin	4.7%	3.7%	3.4%	-1.3%	-0.3%	3.2%	2.5%	45	41	41	36	45

(p)=preliminary

Source: U.S. Bureau of Labor Statistics.

Table 59
Percent of People in Poverty—U.S., Mountain Division, and States

	Percent of Persons in Poverty				Percent of Persons in Poverty Two-year Moving Average*				Percent of Persons in Poverty Three-year Average*		
	1993	1997	1998		1996-1997	1997-1998			1996-1998		
	Amount	Amount	Amount	Standard Error	Amount	Amount	Standard Error	Two-year Average Difference	Amount	Standard Error	Amount Rank
United States	15.1%	13.3%	12.7%	0.21%	13.5%	13.0%	0.2%	-0.5%	13.2%	0.15%	----
Mountain States	12.9%	13.5%	13.3%	NA	14.1%	13.3%	NA	-0.8%	13.8%	NA	----
Arizona	15.4%	17.2%	16.6%	1.69%	18.8%	16.9%	1.5%	-1.9%	18.1%	1.29%	47
Colorado	9.9%	8.2%	9.2%	1.42%	9.4%	8.7%	1.2%	-0.7%	9.3%	1.05%	8
Idaho	13.1%	14.7%	13.0%	1.58%	13.3%	13.8%	1.4%	0.6%	13.2%	1.18%	32
Montana	14.9%	15.6%	16.6%	1.76%	16.3%	16.1%	1.5%	-0.2%	16.4%	1.29%	43
Nevada	9.8%	11.0%	10.6%	1.53%	9.6%	10.8%	1.3%	1.2%	9.9%	1.12%	11
New Mexico	17.4%	21.2%	20.4%	1.92%	23.4%	20.8%	1.6%	-2.6%	22.4%	1.44%	50
Utah	10.7%	8.9%	9.0%	1.32%	8.3%	8.9%	1.1%	0.7%	8.5%	0.95%	2
Wyoming	13.3%	13.5%	10.6%	1.56%	12.7%	12.1%	1.4%	-0.6%	12.0%	1.21%	27
Other States											
Alabama	17.4%	15.7%	14.5%	1.76%	14.8%	15.1%	1.5%	0.3%	14.7%	1.29%	38
Alaska	9.1%	8.8%	9.4%	1.44%	8.5%	9.1%	1.2%	0.6%	8.8%	1.02%	6
Arkansas	20.0%	19.7%	14.8%	1.73%	18.4%	17.2%	1.6%	-1.2%	17.2%	1.34%	45
California	18.2%	16.6%	15.4%	0.72%	16.8%	16.0%	0.6%	-0.8%	16.3%	0.55%	42
Connecticut	8.5%	8.6%	9.5%	1.65%	10.1%	9.0%	1.4%	-1.1%	9.9%	1.21%	13
Delaware	10.2%	9.6%	10.3%	1.64%	9.1%	10.0%	1.4%	0.9%	9.5%	1.18%	10
Dist. of C.	26.4%	21.8%	22.3%	2.37%	23.0%	22.0%	2.0%	-0.9%	22.7%	1.73%	51
Florida	17.8%	14.3%	13.1%	0.89%	14.3%	13.7%	0.8%	-0.5%	13.9%	0.67%	35
Georgia	13.5%	14.5%	13.6%	1.49%	14.7%	14.0%	1.3%	-0.6%	14.3%	1.12%	36
Hawaii	8.0%	13.9%	10.9%	1.72%	13.0%	12.4%	1.6%	-0.6%	12.3%	1.33%	28
Illinois	13.6%	11.2%	10.1%	0.88%	11.6%	10.6%	0.8%	-1.0%	11.1%	0.67%	22
Indiana	12.2%	8.8%	9.4%	1.44%	8.2%	9.1%	1.2%	0.9%	8.6%	1.02%	3
Iowa	10.3%	9.6%	9.1%	1.47%	9.6%	9.3%	1.3%	-0.3%	9.4%	1.09%	9
Kansas	13.1%	9.7%	9.6%	1.49%	10.4%	9.6%	1.3%	-0.8%	10.1%	1.12%	15
Kentucky	20.4%	15.9%	13.5%	1.70%	16.4%	14.7%	1.5%	-1.7%	15.5%	1.31%	40
Louisiana	26.4%	16.3%	19.1%	1.88%	18.4%	17.7%	1.6%	-0.7%	18.6%	1.36%	49
Maine	15.4%	10.1%	10.4%	1.68%	10.7%	10.2%	1.4%	-0.4%	10.6%	1.25%	18
Maryland	9.7%	8.4%	7.2%	1.38%	9.3%	7.8%	1.2%	-1.6%	8.6%	1.09%	5
Massachusetts	10.7%	12.2%	8.7%	1.04%	11.2%	10.4%	1.0%	-0.7%	10.3%	0.83%	16
Michigan	15.4%	10.3%	11.0%	0.97%	10.7%	10.6%	0.8%	-0.1%	10.8%	0.71%	21
Minnesota	11.6%	9.6%	10.4%	1.49%	9.7%	10.0%	1.2%	0.3%	9.9%	1.07%	12
Mississippi	24.7%	16.7%	17.6%	1.87%	18.6%	17.1%	1.6%	-1.5%	18.3%	1.38%	48
Missouri	16.1%	11.8%	9.8%	1.53%	10.6%	10.8%	1.4%	0.2%	10.4%	1.16%	17
Nebraska	10.3%	9.8%	12.3%	1.66%	10.0%	11.1%	1.4%	1.1%	10.8%	1.15%	20
New Hampshire	9.9%	9.1%	9.8%	1.69%	7.7%	9.4%	1.4%	1.7%	8.4%	1.17%	1
New Jersey	10.9%	9.3%	8.6%	0.91%	9.2%	8.9%	0.8%	-0.3%	9.0%	0.68%	7
New York	16.4%	16.5%	16.7%	0.84%	16.6%	16.6%	0.7%	0.0%	16.6%	0.61%	44
North Carolina	14.4%	11.4%	14.0%	1.26%	11.8%	12.7%	1.0%	0.9%	12.5%	0.88%	29
North Dakota	11.2%	13.6%	15.1%	1.82%	12.3%	14.4%	1.5%	2.1%	13.2%	1.26%	33
Ohio	13.0%	11.0%	11.2%	0.97%	11.8%	11.1%	0.8%	-0.7%	11.6%	0.72%	25
Oklahoma	19.9%	13.7%	14.1%	1.68%	15.2%	13.9%	1.4%	-1.3%	14.8%	1.24%	39
Oregon	11.8%	11.6%	15.0%	1.84%	11.7%	13.3%	1.5%	1.6%	12.8%	1.26%	30
Pennsylvania	13.2%	11.2%	11.2%	0.91%	11.4%	11.2%	0.8%	-0.2%	11.3%	0.67%	24
Rhode Island	11.2%	12.7%	11.5%	1.82%	11.9%	12.2%	1.6%	0.3%	11.8%	1.35%	26
South Carolina	18.7%	13.1%	13.7%	1.79%	13.1%	13.4%	1.5%	0.3%	13.3%	1.30%	34
South Dakota	14.2%	16.5%	10.8%	1.55%	14.1%	13.7%	1.4%	-0.5%	13.0%	1.23%	31
Tennessee	19.6%	14.3%	13.4%	1.70%	15.1%	13.9%	1.5%	-1.2%	14.5%	1.29%	37
Texas	17.4%	16.7%	15.0%	0.90%	16.7%	15.9%	0.8%	-0.8%	16.1%	0.68%	41
Vermont	10.0%	9.3%	9.9%	1.68%	10.9%	9.6%	1.4%	-1.4%	10.6%	1.26%	19
Virginia	9.7%	12.7%	8.8%	1.36%	12.5%	10.8%	1.3%	-1.7%	11.3%	1.11%	23
Washington	12.1%	9.2%	8.9%	1.47%	10.5%	9.1%	1.3%	-1.5%	10.0%	1.13%	14
West Virginia	22.2%	16.4%	17.8%	1.84%	17.5%	17.1%	1.5%	-0.3%	17.6%	1.34%	46
Wisconsin	12.6%	8.2%	8.8%	1.41%	8.5%	8.5%	1.2%	0.0%	8.6%	1.02%	4

*Because the sample of households contacted in small population states like Utah is relatively few in number, the data collected for two or three years is combined to calculate less variable estimates. The Census Bureau recommends using 2-year averages for evaluating changes in state estimates over time, and 3-year averages when comparing the relative ranking of states.

The Standard Error is a measurement that indicates the magnitude of sampling variability for the estimates. Note that the standard errors for U.S. estimates are much smaller than those for the states.

Ranking is done for the 50 states and the District of Columbia.

Source: March Current Population Survey, U.S. Census Bureau, Poverty in the United States: 1998.

Industry Focus

Agriculture

Overview

Agriculture is commonly referred to as an essential industry because we all need to eat. In addition, it is one of the leading industries in enhanced efficiency during the last century. A hundred years ago most of the nations citizens were involved in agriculture in some way while today's farmers produced enough to feed themselves and more than 100 others. This has been made possible by the development and use of improved practices (e.g., improved varieties of seed), the substitution of capital (e.g., machinery) for labor/animal power and the development of substitutes for traditional fabrics. As a result, most citizens of the nation take for granted that food and clothing will always be available. Few of Utah's citizens understand what it is like to go hungry. In fact, obesity is a problem for a significant portion of today's citizens. The growth of American agriculture allows most of us to enjoy other activities instead of being concerned with where we will obtain our next meal or how we will clothe ourselves.

As indicated in earlier chapters in this report, Utah has enjoyed relatively high rates of economic growth during the past decade. But, Utah must not be viewed in isolation. All sectors of the Utah economy must be viewed from a national and international point of view because economic activity in Utah competes with production in world wide markets.

National Perspective

The value of agricultural production in 1999 in the United States is expected to decline from 1998. The primary reason stems from the fact that the price of all grains declined dramatically from the near record high prices that existed in 1995-97. This has benefitted animal production because production costs have been reduced but, the value of crop production has declined to levels at or below the cost of production for many producers. The decline in net income from crop production has been partially offset with a relatively large infusion of government payments but, most of these payments have been given to crop producers in the mid-west. USDA projects that government payments in 1999 will be about "...12% of cash receipts and 39% of net cash income."

The mounting stocks of most grains will likely hold crop prices down throughout most of 2000 unless a major drought occurs. This will keep the cost of livestock production low which when coupled with a slight expected increase in the price of most livestock products should increase returns obtained by livestock producers in the coming year.

State Perspective

Net farm income in Utah continued to increase from the low level that existed in 1995 when livestock prices were relatively low. The data for 1998 and 1999 are not available but it is likely that this upward trend continued and it is likely that this trend will continue in 2000. This increase in net income has also allowed a steady increase in the equity position of farmers. However, this increase in equity is primarily based on increases in the value of real estate. For example, the value of farm real estate increased by nearly $2 billion from 1987 to 1997 while real estate debt declined. This decline in real estate debt was more than offset by an increase in non real estate debt but the increase in the value of farm assets was much greater. As a result, farm equity continued to increase which made the debt to equity ratio decline to its lowest level in many years. Utah agriculture can therefore be viewed as financially solvent.

The production of livestock and livestock products are the major source of agricultural receipts in Utah. For example, data indicate that about three-fourths of all cash receipts in Utah in 1997 were from the sale of livestock and livestock products. In addition, the sale of hay and feed grains are to livestock producers. This suggests that over 90% of agricultural production in Utah is directly or indirectly related to animal production. If data for 1999 or 2000 was available, it is likely that the proportion would be somewhat higher because livestock prices either have or are expected to increase while the price of many crops are not expected to increase. There are however some sectors in these broad groupings that will be affected differently.

Animal Production. Who would have thought 10 years ago that Utah would become a major producer of hogs? This has however, become a reality with the expansion of the Circle Four complex in Beaver County. For example, hog production represented less than one percent of cash receipts in Utah in 1993 but this percentage increased to more than 4% in 1997. This increase is even more dramatic when it is realized that the price of hogs was low relative to crops and other livestock products during most of this period. If similar data was available for 1999, it is likely that hog production would be an even larger portion of the states production. It is likely that it will surpass other livestock production as it has the production of sheep within a year or two. This will make hogs, poultry/eggs, dairy and cattle the leading animal production enterprises in the state.

While the value of hog production has increased it remains much smaller than the receipts from the production of cattle and milk. No sector of agriculture is as large as the production of cattle and calves in Utah and it is likely that this will remain the dominate sector in Utah agriculture in the future. This dominance will continue because most of the land in Utah is only suitable for grazing by wild or domestic animals.

Cattle production is expected to continue to be important but, it is likely that the production of sheep and wool will continue to decline. Wool prices have fallen the last several years to the point that the value of the wool sheared will not pay for the cost of shearing. Furthermore, lamb prices remain low. As a result, the number of lamb producers has declined at least as fast as has the number of sheep. It is likely that the number of lamb producers will become very small in the state within a decade.

The dairy industry in Utah has experienced two years (late 1997 thorough much of 1999) when the price of milk was relatively high—milk prices were at an all time high in late 1998. This period of high prices resulted in increased production which has now caused a large decrease in the price of milk received by farmers. For example, the price of milk received by dairy farmers during the first few months of 2000 will likely to be almost half as much as they were in December of 1998. This will likely force some dairymen out of the industry as profits from dairying are reduced.

Crop Production. The rapid decline in crop prices that occurred between 1997 and 1999 had a major impact on the returns obtained by crop farmers in the state. Some of these operations are experiencing significant financial problems. This was especially true for grain farmers in 1999 and it is unlikely that this will not change much in 2000.

The cold wet spring in 1999 also had a major impact on crop production in Utah. For example, Apple production in some areas was essentially zero as a result of killing frosts and the late spring reduced corn production in most areas. This weather pattern was very positive for forage production in the spring but, this was offset by a very dry summer. But, 1999 will be remembered as a year when a large volume of high quality hay was produced whose value was diminished by low prices.

There is some concern with the low rainfall that has occurred during this water year (starting in October 1999). If water supplies are reduced in 2000, it is likely that crop production will be adversely affected.. All of these factors suggest that the value of crop production on 2000 could be reduced from those obtained in 1999.

Agriculture Income Versus Other Sectors. Utah has experienced a period of unprecedented economic growth in the last decade but, as noted elsewhere in this report this rate of growth is expected to decline within 2-5 years. This will not be viewed positively by some individuals but, these declines have already occurred in agriculture. Personal income from farming as a percent of total personal income in the state declined from 1.17% in 1980 to 0.44% in 1997. This suggests that personal income in the other sectors grew faster than it did in agriculture. However, this was not true in every county. For example, personal income from agriculture in many of Utah's rural counties (e.g., Rich and Piute) grew faster in the decade of the 80's than did personal income from other sectors—agricultural income lead income growth in these counties. This trend has largely been reversed since 1990 in most counties. In fact, personal income from farming was negative in some counties (e.g., Carbon, Daggett, Emery, Garfield, Kane, Uintah, Wasatch and Washington) in 1997. Agricultural production in many of these rural counties is dominated by cattle production and 1997 was a year when the returns for producing cattle were low. Personal income from farming has probably increased in most counties since 1997 but, it is unlikely that it has increased as rapidly as has personal income in the other sectors in many of these counties. This suggests that the rapid growth in personal income that has occurred in Utah in the 1990's has not been captured by agriculture to the degree it has by other sectors of the economy.

County Perspective

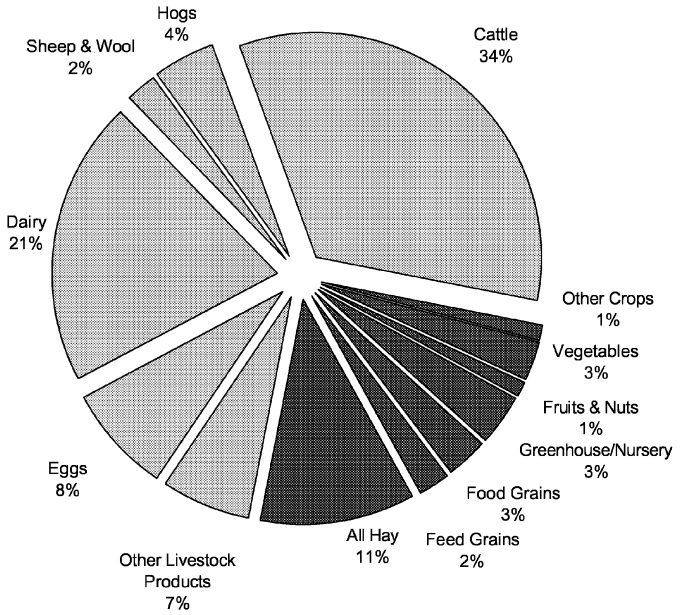
Agricultural production is not evenly distributed throughout the state. For example, data indicate that Box Elder, Cache, Utah and Sanpete Counties had the highest amount of cash receipts in 1997. Other large production Counties include Duchesne, Millard Beaver and Sevier Counties. Particular types of production are dominate or unique to some of these Counties. For example, turkey production is centered in Sanpete County and hog production is nearly primarily located in Beaver County. The fruit industry is dominated by production in Box Elder and Utah Counties while dairy production is dominate in Cache County.

As suggested above, the production of livestock and livestock products dominates agricultural production in most counties. The major exception is Davis County where vegetable and nursery production is important. The other counties were crop production is high relative to livestock production are counties were hay and grain production are large (e.g. Iron County).

There are several agriculturally related developments that either are or will soon have a fairly major impact in some counties. For example, the layer operation in Millard County will likely be in full production in late 2000. This operation will have about 1.5 million birds on site that will produce about four semi loads of eggs each day. This operation will employ about 60 people on site and be a major player in the local area. The Malt-O-Meal plant that is being constructed in Box Elder County was expected to be in production in 2000 but, it is not likely that this will occur until 2001. This plant will not only be major employer but could become a major purchaser of grain produced in northern Utah and southern Idaho. New operations such as Malt-O-Meal and the layer operation commonly receive attention in the news media but, changes in existing industries may be just as important in some cases. For example, changes in the operation of the processing plant at Moroni (Sanpete County) are expected that will allow this operation to produce throughout the year. In addition, many of the existing dairy operations continue to increase capacity and production.

There is concern expressed when any farm operation goes out of business but, this may not be important when viewed from the point of view of the industry. For example, dairy operations go out of business each year and this will likely accelerate in 2000. But, many existing dairy operations in the state continue to expand so the number of dairy cows and total production may not decline. This type of consolidation is expected to continue in most areas of agricultural production. This trend in consolidation, the industrialization of agricultural production/processing, maintenance of open space/land for farming, issues associated with meeting environmental standards and remaining profitable as risks associated with production increase will be the primary issues facing farmers in Utah as we start the new millennium. ❊

Figure 42
Percentage of Agricultural Receipts by Sector in Utah: 1997

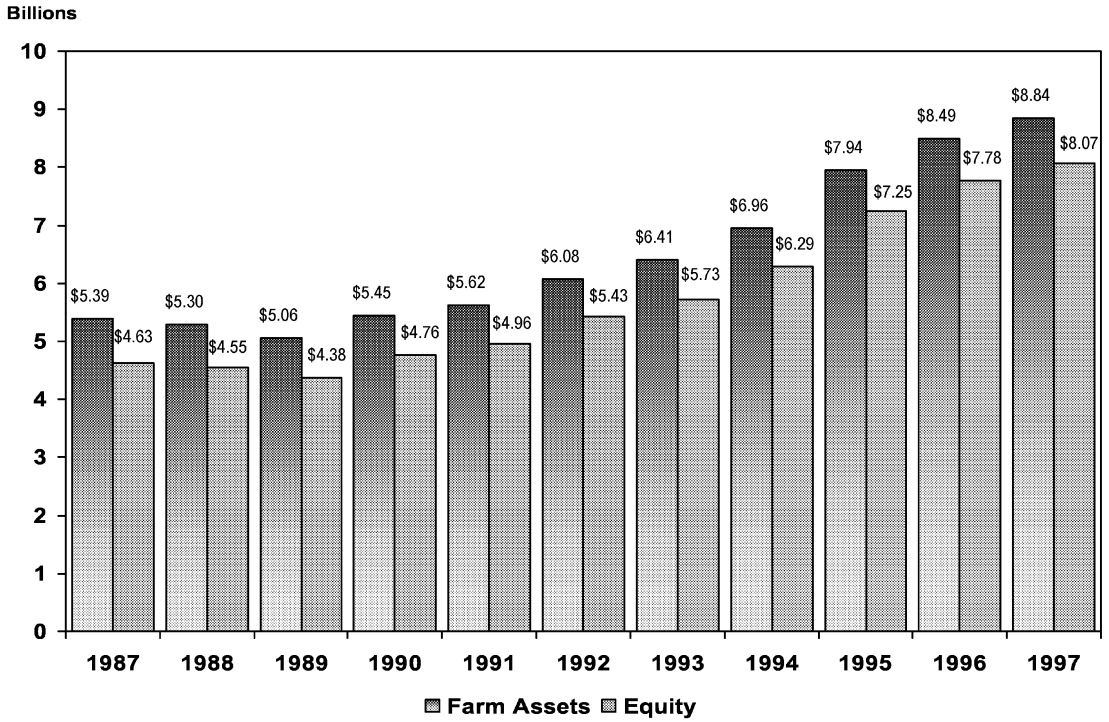


Livestock & Livestock Products = 76%

Crops = 24%

Source: Utah Agricultural Statistics

Figure 43
Farm Assets and Equity in Utah



Source: Utah Agricultural Statistics

Figure 44
Net Farm Income in Utah

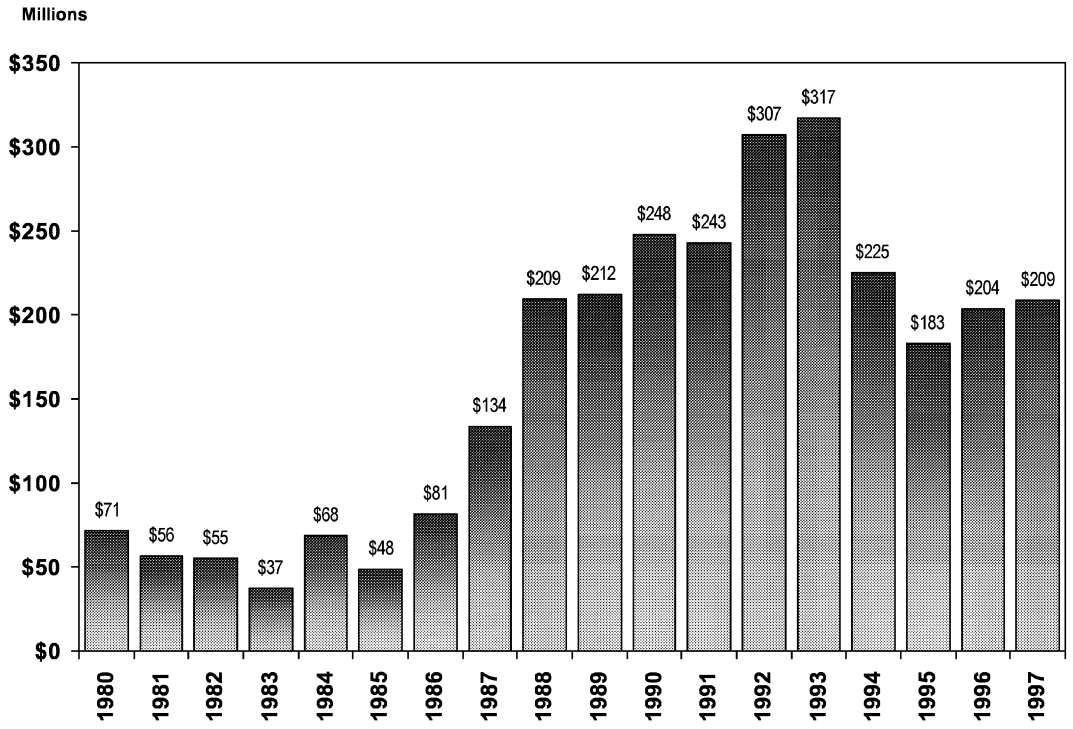
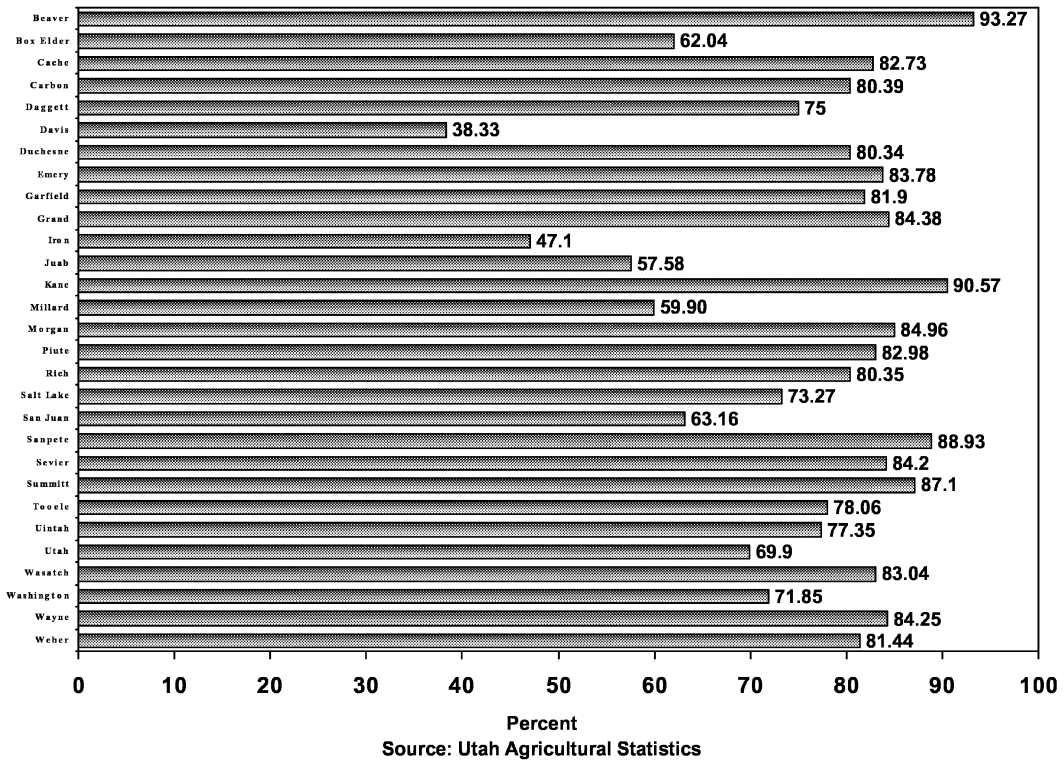
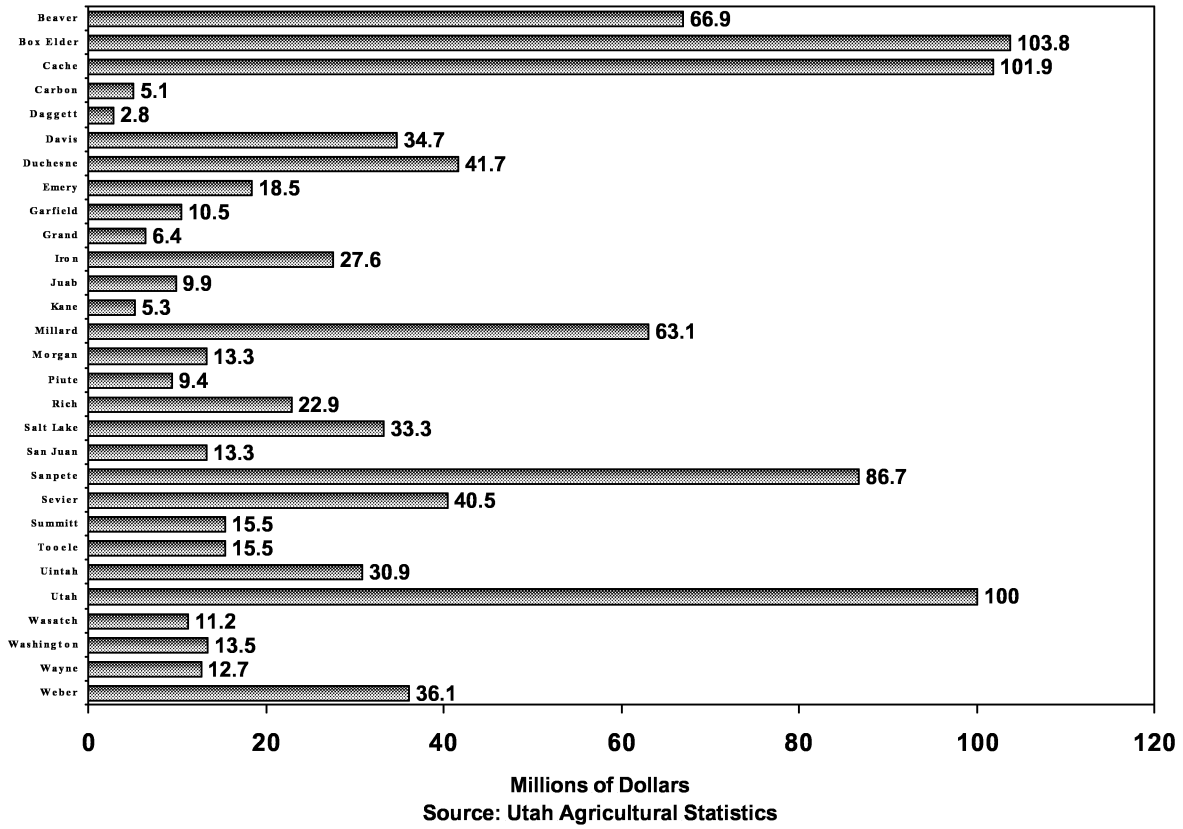


Figure 45
1997 Percentage of Cash Receipts by County in Livestock Products



Source: Utah Agricultural Statistics

Figure 46
Farm Cash Receipts by County in Utah: 1997



Source: Utah Agricultural Statistics

Table 60
Utah Farm Balance Sheet (Millions of Dollars)

Category	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Assets	$5,390.3	$5,296.3	$5,063.0	$5,452.2	$5,621.8	$6,081.3	$6,406.4	$6,954.5	$7,894.1	$8,488.4	$8,836.7
Real Estate	4,197.0	4,112.7	3,881.0	4,160.1	4,433.6	4,841.2	5,172.8	5,725.4	6,589.3	7,090.4	7,374.0
Livestock and Poultry	484.4	536.5	572.0	582.7	566.3	637.9	626.9	626.4	512.9	553.4	592.9
Machinery & Motor Vehicles	429.1	428.7	444.6	459.1	472.5	471.0	465.2	472.4	454.5	467.4	464.1
Crops	112.4	123.5	94.9	114.6	95.0	90.6	116.2	1,115.9	94.4	121.0	148.3
Purchased inputs	7.6	12.2	12.4	15.5	20.8	28.9	27.9	23.4	14.3	24.5	28.7
Financial	159.8	82.7	58.1	93.1	32.4	12.0	(2.7)	(9.0)	228.7	231.8	228.7
Claims	756.3	743.0	683.1	661.9	660.8	652.2	652.3	674.6	688.3	709.5	766.9
Real estate debt	447.0	428.2	390.3	372.7	355.8	352.9	338.3	337.4	348.1	350.9	372.7
Non real estate debt	309.3	314.8	292.8	289.2	305.0	299.4	314.0	337.2	340.1	358.6	394.2
Equity	4,634.0	4,553.3	4,379.9	4,763.3	4,961.0	5,429.1	5,754.1	6,280.0	7,205.8	7,778.8	8,069.8
Debt/ Equity	16.3	16.3	15.6	13.9	13.3	12.0	11.3	10.7	9.6	9.1	9.5

Source: Utah Agricultural Statistics

Table 61
Percent of Agricultural Receipts by Sector

Sector	1980	1985	1990	1995	1996	1997
Cattle	30.0	28.3	37.7	32.1	28.1	33.6
Sheep	4.3	4.5	2.1	2.8	2.5	2.3
Hogs	1.0	0.5	0.7	0.9	2.1	4.4
Dairy	24.3	25.1	21.8	22.3	25.1	20.6
Poultry/eggs	8.4	11.7	9.5	8.5	8.4	7.6
Other livestock	5.2	4.6	4.5	6.2	7.9	6.5
Food grains	5.8	4.9	2.5	4.0	4.4	3.1
Feed grains	2.6	3.1	2.0	2.9	3.4	2.4
Hay	8.0	6.6	9.1	10.8	8.9	11
Vegtables	2.8	3.1	4.1	2.9	2.7	2.6
Fruits/Nuts	2.9	3.6	1.5	1.1	1.6	1.3
Greenhouse/Nursery	2.5	2.6	3.3	4.3	3.7	3.4
Other crops	2.2	1.4	1.2	1.2	1.2	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Utah Agricultural Statistics

Table 62
Cash Receipts by Source—Counties (Millions of Dollars)

	1992			1993			1994			1995			1996			1997		
County	Livestock	Crops	Total	Livestock	Crops	Total	Livestock	Crops	Total	Livestock	Crops	Total	Livestock	Crops	Total	Livestock	Crops	Total
Beaver	$17.8	$2.8	$20.6	$20.0	$3.2	$23.2	$18.5	$4.3	$22.8	$16.4	$4.6	$21.0	$24.7	$4.3	$29.0	$62.4	$4.5	$66.9
Box Elder	46.0	30.5	76.5	51.2	29.8	81.0	49.6	35.4	85.0	52.7	35.7	88.4	55.8	39.4	95.2	64.4	39.4	103.8
Cache	80.0	13.7	93.7	80.8	13.4	94.2	83.1	17.4	100.5	78.5	20.0	98.5	86.2	22.1	108.3	84.3	17.6	101.9
Carbon	3.5	0.5	4.0	4.1	0.6	4.7	4.0	0.7	4.7	4.2	0.8	5.0	4.2	0.8	5.0	4.1	1.0	5.1
Daggett	1.0	0.3	1.3	1.5	0.3	1.8	1.0	0.5	1.5	0.9	0.4	1.3	0.9	0.4	1.3	2.1	0.7	2.8
Davis	11.8	29.7	41.5	14.4	22.1	36.5	12.6	25.8	38.4	12.7	22.0	34.7	14.5	22.2	36.7	13.3	21.4	34.7
Duchesne	25.3	3.5	28.8	28.5	4.4	32.9	26.7	6.3	33.0	28.7	6.8	35.5	29.5	6.5	36.0	33.5	8.2	41.7
Emery	10.8	1.5	12.3	11.4	1.8	13.2	10.4	2.3	12.7	11.2	2.2	13.4	11.0	2.0	13.0	15.5	3.0	18.5
Garfield	7.0	0.9	7.9	8.3	1.0	9.3	6.5	1.4	7.9	7.2	1.4	8.6	7.0	1.2	8.2	8.6	1.9	10.5
Grand	1.6	0.7	2.3	1.5	0.7	2.2	1.6	0.8	2.4	1.3	0.6	1.9	1.5	0.5	2.0	5.4	1.0	6.4
Iron	10.5	10.5	21.0	12.4	10.2	22.6	11.5	12.5	24.0	11.8	11.4	23.2	12.1	10.8	22.9	13.0	14.6	27.6
Juab	5.1	2.7	7.8	6.2	2.6	8.8	5.4	3.9	9.3	5.1	4.4	9.5	5.1	4.6	9.7	5.7	4.2	9.9
Kane	3.7	0.4	4.1	4.5	0.4	4.9	4.3	0.6	4.9	3.9	0.5	4.4	3.9	0.5	4.4	4.8	0.5	5.3
Millard	24.4	16.5	40.9	28.1	18.2	46.3	24.5	21.0	45.5	33.2	23.8	57.0	35.8	24.2	60.0	37.8	25.3	63.1
Morgan	10.9	1.0	11.9	10.3	1.2	11.5	10.5	1.4	11.9	9.3	1.5	10.8	12.3	1.7	14.0	11.3	2.0	13.3
Piute	6.4	0.9	7.3	7.3	1.1	8.4	7.7	1.2	8.9	7.7	1.2	8.9	8.2	1.1	9.3	7.8	1.6	9.4
Rich	16.7	2.2	18.9	18.7	2.7	21.4	16.4	4.0	20.4	17.3	3.8	21.1	16.6	3.6	20.2	18.4	4.5	22.9
Salt Lake	24.6	13.7	38.3	34.6	9.6	44.2	33.0	13.0	46.0	31.2	11.9	43.1	37.9	11.8	49.7	24.4	8.9	33.3
San Juan	7.0	2.7	9.7	8.0	2.6	10.6	9.5	3.5	13.0	7.8	4.9	12.7	7.8	2.0	9.8	8.4	4.9	13.3
Sanpete	70.7	3.8	74.5	79.3	4.7	84.0	70.2	6.5	76.7	72.4	6.9	79.3	74.3	6.7	81.0	77.1	9.6	86.7
Sevier	25.4	3.2	28.6	29.4	4.1	33.5	30.5	5.0	35.5	29.7	5.4	35.1	31.0	5.4	36.4	34.1	6.4	40.5
Summit	13.5	0.9	14.4	14.9	1.1	16.0	15.1	1.4	16.5	12.6	1.3	13.9	14.5	1.2	15.7	13.5	2.0	15.5
Tooele	7.4	3.0	10.4	8.3	2.8	11.1	7.5	3.4	10.9	8.1	3.6	11.7	8.2	3.7	11.9	12.1	3.4	15.5
Uintah	19.2	3.2	22.4	21.3	3.4	24.7	21.2	4.3	25.5	17.7	5.3	23.0	17.3	4.9	22.2	23.9	7.0	30.9
Utah	58.7	32.0	90.7	64.3	23.0	87.3	61.6	29.2	90.8	60.0	26.1	86.1	70.2	30.8	101.0	69.9	30.1	100.0
Wasatch	9.5	1.3	10.8	9.9	1.2	11.1	9.0	1.5	10.5	8.6	1.6	10.2	9.4	1.6	11.0	9.3	1.9	11.2
Washington	6.9	4.3	11.2	8.7	3.4	12.1	7.7	4.8	12.5	6.8	4.0	10.8	6.9	4.0	10.9	9.7	3.8	13.5
Wayne	8.7	1.2	9.9	9.4	1.3	10.7	8.0	1.5	9.5	9.5	1.8	11.3	11.0	1.8	12.8	10.7	2.0	12.7
Weber	23.8	7.3	31.1	29.0	6.3	35.3	30.0	7.7	37.7	24.8	6.8	31.6	28.3	7.2	35.5	29.4	6.7	36.1
State	$557.9	$194.9	$752.8	$626.3	$177.2	$803.5	$597.6	$221.3	$818.9	$591.3	$220.7	$812.0	$646.1	$227.0	$873.1	$714.9	$238.1	$953.0

Source: Utah Agricultural Statistics.

Table 63
Personal Income from Farming as a Percent of Total Personal Income by County in Utah

County	1980	1990	1992	1997
Beaver	7.62	30.07	20.80	6.03
Box Elder	5.57	5.79	4.87	3.54
Cache	6.09	4.97	4.56	1.85
Carbon	0.50	1.30	0.44	-0.34
Daggett	10.78	9.29	7.68	-2.22
Davis	0.91	0.95	1.41	0.31
Duchesne	4.56	13.43	10.45	1.86
Emery	0.42	5.35	2.53	-0.82
Garfield	3.83	15.39	9.52	-0.98
Grand	1.38	1.56	0.76	0.07
Iron	1.71	7.69	4.00	0.81
Juab	1.40	12.49	9.21	2.55
Kane	3.03	6.40	1.39	-0.16
Millard	23.93	14.98	14.77	12.65
Morgan	10.59	15.90	8.68	1.82
Piute	27.25	47.17	28.63	10.30
Rich	22.44	54.74	56.01	11.30
Salt Lake	0.24	0.13	0.11	0.03
San Juan	3.56	7.88	2.66	0.10
Sanpete	5.77	20.90	19.87	4.94
Sevier	4.97	8.46	12.94	4.53
Summit	6.04	5.20	1.14	0.42
Tooele	1.24	2.02	0.51	0.58
Uintah	2.38	6.84	3.23	-0.05
Utah	0.94	1.11	0.78	0.44
Wasatch	4.73	7.48	3.60	-0.63
Washinggton	3.63	1.51	0.48	-0.07
Wayne	11.12	24.32	25.08	12.60
Weber	0.59	0.70	0.77	0.17
Total	1.17	1.60	1.24	0.44

Source: Bureau of Economic Analysis

Construction and Housing

Overview

Construction activity in Utah continued at a brisk pace in 1999. The total value of permit-authorized construction reached a record level $3.8 billion, including $2.2 billion in residential construction–an all-time high, and $1.1 billion in nonresidential construction and $550 million in additions, alterations and repairs–also an all-time high. New residential construction added 20,000 new dwelling units to the Utah housing market: 14,200 new single-family homes, 4,500 new multifamily units and 1,300 mobile homes and cabins. Although residential valuation was at a record high, the number of new residential units at 20,000 was actually down 8% compared to 1998. The rise in valuation (but drop in number of units) is explained by a shift in the mix of residential construction, that is, a shift to a larger share of higher-valued, single-family units and a smaller share of lower-valued, multifamily units. The strength of the single-family sector is also apparent in the existing home market. The number of existing homes sold in the four Wasatch Front counties has increased in 1999 to nearly 18,000, up 5% over 1998. A majority of these real estate sales–10,000–were in Salt Lake County.

1999 Summary

Residential Construction. The strength of the new home market has been extraordinary in 1999. Despite a significant drop in the growth rate of population and employment, the demand for new residential units appears almost unaffected. A combination of several economic and demographic factors have collaborated to sustain the unexpectedly high level of residential construction.

First and foremost was low mortgage rates. Although rates have moved up from the 30-year low of 6.7% recorded in the fourth quarter of 1998, they have remained very favorable throughout the year, ranging between 6.8% and 7.8%. These low rates have combined with a recent slow-down in the increase in housing prices to improve housing affordability and provide an additional boost in the demand for single-family housing. As measured by both the local real estate multiple listing service and the Office of Federal Housing Enterprise Oversight, the annual price increases for existing homes have dropped below 3% in 1999.

In addition to improved affordability, there are several other factors that have joined together to support residential construction activity at the surprisingly high 20,000-unit level. They are: more lenient down payment requirements for home buyers, a stock market boom that has helped fuel demand for second homes as well as "moving-up" by existing homeowners and changes in household headship rates, i.e., young people under 25 years of age, in greater numbers, are forming households and buying or renting housing units. All of these factors have contributed to the prolonged strength of the current housing cycle and another 20,000-unit year in 1999.

Unlike the four previous residential construction cycles, the present cycle demonstrates extraordinary "post-peak" strength due to the demographic and economic factors discussed above. Generally, once a cycle reaches its peak, construction activity will decline rapidly in the following few years. For example, in the 1982-1989 cycle, the three-year "post-peak" decline shows a drop in residential construction activity of 61%. In sharp contrast, the current cycle, which peaked in 1996, has registered only a 16% decline in the past three years. This downside strength is unique among recent residential cycles.

The past year was not only characterized by an exceptionally strong single-family sector–14,200 new units–but also by growing weakness in the multifamily sector. The multifamily sector is comprised of three types of residential units: apartments, twin homes/duplexes and condominiums. Most of the multifamily weakness is concentrated in the apartment sector. In 1999 the construction of new apartment units dropped by nearly 30%, falling from 3,800 units in 1998 to 2,700 units in 1999. This weakness reflects the erosion of demand for rental units due to the precipitous drop in net in-migration and very favorable mortgage rates that have turned many renters into homeowners.

Although to a lesser extent, twin homes/duplexes and condominiums have also registered declines in new construction activity in 1999. New construction for both twin homes/duplexes and condominiums was down about 10% to 1,200 and 600 units, respectively.

Residential construction is highly concentrated in the state, with a few communities capturing most of the new construction activity. Nearly, half of all new residential construction in 1999 was located in either Salt Lake or Utah counties. West Jordan led all cities in new residential construction with over 1,500 new units, a two-to-one margin over Tooele, the second ranked city. Draper, St. George and Ogden round out the top five municipalities in terms of new residential construction. In addition to these cities, the unincorporated area of Salt Lake County ranks as a leading location for new residential construction. In 1999, more than 1,000 new residential units were built in unincorporated Salt Lake County.

Housing Market. The Utah housing market turned in another stellar performance in 1999. Home sales in the four Wasatch Front counties rose nearly 5% to more than 18,000 units, which included 16,000 detached single-family homes and 2,300 condominium units. Washington and Summit counties, two non-metropolitan counties that also have substantial levels of real estate activity, also reported higher levels of single-family and condominium sales. Washington County had over 1,500 sales in 1999, up 7.1%; and Summit County recorded nearly 1,200 sales, up about 5% over 1998. The average sales price of new and existing homes increased in all six counties, although price increases continue to slow down. In Salt Lake County the average sales price was up only 3% to $172,500. Summit County recorded the highest average sales price in the state of $465,600, several times higher than the average sales price in the following counties: Utah County ($165,100), Davis County ($157,700), Weber County ($128,900), and Washington County ($144,727).

With low unemployment and mortgage rates, home ownership in Utah has increased to its highest level in years. The number of Utah households that own homes has increased from 71.5% in 1995 to 73.7% in 1998, a shift of some 15,000 households from renter-occupied units to owner-occupied units. This increase in home ownership has caused rental vacancy rates to increase from less than 5% a few years ago to over 7% in 1999. In turn, the rise in vacancy rates has made landlords more reluctant to raise rental rates. In the past year, the rental rate for the average apartment in Salt Lake County has risen from $608 to $612, an increase of only 1.5%.

Notwithstanding the benefits of improved affordability and the impressive gains in home ownership, some longstanding housing problems remain. The most critical is the supply of "affordable" rental housing for moderate-to-low-income households. There are approximately 190,000 households in Utah that rent housing units. The National Low Income Housing Coalition estimates that 45% or 85,000 of these Utah households are unable to afford HUD's Fair Market Rent of $600 for a two-bedroom unit. The housing cost burden–rent plus utilities–for many of these households exceeds 30% of household income and in some cases rises as high as 50%. Fortunately, housing subsidies for low-income households help to ease the cost burden for as many as 23,000 households. Subsidies are provided primarily through either HUD programs or Utah Housing Finance Agency's (UHFA) low-income housing tax-credit program. Each of these programs provides rental housing subsidies for about 10,000 households. Each year UHFA tax credit program adds about 1,000 "affordable" rental units to the housing inventory.

Despite the crucial contribution made by HUD and UHFA programs, there are still as many as 60,000 Utah households, well over 200,000 people, that are severely cost-burdened renters. The growth in these households continues to outpace the production of "affordable" housing units as community after community uses zoning ordinances to restrict or exclude high density "affordable" housing. This supply constraint tends to increase the cost of existing affordable housing, leads to overcrowded living conditions in existing units and diminishes the incentive of landlords to make improvements.

Nonresidential Construction. Although the value of nonresidential construction established an all-time high of $1.37 billion in 1997, new construction activity has remained at very high levels during the past two years. In 1999, valuation exceeded $1.1 billion, which ranks as the third-best year ever, behind only 1997 and 1998. The remarkable strength of the nonresidential sector has been closely tied to the state's employment and population growth, the national economic expansion, and preparation for the 2002 Winter Olympics.

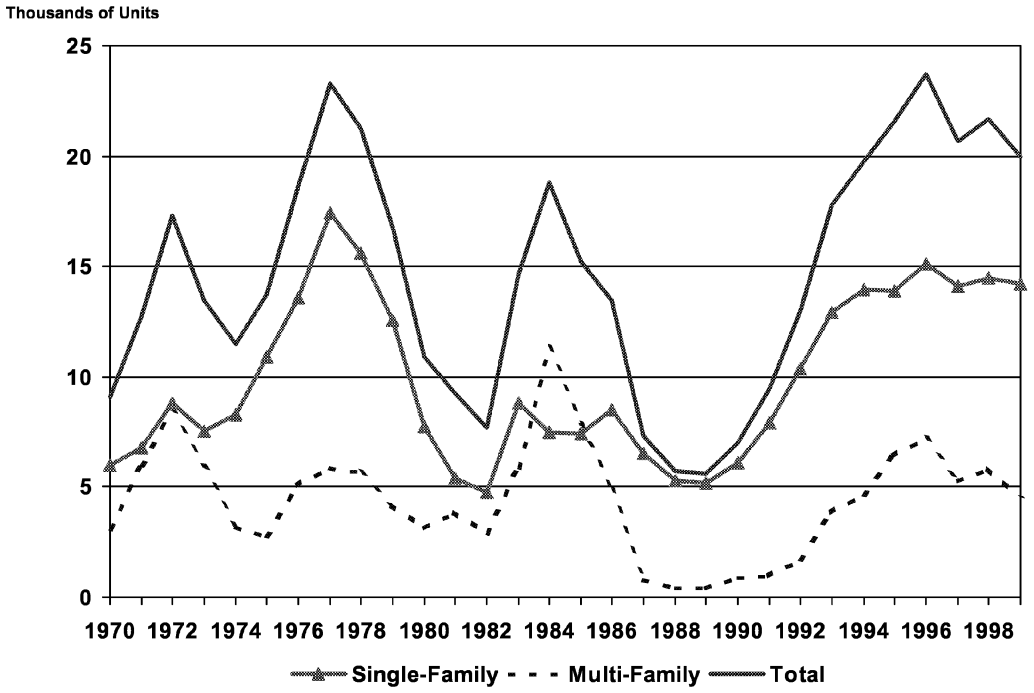
In 1999, the best performing nonresidential sectors have been industrial buildings and hospitals. Construction valuation for new industrial buildings was up significantly over 1998, finishing above $200 million for only the third time in history. The largest industrial buildings in 1999 were the Wal-Mart Distribution Center in Corrine ($34.4 million), the Malt-O-Meal plant in Tremonton ($16.6 million) and Dana Corporation's new manufacturing facility in West Jordan ($12.4 million). The hospital sector set a new record in 1999, topping the $130 million mark. This record level of activity was a result of the new McKay-Dee Hospital ($120 million), which was the largest single nonresidential building in the state in 1999. Other large nonresidential projects in 1999 were: Intel office building in Riverton ($45 million), concrete silos at Devil's Slide ($25 million), the LDS Church's Main Street Parking Plaza ($18 million), and a waste water treatment plant in Salt Lake County ($11 million).

2000 Outlook

In 2000 slight declines in both residential and nonresidential construction activity are expected. The valuation for residential construction is forecast to fall by about 5% to $2.1 billion in 2000 while the number of residential units will drop by about 10% to 18,000 units. These new residential units will include 12,000 single-family units, 4,500 multifamily units and about 1,500 manufactured/mobile homes and cabins. Once again, multifamily construction will fall below 5,000 units as new apartment construction struggles with weakening market conditions and local opposition to high-density housing. There are only a few large apartment projects proposed for 2000; Jordan Landing Phase III (250 units), Winthrop Court in Salt Lake City (330 units), Gateway in Salt Lake City (500 + units), a 300-unit project in Lehi and a 180-unit project in Payson. The multifamily sector could find some strength in condominium construction as ski areas, particularly in Summit County, begin development of residential projects for sale during the 2002 Olympics.

The value of nonresidential construction is expected to finish around $900 million in 2000. The largest project will be the mixed-use Gateway project, which will include a hotel, office and retail space and parking for over 5,000 cars. The construction value of this project will be over $250 million. Downtown Salt Lake City will also be the location for another large nonresidential project in 2000–a new $60 million building to house the main branch of the Salt Lake Public Library. ❊

Figure 47
Utah Residential Construction Activity



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

Figure 48
Residential Construction Cycles in Utah: 1960 to 1999

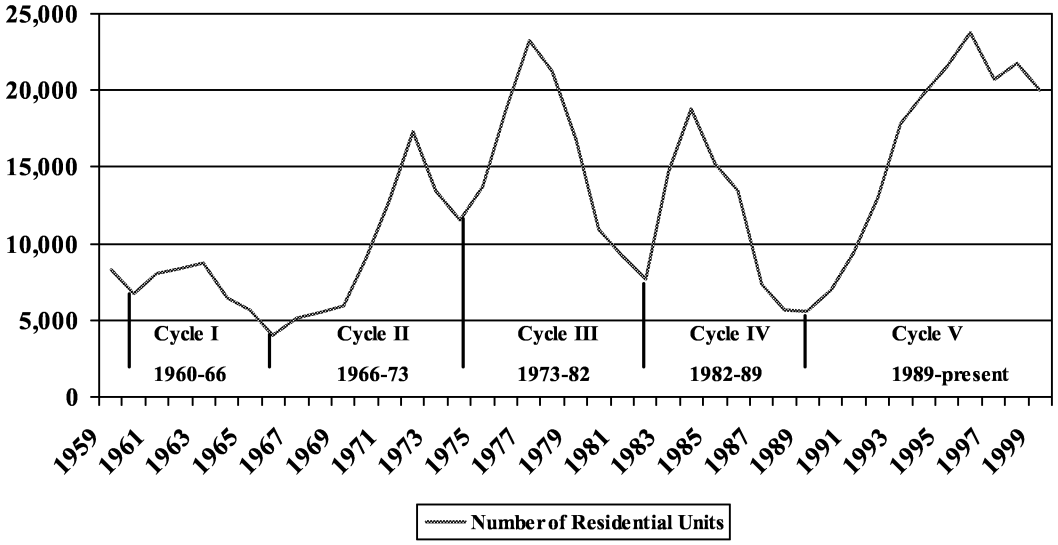


Table 64
Residential and Nonresidential Construction Activity in Utah

Year	Single-Family Units	Multi-Family Units	Mobile Homes/ Cabins	Total Units	Value of Residential Construction (millions)	Value of Nonresidential Construction (millions)	Value of Add., Alt., and Repairs (millions)	Total Valuation (millions)
1970	5,962	3,108	na	9,070	$117.0	$87.3	$18.0	$222.3
1971	6,768	6,009	na	12,777	176.8	121.6	23.9	322.3
1972	8,807	8,513	na	17,320	256.5	99.0	31.8	387.3
1973	7,546	5,904	na	13,450	240.9	150.3	36.3	427.5
1974	8,284	3,217	na	11,501	237.9	174.2	52.3	464.4
1975	10,912	2,800	na	13,712	330.6	196.5	50.0	577.1
1976	13,546	5,075	na	18,621	507.0	216.8	49.4	773.2
1977	17,424	5,856	na	23,280	728.0	327.1	61.7	1,116.8
1978	15,618	5,646	na	21,264	734.0	338.6	70.8	1,143.4
1979	12,570	4,179	na	16,749	645.8	490.3	96.0	1,232.1
1980	7,760	3,141	na	10,901	408.3	430.0	83.7	922.0
1981	5,413	3,840	na	9,253	451.5	378.2	101.6	931.3
1982	4,767	2,904	na	7,671	347.6	440.1	175.7	963.4
1983	8,806	5,858	na	14,664	657.8	321.0	136.3	1,115.1
1984	7,496	11,327	na	18,823	786.7	535.2	172.9	1,494.8
1985	7,403	7,844	na	15,247	706.2	567.7	167.6	1,441.5
1986	8,512	4,932	na	13,444	715.5	439.9	164.1	1,319.5
1987	6,530	755	na	7,305	495.2	413.4	166.4	1,075.0
1988	5,297	418	na	5,715	413.0	272.1	161.5	846.6
1989	5,197	453	na	5,632	447.8	389.6	171.1	1,008.5
1990	6,099	910	na	7,009	579.4	422.9	243.4	1,245.7
1991(r)	7,911	958	572	9,441	791.0	342.6	186.9	1,320.5
1992	10,375	1,722	904	13,001	1,113.6	396.9	234.8	1,745.3
1993	12,929	3,865	1,010	17,804	1,504.4	463.7	337.3	2,305.4
1994	13,947	4,646	1,154	19,747	1,730.1	772.2	341.9	2,844.2
1995	13,904	6,425	1,229	21,558	1,854.6	832.7	409.0	3,096.3
1996	15,139	7,190	1,408	23,737	2,104.5	951.8	386.3	3,442.6
1997	14,079	5,265	1,343	20,687	1,943.5	1,370.9	407.1	3,721.6
1998	14,476	5,762	1,505	21,743	2,188.7	1,148.4	461.3	3,798.4
1999(e)	14,200	4,500	1,300	20,000	2,200.0	1,100.0	550.0	3,850.0

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

Source: University of Utah, David Eccles School of Business, Bureau of Economic and Business Research, November 1999.

Table 65
Summary of Residential Construction Activity by County and Multi-County District: January to December 1998 (Valuation in Thousands)

	Single-family	Multi-family	Mobile Homes/ Cabins	Total Units	Residential Valuation	Non-residential Valuation	Total Valuation
Bear River	889	395	83	1,367	123,517.7	37,831.0	179,810.8
Box Elder	282	67	38	387	30,338.7	9,274.0	43,014.2
Cache	588	266	40	894	88,741.0	28,343.0	131,758.4
Rich	19	62	5	86	4,438.0	214.0	5,038.2
Central	8,343	2,936	253	11,532	1,183,566.6	792,752.3	2,264,994.8
Juab	2,003	345	15	2,363	264,773.2	84,073.2	375,022.1
Millard	5	0	0	5	497.5	16.5	799.3
Piute	4,312	1,936	168	6,416	653,007.3	597,802.1	1,465,718.2
Sanpete	784	165	63	1,012	92,102.0	25,786.0	120,769.7
Sevier	1,239	490	7	1,736	173,186.6	85,074.5	302,685.3
Wayne	3,029	2,042	110	5,181	582,552.2	225,560.6	927,848.5
Mountainland	425	321	50	796	133,882.2	71,935.8	227,175.9
Summit	2,458	1,639	49	4,146	422,155.6	139,422.8	657,853.2
Utah	146	82	11	239	26,514.4	14,202.0	42,819.4
Wasatch	330	79	216	625	47,368.3	15,496.5	70,990.7
Uintah Basin	53	0	6	59	5,750.8	3,552.8	9,802.7
Daggett	42	0	24	66	5,592.4	1,240.6	8,394.2
Duchesne	0	0	0	0	0.0	0.0	0.0
Uintah	116	68	93	277	15,673.7	3,233.7	20,393.6
Southeast	84	4	73	161	15,023.8	4,593.3	23,638.8
Carbon	35	7	20	62	5,327.6	2,876.1	8,761.4
Emery	1,629	290	281	2,200	200,759.1	50,206.8	267,422.0
Grand	28	14	17	59	5,110.2	3,061.0	9,001.6
San Juan	14	0	36	50	4,049.3	1,903.8	7,006.8
Southwest	202	23	51	276	25,343.6	12,714.8	40,197.1
Beaver	21	13	94	128	9,215.2	1,852.2	11,599.3
Garfield	1,364	240	83	1,687	157,040.8	30,675.0	199,617.2
Iron	113	8	302	423	23,136.0	7,089.6	34,320.2
Kane	0	0	0	0	0.0	16.0	41.0
Washington	88	4	243	335	17,505.3	2,238.7	21,993.3
Wasatch Front	25	4	59	88	5,630.7	4,834.9	12,285.9
Davis	143	12	260	415	27,770.2	19,470.1	53,016.4
Morgan	35	0	135	170	12,491.5	13,772.1	29,514.7
Salt Lake	26	2	51	79	5,579.7	1,367.6	8,273.7
Tooele	28	10	52	90	4,891.8	2,804.3	8,446.1
Weber	54	0	22	76	4,807.2	1,526.1	6,781.9
State	14,476	5,762	1,505	21,743	2,188,670.1	1,148,406.9	3,798,403.2

Source: Bureau of Economic and Business Research, David Eccles School of Business, University of Utah, December 1998.

Table 66
Average Annual Mortgage Rates for 30-year Conventional Mortgage for Utah

Year	Mortgage Rates	Year	Mortgage Rates
1967	6.52%	1983	13.23%
1968	7.03%	1984	13.87%
1969	7.82%	1985	12.42%
1970	8.35%	1986	10.18%
1971	7.83%	1987	10.20%
1972	7.38%	1988	10.34%
1973	8.04%	1989	10.32%
1974	9.19%	1990	10.13%
1975	9.04%	1991	9.25%
1976	8.86%	1992	8.40%
1977	8.84%	1993	7.33%
1978	9.63%	1994	8.35%
1979	11.19%	1995	7.95%
1980	13.77%	1996	7.80%
1981	16.63%	1997	7.60%
1982	16.08%	1998	6.92%
		1999(e)	7.38%

Source: Federal Home Mortgage Corporation

Table 67
Housing Price Index for Utah: 1980 to Third-Quarter 1999

Year	Index	Percent Change	Year	Index	Percent Change
1980	102.3		1994	173.8	17.3
1981	108.4	5.9	1995	194.3	11.8
1982	112.2	3.5	1996	211.6	8.9
1983	114.2	1.8	1997	225.2	6.4
1984	113.6	-0.5	1998	237.3	5.4
1985	116.4	2.5	-- 1Q	233.6	5.8
1986	118.3	1.6	-- 2Q	236.2	6.3
1987	116.3	-1.6	-- 3Q	238.6	5.2
1988	113.1	-2.8	-- 4Q	240.8	4.3
1989	114.5	1.2	1999		
1990	118.6	3.6	-- 1Q	243.0	4.1
1991	125.5	5.8	-- 2Q	243.3	3.0
1992	133.7	6.5	-- 3Q	243.1	1.8
1993	148.2	10.8			

Source: Office of Federal Housing Enterprise Oversight, Housing Price Index, Washington, D.C., 1999.

Defense

Overview

Utah's defense industry has rebounded in 1999, as base closures and realignments in other states shifted jobs and military spending to Utah. Hill Air Force Base has been selected as headquarters for one of 10 new "expeditionary" forces to deal with trouble spots around the world, and the base is expected to pick up between 2,700 and 3,000 new jobs in the next three years. The new addition is in contrast to the downward trend the defense industry has experienced since the end of the Cold War. The additional operations at the base should also protect Hill from base-closures in the near future. Even with the new additions in Utah, declines in overall defense spending both nationally and locally, and the closing and redevelopment of military facilities will continue to dominate defense issues in the coming years. Defense spending in Utah in 1998 totaled $1.27 billion, rising 1.3% from the previous year.

Trends

As a percent of gross domestic product (GDP), defense spending was 2.9% in 1996, 2.6% in 1997, and 2.6% in 1998. The importance of defense spending in Utah's economy has declined relative to that of the nation, and will likely continue down this path. Total defense spending in Utah currently stands at $1.27 billion– which, however, is a 1.3% increase from 1997. As a percent of the Gross State Product (GSP), defense outlays have diminished from a high of over 8.3% in 1987, to only 2.2% in 1998.

Contracting Activity

During the cold war build-up of the mid-1980s, a number of defense contractors in Utah routinely received contracts in the $50 million range on an annual basis. Both Thiokol and Hercules, for example, received contracts in the $200 million range for several years during the 1980s. Defense contracts to private firms have decreased considerably at both the state and national level throughout the 1990s. Since 1993, 40 major defense companies have merged into five. Total procurement contracts to Utah firms have fallen over 40% since 1986.

Former defense giant Hercules, once the recipient of $353 million in contracts (1986), sold its aerospace division to Minnesota-based Alliant Techsystems in March 1995, and its Composite Products division to California-based Hexcel in 1996. Thiokol remains the state's top contract recipient, however, awards have declined significantly from a peak of $587 million in 1987. Other major defense contractors include Litton Industries, Evans and Sutherland, L-3 Communications, and Utah State University. Barring a period of prolonged military buildup, defense contracting in Utah will probably not come anywhere near the levels achieved during the 1980s.

Geographic Distribution

Federal defense spending in Utah is concentrated in Davis, Salt Lake, Tooele, and Weber counties, though significant spending occurs in Box Elder, Utah, and Cache counties. Contracting activity associated with a variety of weapons systems and other projects accounts for most of the defense spending in Salt Lake County. Payroll and procurement contracts at Tooele Army Depot and Dugway Proving Grounds account for spending in Tooele County.

Military Facilities

Hill Air Force Base, the state's largest basic employer and center of Utah's defense industry, was selected as headquarters for one of 10 new "expeditionary" forces that will be used for quick deployment to trouble areas around the world. This selection will bring the 388th fighter wing up to full strength for the first time since military downsizing began about a decade ago. Additionally, new contracts and other realignments are expected to create 2,700 to 3,000 new jobs in the next three years. This is a direct result of the upcoming closures of bases in California and Texas. The future of Utah's defense industry is much more certain than in years past, and the increase in operations at Hill Air Force Base should prove to be a buffer against future base closures.

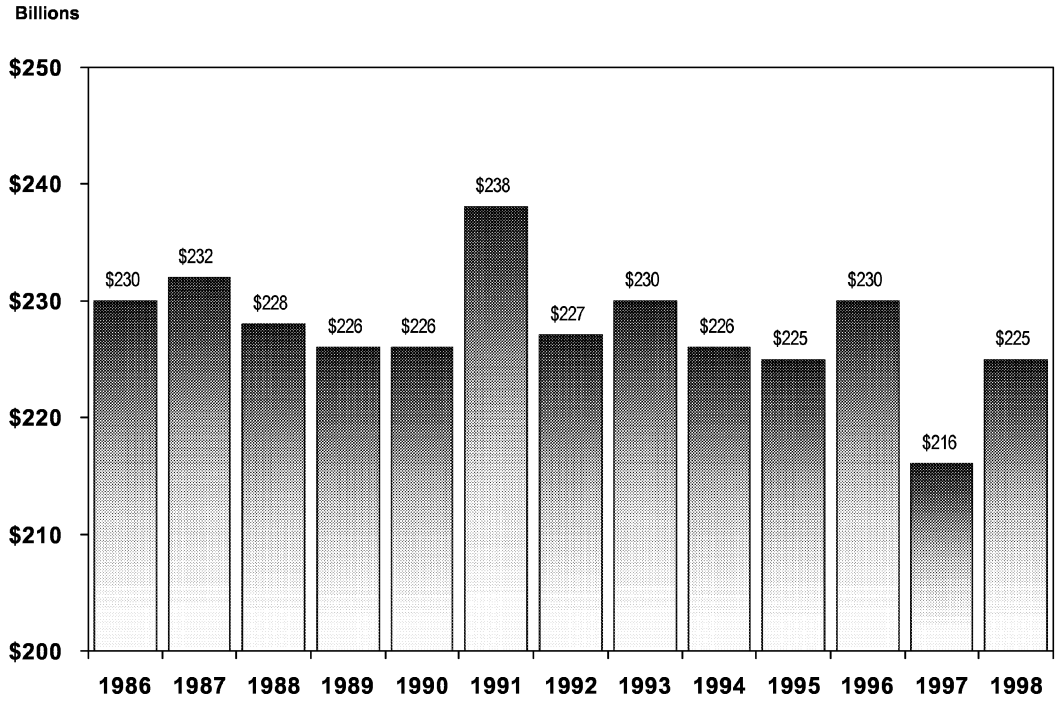
Defense Depot Ogden (DDO) was designated for closure by the Defense Base Closure and Realignment Commission (BRAC) in 1995, and was officially closed in September 1997 after 56 years of operation. Ogden City is in the process of buying the land from the Army, and in December 1999 the city approved a 70 year redevelopment project for DDO. Under the terms of the agreement, the city will lease the 1,100 acres to the Boyer Company, who will in turn redevelop the property into a major regional business and industrial park. The lease is for 40 years, with three 10-year renewal options and a long term buyout option of $22 million. The property will be developed over the next 15 to 20 years and it is expected to create more than 5,000 jobs in Northern Utah.

Workforce reductions at Tooele Army Depot (TAD) have brought the total number of jobs lost to reductions in force and realignment since 1988 to 2,500. The current workforce at TAD stands at 500 employees. The army is proceeding on a project transferring title on 1,700 acres of surplus military land to private ownership. The land is slated to become a business and industrial park. The industrial park began leasing space in the spring of 1998, and once the title transfer is complete, companies will be able to purchase property outright. The park is expected to create as many as 3,000 jobs within the next five years.

Outlook

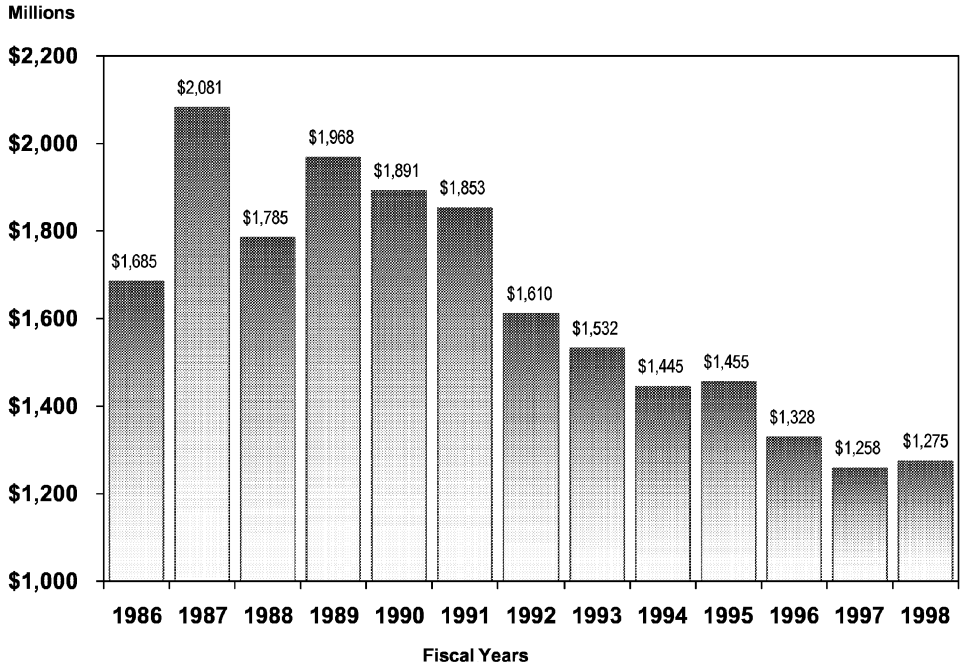
Since the end of the Cold War, federal defense spending has decreased significantly. Many people refer to these cutbacks in federal spending as a "peace dividend." Estimates of cumulative savings from defense cuts are in the several hundred billion dollar range. With these kinds of cutbacks, the federal defense industry continues to decline, and the importance of defense to Utah's economy will continue to diminish. However, the worst of the defense cutbacks appear to be over, and redevelopment of previously closed facilities is well underway. The rapid conversion of military facilities at DDO and TAD to commercial use illustrates the strength of the state's economy, as well as its ability to absorb jobs lost from federal cutbacks. Expectations of commercial success are strong for both new facilities. In addition, new operations beginning at Hill Air Force Base should prove to be a strengthening influence on the remainder of Utah's defense industry. ✻

Figure 49
Primary Federal Defense-Related Spending in U.S.



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

Figure 50
Federal Defense-Related Spending in Utah



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

Table 68
Primary U.S. Federal Defense-Related Spending (Selected Categories): All States and Territories (Thousands of Dollars)

Fiscal Year	Wages and Salaries*	Procurement Contract Awards	Military Retirement	State/ Local Grants	Total	Gross Domestic Product	Defense Spending as Percent of GDP
1986	$61,900,746	$150,055,345	$17,769,127	$111,366	$229,836,584	4,452,900,000	5.2%
1987	65,097,948	147,616,385	18,732,723	127,430	$231,574,486	4,742,500,000	4.9%
1988	67,270,619	142,175,108	18,640,881	113,637	$228,200,245	5,108,300,000	4.5%
1989	72,771,040	132,259,473	20,669,532	172,125	$225,872,170	5,489,100,000	4.1%
1990	69,103,253	135,259,039	21,235,041	175,978	$225,773,311	5,803,200,000	3.9%
1991	75,254,721	139,570,721	22,669,073	111,454	$237,605,969	5,986,200,000	4.0%
1992	73,851,077	129,124,509	24,024,591	223,899	$227,224,076	6,318,900,000	3.6%
1993	73,947,670	129,996,047	25,752,104	241,816	$229,937,637	6,642,300,000	3.5%
1994	73,470,136	125,982,520	26,478,356	212,466	$226,143,478	7,054,300,000	3.2%
1995	71,192,209	126,003,863	27,695,928	244,824	$225,136,824	7,400,500,000	3.0%
1996	72,955,074	128,628,822	27,922,897	247,408	$229,754,201	7,813,200,000	2.9%
1997	66,719,191	119,858,710	29,595,559	191,715	$216,365,175	8,300,800,000	2.6%
1998	67,178,127	126,726,012	30,457,015	171,324	$224,532,478	8,759,900,000	2.6%
Percent Change							
1997 to 1998	0.7%	5.7%	2.9%	-10.6%	3.8%		
1986 to 1998	8.5%	-15.5%	71.4%	53.8%	-2.3%		
Absolute Change							
1997 to 1998	$458,936	$6,867,302	$861,456	($20,391)	$8,167,303		
1986 to 1998	$5,277,381	($23,329,333)	$12,687,888	$59,958	($5,304,106)		

* Does not include fringe benefits.

Source:
Federal Expenditures: U.S. Department of Commerce, Bureau of the Census
Gross Domestic Product: U.S. Department of Commerce, Bureau of Economic Analysis

Table 69
Federal Defense-Related Spending–Utah Total (Thousands of Dollars)

Fiscal Year	Wages and Salaries*	Procurement Contract Awards	Military Retirement	State/ Local Grants	Total**	Gross State Product	Defense Spending as Percent of GSP
1986	$784,567	$805,747	$94,612	$301	$1,685,227	$24,259,000	6.9%
1987	794,294	1,182,097	98,743	5,766	$2,080,900	25,173,000	8.3%
1988	817,787	866,782	98,876	1,318	$1,784,763	26,925,000	6.6%
1989	870,295	979,116	108,005	10,186	$1,967,602	28,365,000	6.9%
1990	890,892	883,014	115,442	1,232	$1,890,580	31,061,000	6.1%
1991	922,035	804,404	125,526	598	$1,852,563	33,283,000	5.6%
1992	852,772	614,286	134,844	8,431	$1,610,333	35,193,000	4.6%
1993	847,053	532,269	146,743	5,932	$1,531,997	38,129,000	4.0%
1994	763,608	524,001	152,426	4,514	$1,444,549	42,007,000	3.4%
1995	794,333	495,771	161,964	2,845	$1,454,913	46,023,000	3.2%
1996	760,514	393,157	171,978	2,849	$1,328,498	51,196,000	2.6%
1997	642,492	433,428	180,862	1,212	$1,257,994	55,417,000	2.3%
1998	620,622	464,739	189,130	171	$1,274,662	58,732,000	2.2%
Percent Change							
1997 to 1998	-3.4%	7.2%	4.6%	-85.9%	1.3%		
1986 to 1998	-20.9%	-42.3%	99.9%	-43.2%	-24.4%		
Absolute Change							
1997 to 1998	($21,870)	$31,311	$8,268	($1,041)	$16,668		
1986 to 1998	($163,945)	($341,008)	$94,518	($130)	($410,565)		

* Does not include fringe benefits.
** These totals do not match those in Table because the data sources and concepts are slightly different.

Source:
Federal Expenitures: U.S. Department of Commerce, Bureau of the Census
Gross State Product: 1986-97, U.S. Department of Commerce, Bureau of Economic Analysis
1998, Regional Financial Associates

Table 70
Federal Defense-Related Spending in Utah by County (Thousands of Dollars)

County	1998 Wages*	1998 Procurement	1998 Other	1998 Total**	1997 Total**	Change in Total Spending from 1997 to 1998 Absolute	Change in Total Spending from 1997 to 1998 Percentage
Beaver	$438	$0	$448	$886	$443	$443	100.0%
Box Elder	3,467	16,186	3,178	22,831	79,012	($56,181)	-71.1%
Cache	1,619	19,037	9,549	30,205	26,272	$3,933	15.0%
Carbon	174	0	1,117	1,291	1,741	($450)	-25.8%
Daggett	0	0	91	91	192	($101)	-52.6%
Davis	436,624	115,338	49,417	601,379	628,488	($27,109)	-4.3%
Duchesne	0	826	715	1,541	1,051	$490	46.6%
Emery	0	0	374	374	317	$57	18.0%
Garfield	0	0	282	282	199	$83	41.7%
Grand	0	0	318	318	454	($136)	-30.0%
Iron	666	0	2,186	2,852	2,524	$328	13.0%
Juab	0	0	331	331	327	$4	1.2%
Kane	0	0	588	588	402	$186	46.3%
Millard	531	429	577	1,537	451	$1,086	240.8%
Morgan	0	0	926	926	931	($5)	-0.5%
Piute	0	0	130	130	124	$6	4.8%
Rich	0	39	161	200	69	$131	189.9%
Salt Lake	84,042	223,307	71,943	379,292	293,164	$86,128	29.4%
San Juan	189	669	283	1,141	542	$599	110.5%
Sanpete	731	0	1,154	1,885	1,372	$513	37.4%
Sevier	542	123	1,470	2,135	2,071	$64	3.1%
Summit	2,596	3,591	2,736	8,923	18,613	($9,690)	-52.1%
Tooele	56,395	44,434	3,543	104,372	102,240	$2,132	2.1%
Uintah	204	158	955	1,317	984	$333	33.8%
Utah	4,975	15,808	19,767	40,550	33,945	$6,605	19.5%
Wasatch	0	0	492	492	362	$130	35.9%
Washington	14,098	131	9,533	23,762	12,151	$11,611	95.6%
Wayne	0	0	112	112	71	$41	57.7%
Weber	13,331	24,663	37,679	75,673	75,288	$385	0.5%
Undistributed	0	0	0	0	0	$0	0.0%
State Total	$620,622	$464,739	$220,055	$1,305,416	$1,283,800	$21,616	1.7%

* Does not include fringe benefits.
** The totals here will not match Table 2 because the data sources and concepts are slightly different.

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

Energy and Minerals

Energy Overview[1]

Crude oil and natural gas production declined in 1999 after several years of stabilized production. Oil prices, which had been very low throughout 1998, rebounded finally in early 1999. The coal industry in Utah has always enjoyed healthy and profitable growth, and it is expected to be successful in the future despite low coal prices.

1999 Summary

Petroleum and Natural Gas. Utah production of both crude oil and natural gas declined in 1999. Crude oil production is estimated to be about 16.5 million barrels in 1999, a significant 14% below the 1998 level. Oil and gas drilling, which had been strong in the past few years, fell off in late 1998 in response to sustained, low oil prices. Crude oil wellhead prices in 1999 tracked between $13 and $20 per barrel, and remained too low to spur significant exploration. Well permits, well completions, footage drilled, and drilling success rates all showed modest, though encouraging, increases until the big decline in oil prices throughout 1998. This was especially the case in Duchesne and Uintah Counties.

The top ten producers in Utah, which together account for about 90% of the statewide total, are down some 15% in production in 1999 compared to 1998. Crude oil production uses technology such as enhanced oil recovery as a remedy to slow this decline; natural gas production continues to look to new sources such as coalbed methane. Coalbed methane development remains a promising source for natural gas production, with natural gas prices on the increase during the past year, and should support new gas production. River Gas, Texaco, and Anadarko have all undertaken major coalbed methane operations in Carbon and Emery Counties. While natural gas production statewide was down somewhat in 1999, new production from coalbed methane should not only curb Utah's production decline, but actually boost statewide production over the next few years.

Salt Lake City petroleum refineries, although operating close to capacity, continue to increase their output of refined products to meet the growing Utah market. The rapidly growing Utah market, with petroleum product demand increasing faster than population, is considered an attractive market for out-of-state sources. This development includes a proposal for a new pipeline construction from the Texas Gulf Coast.

Electric Utilities. Following a decrease in 1995, Utah electric power generation increased from 1996 through 1998. This trend continued throughout 1999 with an increase in generation of 4.5% over the 1998 total. Coal-fired generation continues to be just under 95% of total electricity production, with remaining generation being shared among hydroelectric (3.9%), light oil/natural gas (1.3%), and other sources (0.3%).

Electricity consumption in Utah continued its upward trend in 1999 with an increase of 5.3% over the 1998 total. Shares of consumption by sector remained roughly the same in 1999 with 29.4%, 32.7%, and 34.3% consumed by the residential, commercial, and industrial sectors, respectively.

Electricity prices in all sectors continued their downward trend in 1999. The greatest decrease occurred in the residential sector where the price dropped from 6.8 to 6.3 cents per kilowatthour between 1998 and 1999.

Coal. Utah coal production, which had been on the rise from 21 million tons in 1992 to 27.1 million tons in 1996, took a slight dip in 1997 to 26.4 million tons. In 1998, production climbed to a high of 26.6 million tons; but in 1999 there was a slight downturn to 26.3 million tons. Employment decreased from 2,091 in 1997 to 1,950 in 1998 and to 1,917 in 1999. Coal production from Emery County decreased, while Carbon and Sevier Counties registered higher levels of production. Emery County's decrease in production was mainly due to the shift by Cyprus Plateau from leases in Emery County to Carbon County and also the state's decreased production from 1998 level. The increased production by Carbon County was due to the shift of production from Emery County to Carbon County and the increased production from Sevier County was due to a higher level of production from the Sufco mine of Canyon Fuel. About 95% of total production came from Federal land. The value of coal produced surpassed $460 million.

In 1999, Utah produced 0.3 million tons of coal less than the previous year, the fourth highest, of 26.3 million tons. The Wasatch Plateau coal field, with production of 23.3 million tons, was the major coal-producing field in Central Utah. The other coal field, Book Cliffs, produced 3.0 million tons. Wasatch Plateau coal field produced above the 1998 level but the Book Cliffs fell short of the previous year by 0.9 million tons, mostly due to lack of production from Willow Creek mine of Cyprus Plateau. Emery County produced the most coal in Utah (13.0 million tons). This, compared to the previous year's production of 13.7 million tons, was down by 0.7 million tons. Production of 5.7 million tons in Sevier County was marginally above the previous year's production level, and Carbon County's production of 7.6 million tons was 0.4 million tons above the 7.2 million tons production of 1998.

Electric utilities outside of Utah were the major contributors to the decreased coal production in Utah, followed by other industrial use outside of Utah. Other sectors were relatively stable. Electric utilities in Utah consumed higher levels than the previous year. Major consumers of Utah coal were: the State of Utah (14.1 million tons); followed by Nevada (4.0 million tons); the Pacific Rim Countries of Japan, Korea, and Taiwan (2.7 million tons); California (2.6 million tons); Tennessee (1.5 million tons); and Illinois (0.82 million tons). Four other states also purchased smaller amounts.

Uranium. In 1999 uranium production was down in Utah and in the United States. Aside from the 1991-1994 time period, Utah has been a major player in U.S. uranium production and will most likely continue to be a major player in the near future. In 1986, Utah production represented 43% of the total U.S. uranium production. During 1991 the persistence of a national glut of uranium caused the price to fall below $10.00 per pound, which resulted in the cessation of domestic uranium production. By 1995, the market strengthened and Utah regained its "number one uranium-producing state" status with production at 1.6 million pounds at the White Mesa Mill in Blanding. In 1997 Utah uranium production declined to 600,000 pounds, which represented about 8% of total U.S. production. In 1998 the White Mesa Mill produced about 30,000 pounds from alternative feed.

[1] This chapter presents the analysis of energy and minerals in two separate sections. It begins with an overview of energy and is followed by minerals. Both sections include analysis of coal and uranium.

In 1999, production of uranium went back up to 608,000 pounds–about 400,000 pounds of which came from processing 87,000 tons of ore. This resulted in production of 2.1 million pounds of vanadium pentoxide. The remaining 208,000 pounds was produced from processing alternative feed.

The Outlook for 2000

Petroleum and Natural Gas. After a significant decrease in 1999, crude oil production should decline more slowly over the first few years of the next decade. Crude oil production in Utah declined 4% a year over the 1990-1996 time period, and will most likely return to a similar (declining) rate. Average crude oil prices in 2000 should increase to the $18 to $20 range, up from the 1999 price of $17 per barrel. After several years of flat total natural gas production, gas production in 2000 is expected to again return to the 300 billion cubic foot level. Natural gas wellhead prices in 2000 should increase to about $2.02 per thousand cubic feet.

Electric Utilities. Strong economic growth will continue to encourage demand through 2000 and into the next decade. This strong growth has affected all sectors in Utah and growth in demand should remain at or above 2% per year. The growth in demand, consequently, could put upward pressure on electricity prices, especially considering a shortage in available capacity throughout the West over the next decade.

Coal. Coal production in Utah should reach 27.1 million tons in 2000. Productivity should increase by about 1.5%. Coal prices should start to turn around though the increase should be small.

Uranium. The outlook for uranium production from Utah as well as the United States is not very bright. Some uranium will be produced from alternative feed in 2000, as well as processing higher grade ore in conjunction with vanadium production. This should make the combined production of uranium and vanadium marginally economical during periods of low uranium prices.

Significant Issues

Petroleum and Natural Gas. Crude oil wellhead prices were remarkably low throughout 1998 and early 1999. While oil prices by the second half of 1999 were twice those of 1998, they remain relatively low and stable, especially in inflation-adjusted dollars. However, some crude oil and natural gas production was lost due to unusually low prices. In addition, relatively low and stable energy prices play a major role in encouraging increased demand, and energy conservation efforts will remain challenged for years with low prices. The long-term petroleum supply and demand balance is less clear, however. It remains to be seen whether supply over the long term can keep pace with the rate of demand growth.

Electric Utilities. Electric industry analysts have continued to examine federal and state action on deregulation. In Utah, this research has been formally conducted by the Deregulation and Customer Choice Task Force appointed by the State Legislature. In 1998, the task force concluded that "consideration of a comprehensive electrical restructuring plan" was premature and recommended further study. Based upon this recommendation, in 1999 the Utah State Legislature reauthorized the Electric Deregulation and Customer Choice Task Force through November 30, 2000, with the aim of continuing to monitor and assess developments in electric deregulation in other states and at the federal level.

Coal. The approaching second phase of Clean Air Act Amendments of 1990 would force the creation of a bigger market for the high Btu, low-sulfur coal found in Utah. Utah coal should be in strong demand even though this may not have a profound effect on prices. Global climate change, however, could adversely affect the consumption of coal in general. This will not influence high-Btu coal as much as low-Btu coal.

As a result of a high degree of mechanization, a highly skilled work force and very favorable geology, productivity continues to rise in the Utah coal industry. In 1999, the productivity of Utah coal miners rose to 6.22 tons per man-hour. Utah coal production should continue to rise for the foreseeable future, and coal prices should make a turnaround and start to increase.

Minerals Overview

Mineral production in the state remains at record and near-record levels for many minerals and mineral commodities although some mineral prices remain relatively low. Utah ranked 10th in the nation in the value of nonfuel mineral production and 14th in coal production in 1998. The combined value of metallic minerals declined in 1999, due primarily to lower base-metal and precious-metal prices. Base-metal production will remain relatively stable while precious-metal production will improve moderately in 2000. Industrial minerals production is at an all-time high and continues to expand for a majority of commodities. Industrial mineral production is closely linked to regional and local construction and population growth. Coal production, while declining in 1999, remains at a relatively high level and will increase during the next several years; four new mines have opened in the past two years and one additional mine is planning to open within the next two years. In 1997, 64 Large mines (including coal) were active in Utah; this number increased to 72 in 1998 and to 79 in 1999. Relatively low metal prices have dampened metal exploration activities and are expected to delay the opening of several small base- and precious-metal mines.

Operator questionnaires indicate that both base- and precious-metal production should increase moderately in 2000. Coal production should increase modestly as will most industrial mineral commodities.

Significant issues that will impact the future of the minerals industry in Utah are the limited availability of public lands open for mineral exploration and development, state and federal regulations which dampen the industry's willingness to develop new resources, and the negative public perception of the mining industry.

1999 Summary

The value of Utah's mineral production in 1999 is estimated to be $1.79 billion, a decrease of $64 billion from 1998. Estimated 1999 contributions from each of the major industry segments are:

- base metals, $596 billion (33% of total);
- industrial minerals, $583 billion (33% of total);
- coal, $460 billion (26% of total); and
- precious metals, $152 billion (8% of total).

Compared to 1998, the 1999 values changed as follows: 1) base metals decreased $92 billion, 2) industrial minerals increased $49 billion, 3) coal decreased $19 billion, and 4) precious metals decreased $2 billion. Prices decreased for most base metals (copper, molybdenum, and magnesium) and precious metals (gold and silver) in 1999. Coal prices also decreased slightly in 1999. Industrial mineral prices increased modestly for several

commodities, remained flat for the majority of commodities, and were lower for several others.

Mine Permits
The state has 79 active Large mine (five acres and larger disturbance) operations (excluding sand and gravel) which are grouped by industry segment as follows: base metals - 4, precious metals - 1, coal - 14, and industrial minerals - 60. This is seven mines more than the 72 mines that were active in 1998. Eighty Small mines (less than five acres disturbance) reported production in 1998. These mines are grouped as follows: industrial minerals, 62; gemstones, 7; precious metals, 5; base metals, 2; fossils and geodes, 4.

Through mid-November 1999, the Utah Division of Oil, Gas and Mining received five Large mine permit applications (five acres and larger disturbance) and 45 new Small mine permit applications (less than five acres disturbance). Four of the five Large mine permit applications were made to change from Small mine to Large mine status; the remaining application was for a new coal mine. These numbers represent a decrease of three Large mine permit applications and an increase of four Small mine permit applications compared to 1998. In addition to the coal mine permit, the other new Large mine permits include one dimension stone quarry, one limestone quarry (aggregate), one gypsum quarry, and one gemstone mine.

New Small mine permits are grouped as follows: industrial minerals, 34; precious metals, 9; and base metals, 2. Seventy-nine Large mines (excluding sand and gravel) were active in 1999. These mines, grouped by industry segment, are: base metals, 4; precious metals, 1; coal, 14; and industrial minerals, 60.

New or reopened mines, which are in the planning or early development stage, include two relatively small copper mines, a small silver-gold mine, and one lead-zinc-silver mine. In addition, one new coal mine began development in 1999 and another coal mine is being permitted.

National Rankings
Utah ranked 10th in the nation (down from eighth) in the value of nonfuel minerals produced in 1998, and accounted for nearly 3.25% of the U.S. total nonfuel mineral production value. Utah ranked:

- first in beryllium and gilsonite;
- second in copper, magnesium metal, and potash;
- fourth in phosphate rock and molybdenum;
- fifth in silver, gold, bentonite, and grade-A helium;
- sixth in salt; and
- seventh in construction sand and gravel.

Nonfuel Mineral Production Trends
According to the U.S. Geological Survey, the value of Utah's nonfuel mineral production in 1998 was $1.30 billion (latest data available), 16% less than 1997. Between 1988 and 1998, the value of nonfuel mineral production in Utah ranged from a low of $1.02 billion in 1988 to a high of $1.84 billion in 1995. The total for 1998 represents about the same level of nonfuel mineral valuation for the state as in 1993 ($1.31 billion). The Utah Geological Survey's estimate for the value of nonfuel mineral production for 1999 is $1.33 billion, $45 billion less than its estimate for 1998.

The number of exploration permits issued is expected to be slightly higher in 1999 than in 1998. Twenty-four Notices of Intent (NOI) to explore on public lands were filed with the Utah Division of Oil, Gas and Mining through mid-November 1999, compared to 22 for all of 1998, and 34 for 1997. The majority of NOIs were for precious metals (14), while the remainder were as follows: industrial minerals, 8; base metals, 1; and other, 1.

Base and Precious Metals
Base-metal production, with an estimated value of $596 billion, was the largest contributor to the value of minerals produced in 1999. In descending order of value, the metals are: copper, magnesium metal, molybdenum, and beryllium. Precious metal production, with an estimated value of $152 billion, included gold (87% of total value) and silver (13% of total value). Kennecott's Bingham Canyon mine is the sole producer of copper and molybdenum, and a major producer of gold and silver. The combined value of minerals produced from the Bingham mine is more than one-third of the total value of all minerals produced statewide.

Copper. Copper production from Kennecott's Bingham Canyon mine increased slightly in 1999 from the 1998 level of about 330,000 tons. The Bingham Canyon mine is the largest copper mine in the U.S. and the only copper producer in Utah.

Magnesium Metal. Magnesium metal is produced from Great Salt Lake brines by Magnesium Corporation of America (Magcorp). Magcorp's plant has the capacity to produce 42,000 tons of magnesium metal (99.9% purity) annually and is the third-largest magnesium plant in the world. Production in 1999 is estimated to be moderately below capacity. Magnesium metal prices dropped to a five year low in 1999.

Molybdenum. Utah's sole molybdenum producer is Kennecott's Bingham Canyon mine, which produced about 11,000 tons of molybdenum concentrate (MoS_2) as a by-product in 1999, nearly the same amount produced in 1998. The Bingham Canyon mine was one of only eight molybdenum-producing mines (down from 14) in the U.S. in 1999.

Beryllium. Utah continued to be the nation's largest producer of beryllium. Beryllium ore (bertrandite) is mined at Brush Wellman's two surface mines, processed with domestic and imported beryl ore (separate circuits) at the company's plant, and sent to a company-owned refinery and finishing plant in Ohio. Beryllium production in 1999 is slightly lower than the past several years.

Gold and Silver. Gold production is estimated to be more than 450,000 Troy ounces in 1999, slightly higher than in 1998 but substantially less than the record-high of nearly 800,000 Troy ounces produced in 1997. Gold is produced from two surface mines owned by Kennecott Corporation: one primary producer (Barneys Canyon) and one by-product operation (Bingham Canyon). One major gold producer (Barrick Resources) closed its Mercur mine in 1998.

Silver production in 1999 is estimated to be slightly less than 4.0 billion Troy ounces, about 300,000 Troy ounces less than 1998. Silver is produced as a by-product metal from the Bingham Canyon mine which is the only major silver producer in the state.

Industrial Minerals
Industrial minerals production, valued at $583 billion, was the second-largest contributor to the value of minerals produced in 1999. Major commodities produced by group or individual commodity in descending order of value include:

- sand and gravel, and crushed stone;
- salines, including sulfate of potash, salt, potash (potassium chloride), and magnesium chloride;

- Portland cement;
- lime (dolomitic quicklime and hydrated lime, and high-calcium quicklime);
- phosphate;
- gilsonite;
- common clay, bentonite, and kaolinite;
- expanded and cement raw material shale; and
- gypsum.

Sand and Gravel, and Crushed Stone. Sand and gravel, and crushed stone (including limestone and dolomite) are the largest contributors to the value of industrial minerals produced in 1999. These materials are produced by commercial operators, and by state and county agencies in every county in Utah. Data compiled by the U.S. Geological Survey show that in 1998, 40.7 billion tons of sand and gravel, and 11.8 billion tons of crushed stone was produced in Utah having a combined value of $179.3 billion. Mid-1999 data indicate that production has increased modestly above the mid-1998 level.

Sulfate of Potash, Salt, Potash (Potassium Chloride), and Magnesium Chloride. Brine-derived products, including those obtained from solution mining, and rock salt, are the second-largest contributors to the value of industrial minerals production in Utah. The production of these commodities is estimated to be 3.2 billion tons in 1999, 260,000 tons more than 1998. Sulfate of potash (SOP) and magnesium chloride are produced by IMC Kalium Ogden Corporation (IMC), formerly GSL Minerals, Inc., one of the largest suppliers of SOP in North America. Salt production alone is estimated to be 2.34 billion tons in 1999 (570,000 tons more than 1998), with most of the production from three operators using brine from Great Salt Lake. These operators, in descending order of production are: (1) IMC, (2) Cargill Salt, Inc., and (3) Morton Salt Company. In addition, three other companies produce salt and/or potash from operations not related to Great Salt Lake. In descending order of production, they are: (1) Moab Salt Company (potash and salt), (2) Redmond Clay and Salt Company (salt), and (3) Reilly Wendover Company (potash).

Portland Cement. Two operators produce Portland cement in Utah: Ash Grove Cement Company, and Holnam, Inc. The companies' two plants have a combined capacity of more than 1.5 billion tons of cement products annually. Production data provided to the Utah Geological Survey indicate that both plants are operating at or near full capacity.

Lime. Lime production is estimated to be moderately lower in 1999 than 1998. Continental Lime, Inc., which produces high-calcium lime, and Chemical Lime of Arizona, which produces dolomitic lime, are the two suppliers of calcined limestone or dolomite (quicklime) and hydrated lime in Utah. They have a combined capacity of more than 900,000 tons per year. Continental Lime's plant is rated one of the ten largest lime plants in the U.S.

Phosphate. Utah's only phosphate producer is SF Phosphates Limited. The company mines about 2.5 billion tons of ore annually, which is processed into about 1 billion tons of concentrate and transported in slurry form to the company's Rock Springs, Wyoming, fertilizer plant. Phosphate production in 1999 was the highest in the past eight years.

Gilsonite. Gilsonite production in 1999 is estimated to be more than 50,000 tons, moderately lower than in 1998. Gilsonite is an unusual solid hydrocarbon which has been mined in Utah for more than 100 years. The three operations that produce gilsonite, in descending order of production, are: (1) American Gilsonite Company, (2) Zeigler Chemical and Minerals Company, and (3) Lexco, Inc.

Common Clay, Bentonite, and Kaolinite. More than 290,000 tons of common clay and kaolinite, and more than 90,000 tons of bentonite was produced by five companies in 1999. This a moderate increase in common clay (clay used for brick and tile) production and a substantial increase in bentonite production from 1998. In descending order of production, the companies are: (1) Interstate Brick Company (common clay), (2) Interpace Industries (common clay), (3) Redmond Minerals (bentonite), (4) Western Clay Company (bentonite), and (5) Paradise Management Company (kaolinite).

Expanded and Cement Raw Material Shale. One company, Utelite, Inc., mines shale to manufacture "expanded shale" for use as a lightweight aggregate for the construction industry. Production of "expanded shale" products has increased modestly over the past several years. The two cement companies mine shale for use as a raw material in the manufacture of cement.

Gypsum. Nearly 490,000 tons of gypsum was produced by five companies in 1999, substantially more gypsum than 1998. In descending order of production, they are: (1) Georgia Pacific Corporation, (2) U.S. Gypsum Company, (3) T.J. Peck and Sons, (4) H.E. Davis and Sons, and (5) Diamond K Gypsum Industries. The majority of gypsum produced in Utah is used for making wall board, but several operators supply raw gypsum to regional cement plants and to the agriculture industry for use as a soil conditioner.

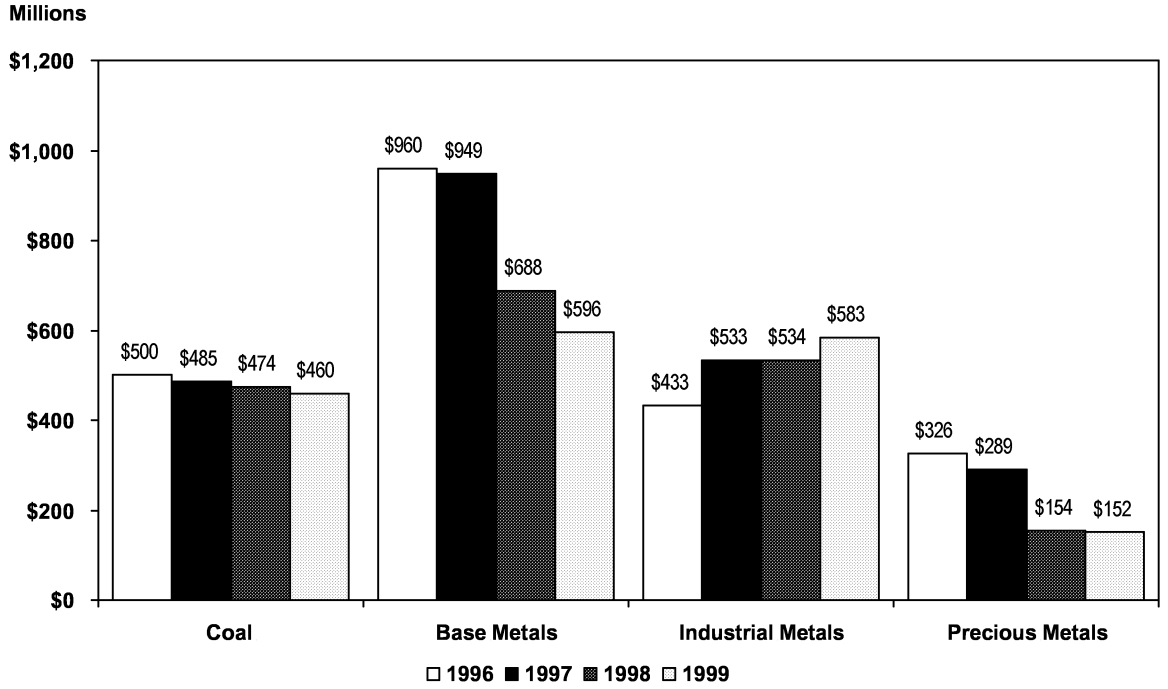
2000 Outlook

The value of mineral production in Utah is expected to remain relatively high in 2000. Operator surveys indicate that in 2000: both base- and precious-metal production should increase modestly; industrial mineral commodities, as a whole, should also increase; and coal production should increase. Exploration for base and precious metals is expected to remain relatively low until the market for these minerals improves. Metal prices have risen over the past few months and will likely stay above their recent lows; however, it is possible that some metal prices will actually fall from their current levels in the coming year.

Significant Issues

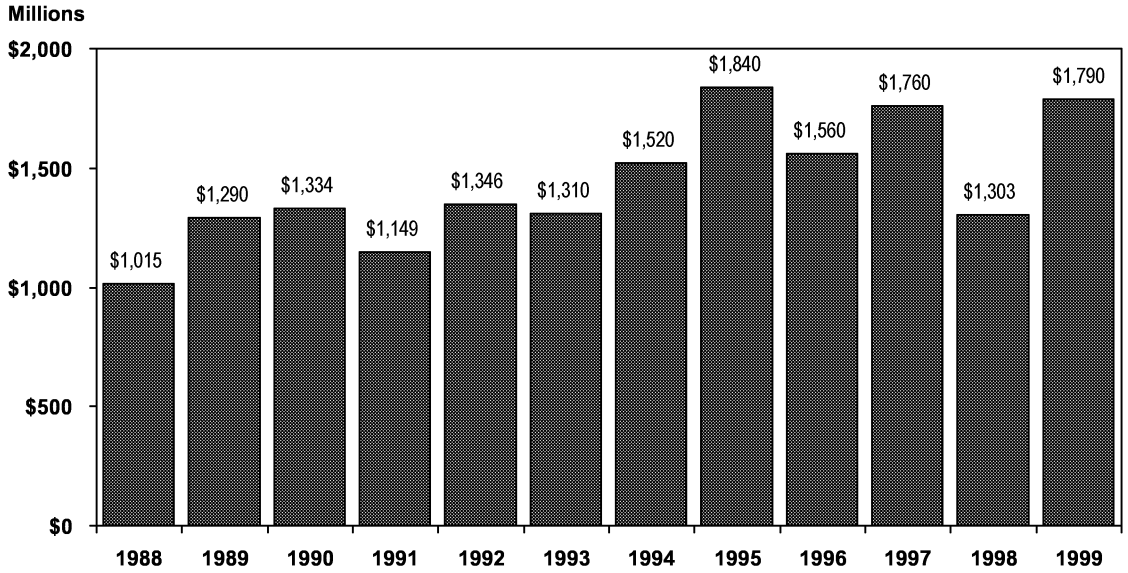
Significant issues that will affect the long-term viability of Utah's mineral industry are: (1) the limited availability of public lands open for mineral exploration due to federal withdrawals such as Wilderness Study Areas and new U.S. Bureau of Land Management inventory areas, (2) U.S. Department of Interior's administrative reinterpretation of the 1872 Mining Law and other mining-related regulations, (3) the negative public perception of the mining industry, and (4) difficulty and delays in acquiring required permits. ✻

Figure 51
Mineral Valuation--Gross Value Estimate



Source: Utah Geological Survey

Figure 52
Value of Nonfuel Minerals



Source: U.S. Geological Survey

Table 71
Supply and Disposition of Crude Oil (Thousand Barrels) in Utah

	Supply			Disposition			
Year	Field Production	Colorado Imports	Wyoming Imports	Utah Crude Exports	Refinery Receipts	Refinery Inputs	Refinery Stocks
1980	24,979	15,846	12,233	8,232	45,516	45,599	665
1981	24,309	14,931	11,724	7,866	43,700	42,673	762
1982	23,595	13,911	12,033	7,826	41,246	40,368	614
1983	31,045	14,696	7,283	8,316	43,615	43,185	632
1984	38,054	13,045	6,195	13,616	43,672	43,746	607
1985	41,144	13,107	6,827	14,597	45,549	45,021	695
1986	39,245	12,567	7,574	15,721	45,132	45,034	559
1987	35,835	13,246	7,454	12,137	45,664	44,483	612
1988	33,350	12,783	14,739	8,411	48,882	47,618	599
1989	28,512	13,861	18,380	6,179	46,775	46,767	609
1990	27,693	14,494	18,844	7,725	49,104	48,985	728
1991	25,930	14,423	20,113	8,961	48,647	48,852	513
1992	24,075	13,262	21,949	6,901	50,079	49,776	645
1993	21,819	11,575	22,279	7,758	48,554	48,307	691
1994	20,661	10,480	26,227	8,048	48,802	48,506	767
1995	19,988	9,929	24,916	7,861	46,695	46,666	767
1996	19,504	9,857	25,079	7,713	46,126	45,766	590
1997	19,585	8,565	28,726	7,819	48,492	48,486	654
1998	19,198	8,161	30,567	7,785	50,050	49,508	734
1999(e)	16,535	7,150	35,077	na	51,900	50,443	793

(e) = estimate
na = not available

Source: Energy Data Information System, Utah Office of Energy and Resource Planning.

Table 72
Supply and Consumption of Petroleum Products (Thousand Gallons) in Utah

	Supply			Consumption by Product					
Year	Refined in Utah	Imports	Refinery Stocks	Motor Gasoline	Jet Fuel	Distillate Fuel	All Other	Total	Exports
1980	1,694,260	313,903	93,954	652,426	110,742	352,826	400,753	1,516,747	929,710
1981	1,617,812	367,721	89,754	653,037	101,803	298,130	245,256	1,298,225	992,451
1982	1,508,690	434,236	92,778	663,304	117,641	270,391	238,694	1,290,031	929,006
1983	1,790,822	340,139	77,746	670,071	137,942	268,241	285,427	1,361,681	1,062,499
1984	1,651,342	422,376	83,244	678,350	143,325	289,564	273,671	1,384,910	1,013,079
1985	1,765,248	394,479	80,430	682,086	159,923	249,531	257,126	1,348,666	981,323
1986	1,776,367	337,091	78,246	736,714	182,049	307,091	240,240	1,466,094	839,288
1987	1,797,929	349,466	66,402	740,152	208,683	284,269	262,373	1,495,477	870,198
1988	1,918,644	361,879	75,936	762,204	209,048	307,778	250,526	1,529,556	979,726
1989	1,913,310	393,766	91,980	727,064	213,983	259,530	277,335	1,477,911	937,692
1990	1,929,270	503,917	72,786	702,424	221,787	308,236	257,559	1,490,007	1,048,715
1991	1,593,121	477,078	76,566	730,571	248,529	327,126	282,874	1,589,099	1,114,853
1992	1,931,817	442,428	67,998	752,006	235,499	338,621	251,646	1,577,772	1,076,978
1993	1,948,257	449,694	71,064	791,137	231,756	335,996	247,619	1,606,508	995,020
1994	1,919,848	485,310	90,426	816,170	221,333	352,833	254,923	1,645,258	1,061,131
1995	1,949,717	516,138	84,630	872,403	237,616	384,868	293,575	1,788,462	1,016,625
1996	1,947,795	533,064	72,414	889,140	264,720	416,703	362,288	1,932,851	1,031,561
1997	1,973,338	543,858	63,208	925,026	263,614	472,925	350,805	2,012,370	1,102,418
1998	1,993,071	539,364	69,529	948,152	264,932	496,571	353,024	2,062,679	1,114,115
1999(e)	2,030,712	628,065	70,850	966,167	266,256	536,297	345,526	2,114,246	1,122,892

(e) = estimate

Source: Energy Data Information System, Utah Office of Energy and Resource Planning.

Table 73
Supply and Consumption of Natural Gas (Million Cubic Feet) in Utah

	Supply			Consumption by End Use						
Year	Gross Production	Marketed Production	Actual Sales	Residential	Commercial	Industrial	Electric Utilities	Lease & Plant	Pipeline	Total
1980	87,766	47,857	na	40,578	17,391	43,545	5,133	7,594	851	115,092
1981	90,936	58,865	na	38,592	16,540	42,779	3,087	511	721	102,230
1982	100,628	56,368	na	47,452	20,336	39,804	3,023	5,965	1,126	117,706
1983	96,933	54,700	na	44,047	18,877	40,246	1,259	4,538	1,218	110,185
1984	183,062	73,154	na	44,246	18,962	42,709	271	8,375	1,015	115,578
1985	208,803	78,906	na	47,062	20,170	37,448	235	9,001	1,201	115,117
1986	239,411	91,036	na	13,603	18,687	28,264	230	13,289	1,102	75,175
1987	262,045	96,360	na	41,536	14,811	23,884	263	17,671	822	98,987
1988	278,463	101,925	na	42,241	17,911	30,365	196	16,889	1,362	108,964
1989	278,081	120,089	na	45,168	16,522	33,963	636	16,211	1,037	113,537
1990	319,632	145,875	58,350	43,424	16,220	35,502	907	19,719	875	116,648
1991	323,660	144,817	65,288	50,572	19,276	43,120	5,190	13,738	864	132,766
1992	314,275	171,293	94,725	44,701	16,584	40,878	6,576	12,611	1,284	122,649
1993	336,183	225,401	137,864	51,779	22,588	42,301	6,305	12,526	2,513	138,044
1994	347,019	270,858	160,967	48,922	26,501	36,618	8,900	13,273	2,807	137,073
1995	303,233	241,290	164,059	48,975	26,825	42,373	8,707	27,012	2,831	156,824
1996	281,208	250,767	179,943	54,344	29,543	42,213	3,428	27,119	3,601	160,371
1997	274,920	257,139	183,427	58,108	31,129	44,162	4,078	24,619	2,935	165,159
1998	297,265	277,340	201,416	56,731	30,853	45,365	5,946	27,466	2,788	169,149
1999(e)	292,682	273,072	210,976	56,413	30,655	37,705	7,940	27,741	2,816	163,270

(e) = estimate
na = not available

Source: Energy Data Information System, Utah Office of Energy and Resource Planning.

Table 74
Supply and Consumption of Coal (Thousand Short Tons) in Utah

	Supply				Consumption by End Use				
Year	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	24,135	23,441	2,588	10,188	157	1,198	647	13,839	15,841
1995	25,051	25,443	1,841	12,848	182	1,062	642	12,550	14,436
1996	27,071	27,816	1,925	15,116	260	1,120	517	12,728	14,625
1997	26,428	25,407	2,615	11,375	96	1,106	665	14,780	16,647
1998	26,600	26,974	2,715	13,270	212	982	680	14,545	16,419
1999(e)	26,275	26,086	2,437	12,013	196	662	694	14,958	16,510

(e) = estimate

Source: F.R. Jahanbani, Utah Office of Energy and Resource Planning.

Table 75
Supply and Consumption of Electricity (Gigawatthours) in Utah

	Net Generation by Fuel Type					Consumption by End Use				
Year	Coal	Other Fossil Fuels	Hydro	Other	Total	Residential	Commercial	Industrial	Other	Total
1980	10,870	421	823	-	12,114	3,293	3,569	3,800	512	11,174
1981	10,869	270	623	-	11,762	3,476	3,909	3,930	530	11,845
1982	10,635	232	1,024	-	11,891	3,630	3,033	4,610	745	12,018
1983	10,921	109	1,394	-	12,424	3,678	3,375	4,786	769	12,608
1984	12,321	38	1,391	38	13,788	3,825	3,935	4,656	950	13,366
1985	14,229	54	1,019	109	15,411	3,996	4,272	4,663	658	13,589
1986	15,155	80	1,413	171	16,819	3,984	4,262	4,583	662	13,491
1987	25,221	105	856	164	26,346	3,991	4,127	4,570	784	13,472
1988	28,806	64	593	174	29,637	4,186	4,356	5,259	765	14,566
1989	29,676	85	562	173	30,496	4,134	4,365	5,622	782	14,902
1990	31,519	103	486	152	32,260	4,188	4,713	5,553	772	15,225
1991	28,884	484	604	186	30,160	4,458	5,009	5,674	722	15,862
1992	31,543	612	580	186	32,921	4,458	5,170	6,085	668	16,381
1993	31,919	575	818	148	33,461	4,687	5,130	6,093	921	16,831
1994	32,764	780	716	195	34,455	5,031	5,561	6,322	945	17,860
1995	30,260	775	926	140	32,101	5,056	5,503	7,018	781	18,358
1996	30,693	324	1,019	192	32,229	5,481	5,911	7,660	860	19,858
1997	32,144	326	1,331	169	33,969	5,660	6,462	7,430	820	20,373
1998	33,206	453	1,348	162	35,169	5,777	6,750	7,459	774	20,756
1999(e)	34,607	481	1,408	101	36,597	6,214	7,146	7,492	802	21,858

(e) = estimate

Source: Energy Data Information System, Utah Office of Energy and Resource Planning.

Table 76
Energy Prices (Current Dollars) in Utah

	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)	No. 2 Distillate (gallons)	Motor Fuel (gallons)	Natural Gas Residential (mcf)	Natural Gas Commercial (mcf)	Natural Gas Industrial (mcf)	Electric Power Residential (kWh)	Electric Power Commercial (kWh)	Electric Power Industrial (kWh)
1980	25.63	19.79	1.86	29.63	0.91	1.23	2.74	5.59	2.26	5.53	4.33	3.27
1981	26.87	34.14	1.87	32.79	1.04	1.37	3.23	5.35	2.58	5.95	4.95	3.68
1982	29.42	30.50	2.47	33.38	1.01	1.35	3.41	3.43	2.45	6.30	5.69	4.22
1983	28.32	28.12	2.56	30.64	0.96	1.13	4.26	4.32	3.15	6.91	6.25	4.36
1984	29.20	27.21	3.16	30.64	0.95	1.12	5.68	4.96	3.52	7.43	6.52	4.60
1985	27.69	23.98	3.23	32.34	0.93	1.14	4.86	4.91	3.23	7.78	6.88	4.98
1986	27.64	13.33	2.90	32.32	0.78	0.85	4.64	4.73	3.00	7.95	7.05	5.16
1987	25.67	17.22	1.80	30.95	0.83	0.93	4.97	4.98	3.20	7.95	7.05	4.93
1988	22.85	14.24	1.70	29.50	0.84	0.96	5.11	4.08	3.10	7.81	6.96	4.61
1989	22.00	18.63	1.61	28.05	0.94	1.03	5.14	4.16	3.30	7.39	6.74	4.11
1990	21.78	22.61	1.70	26.80	1.12	1.14	5.28	4.30	3.62	7.09	6.25	3.88
1991	21.56	19.99	1.54	27.40	1.02	1.10	5.44	4.50	3.69	7.12	6.12	3.97
1992	21.83	19.39	1.63	27.54	1.01	1.12	5.44	4.40	3.91	7.00	6.00	3.70
1993	21.17	17.48	1.85	27.34	1.00	1.10	5.13	4.06	3.67	6.85	5.96	3.78
1994	20.07	16.38	1.53	26.10	0.98	1.12	4.96	3.84	2.74	6.91	5.87	3.83
1995	19.11	17.71	1.14	25.27	1.00	1.14	4.74	3.64	2.34	6.87	5.97	3.92
1996	18.50	21.10	1.39	24.50	1.06	1.20	4.47	3.38	2.10	6.93	5.88	3.69
1997	18.34	18.57	1.85	25.33	1.10	1.25	5.13	3.91	2.55	6.90	5.70	3.50
1998	17.83	12.53	1.73	25.45	1.05	1.09	5.61	4.34	3.00	6.84	5.69	3.45
1999(e)	17.51	17.04	1.83	25.15	1.10	1.17	5.33	4.01	3.07	6.26	5.46	3.33

(e) = estimate

Source: Energy Data Information System, Utah Office of Energy and Resource Planning.

High Technology

Overview

Utah's high technology sector has been on a decade-long roller coaster ride that shows every sign of continuing into the next century. Many high tech segments within the industry have undergone a series of peaks, valleys, and steady decline over the past 10 years. Most notable has been the rapid drop in aerospace activity, and the rise and fall of software development. Offsetting these negative trends has been growth in the medical instruments sector and the emergence of a healthy automotive components sector.

Rise and Fall of the Software Sector

Most disheartening in Utah's high tech story over the past decade have been disappointments in the software industry. Long hearkened as the heir apparent to aerospace, software began the decade with a bang and ended with a bust. The unfortunate results of the WordPerfect/Novell merger, and subsequent sale of WordPerfect operations to Canada-based Corel are well known. In 1990, these two companies employed roughly 3,500 people in Utah. Fueled by rapid growth in demand for computer products, both companies experienced significant growth throughout the end of the 1980s and first half of the 1990s. By 1993, employment in these companies totaled about 6,000, or about 70% of all employment in the computer software and integrated systems design industry group. On the heels of crushing market competition, WordPerfect and Novell merged. Consolidations followed and ultimately jobs were eliminated. The sale of WordPerfect's operations to Corel two years later resulted in the loss of all WordPerfect-related jobs with the transfer of operations from Utah to Canada. This event, coupled with job reductions at other computer firms in Utah brought growth in this segment to a screeching halt. By the end of 1998, despite Novell's rebound, employment in computer and systems development was under 7,000 workers.

Surprisingly, employment growth in the computer and data processing services, of which computer software and systems development is a part, has remained strong. By mid-year 1999, employment in SIC 737 reached 22,672, an increase of 3,364 workers. While some of the increase is due to Novell's recovery, a much larger share is due to growth in the areas of computer programming services (primarily programming consulting) and information retrieval services (internet access providers). The upshot is that the non-technology segments of the computer industry are expanding more rapidly than those that are developing technology.

Aerospace Rockets Downward

Aerospace is another high technology sector that has undergone significant transformation over the last 10 years. Casualties of reductions in military spending, aerospace companies in Utah have been downsizing and divesting non-core activities for much of the 1990s. The two largest players in the aerospace sector are Cordant (formerlyThiokol Corp). and Alliant Techsystems (formerly Hercules), they spent much of the past decade restructuring their core businesses. Utah's aerospace sector, once the largest component of high technology activity in the state, is expected to end this decade with fewer than 6,000 workers, down from about 12,000 workers at the start of the decade.

Electric Components– The Chips are Down

The electronic components sector has also posted a disappointing performance over the past decade. In 1990, companies in this sector employed almost 9,000 people. The largest companies, National Semiconductor and Signetics, employed almost one-third of these workers. Although the electronics industry as a whole entered an era of aggressive foreign competition in the mid-1980s, Utah companies were somewhat insulated due to their development focus. A massive oversupply of memory chips relative to demand forced both Signetics and National Semiconductor to lay off workers in 1991. A further blow to the industry occurred in 1992 when Signetics announced the closure of its Utah facility. By 1998, the number of people employed in electronics totaled 4,000, or roughly half the number employed 10 years ago. The most encouraging news for the industry occurred in 1995 when Micron Technologies, the largest U.S. memory chip producer, announced its intention of locating a $2.5 billion fabrication plant in Lehi, Utah. When fully operational, the plant would have employed up to 3,500 workers. Unfortunately, plans to bring the facility on line were postponed in 1996 as a result of plunging prices for memory chips. And, while Micron remains committed to opening the Lehi plant, the company has not yet identified a date.

Medical Supplies Remain Robust

While many components of Utah's high tech sector are languishing, some have continued to perform well. One of the most stable segments has been medical instruments and supplies. Over the past decade, this segment of Utah's high tech sector has grown at an average rate of 7.4%. Since 1990, the number of workers employed in the medical instrument sector has nearly doubled, from 4,300 workers to 8,300 workers in 1999. Contributing to this steady growth are companies such as Becton Dickinson Infusion, a leader in the design of healthcare devices and diagnostics systems headquartered in Franklin Lakes, New Jersey. Another strong player is Merit Medical Systems, a medical device company headquartered in South Jordan, Utah that has expanded from a small manufacturing facility in Salt Lake with about 85 workers to two separate facilities in Utah totaling over 230,000 square feet, and employing several hundred people.

Automotive Components–Holding Their Own

One positive side effect of restructuring within the aerospace sector has been the emergence of a strong automotive sector. The largest player in this sector is Ogden-based Autoliv ASP, Inc., a manufacturer of automotive airbags and other inflatable devices. Autoliv ASP began as a spin-off operation from Morton Thiokol in the early 1990s. Over time, the company has expanded its operations in Utah to include three plants and employ about 6,500 people locally.

The New Millennium–Intel Inside

One of the brightest spots on Utah's high tech horizon is the arrival of Intel Corporation, the world's largest computer chip manufacturer. Intel has begun construction of a research campus on farmland located in Riverton. If fully developed, Intel's plan for its Utah site will include a seven-building research facility that may eventually employ between 6,000 and 8,000 workers. An estimated 80% of the center's workers will be engineers and other technical workers who will earn an average wage of $50,000. Although the center's eventual employment will depend on Intel's future growth, the

company has been incredibly successful. From 1994 to 1998, Intel's revenues increased from $11.5 billion to $26.3 billion.

In addition to employment trends, other gauges of the overall health in Utah's high tech sector are: 1) the level of venture investment, or infusion of venture capital into the local economy, and 2) patents. While attracting venture capital has always been difficult for Utah companies, in the past, champions of high technology in Utah have boasted of Utah's entrepreneurial spirit and the innovative research activities underway in small high tech firms. However, data recently published in the November 1999 issue of Regional Financial Review, indicate that during a period when venture capital investments have been soaring, Utah has done no better than average in attracting venture money. Further, with respect to technology creation as measured by the number of patents per thousand workers, Utah's performance is also average. Clearly, the rate at which new technologies are being created and funded in Utah is slowing.

2000 Outlook

High technology encompasses a broad range of activities that constantly change to meet societal demands. Over the past decade Utah's high technology sector has undergone sweeping change. The challenges of the next decade will be just as rigorous. Little improvement is expected in the software sector due to fierce and growing competition in the market. Aerospace, which has stabilized over the past few years, is also unlikely to post any new gains without a significant event such as a new federally funded missile program or large increases in defense budgets.

Growth in the medical devices and automotive components sectors should remain steady. Utah's medical device companies have weathered the worst in terms of cutbacks in medical and health care costs. The companies that have survived and are prospering are well-positioned to enter the next century. The market for automotive products remains strong especially for products manufactured in Utah such as side air bags and inflatable curtains.

Utah could still see revitalization of its electronics industry. Optimism for strong demand and more stable prices in the chip market could have a positive impact on Micron's bottom line, encouraging the chip maker to open its Lehi plant. Likewise, construction of Intel's research center is well underway, with the first building scheduled to be completed by the end of next year. ✻

Tourism, Travel, and Recreation

Overview

The World Tourism Organization defines the travel and tourism industry as the activities of persons traveling and staying in places outside their usual environment. Travel and tourism combines segments from other industries that provide goods and services demanded while traveling away from home. It is not considered an industry in the traditional sense of manufacturing or trade and measurement of the travel and tourism industry is complex and often elusive. Primary travel and tourism industries often include amusement and recreation, eating and drinking establishments, lodging places, retail trade and transportation services. The impacts of tourism and travel are felt in manufacturing, construction, real estate, government, public utilities, agriculture, and other services. Travel and tourism continues to be among the state's top five economic activities, along with other major sectors such as manufacturing, trade, services and government.

1999 Performance

Utah's tourism industry has performed well in recent years, keeping pace with growth in the overall economy. Growth in tourism arrivals continues at levels consistent with the last two years. In 1999, an estimated 18.2 million non-resident travelers visited the state for business and/or leisure purposes, an increase of approximately 2% from 1998. These visitors spent an estimated $4.2 billion, generating $336 million in state and local tax revenues. Growth in visitor spending has outpaced growth in visitor arrivals for the past several years, indicating a possible shift towards higher quality tourism. Travel and tourism-related industries provided jobs either directly or indirectly for an estimated 119,500 persons in 1999, representing a slight increase over 1998. Tourism and travel-related jobs account for nearly one in nine jobs throughout the state. In addition, the average tourism wage rate continues to grow at faster levels than the average state wage rate.

Tourism in Utah. Utah's tourism industry is diverse. It includes a wide spectrum of natural and man-made attractions, recreational opportunities and cultural and heritage sites. Utah has an impressive array of wide, open spaces. Nearly 80% of the state is contained in blocks of land administered for public use by federal and state agencies. With five national parks, seven national monuments, two national recreation areas, a national historic site, 45 state parks and millions of acres of forests, deserts and grasslands, visitors can find just about any scenic landscape they seek. In addition: 14 ski resorts allow visitors to enjoy world-class skiing; numerous annual festivals and celebrations recognize specific cultural or historic events; museums, art galleries and theatres are scattered throughout the state; sporting venues allow spectators to enjoy a variety of athletic events; and an extensive highway system features many scenic byways and instructional self-guided tours. In an era when open space is rapidly diminishing, Utah remains one of few locations where travelers may experience the desert and mountain landscapes unique to the American West and still enjoy the comforts and amenities of nearby cities and towns. Utah's many attractions carry benefits for local communities, which are able to enjoy increased tax revenues from visitor spending, additional access to higher quality and more diverse services and many jobs stemming from tourism-related industries.

Notable Events. The completion of the Grand Staircase-Escalante National Monument Management Plan represents a unique and special contribution to Utah's federal lands. Its size, resources and remote character provide a spectacular array of scientific, public education and exploration opportunities. The vision for management of the Monument centers around two basic precepts: the Monument remains a frontier, preserving its remote and undeveloped character; and, the Monument provides an unparalleled opportunity for the study of scientific and historic resources.

Within these two precepts, the management policy further specifies that future management continue to work with partners to refine management practices that would insure resource protection, facilitate scientific and historic research, respect authorized uses and allow appropriate visitation.[1]

Visitation Statistics. Estimates for 1999 indicate that visits to Utah's national parks remained constant from 1998 levels at approximately 5.5 million. Traffic along Utah's major highways and Interstates increased, continuing their relatively high growth rates of recent years. After several years of declining visitation, visits to national monuments and recreation areas are up significantly. However, visits to Utah's state parks, and welcome centers are down slightly. Passenger traffic at the Salt Lake International Airport is down, although the decrease is largely attributable to declines in passenger connections. Local enplanes and deplanes increased for the year. Overall, major visitation indicators point to slight growth (1% - 2%) in statewide visitation for 1999.

Hotels. During the past five years, hotel construction has significantly increased the number of available rooms throughout the state. In Salt Lake County alone, hotel inventories have increased from 10,714 rooms in 1994 to 15,808 rooms in 1999, a 47% increase in supply. In addition, many large hotels are set to open next year adding another 1,100 hotel rooms to the hotel inventory in 2000.[2] The demand for new rooms is not increasing at the same pace as the inventory, and occupancies statewide are declining. Occupancies in the Salt Lake area have declined from 80% in the mid-1990s to an estimated 65% in 1999. The additional capacity in 2000 will further reduce occupancy rates. However, many of the new sites are full-service hotels, offering higher quality services thus attracting higher quality visitors. More representative of the growth in the industry, gross taxable room rents have increased significantly over the last several years, averaging an annual growth rate of nearly 10%. However, since 1997, growth rates have slowed to more moderate levels of between 4% and 6% per year.[3]

Skiing. Skier visits for the 1998/99 season increased by 1.4% over the previous season, total skier visits were approximately 3.14 million, surpassing the record totals of the 1994/95 ski season. With an estimated $50 million in collective improvements in infrastructure, lodging, accessibility and amenities, resorts continued significant investments in preparing to host the 2002 Winter Olympic Games and increasing the quality of the skiing experience.[4]

1 Grand Staircase-Escalante National Monument Proposed Management Plan, July 1998

2 Salt Lake Convention & Visitors Bureau, 2000 Marketing Plan

3 Utah State Tax Commission

4 Ski Utah estimate

Outlook

With continued strong economic performance, tourism activity is expected to remain strong and be an important source of growth for the state. Tourism activity has experienced a slight deceleration in recent years, similar to the deceleration for the economy as a whole. Nonetheless, the future is encouraging. Tourism-related growth is expected to increase significantly in years preceding and including 2002. Although international visitation has declined in recent years, Utah is well positioned to attract more international visitors. These visitors are especially drawn to Utah's assortment of national parks, outdoor recreation opportunities and western and American Indian heritage destinations. Among domestic travelers, adventure travel remains strong, heritage and cultural travel is increasing, eco-tourism is rising, and family travel is becoming more popular. Utah is well positioned to attract high quality visitors (those that stay longer and spend more) in each of these growing segments. Other factors that are expected to contribute towards continued tourism growth include:

- Continued high levels of consumer confidence and willingness to spend on leisure activities;
- Increased recognition as a result of Salt Lake City's hosting of the 2002 Winter Olympic Games;
- Continued interest in the American West, including historic and pre-historic sites;
- Increased convention space and available hotel rooms as a result of strong growth in recent years offering excess capacity;
- Continued growth of LDS Church and subsequent visitation to church headquarters in Salt Lake City and other church-related sites such as the family history library.

Factors that may offset tourism growth include the following:

- National and international economic fluctuations including unfavorable exchange rates and regional slowdowns;
- Reduced seat capacity and increased airfares to Salt Lake City reflecting a shift in market priorities;
- Lack of direct flights to Salt Lake City from international destinations;
- Capacity constraints and perceptions of overcrowding at National Parks or other popular attractions during the peak season;
- Degradation of the natural resources which reduce the visitor experience;
- Inability to meet the rising expectations of destination travelers in terms of quality service, convenience and availability of amenities;
- Natural conditions such as fires or inclement weather.

Significant Issues

Implementing Long-Range Tourism Planning. The Division of Travel Development first published its Long-Range Strategic Plan in 1996. Since then, considerable efforts have been made to actively pursue the visions and goals identified in that plan, foremost of which is to make Utah a better place to live by increasing the economic contribution of tourism. This means *emphasizing quality earnings over visitation numbers, destination tourism over windshield or pass-through tourism, and career employment over seasonal employment.* The plan is continuously updated as the planning environment changes and as new information becomes available. Utah communities continue to provide valuable input into the plan through participation in an ongoing community meeting series. In March of 1999, representatives from the business and tourism sector, public land managers and elected officials met in San Juan County to discuss the county's key tourism issues. The information collected through the community meeting series is designed to assist state and local tourism planners in meeting long-range strategic goals such as increasing quality earnings, creating quality jobs and improving the overall quality of life.

2002 Winter Olympic Games. The approach of the 2002 Winter Olympic Games represents a unique opportunity for Utah tourism. With national and international attention devoted to Utah, it is expected that favorable impressions and images generated from Olympic exposure will be translated into increased tourism and travel dollars. However, while many areas of the state are positioned to benefit from the Games, other areas are concerned that Olympic attention has focused development and investment priorities around the Wasatch Front. The timetable of the Games has accelerated normal capital investments and infrastructure improvements in and around the Wasatch Front. These improvements and investments likely would have occurred without the Olympics, but as a result of the Olympic opportunity, many of these projects were accelerated. Without continued capital and infrastructure investment, necessary improvements in rural Utah will not keep pace with development in Utah's urban centers.

Documented research of past Olympic Games has revealed that during the Olympic year, notable tourism displacement can occur. In Calgary, overall skier days declined in 1988, the year of the Olympics, despite the attention from the Games.[1] In Atlanta, hotel occupancy rates and convention activity declined in the year of the Games. In the experience of Calgary and Atlanta, these declines lasted only through the Olympic year, after which Olympic publicity and attention seems to have generated increases in tourism activity. For Utah, an opportunity exists to promote visitation to non-Olympic locations and thereby fill existing capacity that might otherwise remain empty. Focused promotional and marketing efforts may mitigate the displacement effect of hosting the Games and increase their overall economic impact.

Conclusion

Major tourism indicators point toward modest growth in tourism spending in 1999. Years of strong economic growth and buoyant consumer confidence have translated into significant gains from tourism-related industries. Sensitive to changes in macroeconomic conditions, tourism growth has slowed as growth in the overall economy has also decelerated. Despite this slowdown, tourism in Utah is expected to grow considerably in the next five years as awareness of the state increases due to the 2002 Winter Olympics. Capital investments in ski resorts, hotel construction and infrastructure development bode well for the future. National trends highlight opportunities in key segments of the travel market including adventure travel, cultural and heritage tourism, eco-tourism and family travel. Utah is well positioned to attract visitors seeking a higher quality, more unique experience who are willing to stay longer and spend more. However, continued investment in focused marketing and promotion efforts is essential to transforming the attention and image awareness generated by the Olympics into significant economic gains. By focusing on quality over quantity, tourism can provide higher quality earnings, with fewer of the challenges often associated with "windshield tourism." Long-range tourism planning and community input must be part of a balanced economic development strategy in order to capture significant, long-lasting benefits from travel and tourism. ✻

1 Utah Governor's Office of Planning and Budget, 2002 Olympic Winter Games – Economic, Demographic and Fiscal Impacts

Figure 53
Direct and Indirect Travel-Related Employment in Utah*

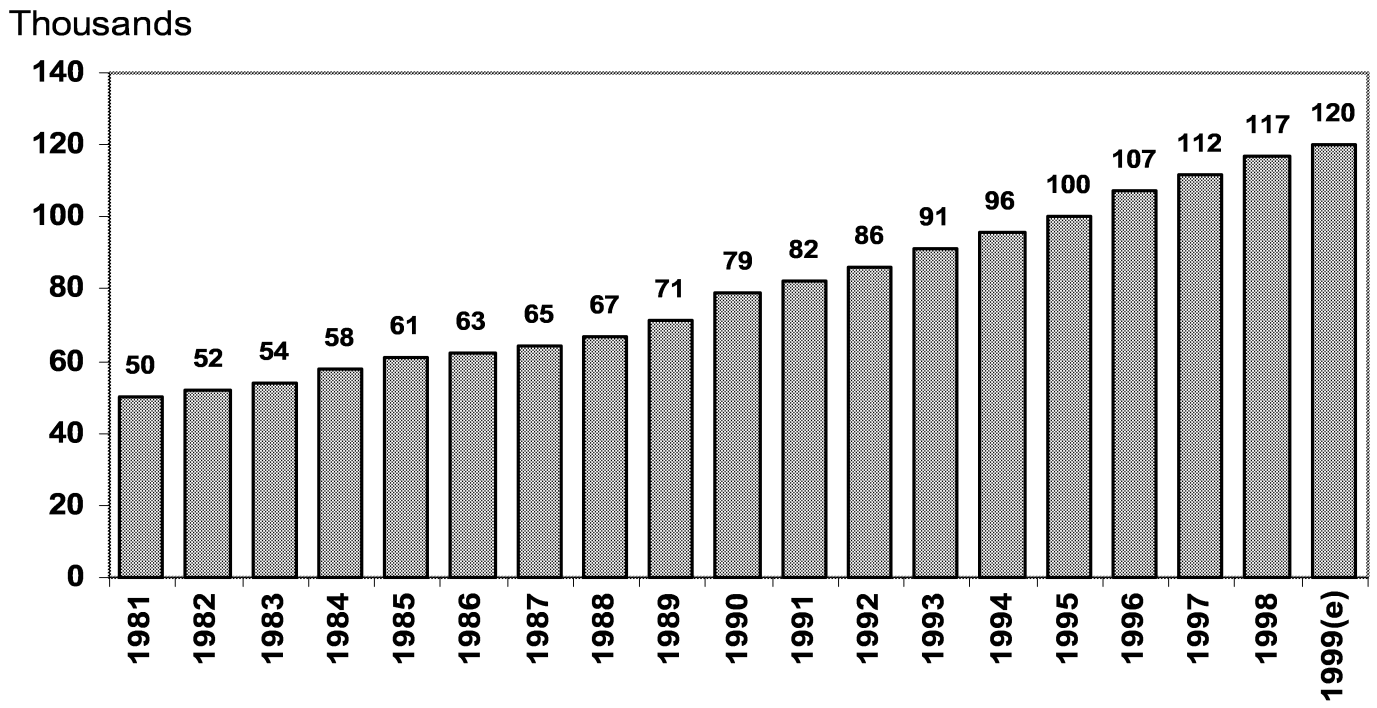


Figure 54
Utah Tourism Indicators–Hotel Room Rents

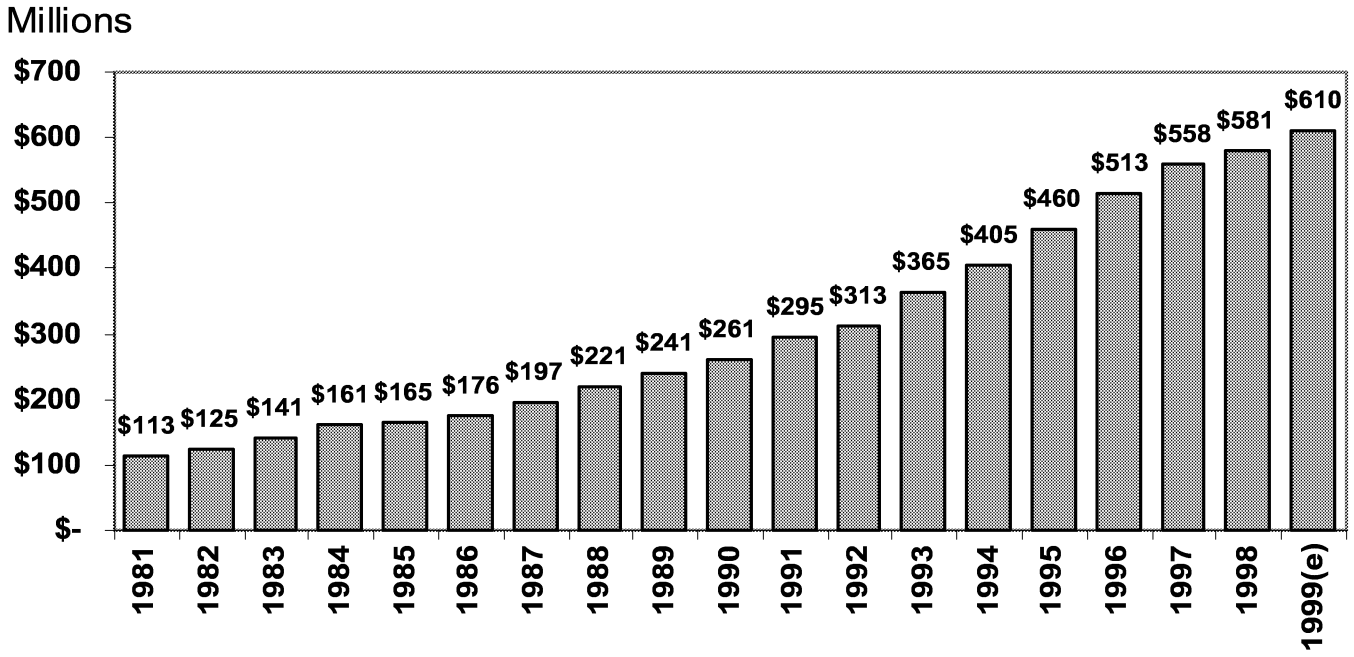


Figure 55
Utah Tourism Indicators–National Park and Skier Visits

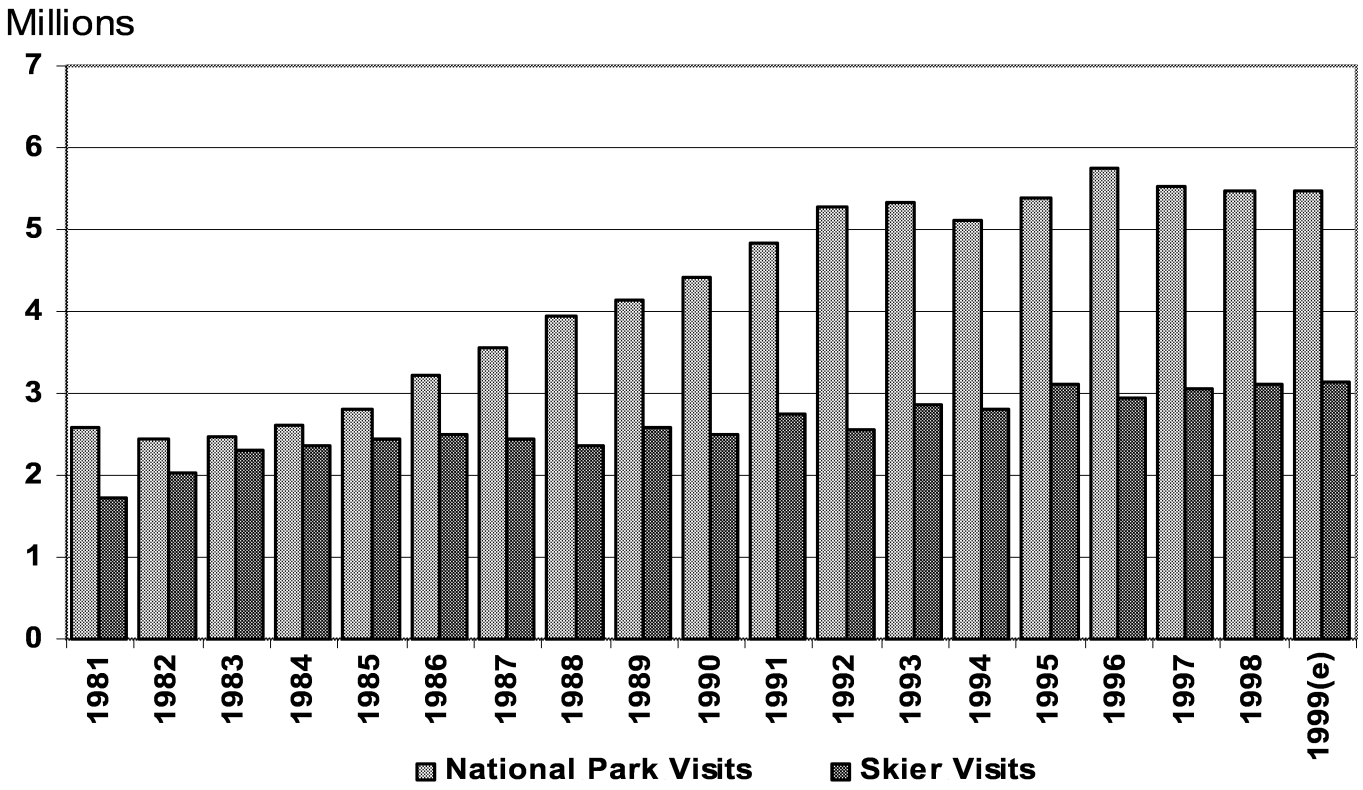


Table 77
Profile of the Utah Travel Industry

Category	1993	1994	1995	1996	1997	1998(r)	1999(e)
Total Spending by Tourists and Travelers (billions)	$3.3	$3.4	$3.6	$3.8	$4.0	$4.1	$4.2
Total Number of Foreign and Domestic Visits (millions)	15.0	15.2	16.1	17.0	17.4	17.8	18.2
Number of U.S. Visits	14.3	14.5	15.3	16.1	16.7	17.2	17.5
Number of Foreign Visits	0.70	0.72	0.76	0.88	0.72	0.64	0.70
Total Travel and Recreation-Related Employment*	91,000	96,000	100,000	107,000	112,000	117,000	119,500
Direct Travel and Recreation-Related Employment*	51,000	54,000	56,000	60,000	62,500	65,500	67,000
Indirect Travel and Recreation-Related Employment*	40,000	42,000	44,000	47,000	49,500	51,500	52,500
Percent of All Utah Non-Agricultural Jobs	11.2%	11.1%	11.0%	11.2%	11.2%	11.4%	11.4%
Total State and Local Taxes Generated by Travel Spending (millions)*	$260	$268	$284	$304	$320	$328	$336
State Government Portion*	$192	$198	$210	$225	$237	$243	$249
Local Government Portion*	$68	$70	$74	$79	$83	$85	$87
Total National Park Recreation Visits (millions)	5.4	5.1	5.4	5.7	5.5	5.3	5.5
							3.1
Total Skier Visits (millions)	2.9	2.8	3.1	2.9	3.0	3.1	3.1
Taxable Room Rents (millions)	$365	$405	$460	$513	$558	$581	$610
Hotel/Motel Occupancy Rates (statewide)	71.9%	73.7%	73.5%	73.1%	68.0%	63.0%	61.5%

(e) = estimate
(r) = revised

* Figures have been revised to better reflect national sources for estimating tax impact for travel spending.

Source: Estimates based on information from U.S. Department of Commerce, Tourism Industries (Washington, D.C.), Utah State Tax Commission, Utah Department of Transporation, National Park Service, Ski Utah and Rocky Mountain Lodging Report.

Table 78
Utah Tourism Indicators

Year	Hotel Room Rents (Current $)	National Park Visits	State Park Visits	Salt Lake Int'l. Airport Passengers	Skier Visits	Direct and Indirect Travel-Related Employment*	Direct Travel-Realted Spending
1981	$113,273,174	2,577,112	6,430,174	4,149,316	1,726,000	50,000	1,100,000,000
1982	124,787,207	2,443,787	6,436,488	5,861,477	2,038,544	52,000	1,400,000,000
1983	140,728,877	2,465,294	5,214,498	7,059,964	2,317,255	54,000	1,600,000,000
1984	161,217,797	2,616,301	4,400,103	7,514,113	2,369,901	58,000	1,850,000,000
1985	165,280,248	2,804,693	4,846,637	8,984,780	2,436,544	60,700	2,000,000,000
1986	175,807,344	3,224,694	5,387,791	9,990,986	2,491,191	62,500	2,150,000,000
1987	196,960,612	3,566,069	5,489,539	10,163,883	2,440,668	64,500	2,300,000,000
1988	220,687,694	3,941,791	5,072,123	10,408,233	2,368,985	67,000	2,450,000,000
1989	240,959,095	4,135,399	4,917,615	11,898,847	2,572,154	71,000	2,570,000,000
1990	261,017,079	4,425,086	5,033,776	11,982,276	2,500,134	79,000	2,660,000,000
1991	295,490,324	4,829,317	5,425,129	12,477,926	2,751,551	82,000	2,900,000,000
1992	312,895,967	5,280,100	5,908,000	13,870,609	2,560,805	86,000	3,050,000,000
1993	364,632,516	5,338,707	6,950,063	15,894,404	2,850,000	91,000	3,250,000,000
1994	405,342,342	5,111,400	6,953,400	17,564,149	2,800,000	96,000	3,350,000,000
1995	460,213,064	5,381,717	7,070,702	18,460,000	3,100,000	100,000	3,550,000,000
1996	513,080,390	5,749,110	7,478,764	21,088,482	2,954,690	107,000	3,800,000,000
1997	558,204,110	5,537,260	7,184,639	21,068,314	3,042,767	112,000	4,000,000,000
1998	580,782,660	5,466,090	6,943,780	20,297,371	3,101,735	117,000	4,100,000,000
1999(e)	609,821,793	5,471,896	6,770,185	19,976,691	3,144,328	120,000	4,200,000,000
Percent Change							
1981-99	438.4	112.3	5.3	381.4	82.2	140.0	281.8
1997-99	5.0	0.1	-2.5	-1.6	1.4	2.6	2.4
Average Annual Rate of Change							
1981-99	9.8	4.3	0.3	9.1	3.4	5.0	7.0

National Park Recreation Visits: 1981 to 1999

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	660,800	2,361,434	5,338,707
1994	777,200	1,028,100	429,900	605,300	2,270,900	5,111,400
1995	859,374	994,548	448,769	648,864	2,430,162	5,381,717
1996	856,016	1,269,600	447,527	678,012	2,498,001	5,749,110
1997	858,525	1,174,824	432,697	625,680	2,445,534	5,537,260
1998	837,161	1,166,331	436,524	656,026	2,370,048	5,466,090
1999(e)	862,275	1,108,015	443,071	636,345	2,422,190	5,471,896
Percent Change						
1981-99	164.1	133.7	392.8	60.0	87.9	112.3
1998-99	3.0	-5.0	1.5	-3.0	2.2	0.1
Annual Average Rate of Change						
1981-99	5.5	4.8	9.3	2.6	3.6	4.3

(e) = estimate

* Figures have been revised to reflect new methodology for estimating travel-related employment.

Sources: 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.

Special Topics

The Value of Census 2000 to Utah

Overview

On April 1, 2000, the 22nd decennial census will be conducted. The census is the only national survey providing consistent, uniform measures and data for every geographic area in the nation. The results will capture a picture in time of the population in Utah; who we are, how we have changed, and the direction we are heading–demographically, socially, and economically. Population counts from Census 2000 will not only be used to determine the number of seats each state will have in the U.S. House of Representatives, but will set the stage for an entire decade of federal and state fund distribution– which will amount to hundreds of millions of dollars over the next ten years.

Background

The U.S. Constitution stipulates in Article 1, Section 2, that a census of the population be conducted every ten years for the purposes of apportionment in the U.S. House of Representatives. No other source provides as much comprehensive information about who we are or has such important consequences for the way we govern ourselves. The decennial census is the only data-gathering effort that collects the same information from enough people to get comparable data from the national level to the neighborhood level.

Census 2000 will be conducted to determine how many people reside in the United States, precisely where they reside, and their demographic characteristics. It will the largest and most complex mobilization in the nation, and will include critical phases, such as preparing address lists, mailing questionnaires, performing quality checks and tabulating census results.

The primary means of census-taking in 2000 will be the long and short form questionnaires. These questionnaires will be used to collect the data the nation needs to meet statutory data requirements of the federal agencies and to administer state, local, and tribal government programs. All of the questions included on the 2000 questionnaire are either "mandated" or "required" by federal law or imposed by court decisions requiring the use of census data.

The answers that Utahns provide on the questionnaire will provide the baseline demographic statistics for planning, implementing and evaluating government services and private business decisions and will be used for such things as planning new school construction and public transportation systems, and managing healthcare services. The data will also form the basis for our political representation and an entire decade of distributions of federal and state funds.

Congressional Reapportionment

The results of Census 2000 will be used to determine the number seats each state will have in the U.S. House of Representatives. The Constitution provides that each state will have at least one member in the House. The apportionment process will allocate the remaining seats to the states based on the population counts from the census.

Calculation of a congressional apportionment requires three factors: the apportionment population of each state, the number of Representatives to be allocated among the states, and a method to use for the calculation.

Several entities have analyzed which states may gain and which may lose seats after Census 2000. These analyses apply the method of equal proportions, a mathematical formula that has been used in the previous five censuses to calculate House seat assignment. Based on these analyses, Utah may or may not gain a fourth seat after the 2000 census. Utah is one of the states "On the Bubble"–in some of the analyses Utah gains a fourth seat, but in others Utah holds steady with three seats. It is not possible to know for sure if Utah will gain an additional House seat, since these analyses are based on projections of the population, instead of the actual census results.

Redistricting

The Utah Constitution requires the Utah Legislature to redraw all congressional, state legislative, and state school board districts based on the new population totals from the Census Bureau. County clerks work closely with the Census Bureau and provide data on geography and boundaries for voting precincts that form a building block for new districts that will last until the 2010 Census. When the legislature completes the redistricting, county clerks receive a copy of the new boundaries to ensure that ballots and voting precincts match the new boundaries. The new districts will be enacted in the fall of 2001.

Federal Government Expenditures in Utah

While the benefits of accurate political representation and informed decision making are obvious, census data are also crucial for the distribution of federal and state funds. Every year the federal government distributes billions of dollars to states through federal programs. The economy of Utah and all other states depend significantly on these federal monies. In fiscal year 1998, Utah received $8.7 billion from the federal government, which amounted to 20% of Utah's total personal income in 1998.

Federal money is distributed to states through five major categories:

- Grants to state and local governments–Major grants in Utah include: Medicaid; Temporary Assistance for Needy Families; and Highway Planning and Construction.
- Salaries and wages for federal employees–This category includes wages paid to a federal employee by a federal employer.
- Retirement and disability programs–Major programs include: Social Security; Medicare; Food Stamps; and federal employee retirement.
- Procurement contracts–The major contracts are defense, aerospace, and the Post Office.
- Other direct payments–This category includes all other grants not included in the other four categories.

While all of these categories of federal expenditures are important, the first is most important to Utah because the majority of money that Utah receives based on population statistics is part of the grants to state and local government category of federal spending.

Grants to State and Local Governments. Grants are allocations of revenue paid by the federal government to state and local governments and can be divided into two categories: discretionary grants and formula grants. Discretionary grants are not dependent on formulas to determine where the money is allocated, but can be distributed by program administrators based on the merit of the

competing applications. Formula grants, on the other hand, are allocated using formulas mandated by statues or administrative regulations. Federal funds that come into Utah based on population statistics are based on the population component of grant formulas.

Federal revenues and the formulas by which they are disbursed through grant programs are constantly changing due to changes in legislation. For example, federal programs are periodically merged with others or are phased in and out of the federal budget depending upon the need as determined by Congress. The purpose of this research is to provide a "snapshot" of the magnitude of revenue allocation to state and local governments by formula grants that base revenue disbursal on population criteria as specified in their formulas.

Federal Grant Programs that Allocate Funds Based on Population. In fiscal year 1998, 94 federal grant programs were identified that relied all or in part on population or population characteristics for the distribution of federal money to Utah. Of the $1.5 billion that came into Utah, $113 million came from programs that were 100% population driven. The remaining monies came from programs that were based in part on population. Thus, population statistics from the Census Bureau, based on the population component of the grant formula, brought in $697 for every person in Utah or $2,163 per household in 1998. The five largest programs that distribute money to Utah based on population are: Medicaid, Flood Insurance, Highway Planning and Construction, Temporary Assistance to Needy Families (TANF), and Very Low to Moderate Income Housing Loans.

Medicaid, which provides medical assistance to poor children, pregnant women and elderly, is the largest federal program that distributes money to states based on population data. Of the total federal money distributed to Utah, 35% came from the Medicaid program. This amounted to $509.2 million in fiscal year 1998.

Flood Insurance, distributed through the Federal Emergency Management Agency (FEMA), is the second largest program with population-dependent funding. The Flood Insurance program is designed to enable persons to purchase insurance against physical damage to their homes or buildings caused by floods, mudslides, etc. In fiscal year 1998, $276.9 million, or 19% of the total federal money distributed to Utah came in through this program.

The third largest population driven program in Utah is the Highway Planning and Construction program. Utah received $144.8 million in fiscal year 1998 to help in the improvement and development of the interstate highway system and primary, secondary and urban streets. This amounted to 10% of the total federal funding distributed to Utah based on population data.

Temporary Assistance to Needy Families (TANF), formerly Aid to Families with Dependent Children (AFDC), is the fourth largest program. TANF provides assistance to poor single-parent families with children under 18, promotes job preparation, and provides incentives to get participants jobs. This program brought in $78.9 million in fiscal year 1998. This amounted to 5% of the total federal money that came into Utah from population-based programs.

The fifth largest program is Very Low to Moderate Income Housing Loans, which provides assistance to low income families through direct loans to buy, build, or improve homes in rural areas. In fiscal year 1998, Utah received $42.1 million dollars which accounted for 3% of the total amount of population driven programs.

In addition to the large programs listed above, other well-known programs such as Head Start, WIC, Community Development Block Grants, and Crime Victim Assistance provided significant funding to Utah. Compounded over the decade, the decennial census and population estimates based on the census count helped to distribute an estimated $15 billion to Utah during the 1990s.

State Government Expenditures

Federal funding formulas are only one aspect of the impact of population on the distribution of federal money to states. In Utah, population statistics are used to distribute state funds to local communities from state revenues, in addition to being used for the purposes of apportionment and redistricting, state planning, funding, and cost apportionment.

State Funds Distributed in Utah Based on Population. In fiscal year 1998, the State of Utah managed a $5.7 billion budget. This amount includes revenues from the state's general, school and transportation funds, as well as federal funds, dedicated credits, mineral lease, property taxes, and other revenues. While the allocation of these monies can be a complex process that considers competing needs, federal requirements, and changing state priorities, population is an important factor in the allocation of specific funds. The largest funds distributed in Utah based on population statistics are Local Option Sales Taxes, Class B and C Road Monies, Community Development Block Grants, Liquor Control Fund, and Criminal Fines and Forfeitures.

The Local Option Sales Tax is the largest state fund distributed by the state based on population data. This sales tax is collected by retailers and paid to the State Tax Commission. The Tax Commission then distributes the money to municipalities throughout the state. In fiscal year 1998, the State Tax Commission distributed $263.5 million of local option sales taxes among Utah's cities and counties. The distribution was determined based on the following formula: 1) 50% based on the local government's share of the state's population, 2) 50% based on the point of sale or use of transaction. Therefore, $131.8 million of sales taxes were divided among Utah's cities and counties during fiscal year 1998 based on population statistics.

The second largest state program that distributes money based on population statistics is money for the improvement and maintenance of class B and C roads in the state. Class B roads are county roads and class C roads are city streets. According to the allocation formula, 50% of the B and C road monies are allocated based on a municipality or county population. During fiscal year 1998, the state distributed $82.9 million to cities and counties for B and C road development and improvement. Thus, $41.4 million in road monies was tied directly to population.

Other monies in Utah distributed based on population include the Community Development Block Grant (CDBG), the Liquor Control Fund, and Criminal Fines and Forfeitures. These programs distributed an additional $7.4 million to the state in fiscal year 1998.

The Community Development Block Grant program is unique in that the monies are distributed to Utah by the federal government based on population and then distributed within Utah based on population. The money is used to build public work facilities, rehabilitate housing, assist with economic development and other activities that make communities more viable and expand economic opportunities. In fiscal year 1998 the state distributed $7.4 million in CDBG monies to local governments. Of that fund, $5.7 million, or 77% of the fund,

was distributed based on population.

The Liquor Control Fund is also distributed to municipalities based on population. The appropriation is used for programs or projects related to prevention, detection and prosecution of alcohol-related offenses. During fiscal year 1998, $1.3 million was allocated to cities and counties based on their population.

The Bureau of Emergency Medical Services (EMS) received $1.5 million from Criminal Fines and Forfeitures in fiscal year 1998. EMS then distributed $629,000, or 41% of the total fund, to counties in 1998 based on their population. These grant monies are used by agencies within counties for any emergency medical services activities or needs, such as certified personnel.

In total, the major state funds in Utah distributed $180.8 million during fiscal year 1998 to municipalities and counties based on population statistics.

Conclusion

On April 1, 2000, Utahns will be asked to fill out and return a census form. The answers provided on this form will not only determine the number of seats Utah will have in the U.S. House of Representatives, but will be used for such things as planning new school construction and public transportation systems and managing health care services. Equally important, is the use of decennial census data in the distribution of federal and state funds. The answers provided on this form set the stage for an entire decade of fund distribution. This means millions of dollars to Utah and it's municipalities and counties every year.

This research has identified 94 federal programs and 5 major state programs that distribute funds based on population statistics. This amounted to $1.5 billion in federal funds that came into Utah in fiscal year 1998. Compounded over the decade, decennial census data helped distribute $15 billion in federal funds to Utah, or $697 per person and $2,163 per household. In addition to the distribution of federal funds, the state distributed $180.8 million in 1998 to local governments through 5 major funds that based part of the fund allocation on population statistics.

A complete and accurate count in 2000 will ensure that Utah receives it's share of federal funds–which will amount to hundreds of millions of dollars over the next ten years. It is clear that the decennial census means money for Utah and all Utahns need to be counted. ✻

Table 79
Summary of Total Personal Income and Federal Funds Distribution (Millions of Dollars): FY1998

State	1998 Population	Total Personal Income	Total Funds	Funds Per Capita	Rank	Funds Per $1,000 Personal Income	Rank
United States	270,299,000	$7,158,176	$1,484,477	$5,491	na	$207	na
Alabama	4,352,000	93,567	25,297	5,813	16	270	9
Alaska	614,000	15,823	4,767	7,763	3	301	4
Arizona	4,669,000	108,087	24,067	5,155	28	223	23
Arkansas	2,538,000	51,763	13,016	5,128	29	251	15
California	32,667,000	900,900	161,571	4,946	34	179	40
Colorado	3,971,000	114,449	21,009	5,291	25	184	38
Connecticut	3,274,000	123,431	19,424	5,933	12	157	47
Delaware	744,000	22,258	3,553	4,776	38	160	44
Florida	14,916,000	386,654	83,558	5,602	20	216	24
Georgia	7,642,000	191,865	37,144	4,861	36	194	33
Hawaii	1,193,000	31,268	8,442	7,076	5	270	10
Idaho	1,229,000	25,901	5,961	4,850	37	230	21
Illinois	12,045,000	349,029	55,467	4,605	43	159	45
Indiana	5,899,000	143,362	26,098	4,424	45	182	39
Iowa	2,862,000	68,720	14,535	5,079	31	212	25
Kansas	2,629,000	65,854	13,426	5,107	30	204	27
Kentucky	3,936,000	84,834	23,161	5,884	14	273	8
Louisiana	4,369,000	93,430	22,900	5,242	26	245	18
Maine	1,244,000	28,620	7,463	5,999	11	261	13
Maryland	5,135,000	154,164	41,565	8,094	2	270	11
Massachusetts	6,147,000	202,252	37,173	6,047	9	184	37
Michigan	9,817,000	255,039	41,917	4,270	48	164	43
Minnesota	4,725,000	130,737	20,399	4,317	47	156	48
Mississippi	2,752,000	52,283	15,314	5,565	21	293	7
Missouri	5,439,000	132,955	32,682	6,009	10	246	16
Montana	880,000	17,827	5,465	6,210	7	307	2
Nebraska	1,663,000	41,212	8,253	4,963	33	200	29
Nevada	1,747,000	47,795	7,566	4,331	46	158	46
New Hampshire	1,185,000	34,626	5,272	4,449	44	152	49
New Jersey	8,115,000	275,531	40,373	4,975	32	147	50
New Mexico	1,737,000	34,753	12,933	7,446	4	372	1
New York	18,175,000	575,768	99,766	5,489	22	173	41
North Carolina	7,546,000	182,036	35,677	4,728	39	196	31
North Dakota	638,000	13,855	4,131	6,475	6	298	6
Ohio	11,209,000	282,920	52,006	4,640	41	184	36
Oklahoma	3,347,000	70,469	18,205	5,439	24	258	14
Oregon	3,282,000	81,310	15,119	4,607	42	186	35
Pennsylvania	12,001,000	322,706	67,350	5,612	19	209	26
Rhode Island	988,000	26,614	6,039	6,112	8	227	22
South Carolina	3,836,000	82,039	19,870	5,180	27	242	19
South Dakota	738,000	16,388	4,319	5,852	15	264	12
Tennessee	5,431,000	128,244	30,497	5,615	18	238	20
Texas	19,760,000	494,544	92,019	4,657	40	186	34
Utah	2,100,000	44,297	8,728	4,156	50	197	30
Vermont	591,000	14,309	2,895	4,898	35	202	28
Virginia	6,791,000	186,686	55,830	8,221	1	299	5
Washington	5,689,000	159,674	31,186	5,482	23	195	32
West Virginia	1,811,000	35,087	10,697	5,906	13	305	3
Wisconsin	5,224,000	131,547	21,883	4,189	49	166	42
Wyoming	481,000	11,169	2,743	5,702	17	246	17
District of Columbia	523,000	19,526	24,034	45,955	na	1231	na
Undistributed	na	na	28,615	na	na	na	na

note: The source of the 1998 population estimates is the U.S. Bureau of the Census.

Source: U.S. Bureau of the Census, Consolidated Federal Funds Report: 1998; Bureau of Economic Analysis

Table 80
Federal Expenditures in Utah Based on Population Statistics, Ranked by Largest Programs: FY 1998

Rank	CFDA #	Agency	Program Name	FY 1998 Expenditures	100% Pop. Driven	Percent of Total Expenditures
1	93.778	HHS	Medical assistance program	$509,180,355		34.77%
2	83.100	FEMA	Flood insurance	276,947,897		18.91%
3	20.205	DOT	Highway planning and construction	144,805,348		9.89%
4	93.558	HHS	Temporary assistance for needy families	78,925,393		5.39%
5	10.410	USDA	Very low to moderate income housing loans	42,087,988	yes	2.87%
6	84.010	ED	Title I grants to local educational agencies	33,036,334		2.26%
7	84.126	ED	Rehabilitation services-vocational rehabilitation grants	30,880,511		2.11%
8	10.557	USDA	WIC program	29,608,069		2.02%
9	93.600	HHS	Head start	27,557,327		1.88%
10	93.658	HHS	Foster care-Title IV-E	22,104,513		1.51%
11	17.225	DOL	Unemployment insurance	21,253,512		1.45%
12	93.596	HHS	Child care mandatory and matching funds of the	20,761,612		1.42%
13	10.768	USDA	Business and industry loans	19,325,216		1.32%
14	93.667	HHS	Social services block grant	16,975,052	yes	1.16%
15	20.507	DOT	Federal transit capital and operating assistance	16,734,216		1.14%
16	17.207	DOL	Employment service	15,174,609		1.04%
17	14.218	HUD	Community development block grants/entitlement grants	12,570,094	yes	0.86%
18	17.250	DOL	Job training partnership act	12,555,453		0.86%
19	93.959	HHS	Block grants for prevention and treatment of substance abuse	12,390,591		0.85%
20	84.048	ED	Vocational education-basic grants to states	11,495,239		0.78%
21	14.228	HUD	Community development block grants/state's program	8,652,235	yes	0.59%
22	93.994	HHS	Maternal and child health services block grant	6,144,891		0.42%
23	10.760	USDA	Water and waste disposal systems for rural communities	5,963,000		0.41%
24	15.605	DOI	Sport fish restoration	5,933,000		0.41%
25	10.427	USDA	Rural rental assistance payments	5,237,512	yes	0.36%
26	16.579	DOJ	Byrne formula grant program	4,525,865	yes	0.31%
27	93.659	HHS	Adoption assistance	3,735,748		0.26%
28	14.239	HUD	Home investment partnerships program	3,718,324		0.25%
29	84.186	ED	Safe and drug-free schools and communities	3,544,922		0.24%
30	93.645	HHS	Child welfare services-state grants	3,438,141		0.23%
31	84.298	ED	Innovative education program strategies	3,283,555		0.22%
32	84.181	ED	Special education-grants for infants and families	3,280,289	yes	0.22%
33	84.276	ED	Goals 2000- state and local education	3,213,060		0.22%
34	10.500	USDA	Cooperative extension service	3,081,938	yes	0.21%
35	15.611	DOI	Wildlife restoration	3,025,000		0.21%
36	16.523	DOJ	Juvenile accountability incentive block grants	2,997,900	yes	0.20%
37	11.307	DOC	Special economic development & adjustment assistance program	2,961,466		0.20%
38	14.157	HUD	Supportive housing for the elderly	2,944,810		0.20%
39	93.045	HHS	Special programs for the aging-Title III, part C	2,545,191	yes	0.17%
40	16.575	DOJ	Crime victim assistance	2,345,298	yes	0.16%
41	84.281	ED	Eisenhower professional development grants	2,260,799		0.15%
42	14.850	HUD	Public and Indian housing	2,012,696		0.14%
43	93.991	HHS	Preventive health and health services block grant	1,764,587		0.12%
44	84.002	ED	Adult education-state grant program	1,670,139	yes	0.11%
45	10.203	USDA	Payments to agricultural experiment stations under the Hatch Act	1,666,361		0.11%
46	93.044	HHS	Special programs for the aging-Title III, part B	1,605,368	yes	0.11%
47	20.600	DOT	State and community highway safety	1,363,635		0.09%
48	94.006	CNCS	Americorps	1,318,374		0.09%
49	16.588	DOJ	Violence against women formula grants	1,305,000		0.09%
50	84.243	ED	Tech-prep education	1,196,451		0.08%
51	10.766	USDA	Community facilities loans and grants	1,150,000	yes	0.08%
52	16.540	DOJ	Juvenile justice and delinquency prevention	856,000	yes	0.06%
53	93.630	HHS	Development disabilities basic support and advocacy	755,606		0.05%
54	20.509	DOT	Public transportation for nonurbanized areas	649,333		0.04%
55	84.187	ED	Supported employment services for individuals with disabilities	600,000	yes	0.04%
56	17.251	DOL	Native American employment and training programs	596,155		0.04%
57	84.169	ED	Independent living - state grants	583,492	yes	0.04%
58	17.235	DOL	Senior community service employment program	576,652		0.04%
59	84.213	ED	Even start-state educational agencies	565,400		0.04%
60	10.569	USDA	Emergency food assistance program	540,916		0.04%
61	45.025	NFAH	Promotion of the arts-partnership agreements	517,800		0.04%
62	83.523	FEMA	Emergency food and shelter national board program	453,954		0.03%
63	45.129	NFAH	Promotion of the humanities-federal/state partnership	440,446		0.03%
64	84.185	ED	Byrd honors scholarships	391,500	yes	0.03%
65	93.623	HHS	Runaway and homeless youth	351,572	yes	0.02%
66	20.505	DOT	Federal transit technical studies grants	312,824		0.02%
67	16.589	DOJ	Rural domestic violence and child victimization	300,488		0.02%
68	93.150	HHS	Projects for assistance in transition from homelessness	300,000	yes	0.02%
69	11.302	DOC	Economic development-support for planning organizations	274,000		0.02%

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Table 80 (continued)
Federal Expenditures in Utah Based on Population Statistics, Ranked by Largest Programs: FY 1998

Rank	CFDA #	Agency	Program Name	FY 1998 Expenditures	100% Pop. Driven	Percent of Total Expenditures
70	93.138	HHS	Protection and advocacy for individuals with mental	$259,782		0.02%
71	10.568	USDA	Emergency food assistance program	250,667		0.02%
72	17.247	DOL	Migrant and seasonal farmworkers	250,354		0.02%
73	81.041	DOE	State energy program	247,641		0.02%
74	93.669	HHS	Child abuse and neglect state grants	237,706	yes	0.02%
75	10.417	USDA	Very low-income housing repair loans and grants	222,980	yes	0.02%
76	84.161	ED	Rehabilitation services-client assistance program	214,526	yes	0.01%
77	16.548	DOJ	Title V-delinquency prevention program	180,000	yes	0.01%
78	93.671	HHS	Family violence prevention and services	163,476	yes	0.01%
79	93.584	HHS	Refugee and entrant assistance-targeted assistance	135,000		0.01%
80	10.415	USDA	Rural rental housing loans	127,706	yes	0.01%
81	84.196	ED	Education for homeless children and youth	127,539		0.01%
82	10.433	USDA	Rural housing preservation grants	118,000	yes	0.01%
83	93.643	HHS	Children's justice grants to states	114,321	yes	0.01%
84	84.240	ED	Program of protection and advocacy of individual rights	105,884	yes	0.01%
85	93.958	HHS	Block grants for community mental health services	100,000		0.01%
86	10.769	USDA	Rural development grants	89,000		0.01%
87	93.043	HHS	Special programs for the aging-Title III, part F	81,857	yes	0.01%
88	93.575	HHS	Child care and development block grant	70,659		0.00%
89	93.571	HHS	Community services block grant discretionary awards	49,652		0.00%
90	93.046	HHS	Special programs for the aging-Title III, part D	49,568	yes	0.00%
91	66.433	EPA	State underground water source protection	46,485		0.00%
92	66.001	EPA	Air pollution control program support	45,039		0.00%
93	45.310	NFAH	State library program	9,490	yes	0.00%
94	93.560	HHS	Family support payments to states	493		0.00%
			Total	$1,464,618,847	$113,432,947	7.74%

Agency Codes:

DOE	Department of Energy
DOJ	Department of Justice
DOL	Department of Labor
DOT	Department of Transportation
ED	Department of Education
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
NFAH	National Foundation on the Arts and Humanities
USDA	Department of Agriculture

Source: Catalog of Federal Domestic Assistance (CFDA); U.S. Census Bureau, Consolidated Federal Funds Report, 1998; Governor's Office of Planning and Budget

Table 81
Major State and Local Funds Distribution in Utah Based on Population Statistics (Thousands of Dollars): FY 1998

	Total	Percent Population Driven	Population Driven Expenditures	Percent of Total
Local Option Sales Taxes	$263,504	50	$131,752	72.9%
Class B and C Road Monies	$82,887	50	$41,444	22.9%
Community Development Block Grants	$7,401	77	$5,699	3.2%
Liquor Control Fund	$2,609	50	$1,305	0.7%
Criminal Fines and Forfeitures*	$1,527	41	$629	0.3%
Total	$357,928		$180,828	

* The Bureau of Emergency Medical Services (EMS) received $1.5 million from Crinimal Fines and Forfeitures in fiscal year 1998. This money was then distributed by EMS to counties based on their population.

note: totals may not add up due to rounding.

Source: Utah Code Annotated; Governor's Office of Planning and Budget

Quality Growth

Overview

During the past three years, Envision Utah has directed many activities, including an in-depth values study, baseline analysis, more than 100 public workshops, scenario development and analysis, and a million-dollar public awareness campaign. These activities culminated in the development of a regional vision called the Envision Utah Quality Growth Strategy. Envision Utah will advocate voluntary adoption of the strategy's components by public and private entities to realize the goals and strategies of the Quality Growth Strategy.

The QGET Technical Committee prepared the Technical Analysis of the Quality Growth Strategy. When compared to the baseline future (the direction the state is currently headed) the Quality Growth Strategy results in many desirable attributes. In 2020, compared to the baseline, it will conserve 171 square miles of land (roughly the current size of Salt Lake City and West Valley City combined); include a more market-driven mix of housing; result in a 7.3% reduction in mobile emissions; include less traffic congestion; and require $4.5 million less investment in transportation, water, sewer, and utility infrastructure. These results demonstrate that by adopting the principles outlined in the Quality Growth Strategy, residents can preserve the quality of life in the Greater Wasatch Area in numerous ways.

Envision Utah and QGET

Envision Utah's purpose is to create and be an advocate for a publicly supported growth strategy that will preserve Utah's high quality of life, natural environment, and economic vitality. During the past three years, Envision Utah has directed many activities, including an in depth values study, baseline analysis, over 100 public workshops, scenario development and analysis, a million dollar public awareness campaign, and the development and analysis of a Quality Growth Strategy. Envision Utah operates mostly with private funds and receives no direct state financing, but the Quality Growth Efficiency Tools (QGET) Technical Committee prepares much of the technical work.

The QGET Technical Committee consists of technical representatives from state and local government, as well as the private sector. These representatives analyze growth issues related to demographics, economics, transportation, air quality, land use, water availability, and infrastructure costs. The Governor's Office of Planning and Budget coordinates QGET's work.

Background

Quality Growth Planning in Utah. Quality growth planning in Utah began with the Growth Summit in 1995, a conference sponsored by legislative leadership and the Governor, intended to develop legislative solutions to the growth challenges facing the state. More than 60 proposals suggesting ways to manage the state's growth were submitted. The Summit resulted in a 10-year transportation improvement plan for the state.

The following year the Governor created the Utah Critical Lands Committee. This committee supported numerous open space projects and developed educational materials describing the tools and techniques for open space conservation.

In 1997, the State partnered with Envision Utah, a public/private community partnership dedicated to studying the effects of long-term growth, creating a publicly supported vision for the future, and advocating the strategies necessary to achieve this vision. Governor Leavitt is the Honorary Co-Chair of Envision Utah. The QGET Technical Committee was formed to improve the quality of information available to plan for Utah's future. Envision Utah and QGET have since produced the 1997 Baseline Scenario, the 1998 Alternative Scenarios Analysis and the 1999 Quality Growth Strategy.

The 1999 Utah State Legislature passed the Quality Growth Act of 1999 for the purposes of addressing growth issues throughout Utah. The Act establishes a 13-member Quality Growth Commission charged with providing assistance to local governments in the form of grant money, administering the LeRay McAllister Critical Land Conservation Fund, and researching several growth related issues.

Contributors to Technical Analysis. The QGET Technical Analysis of the Envision Utah Quality Growth Strategy benefitted from the input of: 88 cities, 10 counties, 2 metropolitan planning organizations, 5 state agencies, PSOMAS Engineering, and Fregonese Calthorpe Associates.

Limitations of Technical Analysis. The Technical Analysis of the Quality Growth Strategy is meant to provide relevant technical information to the public, decision makers and Envision Utah about the Quality Growth Strategy. It should be thought of as a work in progress, the findings of which will evolve as new and better information becomes available. The estimates reported in the analysis are conservative and additional benefits of the Quality Growth Strategy may be found as further modeling is performed. The Analysis is limited to the 10-county area termed the Greater Wasatch Area. All modeling was conducted at the regional scale and is not intended for site-specific evaluations. The scope is limited to the subject areas of transportation, air quality, land use, water, and infrastructure costs.

The Quality Growth Strategy

Background. The Envision Utah Quality Growth Strategy is based on extensive input from the general public, civic organizations, business, and public officials. In January 1999, Envision Utah received more than 17,000 responses to its public survey. These responses led Envision Utah to develop six primary goals. Over the course of 1999, Envision Utah sponsored dozens of workshops to examine issues such as where and how the Greater Wasatch Area should grow and what types of transportation would best serve the area. These workshops also asked participants to discuss how growth should be accommodated, and consider how well their current general plans would preserve quality of life in the face of growth pressures. Workshop participants discussed what aspects of the community should be enhanced and preserved, who could best deal with growth related issues (e.g. state government, local government, private industry, consumers) and what types of growth related strategies the public would support. Draft strategies were reviewed by the public, elected officials, and technical experts for input regarding political and technical feasibility. Finally, the Quality Growth Strategy was refined to make it consistent with forecasted housing demand. All of this information helped to refine the draft strategies that now make up Envision Utah Quality Growth Strategy.

Characteristics. The Technical Analysis of the Quality Growth Strategy is based on future-based voluntary compliance with the Envision Utah strategies. Options for voluntary compliance include: various forms of interjurisdictional cooperation, development of a market-based housing mix, additional water conservation, increasing telework, development of a region-wide transit system, and incremental changes in development patterns. The Technical Analysis anticipates that the Greater Wasatch Area will be home to approximately one million more people by 2020. Population and employment trends will continue to be consistent with current trends at the county-level.

Concept map. The concept map is a visual reflection of the information gleaned by Envision Utah from public involvement and the technical advice of local officials and the QGET Technical Committee. The map consists of six layers of information: constrained lands (steep slopes, wetlands, developed and government-owned); critical lands (open space corridors and development buffers); infrastructure (highways and transit); centers and corridors (commercial and industrial centers); newly developed lands (new land committed to urban use between 1997 and 2020); and redeveloped lands (land with existing development and low improvement values). This information was combined to create a visual map, as well as a database of geographically-referenced information.

Baseline. In 1997 the Envision Utah /QGET partnership prepared the Baseline Scenario. This study was comprised of information in current regional and state long-range plans along with the extrapolation of development trends from the last 10-20 years. The study is constrained by long-range population and employment trends for the region. The Baseline Scenario serves as an indication of how the region will develop if current plans and development trends are carried out. The Baseline figures in this analysis represent the second revision of the Baseline Scenario. The Baseline Scenario is used to compare and contrast impacts of the Quality Growth Strategy.

Summary of Technical Analysis

Land Use. The land use analysis is based on a market-driven housing demand forecast, extensive use of infill and reuse development, and mixed use/walkable development patterns. Under the Quality Growth Strategy, 171 square miles less land is converted to urban use than would be converted under the Baseline. This also allows for the conservation of 116 square miles of agricultural land. Under the Baseline a total of 325 square miles will be converted to urban use, compared to a total of 154 square miles under the Quality Growth Strategy. Of the total land converted to urban use, the Baseline will consume 143 square miles of agricultural land compared to 27 square miles under the Quality Growth Strategy

To ensure that the Quality Growth Strategy reflects the housing market, Envision Utah commissioned a housing demand study. The study examined current development trends, constraints that presently exist in the real estate market, and how changes in consumer preferences and regional demographics will affect housing demand in 2020. The study found that the market will predominantly demand single-family units, but to a lesser extent than current zoning ordinances and recent historical trends will supply. Changing demographics will result in some demand shifting away from single family-units (15% less of total 2020 housing compared to the current trend) toward town home/duplexes (9% more) and apartment/condos (5% more).

Transportation. The transportation system for the Quality Growth Strategy is much like the system designed for the Baseline except that the Quality Growth Strategy utilizes fewer roads and more rail transit. Transportation modeling for the Quality Growth Strategy resulted in a reduction in vehicle miles traveled of 2.4 million per day. At the same time, average speeds increased by 12.5%; commute times declined by 5.2%; and transit trips increased by 37.5%. These system improvements came with a reduction in road spending of approximately $3.5 million and an increase in transit spending of $1.5 million for a net savings of $2.0 million. Transportation experts felt that additional savings could be realized if the transportation system were further refined.

Air Quality. The Quality Growth Strategy reduced total emissions by 3.5%, a total of 93 tons per day. This occurs solely because of a reduction in mobile emissions of 7.3%. This reduction is the result of more transit trips, shorter trip times, and higher average peak speeds. It is important to note that the region has enjoyed large gains in the reduction in the quantity of air pollution emitted in the Greater Wasatch Area over the last two decades. For the most part, this reduction has been due largely to state programs regulating the quantity of air pollution emitted by industry. This program has been very successful in reducing industrial emissions and in helping the region meet the federally mandated air quality requirements. Therefore, further reductions from industry will be minimal and it will be important to achieve further mobile emission reductions, such as those demonstrated under the Quality Growth Strategy, to help the region maintain compliance with these standards.

Water. Current per capita water use in the Greater Wasatch Area is approximately 319 gallons per day. At this rate of consumption, Utah presently ranks as the second highest state in per capita water consumption. Under the Baseline Scenario, per capita water use in 2020 is 298 gallons per person per day. The Quality Growth Strategy results in a per capita use of 267 gallon per day. The Quality Growth Strategy is an excellent forum for achieving a higher reduction/conservation in water consumption through education, incentives and/or regulation. Since the price of water is assumed to be the same in both the Baseline and the Quality Growth Strategy, per capita water use varies between these two scenarios because of changes in land use and in the conservation rate. Land use changes, such as differences in the lot size and allocation of population and employment between the Baseline and the Quality Growth Strategy, help create the lower water use under the Quality Growth Strategy.

Infrastructure. Infrastructure is computed in two categories: regional and sub-regional. Sub-regional is composed of off-site (municipal) and on-site (developer) categories of costs. Regional costs are a function of regional and state planning of activities such as major road arterials, transit networks, and large water development projects. On-site and off-site costs are infrastructure such as local roads, water and sewer mains, storm drain systems, and utilities. Compared to the baseline, the Quality Growth Strategy reduced total infrastructure cost by $4.5 million. This translates into a $3.5 million savings in both regional and sub-regional roads, approximately $0.5 million savings in water and an additional investment of $1.5 million in public transportation projects.

Summary. The technical analysis was not intended to vary significantly from the Baseline because changes in development are on an incremental and voluntary basis. The region will reap greater benefits in future time horizons since it takes more than 20 years for the benefits to be realized. The estimates provided here show that compared to the Baseline, the Quality Growth Strategy can help to

preserve the quality of life in Utah by conserving critical lands, reducing mobile emissions, increasing housing choices, improving traffic flows, reducing water consumption, and requiring less infrastructure investment.

Relationship Between Envision Utah and the Quality Growth Commission

Quality growth planning in Utah includes the work of many entities, including contributions from all levels of government (federal, state, and local) and the private sector. Envision Utah and the Quality Growth Commission are two of the most visible quality growth planning entities, each involved in related, as well as separate planning activities.

The Quality Growth Commission and Envision Utah possess many similarities. Both entities are dedicated to preserving and enhancing the quality of life present in Utah. Both entities are devoted to involving the public in decisions about future planning and view Utah residents as their ultimate constituency. Both entities have joined to fund local quality growth demonstration projects including:

- *Centerville* – Proposing a mixed-use development, integrating affordable housing, open space and compact, high density development on greenfield acreage
- *Provo* – Proposing a pedestrian-oriented neighborhood node, including medium to high density housing and retail, around a key inter-modal transportation center
- *Salt Lake City* – Proposing a transit-oriented block adjacent to the new library
- *West Valley City* – Proposing a compact, mixed-use infill and redevelopment project along the Jordan River Corridor
- *Brigham City/Perry* – Proposing a compact, mixed-use, mixed-income development on greenfield acreage on the border between the two communities
- *Sandy/Midvale* – Proposing a joint planning effort to create a transit-oriented development that includes senior housing along a light rail corridor

Envision Utah and the Quality Growth Commission differ in that Envision Utah's focus is the creation of a broad, regional vision and the analysis, public education, and advocacy required to achieve this vision. The Commission is devoted to making legislative recommendations that will help local communities and the state achieve quality growth. Consequently, the Commission has a specific legislative mandate to advise legislation on growth management issues, including critical land conservation, home ownership, housing availability, and efficient infrastructure development. Envision Utah has no regulatory power, whereas the Commission is in a position to make quality growth happen through legislation.

QGET Technical Committee

State Agencies

- Brad Barber, Governor's Office of Planning and Budget
- Paul Gillete, Dept. of Natural Resources (Water Resources)
- Brock LeBaron, Dept. of Environmental Quality (Air Quality)
- Richard Manser, Utah Dept. of Transportation
- Stuart Challender, Automated Geographic Reference Center

Local Government

- Mick Crandall, Chair, Wasatch Front Regional Council
- Kathy McMullen, Mountainland Association of Governments
- Wilf Sommerkorn, Davis County
- Ray Johnson, Tooele County
- Don Nay, Utah County
- John Janson, West Valley City
- Fred Aegerter, Ogden City
- Richard Hodges, Utah Transit Authority
- Doug Jex, Dept. of Community & Economic Development

Private

- Roger Borgenicht, Future Moves
- D. J. Baxter, Envision Utah

ENVISION UTAH QUALITY GROWTH GOALS AND STRATEGIES: November 9, 1999

Enhance Air Quality

- Foster and promote walkable development where feasible
- Promote the building of a region-wide transit system to make transit more convenient and reliable
- Foster transit-oriented development
- Encourage polluters to use best available technology to meet, and where possible, exceed industrial emissions standards
- Encourage energy efficiency ordinances
- Promote creation of a network of bikeways and trails, especially commuter trails linking daytime destinations
- Support strategies to reduce ozone and save energy
- Promote telework

Promote Mobility & Transportation Choices

- Promote the building of a region-wide transit system to make transit more convenient and reliable
- Foster transit-oriented development
- Foster and promote walkable development
- Advocate an increase in the capacity of east-west transportation links (recognizing that some communities may have a greater need for additional north-south arterial capacity)
- Promote creation of a network of bikeways and trails, especially commuter trails linking daytime destinations
- Encourage job locations to include retail and services in a walkable configuration to reduce driving between daytime destinations
- Encourage the addition of carpool lanes and promote incentives for their use
- Promote purchase of rights-of-way for future transit system
- Promote telework
- Encourage reversible lanes where feasible to reduce peak hour congestion and take advantage of unused road capacity

ENVISION UTAH QUALITY GROWTH GOALS AND STRATEGIES (Continued)

Preserve Critical Lands, Including Agricultural, Sensitive, And Strategic Open Lands (Such as Wetlands, Parks And Recreational Lands, Watersheds, And Steep Slopes) And Address The Interaction Between These Lands And Developed Areas

- Promote walkable development that encourages permanently reserved open lands through incentives
- Promote tax incentives for reuse of currently developed areas
- Support the establishment of transfer of development rights programs to promote protection of open space and maintain quality of life
- Support the protection of sensitive lands
- Promote use of conservation easements to preserve key/critical land for parks and recreation, open space, wildlife habitat, and agriculture, providing public access where appropriate, and organizing these areas into a regional network to the extent possible
- Encourage the dialogue and ongoing public discussion of how to identify significant public and/or private funds, and the appropriate balances of these, for critical lands preservation.
- Pursue public land trades to create more private developable land, preserve critical lands and watersheds, and protect sensitive lands from development

Conserve & Maintain Availability of Water Resources

- Foster and promote walkable development
- Advocate restructuring of water bills and other techniques to encourage conservation, and to help water providers encourage conservation.
- Provide information regarding and encourage the use of low-irrigation landscaping, drought resistant plants (xeriscaping), and low water-use appliances, as well as encouraging government entities to demonstrate this on their properties
- Promote the use of greywater and secondary water systems
- Encourage the use of leading edge technologies for water conservation
- Encourage interjurisdictional cooperation

Provide Housing Opportunities For a Range of Family And Income Types

- Foster mixed-use and walkable neighborhood zoning to encourage a mix of housing types—including multi-family—for a mix of incomes
- Promote density bonuses to developers to promote development of affordable housing
- Support implementation of energy efficiency ordinances
- Provide information regarding developer incentives and tax breaks for development of affordable and mixed-income housing
- Create local housing trust funds to develop and maintain affordable housing
- Encourage cooperative region-wide fair share housing policies
- Support "cool communities" and other strategies to reduce ozone and save energy
- Develop a program of incentives to local governments to develop and implement plans for affordable and mixed-use, mixed-income housing

Maximize Efficiency in Public & Infrastructure Investments

- Encourage local zoning ordinances that promote walkable development and preservation of open space
- Encourage energy efficiency ordinances
- Promote the reuse/redevelopment of currently developed areas
- Encourage reversible lanes where feasible to reduce peak hour congestion and take advantage of unused road capacity
- Establish a Transfer of Development Rights program to encourage land owners to build in currently developed areas rather than on sensitive lands
- Promote the building of a region-wide transit system to make transit more convenient and reliable
- Advocate clean-up and re-use of brownfields

Revise Tax Structure to Promote Better Development Decisions

- Promote open discussion about tax policy as it relates to development

Figure 56
Land Consumption

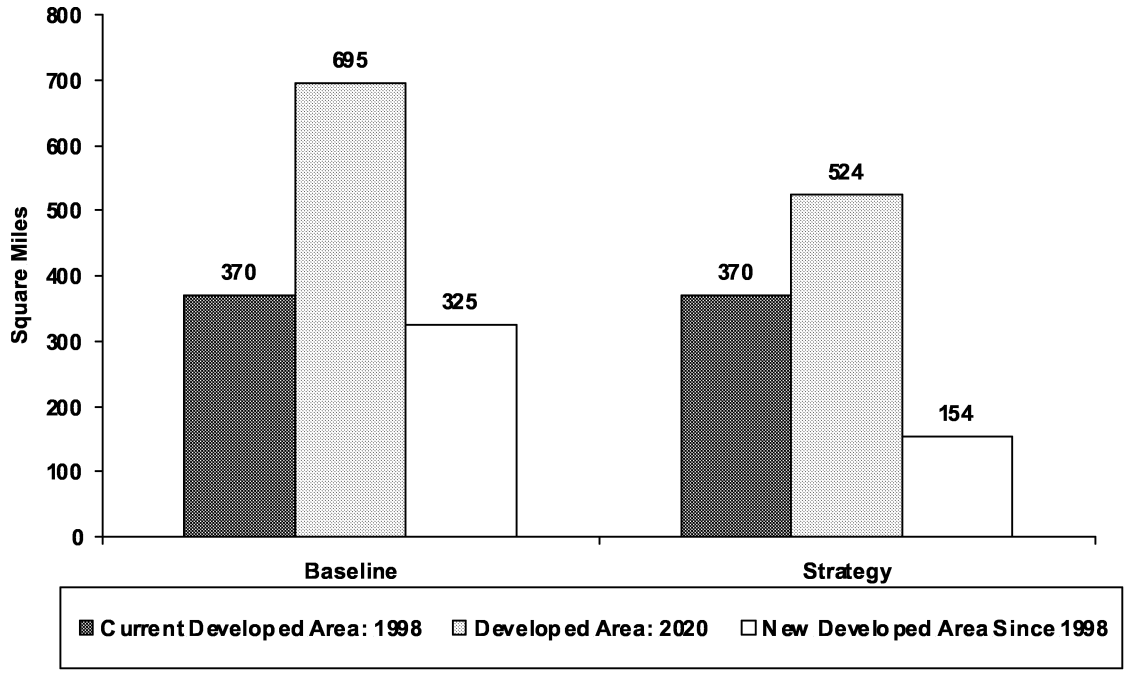


Figure 57
Housing Mix

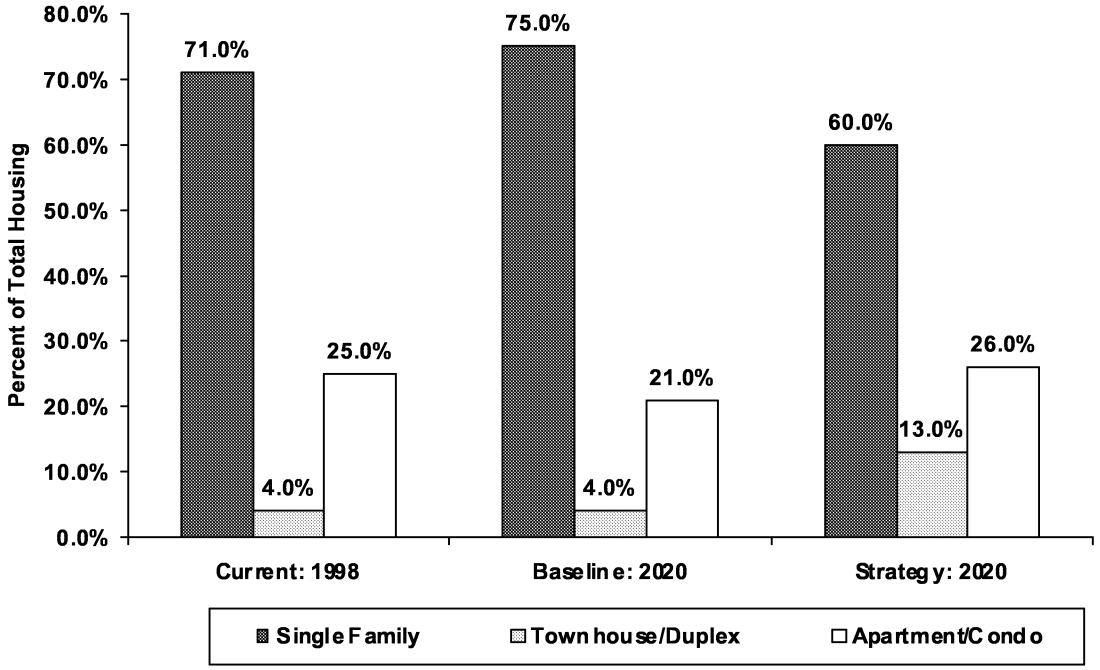


Figure 58
Transportation Comparison-- Percent Difference Between Strategy and Baseline: 2020

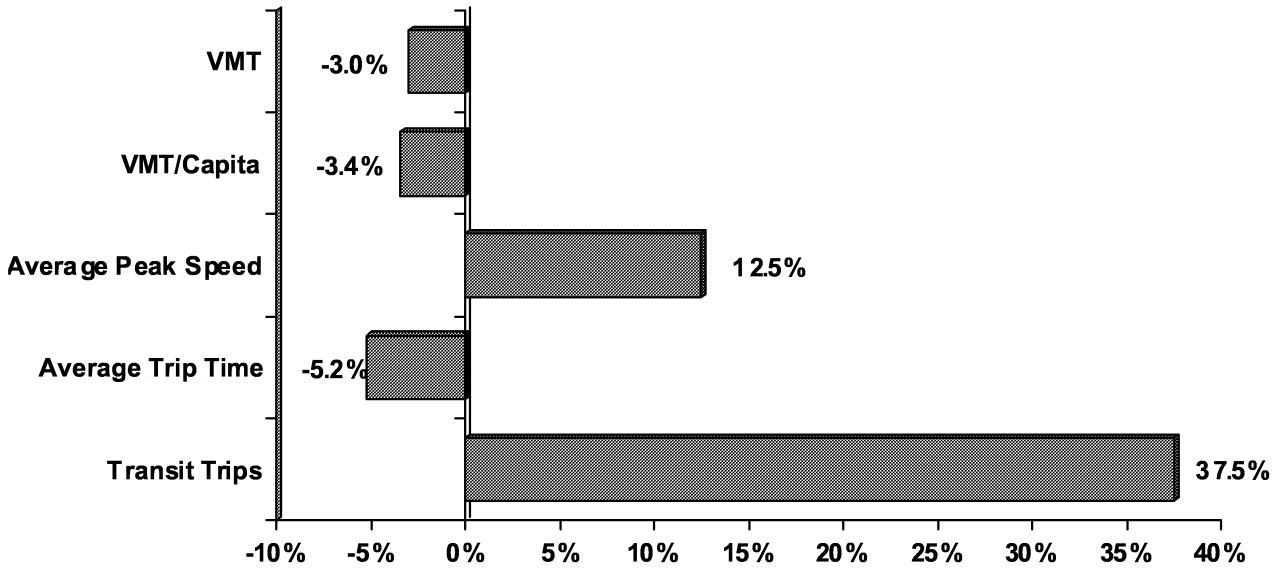


Figure 59
Emissions Comparison–Percent Difference Between Strategy and Baseline: 2020

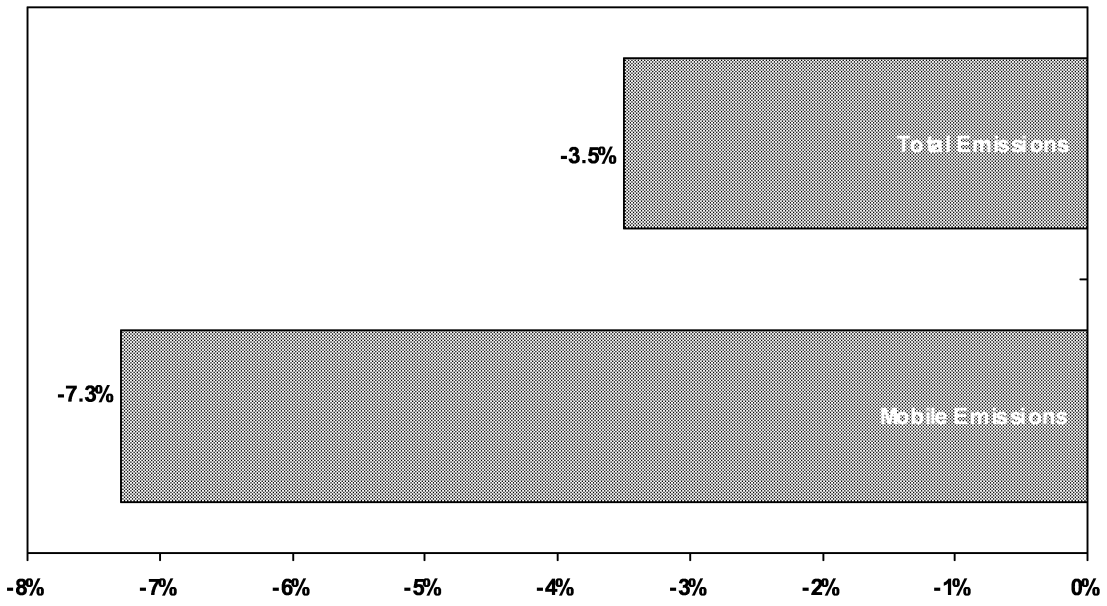


Figure 60
Per Capita Water Use

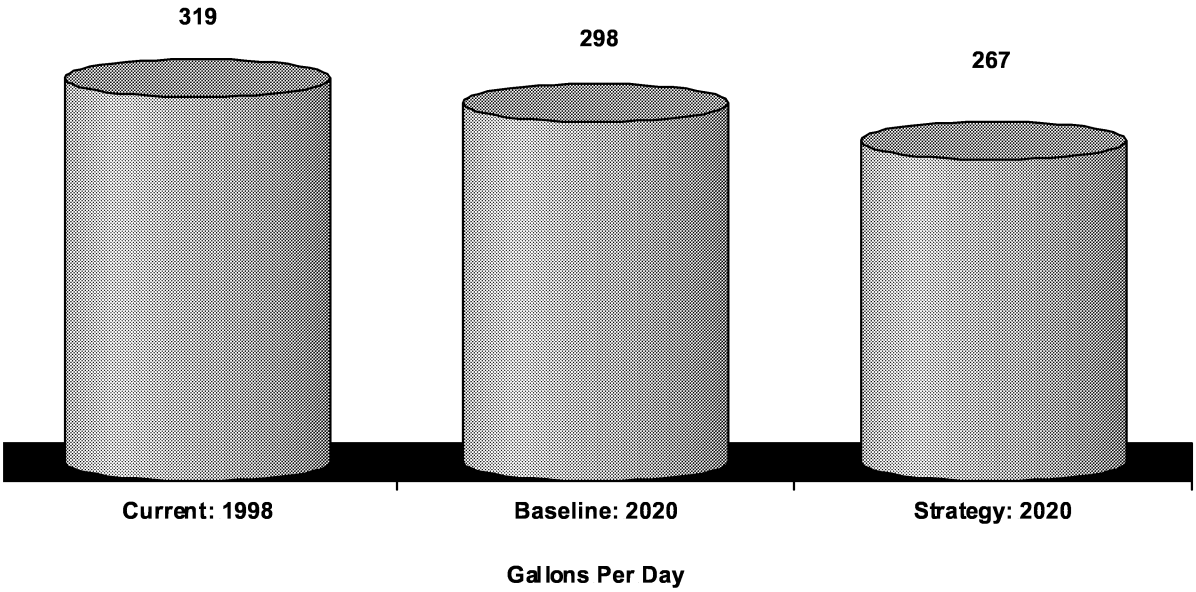


Figure 61
Total Infrastructure Costs: 1998 to 2020

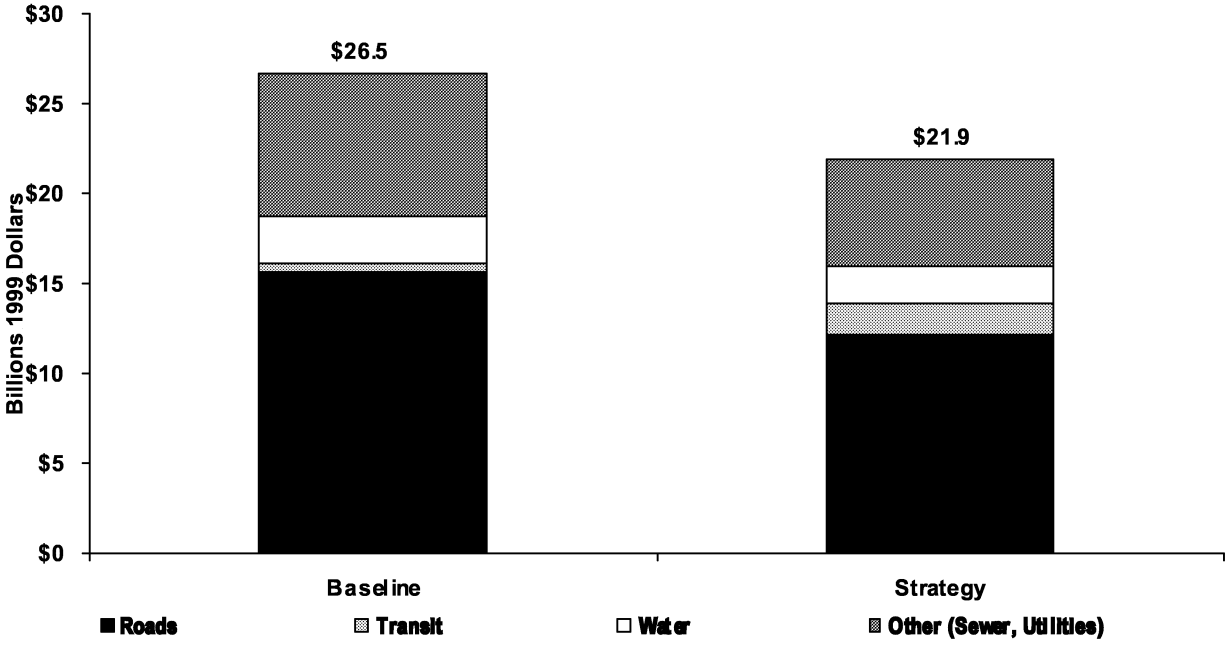


Table 82
Envision Utah Quality Growth Strategy: Selected Characteristics in the Year 2020

	Measure	Current**	Baseline	Quality Growth Strategy	Differences Baseline & QGS Absolute	Differences Baseline & QGS Percentage
Demographics/Economics						
Population	Resident Population	1,687,124	2,695,273	2,695,273	0	0.0%
Households	Number of Households	549,889	952,910	952,910	0	0.0%
Employment	Nonagricultural Jobs	841,581	1,368,024	1,368,024	0	0.0%
Land Use						
Total Developed Area	Square Miles	370	695	524	-171	-24.6%
New Developed Area	Square Miles: 98-2020	--	325	154	-171	-52.6%
Agricultural Land Converted to Urban Use	Square Miles: 98-2020	--	143	27	-116	-81.1%
Population Density	Persons Per Residential Acre	6.0	5.6	--	-5.6	-100.0%
Average Single Family Lot Size	Acres	0.32	0.35	0.29	-0.06	-17.1%
Housing Type						
Single Family	% of Total	71%	75%	60%	-15%	-20.0%
Town House/Duplex	% of Total	4%	4%	13%	9%	225.0%
Apartment/Condo	% of Total	25%	21%	26%	5%	23.8%
Transportation*						
Vehicle Miles Traveled: 10-County Area	Millions	40.7	79.2	76.8	-2.4	-3.0%
VMT Per Capita: 10-County Area		25.1	29.3	28.3	-1	-3.4%
Vehicle Miles Traveled: Metro Counties	Millions	--	60.4	57.4	-3	-5.0%
VMT Per Capita: Metro Counties		--	26.0	24.8	-1.2	-4.6%
Average Peak Speeds	Miles Per Hour	25.7	20.0	22.5	2.5	12.5%
Average Trip Time	Minutes	18.5	23.2	22.0	-1.2	-5.2%
Transit Trips	Linked Trips Per Weekday	54,000	120,000	165,000	45,000	37.5%
Transit Share of Work Trips	% of Total	3%	3%	5%	2%	59.4%
Proximity to Rail Transit	Population within Half Mile	--	45,557	608,490	562,933	1235.7%
	% of Total	0.0%	1.7%	22.6%	21%	1235.7%
Air Quality*						
Total Emissions (CO, PM, and O3)	Tons Per Day	1,869	2,634	2,541	-93	-3.5%
Mobile Emissions (CO, PM, O3)	Tons Per Day	--	1,212	1,123	-88.7	-7.3%
Distribution of Emissions	Concentration Index (Lower=Better)	--	0.78	0.79	0.01	0.9%
Population-Pollution Coincidence	Coincidence Index (Lower=Better)	--	2.44	2.53	0.09	3.7%
Water						
Total Demand	Acre Feet	698,800	1,008,800	915,600	(93,200)	-9.2%
Per Capita Use	Gallons Per Day	319	298	267	-31	-10.4%
Conservation	Percent Reduction by 2020	--	6.3%	12.5%	6.3%	100.0%
Infrastructure Costs						
Regional						
Roads	Billions of 1999 Dollars	--	12.587	9.980	-2.6	-20.7%
Water	Billions of 1999 Dollars	--	0.606	0.545	-0.1	-10.1%
Transit	Billions of 1999 Dollars	--	0.276	1.728	1.5	526.1%
Total Regional	Billions of 1999 Dollars	--	13.469	12.253	-1.2	-9.0%
		--				
Sub-Regional		--				
On-Site	Billions of 1999 Dollars	--	11.256	8.218	-3.0	-27.0%
Roads	Billions of 1999 Dollars	--	2.706	1.916	-0.8	-29.2%
Water	Billions of 1999 Dollars	--	1.429	1.030	-0.4	-27.9%
Other	Billions of 1999 Dollars	--	7.121	5.272	-1.8	-26.0%
		--				
Off-Site	Billions of 1999 Dollars	--	1.736	1.461	-0.3	-15.8%
Roads	Billions of 1999 Dollars	--	0.329	0.260	-0.1	-21.0%
Water	Billions of 1999 Dollars	--	0.594	0.512	-0.1	-13.8%
Other	Billions of 1999 Dollars	--	0.813	0.689	-0.1	-15.3%
Total Sub-Regional	Billions of 1999 Dollars	--	12.992	9.679	-3.3	-25.5%
		--				
Total Regional and Sub-Regional	Billions of 1999 Dollars	--	26.461	21.932	-4.5	-17.1%
		--				
Total Roads	Billions of 1999 Dollars	--	15.622	12.156	-3.5	-22.2%
Total Water	Billions of 1999 Dollars	--	2.629	2.087	-0.5	-20.6%
Total Transit	Billions of 1999 Dollars	--	0.276	1.728	1.5	526.1%
Total Other	Billions of 1999 Dollars	--	7.934	5.961	-2.0	-24.9%

* Congestion, transit, and mobile emission measures are for metro counties only.
** Represents the base year for modeling purposes and varies from 1995-1998 among measures.

Totals differ in this table from other tables in this report due to different release dates or data sources.

Source: Quality Growth Efficiency Tools Technical Committee; Governor's Office of Planning and Budget

Transportation Funding

Highway Overview[1]

Highway transportation needs of the state are financed in a variety of ways. A major portion comes from the state tax on motor and special fuels. This tax revenue is deposited into the Transportation Fund and is divided between the state and cities and counties. The state receives 75% of the money, and cities and counties receive 25%. Additionally, the state receives federal money. This generally comes from the federal tax on motor and special fuels.

Federal money is allocated to the state in special categories. These categories cover a mixture of purposes such as recreational trails, metropolitan planning, bridge replacement, interstate maintenance, and the National Highway System.

The state also diverted a 1/16 percent state sales tax for roads. This money is allocated $500,000 each to two programs: the corridor preservation program, and state park access program. The remaining money, approximately $17 million, goes to local and county governments each year.

With rapidly growing population and aging transportation infrastructure, many critical areas in Utah are in need of new roadways or major road reconstruction on existing roadways. Even with the above funding sources, the building of roads has not been sufficient to keep up with transportation demands.

Standard Transportation Program

The Utah Department of Transportation and the Transportation Commission are in charge of the Statewide Transportation Improvement Program known as the STIP. This program includes highway and transit projects that are scheduled for construction in the next five years. The STIP contains a list of projects that have been approved by the Transportation Commission based on funding projections from various federal and state transportation sources. Many projects are critical to meet transportation capacity needs, but due to insufficient funding, are left off the STIP. These are commonly referred to as unfunded transportation capacity needs. The STIP program funds approximately $100 million of state projects each year. With the increasing population growth of Utah, the STIP program cannot keep pace with needed projects and the unfunded transportation capacity needs list continues to grow.

Centennial Highway Fund

The "Centennial Highway Fund", created by the state legislature during the 1996 General Legislative Session, is a special revenue fund to provide financing for unfunded projects. These funds are to be used exclusively for the construction of critical transportation needs that previously were not scheduled for construction due to lack of financing. The planned financing sources for the Centennial Highway Fund include General Fund appropriations; fuel taxes and registration fees; bonding; federal funds; local, private or toll road contributions; and department efficiencies.

In 1997, the governor and legislature adopted a ten-year plan to finance $2.6 billion of construction projects above current levels of highway construction. The Centennial Highway Fund was created to finance these projects. One of these projects is the reconstruction of Interstate 15 (I-15) estimated at a cost of $1.36 billion. After the financing plan was adopted and passed by the legislature, the Utah Department of Transportation (UDOT) received and accepted a bid from Wasatch Constructors for reconstruction of I-15 at a price tag of $1.325 billion. However, with enhancements and changes in the program, the total cost of the I-15 project is now $1.59 billion or $230 million higher than the original estimate of $1.36 billion financed in the ten-year plan. The Governor, along with legislative leadership, decided to finance the additional $230 million so other projects included in the Centennial Highway Fund program would remain unaffected.

The ten-year financing plan was modified in 1998 to finance the increased costs of I-15. The plan was modified again in 1999 to accommodate many changes that have occurred since the plan was modified in 1998. These major changes include revised federal sources, project delays, and project additions.

For example, the West Davis Highway portion of the Legacy Parkway scheduled for construction in FY1999 was delayed until FY 2004. Some funds; however, remain available for purchase of right-of-ways.

Since this project is delayed, financing was included to add an additional lane on each side of I-15 from North Salt Lake to the junction of U.S. 89 in Farmington. These additional lanes are to be completed in the summer of year 2000 and will temporarily relieve the extreme traffic needs in the Davis County corridor.

General Fund. The funding package was modified significantly by the 1998 legislature and again by the 1999 legislature. The adjusted plan keeps its original General Fund commitment of $85 million for fiscal year 1999 growing by $5 million annually through fiscal year 2004 and by $10 million annually through fiscal year 2007. The plan also keeps the additional $25 million per year through fiscal year 2007, which the legislature added in 1998. In 1999 the legislature added $7 million in ongoing General Fund each year through FY 2002 and then $6 million each year through FY 2007. Total General Fund contributions through fiscal year 2007 are now estimated to be $1.625 billion, which is $237 million more than the plan adopted by the 1998 legislature and $446 million more than the plan adopted by the 1997 legislature. In addition, beginning on January 1, 2000, the state's portion of the sales tax used for Olympic facilities will go to the Centennial Highway Fund. With this sales tax included, total General Fund contribution through fiscal year 2007 will be $1.67 billion.

The FY 2000 General Fund contribution is $122 million. The projected FY 2001 General Fund contribution is $134 million; however, the governor has recommended that this be reduced by $40 million to $94 million.

The governor feels that other critical needs of state government, especially in the education area, are being overlooked because of the large amount of General Fund for highways. Reducing the base ongoing contribution by $40 million per year through FY 2007 will extend the time that the state could have paid off its highway debt obligations by two years. In the next year, the General Fund contribution would resume its original contribution schedule of an additional $12 million for a total contribution of $106 million.

Using the governor's reduced General Fund contributions, General

[1] This chapter includes a summary of highway and transit transportation funding. The presentation begin with highways and is followed by transit.

Fund contributions through fiscal year 2007 would now be $1.39 billion, which is $280 million less than the plan adopted by the 1999 legislature.

Fuel Taxes and Vehicle Registration Fees. The 1999 legislature left these unchanged. The Centennial Highway Fund will still receive collections from a five cent per gallon tax on motor fuels and special fuels and a half cent per gallon tax formerly collected for the Underground Storage Tank program. Increased registration fees for vehicles and trucks are included in the Centennial Highway Fund.

Bonding. In House Bill 2 (entitled "Highway Financing"), the 1999 Legislature authorized bonding of $68 million. The bill also deleted provisions of last year's bond bill that required the state to bond for $50 million less if federal funds came in at anticipated levels. Federal funds came in above anticipated levels, however the state was not required to bond for $50 million less.

In late spring of 1999, the state retired $290 million of commercial paper and issued $358 million of variable rate demand bonds with a projected interest rate of 3.5%.

Since 1997, the state has borrowed $908 million for highways. Currently, the interest rate the state is earning on the unspent bonds is greater than the interest rate owed on the borrowed money, creating arbitrage earnings. The state will spend the bond proceeds in less than two years avoiding federal arbitrage penalties.

Federal Funding. The Centennial Highway Fund is scheduled to get additional federal funding over and above what Utah normally has received in years before 1997. The governor and legislators hoped that the federal government would give Utah extra money due to the reconstruction of a major interstate and preparations for the 2002 Winter Games. For state Fiscal Year 1998, UDOT received a little over $11 million in additional federal funding.

In the fall of 1998, Congress passed The Transportation Equity Act for the 21st Century (TEA-21). This bill increased federal distributions going to all states. The increased amount coming to Utah is allocated to the Centennial Highway Fund.

Original estimates had this extra money between $65 - $75 million per year. However, with obligation authority and requirements to spend the extra money in special categories, this amount has significantly decreased. Obligation authority is the authority to spend money that has been authorized. In other words, each year Congress authorizes the amount of federal money Utah is to receive, however, the only amount which actually comes to Utah is the amount that is obligated. This amount is typically lower, sometimes by as much as 20%, than the authorized amount. The federal money also comes with strings attached as to where it can be spent. With this in mind, UDOT estimates that with passage of TEA-21 it will receive between $20 and $30 million additional federal funds each year that will go into the Centennial Highway Fund unless these funds are directed to be spent on other projects not on the Centennial projects list.

This is the situation with high priority projects. The amount Utah is scheduled to receive over the next six years for high priority projects is $80.7 million with $8.8 million in the first year and $12.0 million in the next year. These projects are not on the Centennial projects list. As a result, spending federal funds on these projects will reduce the extra federal funding from TEA-21 that could have gone to the Centennial Highway Fund.

This extra money allocated to Utah due to TEA-21 has nothing to do with additional federal money being requested by the state because of the Olympics or reconstruction of I-15. Any additional money for Olympic projects or reconstruction of I-15 would come at the discretion of Secretary of Transportation. Congress gives the Secretary of Transportation funds that he can give to states at his discretion. Secretary of Transportation Slater, gave Utah approximately $90 million of discretionary funding in federal fiscal year 1998 to help with I-15 reconstruction and Olympic related projects. Of this amount, approximately $62 million will go into the Centennial Highway Fund. The rest of the funds will go for highway projects not included on the Centennial list. Utah is hopeful that it will receive additional federal discretionary funding for 1999. Utah is still waiting word from Secretary Slater on how much it might receive in discretionary funds for federal fiscal year 1999.

Additional funds due to TEA-21 (reduced for high priority projects) and federal discretionary funding given by Secretary Slater resulted in the Centennial Highway Fund receiving $69.4 million in federal funds in fiscal year 1999. UDOT estimates the fund will receive an additional $78.1 million in fiscal year 2000.

One significant change made by the legislature increased significantly the federal contribution schedule. The legislature increased the amount of federal funds participation in the ten-year plan from $450 million to $521 million. The legislature added this increase so the ten-year plan would have enough funds to payoff all highway debt by the end of fiscal year 2007.

Other Funding and Department Efficiencies. The 1999 plan eliminated almost entirely the amount of financing from local or private sources.

Beginning fiscal year 1999, the legislature reduced the amount of department efficiencies from $20 million per year to $6 million per year through fiscal year 2007. Now however, these efficiencies are to be a transfer of funds from the operations of UDOT to the Centennial Highway Fund.

Issues and Alternatives

Issues. The extra cost of the I-15 project along with the accelerated cash flow needs of Wasatch Constructors has put a tremendous strain on the ten-year financing plan. However, these needs have, for the most part, been met by adjusting the ten-year plan to include large amounts of borrowing. This has pushed the bonding capabilities of the state closer to the bonding limits than desired and has also put a strain on the state to maintain its Triple A bond rating. With increased bonding, the ten-year financing plan must also be adjusted for increased interest expense.

The Centennial Highway Fund is subject to many variables, future federal funding being the most pivotal. Federal funding is dependent on future appropriations from Congress. Now, the state is counting on even more in federal aid as the legislature increased the federal contribution in the ten-year financing plan from $450 million to $521 million. Discretionary funding from the Secretary of Transportation is likely to decrease significantly in future years as Interstate 15 will be rebuilt and the 2002 Olympics will be over.

The projects to be constructed with Centennial Highway Funds are also subject to many variables such as the environmental impacts of each project and the escalating costs of construction.

Project costs such as the Legacy Parkway in Davis County are

uncertain and continue to grow. The latest projection for this project is $400 million. This is $140 million more than the amount programmed in the ten-year plan.

Another issue exists because legislators in each area have projects they want constructed as soon as financially possible. The opportunity to delay or eliminate projects is politically unsuitable. In fact, some projects have been moved forward increasing the cash flow strain of the ten-year plan.

For fiscal year 2001, the Governor is proposing to reduce the enormous amount of General Fund going to the Centennial Highway Fund. He feels the roads being constructed will last for several decades, why not have those driving on the roads in future years pay some of the costs. His proposal is projected to extend the debt payoff, currently scheduled for fiscal year 2007, by an additional two years.

Alternatives. With so many uncertainties and other state priorities vying for General Fund dollars, the ten-year plan must be flexible and reevaluated each year. If shortfalls in the financing plan occur, they need to be resolved. Alternatives to finance shortfalls in the ten-year plan would be the following: 1) increase transportation related taxes or fees, 2) increase allocation of General Fund to the Centennial Highway Fund, 3) eliminate other projects on the Centennial projects list, 4) delay the timing of some projects on the Centennial projects list, 5) extend the length of the ten-year plan or 6) a combination of the above.

If no additional financing is adopted in the next legislative session, there should be enough financing in the current plan to meet Wasatch Constructor's cash flow needs and keep them on schedule, that is, if federal sources come in at anticipated levels. If federal sources fall short, the state may have to delay some projects that are slated for construction in the next couple of years or find some other financing alternative.

Conclusion

The governor and the legislature again have some major decisions to make about financing projects on the Centennial projects list, however, perhaps this year they will focus more on the timing and costs associated with construction of the Legacy Parkway.

Whatever plan changes are adopted, there is little doubt that additional decisions will have to be made in the future. Projected revenues and expenditures are fluid. Already, the timing of projects, cost estimates of projects, cash needs, estimates of revenues, bond interest rates, etc. have changed, since the 1999 General Legislative Session.

This ten-year plan, while addressing many of Utah's critical infrastructure needs, will by no means complete all transportation projects vital to Utah. Critical areas, such as the reconstruction of I-15 north of 600 North, I-15 south into Utah County, and Interstate 80 from Parley's Canyon to downtown Salt Lake, are not included at full cost in the Centennial projects list. Responsible long-term planning necessitates a ten-year plan; however, the plan must be revisited each year.

Transit Overview

The Utah Transit Authority (UTA) was incorporated on March 2, 1970 under the authority of the Utah Public Transit District Act of 1969 for the purpose of providing a public mass transportation system for Utah communities. Utah Transit Authority is a political subdivision of the State of Utah. It is not a state agency. Oversight of UTA is exercised by a 15-member Board of Directors appointed by each municipality or combination of municipalities (or county) that have annexed to the Authority and that pay a 1/4 of one percent local option sales tax to support its operation. Through UTA's enabling legislation, the Utah State Legislature determines the number of board members and their method of appointment. The board is an oversight authority that sets agency policy and provides guidance for the operation of UTA.

Responsibility for the operation of the Authority is held by the General Manager in accordance with the direction, goals and policies of UTA's Board of Directors. The General Manager has charge of the acquisition, construction, maintenance and operations of the facilities of the Authority and the administration of its business affairs.

The UTA system began operation in Salt Lake County on August 10, 1970 with a fleet of 67 buses. UTA currently operates 550 vehicles in a 1,400 square mile service district that reaches through six counties from Brigham City on the north to Payson on the south, and from the Cottonwood Canyon ski areas to Grantsville. About 75% of the population of the state of Utah reside in the service district that is, geographically, one of the largest in the nation.

Approximately 1,400 people are employed by UTA. More than 80% of those employees are bus and rail operators, maintenance and operations support personnel. The remainder are administrative employees. In addition, UTA operates six state-of-the-art maintenance facilities to service its bus and TRAX rail vehicles.

Operational Funding

A majority (64%) of UTA's operational funding is received from the 1/4 of one percent local option sales tax authorized by counties and municipalities in the district. The balance of operating funds come from federal operating and maintenance grants (combined 20% with FY 98 accounting rules changes), passenger fares (15%) and the balance from miscellaneous sources including advertising, investments and earned interest.

UTA's 1999 Operating budget was projected to be $81.7 million. This reflects a 12% increase over the 1998 budget. The significant items that affect the increase are preparations for TRAX light rail start-up and operations, increases in paratransit services, materials cost and labor adjustments. UTA's 2000 Operating budget is anticipated to be $99.1 million. This 21% increase reflects the addition of a full year of TRAX light rail service and moderate levels of bus service changes. UTA's bus operations will account for 54% of expenditures in 2000. Rail operations will represent 7% of UTA's expenditures for the upcoming year.

Capital Funding (1999-00 program)

UTA has an ongoing capital program that provides funds for fleet replacement, selected maintenance activities, fleet expansion, park and ride lots, transfer centers and other programs and projects. Fleet needs average approximately $15 million each year to replace and expand bus services in the district. In 1998, federal contributions for capital projects (including North/South TRAX) were $93 million. In 1997, those funds totaled $55.9 million. Through 2003, UTA, in cooperation with the Wasatch Front Regional Council and the Mountainlands Association of Governments has adopted a program that averages capital expenditures of $18 million per year for new vehicles, services, facilities, Rideshare activities and planning projects.

In addition, UTA will potentially spend an average of $50 million per year on rail construction for the next two years. UTA's Capital program budget through 2002 is $253 million with $93 million expected to be spent in 2000. The largest items are $31.5 million for the University line TRAX project, $18.4 million for buses, $10.8 million for information technology and communications projects and $9.8 million for major facilities construction. Future capital projects include $36.7 million for buses delivered in 2001 and 2002 and $11 million for intelligent transportation systems deployment and the remainder of the University TRAX line of $73.5 million.

TRAX North/South

Construction has been completed on UTA's fifteen mile North/South TRAX line. The line runs from the Delta Center in downtown Salt Lake City to 100th South in Sandy. It was opened on December 4, 1999 and revenue service began December 6th, 1999. The project was recognized by the General Accounting Office in 1999 as the only major transportation infrastructure project in the nation to be both under budget and ahead of schedule. TRAX opened more than three months ahead of schedule and under budget. The Grand Opening day carried more than 30,000 passengers in 6 hours of service. The opening week of revenue service saw between 22,000 and 25,000 passengers carried on the line each day. Projections for opening day ridership were 14,000.

The total capital budget of the North/South line is $312.5 million. The Federal Transit Administration agreed in 1996 to provide $241.4 million in capital funds to combine with UTA's $71.1 million in local funds. Capital costs include all trackwork, vehicles, stations, park and ride lots and electrical systems. The project budget has not been closed and will remain open through early 2000.

University TRAX

The 2.5 mile University of Utah TRAX rail extension has completed the final stages of environmental and engineering analysis. To take advantage of federal funding opportunities, Salt Lake City, UTA, UDOT and the Wasatch Front Regional Council have worked quickly to address funding and design issues. Several partners have participated in funding the project studies. They include the Federal Highway Administration, the Salt Lake City Redevelopment Agency, The Church of Jesus Christ of Latter-Day Saints Foundation and UTA. The project will be a Design/Build approach and it is anticipated that construction activities will begin in the spring of 2000. Construction on the $105 million (80% federal grant) extension is expected to be complete in late 2001. Revenue operations are anticipated to begin in late 2001 or early 2002.

Other Projects (2002 and Beyond)

Several projects are currently under study throughout the region. UTA is beginning a technology deployment that will lead to the provision of real-time fleet status and customer information for its integrated services. It is the first phase of a regional implementation of Intelligent Transportation Systems (ITS) for transit. The airport line, a West Valley alignment, a West Jordan rail spur and a Draper TRAX extension are being examined for future implementation. In addition, the Wasatch Front Regional Council and the MountainIands Association of Governments and UTA are studying regional commuter rail services. A recent feasibility study is being expanded to complete a detailed analysis of alternatives in a 120 mile corridor along the Wasatch Front. Those alternatives include commuter rail, commuter bus and freeway improvements. The study will develop an implementation plan, operation scenarios, property requirements and capital costs. ❊

Table 83
Plan Adopted by the Legislature, 1999 General Session: Ten Year Funding Option for Transportation Project Needs (Thousands of Dollars)

Available Funding Sources	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Total
Beginning Balances		$44,390	$515,222	$182,022	$7,573	$848	$1,783	$1,522	$1,549	$45,893	$170,125	
State Sources												
General Fund	110,000	78,000	110,000	115,000	120,000	125,000	130,000	135,000	145,000	155,000	165,000	1,388,000
General Fund Additions		0	0	7,000	14,000	21,000	27,000	33,000	39,000	45,000	51,000	237,000
Less: Debt Service Interest		(23,924)	(39,777)	(41,316)	(41,316)	(39,582)	(35,505)	(29,962)	(24,360)	(20,601)	(18,034)	(314,377)
Less: Debt Service Principal				0	0	(33,800)	(39,766)	(41,752)	(44,031)	(46,503)	(49,125)	(254,977)
Net General Funds Available	110,000	54,076	70,223	80,684	92,684	72,618	81,729	96,286	115,609	132,896	148,841	1,055,646
New Transportation Funds												
Fuel Tax Change (UST Shift)	0	5,750	5,923	6,100	6,283	6,472	6,666	6,866	7,072	7,284	7,502	65,918
Fuel Tax Increase (5.0 Cents)		57,500	59,225	61,002	62,832	64,717	66,658	68,658	70,718	72,839	75,024	659,173
Diesel Tax Collection Change		10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	114,639
Less B & C Allocation (25% on above changes)	0	(18,313)	(18,862)	(19,428)	(20,011)	(20,611)	(21,229)	(21,866)	(22,522)	(23,198)	(23,894)	(209,932)
Registration Increase Autos	0	12,477	14,779	15,222	15,679	16,149	16,634	17,133	17,647	18,176	18,722	162,618
Registration Increase (Commercial Carriers)		1,872	2,217	2,284	2,352	2,423	2,495	2,570	2,647	2,727	2,808	24,395
Departmental Efficiencies		13,413	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	67,413
Net Transportation Funds Available	0	82,700	79,582	81,789	84,063	86,405	88,817	91,301	93,860	96,496	99,211	884,223
Sales Tax Revenue (Olympics 1/64 cent)				2,250	4,770	5,056	5,360	5,681	6,022	6,383	6,766	42,288
Local Match/Toll Road		359	0	315	126	126	126	126	300	0	0	1,478
Local Interest		0	0	1,170	1,170	1,170	1,170	1,170	1,170	1,170	0	8,190
Investment Income	720	36,200	23,265	2,138	1,052	681	574	674	1,040	1,512	2,166	70,022
General Obligation Bonds												
Par Amount of Bond Issued		340,000	210,000	68,000	0							618,000
Bond Anticipation Notes		500,000	(210,000)	0		(59,000)	(98,000)	(95,000)	(38,000)			0
Less Issuance Costs		2,962	1,575	592	0							5,129
Subtotal Bonds Proceeds		837,038	(1,575)	67,408	0	(59,000)	(98,000)	(95,000)	(38,000)	0	0	612,871
Subtotal State Sources	110,720	1,054,763	686,717	417,776	191,438	107,903	81,559	101,760	181,550	284,350	427,109	2,666,528
New Federal Funds	0	11,453	91,894	60,900	44,633	46,442	48,858	50,889	53,043	55,325	57,325	520,762
Total Project Funds Available	110,720	1,066,216	778,611	478,676	236,071	154,345	130,417	152,649	234,593	339,675	484,434	3,187,290
Capital Expenditures												
I-15 Construction	49,227	487,588	516,534	308,863	176,173	51,615	0	0	0	0	0	1,590,000
Statewide Construction	17,103	63,406	80,055	162,240	59,050	100,947	128,895	151,100	188,700	169,550	118,954	1,240,000
Net Capital Expenditures	66,330	550,994	596,589	471,103	235,223	152,562	128,895	151,100	188,700	169,550	118,954	2,830,000
Projected Ending Balances	44,390	515,222	182,022	7,573	848	1,783	1,522	1,549	45,893	170,125	365,480	168,429
Total Capital Expenditure & Ending Balance	$110,720	$1,066,216	$778,611	$478,676	$236,071	$154,345	$130,417	$152,649	$234,593	$339,675	$484,434	$168,429
Projected Ending Principal Balances												$363,023

Source: Plan adopted by the legislature, 1998 General Session

Table 84
Comparison of Legislative Plans for Ten-Year Funding Option for Transportation Project Needs (Thousands of Dollars): FY 1997 to FY 2007

	Plan Adpoted In:		
Funding Source	1997 General Session	1998 General Session	1999 General Session
General Fund	$1,178,982	$1,388,000	$1,625,000
New Transportation Funds	814,365	881,779	884,223
Sales Tax Revenue	35,254	35,254	42,289
Local Match/Toll Road	119,843	135,000	1,478
Investment Income	12,755	45,114	70,021
Bonds	563,500	614,000	618,000
Bond Anticipation Notes (BAN)s	0	260,000	290,000
Federal Funds	450,000	450,000	520,762
Debt Service Interest	207,119	315,305	314,378
Debt Service Principal	561,574	491,209	254,977
BANs Principal			290,000
Bond Issuance Costs	6,006	4,203	5,129
Bond Outstanding at FY 2007	1,926	382,791	363,023

Sources: Utah Legislature, 1997, 1998. and 1999 General Sessions;
Legislative Fiscal Analyst's Office

Water Conservation and Pricing

Overview

In addition to being the second driest state in the nation, Utah has the distinction of having the second highest water use rate per capita and some of the lowest prices being charged for culinary water. Also, Utah has benefitted from past and present water pioneers who have built projects which assured a solid supply for the growth thus far. Consequently, the easiest and most cost effective water projects have been developed. Future water projects will consist primarily of inter-basin transfers and expensive treatment of very low quality local water sources. The federal government was the primary source of water development funding from the early 1900s up until about 1980. Since then, the federal government has been moving away from funding new water projects for environmental and budgetary reasons. This leaves state and local government with the burden of finding and funding future water projects.

Research shows that 70% of the high quality water put to urban uses in Utah is used outdoors for landscape irrigation. This large block is the part of Utah's water use most sensitive to the price charged. Several research studies in Utah conclude a 10% increase in the price of metered water will bring about a reduction in water use of between 3-7%.

The single most important time to influence the use of water is when people open their water bill. Water prices, as faced by customers when their water bill arrives, can be structured, and presented in a way to motivate efficient water use behavior. It can provide the information people need to carefully check their water use, evaluate their water using landscapes and habits, then decide if they desire to make changes.

Incentive Water Pricing

Prices in an unregulated economy are used to bring about an equilibrium between the supply of, and demand for a commodity, product or service. In a regulated market such as public utilities, or in the case of government monopolies such as water systems, prices are set by regulators, city councils, and district boards at a level to assure costs are covered and customers are fairly treated. If the price contained in the rate schedule does not reward efficiency and discourage waste, water users have little or no incentive to use water wisely. In some parts of Utah the desire to use water more efficiently is moving ahead of any immediate need. Water rates which provide incentives to use water efficiently may not be seen as a solution to a pressing problem, but as an awareness raising device to inform everyone that new water sources will be expensive, and to induce a water efficiency ethic. Elected leaders and water system managers are cast in critical leadership roles.

Importance of Leadership. Changing any user fees by government bodies carries political risks. When a water rate increase is proposed, not in response to a crisis but to raise public awareness of future systemic shortages, the water agencies' leaders must be strongly committed to increasing water use efficiency or citizens will likely view the rate change as a disguised tax increase.

Water wholesalers, retailers, citizens and state legislators all play important roles in increasing the efficiency of water use through pricing. Cooperation and consistency between retail and wholesale water suppliers are essential. Their pricing programs should be compatible so the retailer's improvement in efficiency does not conflict with the wholesaler's goals. Citizens have the final responsibility in deciding if pricing incentives are effective. They can respond either positively or negatively. The state legislature plays a role in prescribing pricing principles that provide incentives for efficient water use.

Reasons to Adjust the Price. As populations continue to grow in our urban areas, water availability and cost become more and more an issue. Indeed, as dry farms and steep slopes are converted to subdivisions and recreational parks, water use dramatically increases in areas where the water must be pumped, often through several successive lifts. During periods of rapid growth, cities and districts initially rely on their own water sources. As these become a limit to growth, the search for adequate supplies often leads to a county or multi-county conservancy district which has stewardship over a large base of surface and ground water. In spite of the water provider's best efforts to be efficient, increasing costs of water and system operation and maintenance swamp the static water rates and an increase is required.

Criteria for Selecting an Incentive Pricing Program. The decision on which of many rate options will best serve a city's or district's purposes should be assessed by use of appropriate criteria. *Equity,* or fairness to all classes of water users often leads the list. The chosen pricing program must treat all customers in a manner that assures each one they are not required to do more, or less than anyone else. It must provide *a stable and adequate revenue source.* Covering all fixed costs - costs that do not change as the amount of water delivered changes - with a fixed monthly charge paid by all users is the first step. Variable costs - costs that vary with the amount of water delivered - should be covered by the price on all water delivered at the customer's meter. The next criterion is *credibility*, characterized by simplicity and ease of understanding. This criterion is based on historical water use data and is backed up by professional staff and appropriate science. The pricing program should *help build a water efficiency ethic.* This means that prices should send the same message on water use as contained in other city/district promotions and declarations. It should provide an incentive to reduce use during the peak demand season; it should reward efficiency and discourage waste.

Water Pricing in Utah

There are numerous ways to design water prices to encourage efficient use. The three most common pricing programs now used in Utah are the inverted block, seasonal and flat rates. Another pricing program was introduced to Utah water managers in 1997. It is called the ascending block rate.

Choosing an Incentive Pricing Program

As with any decision made by a water distribution agency or utility, the choice of the best pricing program is rightly influenced by its goals and priorities. The ideal pricing program is one which provides information to customers so they know how much water is needed to maintain their landscapes and lifestyles, and focuses their attention on the cost of any valuable water they may be wasting.

Example of an Incentive Rate Schedule. The most effective water pricing program found to date establishes a monthly target water use for each customer. It rewards customers who use less than their target and assesses higher prices for excessive water use. The excess use charge may be set to reflect the cost associated with the next increment of water supply development.

Transition to Incentive Pricing. Changing from a traditional pricing system to one designed to increase efficiency is not a simple task. Changes in the billing system will be needed to convey additional data associated with targets and water use rates. The transition to incentive pricing may best be made at a time when increasing water costs have created a need to increase rates (prices) to assure a positive balance in the water enterprise fund. During this transition it should be noted that price elasticity studies indicate increasing the price will bring about a less than commensurate decrease in water use, resulting in a net increase of revenue.

Recommendations on Water Pricing

The Council of Economic Advisors encourages water providers to structure prices so that viability of its water enterprise fund is not endangered by customers' efforts to use water more efficiently. The Council of Economic Advisors supports the adoption of pricing programs which inform customers on the amount of water needed, the amount delivered, the amount wasted, and the costs associated with each.

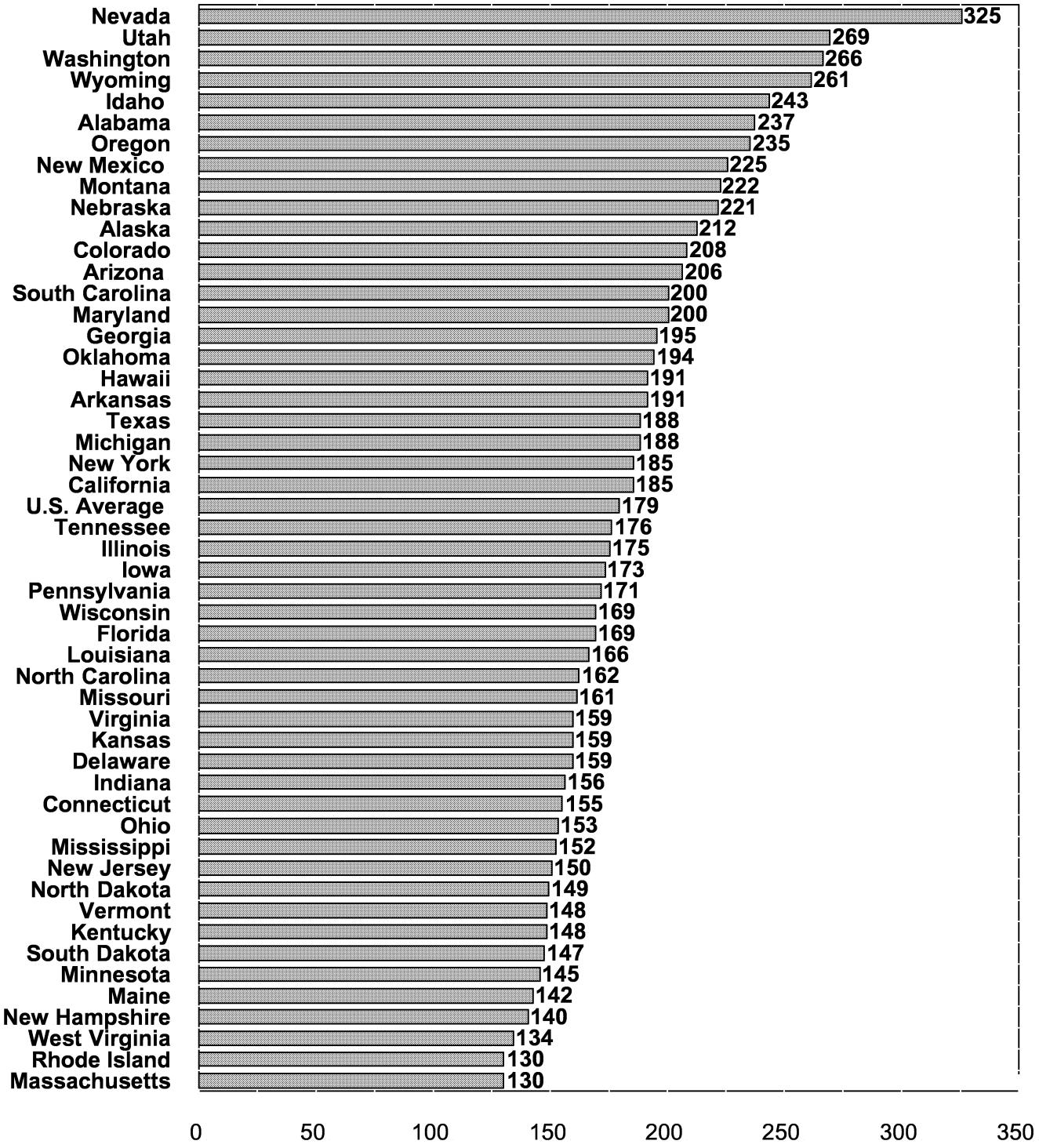
Pricing Related Issues

Of the many issues that surround water pricing and price schedule changes, two are noted: drought, and economic development incentives.

Drought. A sound pricing program that provides incentives for improving the efficiency of water use in wet, dry and normal parts of the weather cycle has favorable drought consequences. A special situation may arise in areas where the population is growing and the limit of water supply has been reached. An effective program to promote efficient water use will allow more people to move into this area before moratoriums are necessary to halt growth. This creates a condition called "hardening of demand." When drought strikes, the impacts are more severe because additional people are dependant on the same finite supply.

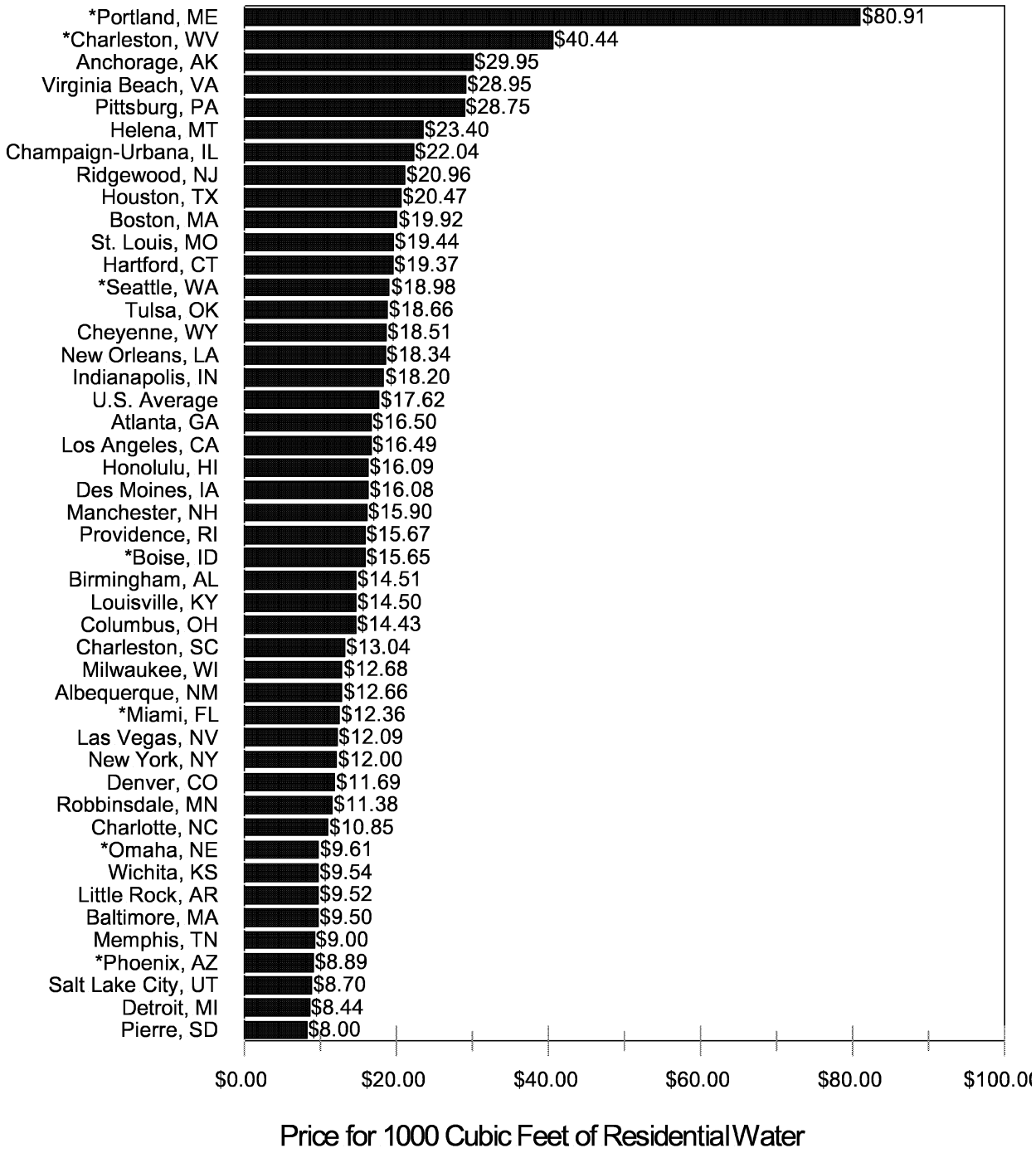
Economic Development Incentives. In choosing economic development incentives to include in the water price, decision makers should determine if one group of water users are given a subsidy at the expense of another; and if the incentive is consistent with the before mentioned criteria of equity, stable and adequate revenues, credibility and conservation ethic. ✻

Figure 62
State Per Capita Water Use-- Culinary Gallons Per Day: 1995



Source: U.S. Geological Survey

Figure 63
Monthly Water Charges–Selected U.S. Cities: 1997



*Two or more seasons were averaged.
Source: 1998 Raftelis Environmental Consulting Group, Inc.

Economic Development Policies in the States

Overview

Utah, like all states uses tax and financial incentives to attract businesses to Utah. A 50 state comparison of these incentives shows that compared to other states, Utah's economic development incentives are relatively few and lean, but still an important part of the state's overall economic development package.

Today, all 50 states and thousands of local governments are actively recruiting businesses to their state or community. Governors across the country travel the globe promoting state products and tourism. States provide tax incentives such as reductions or rebates on income, corporate, property, and sales taxes. States, also provide financial incentives such as loans, loan guarantees or pay for customized worker training. Local governments provide incentives to businesses through redevelopment or economic development agencies. State and local governments use these incentives to vigorously compete against each other for new economic opportunities. Though there is no exact figure on the total cost of these initiatives, recent studies have placed the price tag on state incentives at $15 to $16 billion a year.[1] So intense has this competition become between the states that some economists have called it the "new civil war."[2]

State and local governments' involvement in promoting their economies is not new, nor is the controversy over such involvement. Proponents argue that state and local government support for economic development is essential for future economic expansion. Furthermore, proponents argue that it is necessary in order to keep up with other states that are marketing themselves to companies. To not compete with the other states, is to get left behind. The argument is that incentives do attract companies that would not come otherwise. Finally, proponents claim that the tax and financial incentives provided to companies are paid back through increased numbers of jobs, wages and taxes.[3]

Opponents challenge these arguments, stating the ability to prove cause and effect between incentives and economic returns on those incentives is difficult at best. These critics argue that from a national perspective, the competition among states is a zero-sum game. That is, there is no real benefit to the national economy. The only beneficiary is the company which plays one state against another. A similar argument, critics state, can be made within each state as localities compete for the next K-Mart or Shopko. Furthermore, they claim that the loss of revenue provided by the incentives takes seriously needed funds away from public projects. As a result, public services like education, public safety, and infrastructure are underfunded and the state as a whole is harmed thereby.

Despite these criticisms, all states are actively involved in numerous kinds of economic promotion. Given the amount of time and resources spent on economic development by state and local elected officials, Utah Foundation felt it would be helpful to see what Utah is doing in this area, compare these activities with other states, and provide some evaluation of the state's overall economic development policy. However, before this analysis is presented, it was felt that a brief historical overview of economic development in the United States might be helpful.

History of Public Economic Development Policy

Historians divide state and local economic development into four main periods. In the first period, states helped businesses address the problems of transportation. In the second period, "smokestack" chasing became the main focus of states. In the next period, called the "second wave," states began focusing on creating new businesses by developing state resources. The fourth period is called the "third wave," in which states are turning much of the economic development efforts into the hands of the private sector. Each of these periods is discussed briefly below.

Transportation. Since the end of the American Revolution, state governments have regularly intervened in their economies in hopes of providing stimuli. At first, states wanted to help businesses expand their markets. Business at that time mainly served only local markets because of the difficulties in transportation. With the national government doing little in this area, states stepped in to help.

During the 19th Century, state governments were involved with the development of roads, canals and most importantly railroads. State governments helped finance and otherwise subsidized railroad development. Of the approximately 180 million acres of public lands granted to railroad companies for rail construction, 25% was granted by the states with the balance from the federal government.[4] It is difficult to overstate the significance the railroad had on the American economy. Rail transportation tied the nation together, dramatically reduced the time in which goods could be shipped, lowered prices, expanded markets for businesses, and even established the nation's time zones. All this significantly spurred economic growth.

Smokestack Chasing. By the turn of the 20th century, the nation's improved transportation system and new technologies allowed regions of the country to specialize in the production of goods and services. This brought about increased regional competition, displacing farmers and small businesses that could not compete in a nationalized and more competitive economy. As a result, states began looking at ways to help residents adjust to this new economy.

Finding jobs for displaced farmers became a top priority for many states, especially those in the South. This lead to "smokestack chasing," which began in the 1920s. States offered various incentives to manufacturing companies to move to or expand into their state. Mississippi may have been the first state to develop such a state policy with the passage of its Balance Agriculture with Industry program which allowed local governments to build facilities for relocating industry through the issuance of bonds. Soon other southern states followed suit with offers of tax breaks, subsidies, and an eager, low wage workforce.

By the 1950s, "smokestack chasing" had spread beyond the South

[1] *Top Ten Questions on Development Incentives*, Council for Economic Development, (Washington, D.C., November 1998), p. 2.

[2] Ann O'M. Bowman and Richard Kearney, *State and Local Government*, (Houghton Mifflin Company, fourth edition, 1999), pp. 375-376. See also, Virginia Gray and Peter Eisenger, *American States and Cities*, (Addison Wesley, second edition, 1997), pp. 368-370, and *Brian Dabson, et. al., The Region*, "Business Climate and the Role of Development Incentives", (Federal Reservie Bank of Minneapolis, June 1996).

[3] *State Business Incentives: Trends and Options for the Future*, (The Council of State Governments, Lexington, Kentucky, 1997). p.5-7.

Virginia Gray, *American States and Cities*, p. 369.

into other regions of the country. In addition, states pressured the federal government for financial help. In the West, numerous huge dams were built to spur state economies.

Also, in the post World War II period, there developed intense competition for national defense installations. States that received these defense installations were ecstatic, for it meant major construction projects and then new high paying jobs. In the 1970s, "high-tech" became the buzz-word with state and local governments aggressively going after the growing companies in this field. As states raided other states for economic plums, economists and public policy analysts began questioning the overall value of these state "economic civil wars."

Second Wave. In response to these concerns, many policy makers looked for other economic development strategies. A "second wave" plan emerged that focused on the creation of new businesses by developing existing state resources. States began developing venture capital pools, and small business incubators. They also initiated workforce training programs to help local businesses and support entrepreneurial enterprises.

Higher education came to play an increasing role in this second wave. Research parks were placed adjacent to universities in hopes that professors could develop new businesses through their projects. Community colleges provided the job training (often financed by state government) necessary for businesses wanting to expand or relocate.

Third Wave. Recently a "third wave" of economic development has begun. This last wave emphasizes getting economic development efforts out of the direct administration of state agencies and into private sector organizations. This does not mean that government is no longer involved but that it participates in a different way. Rather than directly running the program, the state provides seed money, tax incentives, and subsidies, but allows private, often nonprofit organizations, to conduct the day to day business of economic development.[1]

Another approach in the third wave agenda focuses on developing "clusters" or groups of businesses within the same industry. Arizona has pioneered the concept in its Strategic Plan for Economic Development. The state has identified ten clusters ranging from food, fiber, and natural products to environmental technologies to mining and minerals. These business or industry clusters form organizations which share ideas, develop strategies and coordinate ventures. State economic development then designs its efforts in support of these cluster initiatives.

Business Climate

The historical overview provides a perspective on how states have tried to provide a good business climate in which the private sector can successfully operate. The term business climate refers to the overall economic environment in a state in which a business must operate. Because of the public services it provides and the tax and regulatory environment it imposes, state and local governments have a significant impact on the business climate.

Unfortunately, too much of the attention paid to a state's business climate is given to taxes and regulation. There is now broad agreement based on business surveys and academic research, that there is much more to a business climate than these items.

The Utah State Department of Community and Economic Development (DCED) believes there are three main parts to a business climate.[2] They are:

- cost factors such as labor, plant, land, raw and other material inputs, utilities, etc.
- infrastructure
- taxes, incentives and regulation.

The first area is the **cost factors**. Of these three, the most important is the quality and availability of labor. The reason for its importance is that labor costs account for about 58% of all business costs. This is 14 times more than state and local business taxes. Other important factors are availability of natural resources and nearness to markets. But clearly in a society of increasing technological complexity, the advantage goes to the state that has a well-educated and productive workforce.

The second important factor is a state's **infrastructure**. Here the term is used broadly and includes not only the typical items of transportation (roads, airports, communication, etc.) water and power utilities, but also public health, air quality, effective judicial system, support services and cultural/recreational amenities. If taxes are cut to the point of preventing adequate public spending to provide or foster the needed infrastructure, a state's economic competitiveness will deteriorate.

The final area, **taxes, incentives and regulation** are important but rank third of the three areas in importance to business. Most studies indicate that taxes, for example, only become important when "moving from 'must' to 'desirable' factors."[3] DCED states that the danger in emphasizing favorable business taxes, is that there are other equally important goals of a tax system. Such as:

- Rates that are consistent and produce stable revenue stream;
- Rates that are balanced across a range of tax sources without over-reliance on any single source;
- A fair system which shields subsistence income from high levels of taxation and imposes the same tax burden on households earning the same income; and
- An efficient system with minimal compliance costs and simple administration.

Effectiveness of Economic Development Policies

Despite the criticism often levied at tax and financial incentives, there appears to be growing evidence that, *other things being equal*, business incentives can make the difference in the choice between competing locations.[4] It is important to emphasize *other*

[1] The Economic Development Corporation of Utah is an example of this type of cooperative effort between state and local governments on the one hand and business on the other hand. In existence since 1987, and with a current budget of approximately $1.2 million, EDCU is a very active participant in state economic development. Its funding comes from state and local coffers as well as from Utah companies. It is supervised by a 54 member board of trustees representing all investors.

[2] *1999 Economic Report to the Governor*, (Governor's Office of Planning and Budget, January 1999), pp. 43-46. See also *A Review of State Economic Development Policy: a Report from the Task Force on Economic Incentives*, (National Conference of State Legislatures, Denver, Colorado, March 1998), 42-59. The pages sited in these two publications provide excellent discussions of the importance of looking at tax and financial incentives in the broad view of the overall business climate.

[3] *1999 Economic Report to the Governor*, p.43.

[4] Ann O'M. Bowman, *State and Local Government*, p. 389, and Virginia Gray, *American States and Cities*, pp. 382-383. For a more comprehensive study see Timothy J. Bartik, *Who Benefits From State and Local Economic Development Policies?* (W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 1991) and Peter S. Fisher and Alan H. Peters, *Industrial Incentives;*

(continued...)

things being equal. Business tax breaks and other incentives will not win a firm to a particular locality if that locality has a limited and unskilled workforce, poor infrastructure, poor schools and an unstable fiscal environment. If states are competitive in these critical areas then incentives often make the difference.

One study indicates that such supply-side incentives as business tax cuts can help as long as "public services remain as good as they were before the tax cut." Policies that foster innovation (demand-side) have been shown to work, "on a modest scale, stimulating new investment that leads in most cases to new jobs." However, the study goes on to emphasize that it **"is essential to understand that public economic development efforts are very small relative to private investment and thus the effects are tiny."**[1]

All of these enticements are used by states. The Corporation for Enterprise Development, a private, nonprofit agency in Washington, D.C., studies economic development issues and suggests that states look very carefully at their incentives to be sure they are getting their money's worth. They recommend that states follow these guidelines:

- Work to maintain a quality labor force and infrastructure.
- Compete on public services because responsible companies are willing to pay their share for services (such as schools, roads, research and development, physical infrastructure, and utilities) that are worth the taxes.
- Limit development incentives to strategic purposes. Incentives should be designed to help create significant numbers of jobs cost effectively and fit within the state's development priorities. Moreover, incentives that result in investments in training or physical infrastructure accrue to the broader community and remain in a community, whether a particular company stays or not.
- Use defensible methodologies for calculating the costs of each job created or retained, and strengthen accountability and disclosure.
- Do not focus on tax competitiveness alone, but also on revenue adequacy, balance, equity, predictability, efficiency, and accountability.

These guidelines make it clear that a state's concern about its business climate should be broad and encompassing rather than narrow and centered on tax breaks and financial incentives. Quality companies will see through the tax breaks and look at where they are going to reside for the long term. Corporate executives will want more than tax and financial incentives; they want a good workforce, good schools for their children and a high quality of life for themselves and their employees.

State Comparisons: Financial and Tax Incentives

In order to show how the 50 states compare in the use of economic development tools, the Council of State Governments prepared a 50-state comparison in two areas: financial incentives and tax incentives.[2]

These tables indicate that Utah provides few incentives to businesses compared to other states. Utah provides only seven of the 16 listed financial incentives. Only Idaho (5) and North Carolina (6) provide fewer financial incentives. The average number of financial incentives for the 50 states is 11.

Utah does have a state-sponsored development authority, a privately sponsored development credit corporation, city/county revenue bond financing, city/county general obligation bond financing, city/county loans for building construction, city/county loans for equipment and machinery, and state incentives for establishing industrial plants in areas of high unemployment (enterprise zones).

Utah does not provide many other financial incentives provided by most other states such as: state revenue or general obligation bond financing, state loans or loan guarantee for new buildings or equipment purchases, and city/county enterprise zones.

Utah, along with Alaska and Vermont, provides seven of the 15 listed tax incentives in Table 86. Only Wyoming (6) provides fewer. The average number of tax incentives provided by the 50 states is 12.

Utah provides tax exemptions on equipment or machinery, inventory tax exemption on goods in transit (Freeport laws), tax exemption on manufacturing inventory, sales tax exemptions on new equipment, tax exemptions on raw materials used in manufacturing, tax incentives for creation of jobs, and accelerated depreciation on industrial equipment. The state does not provide corporate or personal income tax exemptions (except through enterprise zones), tax exemptions or moratoriums on land, capital improvements, equipment or machinery. The state does not provide tax incentives for industrial investments, tax credits for use of specified state products, tax stabilization agreements for specified industries, or tax exemptions to encourage research or development[3].

Utah's Major Economic Development Policies

There are five major Utah government sponsored economic development policies or programs that provide the biggest benefits. They are:

- Sales tax exemptions on equipment purchases
- Industrial Assistance Fund (IAF)
- Enterprise Zone Program
- Custom Fit Training
- Tax Increment Financing (through redevelopment or economic development agencies).

The first four are state administered programs created by legislation. The last is managed by local governments (either city or county) through their redevelopment agencies.

Sales Tax Exemptions. Over the years, the Legislature has provided several different exemptions to the state sales and use tax for economic development. These tax exemptions are available to all businesses in Utah, not just those moving into the state. Table 86 shows the major sales tax exemptions and the estimated value of those exemptions for fiscal year 1997-98. As the list indicates, most of the value of sales tax exemptions go to goods producing industries: mining, manufacturing, and agriculture.

[4] (...continued)
Competition Among American States and Cities, (W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 1998).

[1] Virginia Gray, *American States and Cities*, pp. 382.

[2] *The Book of the States*, (Council of State Governments, 1998-99 Edition, Lexington Kentucky), pp.486-489. Admittedly, these tables provide only a broad overview. Detailed comparisons of each program are not available. Though limited in scope these two tables do show the expanse of programs states and local government are using in their economic development efforts.

[3] As mentioned, the table is based on 1996 data. In 1998, Utah passed a Corporate Franchise Tax credit for qualified research expenses and machinery, equipment or both used for research. See Utah Code Annotated, 59-7-612 & 613.

There is broad agreement among economists that these types of tax exemptions are reasonable because they do not believe that inputs to the production process (including capital equipment) should be subject to sales taxes. As a result all states provide such exemptions. The biggest exemption is the purchase of replacement machinery and equipment -- $28.6 million. Second largest exemption is for the purchase of new or expanding manufacturing equipment -- $15 million. Combined the various tax exemptions for mining and manufacturing total 61.5% of the total economic development tax incentives the state provides.

Utah Industrial Assistance Fund. Created in 1991, the Industrial Assistance Fund (IAF) provides loans or other financial assistance for the "establishment, relocation, or development of industry in Utah" of which 50% must be used in "economically disadvantaged rural areas."[1] The fund is administered by the Department of Community and Economic Development and overseen by the Board of Business and Economic Development. Loans can be for the "establishment, relocation, or development" of any industry the board deems desirable. All loans are, by statute, at 10% interest, but credits can be earned in place of payments based on the number of jobs created or evidence of increased economic activity in the state accruing from the loan.

Recently, IAF managers have developed an additional way of providing financial support to companies. Instead of a direct loan, the IAF and a company agree to a total amount of financial assistance and the IAF provides the funds on a per employee basis. In other words, for every employee the company hires at a wage above the area's average wage, the IAF will provide a certain amount of the agreed upon loan – usually $1,000.

To qualify for financial aid from the IAF a company must:

-
- Demonstrate that the company will "expend funds in Utah with vendors and subcontractors or other business in an amount proportional with monies provided from the fund at a minimum ratio of 5.7 to 1 per year for a minimum period of five years.
- Demonstrate that the company will "expend at least $10,000,000 annually in Utah" over the base level of the previous year.Demonstrate the company's ability to "sustain economic activity in the state sufficient to repay by means of cash or appropriate credits, the assistance provided by the fund."

DCED may exempt companies from requirements 1 and 2 if the financial assistance is for "locating all or any portion of its operations to an economically disadvantaged rural area" or if the company is part of a "targeted industry." The law requires that DCED enter into agreements with recipients that "shall include the specific terms and conditions of each loan or assistance, including repayment schedules, interest rates, specific economic activity required to qualify for the loan or assistance . . . " etc.

The life of the loan can vary but has ranged from two to five years. Loans have ranged from $30,000 to $1,000,000.[2] The initial general fund appropriation in 1991 amounted to $9,250,000. The IAF has been appropriated a total of $21,747,300. The additional funds appropriated have increased the total fund and replenished the funds lost due to the loan credits. The majority of the money loaned to companies does not get paid back but is written off through credits. The end result is that most of the loans turn into grants.[3]

Detroit Diesel, located in Tooele County, received the largest loan of $1,000,000. This company created 350 jobs with an average salary of $22,000. The smallest loan went to Accu-Plastics in Washington County which received a loan of $30,000 and will employ 20 new workers with an average salary of $17,500.

Enterprise Zones. The Utah Legislature created the enterprise zone program[4] in 1988, seven years after the first such program began in Connecticut. Since inception, the law has been revised in 1993, 1996 and again in 1998. Such zones are limited to Utah's rural counties. The law states that a city or county government may create an enterprise zone. However, a county must have a population of 50,000 or less; a city must have a population of 10,000 or less and be in a county of 50,000 or less.[5]

DCED administers this program and is required to consider the following criteria before establishing an enterprise zone:

- The pervasiveness of poverty, unemployment, and general distress;
- The extent of chronic abandonment, deterioration, or reduction in value of commercial, industrial or residential structures;
- The potential for new investment and economic development;
- Proposed use of state and federal funds or programs to increase the probability of new investment and development occurring;
- Extent to which the projected development will provide employment to residents of the county;
- The degree to which the proposal promotes innovative solutions to economic development problems and demonstrates local initiative.

The law makes clear that a company cannot leave one part of the state and be reestablished in an enterprise zone and receive the incentives. Furthermore, the incentives cannot go to a business unless "at least 51% of the employees employed at the facilities of the firm located in the enterprise zone are individuals who, at the time of employment, reside in the municipality or county that applied for the enterprise zone designation." The obvious purpose here is to focus on employing residents of the community.

Once an enterprise zone is created, the following corporate or individual income tax credits are available:

- $750 for each new full-time position filled for not less than six months during a given tax year;
- an additional $500, if the new position pays at least 125% of the county average monthly nonagricultural wage for the respective industry;
- an additional $750, if the new position is in a business that adds value to agricultural commodities through manufacturing or processing;
- an additional $200 a year for two years, for each new employee who is insured under an employer-sponsored health insurance program, if the employer pays at least 50% of the premium cost for two consecutive years.
- a credit of 50% of the value of a cash contribution to a certified

[1] Utah Code Annotated, 9-2-1201 through 1208.

[2] Though the money has not yet been lent, Utah has an agreement with Intel Corporation to provide a $5,000,000 million loan, the largest in the state's history. Details of the Intel incentive package are discussed later in the report.

[3] That most loans turn into grants is not coincidental. The Department of Community and Economic Development advertizes the Industrial Assistance Fund as an "Incentive Loan that becomes a Grant based on Performance."

[4] Utah Code Annotated, 9-2-401 through 415.

[5] Six counties do not qualify for enterprise zones because their populations are above 50,000: Cache, Davis, Salt Lake, Utah, Washington, and Weber. That leaves 23 of the state's 29 counties eligible for enterprise zone creation.

community/ economic development private nonprofit corporation, except that the credit claimed may not exceed $100,000.

- a credit of 25% of the first $200,000 spent on rehabilitating a building in the enterprise zone that has been vacated for two years or more.
- an annual investment tax credit of 10% of the first $250,000 in investment, and 5% of the next $1,000,000 qualifying investment in plant, equipment, or other depreciable property.

These tax credits are limited up to 30 employees the first year and additional new employees hired thereafter up to 30 per year. Construction jobs, retail businesses and public utilities are not eligible for the tax credits.

Between 1991 and 1997, 80 companies and 97 individuals have benefitted from the enterprise zone program. The total amount of the corporate tax credits is just under $9 million and the individual tax credits total about $500,000. Combined, total tax credits through 1997 amount to $9,491,868. Currently, there are 17 designated enterprise zones in Utah -- six counties and 11 cities. The counties are: Carbon, Juab, Kane, Millard, Rich, and Sanpete. The cities are: Ballard, Ephraim, Green River, Moab, Nephi, Mt. Pleasant, Myton, Parowan, Richfield, Tremonton, and Salina. Receiving the tax credit is quite simple. A company or an individual must enter on one line of the income tax form the amount of credit that is being claimed.

Custom Fit Training.[1] State governments have financed and operated job training for more than 30 years. Custom fit training programs are an extension of this tradition of education/employment training but are designed to provide training not just for jobs in general but for specific jobs for specific employers.

The first state-sponsored customized training program began in North Carolina in 1958.[2] Currently, custom fit training programs exist in 47 states.[3] All state programs target money to company-specific training, though how it is done varies by state. Some states require the training to be done by state colleges. Other states allow employers to choose any qualified trainer.

Most custom fit programs were developed to attract new employers into a state and much of the focus is still in this area. However, all states offering custom fit training also allow funds to be spent on new training for employees of companies already in a state. In most custom fit programs, the employer chooses the trainees and determines the goals and objectives of the training.[4]

Utah created its custom fit training program in 1988. The state pays for all or a portion of the costs of the training. In the ten years the Custom Fit Training Program has been operating in Utah, the legislature has appropriated a total of $24,373,500 or an average of approximately $1.9 million a year. The program is managed within the State Office of Education.

Redevelopment and Economic Development Agencies. Throughout the United States, redevelopment agencies (RDA) have been tools of local government economic development for 30 years. Redevelopment agencies were created to revitalize the nation's blighted urban areas. Two tools are critical to the success of redevelopment agencies: eminent domain and tax increment financing. Eminent domain is the power of a government agency to acquire land (through condemnation and purchase) regardless of the land owner's desire to sell. Tax increment financing is the ability of the RDA to use tax dollars from the property within the RDA.

Once an area is declared an RDA, the governing board of the RDA can use both tools. The first step is to acquire land. The second step is to freeze the property taxes at the current level. Once purchased, the RDA can resale the land to a developer (often at a discount price) to build the projects in the RDA plan. When the projects are completed, the value of the land increases accordingly as do the taxes because of the higher value of the property. However, the difference between the tax revenue prior to the development and after the development goes to the RDA rather than to the local taxing entities as it would in areas outside of an RDA. It is this increased tax revenue that is called the tax increment. The RDA uses its tax increment funds for various purposes anywhere within the designated project area, including buying down the cost of land for developers or making certain improvements to the property.

A shift in emphasis occurred among many RDAs during the 1980s from redevelopment, or the revitalization of blighted neighborhoods, to economic development, or the attraction of new commercial and industrial facilities. Under this new focus, the name has been changed from redevelopment agencies to economic development agencies (EDAs). This shift in emphasis has increased the interest of local governments in using EDAs.

Evaluation of Utah's Incentives

Utah's major tax and financial incentives are: sales tax exemptions, industrial assistance fund, enterprise zone for rural areas, custom fit training, and redevelopment or economic development agencies. These programs do provide some important benefits to qualifying companies. The sales tax breaks that Utah provides for equipment purchases are provided by most every other state. Most economists are in support of such breaks because they believe the inputs to production should not be taxed. Many states provide many more such breaks than does Utah.

The Industrial Assistance Fund has been appropriated $21.7 million since 1991. The IAF loans generally turn into grants based on the recipient meeting certain predetermined goals. Industrial assistance funds are used in more than 40 states. Utah's is a modest program that is actively used. Equally important, its activities are clearly documented. It is easy to see what the funds have been used for and who has benefitted from the assistance.

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[1] For a detailed discussion of custom fit training programs see, Steve Dusha and Wanda Lee Graves, *National Customized Training Report: State funded, company directed job training in the United States*, (Steve Duscha Advisories, 1995, Sacramento).

[2] The governor, concerned about the many farmers losing their jobs due to increased farm productivity brought about by mechanization, began courting northern textile mills to move to his state. Many mill owners showed some interest but expressed concern about the ability of southern agricultural workers to do mill work. In response to these anxieties, North Carolina promised to train workers for the mills at no cost to the employer.

[3] The three states without a custom fit training program are: New Hampshire, Montana, and Wyoming.

[4] Total funding for these state programs amounted to $359 million in 1994-95. This averages to about $7.6 million per state. However, state spending varies greatly from $85 million in California to under $100,000 in North Dakota. Utah's per capita custom fit training amounted to $1.82, ranking 24th in the nation and well below the per capita expenditure of $21.55 for Rhode Island, which ranked first. Among the western states, Utah ranks third in per capita appropriations for custom fit funding. However, Utah's funding is substantially lower than New (continued...)

[4] (...continued)
Mexico ($9.14) and California ($7.14) which rank first and second. Two western states, Montana and Wyoming have no custom fit training program.

Custom Fit Training has received $24.4 million since its inception. As with the IAF, the activities of the Custom Fit training program are well documented and its clear who gets the training benefits and under what circumstances. Custom Fit Training programs are used by 47 states most of which provide larger grants to the program than does Utah.

Similarly, tracking the benefits of local governments use of RDAs and EDAs, while more complicated, is not very difficult. The most significant tool for RDAs and EDAs is property tax increment financing. These increment funds are used to provide incentives to businesses to develop and build in the community.

Most difficult to evaluate is the enterprise zone program. Each year the Division of Business and Economic Development is required to make an annual report on the Enterprise Zone program. However, by the Division's own acknowledgment, it cannot provide an effective evaluation of the program because such an evaluation would require data the State Tax Commission cannot provide without violating confidentially laws. The Division's 1998 annual report stated,

> "Ideally, it would be useful to know how many businesses in each zone claimed tax credits. It would also be useful to know the amount of credits claimed per business, the amount claimed for job creation and for new investment, and whether a specific credit claimed was for job creation, new investment in building and equipment, or other." However the report states that, "In order to comply with confidentiality laws, the Tax Commission restricts information which could reveal the identity of a specific taxpayer. . . . For instance, in order for the Tax Commission to release information, by county, about how many businesses claimed a specific type of credit, there would need to be at least ten returns claiming the credit from each county for which information was requested. For statewide information the requirement is four returns."[1]

A proper evaluation of this program is impossible without some additional information and reporting requirements. The Legislature would need to amend this program to provide more effective oversight. Additional information concerning the enterprise zone tax break recipients must be gathered without compromising important privacy rights.

Governor Leavitt's Economic Development Principles

In light of the controversy over tax incentives, governor Michael Leavitt made public the criteria by which his administration would be supportive of tax incentives for new businesses. The five criteria are:

- The business must be willing to make a substantial capital investment in Utah, signaling that it will be a long-term member of the community.
- The business must bring new dollars into the state. That generally means the business must export goods or services outside of Utah, not just circulate existing dollars.
- The business must pay higher than average wages in the area where it will be located, increasing Utah's overall household income.
- The same incentives offered the outside business must be available to existing in-state businesses. We must not discriminate against our home-grown businesses.
- The incentives must clearly produce a positive return on investment determined by state economic modeling formulas.

The Need for Coordination

Given the relatively few incentives Utah provides, coordination among government and private entities is often desirable. Currently, most counties and many cities have an economic development office, the state has the Department of Community and Economic Development, and there is the public/private Economic Development Corporation of Utah. In addition, there are the regional chambers of commerce.

There is nothing wrong with so many entities being involved in promoting Utah's economy. However, there is concern as to how coordinated the efforts of all these entities are. Given the limited resources, public and private, available for economic development, greater coordination would likely improve those efforts.

Final Comments on State Economies and Economic Development

By national comparisons, Utah's economic development incentives are modest. Utah provides fewer incentives than most states and the funding for these incentives is conservative. Nevertheless, Utah's economy has been very strong for 10 years. Utah's employment growth has averaged 4.4% annually since 1990, well above the national rate of 1.8%. This being the case, it should come as no surprise, that economists agree the quality of a state's economy should not be blamed on or credited to the economic development programs existing (or not existing) in a state.

Economic incentives are, at best, tools that can occasionally make the difference in attracting a company to the state or in helping an existing company expand in the state. This is true when other essential items, such as a good workforce, adequate infrastructure, stable fiscal environment and a generally high quality of life are already in place.

Most important is the state's workforce. This means continued focus on a quality educational system, both public and higher education. There is substantial agreement among Utah economists that it is Utah's fast-growing and productive workforce that is the state's greatest asset. The state's high birth rate (one-half larger than the national average) assures the state of a fast growing workforce. The state's educational system (with sufficient financial, public and parental support) must mold this workforce into a well-educated one. If the state can do this, Utah's future will be bright and Utah's modest economic development packages will be sufficient. ✻

[1] State of Utah, Division of Business and Economic Development, "Utah Enterprise Zones, Report to the Legislature." (October 1998).

Table 85
State Financial Incentives for Business

	AL	AK	AZ	AR	CA	CO	CT	DE	FL	GA	HI	ID	IL	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO
1 State-Sponsored Industrial Development Authority	X	X		X	X	X	X	X		X	X		X	X	X		X		X	X	X	X	X	X	X
2 Privately Sponsored Dev. Credit Corporation	X	X		X	X	X	X	X	X	X		X	X	X	X			X		X	X	X	X	X	X
3 State Authority or Agency Revenue Bond Financing	X	X		X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
4 State General Obligation Bond Financing		X		X	X		X				X					X		X		X			X	X	
5 City and/ or County Revenue Bond Financing (RDA)	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6 City/County General Obligation Bond Fin. (RDA)*	X	X	X	X	X		X		X	X	X	X		X	X	X		X		X		X	X	X	X
7 State Loans for Building Construction	X	X	X	X	X	X	X	X	X		X		X	X	X		X	X	X	X	X	X	X	X	X
8 State Loans for Equipment, Machinery	X	X	X	X	X	X	X	X	X		X		X	X	X		X	X	X	X	X	X	X	X	X
9 City/County Loans for Building Construction (RDA)*	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
10 City/County Loans for Equipment, Machinery (RDA)*	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
11 State Loan Guarantees for Building Construction		X	X		X	X	X						X	X	X			X	X	X	X			X	X
12 State Loan Guarantees for Equipment, Machinery		X	X		X	X	X						X	X	X	X		X	X	X	X			X	X
13 State Financing Aid for Existing Plant Expansion	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X
14 State Matching Funds for City/County Ind. Fin. Program	X	X		X		X	X	X						X	X			X		X	X	X	X		
15 State Incentives for Ind. Plants in High Unemployment Areas	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X
16 City/County Incentives for Ind. Plants in High Unemp. Areas	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X

	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	Total
1 State-Sponsored Industrial Development Authority		X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	42
2 Privately Sponsored Dev. Credit Corporation	X	X	X	X		X	X		X	X		X	X	X	X			X	X	X	X	X	X		X	39
3 State Authority or Agency Revenue Bond Financing	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	44
4 State General Obligation Bond Financing	X		X			X	X		X		X	X	X	X		X		X								21
5 City and/ or County Revenue Bond Financing (RDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	49
6 City/County General Obligation Bond Fin. (RDA)*	X			X	X	X		X	X		X	X	X		X	X	X	X	X	X	X			X	X	37
7 State Loans for Building Construction	X	X			X	X	X		X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	42
8 State Loans for Equipment, Machinery	X	X			X	X	X		X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	43
9 City/County Loans for Building Construction (RDA)*	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	46
10 City/County Loans for Equipment, Machinery (RDA)*	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	46
11 State Loan Guarantees for Building Construction		X		X	X		X		X		X	X	X	X			X	X		X			X		X	28
12 State Loan Guarantees for Equipment, Machinery		X		X	X		X		X		X	X	X	X			X	X		X		X	X		X	30
13 State Financing Aid for Existing Plant Expansion	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	44
14 State Matching Funds for City/County Ind. Fin. Program									X	X	X	X	X	X		X	X	X		X		X	X		X	26
15 State Incentives for Ind. Plants in High Unemployment Areas		X	X		X		X	X	X	X	X	X	X	X	X		X	X	X		X	X		X		41
16 City/County Incentives for Ind. Plants in High Unemp. Areas		X	X		X		X		X	X	X	X	X	X	X			X			X					36

* RDA: In Utah, these are granted through the local redevelopment agency.

Source: The Council of State Governments: *State Business Incentives: Trends and Options for the Future*

Table 86
State Tax Incentives for Business

	AL	AK	AZ	AR	CA	CO	CT	DE	FL	GA	HI	ID	IL	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO
1 Corporate Income Tax Exemption	X		X	X		X	X	X	X		X	X	X	X	X	X		X	X	X	X	X		X	X
2 Personal Income Tax Exemption	X	X	X		X			X	X		X		X	X	X	X		X	X	X	X	X		X	X
3 Excise Tax Exemption	X	X				X		X	X		X		X		X					X	X		X		X
4 Tax Exemption or Moratorium on Land, Capital Improvements	X	X	X	X	X		X	X	X	X			X	X	X	X	X	X		X	X	X	X	X	X
5 Tax Exemption or Moratorium on Equipment, Machinery	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6 Inventory Tax Exemption on Goods in Transit (Freeport)	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7 Tax Exemption on Manufactures' Inventories	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8 Sales/ Use Tax Exemptions on New Equipment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
9 Tax Exemption on Raw Materials Used in Manufacturing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10 Tax Incentive for Creation of Jobs	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
11 Tax Incentive for Industrial Investment	X			X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X		X	X
12 Tax Credits for Use of Specified State Products		X		X																					
13 Tax Stabilization Agreements for Specified Industries											X							X			X		X		
14 Tax Exemption to Encourage Research And Development			X	X	X		X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	X
15 Accelerated Depreciation of Industrial Equipment	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	Total
1 Corporate Income Tax Exemption	X		X		X		X		X	X	X		X		X	X	X	X			X	X	X	X	X	37
2 Personal Income Tax Exemption	X	X	X	X	X		X			X	X					X	X	X				X	X	X	X	33
3 Excise Tax Exemption			X				X		X		X	X	X	X		X	X			X		X			X	24
4 Tax Exemption or Moratorium on Land, Capital Improvements	X	X			X	X	X		X	X	X	X	X	X	X	X	X	X			X					37
5 Tax Exemption or Moratorium on Equipment, Machinery	X	X		X	X	X	X		X	X	X	X	X	X	X		X	X	X		X			X		42
6 Inventory Tax Exemption on Goods in Transit (Freeport)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	49
7 Tax Exemption on Manufactures' Inventories	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X		X	X	46
8 Sales/ Use Tax Exemptions on New Equipment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		47
9 Tax Exemption on Raw Materials Used in Manufacturing	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	49
10 Tax Incentive for Creation of Jobs	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X		44
11 Tax Incentive for Industrial Investment	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X			X	X	X	X		40
12 Tax Credits for Use of Specified State Products	X										X			X									X			6
13 Tax Stabilization Agreements for Specified Industries	X										X			X						X						8
14 Tax Exemption to Encourage Research And Development	X				X		X	X	X	X	X	X	X	X	X	X	X				X	X	X	X		36
15 Accelerated Depreciation of Industrial Equipment	X	X		X		X		X		X	X	X	X	X	X	X	X		X	X	X		X	X		41

Source: The Council of State Governments: *State Business Incentives: Trends and Options for the Future*

Table 87
Custom Fit Training Agreements: Second Quarter 1999

Company	Type of Taining	Region/AOG	Training** Facility	Amount $
Bryce Canyon Car Care	Automotive repair	Southwest	SUU	11,850
Emery Recycling Corp.	Hazardous materials, fuel storage, fire safety	Southeast	CEU	19,760
Klune Industries		Mountainland	ATC	5,000
Pepperidge Farm, Inc.	Assembly & production line	Bear River	ATC	20,500
Radio Shack	Manager training - Dale Carnagie's Course	Bear River	ATC	500
Shirt Shop	Accounting/bookeeping	Central	ATC	910
Browning Fire Arms	Computer training	Davis	ATC	7,860
Pedersen Cabinets, Inc.	Quick Books training	Uintah Basin	ATC	1,825
Moon Electric Association		Uintah Basin	ATC	34,225
Micron Technology, Inc.	Hazardous materials handling	Mountainlands	ATC	28,744
Icon Health & Fitness	People skills, hydraulics training, hazwoper updating	Bear River	ATC	10,560
Sand Star Family Entertainment	Telemarketing training	Uintah Basin	ATC	32,120
Geneva Steel		Mountainland	ATC	10,000
Frito-Lay, Inc.	Sanitation, hazardous materials, safety, communication skills	Wasatch Front	ATC	17,185

* These are a sample of custom fit agreements, not a complete list of the contracts for the date indicated.

** The training facilities are usually the regional Applied Techology Center (ATC) or the local college.

Source: Utah State Office of Education, Custom Fit Training

Table 88
Enterprise Zones

Year	Corporate Tax Break	Number of Filings	Individual Tax Break	Number of Filings	Total
1991	$1,919,507	11			$1,919,507
1992	176,220	8	$54,534	16	230,754
1993	2,387,157	13	150,617	21	2,537,774
1994	2,430,626	12	107,212	20	2,537,838
1995	1,512,411	14	73,468	17	1,585,879
1996	245,692	8	76,766	10	322,458
1997	287,476	14	70,182	13	357,658
Total	$8,959,089	80	$532,779	97	$9,491,868

Source: Utah Department of Community and Economic Development

Table 89
Utah State Industrial Assistance Fund

Company	Location	Average Salary	Number of jobs	Loan Amount
Intel Corporation	Riverton	$50,000	3,000	$5,000,000
Malt-O-Meal Co.	Tremonton	36,000	300	750,000
Intertape Polymer Group	Tremonton	24,000	73	200,000
Horizon Metals	Nephi	19,000	60	80,000
Satterwhite Log Homes	Gunnison	31,800	25	50,000
Bear River Working Ranches	Randolph/Woodruff	14,000	20	50,000
SandstarrFamily Entertainment	Roosevelt	16,000	85	100,000
Bucyrus Blades	Tooele	20,000	32	40,000
Accu-Form Plastics	Hildale/Hurricane	17,500	20	30,000
Detroit Diesel Remanufacturing	Tooele	22,000	350	1,000,000
Iomega	Ogden	35,000	158	158,000
Gateway 2000	Salt Lake City	48,300	200	200,000
Mikohn Gaming Corp.	Hurricane	21,840	250	375,000

Source: Utah Department of Community and Economic Development, Industrial Assistance Fund.

Table 90
Utah State Sales Tax Exemptions

	Value of the Exemption	Percent of Total	Manufacturing & Mining Exemption
Equipment purchases:			
New or expanding manufacturing machinery & equipment	15,000,000	9.36%	9.36%
Normal operating replacement equipment & machinery	28,600,000	17.85%	17.85%
Airline food	500,000	0.31%	
Airline equipment	400,000	0.25%	
Aerospace tools	406,000	0.25%	
Motion picture rentals & radio broadcast tapes	50,000	0.03%	
Interstate movement of freight by common carrier or people by taxicabs	2,587,000	1.62%	
Farm machinery, irrigation equipment	12,445,000	7.77%	
Commercial sprays & insecticides	625,000	0.39%	
Interstate carrier acess telephone charges & WATS exemption	20,957,000	13.08%	
Electricity sales to ski resorts	50,000	0.03%	
Ski resort equipment	676,000	0.42%	
Containers, lables, casings	22,448,000	14.01%	14.01%
Property purchased for resale or as an ingredient or component part of manufactured products	23,019,000	14.37%	
Sales of utilities for industrial use	26,420,000	16.49%	16.49%
Pollution control equipment	6,000,000	3.75%	3.75%
TOTAL	$160,183,000	100.00%	61.47%

Source: Utah State Tax Commission.