UTAH ECONOMIC AND BUSINESS REVIEW

BEBR
DAVID ECCLES SCHOOL OF BUSINESS
UNIVERSITY OF UTAH

VOLUME 60, NUMBERS 9 & 10 SEPTEMBER/OCTOBER 2000

STRUCTURAL CHANGE IN UTAH'S METAL MINING INDUSTRY 1970 – 1999

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For decades, metal mining was synonymous with the economy, life style, and social structure of large areas of the western United States. These areas ranged from the northern Idaho silver belt, the copper mines of Montana, Arizona and New Mexico, and the silver boom towns in the Colorado Rockies, to gold camps across Nevada. The influence of these mining areas often extended well beyond their borders. During World War II, copper mining was considered important enough that the miners were exempt from the draft.

Utah was no exception to the influence of metal mining. Silver mines in Park City, mines in the Tintic mining district and the Bingham Canyon copper mine all influenced Utah's social and economic structure.

Utah continues to be home to several metal mining operations which are significant on a worldwide basis. The Kennecott Bingham Canyon mine is the second largest domestic copper producer in terms of capacity and one of the world's lowest-cost producers. The Brush Wellman facility near Delta is the largest and one of only three beryllium ore processing plants in the world. The Magnesium Corporation of America (MagCorp) plant on the west side of the Great Salt Lake is one of two domestic primary magnesium producers and is responsible for nearly 10 percent of total worldwide magnesium capacity.

Industry Consolidation

Significant structural changes have occurred in the Utah metal mining industry during the past several decades. Production efficiencies and volumes have increased. Wages have consistently been the highest paid of any industry in Utah; however, metal mining employment is currently about 28 percent of 1970 employment levels. Prices received have varied widely, with increasing prices during the 1970s and early 1980s and generally weak prices since the mid 1980s.

During the past 30 years, the Utah metal mining industry has greatly consolidated. In 1970, there were 17 copper-producing mines located in 11 different counties, 12 mines producing lead, 17 silver-producing mines in ten different counties, and 10 zinc-producing mines in eight different counties. Many mines produced different metals, for example, the Mayflower Mine produced copper, gold, lead, silver, and zinc.

During 2000, there was only one mine producing copper in Utah, two mines producing gold, one mine producing silver, and no lead or zinc production. Additionally, the copper mine, one of the gold mines, and the silver mine were actually the same operation—the Kennecott Bingham Canyon Mine. Kennecott also owned the other gold mine, the Barney's Canyon Mine, located in the Oquirrh Mountains.

Production and Operations

Major metal producing minerals produced in Utah over the past three decades include beryllium, copper, gold and silver, iron ore, lead and zinc, magnesium and vanadium, as well as small amounts of other metals. Production for selected commodities is presented in Table 1.

Beryllium—Beryllium is a lightweight metal used for alloying copper for strength, aerospace applications, and semiconductor substrates. About 75 percent of U.S. beryllium consumption is in the form of beryllium-copper alloys, which contain approximately 2 percent beryllium. These alloys are used in springs, switches, and connectors by the automobile, aerospace, and electronics industries. The sockets for joining integrated circuits on printed circuit boards are beryllium-copper alloy, as are connectors in fiber optic communication systems.

Beryllium metal accounts for about 10 percent of U.S. consumption. Its high stiffness, light weight, and dimensional stability make it useful in defense and aerospace applications. For instance, some structural elements and the brakes on the Space Shuttles are made from beryllium.

The Brush Wellman beryllium processing plant, located north of Delta, is one of only three facilities in the world that processes beryllium ore. (The other beryllium processing facilities are in China and Kazakstan.) The plant opened in 1969 and processes bertrandite ore mined about 50 miles to the northwest, in addition to a small amount of beryl ore imported from other locations. The plant was expanded in 1976 to process beryl ores in addition to the bertrandite mined in Utah, and again in 1980 to expand capacity. Capacity was further expanded during the early 1990s. The plant produced 6,490 tons of beryllium hydroxide concentrate during 1999, up from 6,325 tons in 1998. Proven ore reserves are adequate for 60 years of production at current rates. The concentrate is processed into beryllium metal, alloys, and oxide at Brush Wellman's plant in Ellmore, Ohio. The Utah facility employs just under 100 persons.

Copper—The copper industry has greatly consolidated over the past 30 years. In 1970, there were 17 different mines producing copper in 11 different counties, although the Kennecott Bingham Canyon Mine was by far the largest producer. Copper was shipped from the state in several different stages of processing. These included refined copper (copper used for manufacturing products such as plumbing and wiring), copper concentrate (the copper-bearing minerals which have been separated from the other minerals in the ore, used as feed material for smelters), and cement copper (an impure metallic copper obtained by contacting aqueous copper leach solutions with scrap iron, also used as feed material for smelters).

Conventional underground mines producing several different metals, such as those in the Park City and Tintic districts, often produced a copper concentrate which was shipped out of state or to the Kennecott Garfield Smelter for smelting. Several operations, notably the Big Indian leach plant in San Juan County and OK Mine in Millard County, produced cement copper which was also shipped to various smelters.

The Carr Fork property, located just northeast of Tooele, was perhaps one of the biggest disappointments in the Utah mining industry in the past 30 years. The Anaconda Company spent four years exploring and five years developing the property at a cost of $220 million. The mine was in production for only 27 months,

closing on November 18, 1981. In February, 1985 the pumps were pulled and the mine was allowed to flood. Kennecott eventually purchased the property from the Atlantic Richfield Company.

In 1992, Sunshine Mining ended production of copper-bearing smelter flux from the Trixie Mine near Eureka, marking the last year that a mine other than Bingham Canyon produced copper-bearing ore in Utah. Despite this consolidation, total copper production in Utah has increased by about 10 percent in the last 30 years, from 296 thousand tons in 1970 to 328 thousand tons in 1998. Much of this production increase was due to modernization and large amounts of capital investment made in the Bingham Canyon operation.

The first large capital investment made by Kennecott in the Bingham Canyon Mine over the past three decades was to replace the original reverberatory smelter with a Noranda smelter in the 1970s. The project was completed in 1978 and cost $280 million. Production dropped to 50,063 tons in 1985, a result of the Bingham Canyon Mine closing for modernization. Over $1 billion has been invested in Bingham Canyon during the past 15 years to increase efficiencies and lower production costs. The mine was modernized and the Copperton concentrator opened in 1988 at a cost of $400 million.

The mine modernization replaced rail haulage with truck haulage in the pit, in-pit ore crushing, a conveyor system to transport crushed ore out of the pit, and a slurry pipeline system. The primary feature of the Copperton concentrator was larger grinding mills, to take advantage of economies of scale. The largest grinding mills installed had a 34 foot diameter. Additionally, extensive electronic control equipment was installed to optimize operations. The Copperton concentrator was enlarged in 1992 at a cost of $227 million. The new Outokumpu flash smelter came online in 1995, at a cost of $880 million. The new smelter had increased capacity over the Noranda smelter installed during the 1970s and more effective pollution control equipment.

Prior to installing the Outokumpu smelter, Kennecott was exporting approximately 40 percent of the copper concentrate produced. The new smelter allowed for all of the concentrate produced at Bingham Canyon to be smelted in Utah and cut sulfur dioxide emissions by 96 percent.

The Bingham Canyon mine is estimated to contain another 15 years worth of reserves and an additional 15 years of reserves have been identified for underground mining. In addition to copper, the mine is also a significant producer of gold, molybdenum, and silver.

Gold and Silver—These metals were the driving forces behind much of the early mining in Utah, and the state remains a top producer of both metals. The Bingham Canyon Mine is by far the largest Utah producer of both precious metals. In 1970, 408 thousand ounces of gold and 6.0 million ounces of silver were produced in Utah. Significant producers included Bingham Canyon, the Mayflower Mine in Wasatch County, the United Park City Mines Company properties in Summit County, and the mines in the Tintic District, then operated by the Kennecott Tintic Division.

The Mayflower Mine, then leased by Hecla Mining Company from New Park Resources, closed at the end of 1972. The United Park City properties were operated by Park City Ventures, a 60/40 joint venture of The Anaconda Company and ASARCO, Inc., from 1971 until 1978. Noranda Exploration, Inc., then leased the properties from 1979 until 1982, when the last mining in Park City occurred.

Kennecott operated various mines in the Tintic District until November, 1982. Sunshine Mining Company subsequently leased the Tintic mining properties in 1983 and operated until the end of 1992. Most of Sunshine's production was sold to Kennecott as smelter flux. The last production in the Tintic District was in 1994 when North Lily Mining closed its small heap leach operation, which it had operated since 1988, at Silver City. Currently, Chief Consolidated Mining is working on refurbishing the mill at the Trixie Mine and obtaining operating permits for the Trixie and Burgin Mines, in addition to conducting additional exploration in the area. The company intends to recommence mining operations in the near future.

Ranchers Exploration and Development Company initiated development at the

underground Escalante Silver Mine near Enterprise during 1979. A mill and refinery were completed on August 20, 1981 and on October 16, 1981, Ranchers announced that the first silver had been poured. Ranchers was purchased by the Hecla Mining Company on July 26, 1984. Hecla discontinued mining on December 30, 1988, when the ore body played out and pumping costs became excessive. Stockpiled ore was processed through August, 1990. During the nine years of operation from late 1981 until the last ore was milled, the Escalante Mine produced approximately 18 million ounces of silver.

Tenneco Minerals opened the open pit Goldstrike Mine northwest of St. George during May, 1989, at a capital cost of $23 million. The mine produced about 40 thousand ounces of gold annually, and a similar amount of silver. USMX, Inc., purchased the mine in November, 1992 and continued to operate the mine through October, 1994. Gold recovery continued until the first part of 1996.

Getty Oil poured the first gold at the open pit Mercur Mine, south of Tooele in the Oquirrh Mountains, on April 21, 1983, after 10 years of exploration and development. The original mill design capacity was 3,000 tons per day of ore with gold production being 80,000 ounces annually. Barrick Resources, Inc., purchased the mine in 1985. During 1985, the mill was expanded to 4,000 tons per day and heap leaching of low grade ore was initiated, increasing annual production to 105,000 ounces. The mine operated until 1997, when Barrick Gold announced a strategy of focusing on low cost mines. Mining ceased in December, 1997, although gold recovery continued into 1998.

Kennecott opened the Barney's Canyon Mine in the Oquirrh Mountains during the fall of 1989. The original design capacity was 80,000 ounces annually of gold and the capital cost was $32 million. Production during 1999 was 112,000 ounces, up from 83,000 ounces during 1998.

At the present time, the two Kennecott mines, Bingham Canyon and Barney's Canyon, are the only significant gold and silver producers in Utah. The two mines combined produced 479,000 ounces of gold during 1999, while Bingham Canyon produced 3,859 thousand ounces of silver. Employment in gold and silver mining increased from 14 in 1980 to a high of 499 in 1985. During 1999, employment in gold and silver mining was 248. This is somewhat misleading, because the Kennecott Bingham Canyon Mine, by far the largest gold and silver producer in the state is classified under copper mining for wage and employment reporting purposes.

Iron Ore—At the beginning of the 1970s, two companies were producing iron ore west of Cedar City. U. S. Steel was mining feed material for the Geneva Works and Utah Construction and Mining was mining ore for both U. S. Steel and CF&I Steel. All mining in the district was discontinued during 1982 and Utah International sold its processing plants. During 1986, U. S. Steel resumed mining, which was continued by Geneva Steel after the Geneva Works was purchased from U. S. Steel. Geneva Steel continued contract mining operations until 1995, when installation of the basic oxygen furnace at the Geneva Works forced the use of higher iron taconite ore from Minnesota. Employment in iron ore mining dropped from 272 in 1970, to 184 in 1980, to 42 in 1990, to zero in 1995.

Lead and Zinc—During 1970, 45,377 tons of lead and 34,688 tons of zinc were produced in Utah. These metals often coexist in deposits, and were almost always produced together at Utah mines. The lead and zinc producers in Utah were dealt a blow in November, 1971, when The Anaconda Company closed the lead smelter near Tooele. The Lark Mine in southwestern Salt Lake County closed a week later and the Ophir Hill Mine in Tooele County closed in December, 1971. Any Utah lead and zinc production since then was in the form of mineral concentrate that was shipped out of state for smelting. Additionally, the economic driving force for mines producing lead and zinc was usually the contained silver content, with the other metals considered byproducts. The last significant production of lead and zinc in Utah was in 1982, when Noranda Mines was leasing the properties owned by United Park City Mines Company. The number of employees engaged in mining lead and zinc ores dropped from 564 in 1970 to 421 in 1975 to zero in 1985.

Magnesium—Utah became a player in the world magnesium market when NL Industries, Inc., opened a magnesium recovery plant during 1972 on the western shore of the Great Salt Lake. The first magnesium was produced in 1973. Production continued through April of 1976, when production was suspended for a plant overhaul. Production resumed in 1977, after $55 million had been spent on modifications. The modification decreased plant capacity from 40,000 tons of magnesium per year to 25,000 tons per year. However, operating costs were drastically reduced.

NL Industries sold the plant to AMAX, Inc., during 1980 for $58 million. AMAX continued operating the plant at near capacity levels while undertaking a project to reinforce the dikes around the company's evaporation ponds during 1983 and 1984. On June 7th, 1986, the main dike which separated the plant's evaporation ponds from the Great Salt Lake ruptured during a storm; lake water diluted the brine, rendering it unusable. AMAX responded by purchasing magnesium chloride brine from the Kaiser Aluminum & Chemical Corp. potash plant (now owned by Reilly Industries) near Wendover, Utah and from the Leslie Salt Company, located near San Francisco, California.

The facility was sold again to Renco Group, Inc., in September, 1989 for an undisclosed price. Since that time, the company has steadily increased the plant capacity from 32,000 tons per year in 1989 to the current capacity of 44,000 tons per year. The operation is currently in the midst of upgrading the electrolytic cells and emissions control devices; primarily to meet Title II regulations of the Clean Air Act. The projected capital expenditures are $20 million, $35 million, and $17 million during the years 1999-2001, respectively. The MagCorp plant employs approximately 540 persons. Sales for 1999 were $134.7 million, down from a peak of $152.9 million in 1996.

Uranium and Vanadium—The Utah uranium industry boomed during the 1950s, as a result of government-encouraged exploration. During 1970, uranium was mined at 66 different mines in Utah. Very few of these mines had processing plants and most sold ore to larger operations that owned mills. Utah uranium production during 1970 was 1,635 thousand pounds of U_3O_8. At the time, Atlas Minerals was operating a mill just north of Moab and Rio Algom Ltd was constructing a mill in San Juan County.

Vanadium metal is used primarily for alloying steel for increased strength and toughness. It often exists in uranium ores and most uranium recovery plants include a vanadium recovery circuit.

Altas Corp., announced a $750 thousand expansion to its mill in 1977. Atlas continued to operate and mined several different ore bodies until placing the mill on standby in 1984. The mill was subsequently dismantled. By 1996, the only structure left on site was an office/warehouse building.

The Rio Algom mill became operational on Oct. 1, 1972 and operated efficiently, processing 600 tons per day of ore instead of the design capacity of 500 tons per day. The mill operated until the fall of 1988, when both the mill and the Lisbon Mine were closed. The mill has been permanently closed and the site is being reclaimed.

Energy Fuels, Inc., opened the White Mesa Mill, which included a vanadium circuit, south of Blanding during 1980 at a cost of approximately $40 million. The company also operated an ore buying station at the mill site and custom milled ores. The mill was temporarily idled in 1991 due to low uranium prices. The mill was reopened in the fall of 1995. The White Mesa Mill was purchased by the International Uranium Corp. in May, 1997. International Uranium closed the mines supplying the mill in June, 1999 and decided to focus on processing alternative feed materials, which are uranium-bearing materials other than natural ores. These alternative feed materials are primarily from sites that are contaminated with uranium and are being cleaned-up for environmental purposes. The state Division of Radiation Control initially challenged the legal right of the mill to accept the alternative feed materials, claiming the facility was acting as an unlicenced waste disposal site; however, a federal administrative law judge found in favor of Energy Fuels and allowed the practice to continue.

Plateau Resources, a wholly owned subsidiary of Consumers Power Corp., started buying and stockpiling ore for a proposed mill in 1977. The company subsequently developed the Shootaring Canyon Mill and Ticaboo townsite north of Bullfrog in Garfield County. The mill only operated on a trial basis for two months in mid-summer 1982. Consumers Power placed the mill on standby because it canceled construction of an additional nuclear power plant. US Energy Corp., purchased all of the outstanding stock of Plateau Resources from Consumers Power for a nominal cash consideration in August, 1993. US Energy is working to rehabilitate the mill and plans to reopen the operation. US Energy is considering processing alternative feed materials in the Shootaring Mill.

Uranium production hit a low of 858 thousand pounds of U_3O_8 in 1984 before recovering to a 30-year high of 5,320 thousand pounds of U_3O_8 in 1987. No production occurred from 1991 to 1994. Production in 1999 was estimated to be 608 thousand pounds of U_3O_8. Approximately two-thirds of this was from uranium ore, while the other third was from alternative feed materials. No production occurred during 2000, but International Uranium stockpiled alternative feed materials at the White Mesa Mill and plans on processing them during 2001.

Efficiency

The large amounts of capital investment in recent years has resulted in large productivity increases. The productivity increases are a result of both economies of scale that were realized when smaller operations closed and production consolidated to the remaining large operations, and technology and mechanization replacing human labor. The copper industry demonstrates how productivity has increased in the past 30 years (Figure 1). In 1970, the copper mining industry produced, on average, 46 tons of copper per year per employee. Productivity remained in this range until the late 1980s. Productivity in copper mining increased from 51 tons per employee in 1985 to 146 tons per employee in 1990. Copper mining productivity further increased to 197 tons per employee in 1998. This large increase in productivity was mostly due to modernization at the Bingham Canyon facility. The productivity increase from 1985 to 1990 corresponded with mine modernization and building the Copperton concentrator while the increase from 1995 to 1998 corresponded with the new smelter coming online.

Several of the precious metal operations throughout Utah over the past several decades were a result of new technology that was development during the 1970s and 1980s. The heap leach technology that Barrick Resources used at Mercur, Tenneco Minerals/USMX used at the Goldstrike Mine and North Lily used in the Tintic District was developed at this time. Using earlier technologies, the Goldstrike and North Lily projects probably would not have become operational and production at Mercur would have been lower.

Employment and Wages

Metal mining has maintained its position has one of the highest-paying industries in the state, while employment has decreased. In 1970, the Utah metal mining industry employed 9,073 individuals (Figure 2). Employment dropped to 7,318 in 1973 before recovering to 8,962 in 1979. Employment then dropped precipitously to 2,770 in 1986, a drop of 69 percent in 7 years. This large employment drop coincided with several layoffs at the Kennecott Bingham Canyon Mine (the operation was eventually closed for modernization in 1985), Anaconda idling the Carr Fork property in 1981, and the Atlas uranium mill closure in 1984. Employment recovered to 3,093 in 1990, but has since declined to an average annual employment of 2,384 in 1999.

In terms of employment, metal mining is becoming an increasingly small portion of both the Utah mining industry and the Utah economy. In 1970, metal mining was responsible for 70.0 percent of mining employment in Utah. The remaining 30.0 percent was distributed across coal mining, oil and gas extraction, and industrial minerals mining. By 1999, metal mining employment had dropped to 30.7 percent of total mining employment. In terms of percentage of total state nonagricultural employment, metal mining dropped from 2.54 percent of all

employment in Utah in 1970 to 0.23 percent in 1999.

In 1970, total wages paid by the metal mining industry in Utah were $85,032,156 (Figure 3). Total metal mining wages peaked at $251,608,409 in 1981, declined to $64,176,984 in 1986, and recovered to $143,832,803 in 1997. Wages paid by the Utah metal mining industry in 1999 were $126,687,239. While total wages paid have generally increased over the past 30 years, the rate of increase has been lower than that for total nonagricultural wages paid in Utah. Between 1970 and 1999, total wages paid by the Utah metal mining industry increased 1.4 percent annually. Over the same time period, total nonagricultural wages paid in Utah increased 9.2 percent annually. In 1970, metal mining was responsible for 3.75 percent of all nonagricultural wages paid in Utah. In 1999, metal mining was responsible for 0.44 percent of all nonagricultural wages paid in Utah.

One bright spot in the economics of the metal mining industry is the average monthly wage paid. Over the past 30 years, the average monthly wage in the metal mining industry has consistently been higher than the state average nonagricultural monthly wage and has increased at a higher rate (Figure 4). The average metal mining monthly wage increased from $781 in 1970 to $4,430 in 1999, an annual increase of 6.2 percent. Over the same time period, the state average nonagricultural monthly wage increased from $529 to $2,291, an average annual increase of 5.2 percent.

This increase in average annual wage was necessitated by the increased efficiencies and automation that has occurred over the past 30 years. As mechanization and technology has replaced human labor in the metal mining industry, a more educated, and higher paid, workforce has been required. In 1970, the average monthly wage in the metal mining industry was 148 percent of the statewide average monthly wage. By 1999, the average metal mining monthly wage had increased to 193 percent of the state average.

Summary

While metal mining will undoubtedly continued to shrink as a proportion of Utah's economy, the industry will remain in Utah and continue to provide high paying jobs. The Kennecott Bingham Canyon Mine is a world class copper producer and should continue so in the near term. The majority of the world's beryllium supply is mined and processed in Utah while MagCorp is a major player in the magnesium market. The successful operations are continuing to make capital investments necessary to increase operating efficiencies and lower costs.

While not at levels experienced in the past, exploration and development projects continue to be undertaken at Utah properties. Summo Corporation is conducting a feasibility study on a 20 thousand ton per year copper mine in the Lisbon Valley south of Moab. Chief Consolidated Mining is working to reopen the Trixie and Burgin Mines near Eureka and recently obtained a $7 million investment in the company.

The Utah minerals industry will continue to be significant on a worldwide basis into the foreseeable future, although its portion of Utah's economy will continue to shrink as the overall economy continues to expand. While increased efficiency allows Utah's metal mining operations to compete on a global scale the result is lower employment. Similarly, the significance of metal mining in the nation's economy is decreasing as the metal mining industry moves overseas to developing countries, notably to South America and Asia.

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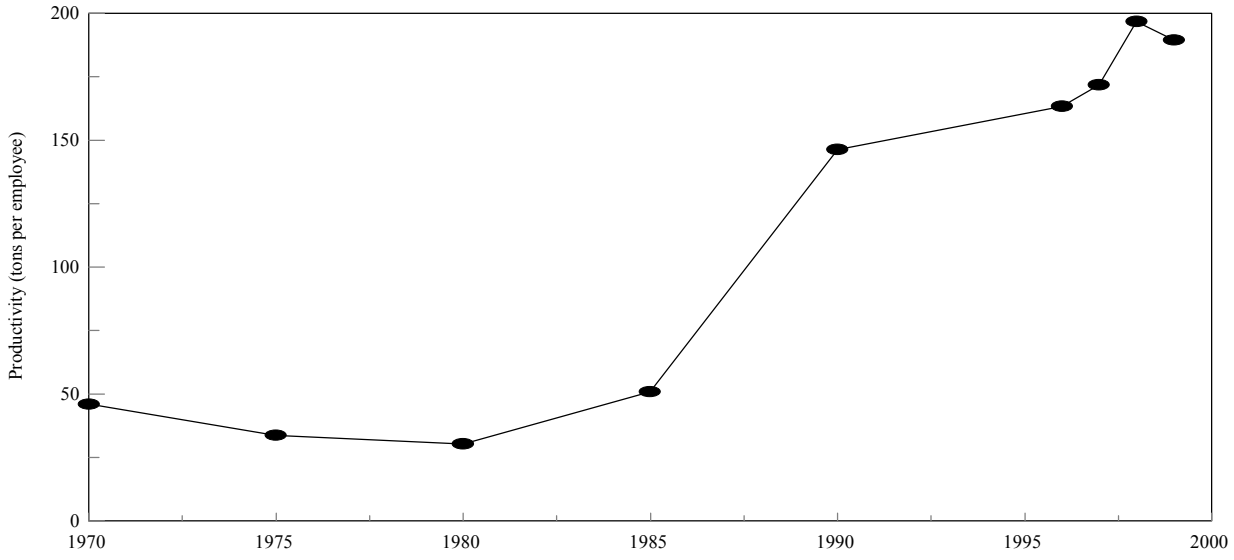
Figure 1
Copper Mine Productivity in Utah
1970-1999



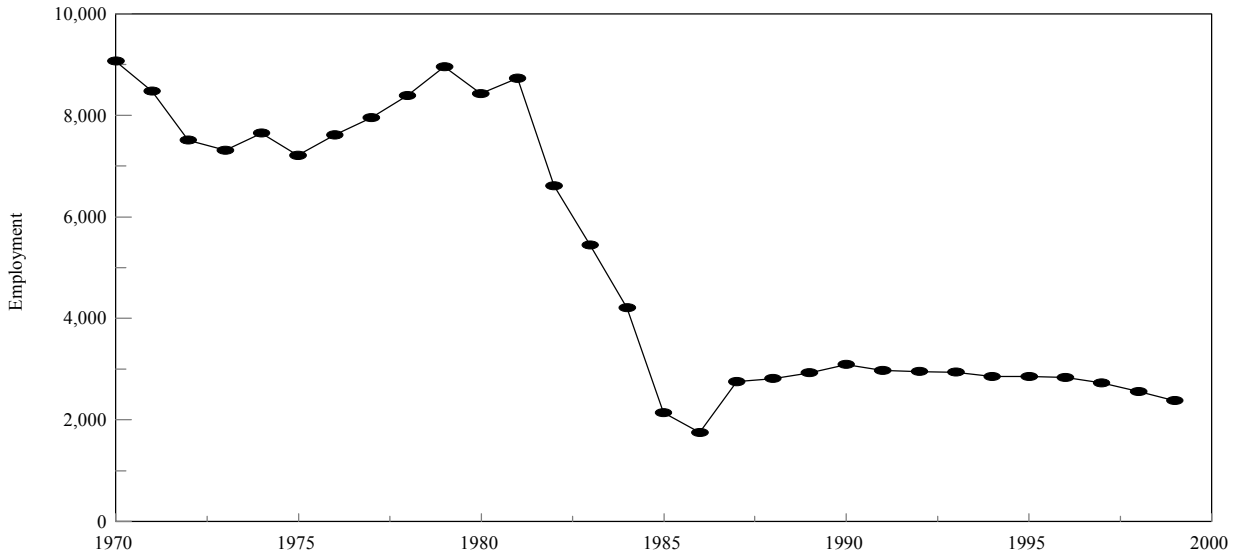
Source: BEBR calculation.

Table 1
Production of Selected Metals in Utah
1970-1999

Year	Beryllium Hydroxide Concentrate (tons)	Copper (tons)	Gold (troy oz.)	Iron Ore (thous. long tons)	Lead (tons)	Manganese Ore (tons)	Silver (thous. troy oz.)	Uranium (thous. lbs. U_3O_8)	Vanadium (tons)	Zinc (tons)
1970	w	295,738	408,029	1,990	45,377	700	6,030	1,635	257	34,688
1971	w	263,451	368,966	1,681	38,270	112	5,294	1,445	226	25,701
1972	w	259,507	362,413	1,788	20,706	0	4,300	1,496	188	21,853
1973	w	256,589	307,080	1,986	13,733	0	3,619	1,961	142	16,800
1974	w	230,593	254,909	1,808	10,510	0	3,208	1,860	w	12,619
1975	w	177,155	189,620	1,334	12,679	0	2,822	2,020	w	19,640
1976	w	185,458	187,318	w	16,297	0	3,134	2,410	w	22,481
1977	w	193,722	210,501	1,932	10,724	0	3,283	2,460	w	17,722
1978	w	204,963	235,929	1,961	2,795	0	2,885	2,810	w	3,860
1979	w	212,390	260,916	1,618	w	0	2,454	2,810	w	5
1980	w	173,553	179,538	1,307	w	0	2,203	2,400	w	w
1981	w	232,404	227,706	691	1,828	0	2,883	4,490	w	1,734
1982	w	207,999	174,940	w	w	0	4,342	2,890	w	0
1983	w	186,726	238,459	w	0	0	4,567	1,370	w	0
1984	6,030	139,891	w	0	w	0	w	860	w	w
1985	5,738	50,063	135,489	0	0	0	w	1,560	w	w
1986	6,533	w	43,039	w	0	0	w	5,770	w	0
1987	6,062	w	w	w	0	0	w	5,320	w	0
1988	5,839	212,000	406,390	w	0	0	w	2,800	w	0
1989	5,839	253,200	w	w	0	0	w	3,800	w	0
1990	5,003	260,416	w	w	0	0	4,737	3,400	w	0
1991	4,773	260,150	748,450	w	0	0	w	0	0	0
1992	5,309	318,234	801,554	424	0	0	w	0	0	0
1993	5,433	w	w	w	0	0	w	0	0	0
1994	4,763	w	w	w	0	0	w	0	0	0
1995	5,544	w	755,000	w	0	0	4,100	1,500	0	0
1996	5,786	327,470	775,000	0	0	0	4,800	660	0	0
1997	6,336	335,610	730,000	0	0	0	4,916	560	0	0
1998	6,325	328,020	449,000	0	0	0	4,247	80	0	0
1999	6.490	307,230	479,000	0	0	0	3,859	608	0	0

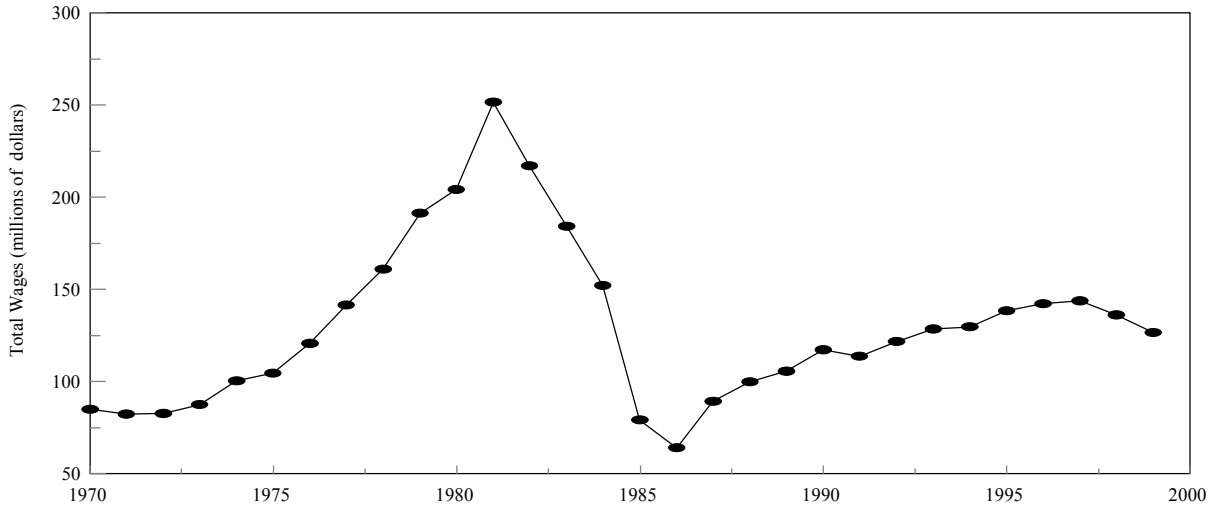
w: Withheld to avoid disclosing individual company data.
Source: U. S. Bureau of Mines. U. S. Geological Survey. State Office of Energy and Resource Planning. Rio Tinto plc.

Figure 2
Metal Mining Employment in Utah
1970-1999



Source: Utah Department of Workforce Services

Figure 3
Metal Mining Wages in Utah
1970-1999



Source: Utah Department of Workforce Services.

Utah Business Statistics

UTAH DATA	July 1999	July 2000	% Change from Year Ago	12-Month Average Current Year	12-Month Average Last Year	12-Month Average % Change
Total Personal Income (seas. adj. at ann. rates, mil. of dol., qtly.)	na	na	na	51,414.8	47,557	8.1
New Corporations (no.)	601	454	-24.5	611.2	1,287	-52.5
New Car, Truck, and Motor Home Sales (no.)	7,682	na	na	6,974.8	6,982	-0.1
Agriculture						
Average Prices Received by Farmers (dol.)						
Lambs (cwt.)	76.00	83.00	9.2	83.2	69.86	19.1
Milk, All (cwt.) [1]	12.70	na	na	13.6	15.03	-9.5
Barley (per bushel)	1.83	1.83	0.0	1.9	1.84	4.9
Alfalfa Hay, Baled (per ton) [2]	67.00	74.00	10.4	72.5	74.92	-3.2
Commercial Red Meat Production (thous. of lbs.)	41,700	41,500	-0.5	40,875.0	40,870	0.0
Construction						
Total Permit Construction (thous. of dol.)	350,514.5	311,549.2	-11.1	343,214.7	313,531.0	9.5
Residential	205,993.8	181,704.4	-11.8	184,485.5	182,821.3	0.9
Nonresidential	78,014.8	81,788.7	4.8	112,182.7	89,051.6	26.0
Additions, Alterations, and Repairs	66,505.9	48,056.1	-27.7	46,546.4	41,658.0	11.7
New Dwelling Units (no.)	1,739	1,468	-15.6	1,614.6	1,696.8	-4.8
Employment [3]						
Civilian Labor Force (thous.)	1,098.9	1,127.5	2.6	1,104.4	1,084.5	1.8
Employed	1,054.7	1,091.7	3.5	1,070.2	1,045.4	2.4
Unemployed	44.1	35.8	-18.8	34.3	39.3	-12.8
Percent of Labor Force	4.0	3.2	-20.0	3.1	3.6	-14.3
Nonagricultural Jobs (thous.)	1,042.3	1,066.0	2.3	1,064.9	1,038.5	2.5
Mining	7.9	8.1	2.5	7.8	7.8	-0.2
Contract Construction	76.6	78.5	2.5	75.1	70.9	6.0
Manufacturing	132.2	132.8	0.5	132.9	133.2	-0.2
Transportation, Communications, and Utilities	59.9	60.8	1.5	59.9	59.1	1.4
Wholesale Trade	51.2	52.5	2.5	51.3	50.4	1.8
Retail Trade	198.1	201.7	1.8	199.8	195.9	2.0
Finance, Insurance, and Real Estate	56.6	57.1	0.9	57.5	56.4	1.9
Services [4]	295.2	304.8	3.3	298.7	287.5	3.9
Federal Government	31.1	33.3	7.1	31.9	30.9	3.4
State Government [5]	52.9	54.1	2.3	57.1	55.7	2.5
Local Government [5]	80.6	82.3	2.1	92.7	90.7	2.2
Average Weekly Hours						
Mining	42.9	43.4	1.2	46.0	45.4	1.3
Manufacturing	39.3	39.9	1.5	39.8	40.5	-1.6
Wholesale Trade	39.7	38.8	-2.3	38.9	39.0	-0.4
Retail Trade	28.5	28.3	-0.7	28.0	28.4	-1.6
Amount of Unemployment Compensation (thous. of dol.)	6,409.6	8,049.1	25.6	7,925.3	6,978.0	13.6
Finance (qtly.)						
Total State and National Chartered In-State Banks	na	na	na	32	32	-1.6
Total Assets (mil. of dol.)	na	na	na	29,935.2	27,182.7	10.1
Total Liabilities (mil. of dol.)	na	na	na	27,516.2	27,493.7	0.1
Total Equity Capital (mil. of dol.)	na	na	na	2,419.0	2,189.1	10.5
Capital to Assets [6]	na	na	na	8.9	8.9	0.0
Loan Loss Reserve Ratio	na	na	na	1.3	1.34	-3.6
Loans to Assets	na	na	na	63.8	63.74	0.1
Temporary Investment Ratio	na	na	na	11.2	11.84	-5.0
Return on Assets	na	na	na	1.2	0.88	33.7
Production						
Crude Oil (thous. of bbls.)	1,355.3	1,317.7	-2.8	1,316.9	1,440.0	-8.6
Natural Gas (mil. of cu. ft.)	22,675.7	23,600.5	4.1	22,587.6	24,360.0	-7.3
Coal (thous. short tons)	1,799	2,009	11.7	3,432.8	2,287	50.1
Crude Oil to Refineries, Barrels Received (thous. of bbls.)	4,395	4,313	-1.9	4,134.2	4,242	-2.5
Travel/Tourism						
Air Passengers (total no. on and off, S.L. Int'l. Airport)	1,932,356	1,952,573	1	1,630,405.1	1,674,478	-3
Highway Traffic Count Across State Lines (both directions)	86,217	87,444	1	67,135.2	63,821	5
Visits to State and National Parks and Monuments	2,604,474	1,529,841	-41	1,270,817.0	1,345,256	-6
Utilities						
Natural Gas Customers (residential and commercial)	666,333	687,330	3.2	677,158.9	657,363	3.0
Natural Gas Customers (industrial)	1,080	1,058	-2.0	1,073.8	1,048	2.5
Telephone Lines in Service (U.S. West, residential access)	759,767	na	na	774,998.2	749,556	3.4
Telephone Lines in Service (U.S. West, business/public access)	349,166	na	na	352,345.1	346,375	1.7

Utah Business Statistics

UTAH DATA	July 1999	July 2000	% Change from Year Ago	12-Month Average Current Year	12-Month Average Last Year	12-Month Average % Change
Davis County						
Nonagricultural Employment (thous.)	83.2	86.3	3.7	83.8	81.8	2.5
Unemployment Rate (seasonally adjusted)	3.7	3.0	-18.9	2.9	3.3	-12.7
Authorized Permit Construction (thous. of dol.)	31,199.7	21,584.4	-30.8	25,943.1	30,891.2	-16.0
New Dwelling Units (no.)	191	134	-29.8	169	199	-15.1
New Car, Truck, and Motor Home Sales, Owner's County (no.)	831	na	na	721	779	-7.4
Natural Gas Customers (residential and commercial)	72,529	74,798	3.1	73,713	71,058	3.7
Natural Gas Customers (industrial)	94	96	2.1	95	98	-2.7
Telephone Lines in Service (U.S. West, residential access)	91,393	na	na	93,341	89,605	4.2
Telephone Lines in Service (U.S. West, business access)	26,582	na	na	26,959	26,239	2.7
Salt Lake County						
Nonagricultural Employment (thous.)	529.6	540.4	2.0	539.4	526.8	2.4
Unemployment Rate (seasonally adjusted)	3.5	2.6	-25.7	2.8	3.2	-11.8
Authorized Permit Construction (thous. of dol.)	99,412.0	107,180.5	7.8	124,890.5	107,531.7	16.1
New Dwelling Units (no.)	325	349	7.4	405	448	-9.4
New Car, Truck, and Motor Home Sales, Owner's County (no.)	4,233	na	na	3,639	3,400	7.0
Natural Gas Customers (residential and commercial)	286,583	292,234	2.0	287,929	283,599	1.5
Natural Gas Customers (industrial)	486	467	-3.9	484	474	2.0
Telephone Lines in Service (U.S. West, residential access)	343,433	na	na	346,500	340,405	1.8
Telephone Lines in Service (U.S. West, business access)	194,688	na	na	195,216	193,730	0.8
Utah County						
Nonagricultural Employment (thous.)	142.5	146.0	2.5	148.2	143.5	3.3
Unemployment Rate (seasonally adjusted)	3.3	2.4	-27.3	2.5	3.1	-19.9
Authorized Permit Construction (thous. of dol.)	73,419.4	70,657.8	-3.8	60,606.1	56,994.3	6.3
New Dwelling Units (no.)	319	360	12.9	342	317	7.6
New Car, Truck, and Motor Home Sales, Owner's County (no.)	683	na	na	815	729	11.8
Natural Gas Customers (residential and commercial)	94,888	99,375	4.7	97,639	93,184	4.8
Natural Gas Customers (industrial)	146	154	5.5	149	141	5.7
Telephone Lines in Service (U.S. West, residential access)	108,028	na	na	111,160	106,202	4.7
Telephone Lines in Service (U.S. West, business access)	44,319	na	na	45,611	44,102	3.4
Weber County						
Nonagricultural Employment (thous.)	87.9	88.8	1.0	89.1	87.2	2.1
Unemployment Rate (seasonally adjusted)	5.0	4.2	-16.0	3.8	4.4	-13.5
Authorized Permit Construction (thous. of dol.)	46,952.1	19,727.1	-58.0	35,189.2	25,566.2	37.6
New Dwelling Units (no.)	294	68	-76.9	135	143	-5.4
New Car, Truck, and Motor Home Sales, Owner's County (no.)	408	na	na	460	419	9.7
Natural Gas Customers (residential and commercial)	65,129	66,577	2.2	66,242	64,280	3.1
Natural Gas Customers (industrial)	107	103	-3.7	103	106	-2.4
Telephone Lines in Service (U.S. West, residential access)	63,873	na	na	64,570	63,264	2.1
Telephone Lines in Service (U.S. West, business access)	22,737	na	na	22,885	22,583	1.3

na Not Available

[1] Before deductions for hauling and government withholding; includes quality, quantity and other premiums. Excludes hauling subsidies. [2] Mid-month prices. [3] Some figures not strictly comparable due to reclassification. [4] Includes services by nonprofit and religious organizations. [5] Includes public schools and college institutions. [6] 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 Statistics Unit, *Utah Car and Truck Sales.*
Agriculture	U.S. Department of Agriculture, Utah Agricultural Statistics Service, *Utah Agriculture.*
Construction Data	Bureau of Economic and Business Research, University of Utah, *Utah Construction Report.*
Employment Data	Utah Department of Workforce Services, *Utah Labor Market Report.*
Finance Data	Utah Department of Financial Institutions.
Crude Oil Production	Utah Division of Oil, Gas and Mining, *Oil and Gas Production Report, and* Utah Office of Energy and Resource Planning.
Natural Gas Production	Utah Division of Oil, Gas and Mining, *Oil and Gas Production Report*.
Coal Production	U.S. Department of Energy, Energy Information Administration.
Air Passengers	SLC International Airport, Statistics Division, *Air Traffic Statistics and Activity Report*.
Highway Traffic Count	Utah Department of Transportation, *Automatic Traffic Recorder Data Report*.
Visits to State and National Parks and Monuments	U.S. Forest Service and Utah State Parks and Recreation Department.
Utilities Data	Cooperating Utility Companies.

Utah Business Statistics

UTAH DATA	August 1999	August 2000	% Change from Year Ago	12-Month Average Current Year	12-Month Average Last Year	12-Month Average % Change
Total Personal Income (seas. adj. at ann. rates, mil. of dol., qtly.)	na	na	na	51,415	47,557	8.1
New Corporations (no.)	572	1,500	162.2	689	1,274	-46.0
New Car, Truck, and Motor Home Sales (no.)	7,857	na	na	6,887	7,010	-1.8
Agriculture						
Average Prices Received by Farmers (dol.)						
Lambs (cwt.)	76.00	83.0	9.2	83.75	69.69	20.2
Milk, All (cwt.) [1]	13.30	na	na	13.68	14.91	-8.3
Barley (per bushel)	1.85	1.8	-1.6	1.92	1.84	4.8
Alfalfa Hay, Baled (per ton) [2]	74.00	84.0	13.5	73.33	74.33	-1.3
Commercial Red Meat Production (thous. of lbs.)	46,100	46,300	0.4	40,892	41,211	-0.8
Construction						
Total Permit Construction (thous. of dol.)	423,408.8	422,398.1	-0.2	343,130.4	320,491.5	7.1
Residential	222,452.3	219,242.8	-1.4	184,218.1	183,922.6	0.2
Nonresidential	125,396.0	145,907.4	16.4	113,892.0	92,494.8	23.1
Additions, Alterations, and Repairs	75,560.5	57,247.9	-24.2	45,020.4	44,074.1	2.1
New Dwelling Units (no.)	1,997	2,048	2.6	1,619	1,696	-4.5
Employment [3]						
Civilian Labor Force (thous.)	1,098.9	1,126.9	2.5	1,106.8	1,086.1	1.9
Employed	1,054.8	1,088.9	3.2	1,073.0	1,047.0	2.5
Unemployed	44.1	38.0	-13.8	33.8	39.2	-13.9
Percent of Labor Force	4.0	3.4	-15.0	3.1	3.6	-15.2
Nonagricultural Jobs (thous.)	1,048.3	1,073.3	2.4	1,067.0	1,040.5	2.5
Mining	7.9	7.9	0.0	7.8	7.8	-0.0
Contract Construction	77.4	79.1	2.2	75.3	71.2	5.7
Manufacturing	132.5	133.0	0.4	133.0	133.1	-0.1
Transportation, Communications, and Utilities	59.9	61.0	1.8	60.0	59.2	1.5
Wholesale Trade	51.4	52.7	2.5	51.4	50.5	1.9
Retail Trade	199.5	202.9	1.7	200.1	196.2	2.0
Finance, Insurance, and Real Estate	56.8	57.3	0.9	57.5	56.5	1.9
Services [4]	297.6	309.2	3.9	299.7	288.6	3.8
Federal Government	31.1	32.8	5.5	32.1	30.9	3.7
State Government [5]	53.8	54.9	2.0	57.2	55.8	2.5
Local Government [5]	80.4	82.5	2.6	92.9	90.9	2.2
Average Weekly Hours						
Mining	42.3	40.7	-3.8	45.8	44.9	2.1
Manufacturing	39.2	40.3	2.8	39.9	40.4	-1.1
Wholesale Trade	39.8	38.1	-4.3	38.7	39.1	-1.0
Retail Trade	28.8	28.4	-1.4	27.9	28.4	-1.7
Amount of Unemployment Compensation (thous. of dol.)	7,338.0	7,020.7	-4.3	7,898.8	7,452.2	6.0
Finance (qtly.)						
Total State and National Chartered In-State Banks	na	na	na	32	32	-1.6
Total Assets (mil. of dol.)	na	na	na	29,935.2	27,182.7	10.1
Total Liabilities (mil. of dol.)	na	na	na	27,516.2	27,493.7	0.1
Total Equity Capital (mil. of dol.)	na	na	na	2,419.0	2,189.1	10.5
Capital to Assets [6]	na	na	na	8.90	8.90	0.0
Loan Loss Reserve Ratio	na	na	na	1.29	1.34	-3.6
Loans to Assets	na	na	na	63.78	63.74	0.1
Temporary Investment Ratio	na	na	na	11.25	11.84	-5.0
Return on Assets	na	na	na	1.18	0.88	33.7
Production						
Crude Oil (thous. of bbls.)	1,380.0	1,305.8	-5.4	1,310.7	1,420.8	-7.8
Natural Gas (mil. of cu. ft.)	22,316.3	23,616.3	5.8	22,695.9	24,024.0	-5.5
Coal (thous. short tons)	1,802	2,240	24.3	3,469	2,250	54.2
Crude Oil to Refineries, Barrels Received (thous. of bbls.)	4,490	4,233	-5.7	4,113	4,180	-1.6
Travel/Tourism						
Air Passengers (total no. on and off, S.L. Int'l. Airport)	1,566,331	1,934,267	23.5	1,661,066	1,642,272	1.1
Highway Traffic Count Across State Lines (both directions)	84,861	83,241	-1.9	66,988	64,008	4.7
Visits to State and National Parks and Monuments	2,525,626	1,308,053	-48.2	1,169,353	1,340,684	-12.8
Utilities						
Natural Gas Customers (residential and commercial)	666,043	686,253	3.0	678,843	659,316	3.0
Natural Gas Customers (industrial)	1,080	1,056	-2.2	1,072	1,052	1.9
Telephone Lines in Service (U.S. West, residential access)	763,238	na	na	776,174	752,154	3.2
Telephone Lines in Service (U.S. West, business/public access)	345,412	na	na	353,038	346,620	1.9

Utah Business Statistics

UTAH DATA	August 1999	August 2000	% Change from Year Ago	12-Month Average Current Year	12-Month Average Last Year	12-Month Average % Change
Davis County						
Nonagricultural Employment (thous.)	83.8	86.9	3.7	84.0	82.0	2.5
Unemployment Rate (seasonally adjusted)	3.5	2.9	-17.1	2.8	3.3	-14.0
Authorized Permit Construction (thous. of dol.)	30,606.5	30,192.7	-1.4	25,908.6	30,530.9	-15.1
New Dwelling Units (no.)	212	172	-18.9	166	202	-18.1
New Car, Truck, and Motor Home Sales, Owner's County (no.)	853	na	na	708	777	-8.9
Natural Gas Customers (residential and commercial)	72,155	74,601	3.4	73,916	71,306	3.7
Natural Gas Customers (industrial)	94	95	1.1	95	98	-2.4
Telephone Lines in Service (U.S. West, residential access)	92,003	na	na	93,474	89,967	3.9
Telephone Lines in Service (U.S. West, business access)	26,328	na	na	27,022	26,274	2.8
Salt Lake County						
Nonagricultural Employment (thous.)	531.9	545.2	2.5	540.5	527.7	2.4
Unemployment Rate (seasonally adjusted)	3.2	2.8	-12.5	2.8	3.2	-12.1
Authorized Permit Construction (thous. of dol.)	132,946.9	157,270.1	18.3	126,917.5	110,529.5	14.8
New Dwelling Units (no.)	574	727.0	26.7	418	450	-7.1
New Car, Truck, and Motor Home Sales, Owner's County (no.)	4,370	na	na	3,566	3,422	4.2
Natural Gas Customers (residential and commercial)	286,192	291,155	1.7	288,342	284,409	1.4
Natural Gas Customers (industrial)	485	467	-3.7	482	476	1.3
Telephone Lines in Service (U.S. West, residential access)	344,441	na	na	346,705	341,220	1.6
Telephone Lines in Service (U.S. West, business access)	192,200	na	na	195,517	193,730	0.9
Utah County						
Nonagricultural Employment (thous.)	144.5	148.6	2.8	148.6	143.8	3.3
Unemployment Rate (seasonally adjusted)	3.1	2.6	-16.1	2.4	3.1	-21.3
Authorized Permit Construction (thous. of dol.)	82,152.6	76,392.6	-7.0	60,126.1	59,084.9	1.8
New Dwelling Units (no.)	388	369.0	-4.9	340	329	3.4
New Car, Truck, and Motor Home Sales, Owner's County (no.)	745	na	na	822	722	13.9
Natural Gas Customers (residential and commercial)	95,297	99,887	4.8	98,021	93,552	4.8
Natural Gas Customers (industrial)	146	154	5.5	150	142	5.6
Telephone Lines in Service (U.S. West, residential access)	108,487	na	na	111,428	106,678	4.5
Telephone Lines in Service (U.S. West, business access)	43,892	na	na	45,783	44,133	3.7
Weber County						
Nonagricultural Employment (thous.)	87.7	88.6	1.0	89.2	87.4	2.0
Unemployment Rate (seasonally adjusted)	4.3	4.3	0.0	3.8	4.3	-11.5
Authorized Permit Construction (thous. of dol.)	23,776.4	23,623.6	-0.6	35,176.5	25,129.1	40.0
New Dwelling Units (no.)	136	244	79.4	144	143	0.8
New Car, Truck, and Motor Home Sales, Owner's County (no.)	455	na	na	460	414	11.1
Natural Gas Customers (residential and commercial)	64,963	66,109	1.8	66,337	64,450	2.9
Natural Gas Customers (industrial)	107	102	-4.7	103	106	-2.8
Telephone Lines in Service (U.S. West, residential access)	64,188	na	na	64,609	63,451	1.8
Telephone Lines in Service (U.S. West, business access)	22,209	na	na	22,953	22,562	1.7

na Not Available

[1] Before deductions for hauling and government withholding; includes quality, quantity and other premiums. Excludes hauling subsidies. [2] Mid-month prices. [3] Some figures not strictly comparable due to reclassification. [4] Includes services by nonprofit and religious organizations. [5] Includes public schools and college institutions. [6] Includes allowance for loan losses.

Sources:

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Agriculture	U.S. Department of Agriculture, Utah Agricultural Statistics Service, *Utah Agriculture.*
Construction Data	Bureau of Economic and Business Research, University of Utah, *Utah Construction Report.*
Employment Data	Utah Department of Workforce Services, *Utah Labor Market Report.*
Finance Data	Utah Department of Financial Institutions.
Crude Oil Production	Utah Division of Oil, Gas and Mining, *Oil and Gas Production Report, and* Utah Office of Energy and Resource Planning.
Natural Gas Production	Utah Division of Oil, Gas and Mining, *Oil and Gas Production Report*.
Coal Production	U.S. Department of Energy, Energy Information Administration.
Air Passengers	SLC International Airport, Statistics Division, *Air Traffic Statistics and Activity Report*.
Highway Traffic Count	Utah Department of Transportation, *Automatic Traffic Recorder Data Report*.
Visits to State and National Parks and Monuments	U.S. Forest Service and Utah State Parks and Recreation Department.
Utilities Data	Cooperating Utility Companies.

Utah Business Statistics

NATIONAL DATA	August 1999	August 2000	% Change from Year Ago	12-Month Average Current Year	12-Month Average Last Year	12-Month Average % Change
U.S. Gross Domestic Product (seas. adj. at ann. rates, bil., qrtly.)	na	na	na	9,401.1	8,725.3	7.7
Total Personal Income (seas. adj. at ann. rates, bil. of dol.)	7,837.0	8,330.2	6.3	8,117.2	7,389.1	9.9
Industrial Production Index (seasonally adjusted, 1992=100)	135.6	145.9	7.6	142.9	134.6	6.2
Capacity Utilization Rate (seasonally adjusted, percent)	80.8	82.4	2.0	81.6	80.3	1.7
Net Exports of Goods & Services (millions of dollars; seasonally adj.)	-24,095.0	-29,860.0	23.9	-28,311.8	-14,553.7	94.5
Exports of Goods & Services (millions of dollars; seasonally adj.)	82,027.0	92,968.0	13.3	86,131.8	78,485.6	9.7
Imports of Goods & Services (millions of dollars; seasonally adj.)	106,122.0	122,774.0	15.7	114,439.2	97,236.5	17.7
Composite Index of 11 Leading Indicators (1992=100)	108.0	105.7	-2.1	106.3	106.9	-0.6
Price Indexes						
Consumer Price Indexes (not seasonally adjusted, 1982-84=100)						
CPI-U (All Urban Consumers) All Items	167.2	172.8	3.3	170.3	165.2	3.1
CPI-U (All Urban Consumers) Food and Beverages	164.8	169.2	2.7	167.0	163.5	2.1
CPI-U (All Urban Consumers) Housing	164.1	170.9	4.1	167.3	162.5	3.0
CPI-U (All Urban Consumers) Transportation	146.0	153.2	4.9	150.9	146.8	2.8
CPI-U (All Urban Consumers) Medical Care	252.1	262.6	4.2	257.2	247.4	3.9
CPI-U (All Urban Consumers) Energy	108.9	125.9	15.6	118.9	103.0	15.4
Producer Price Index (not seasonally adjusted, 1982=100)						
Producer Price Index, All Finished Goods	133.7	137.8	3.1	136.3	131.7	3.5
GDP Implicit Price Deflator (seasonally adjusted, 1992=100, qrtly.)	na	na	na	105.5	113.3	-6.9
Corporate Profits (seas. adj. at ann. rates, bil., qrtly.)						
Profits Before Taxes	na	na	na	905.7	745.1	21.6
Profits-Tax Liability	na	na	na	279.6	245.9	13.7
Profits After Taxes	na	na	na	626.1	499.2	25.4
Civilian Employment (seasonally adjusted)						
Labor Force (mil.)	139.3	140.7	1.0	140.5	138.8	1.2
Employment (mil.)	133.4	134.9	1.1	134.8	132.8	1.4
Unemployment Rate	4.2	4.1	-2.4	4.1	4.3	-5.8
Value of New Construction Put In Place						
Total Construction (seas. adj. at ann. rates, bil. of dol.)	755.3	800.3	6.0	795.4	753.0	5.6
Private Const.: Residential (seas. adj. at ann. rates, bil. of dol.)[b]	348.1	349.0	0.3	359.4	340.4	5.6
New Housing Units (seas. adj. at ann. rates, bil. of dol.)	248.4	253.9	2.2	260.1	243.6	6.8
Private Const.: Nonresidential (seas. adj. at ann. rates, bil. of dol.)	191.3	221.6	15.8	208.1	196.3	6.0
Interest Rates						
Federal Funds Rate	5.07	6.5	28.2	5.85	4.91	19.2
Discount Rate on New 91-Day Treasury Bills	4.76	6.0	26.1	5.49	4.45	23.6
Yield on Long-Term Treasury Bonds	6.07	5.7	-5.8	6.10	5.51	10.8
Average Prime Rate Charged by Banks	8.06	9.5	17.9	8.85	7.90	12.0
Mortgage Rate (conventional 1st mortgage, new home, U.S. avg.)	7.94	8.0	1.1	8.05	7.06	14.0

na Not Available

[b] Includes residential improvements, not shown separately.

Sources:

U.S. Gross Domestic Product	U.S. Department of Commerce, *Survey of Current Business.*
Total Personal Income	U.S. Department of Commerce, *Survey of Current Business.*
Industrial Production Index	Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*.
Capacity Utilization Rate	Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*.
Export/Import Data	U.S. Department of Commerce, *Survey of Current Business.*
Composite Index of 11 Leading Indicators	The Conference Board, Inc.
Consumer Price Indices	U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*.
Producer Price Index	U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*.
GDP Implicit Price Deflator	U.S. Department of Commerce, *Survey of Current Business.*
Corporate Profits	U.S. Department of Commerce, *Survey of Current Business.*
National Employment Data	U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*.
National Construction Data	U.S. Department of Commerce, Bureau of the Census, *Value of New Construction Put in Place*.
Interest Rates	Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*.

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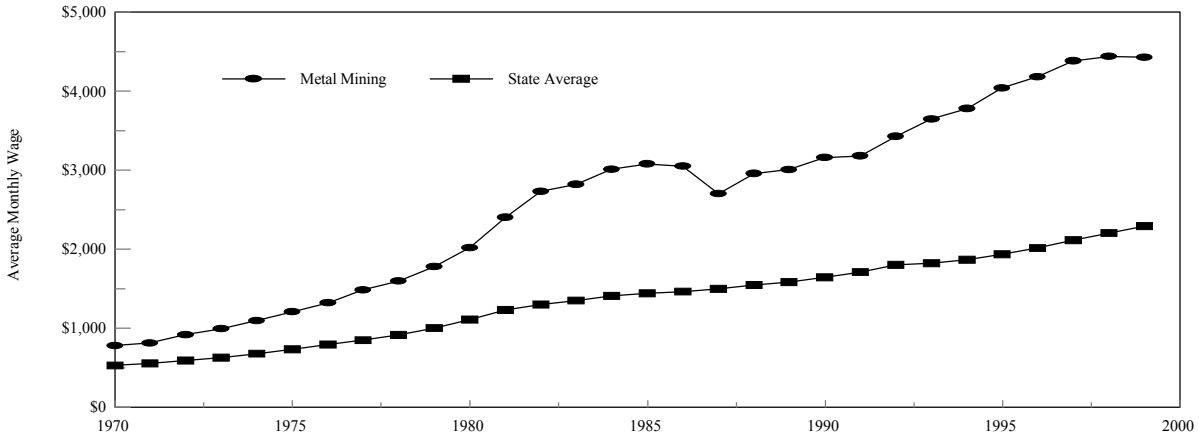
Figure 4
Average Monthly Wage in Utah
Metal Mining and State Average
1970-1999



Source: Utah Department of Workforce Services.

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