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## THE CHANGING DEMOGRAPHIC AND ECONOMIC STRUCTURE OF WASHINGTON COUNTY, UTAH 1970-1993

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During the 1970s a new pattern of nonmetropolitan population growth emerged in the United States. This changing spatial pattern of settlement was marked by the accelerated migration into entirely rural nonmetropolitan counties. In many cases the migration to rural counties was generated by the resurgence of mining and energy extraction, as occurred in the Uintah Basin of eastern Utah. More distinctive however, was the condition of extraordinary population growth, unrelated to mining or energy extraction, in counties far removed from a metropolitan area. Washington County has been Utah's most striking example of this type of nonmetropolitan population growth.

### THE WASHINGTON COUNTY ECONOMY TO 1970

Brigham Young's goal of economic independence and self-sufficiency brought early Mormon colonization to Washington County with the hope of producing specialized agricultural products for use throughout the territory. In 1861, 309 families were called to go south to "Utah's Dixie" and "cheerfully contribute their efforts to supply the Territory with cotton, sugar, grapes, tobacco, figs, almonds, olive oil and other such useful articles"<sup>1</sup> An additional 500 families were called to serve in the Cotton Mission when falling cotton prices and the problems of physical survival in a harsh environment threatened agricultural production. By the late 1860s the Cotton Mission was not producing enough cotton to supply the needs of the settlers let alone the territory. The persistent poverty and hardships of the mission combined with an outbreak of malaria in 1871 convinced Brigham Young to abandon the production of cotton in Washington County.

The one specialty which had economic success and flourished as a product of trade was grain-sorghum molasses. "Dixie" molasses was exported throughout the territory and even into Idaho and Montana. The farmers of Washington County, through the trade of molasses, were able to acquire life's necessities and pay their tithing and taxes.

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This article is drawn from *An Economic Analysis for the Management of State Lands in Washington County*, prepared for the Division of State Lands and Forestry, Utah Department of Natural Resources.

Tourism joined agriculture as an important component of the economy of Washington County following the creation of the National Park system in 1916 and the establishment of Zion National Park in 1919. The National Park Service encouraged the development of tours and facilities to open the scenery of the West to tourists. In the 1920s the Utah Park Company constructed a large hotel in Zion National Park and new accommodations were also completed in Cedar Breaks and Bryce Canyon. Lodging availability doubled tourist traffic from 8,400 in 1924 to 16,817 in 1925 and in that same year new tourist busses with detachable tops for viewing the spectacular canyon walls were purchased. In 1926, daily bus service was established from Cedar City around the loop to Zion National Park, North Rim of the Grand Canyon and Utah National Park (Bryce Canyon). Thus with the spread of automobile use and the extension of adequate roads, tourism began its intimate connection with the economy of Washington County.<sup>2</sup>

Tourism's economic impact was spread across the trade and services sectors which represented over 20 percent of total employment in 1950.<sup>3</sup> A description of the growing influence of tourism in the 1950s noted that "more than twenty-five service stations and ten garages stand ready to provide service and repairs to the estimated 1,500 out-of-state autos, trucks, and busses which pass through the city daily. Most of the six modern cafes are open 24 hours a day. Some twenty-three motels and two hotels contain over 427 air conditioned units to serve the needs of travelers who find St. George a convenient "half-way mark" between Los Angeles or Las Vegas and Salt Lake City. In all, St. George serves well over 100,000 tourists each year."<sup>4</sup>

The role of agriculture was still significant in 1950 with agricultural employment accounting for 33 percent of total employment in Washington County. Most of the agricultural activity was concentrated in the livestock sector. Cash sales of livestock were three times higher than cash sales of crops. By the end of the 1960s agricultural employment had receded to less than 10 percent of total employment, falling steadily over the intervening 20 years from 1,050 employees to only 410 employees by 1970. In contrast, trade and services increased their share of employment from 20 percent to 37 percent during the same period. In 1970 the retail and wholesale trade sectors, which had recently overtaken the government sector as the largest employment sector, employed 1,080 workers while the services sector employed nearly 500 workers.

By 1970 the outline of the present day Washington County economy had been formed, evolving from an outlying agricultural settlement into a community positioned to take advantage of its unique endowment of natural resources; scenery, weather and national parks. At the time, however, there was little indication of the magnitude of the growth that would transform Washington County from a modest-sized community dependent on long-distance highway travel into the state's fastest growing county.

The sharp break with previous trends is distinguished by the sudden acceleration in population growth in Washington County that occurred in the mid-1960s. Prior to that time population growth was very gradual and in some decades almost imperceptible. In the 1940s the annual population growth rate for the county was 0.6 percent followed by a decline in the 1950s to an annual average of only 0.4 percent.

Although the population growth of the county was barely noticeable during these years a shift in the distribution of population within Washington County was occurring. St. George increased its share of the population of Washington County from 33 percent in 1930 to 50 percent by 1960, as shown below. The population growth of St. George can be attributed to population centralization, i.e., the growth of a dominant city at the expense of surrounding villages and towns. During the Forties and Fifties the cities of Washington and Hurricane both declined in population.

#### St. George Population as Share of County

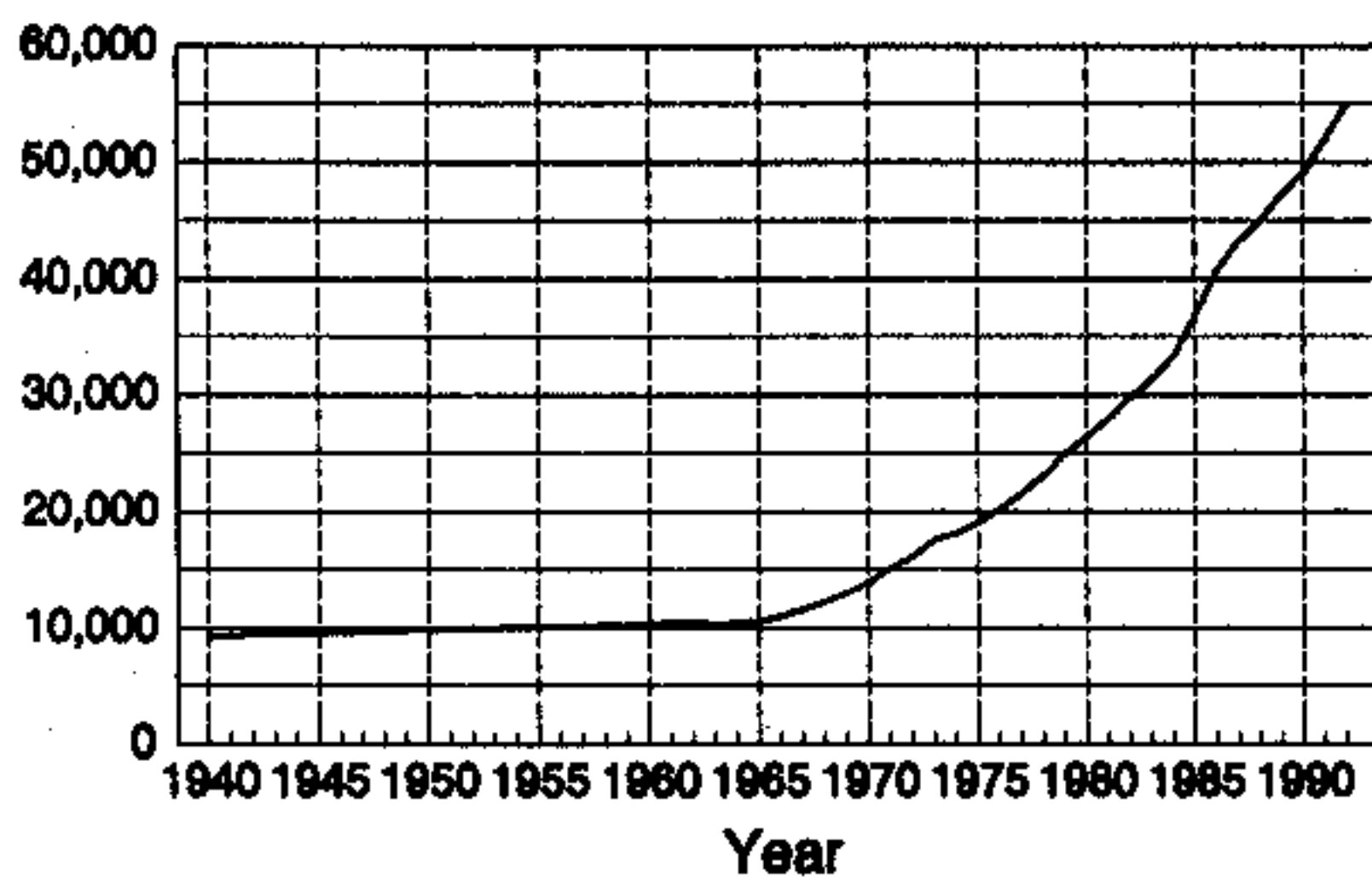
1920	2,215	33%
1930	2,434	33%
1940	3,591	38%
1950	4,562	46%
1960	5,130	50%
1970	7,097	52%

The gradual increase in population in Washington County between 1940 and 1965 is depicted in Chart 1. Of course, most interesting is the comparison of the years of slow growth with the abrupt change in the growth pattern that began in 1966.

The precipitous rise in population beginning in 1966 can be traced to a shift in the migration rates for Washington County. During the Fifties the county had net out-migration of 1,800, nevertheless total population rose slightly due to the natural increase in the population of 2,200. In the 1960s, however, a profound shift in migration rates occurred in the county. For the first time since the 1930s in-migration exceeded out-migration. People began moving to Washington County in significantly

CHART 1

**Washington County Population  
1940-1992**



Source: Bureau of the Census

greater numbers than those leaving. Net in-migration for the 1960s totaled nearly 1,700, about the same as the natural increase. A fair amount of this net in-migration represents the first wave of retirees moving from metropolitan Utah to Washington County. During the decade the number of people 65 years or older in Washington County increased twice as fast as the rate of increase for the State. By 1970 one out of every eight residents of Washington County was at least 65 years old.

**SOURCES OF CHANGE**

The remarkable transformation since 1966 of the demographic and economic characteristics of Washington County reflect the transition from an economy based on agriculture and recreation to an economy based on recreation and retirement. A significant feature of the changing structure of the local economy has been the synergy or mutually reinforcing aspects of recreation and retirement. Many of the support services for retirement communities (golf courses, retail expansion, restaurants) make the community more desirable as a recreation site.

Since the 1920s tourism has had an expanding presence in the Washington County economy but tourism alone was never sufficient to propel the local economy beyond meager increases in population and income. The primary catalyst for a new level of economic growth was the development of Washington County as a retirement and second home community augmented by tourist-induced growth.

The combination of a retirement and tourist community, such as Washington County, conformed

with the changes in American lifestyle of the 1970s fostered by: (1) The trend toward earlier retirement and semiretirement, which has multiplied the ranks of retirees and lengthened the interval during later life when a person is no longer tied to a specific place by a job. (2) New sources of retirement income, such as pensions and other payments, which were either earned elsewhere in younger years or are a transfer of public funds from taxes paid elsewhere. These new kinds of income have expanded retiree's roles as consumers, whose presence in an increasingly service-oriented society creates jobs wherever the retirees go. (3) An increased orientation at all ages toward leisure activities and these activities are often located in amenity-rich areas outside the daily range of metropolitan commuting.<sup>5</sup>

The pattern of growth associated with the development of Washington County as a retirement and tourist community since 1966 has been: (1) increasing in-migration created by retirees, seasonal residents and visitors, (2) followed by expanding employment opportunities in local services and construction sectors generated by the presence of more people, (3) which in turn induces existing residents to stay as well as attracting more in-migration to meet expanding business and job opportunities.

**Characteristics Attracting Retired Population**

In 1966 Washington County, with a population of 11,000 had no special distinction among the non-metropolitan counties of the State. At the time Box Elder, Cache, Iron, Uintah and Carbon, all nonmetropolitan counties, had higher levels of population, employment and personal income. Nevertheless an undistinguished county was suddenly catapulted into rapid growth induced primarily by its desirability as a location for the retired and semi-retired. What were the necessary conditions for this extraordinary growth?

The *weather* of Washington County is an important condition of the county's appeal as a retirement and second home community. Washington County offers a warm retreat from the cold winters of the Wasatch Front. The mild winters are partly a consequence of the relatively low elevation—2,760 feet above sea level—of St. George City. From December through March the normal maximum temperature in St. George is 15 to 18 degrees above the normal maximum temperatures in Salt Lake, Ogden and Provo.<sup>6</sup>

	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>
St. George	54.2	53.8	60.9	67.8
Salt Lake	40.1	36.6	42.4	50.9

The unique *natural resource endowment* of Washington County—Zion National Park, and the red cliffs, plateaus and vistas surrounding the communities of St. George and Washington City—has contributed significantly to the county's economic growth. Natural resources endowment defines the economic base for many of Utah's nonmetropolitan counties. In most instances rural economies depend on agriculture and/or mining and energy extraction for their economic well-being. Economies tied to these types of natural resources are vulnerable to weather, market prices, international conditions, depletion of the resources and shifts to cheaper substitutes, as well as emerging environmental concerns. However, the scenic natural resources of Washington County do not have the same economic vulnerability. The scenery of Washington County is not sold or traded on any market but it serves to enhance the locational qualities of the county and thus augment long-term economic growth.

The scenic natural resources of Washington County have stimulated real estate development of second home and retirement communities. National and state demographic trends support an increasing demand for these type of real estate developments. Combined with retirees' preferences for scenic locations, the desirability of Washington County as a retirement community has grown, which has benefited the local economy. Retirees generate significant demand for local services and trade thus creating job opportunities and additional income.

The *cultural/religious resources* of Washington County also expand its desirability as a retirement community for devout members of the Church of Jesus Christ of Latter-day Saints (Mormons). Settled by the Mormons in the 1850s, St. George retains a pronounced Mormon orientation. The presence of the St. George Temple, built between 1871-1877, provides the opportunity for "Temple work"; Mormon religious ordinances performed only in temples. Since "Temple work" is a primary activity for many older Mormons, the St. George Temple becomes an added inducement attracting such households to Washington County.

*Interstate 15 and the St. George Municipal Airport* have been essential ingredients in the character and pace of growth of St. George and surrounding communities. The completion of I-15 near St. George coincides with the onset of rapid demographic and economic growth. The south St. George to Middleton section was completed in 1962 followed in 1964 by the completion of the Middleton to Harrisburg section. The section from south St. George to the Virgin River gorge was not completed until 1973.

I-15 coupled with the low cost of gasoline brought tourist and long-distance automobile travel to St. George, helped ease the costs of the long commutes typical in rural counties and made southwestern Utah more attractive to residents of the Wasatch Front. The presence of the St. George Municipal Airport and scheduled air service expanded the pre-1970 transportation services of Washington County and were key elements in the 1972 founding of SkyWest Airlines, headquartered in St. George.

By 1970 the population of Washington County had reached nearly 14,000 with just over 7,000 people located in St. George. At that time only three other nonmetropolitan cities in the state were larger than St. George: Logan with a population of 22,333, Brigham City with 14,007 and Cedar City with 8,946. The economic base that had developed to support the Washington County population employed about 3,200 nonagricultural employees, most of whom were employed in the trade and government sectors; 34 percent in trade and 28 percent in government. In 1970 the retail trade sector had a little more than \$30 million in gross taxable retail sales and the total personal income for the county was \$37.7 million.

This was the economic setting of Washington County when Terracor, a Salt Lake City real estate development company, began to market the first phases of *Bloomington Country Club and Bloomington Ranches*. These two large residential subdivisions were developed as second home/retirement communities and represent the first attempt to apply the "Sun City" concept to Washington County. Phoenix, Tucson and Las Vegas had all experienced tremendous growth during the 1960s, prompted in part by the combination of warm winters and second home/retirement communities. There were no comparable real estate developments in Washington County prior to Bloomington. The early development included an exceptional array of amenities; an 18-hole golf course, large clubhouse, tennis courts, swimming pool and equestrian facilities. The first phase of Bloomington Ranches was platted in March 1968 followed by the first phase of Bloomington Country Club in July 1968.

In retrospect, it is clear that the Bloomington properties provoked the real estate and construction boom that has been a prominent characteristic of the St. George area for the past 25 years. The six Bloomington properties that have been developed are: Bloomington Country Club, Bloomington Gardens, Bloomington Hills, Bloomington Knolls, Bloomington Lane and Bloomington Ranches. The largest, in terms of residential units developed, is Bloomington

Hills which has about 1,500 housing units. Bloomington Country Club, the second-largest project, has about half as many residential units as Bloomington Hills.

In the past 25 years one out of every three new residential units in St. George has been located in a Bloomington project; county-wide it has been one out of five. The success of Bloomington and the growth of Washington County are inseparable. Bloomington triggered the transformation of the Washington County economy from agricultural/tourism to retirement/tourism. The initial capital investment by Terracor in land, infrastructure and amenities was sufficiently large to open Bloomington to markets beyond southwestern Utah. At the time Terracor was a prominent and well-connected Salt Lake City land development company with considerable marketing expertise, which proved invaluable in tapping the Wasatch Front for lands sales.

### **Retirement and Second Home/Time Share and Economic Growth**

The desirability of Washington County as a retirement and seasonal community is demonstrated by nearly 30 years of uninterrupted population increase. Particularly impressive has been the rate of population growth since 1970; an average annual growth rate of 6.5 percent, which has doubled the county's population every 11 years.

Changes in lifestyles and attitudes regarding retirement converged with the exceptional natural and cultural endowments of Washington County to produce population growth propelled by net in-migration. Prior to 1967, the population of Washington County had been growing very slowly—one to two percent annually—through natural increase (births minus deaths) which, in most years, was enough to offset net out-migration. But in 1968 the development of Bloomington and the changing image of Washington County precipitated a sudden shift from net out-migration to net in-migration. Net in-migration accelerated throughout the 1970s. Over the decade the population of the county increased by 12,396 people, of which net in-migration accounted for 8,592 or 69 percent. During the 1980s, net in-migration's share of population growth increased further to 74.2 percent. The components of population change over the last two decades are shown below:<sup>7</sup>

	<u>Net Change</u>	<u>Natural Increase</u>	<u>Net Migration</u>
1970-1980	12,396	3,804	8,592
1980-1990	22,495	5,805	16,690

Although information on the characteristics of those migrating to Washington County is limited, Census data show that in the 1985-1990 period slightly more than half of the in-migrants were from the state of Utah. Presumably most of the in-state migration is from the Wasatch Front to Washington County. The data also show that four out of five of the out-of-state in-migrants were from the western United States.

A substantial share of this net in-migration has been people who are 55 years old or older; an age group that accounts for nearly one in four residents of Washington County. In 1990 there were 11,700 people in the 55 years old or older age group and almost 6,000 of them migrated to Washington County during the 1980s.<sup>8</sup> These 6,000 people, 55 years old or older constitute 36 percent of net in-migration for the county during the decade. These data make clear the attraction of Washington County as a retirement community.

The in-migration of retirees has played a conspicuous role in boosting residential construction activity to higher and higher levels. Six thousand people of 55 years old or older would require approximately 2,500 housing units.<sup>9</sup> During the 1980s, 9,800 dwelling units were added to the housing inventory in the county. Therefore nearly 25 percent of new residential construction was related to the in-migration of those 55 years old or older. The second home/time share market also creates a demand for residential housing units. Census of Housing data show that 1,500 "seasonal, occasional or recreational use" units were added to the Washington County housing inventory during the 1980s.

Thus, the combined demand for housing units generated by retirees migrating to Washington County and the second home/time share market was 4,000 units. Therefore, 40 percent of new residential construction in Washington County during the 1980s was directly related to demand created by retirees and owners of second home/time share units.

**Economic Impacts.** Retirement and seasonal communities have a set of economic requirements or linkages with other sectors of the local economy, which become the key determinants of economic impact or induced economic growth. But the origin of this growth starts with the income retirees or owners of second homes spend in Washington County. Income earned elsewhere but spent in St. George, Washington City, Hurricane, Santa Clara or Ivins.

Residential dwelling units are a primary requirement of retirement and second home/time share communities. The resulting residential construction

activity has important forward and backward linkages to the local economy. The forward linkages are to home furnishings, appliances, public utilities, etc., and the backward linkages are to suppliers of building materials, contractors, construction labor, engineers and architects. The most striking example of a backward linkage is the extraordinary increase in the number of employees in "engineering and management services". Between 1987 and 1992 engineering employment, which includes architectural services, increased from 42 employees to 223; an increase of 430 percent. Most of this expansion reflects immigration of engineers and architects attracted to Washington County by the building boom and the quality of life.

The skills required for residential construction and wholesale and retail trade (forward and backward linkages) have generally been met by the local nonmetropolitan labor force, with the exception of engineers and architects. Local residents have benefitted by the relatively high wage rates paid in the construction sector, which have been consistently above the average non-agricultural wage rate for the county. For example, in 1970 the average monthly wage rate in Washington County in the construction industry was \$726 compared to an average monthly nonagricultural wage rate of only \$388. Thus retirement and second home communities have been important in providing jobs for local residents and those jobs have paid above average wages.

As the Washington County economy has diversified the significance of the construction sector has diminished. Nevertheless the sector's early role as a catalyst for economic growth is clear and best demonstrated by total wages paid to construction employees. In 1970 total construction wages paid in Washington County amounted to \$2.7 million, nearly double the \$1.4 million in total wages paid in the services sector and almost triple the \$1.0 million in wages paid in the manufacturing sector. Construction wages were 18 percent of total wages paid in Washington County in 1970 but that share has gradually declined to only 8.9 percent in 1992, despite the recent high levels of construction activity. Notwithstanding, construction employment and wages were fundamental in launching the Washington County economy on its high growth path.

Over the past 20 years the influence of the retirement and seasonal populations has become more pervasive, extending beyond construction to the services sector. This sector has the largest employment and income increases over the past ten years of any of the eight major industrial sectors. Employment growth in services has been driven by health care services which rose by 596 employees or 56

percent. People 55 years old and older require more health care than younger people. Consequently health care services in Washington County account for almost 10 percent of nonagricultural employment compared to only 6.6 percent state-wide.

Whereas the impact of in-migration of retirees on new residential construction activity and health care services is apparent, the effect on retail sales is less obvious but just as powerful. Since 1980 retail sales in Washington County have been increasing at an annual rate of 13.6 percent, the highest growth rate in the state. To be sure, tourism accounts for some of the phenomenal growth in retail sales but retail sales for groceries, automobiles and general merchandise—items which are dependent on spending by local residents—are growing faster than retail sales in the eating and drinking and hotel and lodging sectors. Total retail sales for Washington County increased from \$132.5 million in 1980 to \$528.8 million in 1992.

The retail sales trends are an indication of the buying power of in-migrants. Retirees and the second home market bring pension incomes and transfer payments (i.e., social security) as well as "dividend, interest and rent" income into the local retail economy. According to the personal income estimates for Washington County, 21.1 percent of the personal income in the county is derived from "dividends, interest and rents". State-wide "dividends, interest and rents" account for only 12.7 percent of personal income. The composition of personal income is another indication of the growing influence of the retirement population on the economic characteristics of Washington County (Chart 2).

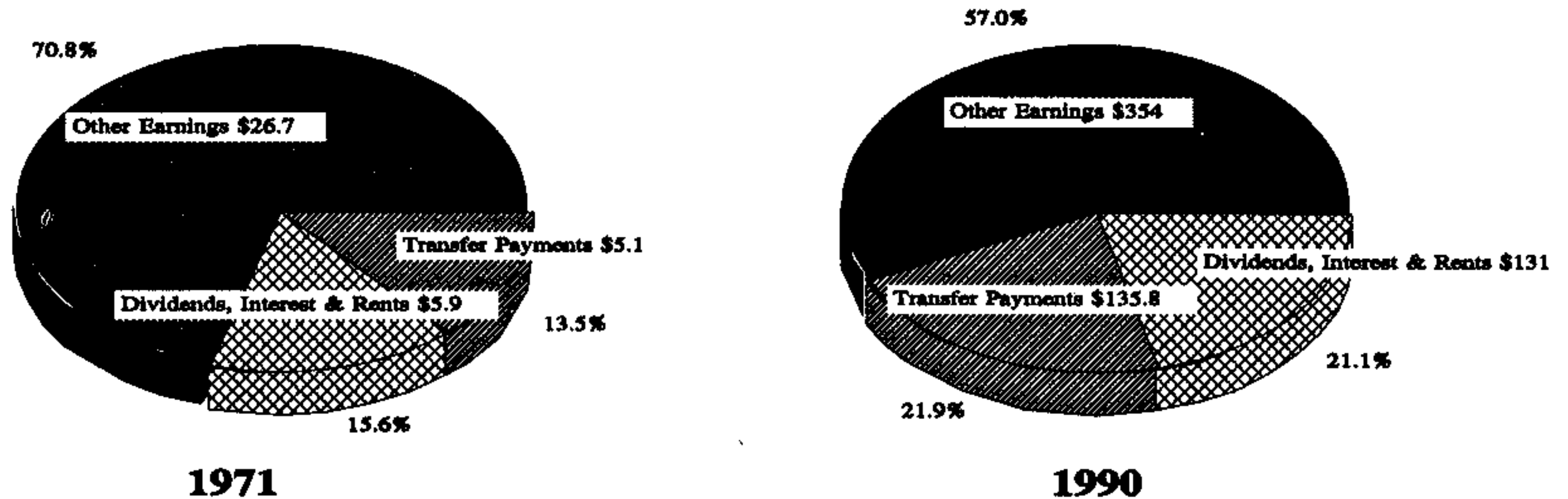
The schema of the most important direct economic impacts created by retirement and second home/time share communities in Washington County is outlined below:

*Expenditures by retirees and second home / time share owners create:*

- Sales of residential housing units
  - Construction and special building trade employment and income
  - Engineering and architectural employment and income
  - Retail and wholesale trade employment and income
- Retail spending
  - Grocery, general merchandise and automobile sales and employment and income
- Services spending
  - Health care employment and income

CHART 2

## Distribution of Total Personal Income in Washington County, 1971 & 1990



Other Earnings include: Wage and Salary Payments, Other Labor Income, and Proprietors' Income, inc. adjustments  
Source: Bureau of Economic Analysis

### Tourism and Economic Growth

When tourism combined with a retirement and second home market, the outcome for Washington County was sustained high rates of economic growth. Prior to 1970, tourism was part of a quiet Washington County economy. Over many years, however, tourists attracted to Zion National Park and the area's natural scenery had fostered a transportation system and retail sector that made the location of retirement communities possible by 1968. And once Bloomington was underway additional community amenities were developed to attract both visitors and permanent residents. For example, six of the area's seven golf courses have been built since 1968: Bloomington Country Club (1968), Southgate Golf Course (1973), St. George Golf Club (1976), Twin Lakes (1985), Sunbrook Golf Club (1989) and Green Spring Golf Course (1990).

**Infrastructure Improvements.** Increases in tourism have stimulated investments in lodging facilities and infrastructure, thereby generating additional jobs and income. Since 1980, \$20 million in new hotels and motels have been built in Washington County. By 1992 there were 73 hotels and motels in the county with a total of more than 2,500 rooms. In the last seven years the Utah Department

of Transportation (UDOT) has spent more than \$50 million in the county on highways to accommodate expanding tourist traffic. UDOT expenditures in Washington County exceed expenditures in any other nonmetropolitan county.<sup>10</sup> In recent years St. George City has also spent over \$2 million to upgrade the north and south interchanges and another \$2 million for a new airport terminal and runway extension. The importance of the airport improvements are obvious from "revenue enplanements" figures reported by the St. George Airport. Since 1987 the number of "revenue enplanements" (revenue passengers) has increased from 11,115 to 18,750. Another 18,000 passengers "pass through" en route to either Las Vegas or Salt Lake City.

The last five years have been years of exceptional growth for the lodging business in the county. Room revenues are increasing at an annual average growth rate of 14.3 percent. Among Utah's 29 counties only Salt Lake and Summit Counties have higher gross room rents than Washington County. In 1992 tourists spent nearly \$22 million on room rents in Washington County, from which the county collected \$650,000 in transient room taxes.<sup>11</sup> The increased recreation visits to Zion National Park have contributed to this growth. In 1992 Zion Park had an all-time high of 2.4 million recreation visits. Since 1987

Zion Park visits have been increasing at an annual growth rate of 6.1 percent.

**Employment Impacts.** Recreational amenities and improvements in the transportation infrastructure brought more tourists, stimulating local employment opportunities. Utah Department of Employment Security data show how important tourism has been to Washington County employment growth in the past five years. Over that period "eating and drinking establishments" and hotels and motels rank third and fifth in employment growth in the county. The five employment activities with the greatest gains since 1987 are:

<u>Sector</u>	<u>Division</u>	<u>Change in Employment 1987-1992</u>
Health Services	Services	597
Local Government	Government	592
Eating/Drinking	Retail	523
Special Bldg. Trades	Construction	376
Hotels and Lodging	Services	311

**Tourism and Retail Trade.** Tourism also affects the structure and size of the retail sector. Tourist spending on retail products such as food and clothing augments local consumer spending. Hence particular retail sectors are enhanced and able to support retail stores beyond the "demand threshold" of the local community.<sup>12</sup> A good example of this characteristic is the recently developed Outlet Stores project in St. George, which created additional retail job opportunities. These jobs contributed to the expansion of retail apparel employment in Washington County of 333 percent between 1987 and 1992, a period when retail apparel's share of total retail employment moved from 2.5 percent to 7 percent.

Tourist spending creates a high volume of retail sales, a feature of Utah's nonmetropolitan tourist-based economies; Grand, Summit and Washington counties. In all three of these counties earnings in retail trade as a percent of total "earnings by place of work" are substantially higher than the state average; evidence of tourist spending supporting an expanded retail sector.<sup>13</sup> Grand County ranks first in retail earnings as a percent of total county "earnings by place of work" at 18.9 percent, followed by Washington County at 17.3 percent and Summit County at 13.2 percent. Retail trade earnings as a percent of total earnings in the state is 9.8 percent.

An amplified retail trade sector provides additional business opportunities for proprietors. These opportunities are often realized by entrepreneurs moving into the community. In Washington County \$67.6

million of earnings is derived from nonfarm proprietorships, i.e., 18.3 percent of total "earnings by place of work" in Washington County. Again the counties with a similar share of nonfarm proprietorship income are Grand and Summit counties. The state-wide average for nonfarm proprietorship income is 8.5 percent of earnings.

Tourism's role as a source of economic growth in Washington County is indisputable. The schema of the most important direct economic impacts created by tourism in Washington County is outlined below:

*Expenditures by tourists create:*

- Retail employment and income  
Restaurants, apparel stores, accessories, gasoline
- Services employment and income  
Hotels and motels
- Transportation employment and income  
Air transportation
- Nonresidential construction employment and income  
Hotels, motels, restaurants, etc.
- Public works construction employment and income  
Highways and airports
- Business opportunities and proprietor's income  
Retail and services

## DEMOGRAPHIC AND ECONOMIC CYCLES IN WASHINGTON COUNTY

Although prospects for high rates of long-term demographic and economic growth are exceptional, the growth path for Washington County will, nevertheless, include periods during which growth slows down. A review of seven demographic and economic indicators for the 1970-1993 period demonstrates a pattern of four or five years of very high growth followed by two or three years of slower growth. Since 1970 there have been three periods of slower growth: 1974-1975, 1980-1982, and 1987-1989. During these periods the rates of increase are reduced but still positive (Tables 1 and 2 and Charts 1 and 2).

The first two periods of slower growth in Washington County coincide with state-wide recessions while the 1987-1989 period lags, by a year or two, the state-wide 1985-1988 recession. Any slowdown in the Washington County economy during these years was postponed by a building boom. In 1985 total construction valuation for Washington County reached a record level of \$164.8 million, the previous high had been \$63.8 million. This construction boom carried

local economic growth into 1986 but it also left the residential market overbuilt, particularly the condominium sector. This overbuilding and the subsequent contraction in construction activity in 1987 and 1988—loss of 200 construction jobs and a drop of \$100 million in new construction valuation—were instrumental in the economic slowdown in Washington County during 1987-1989.

The long-term performance of Washington County indicates that the county is not insulated from the state economy. Undoubtedly the rapid economic growth experienced by the state in the past few years has benefitted the Washington County economy and particularly the real estate market, which has been spurred by sales to Wasatch Front households.

An escalation of real estate values along the Wasatch Front has been precipitated by one of the fastest employment growth rates of any state in the country. Higher real estate values combined with interest rates at 20-year lows and the severe winter of 1992-1993, created favorable conditions for sales of retirement or second homes in Washington County to Wasatch Front households. However, the spectacular performance of the Utah economy over the past 24 months is expected to slow slightly in 1994 for several reasons:<sup>14</sup>

- federal defense and nondefense cutbacks;
- building constraints and slower construction growth;
- lower net in-migration;
- restructuring in the health-services industry and at WordPerfect, Thiokol, and other operations;
- a less affordable housing market;
- slower export growth; and
- an improved business climate in California.

A slowdown in economic growth in Utah and the Wasatch Front will affect the Washington County economy. In addition the county's real estate market in 1994 may be somewhat vulnerable due to the high level of residential construction in 1993. Building permits for over 2,100 units were issued in 1993. Clearing these new housing units from the market will require a population growth of as much as 5,500; about double the level of population growth projected by the Governor's Office of Planning and Budget.<sup>15</sup> The population projections indicate that the annual demand for residential construction during the next several years should be in the range of 1,000 to 1,200 dwelling units.

Two other factors could have repercussions on the Washington County economy and real estate market in 1994. First, the completion of the \$20 million WalMart Distribution Center, which lead the non-residential construction sector to an all-time high of \$44.3 million in construction valuation. The completion of the project will likely cause a dip in construction employment and building material sales. Most of the economic impacts of the WalMart Distribution Center, at least for the near-term, have been realized in the construction phase of the one million square foot facility. Second, the Washington County real estate market manifests many of the characteristics of a market approaching its peak; rapid increases in prices of land and homes, near-record levels of residential construction and a record level of non-residential construction, a flurry of new subdivisions, and reports of "churning" with the market, i.e., demand generated by "move-ups" within the market.

Proximity to Las Vegas and its high growth economy will not offset or insulate Washington County from any slowdown induced by the performance of the Wasatch Front economy. Commuting data from the 1990 Census demonstrates that Clark County offers very little employment support to the Washington County economy. In 1990 only 495 people reported commuting to Clark County for employment. Over half of the commuters were working either in the construction or services sectors (e.g., gambling establishments) probably in Mesquite or Las Vegas. The number of commuters amounts to only 3.4 percent of nonagricultural employment in Washington County. In 1980 the number of commuters to Clark County as a percent of nonagricultural employment in Washington County was only 1.8 percent. The I-15 strip from the Arizona border through Nevada's Moapa Valley, which includes Mesquite is still a relatively undeveloped area. The 1990 population of Moapa Valley Census Designated Place (CDP) was only 3,444. Mesquite City had a population of 1,871. Moapa Valley is not yet large enough to offer a substantial number of jobs for Washington County residents nor is it large enough to offer any serious residential or commercial competition.

### **Environmental and Water Issues**

Environmental and water issues are often cited also as possible constraints to future demographic and economic growth. However, a review of water use and resources and the Endangered Species Act (ESA) strongly suggests that these issues will not restrict Washington County growth in the near-term.

**Table 1**  
**Selected Statistics for Washington County**  
**1970-1993**

Year	Population (July 1)	Personal Income (000)	Nonag. Employment	Number of Residential Building Permits	Taxable Room Rents (thous.)	Gross Retail Sales (millions)	Rec. Visits Zion N.P. (000)
1970	13,900	\$37,763	3,197	na	na	na	904
1971	15,150	42,502	3,334	na	na	na	975
1972	16,150	49,151	3,763	na	na	na	970
1973	17,600	57,455	4,122	na	\$1,927	na	1,087
1974	18,150	62,940	4,054	na	2,163	na	941
1975	19,000	72,678	4,155	340	2,255	na	1,164
1976	20,250	87,522	4,731	432	2,919	na	1,222
1977	21,550	102,321	5,150	538	3,461	na	1,209
1978	23,050	124,115	5,794	799	4,647	na	1,307
1979	25,000	150,382	6,312	688	4,830	na	1,145
1980	26,400	172,010	6,511	438	5,790	\$132.6	1,233
1981	27,900	189,567	6,571	492	6,154	147.7	1,405
1982	29,800	205,759	6,596	416	7,115	156.2	1,362
1983	31,300	231,922	7,029	648	7,854 <sup>a</sup>	172.8	1,393
1984	33,300	278,756	8,047	905	9,152	225.8	1,567
1985	36,800	325,501	9,361	3,128 <sup>b</sup>	10,219	266.6	1,690
1986	40,700	377,833	10,452	896	11,496	300.2	1,865
1987	43,200	420,620	10,896	533	11,891	290.5	1,778
1988	45,000	450,886	11,740	493	14,243	316.2	1,948
1989	47,200	500,853	13,091	482	15,274	365.1	1,999
1990	49,100	567,386	14,763	805	17,007	408.1	2,102
1991	51,900	620,730	16,065	1,048	20,097	484.1	2,237
1992	55,000	na	17,338	1,266	23,000	528.8	2,390
1993	58,700	na	na	2,114	na	na	na
<b>Average Annual Compound Growth Rates</b>							
1970-present	6.45%	14.26%	7.99%	--	na	na	4.52%
1980-present	6.34%	12.37%	8.50%	--	12.18%	12.24%	5.67%
1987-present	5.24%	10.22%	9.74%	--	14.10%	12.69%	6.10%

<sup>a</sup> Transient room tax was increased from 1.5% to 3.0%. <sup>b</sup> A proposed 1986 increase in building permit fees in St. George created artificially high numbers of building permits issued in 1985.  
Source: Governor's Office of Planning and Budget, U.S. Department of Commerce, Utah Department of Employment Security, Bureau of Economic and Business Research, Utah State Tax Commission and National Park Service.

**Table 2**  
**Percentage Change in Economic Indicators**  
**for Washington County**  
**1970-1993**

Year	Population (July 1)	Personal Income (000)	Nonag. Employment	Number of Residential Building Permits	Taxable Room Rents (thous.)	Gross Retail Sales (millions)	Rec. Visits Zion N.P. (000)
1970	--	--	--	--	--	--	--
1971	8.99	12.55	4.28	na	na	na	7.90
1972	6.60	15.64	12.86	na	na	na	-0.49
1973	8.98	16.89	9.54	na	na	na	12.08
1974	3.12	9.55	-1.65	na	12.24	na	-13.44
1975	4.68	15.47	2.49	na	4.25	na	23.65
1976	6.58	20.42	13.86	27.05	29.44	na	4.98
1977	6.42	16.90	8.86	24.54	18.56	na	-1.06
1978	6.96	21.30	12.50	48.51	34.26	na	8.10
1979	8.46	21.16	8.94	-13.89	3.94	na	-12.39
1980	5.60	14.38	3.15	-36.33	19.87	na	7.68
1981	5.68	10.20	0.92	12.32	6.28	11.4	13.95
1982	6.81	8.54	0.38	-15.44	15.61	5.8	-3.06
1983	5.03	12.71	6.56	55.76	10.38 <sup>a</sup>	10.6	2.29
1984	6.39	20.19	14.48	39.66	16.52	30.7	12.43
1985	10.51	16.76	16.32	245.63 <sup>b</sup>	11.65	18.0	7.87
1986	10.59	16.07	11.65	-71.35	12.49	12.6	10.35
1987	6.14	11.32	4.24	-40.51	3.43	-3.2	-4.68
1988	4.16	7.19	7.74	-7.50	19.78	8.8	9.60
1989	4.88	11.08	11.50	-2.23	7.23	15.5	2.59
1990	4.02	13.28	12.77	67.01	11.34	11.8	5.15
1991	5.70	9.40	8.81	30.18	18.16	18.6	6.42
1992	5.97	na	7.92	20.80	14.44	9.3	6.84
1993	6.73	na	na	67.00	na	na	na

<sup>a</sup> Transient room tax was increased from 1.5% to 3.0%. <sup>b</sup> A proposed 1986 increase in building permit fees in St. George created artificially high numbers of building permits issued in 1985.

Source: Governor's Office of Planning and Budget, U.S. Department of Commerce, Utah Department of Employment Security, Bureau of Economic and Business Research, Utah State Tax Commission and National Park Service.

**Table 3**  
**Current and Projected Secondary Water Use**  
**1990 - 2040**  
**(acre feet)**

Year	Iron County	Kane County	Washington County	Total Diversion	Total Depletion
1990	0	1,250	14,710	15,960	11,170
2000	0	1,720	23,670	25,390	17,770
2010	0	2,080	31,550	33,360	23,540
2020	0	2,370	37,810	40,180	28,130
2040	0	3,240	61,790	65,030	45,520

Source: Utah Board of Water Resources, *Utah State Water Plan, Kanab Creek/Virgin River Basin*, August 1993.

**Table 4**  
**Current and Projected Culinary Water Diversion**  
**Washington County**  
**1990 - 2020**  
**(acre feet)**

City	1990	2000	2010	2020
Springdale	110	140	170	200
Rockville	40	50	65	75
Virgin	40	50	70	90
New Harmony	40	50	65	75
Toquerville	90	130	175	215
LaVerkin	490	800	1,110	1,340
Hurricane	1,600	2,380	2,990	3,500
Leeds	110	140	165	190
Washington	1,830	3,340	4,810	5,970
Hildale	230	350	490	610
St. George	11,910	18,470	24,440	28,940
Ivins	360	770	1,320	1,790
Santa Clara	820	1,370	1,840	2,200
Unincorp. Area	900	1,210	1,500	1,750
<b>Total</b>	<b>18,570</b>	<b>29,250</b>	<b>39,210</b>	<b>46,945</b>

Source: Source: Utah Board of Water Resources, *Utah State Water Plan, Kanab Creek/Virgin River Basin*, August 1993.

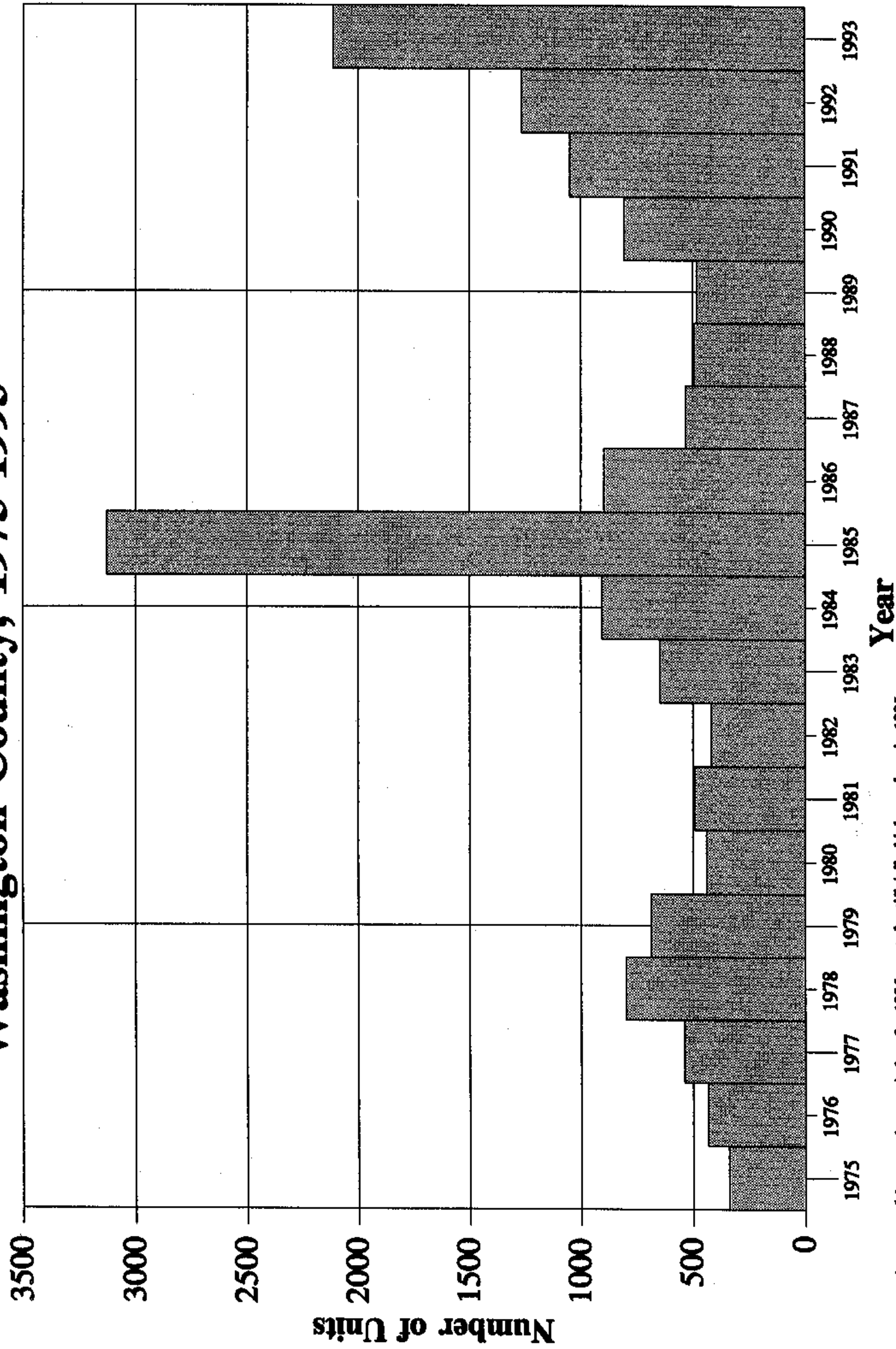
**Table 5**  
**Current and Projected Water Depletions**  
**Virgin River Basin**  
**1990 and 2040**  
**(acre feet)**

Use	1990	2040
Culinary	10,580	51,280
Secondary	11,170	45,520
Irrigation	51,300	37,600
Exports	2,600	9,100
Reservoir Evaporation	5,300	8,400
Shivwits Paiute Indian Band	300	a
<b>Total Depletion</b>	<b>81,250</b>	<b>151,900</b>

a Unknown. Depends upon ruling on reserve water rights.  
Source: Utah Board of Water Resources, *Utah State Water Plan, Kanab Creek/Virgin River Basin*, August 1993.

CHART 3

# Number of New Dwelling Units Authorized Washington County, 1975-1993

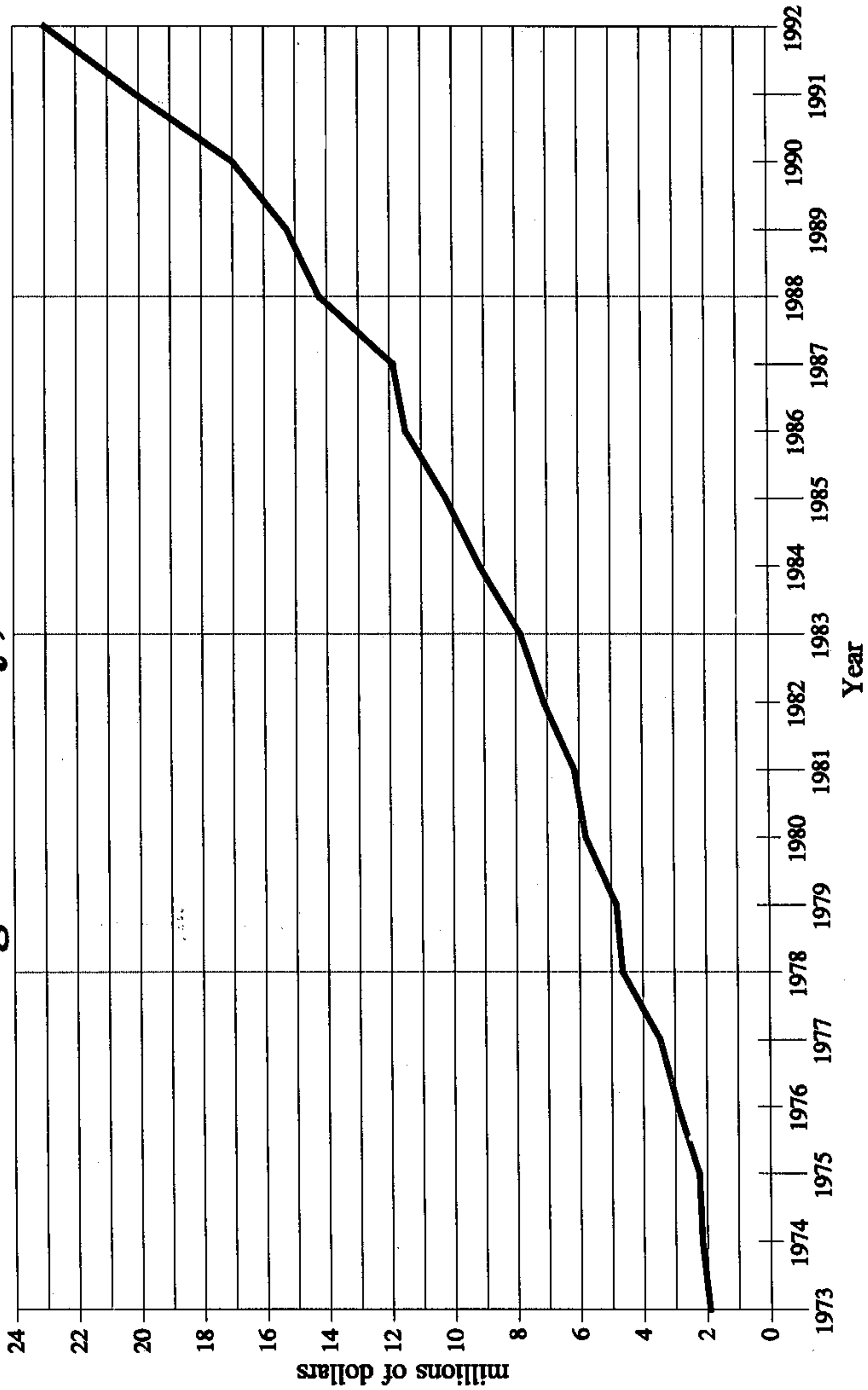


A proposed increase in permit fees for 1986 created artificially high numbers in 1985

Source: Bureau of Economic and Business Research

CHART 4

# Gross Taxable Room Rents Washington County, 1973-1992



Transient Room Tax was increased from 1.5% to 3.0% in 1983  
Source: Utah State Tax Commission

**Endangered Species Act.** The Endangered Species Act (ESA) outlines a mechanism for identifying, listing and protecting wildlife species facing various levels of threats to their continued existence. The ESA defines "endangered" species as those "in danger of extinction throughout all or a significant portion of its range, while "threatened" species are those "likely to become endangered within the foreseeable future throughout all or a significant part of its range." Presently, there are three endangered animal or fish species that may pose constraints to demographic and economic growth in Washington County: the Mojave population of the desert tortoise, Virgin River chub and woundfin minnow.

(a) Desert Tortoise - Desert tortoises are long-lived terrestrial animals that spend much of their lives in burrows, emerging primarily during late winter and early spring to forage. The desert tortoise, a vegetarian, grows to about 15 inches in length. It is vulnerable to human vandalism and collection because of its size and slow movement.

The desert tortoise was placed under the ESA's protection as a threatened species in 1990 after a study by the U.S. Bureau of Land Management found its population had declined by as much as 50 percent during the previous six years. It was estimated that the population had declined in some areas from 1,000 per square mile in the 1920s to as few as 20 per square mile.

Biologists blame the soaring mortality rate on a variety of factors, including a mysterious upper respiratory tract infection, raven attacks on young tortoises and people shooting them or driving over them. Many deaths also are attributed to habitat loss as a result of growing real estate development in desert communities. Mining, cattle ranching and the recreational use of off-road vehicles also are blamed for some habitat destruction.

The decline of the species potentially affects other animals as well, since the tortoise provides food for the desert kit fox, coyote, bobcat and golden eagle. The tortoise's burrows become shelter for snakes, lizards and small rodents and are nesting sites for the burrowing owl.

To protect the desert tortoise the U.S. Fish and Wildlife Service has designated 129,100 acres in Washington County as critical habitat for the species.<sup>16</sup> The critical habitat designation in Washington County includes 27,600 acres of state land and 10,500 acres of private land.

Technically the critical habitat designation does not limit or prohibit development activities on state or private lands. The effect of a critical habitat

designation falls chiefly on Federal agencies, and on private or state actions only when they have Federal involvement such as federal funding, permits or leases. But to meet the uncertainty created by the prospect of case-by-case applications by large numbers of land owners seeking approval for development or use of their lands, county and city officials and private groups have submitted a habitat conservation plan (HCP).

An HCP allows developments to continue while still protecting species. An HCP seeks to reconcile conflicts between economic growth and environmental preservation. The concept of an HCP was created by Congress in 1982 in response to the snail darter prohibiting the Tellico Dam project in Tennessee. An HCP allows land owners to develop or use property inhabited by endangered species in exchange for a promise to preserve critical habitat or provide replacement land nearby. The tradeoff comes in allowing the loss of some endangered species in return for assurances that a habitat will be maintained to sustain the rest of the species' population.

After approving just 17 plans in the last decade, the Fish and Wildlife Service is now reviewing about 75 proposed habitat conservation plans. Indications are that the Department of Interior has embraced the concept to avoid another showdown like the one over the northern spotted owl. The Washington County HCP proposes a 61,000-acre preserve for the desert tortoise. If approved, the Washington County HCP will allow development on private lands and some state lands within the critical habitat designation.

(b) Woundfin Minnow - The woundfin was designated as "endangered" and placed on the endangered species list in 1970. A native minnow from the Virgin River near St. George, it is silver-colored and grows to about 3.5 inches long. The woundfin's historical distribution ranges from Utah's LaVerkin Creek into Nevada, as well as the Colorado mainstem in Arizona and several other southwest rivers. A series of dams and reservoirs on these rivers have reduced the present distribution to the Virgin mainstem from LaVerkin down to Lake Mead, with perhaps the most productive habitat existing at the confluence of the Virgin with Beaver Dam Wash in Arizona. The filling of Lake Mead destroyed habitat at the lower end of the river, while the alteration of streamflows to accommodate economic and demographic growth has resulted in lost habitat upstream.<sup>17</sup>

(c) Virgin River Chub - The decision to add the Virgin River chub to the endangered species list was made in 1989. A silver-colored chub that measures up to 15 inches in length, this endangered fish lives

in the Virgin River near St. George. Unlike the woundfin minnow, the Virgin River chub populations have always been limited to the mainstem Virgin. Though the Virgin River chub once ranged from LaVerkin Springs to the Virgin's confluence with the Colorado River, it is now found only on the stretch of river from LaVerkin to the Mesquite Diversion in Nevada. The reasons for the decline of the chub are almost identical to those for the woundfin: inundation of the lower Virgin River by Lake Mead, predation by introduced fishes, disease, parasites and dewatering caused by demographic and economic growth.<sup>18</sup>

The U.S. Fish and Wildlife Service has not made any determination on a critical habitat designation for either the woundfin minnow or the Virgin River chub. A 1992 version of the Washington County HCP states that the creation of an HCP will cause "no adverse impacts to the population of woundfin and Virgin River chub in Washington County, thus producing no additional threats to the survival of these species." Whether the U.S. Fish and Wildlife Service will accept the notion that the HCP will not threaten the woundfin and the Virgin River chub is not yet clear. Nevertheless, given the bureaucratic history surrounding these two endangered species and the submission of the Washington County HCP, it seems unlikely that the presence of the woundfin or the Virgin River chub will alter the rate of growth in Washington County in the near term.

**Wild and Scenic Rivers Act.** In 1968 Congress passed the Wild and Scenic Rivers Act to preserve "sections of selected rivers which hold outstanding conservation values". Rivers given the wild and scenic designation, which requires an act of Congress, are managed with an emphasis on protecting the river's remarkable value. Management of "scenic" rivers provides for a wide range of uses as long as they are compatible with the river's values and do not adversely affect the river or its surrounding environment. Several waterway segments in Washington County, including part of the Virgin River are currently pre-classified as potential wild and scenic river segments. Some years of "suitability study" will be required to determine which river segments qualify for final wild and scenic designation. Given the uncertainty and the lengthy process required for a final designation it is very unlikely that the Wild and Scenic Rivers Act will have any significant impact on demographic and economic growth in Washington County prior to the year 2000.

**Water Resources.** Washington County is within the Virgin River drainage of the lower Colorado River Basin. Two major forks, the North Fork and

East Fork, join in eastern Washington County to form the Virgin River, which travels through Utah, Arizona and Nevada before emptying into Lake Mead. The other major drainage in the study area is the Santa Clara River, which meets the Virgin River just south of St. George.

(a) Water Supply and Storage - "Water resources in the area are somewhat unique as all of the major streams have their headwaters in sub-alpine zones. This creates a situation where water is produced in greater quantity than would normally be expected in such an arid climate. This relatively abundant water supply has become the basis for several important resource values."<sup>19</sup>

The average annual flow (1941-1990) of the Virgin River measured at the Virgin gaging station is 130,610 acre/feet; at the Bloomington gaging station it is 138,570 acre/feet.<sup>20</sup> In addition to this surface water supply the Virgin River Basin has large groundwater supplies that occur in the Navajo sandstone geologic unit. Total annual groundwater recharge is estimated to be 155,000 acre/feet, which is approximately equal to the average discharge from springs and withdrawal from wells.<sup>21</sup>

The Navajo sandstone aquifer, north of Washington City and west to Snow Canyon State Park, is an important source of municipal water supply. The Navajo sandstone underlies about three-fourths of the basin and contains several million acre-feet of recoverable water. The aquifer is the source of a substantial amount of municipal water for the cities of Washington and St. George. Groundwater is also recovered throughout the Virgin River Basin by more than 750 wells. Most wells in the basin do not show any long-term rise or fall in water levels. "Potential exists for development of additional water by drilling wells at favorable locations. Wells drilled to penetrate the Navajo sandstone will yield from 400 to 1,500 gallons per minute."<sup>22</sup>

The basin also has nearly 900 springs. Most of these springs are located in higher terrain, therefore outside the study area but are an indication of the significant water resources in the Virgin River Basin.

A series of reservoirs have been developed to store water for irrigation, municipal and industrial uses. The largest reservoir, Quail Creek, was completed in 1985 and has a total capacity of 40,235 acre/feet. The primary water supply for this reservoir is diverted from the Virgin River above Hurricane by a diversion dam and pumped through a 60-inch pipeline 15 miles to the reservoir. Four projects, Pine Valley, Baker, Lower Gunlock and Ivins reservoirs, provide approximately 13,000 acre/feet of storage on the Santa Clara

River system. Two other sizeable projects, Kolob reservoir with 5,586 acre/feet of storage and Ash Creek reservoir with 3,175 acre/feet of storage have been built on tributaries in the upper part of the Virgin River.

(b) Water Use - Irrigation is the major use of water in the Virgin River Basin. In Washington County there are 16,600 acres of irrigated cropland, which requires 87,800 acre/feet of water annually. Untreated water from secondary systems for irrigation of lawns, gardens, parks, cemeteries and golf courses requires another 14,710 acre/feet of water annually. In 1990 culinary water use was estimated to be 18,570 acre/feet annually, an average of 350 gallons per person per day for the county.<sup>23</sup> The current and projected diversions for secondary use and culinary water diversions for Washington County and municipalities within the county are shown in Tables 3 and 4.

The Virgin River is part of an interstate stream system which passes through portions of Utah, Arizona and Nevada prior to entering the Colorado River. The river serves water users in three states. Water use by the downstream states of Arizona and Nevada are called depletions.<sup>24</sup> Depletions occur in five major categories: irrigation, municipal and industrial use from public systems, secondary use in municipal areas, water surface evaporation and exports. Current and projected depletions for the Virgin River are shown in Table 5.

(c) Future Water Availability - The surface water and groundwater resources of the Virgin River Basin are sufficient to meet the culinary and irrigation needs of Washington County well beyond the year 2000. Water will not be a constraint to demographic and economic growth in the near-term and prudent water management will assure sufficient supplies for the long-term growth of the county. "Water development required to meet future needs will come by way of several sources. These include developing surface water and groundwater rights, operating existing reservoirs to produce the highest possible yield, building new reservoirs, converting agricultural water to municipal and industrial uses, conservation programs and water pricing policies that provide incentives to consumers to conserve water."<sup>25</sup>

Environmental issues and water resources will not impose near-term constraints on the demographic and economic growth of Washington County. And despite short periods when growth rates slow down the long-term projections for population and employment indicate a continuation of very rapid growth (Table 6). The Governor's Office of Planning and Budget projects that both population and employ-

ment in Washington County will double between 1993 and 2010.

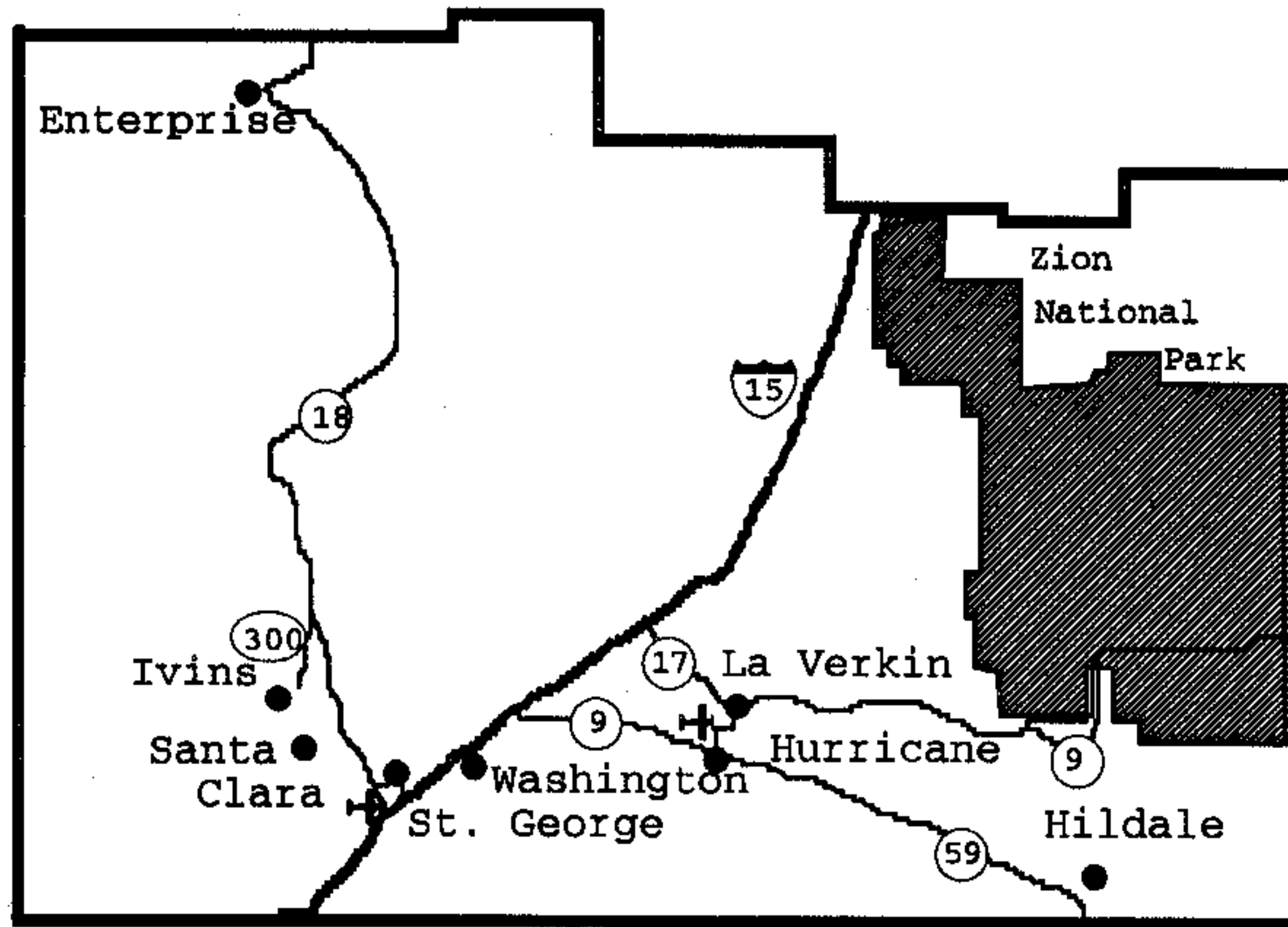
## PROJECTED GROWTH FOR WASHINGTON COUNTY

For more than 20 years Washington County has had uninterrupted demographic and economic growth and the long-term growth prospects are very favorable. Washington County will continue to benefit from: (1) demographic and economic trends creating increasing numbers of upper income retirees; (2) increasing preferences for more leisure time (tourism); (3) the advantages from services and retail concentration in St. George; (4) a transportation and communications revolution which has reduced the importance of distance; and (5) in-migration created by real and perceived social and economic problems associated with larger urban areas. These characteristics will sustain high levels of growth that will double population and employment in Washington County between 1993 and 2010 (Table 6).

Year	Population	Employment
1993	59,079	18,637
1994	61,657	19,498
1995	64,766	20,507
1996	67,830	21,407
1997	71,170	22,372
1998	74,146	23,306
1999	78,138	24,430
2000	81,845	25,537
2001	86,006	26,656
2002	89,187	27,636
2003	92,421	28,646
2004	95,707	29,686
2005	99,023	30,755
2006	102,848	31,844
2007	106,242	32,889
2008	110,762	34,123
2009	115,188	35,355
2010	118,934	36,488

Source: Governor's Office of Planning and Budget, Washington County Population Projections, June 1993.

## WASHINGTON COUNTY



### Endnotes

<sup>1</sup> Brigham Young to Orson Hyde, *Journal History of the Church of Jesus Christ of Latter-day Saints*, Church Historian's Office, Salt Lake City, Utah.

<sup>2</sup> Angus Mann Woodbury, *The History of Southern Utah and Its National Parks*, 1950.

<sup>3</sup> Utah Department of Employment Security, *Utah Labor Market Information by Planning District and County, 1950 to 1971*.

<sup>4</sup> Allen D. LeBaron, "St. George—Desert Mecca," *Utah Economic and Business Review*, September 1956.

<sup>5</sup> Kevin F. McCarthy and Peter A. Morrison, *The Changing Demographic and Economic Structure of Nonmetropolitan Areas in the United States*, Rand Corporation, 1979.

<sup>6</sup> Gaylen L. Ashcroft, Donald T. Jensen and Jeffrey L. Brown, *Utah Climate*, Utah Climate Center, Utah State University, Logan Utah, 1992.

<sup>7</sup> Calculated from 1980 and 1990 Censuses of Population and Utah Department of Health, *Utah Vital Statistics, Annual Report 1980-1990*.

<sup>8</sup> Implied cohort survival migration was derived from age group data for Washington County for 1980 and 1990. Estimates of survival rates were applied to each five-year age group beginning in 1980 with the 45 years to 49 years age group.

<sup>9</sup> Household size by age of head of household is not available, therefore it was assumed that the average household size of those 55 years old and older was 2.4 persons/household.

<sup>10</sup> Presently SR 9 from I-15 to the Virgin River is being widened to four lanes at a cost of \$6.8 million. The segment from the Virgin River bridge to Hurricane will be widened by 1995 at a cost of \$7 to \$8 million.

<sup>11</sup> Counties impose a three percent transient room tax on the rental charge for a room or suite in lodging facilities.

<sup>12</sup> "Demand threshold" is the minimum market required to support a particular good or service and still yield a normal profit for the merchant.

<sup>13</sup> "Earnings by place of work" includes wages, salaries and proprietor's income earned.

<sup>14</sup> Governor's Office of Planning and Budget, *1994 Economic Report to the Governor, State of Utah*, January 1994.

<sup>15</sup> Governor's Office of Planning and Budget, *Washington County Population Projections*, June 1993.

<sup>16</sup> U.S. Fish and Wildlife Service, Region 6, "News Release," February 8, 1994.

<sup>17</sup> Southern Utah Wilderness Alliance, *A Vision for the Virgin: Conservationist Approaches to River Management*, September 1993, page 37.

<sup>18</sup> *Ibid.*, page 38.

<sup>19</sup> Bureau of Land Management, *Dixie Resource Management Plan & Environmental Impact Statement, Draft*, page 15.

<sup>20</sup> Utah Department of Natural Resources, *Utah State Water Plan, Kanab Creek/Virgin River Basin*, August 1993, page 5-3.

<sup>21</sup> *Ibid.*, page 19-2.

<sup>22</sup> *Ibid.*, 19-9.

<sup>23</sup> Culinary water is defined as water meeting all applicable safe drinking water requirements for residential, commercial and municipal uses.

<sup>24</sup> A depletion is defined as water lost or made unavailable for return to a given designated area, river system or basin. For example, water exported from a basin is a depletion to the basin system, but is not consumed in the basin. Therefore the exported water is available for use in another system.

<sup>25</sup> Department of Natural Resources, *Utah State Water Plan, Kanab Creek/Virgin River Basin*, August 1993, pages 11-4, 11-6, 17-7.

# Utah Business Statistics

UTAH DATA	Oct. 1992	Oct. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
Total Personal Income (seasonally adjusted, mil. of dol., qnty.)	29,361	NA	NA	NA	27,900	NA
New Corporations (no.)	496	705	42.1%	604	539	12.0%
New Car, Truck, and Motor Home Sales (no.)	5,668	6,083	7.3%	5,668	5,165	9.7%
<b>Agriculture</b> -----						
Average Prices Received by Farmers (dol.)						
Lambs (cwt.)	54.00	59.00	9.3%	56.89	50.73	12.2%
Milk, All (cwt.) 1	12.60	12.50	-0.8%	11.96	12.41	-3.6%
Barley (per bushel)	2.24	2.09	-6.7%	2.22	2.34	-5.2%
Alfalfa Hay, Baled (per ton) 2	62.00	61.00	-1.6%	64.17	57.42	11.8%
Commercial Red Meat Production (thous. of lbs.)	36,656	36,499	-0.4%	35,868	34,745	3.2%
<b>Construction</b> -----						
Total Construction (thous. of dol.) 3						
Residential	92,420.5	103,908.6	12.4%	99,834.4	77,597.8	28.7%
Nonresidential	23,464.3	27,053.3	15.3%	23,784.7	21,259.7	11.9%
Additions, Alterations, and Conversions	19,679.4	18,147.9	-7.8%	18,960.0	17,024.2	11.4%
Total Permit Construction (thous. of dol.) 4						
Residential	162,099.7	201,788.8	24.5%	180,293.8	143,178.7	25.9%
Nonresidential	108,338.1	121,875.8	12.5%	117,552.5	89,666.3	31.1%
Additions, Alterations, and Repairs	28,708.9	55,921.6	94.8%	36,755.9	34,194.6	7.5%
New Dwelling Units (no.)	25,052.7	23,991.4	-4.2%	25,985.4	19,317.8	34.5%
<b>Employment</b> -----						
Civilian Labor Force (thous.)						
Employed	815.6	860.5	5.5%	836.1	811.1	3.1%
Unemployed	776.3	833.8	7.4%	801.9	771.5	3.9%
Percent of Labor Force	39.3	26.7	-32.1%	34.2	39.6	-13.6%
Nonagricultural Jobs (thous.)	4.8	3.1	-35.4%	4.1	4.9	-16.0%
Mining	783.6	827.1	5.6%	796.7	763.6	4.3%
Contract Construction	8.6	8.6	0.0%	8.6	8.5	1.7%
Manufacturing	38.3	43.5	13.6%	38.7	34.1	13.5%
Transportation, Communications, and Utilities	107.3	110.9	3.4%	107.0	106.2	0.8%
Wholesale Trade	44.7	47.7	6.7%	45.5	43.6	4.5%
Retail Trade	39.8	41.4	4.0%	40.7	39.9	1.9%
Finance, Insurance, and Real Estate	146.8	154.9	5.5%	149.6	143.6	4.2%
Services 5	37.7	41.5	10.1%	39.0	37.1	5.2%
Federal Government	200.7	216.7	8.0%	208.3	194.5	7.1%
State Government 6	36.4	33.6	-7.7%	35.7	38.0	-5.9%
Local Government 6	46.7	48.9	4.7%	47.3	45.5	4.0%
Average Weekly Hours	76.6	79.4	3.7%	75.7	72.9	3.8%
Mining	44.8	44.2	-1.3%	43.9	43.4	1.1%
Manufacturing	39.6	40.0	1.0%	39.8	40.1	-0.8%
Wholesale Trade	35.4	36.5	3.1%	36.7	35.7	2.8%
Retail Trade	26.9	27.6	2.6%	26.1	27.1	-3.6%
Amount of Unemployment Compensation (thous. of dol.)	4,659.8	3,862.2	-17.1%	6,292.9	6,831.6	-7.9%
<b>Finance (qnty.)</b> -----						
Total State and Nationally Chartered Banks (no.)						
Total Assets (mil. of dol.)	39	35	-10.3%	37	39	-4.1%
Total Liabilities (mil. of dol.)	13,341.5	14,197.9	6.4%	13,563.6	12,698.9	6.8%
Total Equity Capital (mil. of dol.)	12,380.4	13,165.1	6.3%	12,575.9	11,787.5	6.7%
Capital to Assets 7	961.1	1,032.8	7.5%	987.7	911.4	8.4%
Loan Loss Reserve Ratio	8.52	8.57	0.6%	8.61	8.53	0.9%
Loans to Assets	2.25	2.20	-2.2%	2.27	2.24	1.3%
Temporary Investment Ratio	58.40	58.81	0.7%	58.20	60.34	-3.6%
Return on Assets	19.42	16.35	-15.8%	19.41	18.17	6.9%
	0.30	0.30	0.0%	0.33	0.30	8.8%
<b>Production</b> -----						
Crude Oil to Refineries, Barrels Received (thous. of bbls.)						
Crude Oil (thous. of bbls.)	3,668.8	3,910.7	6.6%	3,587.2	3,692.0	-2.8%
Natural Gas (mil. of cu. ft.)	1,847.9	1,786.9	-3.3%	1,795.2	1,851.0	-3.0%
Coal (thous. short tons)	27,415.5	27,934.2	1.9%	27,985.4	26,053.4	7.4%
	2,180.0	1,884.0	-13.6%	1,772.8	1,775.8	-0.2%
<b>Travel/Tourism</b> -----						
Air Passengers (total no. on and off, S.L. Int'l. Airport)						
Highway Traffic Count Across State Lines (qnty.)	1,108,642	1,317,631	18.9%	1,289,168	1,138,323	13.3%
Visits to State and National Parks and Monuments	47,472	49,868	5.0%	48,135	46,936	2.6%
	1,238,530	NA	NA	NA	1,345,038	NA
<b>Utilities</b> -----						
Electric Customers (Residential)						
Electric Customers (Commercial)	513,162	524,429	2.2%	518,903	507,627	2.2%
Natural Gas Customers (Residential and Commercial)	51,015	52,797	3.5%	52,170	50,490	3.3%
Natural Gas Customers (Industrial)	511,738	531,068	3.8%	526,052	508,890	3.4%
Telephone Lines in Service (U.S. West, Residential Access)	816	699	-14.3%	748	776	-3.6%
Telephone Lines in Service (U.S. West, Business Access)	562,308	585,854	4.2%	573,651	553,588	3.6%
	216,369	230,602	6.6%	222,142	208,831	6.4%

# Utah Business Statistics

UTAH DATA	Oct. 1992	Oct. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
<b>Davis County</b> -----						
Nonagricultural Employment (thous.)	63.5	67.6	6.5%	63.6	60.8	4.6%
Unemployment Rate (seasonally adjusted)	4.9	3.3	-32.7%	3.7	4.3	-14.0%
Authorized Permit Construction (thous. of dol.)	20,623.2	15,885.7	-23.0%	18,516.3	19,718.9	-6.1%
New Dwelling Units (no.)	133	126	-5.3%	140	117	19.9%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	450	515	14.4%	500	453	10.4%
Electric Customers (Residential)	52,319	53,624	2.5%	52,970	51,699	2.5%
Electric Customers (Commercial)	4,070	4,222	3.7%	4,128	3,949	4.5%
Natural Gas Customers (Residential and Commercial)	55,529	57,241	3.1%	56,781	55,208	2.8%
Natural Gas Customers (Industrial)	88	84	-4.5%	87	90	-3.1%
Telephone Lines in Service (U.S. West, Residential Access)	65,713	68,478	4.2%	67,184	64,596	4.0%
Telephone Lines in Service (U.S. West, Business Access)	14,371	15,642	8.8%	15,066	14,026	7.4%
<b>Salt Lake County</b> -----						
Nonagricultural Employment (thous.)	395.8	418.7	5.8%	405.6	388.1	4.5%
Unemployment Rate (seasonally adjusted)	4.7	3.0	-36.2%	3.7	4.5	-18.7%
Authorized Permit Construction (thous. of dol.)	68,473.3	81,476.5	19.0%	71,288.2	48,602.0	46.7%
New Dwelling Units (no.)	472	462	-2.1%	475	340	40.0%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	2,915	3,168	8.7%	2,879	2,484	15.9%
Electric Customers (Residential)	255,339	259,967	1.8%	257,927	253,375	1.8%
Electric Customers (Commercial)	22,091	22,768	3.1%	22,444	21,954	2.2%
Natural Gas Customers (Residential and Commercial)	236,387	242,186	2.5%	241,106	235,929	2.2%
Natural Gas Customers (Industrial)	378	283	-25.1%	319	349	-8.4%
Telephone Lines in Service (U.S. West, Residential Access)	263,227	272,657	3.6%	267,920	259,877	3.1%
Telephone Lines in Service (U.S. West, Business Access)	129,007	134,968	4.6%	130,592	123,529	5.7%
<b>Utah County</b> -----						
Nonagricultural Employment (thous.)	106.2	112.5	5.9%	106.2	101.2	5.0%
Unemployment Rate (seasonally adjusted)	4.4	3.0	-31.8%	3.8	4.3	-13.1%
Authorized Permit Construction (thous. of dol.)	28,808.8	33,568.3	16.5%	35,029.1	25,378.8	38.0%
New Dwelling Units (no.)	234	245	4.7%	259	203	27.5%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	519	584	12.5%	523	469	11.5%
Electric Customers (Residential)	56,703	59,492	4.9%	58,578	55,747	5.1%
Electric Customers (Commercial)	6,430	6,801	5.8%	6,919	6,315	9.6%
Natural Gas Customers (Residential and Commercial)	68,161	71,414	4.8%	70,514	67,834	4.0%
Natural Gas Customers (Industrial)	95	93	-2.1%	93	87	7.0%
Telephone Lines in Service (U.S. West, Residential Access)	73,261	76,848	4.9%	74,680	71,641	4.2%
Telephone Lines in Service (U.S. West, Business Access)	23,984	26,752	11.5%	25,297	23,229	8.9%
<b>Weber County</b> -----						
Nonagricultural Employment (thous.)	69.6	70.5	1.3%	70.8	69.4	2.0%
Unemployment Rate (seasonally adjusted)	7.1	4.9	-31.0%	5.3	5.9	-10.5%
Authorized Permit Construction (thous. of dol.)	8,932.0	12,870.6	44.1%	10,105.6	8,969.3	12.7%
New Dwelling Units (no.)	62	93	50.0%	73	66	11.6%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	409	419	2.4%	456	427	6.7%
Electric Customers (Residential)	56,685	57,684	1.8%	57,268	56,346	1.6%
Electric Customers (Commercial)	5,349	5,518	3.2%	5,445	5,304	2.7%
Natural Gas Customers (Residential and Commercial)	53,164	54,349	2.2%	54,125	52,940	2.2%
Natural Gas Customers (Industrial)	97	92	-5.2%	95	95	-0.1%
Telephone Lines in Service (U.S. West, Residential Access)	50,236	51,910	3.3%	51,103	49,685	2.9%
Telephone Lines in Service (U.S. West, Business Access)	13,749	14,637	6.5%	14,195	13,675	3.8%

1 Before deductions for hauling and government withholding, but includes quality, quantity and other premiums. Excludes hauling subsidies.

NA Not available.

2 Mid-month prices.

3 Obtained from U.S. Bureau of the Census Construction Statistics Division.

4 Obtained from *Utah Construction Report*.

5 Includes services by nonprofit and religious organizations.

6 Includes public schools and college institutions.

7 Includes allowance for loan losses.

**Sources:**

Personal Income	U.S. Department of Commerce, Bureau of Economic Analysis.
New Corporations	Utah Department of Commerce, Division of Corporations and Commercial Code.
New Car and Truck Sales	Utah State Tax Commission, Economic and Statistical Unit.
Agriculture	U.S. Department of Agriculture, Utah Agricultural Statistics Service, <i>Utah Agriculture</i> .
Construction Data	U.S. Bureau of the Census and Bureau of Economic and Business Research, <i>Utah Construction Report</i> .
Employment Data	Utah Department of Employment Security.
Finance Data	Utah Department of Financial Institutions.
Crude Oil Production	Utah Department of Oil, Gas, and Mining and Area Oil Refineries.
Natural Gas Production	Utah Department of Oil, Gas, and Mining.
Coal Production	U.S. Department of Energy.
Air Passengers	Salt Lake City International Airport, Statistics Division.
Highway Traffic Count	Utah Department of Transportation.
Visits to State and National Parks and Monuments	U.S. Forest Service and Utah State Parks and Recreation Department.
Utilities Data	Cooperating Utah Utility Companies.

NATIONAL DATA	Oct. 1992	Oct. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
U.S. Gross Domestic Product (seasonally adjusted, bil., qnty.)	6,194.4	6,526.5	5.4%	6,322.6	5,973.4	5.8%
Total Personal Income (seasonally adjusted, bil. of dol.)	5,239.1	5,480.8	4.6%	5,362.4	5,072.8	5.7%
Industrial Production Index (seasonally adjusted, 1987=100)	107.5	111.9	4.1%	110.2	106.0	4.0%
New Plant and Equipment Expenditures by Business (bil., qnty.)	559.2	600.5 <sup>a</sup>	7.4%	577.7	540.8	6.8%
Net Exports of Goods and Services (seasonally adjusted, bil., qnty.)	-38.8	-69.1	78.1%	-58.6	-25.3	131.2%
Exports of Goods and Services (seasonally adjusted, bil., qnty.)	654.7	682.4	4.2%	657.1	635.6	3.4%
Imports of Goods and Services (seasonally adjusted, bil., qnty.)	693.5	751.5	8.4%	715.6	661.0	8.3%
Composite Index of 11 Leading Indicators (1987=100) <sup>r</sup>	98.0	99.1	1.1%	98.5	97.9	0.7%
<b>Price Indexes</b> -----						
Consumer Price Indexes (not seasonally adjusted, 1982-84=100)						
CPI-U (All Urban Consumers) All Items	141.8	145.7	2.8%	143.8	139.6	3.0%
CPI-U (All Urban Consumers) Food & Beverages	139.2	142.3	2.2%	141.0	138.3	1.9%
CPI-U (All Urban Consumers) Housing	138.5	142.2	2.7%	140.6	136.9	2.7%
CPI-U (All Urban Consumers) Transportation	128.0	131.8	3.0%	129.8	125.9	3.1%
CPI-U (All Urban Consumers) Medical Care	193.3	204.4	5.7%	199.7	188.0	6.2%
CPI-U (All Urban Consumers) Energy	104.5	105.4	0.9%	104.3	102.6	1.7%
Producer Price Index (not seasonally adjusted, 1982=100)						
Producer Price Index, All Finished Goods	124.4	124.7	0.2%	124.7	122.9	1.4%
GDP Implicit Price Deflator (seasonally adjusted, 1987=100, qnty.)	122.2	124.9	2.2%	123.7	120.5	2.7%
<b>Civilian Employment (seasonally adjusted)</b> -----						
Labor Force (mil.)	126.9	128.6	1.3%	127.8	126.7	0.9%
Employment (mil.)	117.7	119.9	1.9%	118.9	117.4	1.3%
Unemployment Rate	7.3	6.7	-8.2%	7.0	7.4	-5.4%
<b>Construction</b> -----						
Total Construction (thous. of dol.)						
Residential	15,356,061	16,745,385	9.0%	14,932,549	13,783,706	8.3%
Nonresidential	8,373,629	9,548,287	14.0%	8,584,973	7,661,117	12.1%
Additions, Alterations, and Conversions	3,470,633	3,563,285	2.7%	3,024,991	2,875,415	5.2%
New Dwelling Units (no.) <sup>r</sup>	3,511,799	3,633,813	3.5%	3,322,585	3,247,175	2.3%
New Dwelling Units (no.) <sup>r</sup>	96,392	107,518	11.5%	96,898	89,839	7.9%
<b>Interest Rates</b> -----						
Federal Funds Rate	3.10	2.99	-3.5%	3.03	3.79	-20.2%
Discount Rate on New 91-day Treasury bills	2.84	3.04	7.0%	3.04	3.65	-16.9%
Yield on Long-term Treasury bonds	7.26	5.90	-18.7%	6.64	7.58	-12.4%
Average Prime Rate Charged by Banks	6.00	6.00	0.0%	6.00	6.48	-7.5%
Mortgage Rate (Conventional 1st mortgage, new home, U.S. avg.)	7.65	6.61	-13.6%	7.20	8.08	-10.8%
<b>U.S. and Utah Consumer Sentiment Indexes (1966=100, qnty.)</b> -----						
U.S. Population's View of the U.S.	73.3	82.7	12.8%	82.1	74.5	10.2%
Utahns' View of the U.S.	73.7	81.7	10.9%	80.6	74.1	8.8%
Utahns' View of Utah	89.4	97.3	8.8%	94.5	83.9	12.6%

<sup>a</sup> Anticipated.

<sup>r</sup> Series revised with 1987 as the base year.

Sources: *Survey of Current Business*, U.S. Department of Commerce: U.S. Gross Domestic Product, Total Personal Income, Industrial Production Index, New Plant and Equipment Expenditures by Business, Export/Import Data, Composite Index of 11 Leading Indicators, GDP Implicit Price Deflator, National Employment Data, Interest Rates.

*Monthly Labor Review*, U.S. Department of Labor, Bureau of Labor Statistics: Consumer Price Indexes, Producer Price Index.

*Permit Authorized Construction in Permit Issuing Places*, U.S. Bureau of the Census: National Construction Data.

University of Michigan and University of Utah Survey Research Center: U.S. and Utah Consumer Sentiment Indexes.

# Utah Business Statistics

UTAH DATA	Nov. 1992	Nov. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
Total Personal Income (seasonally adjusted, mil. of dol., qtl.)	29,361	NA	NA	NA	28,114	NA
New Corporations (no.)	461	450	-2.4%	603	542	11.3%
New Car, Truck, and Motor Home Sales (no.)	5,399	5,896	9.2%	5,709	5,215	9.5%
<b>Agriculture</b> -----						
Average Prices Received by Farmers (dol.)						
Lambs (cwt.)	49.40	60.50	22.5%	57.82	51.48	12.3%
Milk, All (cwt.) 1	12.40	13.20	6.5%	12.03	12.35	-2.6%
Barley (per bushel)	2.21	2.23	0.9%	2.22	2.33	-4.7%
Alfalfa Hay, Baled (per ton) 2	63.00	69.00	9.5%	64.67	58.33	10.9%
Commercial Red Meat Production (thous. of lbs.)	34,630	39,459	13.9%	36,271	34,634	4.7%
<b>Construction</b> -----						
Total Construction (thous. of dol.) 3	100,146.5	163,068.5	62.8%	147,822.5	117,196.1	26.1%
Residential	71,355.0	124,659.3	74.7%	104,276.4	79,416.8	31.3%
Nonresidential	15,375.6	18,241.0	18.6%	24,023.5	20,554.6	16.9%
Additions, Alterations, and Conversions	13,415.9	20,168.2	50.3%	19,522.7	17,224.6	13.3%
Total Permit Construction (thous. of dol.) 4	117,308.0	201,702.5	71.9%	187,326.7	144,226.3	29.9%
Residential	82,336.9	139,323.4	69.2%	122,301.4	91,726.8	33.3%
Nonresidential	20,187.0	35,191.3	74.3%	38,006.3	32,889.0	15.6%
Additions, Alterations, and Repairs	14,784.1	27,187.8	83.9%	27,019.0	19,610.5	37.8%
New Dwelling Units (no.)	926	1,709	84.6%	1,451	1,066	36.2%
<b>Employment</b> -----						
Civilian Labor Force (thous.)	818.6	872.3	6.6%	840.8	811.6	3.6%
Employed	778.9	843.2	8.3%	807.4	771.9	4.6%
Unemployed	39.8	29.1	-26.9%	33.3	39.7	-15.9%
Percent of Labor Force	4.9	3.3	-32.7%	4.0	4.9	-18 %
Nonagricultural Jobs (thous.)	790.6	836.9	5.9%	801.1	766.0	4.0%
Mining	8.6	8.6	0.0%	8.6	8.5	1.9%
Contract Construction	37.6	43.3	15.2%	39.2	34.4	13.9%
Manufacturing	107.6	111.9	4.0%	107.6	106.3	1.2%
Transportation, Communications, and Utilities	44.8	48.0	7.1%	45.8	43.7	4.8%
Wholesale Trade	39.9	41.5	4.0%	40.7	39.7	2.3%
Retail Trade	152.3	160.7	5.5%	150.5	144.3	4.4%
Finance, Insurance, and Real Estate	37.8	41.6	10.1%	39.4	37.2	5.8%
Services 5	201.1	218.0	8.4%	209.8	195.4	7.3%
Federal Government	35.9	33.1	-7.8%	35.4	37.9	-6.5%
State Government 6	48.1	49.9	3.7%	47.5	45.6	4.1%
Local Government 6	76.9	76.6	-0.4%	75.7	73.2	3.5%
Average Weekly Hours						
Mining	44.7	43.7	-2.2%	43.8	43.5	0.7%
Manufacturing	41.3	40.0	-3.1%	39.7	40.2	-1.3%
Wholesale Trade	36.4	36.6	0.5%	36.8	35.8	2.6%
Retail Trade	26.3	27.4	4.2%	26.2	27.1	-3.3%
Amount of Unemployment Compensation (thous. of dol.)	4,991.1	4,671.0	-6.4%	6,266.2	6,812.9	-8.0%
<b>Finance (qtl.)</b> -----						
Total State and Nationally Chartered Banks (no.)	39	35	-10.3%	37	39	-4.9%
Total Assets (mil. of dol.)	13,341.5	14,197.9	6.4%	13,634.9	12,771.0	6.8%
Total Liabilities (mil. of dol.)	12,380.4	13,165.1	6.3%	12,641.3	11,852.0	6.7%
Total Equity Capital (mil. of dol.)	961.1	1,032.8	7.5%	993.7	919.0	8.1%
Capital to Assets 7	8.52	8.57	0.6%	8.61	8.55	0.7%
Loan Loss Reserve Ratio	2.25	2.20	-2.2%	2.27	2.25	0.7%
Loans to Assets	58.40	58.81	0.7%	58.23	60.14	-3.2%
Temporary Investment Ratio	19.42	16.35	-15.8%	19.16	18.29	4.7%
Return on Assets	0.30	0.30	0.0%	0.33	0.31	6.7%
<b>Production</b> -----						
Crude Oil to Refineries, Barrels Received (thous. of bbls.)	3,660.4	3,578.1	-2.2%	3,580.4	3,698.6	-3.2%
Crude Oil (thous. of bbls.)	1,812.5	1,710.4	-5.6%	1,786.6	1,851.7	-3.6%
Natural Gas (mil. of cu. ft.)	27,402.7	27,324.1	-0.3%	27,978.8	25,943.6	7.8%
Coal (thous. short tons)	1,756.0	2,007.0	14.3%	1,793.7	1,763.0	1.7%
<b>Travel/Tourism</b> -----						
Air Passengers (total no. on and off, S.L. Int'l. Airport)	1,005,704	1,252,929	24.6%	1,309,770	1,150,025	13.9%
Highway Traffic Count Across State Lines (qtl.)	47,472	49,868	5.0%	48,335	47,019	2.8%
Visits to State and National Parks and Monuments	534,336	513,609	-3.9%	1,440,989	1,350,711	6.7%
<b>Utilities</b> -----						
Electric Customers (Residential)	513,729	525,520	2.3%	519,885	508,562	2.2%
Electric Customers (Commercial)	51,114	52,688	3.1%	52,301	50,601	3.4%
Natural Gas Customers (Residential and Commercial)	517,693	535,536	3.4%	527,539	510,133	3.4%
Natural Gas Customers (Industrial)	809	691	-14.6%	738	787	-6.2%
Telephone Lines in Service (U.S. West, Residential Access)	564,336	588,603	4.3%	575,673	555,138	3.7%
Telephone Lines in Service (U.S. West, Business Access)	217,714	232,430	6.8%	223,368	209,604	6.6%

# Utah Business Statistics

UTAH DATA	Nov. 1992	Nov. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
<b>Davis County</b>						
Nonagricultural Employment (thous.)	63.5	67.7	6.6%	64.1	61.2	4.8%
Unemployment Rate (seasonally adjusted)	4.9	3.5	-28.6%	3.6	4.4	-17.6%
Authorized Permit Construction (thous. of dol.)	14,075.6	17,737.1	26.0%	18,821.5	19,711.6	-4.5%
New Dwelling Units (no.)	97	128	32.0%	142	119	20.0%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	425	508	19.5%	506	454	11.6%
Electric Customers (Residential)	52,327	53,794	2.8%	53,092	51,791	2.5%
Electric Customers (Commercial)	4,019	4,218	5.0%	4,144	3,958	4.7%
Natural Gas Customers (Residential and Commercial)	56,104	57,755	2.9%	56,918	55,336	2.9%
Natural Gas Customers (Industrial)	90	82	-8.9%	87	90	-4.1%
Telephone Lines in Service (U.S. West, Residential Access)	65,882	68,752	4.4%	67,423	64,786	4.1%
Telephone Lines in Service (U.S. West, Business Access)	14,446	15,713	8.8%	15,172	14,073	7.8%
<b>Salt Lake County</b>						
Nonagricultural Employment (thous.)	402.0	425.3	5.8%	407.9	389.3	4.8%
Unemployment Rate (seasonally adjusted)	4.7	3.3	-29.8%	3.5	4.5	-21.1%
Authorized Permit Construction (thous. of dol.)	47,174.4	73,213.1	55.2%	73,458.1	50,132.4	46.5%
New Dwelling Units (no.)	303	741	144.6%	512	347	47.5%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	2,783	3,062	10.0%	2,902	2,536	14.4%
Electric Customers (Residential)	256,281	260,586	1.7%	258,286	253,741	1.8%
Electric Customers (Commercial)	22,248	22,776	2.4%	22,488	21,990	2.3%
Natural Gas Customers (Residential and Commercial)	238,645	243,516	2.0%	241,512	236,326	2.2%
Natural Gas Customers (Industrial)	373	282	-24.4%	312	358	-12.9%
Telephone Lines in Service (U.S. West, Residential Access)	264,040	273,695	3.7%	268,725	260,506	3.2%
Telephone Lines in Service (U.S. West, Business Access)	129,737	136,033	4.9%	131,117	123,992	5.7%
<b>Utah County</b>						
Nonagricultural Employment (thous.)	107.2	114.4	6.7%	106.8	101.5	5.2%
Unemployment Rate (seasonally adjusted)	4.4	2.7	-38.6%	3.6	4.3	-16.1%
Authorized Permit Construction (thous. of dol.)	16,933.6	34,620.7	104.4%	36,503.0	24,159.8	51.1%
New Dwelling Units (no.)	140	270	92.9%	270	205	31.6%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	402	513	27.6%	532	466	14.0%
Electric Customers (Residential)	56,829	59,635	4.9%	58,812	55,897	5.2%
Electric Customers (Commercial)	6,398	6,783	6.0%	6,951	6,330	9.8%
Natural Gas Customers (Residential and Commercial)	69,162	72,370	4.6%	70,782	68,029	4.0%
Natural Gas Customers (Industrial)	93	93	0.0%	93	88	5.9%
Telephone Lines in Service (U.S. West, Residential Access)	73,436	77,214	5.1%	74,995	71,859	4.4%
Telephone Lines in Service (U.S. West, Business Access)	24,094	26,876	11.5%	25,529	23,329	9.4%
<b>Weber County</b>						
Nonagricultural Employment (thous.)	70.2	71.5	1.9%	70.9	69.5	2.0%
Unemployment Rate (seasonally adjusted)	7.1	5.1	-28.2%	5.1	6.0	-15.1%
Authorized Permit Construction (thous. of dol.)	5,044.9	11,745.5	132.8%	10,664.0	8,806.0	21.1%
New Dwelling Units (no.)	42	74	76.2%	76	65	16.8%
New Car, Truck, and Motor Home Sales, Owner's County (no.)	428	416	-2.8%	455	425	7.1%
Electric Customers (Residential)	56,922	57,800	1.5%	57,341	56,428	1.6%
Electric Customers (Commercial)	5,416	5,493	1.4%	5,452	5,321	2.5%
Natural Gas Customers (Residential and Commercial)	53,548	54,689	2.1%	54,220	53,045	2.2%
Natural Gas Customers (Industrial)	95	88	-7.4%	95	96	-1.0%
Telephone Lines in Service (U.S. West, Residential Access)	50,343	52,068	3.4%	51,247	49,796	2.9%
Telephone Lines in Service (U.S. West, Business Access)	13,808	14,679	6.3%	14,267	13,670	4.4%

1 Before deductions for hauling and government withholding, but includes quality, quantity and other premiums. Excludes hauling subsidies.

NA Not available.

2 Mid-month prices.

3 Obtained from U.S. Bureau of the Census Construction Statistics Division.

4 Obtained from *Utah Construction Report*.

5 Includes services by nonprofit and religious organizations.

6 Includes public schools and college institutions.

7 Includes allowance for loan losses.

#### Sources:

Personal Income	U.S. Department of Commerce, Bureau of Economic Analysis.
New Corporations	Utah Department of Commerce, Division of Corporations and Commercial Code.
New Car and Truck Sales	Utah State Tax Commission, Economic and Statistical Unit.
Agriculture	U.S. Department of Agriculture, Utah Agricultural Statistics Service, <i>Utah Agriculture</i> .
Construction Data	U.S. Bureau of the Census and Bureau of Economic and Business Research, <i>Utah Construction Report</i> .
Employment Data	Utah Department of Employment Security.
Finance Data	Utah Department of Financial Institutions.
Crude Oil Production	Utah Department of Oil, Gas, and Mining and Area Oil Refineries.
Natural Gas Production	Utah Department of Oil, Gas, and Mining.
Coal Production	U.S. Department of Energy.
Air Passengers	Salt Lake City International Airport, Statistics Division.
Highway Traffic Count	Utah Department of Transportation.
Visits to State and National Parks and Monuments	U.S. Forest Service and Utah State Parks and Recreation Department.
Utilities Data	Cooperating Utah Utility Companies.

NATIONAL DATA	Nov. 1992	Nov. 1993	% Change from Year Ago	12-Month Average This Year	12-Month Average Last Year	12-Month Average % Change
U.S. Gross Domestic Product (seasonally adjusted, bil., qtl.)	6,194.4	6,526.5	5.4%	6,350.2	6,005.9	5.7%
Total Personal Income (seasonally adjusted, bil. of dol.)	5,238.5	5,514.4	5.3%	5,385.3	5,100.7	5.6%
Industrial Production Index (seasonally adjusted, 1987=100)	108.3	112.8	4.2%	110.6	106.2	4.1%
New Plant and Equipment Expenditures by Business (bil., qtl.)	559.2	600.5a	7.4%	581.2	543.3	7.0%
Net Exports of Goods and Services (seasonally adjusted, bil., qtl.)	-38.8	-69.1	78.1%	-61.1	-27.5	122.3%
Exports of Goods and Services (seasonally adjusted, bil., qtl.)	654.7	682.4	4.2%	659.4	638.1	3.3%
Imports of Goods and Services (seasonally adjusted, bil., qtl.)	693.5	751.5	8.4%	720.5	665.5	8.3%
Composite Index of 11 Leading Indicators (1987=100)r	98.2	99.5	1.3%	98.6	97.9	0.7%
<b>Price Indexes</b>						
Consumer Price Indexes (not seasonally adjusted, 1982-84=100)						
CPI-U (All Urban Consumers) All Items	142.0	145.8	2.7%	144.1	140.0	3.0%
CPI-U (All Urban Consumers) Food & Beverages	139.1	142.6	2.5%	141.3	138.5	2.0%
CPI-U (All Urban Consumers) Housing	138.5	142.0	2.5%	140.9	137.2	2.7%
CPI-U (All Urban Consumers) Transportation	129.2	132.6	2.6%	130.1	126.2	3.1%
CPI-U (All Urban Consumers) Medical Care	194.3	204.9	5.5%	200.5	189.1	6.1%
CPI-U (All Urban Consumers) Energy	104.5	103.7	-0.8%	104.3	102.8	1.4%
Producer Price Index (not seasonally adjusted, 1982=100)						
Producer Price Index, All Finished Goods	124.0	124.4	0.3%	124.7	123.0	1.3%
GDP Implicit Price Deflator (seasonally adjusted, 1987=100, qtl.)	122.2	124.9	2.2%	124.0	120.8	2.6%
<b>Civilian Employment (seasonally adjusted)</b>						
Labor Force (mil.)	127.3	128.7	1.1%	127.9	126.8	0.9%
Employment (mil.)	118.0	120.3	1.9%	119.1	117.5	1.4%
Unemployment Rate	7.3	6.5	-11.0%	6.9	7.4	-6.8%
<b>Construction</b>						
Total Construction (thous. of dol.)						
Residential	11,855,701	14,962,367	26.2%	15,191,438	13,887,425	9.4%
Nonresidential	6,663,305	8,811,558	32.2%	8,763,994	7,758,078	13.0%
Additions, Alterations, and Conversions	2,458,748	3,033,476	23.4%	3,072,885	2,883,500	6.6%
New Dwelling Units (no.)	2,733,648	3,117,333	14.0%	3,354,559	3,245,847	3.3%
New Dwelling Units (no.)	75,863	98,489	29.8%	98,784	90,459	9.2%
<b>Interest Rates</b>						
Federal Funds Rate	3.09	3.02	-2.3%	3.02	3.65	-17.2%
Discount Rate on New 91-day Treasury bills	3.14	3.12	-0.6%	3.03	3.53	-14.1%
Yield on Long-term Treasury bonds	7.43	6.25	-15.9%	6.54	7.54	-13.3%
Average Prime Rate Charged by Banks	6.00	6.00	0.0%	6.00	6.35	-5.5%
Mortgage Rate (Conventional 1st mortgage, new home, U.S. avg.)	7.81	6.61	-15.4%	7.10	8.03	-11.5%
<b>U.S. and Utah Consumer Sentiment Indexes (1966=100, qtl.)</b>						
U.S. Population's View of the U.S.	73.3	82.7	12.8%	82.9	74.1	11.9%
Utahns' View of the U.S.	73.7	81.7	10.9%	81.3	73.7	10.3%
Utahns' View of Utah	89.4	97.3	8.8%	95.2	84.6	12.5%

a Anticipated. r Series revised with 1987 as the base year.

Sources: *Survey of Current Business*, U.S. Department of Commerce: U.S. Gross Domestic Product, Total Personal Income, Industrial Production Index, New Plant and Equipment Expenditures by Business, Export/Import Data, Composite Index of 11 Leading Indicators, GDP Implicit Price Deflator, National Employment Data, Interest Rates.

*Monthly Labor Review*, U.S. Department of Labor, Bureau of Labor Statistics: Consumer Price Indexes, Producer Price Index.

*Permit Authorized Construction in Permit Issuing Places*, U.S. Bureau of the Census: National Construction Data.

University of Michigan and University of Utah Survey Research Center: U.S. and Utah Consumer Sentiment Indexes.

## UTAH ECONOMIC AND BUSINESS REVIEW

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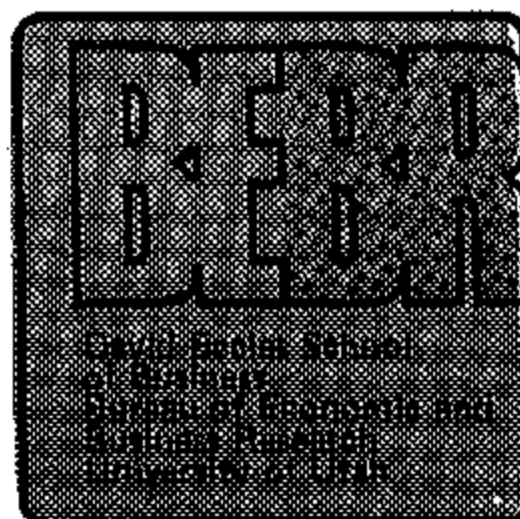
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