THE HISTORICAL STATISTICS OF THE NEW MEXICO MINING INDUSTRY

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Mining has been a subtle yet perennial dynamic in the history of New Mexico. From prehistoric times to the present, mining activities and related events have shaped the regional culture and economy. Out of romantic venture or economic necessity, the search for mineral wealth in the Southwest has attracted all ethnic groups, including Indians, Spaniards, Mexicans, and Americans. Their continuous efforts eventually turned New Mexico, one of the oldest settled regions in the United States, into a leading mineral-producing state. In the last hundred years, in particular, the diversified mining industry has placed the state in an elite role in national development.

As early as the tenth century A.D., the Mogollones engaged in primitive mining activities. After gathering native copper (nearly pure) at the surface, the Indians heated the malleable red metal to cast personal ornaments. Such products were traded as far north as the Bering Sea and as far south as the Caribbean. But these prehistoric peoples placed limited value on copper extraction and, therefore, did not develop the technology needed to mine on a large scale. Rather the Indians focused their attention on turquoise acquisition. The quarrying of the brilliant, blue stones became the predominant mining enterprise of the natives throughout the prehistoric period. The production of these precious stones has continued for thousands of years. Turquoise jewelry crafted today symbolizes the ancient and modern importance of native culture and its antiquities, and continues to represent the long-lasting impact of Indian mining on southwestern society.

New Mexico's mineral wealth lured the Spanish to the region in the mid-sixteenth century. Medieval tales of great riches enticed the early *conquistadores* to explore treasures of gold on New Spain's far northern frontier. In 1540, Francisco Vasquez de Coronado, for example, led an expedition across the Southwest in search of the golden Seven Cities of Cibola. Although the Spaniards found no gold or silver, they did discover a new country, resulting in the European colonization of the Rio Grande Valley by 1700. During the next two centuries, the colonizers, too busy establishing a ranch culture in the area, had little time to explore and extract minerals. They dug up only a few scraps of precious metals. The Spanish first began systematic mining in 1800 when an Apache man showed the copper deposits at Santa Rita to a Spanish officer, Captain Juan Carrasco, in return for better treatment. Within a year mule trains began shipping copper for coinage to Chihuahua and Mexico City. This activity distinguished the

Santa Rita mine as the first copper mine in North America as well as the longest-lived. It still produces today. In the end, the Spanish relinquished control of the mines when Mexico won its independence in 1821.

A series of major mineral discoveries rejuvenated the mining industry in New Mexico in the mid-nineteenth century. In 1828, the discovery of placer gold in the Ortiz Mountains, south of Santa Fe, brought the first gold rush into what would become the American West, fully twenty years before the Forty-Niners invaded California. As many as three thousand miners descended on the placer sites in northern New Mexico. During the next four decades, prospectors staked out numerous placer and quartz sites in the region. Yet, just as this northern province began to reveal its hidden mineral treasures, the young Republic of Mexico lost her northern territories in 1848 to the United States. New Mexico now became an American territory with the potential for mining diversity. In addition to gold, lead ores were found in the Organ Mountains in 1849 and silver near Magdalena in 1863. Many factors, however, blocked full-scale mining through the 1870s. Limited capital and mining knowledge, primitive technology, and Indian resistance all, in fact, worked against New Mexico's miners.

The year 1880 marked the beginning of modern mining in New Mexico. Steaming into the territory, the railroad opened up the territory to industrial America. The locomotives of the Atchison, Topeka & Santa Fe and the Southern Pacific railroads imported the needed capital, the most advanced technology, and the interested engineers necessary to develop the territory's industry. The statistics show an obvious explosion in mineral extraction and production. The fuel needs of the railroads spawned the coal industry which soon became a top profit-maker in the Southwest. Since the bituminous seams produced good coke for industry, ovens appeared throughout the coal mining districts in the northern part of the territory. Supplying neighboring states and territories with this fuel, New Mexico quickly emerged as one of the major coal producers in the nation. Production of coal has been a mainstay of the state's mining industry throughout the twentieth century.

The railroad also initiated a silver boom in New Mexico. Mills and smelters at Silver City and Georgetown served as the regional centers for processing "that damned blue stuff" which proved to be so profitable. By 1890, high coal and silver production transformed New Mexico into one of the most prolific mining regions in the American West.

With the dawning of the twentieth century, New Mexico's maturing mining industry redirected its energies from precious to base metals extraction. The discovery of high-grade zinc ores in the districts of Grant and Catron counties, for example, immediately distinguished the territory as a crucial contributor to the nation's zinc output. But copper proved to be the most important base metal in New Mexico. By 1909, the Chino Copper Company of Grant County revived New Mexico's somnolent copper industry. Introducing new open-pit techniques, the company mined low-grade ores on a large scale and then processed the "pay dirt" with the new flotation method of milling. Since the beginning of commercial production in 1912, New Mexico has ranked in the top three of the nation's copper-producing states. Because of its versatile utility and global market, copper redefined New Mexico's economic and strategic role in the nation.

Over the next two decades, the minerals industry diversified in New Mexico, bringing into the industrial fold petroleum, natural gas, molybdenum, and potash production. By the mid-1920s, the state began to produce crude oil and natural gas. A few years later, molybdenum and potash were mined as well. Not surprisingly, New Mexico soon became one of the nation's leading oil-producing states, and ranked first in potash production. In 1948, as the Cold War unfolded and the atomic age demanded a new kind of fuel, New Mexico immediately supplied the bulk of the nation's uranium. Initially, in fact, the state was the top producer of the radioactive mineral.

During the second half of this century, the mining industry of New Mexico entered a new era as fuels replaced metals as the principle mining products. Although copper still held a crucial spot, petroleum and natural gas claimed the dominant position; their values alone were greater

than all other minerals combined. The completion of interstate gas pipelines in the 1950s enabled New Mexico to export its natural gas as far away as California, Oregon, Washington, and Idaho. In 1980, sales of energy commodities, including oil, gas, coal, and uranium, were valued at $5 billion. With expectations for continued high production, after the turn of the century, New Mexico remains atop the list of energy-producing states in the nation. In 1992, for instance, the state ranked fourth in natural gas production, sixth in uranium, seventh in oil, and thirteenth in coal.

As a land of mineral plenty, New Mexico has been the longest-standing and the most diversified mining region in the United States. At times, the state has led in production of important mineral resources, such as uranium and potash. The industry has delivered the mineral goods that the nation's demands have called for since the late nineteenth century. As the statistics will reveal, however, New Mexico's output in the last hundred years has surpassed all previous production. Modern technology and huge capital investments (both private and governmental) combined to determine this twentieth century upward trend in exploration and extraction. The production and employment data that accompany this brief perusal of New Mexico mining history demonstrate the continued importance of mining in the state and the rest of the American Southwest.

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NEW MEXICO

Annual Mineral Production(A)

Year	Gold (ounces)	Silver (thousand ounces)	Copper (short tons)	Coal (thousand short tons)	Lead (short tons)	Zinc (short tons)
1880	6,068*	303				
1881	8,981*	213*				
1882	7,282*	1,392*	435	157		
1883	13,592*	2,200*	412	211	2,400	
1884	14,563*	2,320*	30	221	6,000	
1885	38,835*	2,320*	40	306	5,000	
1886	19,417*	1,779*	279	217	5,000	
1887	24,272*	1,779*	142	508	7,325	
1888	29,223*	928*	816	627	5,000	
1889	39,457	1,251	1,843	486	4,764	
1890	41,262	1,300	425	376	702	
1891	43,779	1,325	617	462	676	
1892	45,956	1,075	594	661	4,469	
1893	44,171	458	140	665	1,340	
1894	38,959	632	16	597	2,973	
1895	45,779	695	72	721	3,040	
1896	39,560	688	1,351	623	3,461	
1897	22,951	540	351	717	9,123	
1898	26,074	425	796	992	5,797	
1899	28,256	503	1,968	1,051	4,856	
1900	40,292	434	2,085	1,299	3,605	

1901	33,302	563	4,815	1,087	1,124	
1902	25,693	457	3,307	1,049	741	
1903	11,833	181	3,650	1,542	613	928
1904	18,476	215	2,486	1,452	1,561	8,996
1905	15,360	355	3,063	1,650	755	7,571
1906	14,175	453	3,550	1,965	1,494	8,646
1907	15,963	600	5,070	2,629	1,905	375
1908	14,452	401	2,496	2,468	437	1,788
1909	11,585	324	2,516	2,801	2,515	6,543
1910	23,337	844	2,307	3,508	2,160	9,044
1911	36,901	1,355	2,029	3,148	1,483	5,119
1912	37,948	1,537	17,015	3,537	2,747	6,783
1913	42,663	1,631	28,154	3,709	1,973	8,262
1914	56,681	1,777	29,654	3,878	882	9,202
1915	70,681	2,006	38,394	3,818	2,271	12,702
1916	66,877	1,766	46,374	3,793	4,107	18,285
1917	51,479	1,394	52,784	4,001	4,554	15,100
1918	33,030	782	49,132	4,023	4,199	12,025
1919	31,717	837	25,575	3,139	1,443	3,797
1920	23,235	768	27,200	3,683	1,435	5,007
1921	9,521	572	7,133	2,453	339	114
1922	19,964	752	15,969	3,147	1,506	2,248
1923	26,689	747	30,678	2,915	1,916	8,248
1924	24,804	795	37,346	2,786	1,817	10,380
1925	26,561	735	38,214	2,557	3,210	9,201
1926	19,631	451	40,821	2,818	3,480	12,052
1927	29,242	890	37,126	2,936	8,026	29,802
1928	32,912	828	44,927	2,712	7,805	31,203
1929	35,176	1,122	48,859	2,623	11,130	34,455
1930	32,370	1,107	32,575	1,969	10,378	32,765
1931	31,161	1,042	30,752	1,553	11,269	27,866
1932	23,208	1,142	14,210	1,263	10,114	25,593
1933	26,474	1,182	13,474	1,226	11,043	30,924
1934	27,307	1,062	11,815	1,259	9,365	26,522
1935	33,435	1,062	2,253	1,389	7,289	22,126
1936	33,037	1,163	3,166	1,597	6,626	20,668
1937	41,171	1,244	32,053	1,715	6,512	23,927
1938	43,050	1,230	20,439	1,239	4,949	28,236
1939	36,979	1,401	46,142	1,230	5,392	29,356
1940	35,943	1,408	69,848	1,111	3,822	30,313
1941	27,845	1,328	73,478	1,251	4,668	37,862
1942	11,961	676	80,100	1,669	4,608	46,461
1943	5,563	463	76,163	1,851	5,723	59,524
1944	6,918	535	69,730	1,744	7,265	50,727
1945	5,604	465	56,571	1,484	7,662	40,295
1946	4,009	338	50,191	1,280	4,899	36,103
1947	3,146	516	60,205	1,443	6,383	44,103
1948	3,414	538	74,687	1,364	7,653	41,502
1949	3,249	381	55,388	1,004	4,652	29,346

1950	3,414	339	66,300	727	4,650	29,263
1951	3,959	443	73,558	783	5,846	45,419
1952	2,949	479	76,224	760	7,021	50,975
1953	2,600	205	70,300	514	2,800	13,800
1954	3,294	140	63,745	123	2,093	14
1955	1,917	251	66,417	201	3,296	15,277
1956	3,275	393	74,345	158	6,042	35,010
1957	3,212	309	67,472	137	5,294	32,680
1958	3,378	159	55,540	117	1,117	9,034
1959	3,155	159	39,688	148	829	4,636
1960	5,423	304	67,288	295	1,996	13,770
1961	6,201	283	79,606	412	2,332	22,900
1962	7,529	302	82,683	677	1,134	22,015
1963	7,805	256	83,037	1,945	1,014	12,938
1964	6,110	242	86,104	2,969	1,626	29,833
1965	9,641	288	98,658	3,212	3,387	36,460
1966	9,295	243	108,614	2,755	1,596	29,296
1967	5,188	157	75,008	3,500	1,827	21,380
1968	6,630	225	90,769	3,429	1,363	18,686
1969	8,952	466	119,956	4,471	2,368	24,308
1970	6,174	782	166,278	7,361	3,550	16,601
1971	10,681	782	157,419	8,175	2,971	13,959
1972	14,897	1,017	168,034	8,248	3,582	12,735
1973	13,864	1,111	204,742	9,069	2,556	12,327
1974	15,427	1,195	196,585	9,392	2,364	13,784
1975	15,049	792	146,263	8,785	1,931	11,015
1976	15,198	892	172,360	9,969	n/a	n/a
1977	13,560	918	179,294	11,893	n/a	n/a
1978	9,879	895	140,611	12,632	n/a	n/a
1979	14,966	1,350	180,709	15,615	43	n/a
1980	15,787	n/a	164,333	19,297	n/a	n/a
1981	65,749	1,632	169,525	18,685	n/a	---
1982	54,000	805	93,031	19,940	n/a	---
1983	n/a	1,513	172,197	20,415	310	---
1984	39,900	n/a	207,899	21,269	n/a	---
1985	45,045	n/a	294,265	22,203	n/a	---
1986	39,856	n/a	301,954	21,496	12	---
1987	14,443	2,031	333,988	19,131	n/a	---
1988	46,294	4,434	285,500	21,803	n/a	---
1989	46,962	2,506	286,000	23,583	n/a	4,606
1990	25,879	1,803	304,756	24,292	n/a	4,900
1991	32,923	1,387	279,207	21,518	193	7,550
1992	28,778	628	253,604	24,549	n/a	n/a

*estimated

NEW MEXICO
Annual Mineral Production (B)

Year	Petroleum (thousand barrels)	Natural Gas (million cubic feet)	Uranium (tons of U308)	Molybdenum (short tons)	Potash (thousand short tons)
1924	98				
1925	1,060				
1926	1,666	1			
1927	1,226	1			
1928	943	1			
1929	1,830	3			
1930	10,189	3			
1931	15,227	19		48	n/a
1932	12,455	9,230		250	n/a
1933	14,116	10,399		250	n/a
1934	16,915	24,075		n/a	n/a
1935	20,483	27,931		n/a	35*
1936	27,223	33,928		n/a	150*
1937	38,854	46,337		316	175*
1938	36,009	50,706		n/a	225*
1939	37,668	60,284		n/a	n/a
1940	38,757	62,990		n/a	258
1941	39,660	64,655		n/a	489
1942	32,992	78,164		n/a	653
1943	38,924	86,500		n/a	610
1944	39,751	87,727		n/a	695
1945	37,686	105,023		n/a	843
1946	36,704	119,262		n/a	893
1947	40,926	142,740		702	966
1948	47,969	194,749	4	808	1,070
1949	47,645	204,961	8	501	1,019
1950	47,367	212,909	11	722	1,098
1951	53,082	300,169	9	722	1,350
1952	58,681	359,377	36	701	1,644
1953	70,441	399,086	215	559	1,908
1954	74,820	449,346	666	699	1,986
1955	82,958	540,664	847	833*	2,159
1956	87,893	626,340	2,891	857*	2,305
1957	94,579	723,004	2,534	723*	2,313
1958	98,323	761,446	3,604	640*	3,309
1959	105,692	739,660	6,772	676*	2,588
1960	107,940	798,928	7,760	360*	2,841
1961	112,553	789,662	7,750	399*	2,934
1962	109,328	804,612	7,293	544*	2,619
1963	109,613	808,377	5,512	n/a	3,083

1964	113,863	873,947	4,747	n/a	3,122
1965	119,166	937,205	4,591	n/a	3,363
1966	124,154	998,076	5,076	n/a	3,528
1967	126,144	1,067,510	5,933	n/a	3,434
1968	128,550	1,164,182	6,192	n/a	2,737
1969	129,227	1,138,133	5,993	n/a	2,861
1970	128,184	1,138,980	5,771	n/a	2,935
1971	118,412	1,167,577	5,305	n/a	2,792
1972	110,525	1,197,769	5,464	n/a	2,871
1973	100,986	1,218,749	4,634	n/a	2,746
1974	98,695	1,229,673	4,951	n/a	2,666
1975	95,063	1,203,107	5,191	n/a	2,700
1976	92,129	1,200,900	6,059	n/a	2,560
1977	87,223	1,184,300	6,779	n/a	2,703
1978	83,365	1,159,100	8,539	2,938	2,734
1979	79,649	1,162,700	7,423	2,869	2,643
1980	75,324	1,132,300	7,751	1,925	2,705
1981	72,155	1,118,600	6,206	966	2,668
1982	71,024	990,100	3,906	50	2,248
1983	75,169	885,700	2,550	350	1,764
1984	79,335	946,800	1,458	5,436	1,871
1985	78,530	893,300	692	7,576	1,664
1986	75,712	692,900	926	1,727	1,557
1987	72,328	813,700	1,166	1,018*	1,831
1988	71,235	781,200	1,130	4,869	2,043
1989	68,713	860,800	1,152	2,300	2,219
1990	68,055	899,200	306	5,562	2,259
1991	70,416	1,020,000	89	4,263	2,408
1992	71,000	1,240,000	56	n/a	2,242

*estimated

NEW MEXICO MINE
Employment and Safety

Year	Total Population	Mine Workers	Coal Mine Accidents (by decade)	Total Fatal Accidents (by decade)	Value of Products (except oil and natural gas)
1850	61,547	9			
1860	93,516	857			
1870	91,874	503			
1880	119,565	1,496			
1890	160,282	2,972			$4,611,764
1900	195,310	4,403	170		$5,605,795
1910	327,301	6,129	431		$5,587,744
1920	360,350	7,607	309		$18,872,560
1930	423,317	7,008	85	121*	$31,850,263
1940	531,818	8,831	49	127	$55,559,166
1950	681,187	10,522	6	60	$53,970,565
1960	951,023	19,236	4	102	$154,877,406
1970	1,017,055	17,420	8	86	$369,674,220
1980	1,302,894	28,697	7	36**	$1,060,422,328
1990	1,515,069	15,559			$1,097,550,000

*between 1930 and 1932 only coal mine accident figures are available
**upto1988

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