

WAGE STATISTICS AND COPPER OUTPUT
ARIZONA AND UNITED STATES COPPER MINES

Base Period (1947-1949) Compared With 1958-1960 Period

Source: Arizona Employment Security Commission, U. S. Dept. of Labor,
U. S. Bureau of Mines

The Arizona Department of Mineral Resources has recently compiled several tables of wage statistics and copper output of Arizona copper mines, comparing them with wages paid in other major industries in Arizona and the United States.

The base period of 1947-1949 has been used in making the comparison because that is the period used by the U.S. Department of Labor in determining the Consumer Price Index (or Cost of Living).

As in previous reports, the Department has shown that hourly wage-rates in the copper mining industry have been increased annually at a much greater rate than the Consumer Price Index. For example, the Hourly Earnings Index in Arizona Copper Mining for 1960 has increased 86.7 percent over the base period, while the Consumer Price Index has increased only 26.5 percent. During the same period the Hourly Earnings Index in U.S. Copper Mining has increased 85.2 percent. The Wholesale Price Index has increased only 19.6 percent over the same period.

Incidentally, it might be noted that the hourly earnings in copper mining in Arizona for the base period were reported to be \$1.432 as compared with \$1.431 for U.S. copper mining, as reported by the U.S. Department of Labor "Employment and Earnings". For the year 1960, comparative figures were \$2.674 for Arizona and \$2.65 for the United States (Table IV). This is cited because of the general belief that there has been a wage differential in favor of the Northern States over that of Arizona.

In the copper mining industry, productivity would be based on the total output of copper, and the measure of it would be pounds of copper produced per man-hour of labor. Responsibility for any change in productivity need not be the miner's labor alone. Improvements in technology and mechanical equipment are very important factors. Likewise a natural change in grade of ore treated is another factor. The only reason the man-hour unit is used is because labor is the biggest factor in the cost of producing copper, and it is therefore a good practical measure, serving to indicate whether productivity is keeping up with increased costs, thus checking inflationary tendencies.

As mentioned in previous reports, it has been generally believed that real wages of labor cannot rise faster than real output. In other words, we cannot get more out of the economy than we produce. It has been shown that since World War II, real output, or productivity, in general has been growing at an average of only 2 to 3 percent a year - while wages, on the average, have been climbing 5 to 6 percent a year.

In this year's study of the copper mining industry, a comparison was made between the three-year base period (1947-1949) and the latest three-year period, 1958-1960. Because the by-products of gold and silver produced with the copper, are factors in determining the miner's output, the total value of metal produced has been converted into pounds of copper at the average copper price. Preliminary figures for the 1960 production of copper, gold and silver from copper ores in Arizona and the United States were used in obtaining the three-year averages for the 1958-1960 period.

The study shows that in Arizona the pounds of equivalent copper produced per man-hour was 29.9901 in the base-period, as compared with 35.0962 in the 1958-1960 period, or a total increase in productivity of 17.03% for the eleven-year period, or 1.55% per year. The hourly earnings for the base period were \$1.432, and for the 1958-1960 period were \$2.531, or a total increase of 76.74%, or 6.98% per year.

Corresponding figures for the United States copper mining industry were 26.1639 pounds of equivalent copper produced per man-hour in the base period, as compared with 34.7175 pounds in the 1958-1960 period, or a total increase of 32.70%, an average of 2.97% per year. The hourly earnings were \$1.431 in the base period and \$2.529 in the 1958-1960 period, a total increase of 76.73%, or 6.98% per year.

The total covered employment in copper mining in Arizona in 1960, according to the Employment Security Commission, amounted to 13,764 employees with wages amounting to \$90,312,848. Additional copper smelter employees handling custom ores, such as Asarco's Hayden Plant, Phelps Dodge's Douglas Smelter and the International Smelter at Miami (for the 1st quarter of 1960) averaged 1,033 employees with covered wages estimated to amount to \$5,995,780. This makes a grand total of 14,797 covered employees and \$96,308,626 covered wages in the copper industry of Arizona.

This report does not include fringe benefits, which, in another study by this Department in 1959, were estimated to average 25 percent of the payroll. With a copper industry payroll of \$96,308,626 for 1960, fringe benefits would add approximately \$24 million to labor costs for the year.

TABLE I
ESTIMATED HOURS AND EARNINGS IN SELECTED INDUSTRIES IN ARIZONA
YEAR 1960

Source: "Arizona Current Employment Developments" Employment Security Commission

These estimates are based upon a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period ending nearest the 15th of the month.

<u>1960</u>	<u>Average Employment</u>	<u>Average Weekly Earnings</u>	<u>Average Weekly Hours 1/</u>	<u>Average Hourly Earnings 2/</u>	<u>Base Hourly Rate 3/</u>
Copper Mining	12,733	\$ 116.83	43.69	\$ 2.674	\$ 2.566
Manufacturing (Total)	48,417	99.00	40.32	2.455	2.446
Copper Smelting	1,033	111.62	44.00	2.534	2.427
Excl. Smelting	47,384	98.72	40.24	2.453	2.446
Contract Construction	31,708	130.44	36.49	3.564	3.564
Utilities	24,442	99.70	41.42	2.407	2.366
Retail Trade	63,617	69.61	40.47	1.720	1.710
Wholesale Trade	16,192	95.90	40.90	2.345	2.319

1/ Actual hours worked.

2/ Includes overtime earnings.

3/ Base hourly rate is a straight time rate, and is obtained by dividing the "Weekly Earnings" by the "Weekly Hours" plus 50% of the excess hours over 40 hours.

OTHER NON-AGRICULTURAL EMPLOYMENT *

	<u>Average Employment</u>
Mining & Quarrying (Excl. copper mining).....	2,433
Finance, Insurance, Real Estate	15,108
Services and Miscellaneous	45,350
Federal Government	20,750
State and Local Gov't (Incl. Education)	47,242
Education	(24,900)
GRAND TOTAL NON-AGRICULTURAL EMPLOYMENT	327,992

* Hourly & Weekly Earnings not reported.

TOTAL II

MONTHLY STATISTICS IN 1960 OF EMPLOYMENT, WEEKLY EARNINGS, WEEKLY HOURS AND HOURLY EARNINGS IN COPPER MINING, COPPER SMELTING, MANUFACTURING, CONTRACT CONSTRUCTION, UTILITIES, WHOLESALE AND RETAIL TRADE

Source: Arizona Employment Security Commission

<u>COPPER MINING: 1/</u>		<u>Avg. Weekly</u>	<u>Avg. Weekly</u>	<u>Avg. Hourly</u>
<u>1960</u>	<u>Employment</u>	<u>Earnings</u>	<u>Hours</u>	<u>Earnings</u>
January	9,400	\$ 109.12	43.3	\$ 2.52
February	12,500	95.00	37.4	2.54
March	12,700	117.11	44.7	2.62
April	12,900	117.48	44.5	2.64
May	13,000	120.42	45.1	2.67
June	13,100	117.13	44.2	2.65
July	12,400	115.90	43.9	2.64
August	13,200	119.41	43.9	2.72
September	13,400	119.24	44.0	2.71
October	13,400	121.99	44.2	2.76
November	13,400	120.61	43.7	2.76
December	13,400	124.85	45.4	2.75
AVERAGE	12,733	\$ 116.83	43.69	\$ 2.674
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<u>COPPER SMELTING: 2/</u>				
January	778	\$ 100.00	42.0	\$ 2.381
February	1,311	84.77	34.5	2.457
March	1,290	116.81	46.8	2.496
April	1,007	113.02	45.5	2.484
May	1,008	112.18	45.8	2.504
June	1,021	113.16	45.3	2.498
July	1,020	113.04	44.4	2.546
August	999	115.63	44.1	2.622
September	982	112.75	43.6	2.586
October	982	119.24	45.6	2.615
November	998	114.57	44.2	2.592
December	1,004	116.47	45.3	2.571
AVERAGE	1,033	\$ 111.62	44.0	\$ 2.534
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<u>TOTAL MANUFACTURING: (Includes COPPER SMELTING above)</u>				
January	47,200	\$ 96.56	39.9	\$ 2.42
February	48,800	97.28	40.2	2.42
March	48,800	98.01	40.5	2.42
April	49,200	99.39	40.9	2.43
May	49,200	99.39	40.9	2.43
June	49,200	99.87	41.1	2.43
July	48,200	100.04	40.5	2.47
August	47,200	99.20	40.0	2.48
September	47,700	98.70	39.8	2.48
October	48,000	97.46	39.3	2.48
November	48,700	101.56	40.3	2.52
December	48,800	100.84	40.5	2.49
AVERAGE	48,417	\$ 99.00	40.32	\$ 2.455

1/ Includes all smelters except Douglas, Asarco, at Hayden, and International (except 1st Qtr.)

2/ Included under Manufacturing (Douglas, Asarco at Hayden, International (1st Qtr. only)

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TABLE II (Continued) MONTHLY LABOR STATISTICS

<u>CONTRACT CONSTRUCTION:</u>		<u>Avg. Weekly</u>		<u>Avg. Weekly</u>	<u>Avg. Hourly</u>
<u>1960</u>	<u>Employment</u>	<u>Earnings</u>	<u>Hours</u>	<u>Earnings</u>	
January	30,000	\$ 114.16	32.9	\$ 3.47	
February	31,600	128.41	36.9	3.48	
March	31,800	131.51	37.9	3.47	
April	31,200	129.75	37.5	3.46	
May	30,700	130.18	37.3	3.49	
June	30,700	135.36	37.6	3.60	
July	31,100	136.15	37.3	3.65	
August	33,500	137.24	37.6	3.65	
September	33,700	137.25	37.5	3.66	
October	33,000	131.39	35.9	3.66	
November	31,700	118.41	32.8	3.61	
December	31,500	133.96	36.7	3.65	
AVERAGE	31,708	\$ 130.44	36.49	\$ 3.564	
<u>UTILITIES:</u>					
January	24,000	\$ 97.17	41.0	\$ 2.37	
February	24,100	96.63	40.6	2.38	
March	24,100	96.05	40.7	2.36	
April	24,400	98.53	41.4	2.38	
May	24,500	97.75	40.9	2.39	
June	25,200	98.57	40.9	2.41	
July	24,500	100.56	41.9	2.40	
August	24,600	101.64	42.0	2.42	
September	24,200	103.28	42.5	2.43	
October	24,400	102.34	41.6	2.46	
November	24,600	101.02	41.4	2.44	
December	24,700	102.72	42.1	2.44	
AVERAGE	24,442	\$ 99.70	41.42	2.407	
<u>TRADE:</u>		<u>AVG. WKLY EARN'GS.</u>		<u>AVG. WKLY HRS.</u>	<u>AVG. HRLY EARN'GS</u>
	<u>EMPLOYMENT</u>				
	Whole-	Whole-		Whole-	Whole-
<u>1960</u>	Retail sale	Retail	sale	Retail	sale
January	61,200 15,600	\$ 67.03	\$ 93.15	39.9 40.5	\$ 1.68 \$ 2.30
February	60,900 15,700	67.94	93.61	40.2 40.7	1.69 2.30
March	61,300 15,800	69.66	96.41	40.5 41.2	1.72 2.34
April	62,600 15,800	69.66	95.71	40.5 40.9	1.72 2.34
May	62,600 16,000	68.80	95.82	40.0 40.6	1.72 2.36
June	62,300 16,200	69.12	95.76	40.9 41.1	1.69 2.33
July	62,200 16,300	72.62	95.06	40.8 40.8	1.78 2.33
August	63,400 16,700	70.88	95.53	40.5 41.0	1.75 2.33
September	64,800 16,800	69.14	96.22	40.2 40.6	1.72 2.37
October	65,600 16,800	69.89	97.82	40.4 41.1	1.73 2.38
November	66,300 16,800	70.58	98.12	40.8 41.4	1.73 2.37
December	70,200 16,800	69.94	97.34	40.9 40.9	1.71 2.38
AVERAGE	63,617 16,192	\$ 69.61	\$ 95.90	40.47 40.90	\$ 1.720 \$ 2.345
AVG. WHSLE & RETAIL	79,809	\$ 74.94		40.56	1.848

TABLE III

ESTIMATED HOURS AND EARNINGS IN SELECTED INDUSTRIES IN ARIZONA

These estimates are based upon a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period ending nearest the 15th of the month.

Prepared by Arizona Employment Security Commission in co-operation with the U. S. Bureau of Labor Statistics.

	1947-49	1951	1956	1958	1959	1960
<u>Average Hourly Earnings:</u>						
Manufacturing ^{1/}	\$ 1.345	\$ 1.55	\$ 2.144	\$ 2.307	\$ 2.409	\$ 2.455
Copper Mining ^{2/}	1.432	1.74	2.377	2.399	2.526	2.674
Contract Construction	1.787	2.15	2.810	3.122	3.279	3.564
Utilities	1.369	1.54	1.929	2.176	2.324	2.366
Trade	1.090	1.32	1.618	1.708	1.830	1.848
<u>Average Weekly Hours:</u>						
Manufacturing	41.60	43.1	42.27	40.43	40.70	40.32
Copper Mining	44.83	47.7	47.15	39.76	42.82	43.69
Contract Construction	37.10	38.0	37.39	37.88	36.87	36.49
Utilities	41.39	40.1	40.78	40.99	40.98	41.42
Trade	41.98	42.8	41.37	40.90	40.81	40.56
<u>Average Weekly Earnings:</u>						
Manufacturing	\$ 55.95	\$ 66.81	\$ 90.63	\$ 93.26	\$ 98.05	\$ 99.00
Copper Mining	64.20	83.01	112.07	95.40	108.15	116.83
Contract Construction	66.30	81.70	105.09	118.25	120.19	130.44
Utilities	56.66	61.75	78.66	89.15	95.25	99.70
Trade	45.76	56.50	66.94	69.91	74.71	74.94
<u>Hourly Earnings Index (1947-1949 = 100):</u>						
Manufacturing	100.0	115.2	159.4	171.5	179.1	182.5
Copper Mining	100.0	121.5	166.0	167.5	176.4	186.7
Contract Construction	100.0	120.3	157.3	174.7	183.5	199.4
Utilities	100.0	112.5	140.9	158.9	169.8	170.7
Trade	100.0	121.1	148.4	156.7	167.9	169.5
<u>Consumer Price Index:</u>	100.0	111.0	116.2	123.5	124.6	126.5
<u>Wholesale Price Index:</u>	100.0	114.8	114.3	119.2	119.45	119.6
<u>E. & M. J. Copper Price:</u>	20.818¢	24.200¢	41.818¢	25.764¢	31.182¢	32.053¢
<u>Copper Price Index:</u>	100.0	116.2	200.8	123.8	149.8	154.0

- ^{1/} Beginning July 1952, Manufacturing includes aircraft modification operations. Manufacturing includes copper smelting at Asarco's Hayden Plant, International's Miami Smelter (to April 1, 1960), and Phelps Dodge's Douglas Smelter.
- ^{2/} Copper Mining includes smelting at Ajo, Morenci, San Manuel, Superior, Kennecott's Hayden Smelter, and Inspiration's Miami Smelter (Beginning April 1, 1960)

TABLE IV

COMPARISON OF AVERAGE NUMBER OF EMPLOYEES - WEEKLY EARNINGS,
WEEKLY HOURS AND HOURLY EARNINGS OF EMPLOYEES IN SELECTED
INDUSTRIES OF THE UNITED STATES AND STATE OF ARIZONA

Source: Arizona Employment Security Commission.
U. S. Dept. of Labor "Employment and Earnings",
February, 1961

Year 1960	No. Employees	Avg. Weekly Earnings	Avg. Weekly Hours	Avg. Hourly Earnings
Copper Mining - United States	29,600	\$ 114.75	43.3	\$ 2.65
" " - Arizona	12,733	116.83	43.69	2.674
Manufacturing - United States	16,337,000	90.91	39.7	2.29
" - Arizona	48,417	99.00	40.32	2.455
Contract Construction -				
" " - United States	2,772,000	119.72	36.5	3.28
" " - Arizona	31,708	130.44	36.49	3.564
Retail Trade - United States	8,507,000	68.24	37.7	1.81
" - Arizona	63,617	69.61	40.47	1.720
Wholesale Trade-United States	3,135,000	92.46	40.2	2.30
"-Arizona	16,192	95.90	40.90	2.345

TABLE V

ESTIMATED EMPLOYMENT, WEEKLY HOURS, HOURLY AND WEEKLY
EARNINGS IN ARIZONA COPPER MINING BY YEARS FROM 1951 TO 1960 INCL.

Source: Arizona Employment Security Commission

These estimates are based upon a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period nearest the 15th of each month.

COPPER MINING

	Employment	Weekly Hours <u>1/</u>	Hourly Earnings <u>2/</u>	Base Hourly Rate <u>3/</u>	Weekly Earnings	Con- sumer Price Index
1947-49 Base	10,700	44.83	\$ 1.432	\$ 1.359	\$ 64.20	100.0
1950 Year	9,500	46.5	1.63	1.524	75.80	102.8
1951 - April	10,400	47.2	1.71	1.589	80.71	110.4
1951 Year	10,100	47.7	1.74	1.61	83.00	111.0
1952 Year	10,700	47.1	1.92	1.785	90.43	113.5
1953 Year	11,400	46.7	2.05	1.896	95.73	114.4
1954 Year	11,600	45.3	2.13	2.012	96.49	114.8
1955 Year	11,700	47.0	2.23	2.075	104.81	114.5
1956 Year	13,200	47.0	2.38	2.215	111.86	116.1
1957 Year	14,000	43.74	2.42	2.324	106.00	120.2
1958 Year	13,533	39.80	2.399	2.399	95.49	123.5
1959 Year	11,100	42.816	2.526	2.446	108.15	124.6
1960 Year	12,733	43.69	2.674	2.566	116.83	126.5

1/ Actual hours worked.

2/ Includes overtime earnings.

3/ Base Hourly Rate is a straight time rate, and is obtained by dividing the Weekly Earnings by the Weekly Hours plus 50% of the excess hours over 40 hours.

TABLE VI

COPPER MINING EMPLOYMENT, WAGES AND HOURS IN U. S. AND ARIZONA

Source: "Employment and Earnings", U.S. Dept. of Labor. U.S.B.M. Mineral Yearbooks. "Arizona's Current Employment Development", Arizona Employment Security Commission.

	"A" Number Of All Employees		"B" Weekly Earnings		"C" Weekly Hours		"D" Hourly Earnings	
	ARIZONA	U.S.	ARIZONA	U.S.	ARIZONA	U.S.	ARIZONA	U.S.
Base Period: 1947-49 Avg.	10,700	27,100	\$ 64.20	\$ 63.11	44.83	44.10	\$ 1.432	\$ 1.431
Last Three Years:								
1958	13,500	28,400	\$ 95.40	\$ 94.62	39.8	39.1	\$ 2.399	\$ 2.42
1959	11,100	22,400	108.15	106.25	42.8	42.5	2.526	2.50
1960	12,733	29,600	116.83	114.75	43.7	43.3	2.674	2.65
1958-60 Avg.	12,444	26,800	\$106.50	\$105.27	42.08	41.63	\$ 2.531	\$ 2.529

	"E" Annual Man-Hours		"F" Annual Earnings		Annual Earnings Per Man	
	"A" x "C" x 52		"E" x "D"		"F" ÷ "A"	
	ARIZONA	U. S.	ARIZONA	U. S.	ARIZONA	U. S.
Base Period: 1947-49 Avg.	24,943,412	62,145,720	\$35,718,966	\$ 88,930,525	\$3,338	\$ 3,282
Last Three Years:						
1958	27,939,600	57,742,880	\$67,027,100	\$139,737,770	\$4,965	\$ 4,920
1959	24,704,160	49,853,440	62,402,708	124,633,600	5,622	5,564
1960	28,523,957	58,015,568	76,273,061	153,741,255	5,990	5,194
1958-60 Avg.	27,055,906	55,203,963	\$68,478,498	\$139,610,822	\$5,503	\$ 5,210

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TABLE VI (Cont'd)

	"G" Tons Copper Ores		"H" Lbs. Equiv. * Cu Produced From Copper Ores	
	ARIZONA	U. S.	ARIZONA	U. S.
Base Period: 1947-49	38,082,754	82,875,491	748,056,267	1,625,975,640
Last Three Years:				
1958	56,255,809	114,824,468	941,903,000	1,918,362,400
1959	53,121,545	103,715,843	821,777,000	1,594,926,200
1960 P	66,000,000	133,000,000	1,085,000,000	2,236,350,000
1958-60 Avg. P	58,492,451	120,362,020	949,560,000	1,916,546,000

P. = Preliminary.

* Includes value of gold and silver recovered from copper ores converted into lbs. of copper at average copper price.

	Tons Copper Ore Produced Per Man-Hour "G" ÷ "E"		Lbs. Equiv. Copper Produced Per Man-Hour "H" ÷ "E"		Earnings Per Man-Hour "D"	
	ARIZONA	U.S.	ARIZONA	U.S.	ARIZONA	U.S.
1947-49 Avg.	1.5268	1.3336	29.9901	26.1639	\$ 1.432	\$ 1.431
1958-60 Avg.	2.1619	2.1803	35.0962	34.7175	\$ 2.531	\$ 2.529
% Incr.in 11 yrs. Per Year	41.60% 3.78%	63.50% 5.77%	17.03% 1.55%	32.69% 2.97%	76.74% 6.98%	76.73% 6.98%

TABLE VII

SUMMARY OF ESTIMATED* COPPER MINING EMPLOYMENT, WEEKLY EARNINGS,
WEEKLY HOURS, HOURLY EARNINGS, IN ARIZONA AND UNITED STATES,
BY YEARS, 1947 TO 1960 INCLUSIVE

Source: "Employment and Earnings" - U. S. Dept. of Labor.
"Arizona's Current Employment Developments" -
Arizona Employment Security Commission.

	ALL EMPLOYEES		WEEKLY EARNINGS		WEEKLY HOURS		HOURLY EARNINGS	
	Arizona	U.S.	Arizona	U.S.	Arizona	U.S.	Arizona	U.S.
1947	10,700	25,700	\$ 59.40	\$ 59.27	45.0	44.8	\$ 1.32	\$ 1.32
1948	10,900	27,800	65.99	65.81	45.2	45.2	1.46	1.46
1949	10,500	27,300	66.98	63.96	44.3	42.3	1.512	1.512
Avg. 1947-1949	10,700	27,100	\$ 64.20	\$ 63.11	44.83	44.1	\$ 1.432	\$ 1.431
1950	9,500	25,800	\$ 75.80	\$ 72.05	46.5	45.0	\$ 1.63	\$ 1.601
1951	10,100	25,900	83.01	78.37	47.7	46.1	1.74	1.70
1952	10,700	26,500	90.31	85.73	47.06	45.6	1.92	1.88
1953	11,400	28,600	96.03	91.60	46.73	45.8	2.055	2.00
1954	11,900	27,400	96.60	87.33	45.31	42.6	2.132	2.05
1955	11,800	27,200	104.90	95.70	47.0	44.1	2.232	2.17
1956	13,300	34,400	112.07	100.95	47.1	43.7	2.377	2.31
1957	14,000	32,500	106.22	98.23	43.8	41.1	2.425	2.39
1958	13,500	28,400	95.40	94.62	39.8	39.1	2.399	2.42
1959	11,100	22,400	108.15	106.25	42.8	42.5	2.526	2.50
1960	12,733	29,600	116.83	114.75	43.69	43.3	2.674	2.65

* These estimates include all full and part-time wage and salary workers who worked or received pay during the pay period ending nearest the 15th of the month.

TABLE VIII

ARIZONA COPPER MINING - OUTPUT IN TONS COPPER ORE,
VALUE OF COPPER, GOLD, SILVER PRODUCED

Source: U. S. Bureau of Mines

	Tons Copper Ore Annual Rate	Gold Ounces & Value	Silver Ounces & Value	Copper Pounds & Value	Lbs. Cu Recov. Per Ton & Copper Price	Value of Copper, Gold & Silver	Lbs. Copper Equiv. to Total Val. Cu, Gold & Silver
1947-1949	38,082,754	79,612 \$2,786,420	2,603,485 \$2,356,154	723,353,767 \$150,588,843	19.0 lbs/ton 20.818¢	\$155,731,417	748,056,267
1950	41,757,037	79,562 \$2,784,670	2,853,375 \$2,582,304	765,334,514 \$162,250,916	18.3 lbs/ton 21.2¢	\$167,617,890	767,000,000
1951	42,784,388	83,521 \$2,923,235	3,087,865 \$2,794,518	775,609,514 \$187,697,501	18.1 lbs/ton 24.2¢	\$193,415,254	799,236,600
1952	44,472,522	83,692 \$2,929,220	2,900,851 \$2,625,270	730,809,903 \$176,855,996	16.4 lbs/ton 24.2¢	\$182,410,486	753,762,300
1953	45,187,838	89,724 \$3,140,340	3,164,255 \$2,863,809	738,404,453 \$211,922,077	16.3 lbs/ton 28.7¢	\$217,926,226	759,324,830
1954	43,072,894	94,648 \$3,312,680	3,330,060 \$3,058,954	714,154,795 \$212,103,976	16.6 lbs/ton 29.7¢	\$218,475,610	735,608,120
1955	52,189,728	105,330 \$3,686,550	3,629,191 \$3,284,418	856,270,850 \$321,101,569	16.4 lbs/ton 37.5¢	\$328,072,537	874,860,100
1956	60,468,580	119,435 \$4,180,225	3,963,579 \$3,587,039	935,039,400 \$390,846,469	15.5 lbs/ton 41.8¢	\$398,613,733	953,621,100
1957	59,571,834	123,375 \$4,318,125	4,088,618 \$3,700,200	947,840,100 \$280,560,670	15.9 lbs/ton 29.6¢	\$288,579,000	975,720,000
1958	56,255,809	114,262 \$3,999,170	3,543,044 \$3,206,455	913,973,800 \$235,805,240	16.2 lbs/ton 25.8¢	\$243,010,865	941,903,000
1959	53,121,545	96,153 \$3,365,355	2,724,701 \$2,465,854	803,087,000 \$250,563,144	15.1 lbs/ton 31.2¢	\$256,394,353	821,777,000
1960	66,000,000	119,460 \$4,181,100	3,400,000 \$3,077,000	1,062,000,000 \$339,840,000	16.1 lbs/ton 32.0¢	\$347,200,000	1,085,000,000

TABLE IX

UNITED STATES COPPER MINING - OUTPUT IN TONS COPPER ORE,
VALUE OF COPPER, GOLD, SILVER PRODUCED

Source: U. S. Bureau of Mines

	Tons Copper Ore Annual Rate	Gold Ounces & Value	Silver Ounces & Value	Copper Pounds & Value	Lbs. Cu Recov. Per Ton & Copper Price	Value of Copper, Gold & Silver	Lbs. Copper Equiv. to Total Val. Cu, Gold & Silver
1947-1949	82,875,491	479,589 \$16,785,615	7,785,382 \$7,045,770	1,511,500,640 \$ 314,664,195	18.2 lbs. 20.818¢	\$338,495,580	1,625,975,640
1950	94,585,792	583,205 \$20,412,175	8,389,913 \$7,592,871	1,691,778,098 \$ 358,656,570	17.9 lbs. 21.2¢	\$386,616,616	1,823,876,000
1951	95,494,214	564,471 \$19,756,485	8,362,150 \$7,567,746	1,709,655,673 \$ 413,736,679	17.9 lbs. 24.2¢	\$441,060,910	1,822,566,000
1952	99,947,492	572,882 \$20,050,870	8,197,888 \$7,419,089	1,695,789,296 \$ 410,381,011	17.0 lbs. 24.2¢	\$437,850,970	1,809,300,000
1953	101,064,945	617,712 \$21,619,920	9,163,964 \$8,293,387	1,712,438,757 \$ 493,182,374	16.9 lbs. 28.8¢	\$523,095,681	1,816,305,000
1954	93,654,258	502,091 \$17,573,185	8,073,017 \$7,306,080	1,547,643,795 \$ 459,650,209	16.5 lbs. 29.7¢	\$484,529,474	1,631,412,000
1955	112,549,665	581,421 \$20,349,735	11,527,224 \$10,432,138	1,871,640,306 \$ 701,865,113	16.6 lbs. 37.5¢	\$732,646,986	1,953,725,000
1956	131,775,959	579,617 \$20,286,595	11,512,013 \$10,418,372	2,049,455,804 \$ 856,672,524	15.55 lbs. 41.8¢	\$887,377,491	2,122,912,000
1957	129,715,586	562,234 \$19,678,190	11,097,267 \$10,043,027	2,006,037,881 \$ 593,787,218	15.5 lbs. 29.6¢	\$623,508,435	2,106,447,000
1958	114,824,468	464,051 \$16,241,785	9,182,070 \$ 8,309,773	1,819,464,806 \$ 469,421,918	15.8 lbs. 25.8¢	\$493,973,476	1,914,626,000
1959	103,715,843	367,455 \$12,860,925	6,838,927 \$ 6,189,229	1,533,867,852 \$ 478,566,785	14.8 lbs. 31.2¢	\$497,616,939	1,594,926,200
1960 P	133,000,000	471,219 \$16,492,665	8,778,000 \$ 7,944,000	2,160,000,000 \$ 691,200,000	16.2 lbs. 32.0¢	\$715,636,665	2,236,350,000

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TABLE X

AVERAGE NUMBER OF COVERED EMPLOYEES, TOTAL WAGES, AVERAGE ANNUAL WAGE, AND AVERAGE WEEKLY WAGE

Base period 1947-1949, 1958, 1959 & 1960

Arizona Covered Industry

Compiled by Department of Mineral Resources
Source: Arizona Employment Security Commission

	Average No.Of Employees*	Total Wages	Average Annual Wage	Average Weekly Wage	Average No.Of Employees*	Total Wages	Average Annual Wage	Average Weekly Wage
	Base Period 1947 - 1949				Year 1958			
Copper Mining Only	11,278	\$ 39,432,008	\$ 3,496	\$ 67.23	14,100	\$ 74,726,972	\$ 5,300	\$101.93
All Mining & Quarrying	12,870	44,345,018	3,446	66.27	16,403	86,199,194	5,255	101.06
Smelting **	1,500	5,175,000	3,450	66.35	1,831	8,892,801	4,857	93.40
All Mining, Quar., & Smelting	14,370	49,520,018	3,446	66.27	18,234	95,091,995	5,215	100.29
Manufacturing (Excl. Smelting)	12,639	36,910,624	2,920	56.15	38,485	203,624,961	5,291	101.75
Construction	10,844	35,424,826	3,267	62.83	26,680	150,239,757	5,631	108.29
Transp. & Utilities (Excl. RR's)	10,530	29,948,944	2,844	54.69	18,041	87,436,788	4,847	93.21
Wholesale-Retail Trade	36,213	91,916,860	2,538	48.81	63,640	234,196,004	3,680	70.77
Services & Misc. (Incl. Agri.)	18,643	43,103,526	2,312	44.46	37,734	135,450,709	3,590	69.04
Totals and Averages	103,239	\$286,824,898	\$ 2,778	\$ 53.42	202,814	\$906,040,214	\$ 4,467	\$ 85.90

	Year 1959				Year 1960			
Copper Mining Only	11,568	\$ 72,095,130	\$ 6,232	\$119.85	13,764	\$ 90,312,848	\$ 6,562	\$126.19
All Mining & Quarrying	13,680	83,038,890	6,070	116.74	15,837	102,175,093	6,452	124.08
Smelting **	1,525	8,439,106	5,534	106.42	1,033	5,995,780	5,804	111.62
All Mining & Quar., & Smelting	15,205	91,477,996	6,016	115.69	16,870	108,170,873	6,412	123.31
Manufacturing (Excl. Smelting)	43,400	241,713,804	5,569	107.10	46,470	265,799,784	5,720	110.00
Construction	29,260	169,187,767	5,782	111.19	32,174	200,203,313	6,223	119.67
Transp. & Utilities (Excl. RR's)	18,839	97,345,413	5,167	99.37	19,906	106,302,227	5,340	102.69
Wholesale-Retail Trade	68,990	263,771,499	3,823	73.52	74,423	291,911,971	3,922	75.42
Services & Misc. (Incl. Agri.)	42,727	162,489,695	3,803	73.13	47,190	187,753,626	3,979	76.52
Totals and Averages	218,421	\$1,025,986,174	\$ 4,697	\$ 90.33	237,033	\$1,160,141,794	\$ 4,894	\$ 94.12

* This number includes all covered employees on payroll, and is not restricted to production workers only, on which the average hourly and weekly earnings are reported.

** Smelting employment has been segregated from Manufacturing as reported by the Employment Security Commission.

Note: Fringe benefits are not included in the total wages.

TABLE XI

SUMMARY OF TOTAL COVERED EMPLOYMENT & WAGES IN ARIZONA COPPER MINING
1947-1960 InclusiveSource: Arizona Employment Security Commission
United States Bureau of Mines

COPPER MINING:	No. Covered Employees	Covered Wages	Average Annual Wage	Tons Copper Ores	Average Weekly Wage
1947	11,340	\$36,365,277	\$3,207	37,810,448	\$61.67
1948	11,493	41,318,524	3,595	39,072,204	69.13
1949	11,001	40,612,224	3,692	37,365,611	71.00
1950	10,181	41,994,321	4,125	41,757,273	79.33
1951	10,754	47,825,698	4,447	42,784,388	85.52
1952	11,365	54,950,235	4,835	44,472,522	93.14
1953	12,068	62,742,982	5,199	45,187,838	99.98
1954	12,502	65,518,853	5,241	43,072,894	100.79
1955	12,399	71,293,263	5,750	52,189,728	110.58
1956	14,008	83,568,996	5,966	60,468,580	114.73
1957	14,652	85,125,320	5,809	59,571,834	111.71
1958	14,100	74,726,972	5,300	56,255,809	101.93
1959	11,568	72,095,130	6,232	53,121,545	119.85
1960	13,764	90,312,848	6,562	66,000,000 P	126.19

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