

2000

ECONOMIC

REPORT TO THE

GOVERNOR

**STATE OF UTAH
MICHAEL O. LEAVITT
GOVERNOR**

2000

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State of Utah
Michael O. Leavitt
Governor

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Contents [w/Links](#)

Figures	iv
Tables	v
Contributors	vi
Council of Economic Advisors	vii
Map of Utah	viii
Executive Summary	3
Economic Outlook	
• National Outlook	11
• Utah Outlook	13
• Utah's Long-Term Projections	21
Economic Development Activities	41
Economic Indicators	
• Demographics	47
• Employment, Wages, Labor Force	61
• Personal Income	77
• Gross State Product	83
• Gross Taxable Sales	87
• Tax Collections	95
• International Merchandise Exports	103
• Prices, Inflation, Cost of Living	111
• Social Indicators	117
• Regional/National Comparisons	121
Industry Focus	
• Agriculture	137
• Construction and Housing	147
• Defense	153
• Energy and Minerals	159
• High Technology	169
• Tourism, Travel and Recreation	171
Special Topics	
• Census 2000	179
• Quality Growth	187
• Transportation Funding	195
• Water Pricing	201
• Economic Development Incentives	204

Figures with Links

Executive Summary

A. Job Growth Rates by Industry	3
B. Job Growth in Utah: 1990 to 1999	3
C. Defense-Related Spending in Utah	4
D. International Exports	4
E. Utah's Residential Construction Cycle	5
F. Utah's Information Technology Rankings Among States	6

National Outlook

1. Comparison of Utah and U.S. Economic Indicators	12
--	----

Utah Outlook

2. Construction Jobs as a Percent of Total	17
--	----

Utah's Long-Term Projections

3. Decade Population Change—Utah and U.S.	24
4. Components of Change in Population	24
5. Utah Dependency Ratio	25
6. U.S. Dependency Ratio	25
7. Index of Economic Diversity	26
8. Industry Employment Ranked by Rates of Change	27
9. Industry Employment Ranked by Amount of Change	28

Demographics

10. Utah Population Change	48
11. Components of Population Change	49
12. Total Fertility for U.S. and Utah	49

Employment, Wages, Labor Force

13. U.S., California and Utah Unemployment Rates	63
14. Employment	63
15. Employment Change	64
16. Employment in Goods-Producing Industries	64
17. Percent Change in Employment by Industry	65
18. Utah and U.S. Employment by Industry	65
19. Annual Pay as a Percent of U.S.	66
20. Growth Rates in Average Annual Pay	66
21. Growth Rates in Total Wages and Salaries	67
22. Labor Force Participation Rates	67

Personal Income

23. Per Capita Personal Income as a Percent of U.S.	78
---	----

Gross State Product (GSP)

24. GSP—Share by Industry	84
25. U.S. GDP—Share by Industry	84

Gross Taxable Sales

26. Annual Change in Gross Taxable Sales	90
27. Shares of Utah's Sales Tax Base—Four Major Sectors	91

Tax Collections

28. Actual Revenue Growth and Surplus	98
29. Adjusted Revenue Growth	98

International Merchandise Exports

30. Merchandise Exports	104
31. Merchandise Exports by Selected Industry	105
32. Merchandise Exports to Selected Countries	105

Prices, Inflation, Cost of Living

33. U.S. Consumer Price Index	112
34. Cost of Living Comparisons	112
35. CPI-U and GDP Deflator Inflation	113

Regional / National Comparisons

36. Population Growth Rates	122
37. Per Capita Income as a Percent of U.S.	123
38. Median Household Income as a Percent of U.S.	123
39. Average Annual Pay as a Percent of U.S.	124
40. Employment Growth	124
41. Persons in Poverty	125

Agriculture

42. Percent Agricultural Receipts by Sector	139
43. Farm Assets and Equity	139
43. Net Farm Income	140
44. Percent Cash Receipts from Livestock by County	140
45. Farm Cash Receipts by County	141

Construction and Housing

47. Residential Construction Activity	149
48. Residential Construction Cycles	149

Defense

49. Federal Defense-Related Spending in U.S.	154
50. Federal Defense-Related Spending in Utah	154

Energy and Minerals

51. Mineral Valuation—Gross Value Estimate	163
52. Value of Nonfuel Minerals	163

Tourism, Travel and Recreation

53. Travel-Related Employment	173
54. Hotel Room Rents	173
55. National Park and Skier Visits	174

Quality Growth

56. Land Consumption	191
57. Housing Mix	191
58. Transportation Comparison	192
59. Emissions Comparison	192
60. Per Capita Water Use	193
61. Total Infrastructure Costs	193

Water Pricing

62. State Per Capita Water Use	202
63. Monthly Water Charges: Selected U.S. Cities	203

Tables with Links

Utah Outlook

1. Economic Indicators for Utah and the Nation	18
2. Income and Annual Pay	19

Utah's Long-Term Projections

3. Projections Summary	29
4. Employment Projections by Industry	30
5. Components of Population Change	31
6. Population Projections by Five Year Age Group	32
7. Population Projections by Selected Age Group	33
8. Population by Age as a Percent of Total	34
9. Dependency Ratios	34
10. Population Projections by County and District	35
11. Projections of Households by County and District	36
12. Household Size Projections	37
13. Employment Projections by County and District	38

Demographics

14. Population, Migration, Births and Deaths	50
15. Total Fertility Rates for Utah and U.S.	51
16. Life Expectancy for Utah and U.S.	51
17. Utah Population Estimates by County	52
18. Ranking of States by Selected Age Groups	53
19. Dependency Ratios by State	54
20. Race and Hispanic Origin by County	55
21. Housing Units, Households and Size by State	56
22. Sub-County Population Estimates	57

Employment, Wages, Labor Force

23. Employment, Unemployment, and Employment by Industry	68
24. Employment by County and Industry	69
25. Wages by County and Industry	70
26. Utah Average Monthly Wage by Industry	71
27. Utah Labor Force and Jobs by Industry	72
28. Labor Force and Components: District & County	73
29. Largest Employers	74
30. Job Openings by Occupational Category	75

Personal Income

31. Components of Total Personal Income	79
32. Personal Income and Growth for Utah and U.S.	80
33. Per Capita Income by County and District	81

Gross State Product (GSP)

34. GSP by Industry (Current Dollars)	85
35. GSP by Industry (Real Chained Dollars)	86

Gross Taxable Sales

36. Gross Taxable Sales By Component	92
37. Gross Taxable Retail Sales by Sector	93
38. Gross Taxable Retail Sales by County	94

Tax Collections

39. Tax Increases and Decreases in Recent Sessions	99
40. Cash Collection Unrestricted Revenues	101
41. Cash Collection Unrestricted Revenues (Percent Change)	102

International Merchandise Exports

42. Merchandise Exports by Industry	106
43. Merchandise Exports to Selected Countries	107
44. U.S. Exports by State	108
45. Merchandise Export to Top Ten Purchasing Countries	109

Prices, Inflation, Cost of Living

46. U.S. Consumer Price Index	114
47. Gross Domestic Product Deflators	115
48. Cost-of-Living Comparisons for Selected Areas	116

Social Indicators

49. Crime and Education	118
50. Vital Statistics and Health	119
51. Poverty/Public Assistance	120

Regional / National Comparisons

52. Population and Households	126
53. Total Personal Income	127
54. Per Capita Personal Income	128
55. Median Income of Households	129
56. Average Annual Pay	130
57. Employees on Nonagricultural Payrolls	131
58. Unemployment Rates	132
59. Percent of People in Poverty	133

Agriculture

60. Utah Farm Balance Sheet	142
61. Percent of Cash Receipts by Sector	143
62. Cash Receipts by Source and County	144
63. Personal Income from Farming as a Percent of Total	145

Construction and Housing

64. Construction Activity	150
65. Construction Activity by County	151
66. Rates on 30-Year Mortgages	152
67. Housing Price Index for Utah	152

Defense

68. Federal Defense-related Spending for U.S.	155
69. Federal Defense-related Spending in Utah	156
70. Federal Defense-related Spending by County	157

Energy and Minerals

71. Supply and Disposition of Crude Oil	164
72. Supply and Consumption of Petroleum Products	164
73. Supply and Consumption of Natural Gas	165
74. Supply and Consumption of Coal	165
75. Supply and Consumption of Electricity	166
76. Energy Prices	167

Tourism, Travel and Recreation

77. Profile of the Utah Travel Industry	175
78. Utah Tourism Indicators	176

Census 2000

79. Total Personal Income and Federal Funds Distribution	182
80. Federal Expenditures in Utah Based on Population	183
81. Major State Fund Distribution Based on Population	185

Quality Growth

82. Quality Growth Strategy Technical Analysis	194
--	-----

Transportation Funding

83. 1999 Legislature's Funding Option	199
84. Summary of Funding Option	200

Economic Development Policies in the States

85. State Financial Incentives for Business	211
86. State Tax Incentives for Business	212
87. Custom Fit Training Agreements	213
88. Enterprise Zones	214
89. Utah State Industrial Assistance Fund	214
90. Utah State Sales Tax Exemptions	215

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 nation's 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 state's 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 through 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 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 where crop production is high relative to livestock production are counties where 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

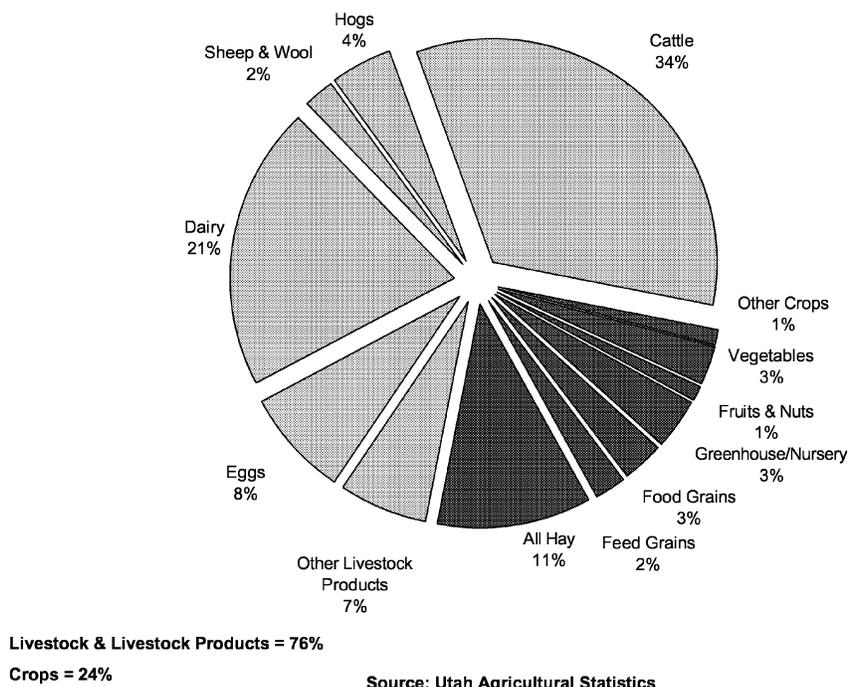


Figure 43
Farm Assets and Equity in Utah

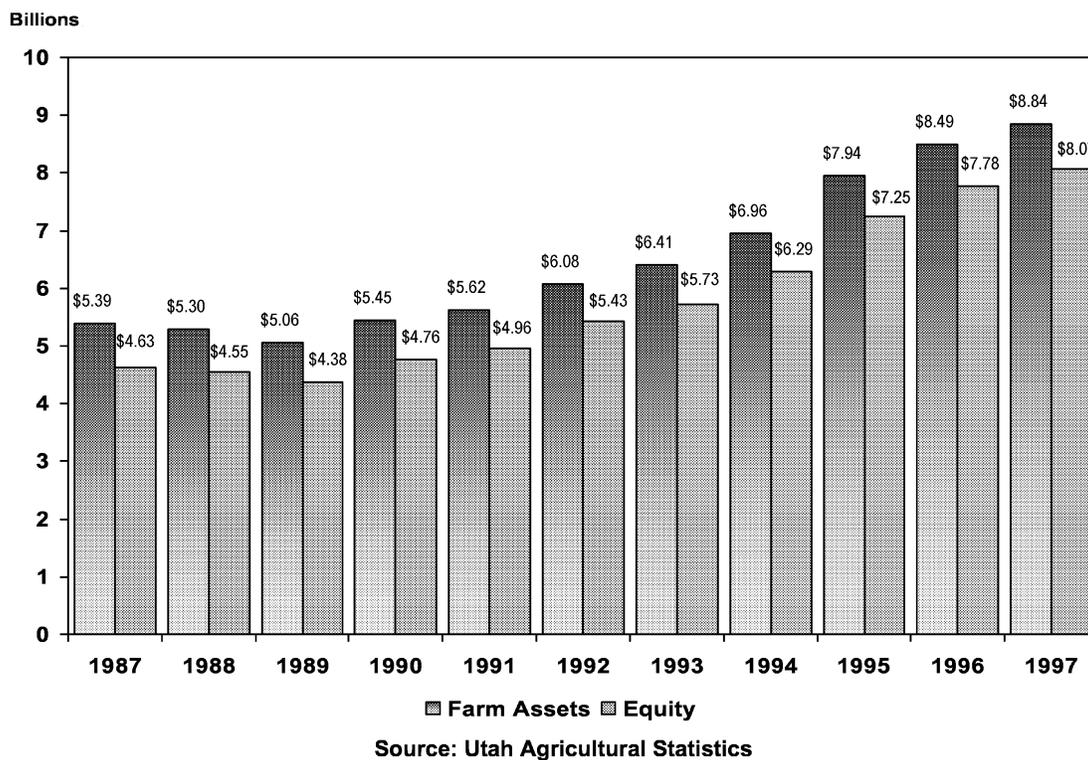


Figure 44
Net Farm Income in Utah

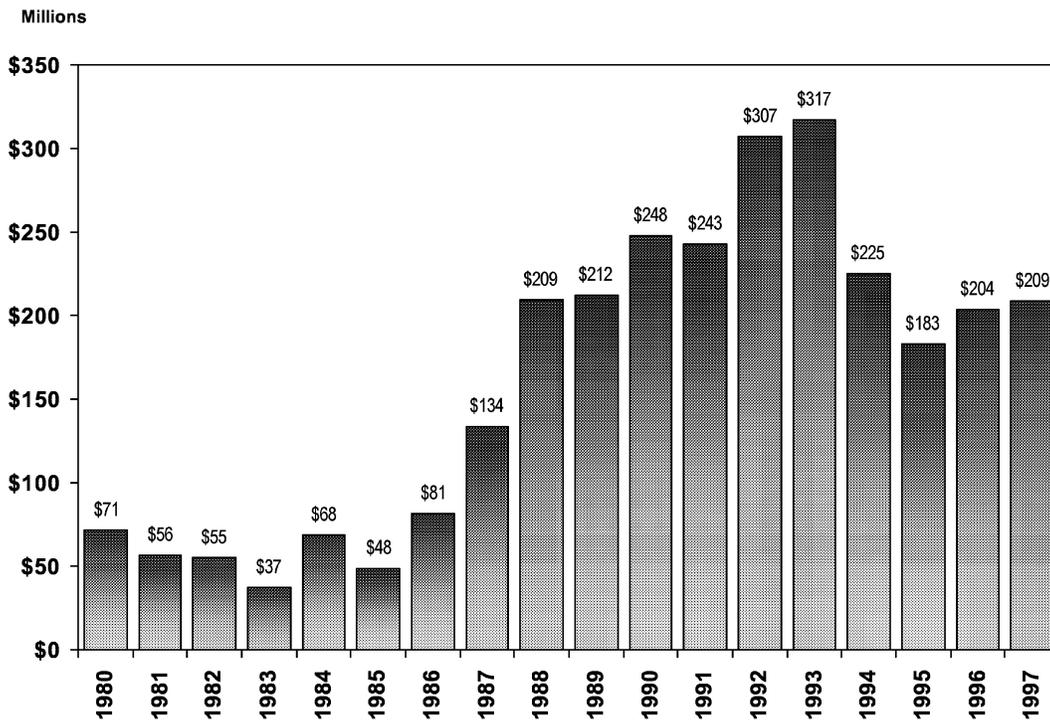
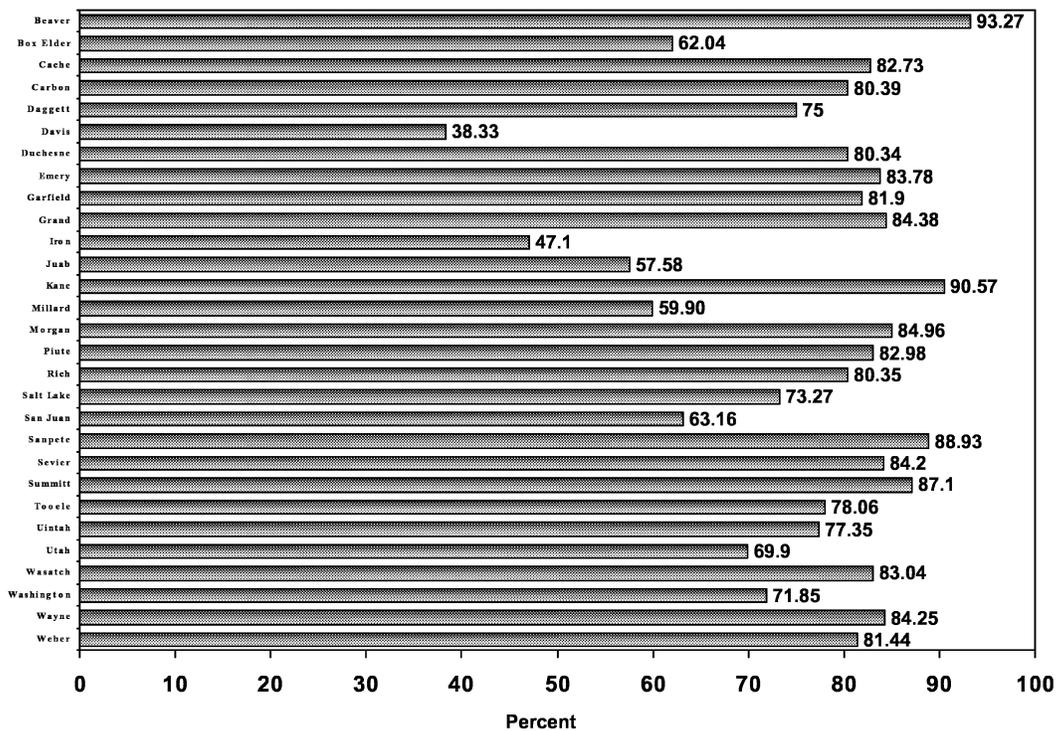


Figure 45
1997 Percentage of Cash Receipts by County in Livestock Products



Source: Utah Agricultural Statistics

Figure 46
Farm Cash Receipts by County in Utah: 1997

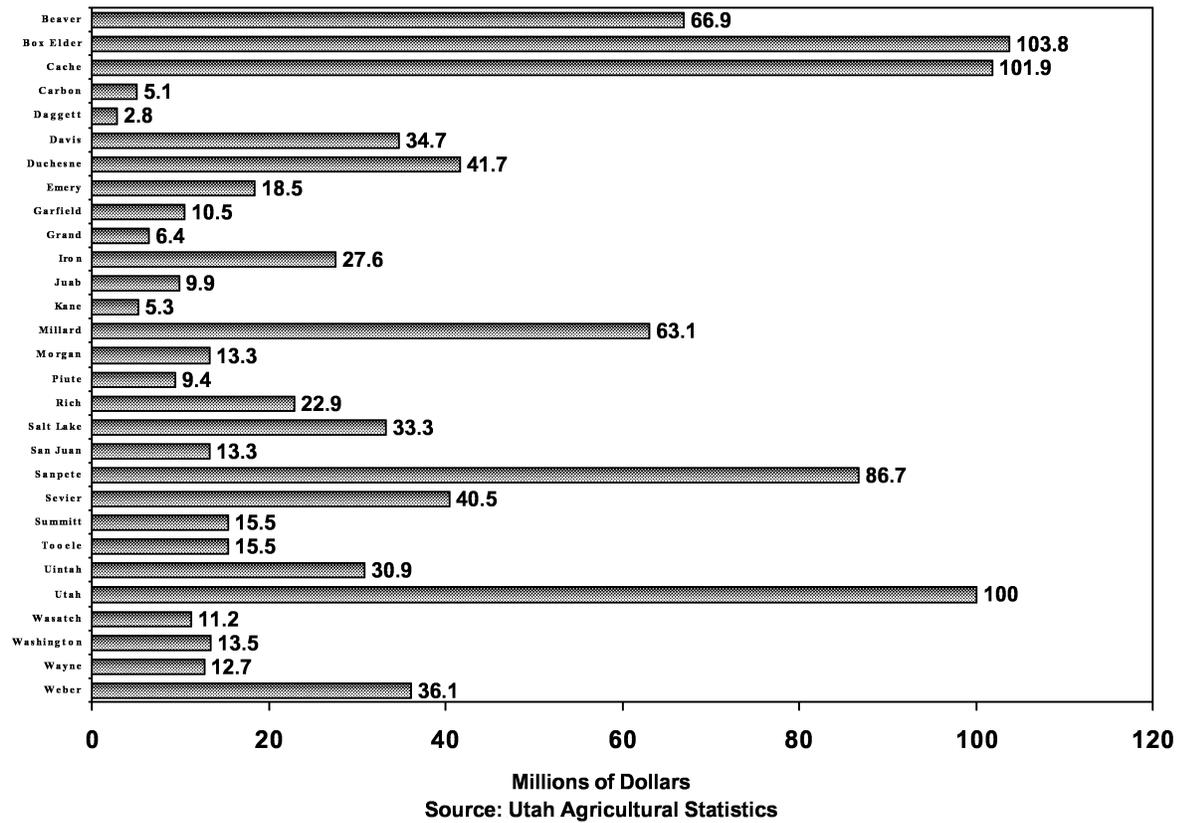


Table 60
Utah Farm Balance Sheet (Millions of Dollars)

Category	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Assets											
Real Estate	\$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
Livestock and Poultry	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
Machinery & Motor Vehicles	484.4	536.5	572.0	582.7	566.3	637.9	626.9	626.4	512.9	553.4	592.9
Crops	429.1	428.7	444.6	459.1	472.5	471.0	465.2	472.4	454.5	467.4	464.1
Purchased inputs	112.4	123.5	94.9	114.6	95.0	90.6	116.2	1,115.9	94.4	121.0	148.3
Financial	7.6	12.2	12.4	15.5	20.8	28.9	27.9	23.4	14.3	24.5	28.7
	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
Vegetables	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)**

County	1992		1993		1994		1995		1996		1997	
	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
Box Elder	46.0	30.5	76.5	51.2	29.8	81.0	49.6	35.7	85.0	52.7	35.7	88.4
Cache	80.0	13.7	93.7	80.8	13.4	94.2	78.5	20.0	98.5	86.2	22.1	108.3
Carbon	3.5	0.5	4.0	4.1	0.6	4.7	4.2	0.8	5.0	4.2	0.8	5.0
Daggett	1.0	0.3	1.3	1.5	0.3	1.8	1.0	0.4	1.3	0.9	0.4	1.3
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
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
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
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
Grand	1.6	0.7	2.3	1.5	0.7	2.2	1.6	0.6	2.4	1.3	0.6	1.9
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
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
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
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
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
Plute	6.4	0.9	7.3	7.3	1.1	8.4	7.7	1.2	8.9	7.7	1.2	8.9
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
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
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
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
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
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
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
Utah	19.2	3.2	22.4	21.3	3.4	24.7	21.2	4.3	25.5	17.7	5.3	23.0
Utah	58.7	32.0	90.7	64.3	29.0	87.3	61.6	29.2	90.8	60.0	26.1	86.1
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
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
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
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
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
											\$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
Washington	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

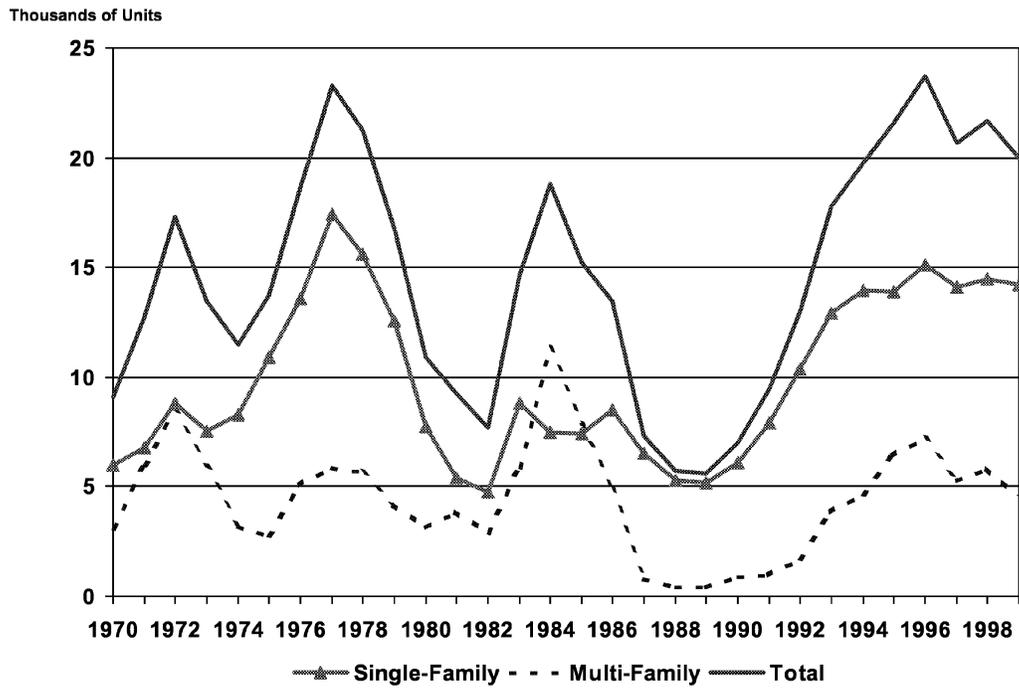
\$200 million for only the third time in history. The largest industrial buildings in 1999 were the Wal-Mart Distribution Center in Corrine (\$34.4 million), the Malt-O-Meal plant in Tremonton (\$16.6 million) and Dana Corporation's new manufacturing facility in West Jordan (\$12.4 million). The hospital 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

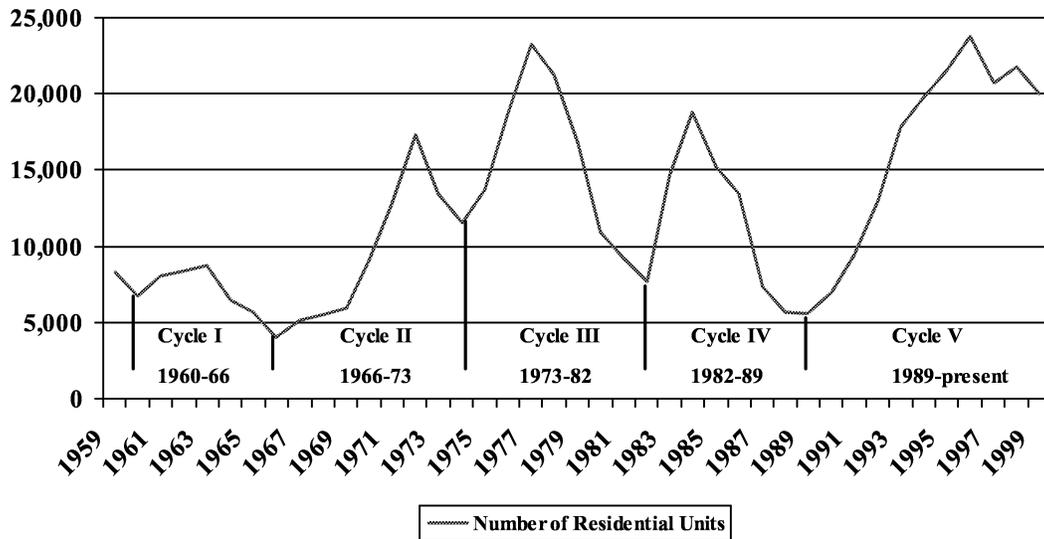


Table 64
Residential and Nonresidential Construction Activity in Utah

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.

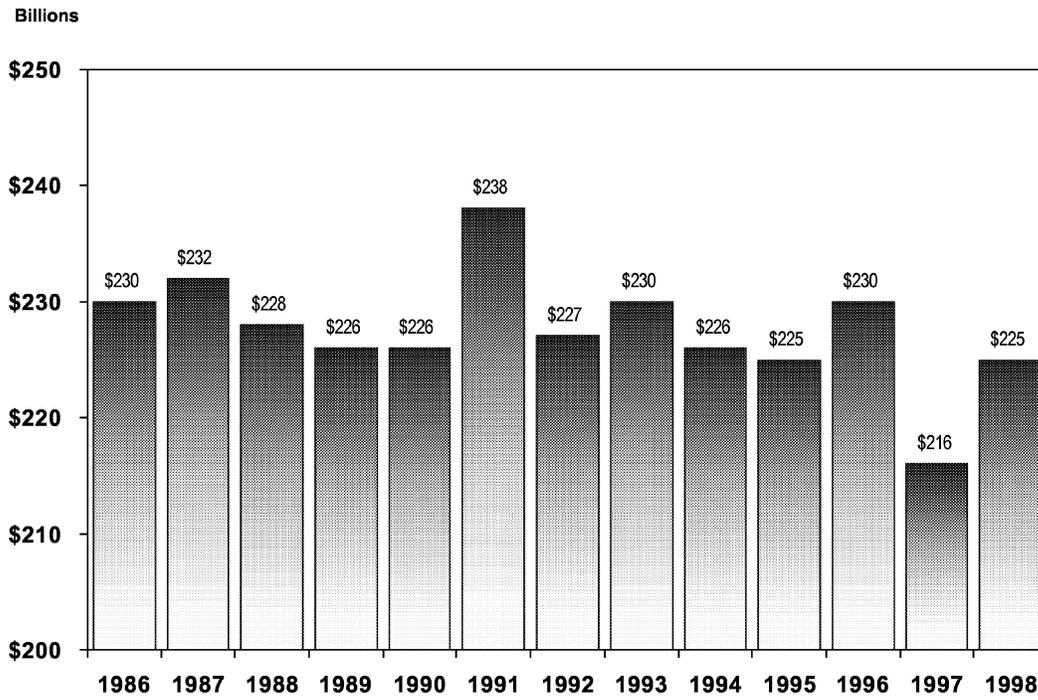
Defense Depot Ogden (DDO) was designated for closure by the Defense Base Closure and Realignment Commission (BRAC) in 1995, and was officially closed in September 1997 after 56 years of operation. Ogden City is in the process of buying the land from the Army, and in December 1999 the city approved a 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

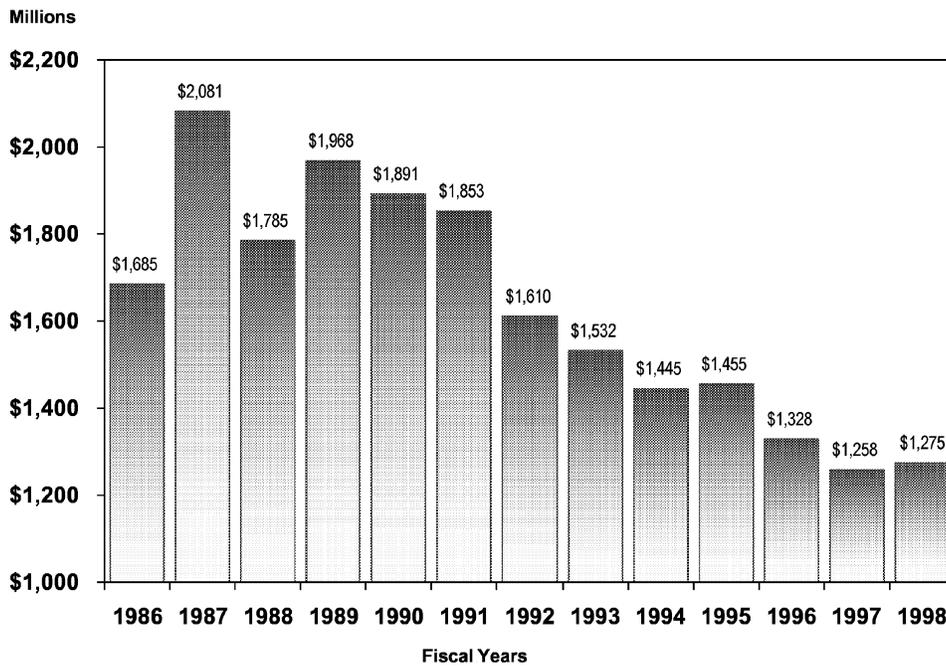
Since the end of the Cold War, federal defense spending has decreased significantly. Many people refer to these cutbacks in federal spending as a "peace dividend." Estimates of cumulative savings from defense cuts are in the several hundred billion dollar range. With these kinds of cutbacks, the federal 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 Expenditures: 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			Total**	1997	Change in Total Spending from 1997 to 1998	
	Wages*	Procurement	Other		Total**	Absolute	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

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 (MoS₂) 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

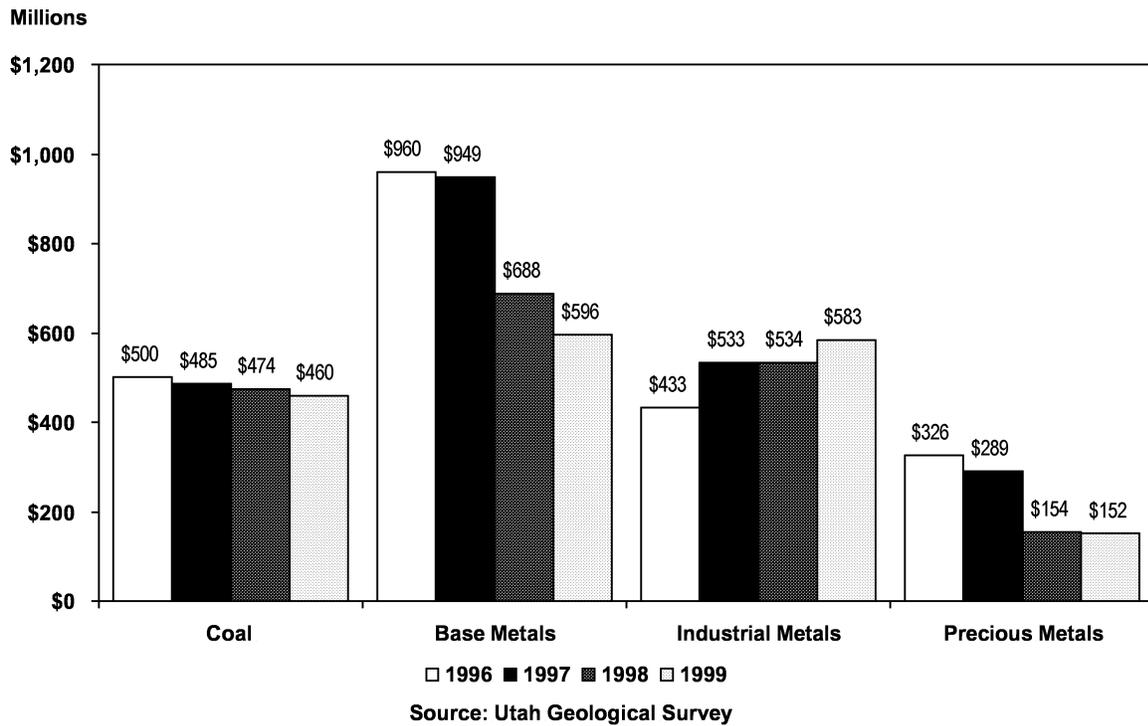


Figure 52
Value of Nonfuel Minerals

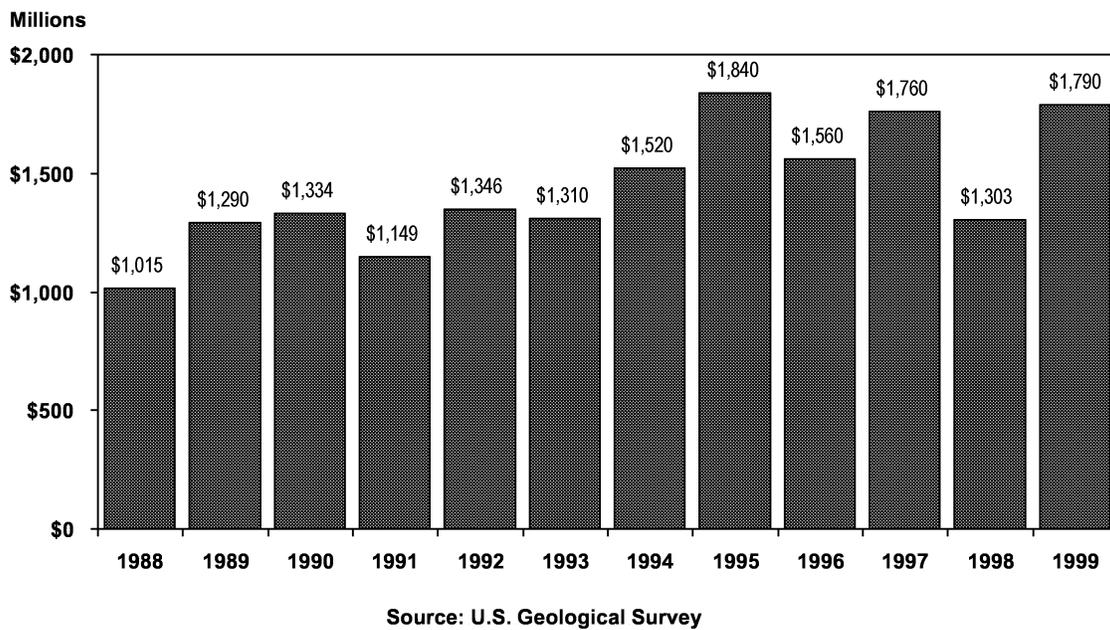


Table 71
Supply and Disposition of Crude Oil (Thousand Barrels) in Utah

Year	Supply			Disposition			
	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

Year	Supply			Consumption by Product					Exports
	Refined in Utah	Imports	Refinery Stocks	Motor Gasoline	Jet Fuel	Distillate Fuel	All Other	Total	
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

Year	Supply			Consumption by End Use						Total
	Gross Production	Marketed Production	Actual Sales	Residential	Commercial	Industrial	Electric Utilities	Lease & Plant	Pipeline	
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

Year	Supply				Consumption by End Use				Total
	Production	Marketed Production	Imports	Exports	Residential & Commercial	Coke Plants	Industrial	Electric Utilities	
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

Year	Net Generation by Fuel Type					Consumption by End Use				
	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**

Year	Field Price (dollars per unit)		Average End-Use Price (dollars per unit)														
	Coal (tons)	Crude Oil (barrels)	Petroleum Products					Natural Gas					Electric Power				
			Coal (tons)	No. 2 Distillate (gallons)	Motor Fuel (gallons)	Natural Residential (mcf)	Natural Commercial (mcf)	Natural Industrial (mcf)	Natural Residential (mcf)	Natural Commercial (mcf)	Natural Industrial (mcf)	Electric Residential (kWh)	Electric Commercial (kWh)	Electric Industrial (kWh)	Electric Residential (kWh)	Electric Commercial (kWh)	Electric Industrial (kWh)
1980	25.63	19.79	29.63	0.91	1.23	2.74	5.59	2.26	5.53	4.33	3.27						
1981	26.87	34.14	32.79	1.04	1.37	3.23	5.35	2.58	5.95	4.95	3.68						
1982	29.42	30.50	33.38	1.01	1.35	3.41	3.43	2.45	6.30	5.69	4.22						
1983	28.32	28.12	30.64	0.96	1.13	4.26	4.32	3.15	6.91	6.25	4.36						
1984	29.20	27.21	30.64	0.95	1.12	5.68	4.96	3.52	7.43	6.52	4.60						
1985	27.69	23.98	32.34	0.93	1.14	4.86	4.91	3.23	7.78	6.88	4.98						
1986	27.64	13.33	32.32	0.78	0.85	4.64	4.73	3.00	7.95	7.05	5.16						
1987	25.67	17.22	30.95	0.83	0.93	4.97	4.98	3.20	7.95	7.05	4.93						
1988	22.85	14.24	29.50	0.84	0.96	5.11	4.08	3.10	7.81	6.96	4.61						
1989	22.00	18.63	28.05	0.94	1.03	5.14	4.16	3.30	7.39	6.74	4.11						
1990	21.78	22.61	26.80	1.12	1.14	5.28	4.30	3.62	7.09	6.25	3.88						
1991	21.56	19.99	27.40	1.02	1.10	5.44	4.50	3.69	7.12	6.12	3.97						
1992	21.83	19.39	27.54	1.01	1.12	5.44	4.40	3.91	7.00	6.00	3.70						
1993	21.17	17.48	27.34	1.00	1.10	5.13	4.06	3.67	6.85	5.96	3.78						
1994	20.07	16.38	26.10	0.98	1.12	4.96	3.84	2.74	6.91	5.87	3.83						
1995	19.11	17.71	25.27	1.00	1.14	4.74	3.64	2.34	6.87	5.97	3.92						
1996	18.50	21.10	24.50	1.06	1.20	4.47	3.38	2.10	6.93	5.88	3.69						
1997	18.34	18.57	25.33	1.10	1.25	5.13	3.91	2.55	6.90	5.70	3.50						
1998	17.83	12.53	25.45	1.05	1.09	5.61	4.34	3.00	6.84	5.69	3.45						
1999(e)	17.51	17.04	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 (formerly Thiokol 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*

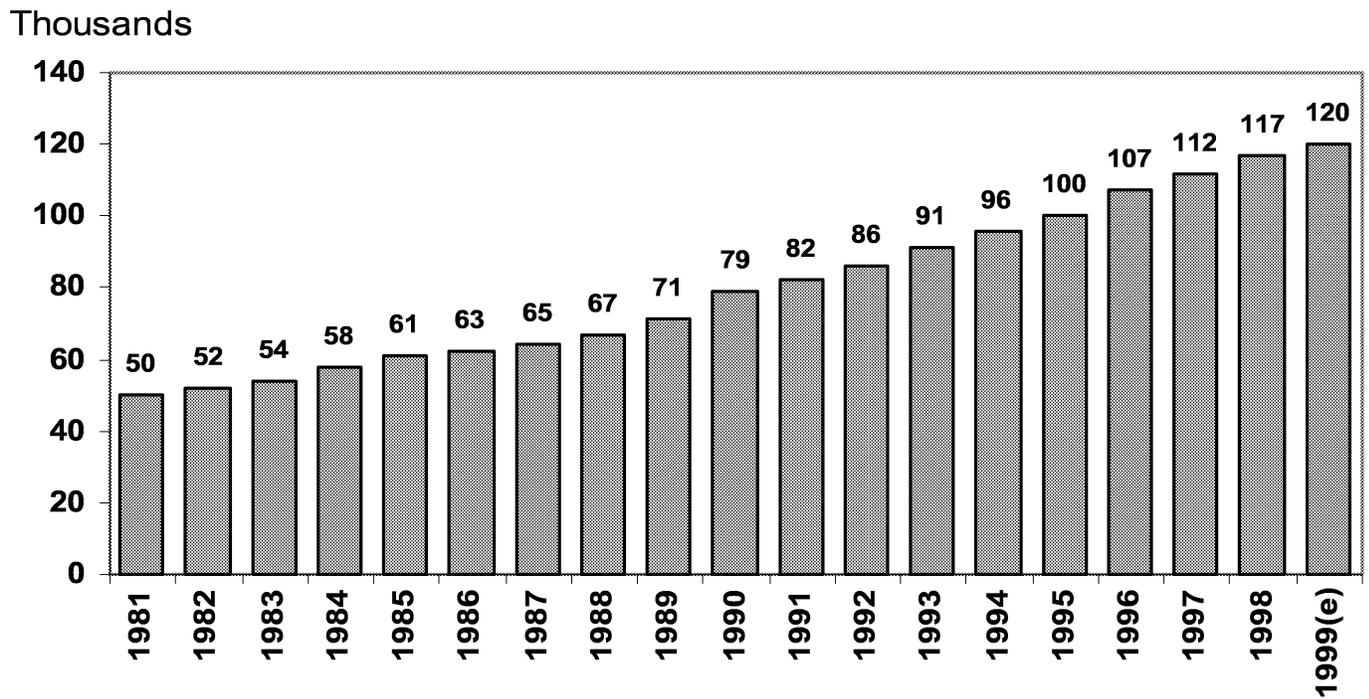


Figure 54
Utah Tourism Indicators—Hotel Room Rents

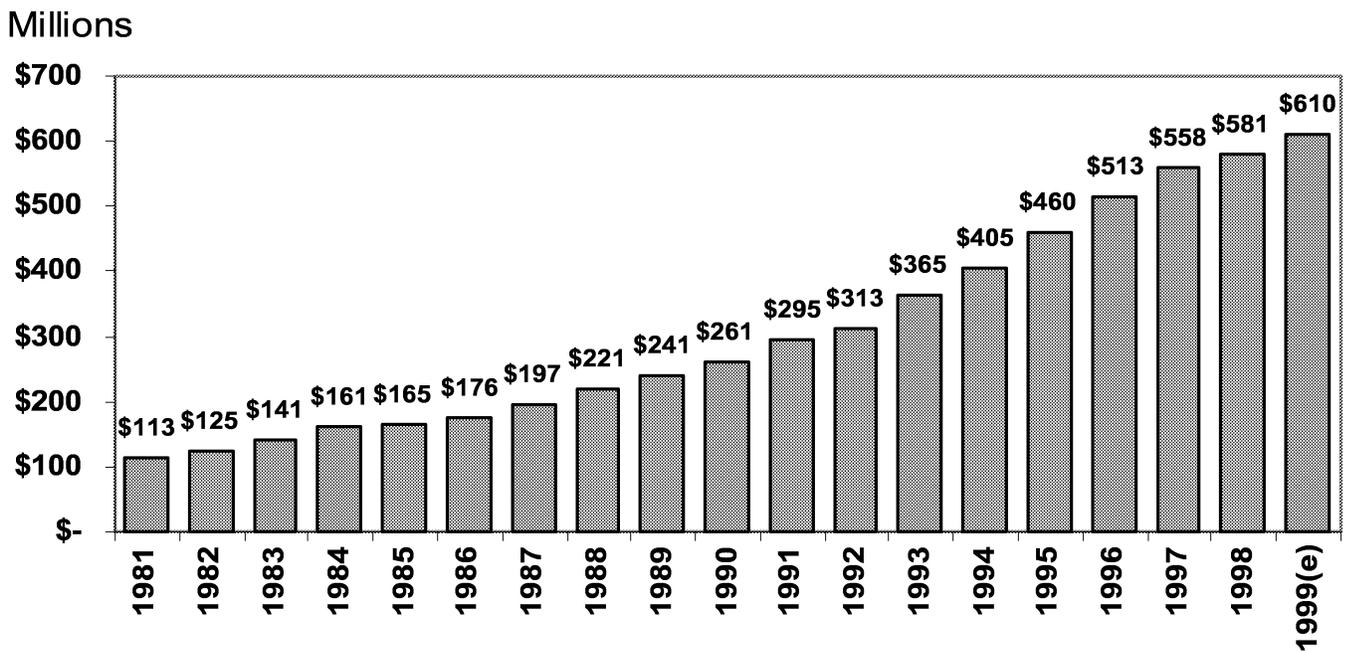


Figure 55
Utah Tourism Indicators—National Park and Skier Visits

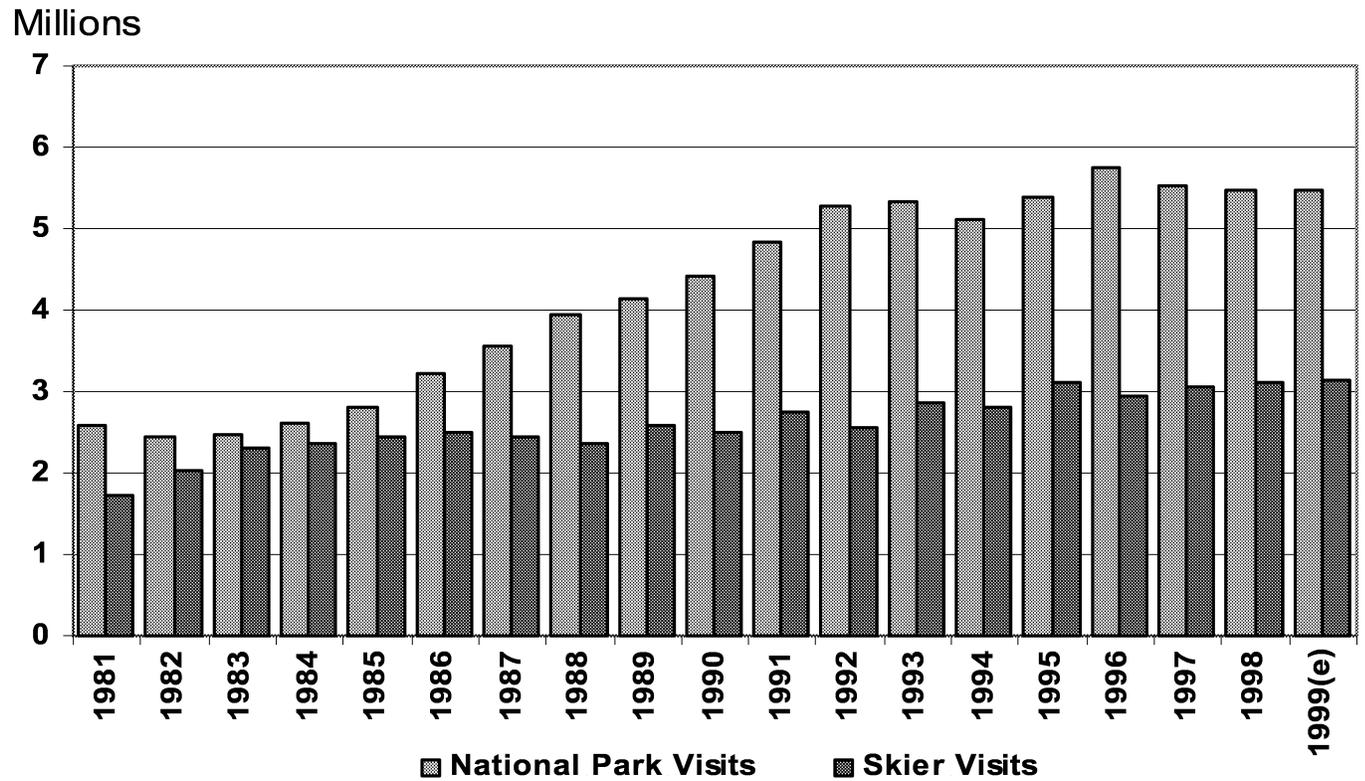


Table 77
Profile of the Utah Travel Industry

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
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 Transportation, 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-Related 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.