

DEPARTMENT OF COMMERCE  
 BUREAU OF THE CENSUS  
 WASHINGTON

FOURTEENTH CENSUS OF THE UNITED STATES  
 MINES AND QUARRIES: 1919

MARYLAND, VIRGINIA, NORTH  
 CAROLINA, SOUTH CAROLINA

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## EXPLANATION OF TERMS.

**Scope of census.**—Census statistics of mines and quarries, and petroleum and natural-gas wells are compiled primarily for the purpose of showing the absolute and relative magnitude of the different branches of industry covered and their growth or decline. Incidentally, the effort is made to present data throwing light upon character of ownership, size of enterprises, and similar subjects. When use is made of the statistics for these purposes it is imperative that due attention be given to their limitations, particularly in connection with any attempt to derive from them figures purporting to show average wages, cost of production, or profits.

The census does not cover enterprises which were idle, that is, in which neither productive work nor development work was done during the entire year; or the products of which were valued at less than \$500; or in the case of the bituminous coal mining industry, producing less than 1,000 tons; or, if not productive, in which development work amounting to less than \$5,000 was done.

**Period covered.**—The returns relate to the calendar year 1919, or the business year which corresponded most nearly to that calendar year, and cover a year's operations, except for enterprises which began or discontinued business during the year.

**The enterprise.**—As used in the text and tables the term enterprise represents one or more mines and quarries, wells or groups of wells, or natural-gas gasoline plants all within the same State operated under a common ownership or unified control, or for which only one set of books of account was kept, and for which a single report was secured. It may cover plants at several localities within the same State. If plants under unified control were not all located within the same State, separate reports were secured in order that statistics for the several enterprises thus defined might be included in statistics for the States in which they were located. The enterprise is further defined as being limited to a single industry. Separate reports were secured with very few exceptions for each industry conducted by an operator, and only where combined reports on two or more industries could not be separated does a single enterprise cover more than one industry. (See "Classification of Industries.") The number of enterprises shown in the tables is equivalent to the number of individual reports tabulated.

**Number of mines, quarries, wells, and plants.**—Under these designations is given the count of the number of mines, quarries, wells, and gasoline plants shown by the returns received. The unit of enumeration for mines and quarries was difficult to define. As a rule each group of workings at a given locality in which operations were conducted as a unit or were unified by common management or joint handling of some part of the mining process, has been considered as a single mine or quarry. Many individual openings, therefore, are not counted as individual mines. The total number reported comprises those in operation or in the course of development during the year 1919. For petroleum and natural-gas wells the individual wells were counted and the total number productive December 31, 1919, is reported. The number of natural-gas gasoline plants is the total number reported in operation during the year.

**Classification by industries.**—The enterprises reported have been grouped by industries according to the kind of products. Only a few enterprises made consolidated reports covering more than one kind of product. In such cases classification was determined by the product of chief value.

**Selected industries.**—The general tables at the end of this bulletin give the principal facts separately for the industries of the State. A selection has been made of the leading industries of the State for more detailed consideration. Industries of greater importance than some of those selected are omitted when they comprise so few enterprises that detailed presentation would reveal the operations of individual concerns.

**Influence of increased prices.**—In comparing figures for cost of supplies and materials, and value of products, with the corresponding figures for earlier censuses, account should be taken of the general increase in the prices of commodities during recent years. To the extent to which this factor has been influential the figures fail to afford an exact measure of the increase in the volume of business.

**Persons engaged in the industry.**—The following general classes of persons engaged in the mines and quarries and petroleum and natural-gas industries were distinguished: (1) Proprietors and firm members, (2) salaried officers of corporations, (3) superintendents and managers, (4) technical employees, (5) clerks (including other subordinate salaried employees), and (6) wage earners. In the reports for the census of 1900 the fourth class, technical employees, was not distinguished and was probably included with other salaried employees.

The number of persons engaged in each industry, segregated by occupation, sex, and, in the case of wage earners, also by age (whether under 16 or 16 and over), was reported for a single representative day. The 15th of December was selected as representing for most industries normal conditions of employment, but where this date was not a representative day report for another date was requested.

The number of employees other than wage earners thus reported for the representative date has been treated as equivalent to the average for the year, since the number of employees of this class does not ordinarily vary much from month to month. The average of wage earners has been obtained in the manner explained in the next paragraph.

In addition to the more detailed report by occupation, sex, and age of the number of wage earners on the representative date, a report was obtained of the number employed on the 15th of each month, without distinction of sex or age. From these figures the average number of wage earners for the year has been calculated by dividing the sum of the numbers reported for the several months by 12. The importance of the industry as an employer of labor is believed to be more accurately measured by this average than by the number employed at any one time or on a given day.

The number of wage earners reported for the representative day is given in the table of detailed statistics for the industries, in connection with the classification of wage earners by occupation which was made for the representative day. This number is not used in any other way because, in view of the unavoidable variations of date, such a total is believed to be less significant than the average number. It would involve more or less duplication of persons working in different industries at different times, would not represent the total number employed in all industries at any one time, and would give undue weight to seasonal industries as compared with industries in continuous operation.

**Salaries and wages.**—Under these heads are given the total payments during the year for salaries and wages, respectively. The Census Bureau has not undertaken to calculate the average annual earnings of either salaried employees or wage earners. Such averages would possess little real value, because they would be based on the earnings of employees of both sexes, of all ages, in different occupations, and of widely varying degrees of skill. Furthermore, so far as wage earners

are concerned, it would be impossible to calculate accurately even so simple an average as this, since the number of wage earners fluctuates rapidly and irregularly in every industry, and in some to a very great extent from day to day. The Census Bureau's figures for wage earners, as already explained, are averages based on the number employed on the 15th of each month and while representing the number according to the pay rolls to whom wages were paid on that date, no doubt represent a larger number than would be required to perform the work in any industry if all were continuously employed during the year.

**Prevailing hours of labor.**—No attempt was made to ascertain the number of wage earners working a given number of hours per week. The inquiry called merely for the prevailing practice followed in each enterprise. Occasional variations in hours in an establishment from one part of the year to another were disregarded, and no attention was paid to the fact that a few wage earners might have hours differing from those of the majority. All the wage earners of each enterprise are therefore counted in the class within which the enterprise itself falls. In most enterprises, however, practically all the wage earners work the same number of hours, so that the figures give a substantially correct representation of the hours of labor.

**Capital.**—The instructions on the schedule for securing data relating to capital were as follows: "The answer should show the total amount of capital, owned and borrowed, invested by the operator in the enterprise on the last day of the business year reported. Do not include securities and loans representing investments in other enterprises." These instructions were identical with those employed at the Census of 1900. The reports received in respect to capital, however, at both censuses, have in so many cases been defective that the data compiled are of value only as indicating very general conditions. While there are some enterprises maintaining accounting systems such that an accurate return for capital could be made, this is not true of the great majority, and the figures therefore do not show the actual amount of capital invested.

**Expenses.**—The expenses reported in the Census of 1919 include salaries and wages; the cost of supplies, materials, and fuels, including the freight on these; cost of power purchased; the cost of contract work; royalties and rents paid; and taxes paid or assessed. The Census of 1900 reported in addition to the items of expenses covered by the present census all other items of expense incident to that year's business except interest on indebtedness, dividends, and allowances for depreciation.

**Supplies and materials, fuel, and power.**—Statistics as to supplies and materials, fuel, and power, relate to the cost of these used during the year which may be more or less than the amount purchased during the year. The term "supplies and materials" covers mine, mill, quarry, and well supplies, and mineral purchased for treatment, resale, or distribution.

**Royalties and rents.**—The amounts given under this head represent the payment to fee holders or the value of share of product credited to fee holders for mineral output from leased land and also rents paid for plants, equipment, and privileges or easements.

**Taxes.**—The taxes include Federal capital stock; corporation income, and excess profits tax; and also State, county, and local taxes. The data compiled in respect to Federal taxes are very defective largely for the reason that many mining corporations are engaged in other business and have sources of income other than from mining and do not pay taxes on mining separately. For many of these corporations no data have been obtained; for others satisfactory segregation of mining could not be made.

**Expenditures for development work.**—The expenses reported as defined above include costs of both productive operation and development work. In the statistics on producing enterprises that part of the expenses for salaries, wages, contract work, supplies and materials, fuel, and power which was credited by the mine operators to development work is shown as expenditures for development work. In the statistics for nonproducing enterprises the total of all these expenses is given as expenditure for development work.

**Quantity of products.**—In so far as the statistics on quantities of mineral products in 1919 are available for the States, they will be found in the reports of the United States Geological Survey, which has tabulated the statistics on quantities of products collected by the Bureau of the Census in cooperation with the Geological Survey, and will also be presented in the special reports of the Census on the several mining industries.

**Value of products.**—The amounts given under this heading represent the selling value at point of production or f. o. b. at point of shipment, or such other value as may represent the net value or amount received for the product made in 1919 under the terms by which it was disposed of, and also includes the value at point of production of products used by the operating company.

**Cost of mining and profits.**—The census data do not show the entire cost of mining and well operations, and consequently can not be used for the calculation of profits. No account has been taken of depreciation or interest; rent of offices and buildings other than mines, quarries, and wells; insurance, selling, and other sundry expenses.

**Lands controlled.**—The inquiry on land tenure was confined to land pertaining to the mining or well operations covered by the report. In many of these, however, land held in reserve for future development and for speculative or other purposes not pertaining to mining was included in the returns, and also a large number of more or less unsatisfactory estimates were included. Nevertheless, it is believed that the data presented reflect fairly the conditions as to land tenure in the mining industries, and correctly show the order of magnitude of land holdings pertaining to mining enterprises.

**Power used.**—The item, aggregate horsepower, represents the horsepower of prime movers used by the enterprises for generating power plus horsepower of motors, principally electric, and other equipment operated by power purchased from other concerns. It does not cover the power of electric motors taking their current from primary power generators operated by the same enterprise (such equipment is reported separately), because its inclusion would obviously result in duplication. The figures on power represent the rated capacity of the engines, motors, etc., and not the amount of power in actual daily use.

**Fuel.**—Statistics of the quantity of fuel used are shown only for anthracite and bituminous coal, coke, wood, oil, and gas. They relate to the quantity used during the year, which may be more or less than the quantity purchased. As only the principal varieties of fuel are shown, no comparison can be made with the total cost of all fuel.

## MARYLAND.

Maryland, which ranks forty-first among the states in size (land area 9,941 square miles) and twenty-eighth in population (1,449,661 in 1920), ranked thirtieth in the value of mineral products for 1919. The state ranked twenty-fifth in the total number of persons engaged in the mining industries and in the average number of wage earners employed.

The total value of products of mines and quarries in the state of Maryland in 1919 was \$9,698,577, an increase of 67.7 per cent as compared with the corresponding amount reported at the census of 1909. This figure includes the value of by-products and receipts for work or miscellaneous services for other enterprises, which in 1919 amounted to \$23,275.

The increases in value of products, wages, and cost of supplies and materials and fuel and power, as shown in Table 1, are largely due to general price increases during the census interval and are therefore not a measure of progress in mining activities which were smaller in volume in 1919 than in 1909, as reflected by the decreases in number of mines and quarries operated, wage earners employed, and capital invested.

The mining industries reported in Maryland in 1919, classified according to principal products and listed in order of value of products, were coal, granite, basalt, limestone, silica (quartz or flint), slate, sandstone, marble, clay, feldspar, talc and soapstone, chromite, asbestos, and iron ore. In addition to products indicated by these industry classifications, one silica enterprise and one talc and soapstone enterprise produced feldspar; one marble enterprise produced limestone; one clay mine produced mica and another produced mineral pigments. The iron ore produced was used entirely in the manufacture of metallic paints. The industries for which statistics can be shown without disclosure of individual operations are ranked by value of products in Table 2.

The principal mining industry in Maryland in 1919 was bituminous coal mining in the extreme western counties, Allegany and Garrett. This industry included 58 out of a total of 126 mining enterprises in the state, em-

ployed 85.7 per cent of the total number of wage earners, and reported products valued at \$8,195,667, or 84.5 per cent of the total value of products.

The quarrying industries were next in importance and accounted for about one-eighth of the wage earners and value of products. Among the relatively small industries the production of silica (quartz or flint) was important in Maryland, as the state led all others in the output of quartz.

The mining enterprises in the state in 1919 are classified according to form of operating organization in Table 3, which shows that corporations outclassed all other forms.

The relatively large number of small enterprises, as measured by the average number of wage earners employed, is shown in Table 4. Of the 126 enterprises, one had no wage earners and 112 had fewer than 101 each and employed only 40.8 per cent of the 5,628 wage earners reported. The 13 larger enterprises were in the coal industry and employed more than two-thirds of the wage earners in that industry and more than one-half of the wage earners reported for all mining and quarrying enterprises in the state.

Table 5 shows that in a majority of enterprises and for 85.7 per cent of the wage earners the prevailing hours of labor were 44 to 53 per week. The proportion of enterprises and wage earners for which such hours prevailed in the coal-mining industry was even larger than for all industries combined. In the coal industry the 8-hour day and 6-day week was the rule. In the quarrying industries the hours of labor per week were commonly 54 to 62 with a 9 or 10-hour day and 6-day week.

The statistics for wage earners presented in Table 6, showing changes in the number employed month by month, reflect conditions prevailing in the industries during the census year. The minimum shown in the coal industry in November is abnormal as to time of year because of the great coal strike in that month.

Table 7 presents for 1919 statistics in detail for the state as a whole and for each industry that can be shown without disclosure of individual operations.

## MINES AND QUARRIES—MARYLAND.

TABLE 1.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919 AND 1909.

	MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>		MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>
	1919	1909			1919	1909	
Number of enterprises.....	126	126	.....	Capital.....	\$21,078,980	\$25,160,678	-16.3
Number of mines and quarries.....	161	173	-0.9	Principal expenses:			
Persons engaged.....	6,116	7,046	-20.0	Salaries.....	780,650	328,447	140.4
Proprietors and firm members, total.....	84	101	-10.8	Wages.....	6,151,744	3,330,682	81.2
Number performing manual labor in or about the mines and quarries.....	26	48	.....	Contract work.....	16,800	8,303	103.5
Salaried employees.....	404	355	13.8	Supplies and materials.....	1,478,074	478,555	146.2
Wage earners (average number).....	5,628	7,190	-21.7	Fuel and power.....	308,760	104,150	166.4
Power used (horsepower).....	18,600	18,118	3.0	Royalties and rents.....	437,562	433,780	2.8
				Taxes.....	208,437	88,550	185.0
				Value of products.....	9,608,577	5,782,045	67.7

<sup>1</sup> A minus sign (-) denotes decrease. Percentages are omitted where base is less than 100.

TABLE 2.—PRINCIPAL INDUSTRIES, PRODUCING ENTERPRISES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.		INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.			Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries.....	126	5,628	100.0	\$9,608,577	100.0	Limestone.....	11	149	2.6	\$241,638	2.5
Coal, bituminous.....	58	4,826	85.7	8,195,667	84.5	Slate.....	4	85	1.5	76,683	0.8
Granite.....	9	235	4.2	495,651	5.1	Clay.....	8	21	0.4	31,758	0.3
Basalt.....	10	183	3.3	309,075	3.8	Feldspar.....	8	11	0.2	30,468	0.3
						All other industries.....	18	118	2.1	257,637	2.7

<sup>1</sup> Includes enterprises in industries as follows: Asbestos, 1; chromite, 1; iron ore, 1; marble, 2; sandstone, 2; silica, 9; talc and soapstone, 2.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND CHARACTER OF ORGANIZATION.	Number of enterprises.	Number of wage earners.	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Total.	Per enterprise.	Enterprises.	Wage earners.	Value of products.
ALL INDUSTRIES.....	126	5,628	\$9,608,577	\$76,673	100.0	100.0	100.0
Corporation.....	73	4,655	8,561,916	117,607	57.0	88.0	88.6
Individual.....	35	193	330,468	9,697	27.8	3.4	3.5
Firm.....	18	480	767,258	42,925	14.3	8.6	7.0
COAL, BITUMINOUS.....	58	4,826	8,195,667	141,305	100.0	100.0	100.0
Corporation.....	44	4,498	7,578,220	172,232	78.0	91.3	92.5
Individual.....	8	52	70,460	9,550	13.8	1.1	0.9
Firm.....	6	366	541,038	90,173	10.3	7.0	6.6
GRANITE, BASALT, LIMESTONE, AND SLATE.....	34	652	1,183,647	34,706	100.0	100.0	100.0
Corporation.....	18	438	760,017	42,723	82.0	67.2	65.0
Individual.....	10	116	208,810	20,881	20.4	17.8	17.7
Firm.....	6	98	205,220	31,203	17.6	15.0	17.3

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TABLE 4.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.		INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.
ALL INDUSTRIES.....	126	100.0	5,628	100.0	BASALT.....	10	100.0	183	100.0
No wage earners.....	1	0.8			1 to 5.....	2	20.0	8	4.4
1 to 5.....	40	31.7	90	1.6	6 to 20.....	5	50.0	76	41.5
6 to 20.....	36	28.6	458	8.1	21 to 50.....	3	30.0	99	54.1
21 to 50.....	22	17.5	762	13.5	LIMESTONE.....	11	100.0	149	100.0
51 to 100.....	14	11.1	900	17.6	1 to 5.....	8	72.7	31	20.8
101 to 500.....	12	9.5	1,015	34.0	6 to 20.....	1	9.1	16	10.7
Over 1,000.....	1	.8	1,413	25.1	21 to 50.....	1	9.1	49	32.9
COAL, BITUMINOUS.....	58	100.0	4,826	100.0	51 to 100.....	1	9.1	53	35.6
1 to 5.....	5	8.6	12	0.2	SLATE.....	4	100.0	85	100.0
6 to 20.....	16	27.0	198	4.1	6 to 20.....	2	50.0	22	25.9
21 to 50.....	12	20.7	418	8.7	21 to 50.....	2	50.0	63	74.1
51 to 100.....	12	20.7	870	18.0	GRANITE.....	9	100.0	235	100.0
101 to 500.....	12	20.7	1,915	39.7	1 to 5.....	1	11.1	4	1.7
Over 1,000.....	1	1.7	1,413	29.3	6 to 20.....	4	44.4	92	26.4
					21 to 50.....	3	33.3	102	43.4
					51 to 100.....	1	11.1	67	28.5

TABLE 5.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE--									
	Enterprises.	Wage earners.	35 and under.		36 to 43.		44 to 53.		54 to 62.		63 to 71.	
			Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
All industries.....	125	5,628	1	20	8	144	70	4,825	35	620	2	19
Coal, bituminous.....	58	4,826			6	133	51	4,068	1	25		
Granite.....	9	235					3	55	6	150		
Basalt.....	10	183	1	20	1	3	3	68	5	102		
Limestone.....	11	149					1	4	9	141	1	4
Slate.....	4	85							4	85		
Clay.....	8	21			1	8	3	4	4	9		
Feldspar.....	7	11					7	11			1	15
All other industries.....	18	118					11	25	6	78		

<sup>1</sup> Exclusive of 1 enterprise employing no wage earners in the feldspar industry.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1919.

[The month of maximum employment for each industry is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

INDUSTRY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	5,628	5,829	5,305	<b>5,101</b>	5,171	5,424	5,460	5,743	6,119	6,157	<b>6,221</b>	5,144	5,802	82.0
Coal, bituminous.....	4,826	5,287	4,714	4,514	4,356	4,528	4,541	4,769	5,121	5,225	<b>5,330</b>	4,302	5,225	80.7
Granite.....	235	125	<i>122</i>	154	224	202	280	304	<b>314</b>	303	285	235	182	38.9
Basalt.....	183	<i>69</i>	94	96	225	228	249	243	239	216	212	206	119	27.7
Limestone.....	149	130	122	<i>105</i>	144	167	166	173	<b>192</b>	170	153	151	115	54.7
Slate.....	85	<i>92</i>	98	98	80	<i>69</i>	79	91	89	84	82	81	77	70.4
Clay.....	21	<i>16</i>	16	16	16	16	19	23	23	25	<b>28</b>	27	27	67.1
Feldspar.....	11	9	18	18	12	8	8	8	8	8	15	15	6	27.8
All other industries.....	118	101	121	<i>100</i>	114	116	118	132	<b>133</b>	126	116	127	112	75.2

## MINES AND QUARRIES—MARYLAND.

TABLE 7.—DETAILED STATISTICS FOR MINING INDUSTRIES: 1919.

	PRODUCING ENTERPRISES.								
	Total.	Coal, bituminous.	Granite.	Basalt.	Lime-stone.	Slate.	Clay.	Feldspar.	All other. <sup>1</sup>
Number of enterprises.....	2 126	2 58	9	10	11	4	8	8	18
Number of mines and quarries.....	161	92	9	10	11	4	8	8	19
Capital.....	\$21,078,980	\$17,220,780	\$627,025	\$336,217	\$219,873	\$652,142	\$23,550	\$8,700	\$1,084,084
Principal expenses:									
Salaries and wages—									
Officers.....	\$324,857	\$293,151	\$14,573	\$1,273		\$400			\$15,460
Superintendents and managers.....	\$267,001	\$213,764	\$11,288	\$17,340	\$5,284	\$5,835		\$1,200	\$12,200
Technical employees.....	\$30,098	\$39,098							
Clerks, etc.....	\$158,703	\$133,164	\$9,411	\$5,542	\$7,580	\$705			\$5,181
Wage earners.....	\$6,151,744	\$5,386,509	\$200,741	\$186,210	\$128,148	\$54,533	\$10,098	\$9,815	\$97,000
Supplies and materials.....	\$1,178,074	\$920,325	\$70,836	\$92,260	\$42,480	\$4,701	\$2,505	\$7,430	\$22,438
Fuel.....	\$247,837	\$133,388	\$49,807	\$28,402	\$14,085	\$7,334		\$246	\$14,305
Power.....	\$60,920	\$60,041	\$1,232	\$1,200	\$1,738	\$2,821			\$8,897
Royalties and rents.....	\$137,502	\$109,627	\$12,500	\$3,410	\$2,005		\$1,238	\$800	\$9,887
Taxes.....	\$208,137	\$186,071	\$3,607	\$8,545	\$3,310	\$2,706		\$68	\$3,450
Contract work.....	\$16,800	\$11,345	\$2,535					\$1,500	\$1,510
Expenditures for development (included in the above items).....	\$191,878	\$182,424			\$500	\$2,847			\$6,107
Value of products.....	\$9,608,577	\$8,195,667	\$495,651	\$369,075	\$241,038	\$76,083	\$31,758	\$30,468	\$257,037
Persons engaged in industry.....	6,116	5,180	250	210	160	63	20	22	154
Proprietors and firm members (total).....	84	29	3	14	0		8	0	12
Number performing manual labor.....	20	10	2	2			2	3	7
Salaried officers.....	85	69	0			1			9
Superintendents and managers.....	125	93	7	0	2	5		2	7
Technical employees.....	31	31							8
Clerks, etc.....	163	132	8	4	0	2			8
Wage earners (average number).....	5,628	4,826	235	183	140	85	21	11	118
Wage earners by occupation (Dec. 15):									
Above ground (total).....	1,842	868	270	218	177	84	31	26	150
Below ground (total).....	4,469	4,448				21			
Foremen, shift bosses, etc.—									
Above ground.....	69	40	10	0	3	1			6
Below ground.....	125	123				2			
Engineers, hoistmen, electricians, mechanics, etc.—									
Above ground.....	203	205	36	13	8	13		1	17
Below ground.....	131	130				1			
Miners, quarrymen, and drillmen, including their helpers—									
Above ground.....	501	114	117	71	63	36	4	10	75
Below ground.....	3,213	3,202				11			
Timbermen, trackmen, and men engaged in hauling, tramming, etc.—									
Above ground.....	163	130	10		13	4			
Below ground.....	665	665							
Muckers, loaders, laborers, and others not classified—									
Above ground.....	768	373	91	125	90	10	27	6	37
Below ground.....	335	328				7			
Wage earners employed in mills and beneficiating plants—									
Above ground.....	48	4	0			11			24
Number of wage earners under 16 years of age included in those reported above—									
Above ground.....	2	1							1
Mineral land operated..... acres.....	57,470	53,442	390	244	232	401	388	87	2,310
Land controlled, total..... acres.....	66,194	60,714	838	1,004	437	491	388	87	2,355
Mineral land owned.....	36,636	34,168	216	205	51	401	158	40	1,396
Mineral land leased.....	20,879	10,318	180	30	181		230	17	914
Timber and other lands owned and leased.....	8,680	7,228	442	700	205				45
Power used: Aggregate horsepower.....	18,660	12,470	2,303	1,285	542	403		32	1,535
Prime movers (horsepower, total).....	14,018	8,566	2,268	1,210	390	270		32	1,352
Steam engines—									
Number.....	172	90	34	14	14	7		1	12
Horsepower.....	12,302	8,160	1,450	1,210	390	270		10	800
Steam turbines—									
Number.....	1		1						
Horsepower.....	750		750						
Internal-combustion engines—									
Number.....	24	14	3					1	6
Horsepower.....	516	340	58					16	102
Water wheels, turbines, and motors—									
Number.....	3								3
Horsepower.....	450								450
Purchased power (horsepower, total).....	4,642	3,964	135	75	152	133			183
Electric motors operated by purchased current—									
Number.....	130	113	4	1	6	12			3
Horsepower.....	4,642	3,964	135	75	152	133			183
Electric motors run by current generated by enterprise using:									
Number.....	94	76	13						5
Horsepower.....	3,872	2,747	775						350
Fuel used:									
Coal, bituminous..... tons, 2,000 pounds.....	67,829	46,204	10,157	5,104	2,003	967		20	2,714
Wood..... cords.....	65		5		60				
Gasoline and other volatile oils..... barrels.....	686	382	127	4	10			10	144

<sup>1</sup> Includes enterprises as follows: Asbestos, 1; chromite, 1; iron ore, 1; marble, 2; sandstone, 2; silica, 0; talc and soapstone, 2.

<sup>2</sup> Includes 1 coal-mining enterprise on Maryland and Pennsylvania state line reported as a Maryland operation.

<sup>3</sup> Includes 2 tons of anthracite coal.

## VIRGINIA.

Virginia, which ranks thirty-third among the states in size (land area 40,262 square miles) and twentieth in population (2,309,187 in 1920), ranked twenty-first in value of mineral products for 1919. The state ranked eighteenth in both the total number of persons engaged in the mining industries and in the average number of wage earners employed.

The total value of products of all mines and quarries in Virginia in 1919 was \$29,363,449, an increase of 233.8 per cent over the corresponding amount reported at the census of 1909. This increase and the increases in wages, cost of supplies and materials and fuel and power, as shown in Table 1, are due in large part to general price increases during the census interval and are not a proper measure of growth. Nor, on account of these large increases, can the small decreases in number of mines and quarries operated and the average number of wage earners employed be interpreted as indicating a decline in mining.

The mining industries reported in Virginia in 1919, classified according to principal products and listed in order of value of products, were bituminous coal, limestone, iron ore, pyrite, talc and soapstone, gypsum, granite, slate, manganese ore, mica, barytes, ores of rare metals (titanium), millstones, sandstone, clay, mineral pigments, and abrasive materials. The industries for which statistics can be shown without disclosure of individual operations are ranked by value of products in Table 2.

The leading mining industry in Virginia in 1919 was the production of bituminous coal. This industry included 108 out of a total of 202 enterprises in the state, employed 77.1 per cent of the total number of wage earners, and reported products to the value of \$23,763,440, or 80.9 per cent of the total value of products of the state. The productive coal fields were in 8 southwestern counties which produced high-rank bituminous coals suitable for a variety of uses. Virginia in 1919 was ninth in order of importance among the coal-producing states.

Among the industries of minor importance in the state were pyrite mining with products valued at \$864,974, by which Virginia gained first place in this industry in the United States in 1919; talc and soapstone mining in which Virginia ranked third; and the

production of millstones in which Virginia ranked second.

In addition to the operations of producing enterprises there were reported only relatively unimportant operations for the purpose of development of non-producing properties.

The mining enterprises in the state of Virginia in 1919 are classified according to character of operating organization in Table 3, which shows that for all industries combined and for the principal industries corporations outnumbered other forms of organization, employed the greatest number of wage earners, and reported the largest part of the value of products.

The relatively large number of small enterprises, as measured by the average number of wage earners employed, is shown in Table 4. Of the total number of mining enterprises in Virginia 167, or 82.7 per cent, were in classes having fewer than 101 wage earners, and these enterprises employed 30.2 per cent of the total number of wage earners. On the other hand, only 35 enterprises had more than 100 wage earners each and these enterprises employed 69.8 per cent of the total number of wage earners. Of the larger enterprises 28 were in the coal-mining industry, and the remainder in the gypsum, limestone, pyrite, and talc and soapstone industries.

Table 5 shows that in 47.5 per cent of the total number of mining enterprises and for 73.6 per cent of the total number of wage earners, the hours of labor were 44 to 53 per week, and that in 46.5 per cent of the enterprises and for 23.4 per cent of the wage earners the hours of labor were 54 to 62 per week. In the coal-mining industry the hours which prevailed were 44 to 53 per week, and the 8-hour day and 6-day week was the rule. In other mining industries and in the quarrying industries the prevailing hours were 54 to 62 per week and the 10-hour day and 6-day week was the rule.

The statistics for wage earners presented in Table 6, showing changes in the number employed month by month, reflect conditions prevailing in the industries during the census year.

Table 7 presents for 1919 statistics in detail for the state as a whole and for each industry that can be shown without disclosure of individual operations.

MINES AND QUARRIES—VIRGINIA.

TABLE 1.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919 AND 1900.

	MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>		MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>
	1919	1900			1910	1900	
Number of enterprises.....	202	150	31.7	Capital.....	\$67,035,775	\$55,092,003	1.0
Number of mines and quarries.....	216	244	-11.5	Principal expenses:			
Persons engaged.....	15,537	15,000	-2.7	Salaries.....	1,000,162	612,021	176.9
Proprietors and firm members, total.....	71	80	.....	Wages.....	16,108,210	5,220,787	208.0
Number performing manual labor in or about the mines and quarries.....	19	15	.....	Contract work.....	310,851	110,028	180.4
Salaried employees.....	919	617	48.9	Supplies and materials.....	4,700,370	1,173,806	305.5
Wage earners (average number).....	14,547	15,257	-1.7	Fuel and power.....	1,216,894	484,527	151.2
Power used (horsepower).....	57,880	34,030	67.1	Royalties and rents.....	\$30,435	418,353	98.5
				Taxes.....	1,243,918	150,074	728.9
				Value of products.....	29,363,440	8,705,040	233.8

<sup>1</sup> A minus sign (-) denotes decrease. Percentages are omitted where base is less than 100.

TABLE 2.—PRINCIPAL INDUSTRIES, PRODUCING ENTERPRISES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.		INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.			Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries.....	202	14,547	100.0	\$29,363,440	100.0	Pyrite.....	5	540	3.8	\$804,074	2.9
Coal, bituminous.....	108	11,215	77.1	23,763,440	80.9	Granite.....	7	157	1.1	250,560	0.9
Limestone.....	31	777	5.3	1,610,544	5.5	Slate.....	4	210	1.4	203,068	0.7
Iron ore.....	21	623	4.3	1,186,127	4.0	Manganese.....	9	119	0.8	183,861	0.6
						All other industries <sup>1</sup> .....	17	807	6.2	1,291,863	4.4

<sup>1</sup> Includes enterprises in industries as follows: Abrasive materials, 1; barytes, 1; clay, 1; gypsum, 2; mica, 2; millstones, 2; mineral pigments, 1; rare metals (titanium), 1; sandstone, 2; talc and soapstone, 4.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND CHARACTER OF ORGANIZATION.	Number of enterprises.	Number of wage earners.	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Total.	Per enterprise.	Enterprises.	Wage earners.	Value of products.
ALL INDUSTRIES.....	202	14,547	\$29,363,440	\$145,364	100.0	100.0	100.0
Corporation.....	104	18,008	28,312,100	172,035	81.2	90.2	96.4
Individual.....	16	119	181,542	11,346	7.9	0.8	0.6
Firm <sup>1</sup> .....	22	430	860,798	39,532	10.9	3.0	3.0
COAL, BITUMINOUS.....	108	11,215	23,763,440	220,032	100.0	100.0	100.0
Corporation.....	88	11,032	23,457,245	208,560	81.5	98.4	98.7
Individual.....	9	80	150,026	16,070	8.3	0.8	0.8
Firm.....	11	94	150,169	14,497	10.2	0.8	0.7
LIMESTONE.....	31	777	1,610,544	51,953	100.0	100.0	100.0
Corporation.....	10	483	654,563	50,240	61.3	62.2	59.2
Individual.....	4	16	12,500	3,125	12.9	1.3	0.8
Firm.....	8	284	643,481	80,435	25.8	36.6	40.0
IRON ORE.....	21	623	1,186,127	56,482	100.0	100.0	100.0
Corporation.....	21	623	1,186,127	56,482	100.0	100.0	100.0
PYRITE.....	5	540	804,074	172,095	100.0	100.0	100.0
Corporation.....	5	540	804,074	172,095	100.0	100.0	100.0
GRANITE.....	7	157	250,560	37,081	100.0	100.0	100.0
Corporation.....	4	105	180,511	47,378	57.1	66.9	73.0
Firm <sup>1</sup> .....	3	52	70,058	28,363	42.9	33.1	27.0
SLATE.....	4	210	203,068	50,767	100.0	100.0	100.0
Corporation.....	4	210	203,068	50,767	100.0	100.0	100.0

<sup>1</sup> Includes 1 other form of organization.

# MINES AND QUARRIES—VIRGINIA.

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TABLE 4.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.		INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.
ALL INDUSTRIES.....	202	100.0	14,547	100.0	IRON ORE.....	21	100.0	623	100.0
1 to 5.....	40	19.8	131	0.9	1 to 5.....	5	23.8	18	2.9
6 to 20.....	56	27.7	668	4.6	6 to 20.....	5	23.8	59	9.5
21 to 50.....	41	20.3	1,450	10.0	21 to 50.....	9	42.9	400	64.2
51 to 100.....	30	14.9	2,143	14.7	51 to 100.....	2	9.5	146	23.4
101 to 500.....	20	14.4	6,314	43.4					
501 to 1,000.....	6	3.0	3,841	26.4					
COAL, BITUMINOUS.....	108	100.0	11,215	100.0	PYRITE.....	5	100.0	549	100.0
1 to 5.....	19	17.6	64	0.6	51 to 100.....	2	40.0	146	26.6
6 to 20.....	28	25.9	318	2.8	101 to 500.....	3	60.0	403	73.4
21 to 50.....	14	13.0	450	4.0					
51 to 100.....	10	17.6	1,410	12.6	SLATE.....	4	100.0	210	100.0
101 to 500.....	22	20.4	5,132	45.8	21 to 50.....	2	50.0	82	39.0
501 to 1,000.....	6	5.6	3,841	34.2	51 to 100.....	2	50.0	128	61.0
LIMESTONE.....	31	100.0	777	100.0	GRANITE.....	7	100.0	157	100.0
1 to 5.....	10	32.3	27	3.5	6 to 20.....	3	42.9	32	20.4
6 to 20.....	8	25.8	114	14.7	21 to 50.....	3	42.9	67	42.7
21 to 50.....	8	25.8	239	30.8	51 to 100.....	1	14.3	58	36.9
51 to 100.....	3	9.7	192	24.7					
101 to 500.....	2	6.5	205	26.4					

TABLE 5.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—									
	Enter-prises.	Wage earners.	35 and under.		36 to 43.		44 to 53.		54 to 62.		72 to 84.	
			Enter-prises.	Wage earners.	Enter-prises.	Wage earners.	Enter-prises.	Wage earners.	Enter-prises.	Wage earners.	Enter-prises.	Wage earners.
All industries.....	202	14,547	4	105	6	318	96	10,711	94	3,401	2	12
Coal, bituminous.....	108	11,215	4	105	5	310	84	10,413	13	375	2	12
Limestone.....	31	777					4	62	27	715		
Iron ore.....	21	623					3	56	18	567		
Pyrite.....	5	549					1	147	4	402		
Slate.....	4	210						4	4	210		
Granite.....	7	157						1	6	146		
Manganese.....	9	119			1	8	1	4	7	107		
All other industries.....	17	897					2	18	15	879		

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1919.

[The month of maximum employment for each industry is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

INDUSTRY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	14,060	15,067	14,057	13,820	<b>13,406</b>	13,856	13,843	14,929	15,208	15,335	15,539	15,125	15,207	86.5
Producing enterprises.....	14,517	14,932	14,511	13,722	<b>13,808</b>	13,746	13,732	14,821	15,096	15,224	15,398	14,982	15,062	86.4
Coal, bituminous.....	11,215	11,769	11,343	10,470	<b>9,374</b>	10,242	10,513	11,334	11,696	11,750	11,998	11,046	11,855	83.1
Limestone.....	777	650	677	637	<b>818</b>	802	800	885	802	878	837	762	683	68.5
Iron ore.....	623	791	764	761	<b>598</b>	543	536	549	534	556	589	613	642	67.5
Pyrite.....	549	660	602	545	<b>521</b>	503	487	540	547	593	545	557	548	64.7
Slate.....	210	<i>162</i>	166	160	195	202	234	226	237	234	223	226	226	68.4
Granite.....	157	84	90	130	173	183	186	179	188	178	175	162	147	44.7
Manganese.....	119	66	214	235	243	276	94	88	63	65	40	28	28	9.4
All other industries.....	897	770	751	<b>746</b>	780	905	933	1,020	969	970	991	990	933	78.1
Nonproducing enterprises.....	119	135	116	98	98	110	111	108	112	111	141	143	145	67.6

## MINES AND QUARRIES—VIRGINIA.

TABLE 7.—DETAILED STATISTICS FOR MINING INDUSTRIES: 1919.

	Aggregate.	PRODUCING ENTERPRISES.									Non-producing enterprises. <sup>1</sup>
		Total.	Coal, bituminous. <sup>1</sup>	Limestone.	Iron ore.	Pyrite.	Granite.	Slate.	Manganese.	All other. <sup>2</sup>	
Number of enterprises.....	206	202	108	31	21	5	7	4	9	17	4
Number of mines and quarries.....	220	216	118	32	22	5	7	5	9	18	4
Capital.....	\$58,352,912	\$57,035,775	\$46,789,454	\$1,825,288	\$2,331,315	\$1,100,933	\$368,500	\$289,024	\$1,158,464	\$3,112,797	\$1,317,137
Principal expenses:											
Salaries and wages—											
Officers.....	\$402,594	\$399,594	\$310,716	\$15,612	\$5,705	\$5,825	\$7,520	\$10,650	\$12,050	\$31,450	\$3,000
Superintendents and managers.....	\$687,259	\$674,231	\$492,604	\$34,222	\$38,303	\$28,582	\$10,520	\$6,140	\$13,011	\$50,750	\$13,028
Technical employees.....	\$80,384	\$75,254	\$69,655	\$6,655	\$2,054	\$2,400			\$1,145		\$5,130
Clerks, etc.....	\$551,547	\$541,083	\$427,064	\$24,213	\$15,737	\$2,648	\$2,200	\$2,710	\$1,131	\$32,371	\$10,464
Wage earners.....	\$16,207,808	\$16,108,249	\$12,961,591	\$682,902	\$652,826	\$681,021	\$135,435	\$152,491	\$116,666	\$724,717	\$90,550
Supplies and materials.....	\$1,837,172	\$1,760,370	\$3,432,448	\$437,142	\$238,477	\$202,435	\$18,248	\$7,453	\$42,430	\$381,728	\$70,802
Fuel.....	\$746,182	\$740,098	\$283,796	\$117,151	\$51,645	\$144,143	\$12,252	\$10,407	\$10,901	\$103,713	\$6,084
Power.....	\$483,376	\$476,796	\$430,263	\$15,400			\$525			\$21,512	\$0,574
Royalties and rents.....	\$831,635	\$830,435	\$679,494	\$28,808	\$47,777	\$26,270	\$2,434	\$7,831	\$20,592	\$17,250	\$1,200
Taxes.....	\$1,245,080	\$1,243,018	\$1,130,332	\$27,653	\$50,881	\$8,057	\$5,011	\$2,523	\$4,727	\$13,234	\$1,702
Contract work.....	\$345,333	\$340,851	\$222,200	\$12,446		\$65,270			\$30,470	\$4,405	\$4,482
Expenditures for development (included in the above items).....	\$1,143,408	\$919,200	\$647,406	\$10,021	\$31,136	\$120,997		\$2,000	\$40,540	\$61,016	\$224,202
Value of products.....	\$29,363,449	\$29,363,449	\$23,793,440	\$1,610,544	\$1,186,127	\$864,974	\$250,500	\$203,008	\$183,804	\$1,201,803	
Persons engaged in industry.....	15,674	15,537	11,940	848	603	503	176	224	144	940	137
Proprietors and firm members (total).....	71	71	42	21			5		1	2	
Number performing manual labor.....	19	19	11	8							
Salaried officers.....	137	135	98	8	1	2	4	6	0	10	2
Superintendents and managers.....	294	290	198	20	23	11	7	4	10	17	4
Technical employees.....	66	62	54		3	3			2		4
Clerks, etc.....	440	432	333	22	13	28	3	4	6	23	8
Wage earners (average number).....	14,066	14,547	11,215	777	623	540	157	210	119	897	110
Wage earners by occupation (Dec. 15):											
Above ground (total).....	5,301	5,181	2,246	848	498	298	177	155	200	679	120
Below ground (total).....	10,466	10,474	6,512		335	264		71	10	282	22
Foremen, shift bosses, etc.—											
Above ground.....	248	242	104	42	41	11	7	3	13	21	6
Below ground.....	308	307	269		10	12		3	2	11	1
Enginemen, hoistmen, electricians, mechanics, etc.—											
Above ground.....	1,108	1,065	661	119	60	73	17	19	45	71	43
Below ground.....	1,078	1,078	1,044		26					8	
Miners, quarrymen, and drillmen, including their helpers—											
Above ground.....	630	620	157	279	153	11	61	20	20	110	10
Below ground.....	5,288	5,280	4,838		140	100		14	8	174	8
Timbermen, trackmen, and men engaged in hauling, tramming, etc.—											
Above ground.....	488	473	2,280	62	17	11	24	40	20	10	15
Below ground.....	2,423	2,419	2,278		58	36		21		20	4
Muckers, loaders, laborers, and others not classified—											
Above ground.....	2,030	1,990	1,012	332	160	130	68	64	121	103	40
Below ground.....	1,399	1,390	1,083		101	110		33		63	9
Wage earners employed in mills and beneficiating plants—											
Above ground.....	591	591	32	14	57	62			62	364	
Number of females included in wage earners reported above—											
Above ground.....	31	31	13	3						15	
Number of wage earners under 16 years of age included in those reported above—											
Above ground.....	3	3		1							
Mineral land operated..... acres.....	498,104	494,909	397,976	3,275	33,762	887	315	636	47,910	10,168	3,105
Land controlled, total..... acres.....	520,607	516,609	407,324	5,051	40,643	3,987	315	636	47,910	10,738	3,898
Mineral land owned.....	368,677	365,982	312,376	2,793	30,656	500	300	556	11,095	7,397	2,005
Mineral land leased.....	131,066	129,966	86,639	482	2,796	378	15	80	36,815	2,761	1,100
Timber and other lands owned and leased.....	21,364	20,661	8,309	1,776	6,801	3,100	5			580	703
Power used: Aggregate horsepower.....	58,315	57,880	41,630	5,723	2,304	1,438	650	445	670	5,020	435
Prime movers (horsepower, total).....	24,076	23,641	10,016	4,706	2,304	1,438	600	445	670	3,462	435
Steam engines—											
Number.....	269	266	61	55	34	29	0	14	12	22	3
Horsepower.....	20,722	20,372	9,228	3,395	2,304	1,318	600	445	642	2,440	360
Steam turbines—											
Number.....	5	5	1	3		1					
Horsepower.....	1,530	1,530	600	810		120					
Internal-combustion engines—											
Number.....	38	37	19	13					3	2	1
Horsepower.....	347	337	188	109					28	12	10
Water wheels, turbines, and motors											
Number.....	6	5		1							
Horsepower.....	1,477	1,402		392						4	1
Purchased power (horsepower, total).....	34,230	34,230	31,614	1,017			60			1,010	75
Electric motors operated by purchased current—										1,568	
Number.....	1,012	1,012	944	18			1			40	
Horsepower.....	34,230	34,230	31,614	1,017			60			1,568	
Electric motors run by current generated by enterprise using:											
Number.....	325	325	256	17	1	13			3	35	
Horsepower.....	12,205	12,205	9,775	827	10	300			310	893	
Fuel used:											
Coal, anthracite..... tons, 2,240 pounds.....	64	64		61						3	
Coal, bituminous..... tons, 2,000 pounds.....	210,721	209,851	113,881	27,004	12,930	28,651	2,240	3,637	1,642	18,870	870
Coke..... tons, 2,000 pounds.....	170	170								170	
Wood..... cords.....	1,886	1,886									
Fuel oils..... barrels.....	864	706	90	518	170	200			325	173	
Gasoline and other volatile oils..... barrels.....	540	499	272	590						20	158
				212					11	4	50

<sup>1</sup> Includes 1 coal mining enterprise on the Virginia-Kentucky state line reported as a Virginia operation.

<sup>2</sup> Includes enterprises as follows: Abrasive materials, 1; barytes, 1; clay, 1; gypsum, 2; mica, 2; millstones, 2; mineral pigments, 1; rare metals (Hlanthm), 1; sandstone, 2; talc and soapstone, 4.

<sup>3</sup> Includes enterprises as follows: Coal, bituminous, 1; limestone, 1; pyrite, 1; zinc, 1.

## NORTH CAROLINA.

North Carolina, which ranks twenty-seventh among the states in size (land area 48,740 square miles) and fourteenth in population (2,559,123 in 1920), ranked thirty-eighth in value of mineral products in 1919. The state ranked thirty-sixth in the total number of persons engaged in the mining industries and in the average number of wage earners employed.

The total value of products of all mines and quarries in North Carolina in 1919 was \$2,736,543, which includes a small amount received for mineral by-products and for work or miscellaneous services for other enterprises. This figure is an increase of 101.4 per cent as compared with the value of products reported at the census of 1909. This increase and the increases in wages, cost of supplies and materials and fuel and power, shown by Table 1, are largely due to general price increases during the census interval and are therefore not a measure of progress in mining. A decline is indicated by the decreases in the number of individual mines and quarries operated, in the average number of wage earners employed, and also by the very large decrease in capital invested.

The mining industries reported in North Carolina for 1919, classified by principal products and listed in order of value of products, were granite, mica, iron ore, clay, feldspar, limestone, talc and soapstone, millstones, bituminous coal, silica (quartz), asbestos, sandstone, and barytes. In addition to the products indicated by the industry designations, one clay and three feldspar enterprises produced some mica as a by-product, and one silica enterprise produced a small amount of talc. The industries for which statistics can be shown without disclosure of individual operations are ranked by value of products in Table 2.

The leading mineral industry in North Carolina in 1919 was granite quarrying. This industry included 16 out of a total of 102 enterprises in the state, employed 50.7 per cent of the total number of wage earners, and reported products valued at \$1,576,250, or 57.6 per cent of the total value of products. North Carolina ranked third among the states in the granite industry.

The industry second in importance in North Carolina was mica mining, in which North Carolina outranked all other states. Feldspar was one of the important products and the state ranked second in the United States in the mining of this mineral. These closely allied industries, mica and feldspar, in 1919 embraced 59 of the mining enterprises, employed 23.2 per cent of the total number of wage earners, and reported 18.4 per cent of the total value of products. Among the minor industries in the state which are important are the millstones and asbestos-mining industries in which North Carolina ranked, respectively, first and third in the United States in 1919.

Table 3 classifies the mining enterprises according to character of the operating organizations, and shows that although corporations were outnumbered by other forms of organization, they conducted the larger enterprises, employed 86.7 per cent of the total number of wage earners, and reported 84.4 per cent of the total value of products.

The relatively large number of small enterprises, as measured by the average number of wage earners employed, is shown in Table 4. Of the 102 mining enterprises in North Carolina all except 3 were small, had no wage earners or employed fewer than 101 each. These small enterprises which reported wage earners employed 59 per cent of the 1,890 wage earners in the state. The larger enterprises were in the granite and iron-ore-mining industries.

Table 5 shows that in a majority of enterprises and for 58.7 per cent of the total number of wage earners the prevailing hours of labor were 54 to 62 per week. The 10-hour day and 6-day week prevailed in all important industries.

The statistics for wage earners presented in Table 6, showing changes in the number employed month by month, reflect conditions prevailing in the industries during the census year.

Table 7 presents for 1919 statistics in detail for the state as a whole and for each industry that can be shown without disclosure of individual operations.

## MINES AND QUARRIES—NORTH CAROLINA.

TABLE 1.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919 AND 1909.

	MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>		MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>
	1919	1909			1919	1909	
Number of enterprises.....	102	118	-13.6	Capital.....	\$2,250,434	\$5,985,112	-62.4
Number of mines and quarries.....	106	130	-18.5	Principal expenses:			
Persons engaged.....	2,108	2,484	-15.1	Salaries.....	199,612	123,012	62.2
Proprietors and firm members, total.....	90	165	-45.5	Wages.....	1,489,062	802,762	72.6
Number performing manual labor in or about the mines and quarries.....	36	63	-43.1	Contract work.....	6,745	37,386	-81.6
Salaried employees.....	128	104	23.1	Supplies and materials.....	467,400	152,714	203.1
Wage earners (average number).....	1,890	2,215	-14.7	Fuel and power.....	220,731	163,310	113.6
Power used (horsepower).....	5,030	6,062	-10.9	Royalties and rents.....	30,071	20,212	78.5
				Taxes.....	21,121	7,565	179.2
				Value of products.....	2,736,543	1,358,617	101.4

<sup>1</sup> A minus sign (-) denotes decrease. Percentages are omitted where base is less than 100.

TABLE 2.—PRINCIPAL INDUSTRIES, PRODUCING ENTERPRISES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.		INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.			Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries.....	102	1,890	100.0	\$2,736,543	100.0	Feldspar.....	10	164	8.7	114,150	4.2
Granite.....	16	959	50.7	1,576,250	57.6	Talc and soapstone.....	3	74	3.9	72,027	2.6
Mica.....	49	274	14.5	389,442	14.2	Millstones.....	3	18	1.0	30,775	1.1
						All other industries <sup>1</sup> .....	21	401	21.2	553,800	20.2

<sup>1</sup> Includes enterprises in industries as follows: Asbestos, 2; barytes, 1; clay, 6; coal, bituminous, 1; iron ore, 6; limestone, 2; sandstone, 1; silica, 2.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND CHARACTER OF ORGANIZATION.	Number of enterprises.	Number of wage earners.	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Total.	Per enterprise.	Enterprises.	Wage earners.	Value of products.
ALL INDUSTRIES.....	102	1,890	\$2,736,543	\$26,820	100.0	100.0	100.0
Corporation.....	40	1,680	2,310,644	57,766	89.2	86.7	84.4
Individual.....	40	134	218,075	5,452	80.2	7.1	8.0
Firm.....	22	117	207,824	0,447	21.6	0.2	7.0
GRANITE.....	16	959	1,576,250	98,516	100.0	100.0	100.0
Corporation.....	10	935	1,517,860	151,785	62.5	97.5	96.3
Individual.....	3	20	48,400	16,133	18.8	2.1	3.1
Firm.....	3	4	10,000	3,333	18.8	0.4	0.6
MICA.....	49	274	389,442	7,948	100.0	100.0	100.0
Corporation.....	8	131	188,011	19,761	16.3	47.8	40.6
Individual.....	20	64	94,882	3,272	59.2	23.4	24.4
Firm.....	12	79	136,549	11,370	24.5	28.8	35.1
FELDSPAR.....	10	164	114,150	11,416	100.0	100.0	100.0
Corporation.....	6	127	64,886	10,814	60.0	77.4	56.8
Individual.....	4	37	49,273	12,318	40.0	22.6	43.2
TALC AND SOAPSTONE.....	3	74	72,027	24,009	100.0	100.0	100.0
Corporation.....	3	74	72,027	24,009	100.0	100.0	100.0
MILLSTONES.....	3	18	30,775	10,258	100.0	100.0	100.0
Firm <sup>1</sup> .....	3	18	30,775	10,258	100.0	100.0	100.0

<sup>1</sup> Includes 1 individual.

MINES AND QUARRIES—NORTH CAROLINA.

TABLE 4.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.		INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.
ALL INDUSTRIES.....	102	100.0	1,890	100.0	Mica.....	49	100.0	274	100.0
No wage earners.....	0	5.9			No wage earners.....	5	10.2		
1 to 5.....	51	50.0	98	5.2	1 to 5.....	33	67.3	56	20.4
6 to 20.....	22	21.6	253	13.4	6 to 20.....	7	14.3	67	24.5
21 to 50.....	15	14.7	431	22.8	21 to 50.....	3	6.1	70	25.5
51 to 100.....	5	4.9	333	17.6	51 to 100.....	1	2.0	81	29.6
101 to 500.....	3	2.9	775	41.0					
					FELDSPAR.....	10	100.0	164	100.0
GRANITE.....	10	100.0	950	100.0	1 to 5.....	3	30.0	6	3.7
No wage earners.....	1	0.3			6 to 20.....	4	40.0	46	28.0
1 to 5.....	4	25.0	8	0.8	21 to 50.....	2	20.0	46	28.0
6 to 20.....	2	12.5	36	3.8	51 to 100.....	1	10.0	66	40.2
21 to 50.....	5	31.2	154	16.1					
51 to 100.....	2	12.5	132	13.8	TALC AND SOAPSTONE.....	3	100.0	74	100.0
101 to 500.....	2	12.5	629	65.0	6 to 20.....	2	66.7	20	27.0
					51 to 100.....	1	33.3	54	73.0

TABLE 5.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—									
	Enterprises.	Wage earners.	35 and under.		30 to 43.		44 to 53.		54 to 62.		63 to 71.	
			Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
All industries.....	100	1,800	1	22	6	54	11	559	77	1,109	1	146
Granite.....	15	950			3	43	4	423	8	493		
Mica.....	44	274			1	2	2	16	41	256		
Feldspar.....	10	164	1	22			2	13	7	129		
Talc and soapstone.....	3	74							3	74		
All other industries.....	24	410			2	9	3	107	18	157	1	146

<sup>1</sup> Exclusive of 6 enterprises employing no wage earners in the following industries: Granite, 1; mica, 5.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1919.

[The month of maximum employment for each industry is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

INDUSTRY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	1,800	<b>1,006</b>	1,728	1,840	1,840	1,852	1,878	1,931	1,898	<b>2,062</b>	1,996	1,966	1,978	82.3
Granite.....	950	<b>843</b>	890	964	935	932	946	963	979	<b>1,026</b>	1,026	1,016	988	82.2
Mica.....	274	<b>202</b>	<b>261</b>	271	274	270	275	273	271	<b>290</b>	283	270	279	90.0
Feldspar.....	164	<b>131</b>	<b>134</b>	148	144	158	181	167	197	<b>193</b>	167	165	203	61.1
Talc and soapstone.....	74	<b>69</b>	<b>69</b>	77	78	69	69	71	71	<b>74</b>	80	81	80	85.2
Millstones.....	18	<b>11</b>	<b>11</b>	20	20	20	20	19	19	<b>19</b>	19	19	19	55.0
All other industries.....	401	<b>380</b>	373	360	398	394	387	438	<b>361</b>	460	421	425	409	78.5

## MINES AND QUARRIES—NORTH CAROLINA.

TABLE 7.—DETAILED STATISTICS FOR MINING INDUSTRIES: 1919.

	PRODUCING ENTERPRISES.						
	Total.	Granite.	Mica.	Feldspar.	Tale and soapstone.	Mil-stones.	All other. <sup>1</sup>
Number of enterprises.....	102	16	49	10	3	3	21
Number of mines and quarries.....	106	18	49	11	3	3	22
Capital.....	\$2,250,434	\$702,094	\$145,550	\$292,259	\$137,009	\$1,700	\$970,833
Principal expenses:							
Salaries and wages—							
Officers.....	\$78,157	\$60,017	\$7,080	\$3,480	\$3,350		\$3,330
Superintendents and managers.....	\$35,451	\$34,850	\$15,015	\$3,077	\$2,066		\$28,923
Technical employees.....	\$8,001	\$7,814	\$300				\$517
Clerks, etc.....	\$27,013	\$15,593	\$1,012	\$803	\$2,310		\$0,335
Wage earners.....	\$1,489,062	\$808,657	\$160,225	\$78,746	\$11,000	\$21,521	\$178,910
Supplies and materials.....	\$167,460	\$185,227	\$08,510	\$8,281	\$15,882	\$165	\$180,387
Fuel.....	\$213,392	\$00,181	\$18,321	\$2,537	\$2,285		\$100,088
Power.....	\$7,330	\$3,110			\$2,456		\$1,764
Royalties and rents.....	\$36,071	\$8,518	\$13,219	\$5,273	\$3,429	\$125	\$5,507
Taxes.....	\$21,121	\$10,803	\$2,155	\$106	\$1,208	\$0	\$0,483
Contract work.....	\$5,745			\$5,417			\$328
Expenditures for development (included in the above items).....	\$34,834	\$5,000	\$8,347	\$5,150	\$11,019		\$5,012
Value of products.....	\$2,730,513	\$1,576,250	\$380,442	\$114,150	\$72,027	\$30,775	\$553,890
Persons engaged in industry.....	2,108	1,025	353	178	81	23	448
Proprietors and firm members (total).....	90	10	56	4		5	15
Number performing manual labor.....	36	6	25	1		4	1
Salaried officers.....	29	14	7	3			3
Superintendents and managers.....	50	20	13	5			10
Technical employees.....	6	4	1				1
Clerks, etc.....	34	18	2	2	3		9
Wage earners (average number).....	1,800	950	271	161	71	18	401
Wage earners by occupation (Dec. 15):							
Above ground (total).....	1,003	1,015	229	230	23	20	350
Below ground (total).....	176		60		58		81
Foremen, shift bosses, etc.—							
Above ground.....	70	35	13	9	5		17
Below ground.....	14		8		1		5
Enginemen, hoistmen, electricians, mechanics, etc.—							
Above ground.....	88	50	11	6	1		20
Below ground.....	8		4				4
Miners, quarrymen, and drillmen, including their helpers—							
Above ground.....	548	206	64	173	3	11	91
Below ground.....	51		21		2		28
Timbermen, trackmen, and men engaged in hauling, tramming, etc.—							
Above ground.....	242	120	9	10	17	9	68
Below ground.....	46		17		28		6
Muckers, loaders, laborers, and others not classified—							
Above ground.....	448	300	58	23	4		54
Below ground.....	57		19				38
Wage earners employed in mills and beneficiating plants—							
Above ground.....	408	205	74		23		100
Number of females included in wage earners reported above—							
Above ground.....	76		71	2	1		2
Mineral land operated..... acres.....	10,015	688	1,812	1,147	375	11	5,782
Land controlled, total..... acres.....	11,083	830	2,565	1,147	375	11	5,949
Mineral land owned.....	4,284	659	1,114	505	175	9	1,737
Mineral land leased.....	5,731	34	608	552	400	2	4,045
Timber and other lands owned and leased.....	1,068	148	753				167
Power used: Aggregate horsepower.....	5,039	2,025	510	230	236		2,038
Prime movers (horsepower, total).....	4,641	1,890	510	230	121		1,890
Steam engines—							
Number.....	81	35	13	6	2		25
Horsepower.....	4,341	1,890	464	210	112		1,065
Internal-combustion engines—							
Number.....	10		3	2	1		4
Horsepower.....	125		46	20	9		50
Water wheels, turbines, and motors—							
Number.....	1						1
Horsepower.....	175						175
Purchased power (horsepower, total).....	398	135			115		148
Electric motors operated by purchased current—							
Number.....	14	4			5		5
Horsepower.....	398	135			115		148
Electric motors run by current generated by enterprise using:							
Number.....	19	12					7
Horsepower.....	501	155					340
Fuel used:							
Coal, bituminous..... tons, 2,000 pounds.....	41,239	15,162	2,518	376	208		22,075
Wood..... cords.....	960		635		325		
Fuel oils..... barrels.....	16		6				16
Gasoline and other volatile oils..... barrels.....	277		107	72	21		77

<sup>1</sup> Includes enterprises as follows: Asbestos, 2; barytes, 1; clay, 6; coal, bituminous, 1; iron ore, 6; limestone, 2; sandstone, 1; silica, 2.

<sup>2</sup> Includes 2 wage earners under 16 years of age.

<sup>3</sup> Includes 5 tons of coke.

## SOUTH CAROLINA.

South Carolina, which ranks thirty-ninth among the states in size (land area 30,495 square miles) and twenty-sixth in population (1,683,724 in 1920), ranked forty-fourth in value of mineral products in 1919. The state ranked fortieth in the total number of persons engaged in the mining industries and in the average number of wage earners employed.

The total value of products of all mines and quarries in South Carolina in 1919 was \$1,350,747, an increase of 7.8 per cent as compared with the amount reported at the census of 1909. This increase and the increases in capital, wages, cost of supplies and materials and fuel and power, as shown in Table 1, were largely affected by general price increases during the census interval and are therefore not a measure of progress in mining. Decline of the mining industries is indicated by decrease in the number of enterprises and individual mines and quarries operated and in the average number of wage earners employed.

The mineral industries reported in South Carolina in 1919 were the quarrying of granite and the mining of phosphate rock, clay, and barytes.

The leading industry, and the only one for which statistics can be shown without disclosure of individual operations, was the quarrying of granite.

This industry included one-half the enterprises reported, employed 34.5 per cent of the total number of wage earners, and reported products valued at \$747,976 or 55.4 per cent of the total value of products.

The mining enterprises in South Carolina in 1919 are classified according to form of operating organization in Table 2, which shows that corporations were most numerous and conducted the largest enterprises.

In Table 3 the mining enterprises are grouped by size according to number of wage earners employed. All enterprises were small, that is, employed fewer than 101 wage earners, except two which were in the phosphate-rock-mining industry.

Table 4 shows that in four-fifths of the enterprises and for nearly three-fourths of the wage earners the hours of labor were 54 to 62 per week in the mining industries. The 10-hour day and 6-day week prevailed.

The statistics for wage earners presented in Table 5, showing changes in the number employed month by month, reflect conditions prevailing in the industries during the census year.

Table 6 presents for 1919 statistics in detail for the state as a whole and for each industry that can be shown without disclosure of individual operations.

## MINES AND QUARRIES—SOUTH CAROLINA.

TABLE 1.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919 AND 1909.

	MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>		MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>
	1919	1909			1919	1909	
Number of enterprises.....	20	29		Capital.....	\$1,205,232	\$1,200,300	105.0
Number of mines and quarries.....	20	32		Principal expenses:			
Persons engaged.....	1,008	1,870	-46.4	Salaries.....	130,843	82,240	70.0
Proprietors and firm members, total.....	15	13		Wages.....	680,481	626,429	8.0
Number performing manual labor in or about the mines and quarries.....	2	3		Contract work.....		6,080	
Salaried employees.....	60	52		Supplies and materials.....	303,371	121,618	143.4
Wage earners (average number).....	933	1,814	-48.6	Fuel and power.....	150,140	117,809	27.6
Power used (horsepower).....	4,656	7,012	-33.6	Royalties and rents.....	7,512	10,336	-27.3
				Taxes.....	17,556	10,783	62.8
				Value of products.....	1,350,747	1,252,792	7.8

<sup>1</sup> A minus sign (-) denotes decrease. Percentages are omitted where base is less than 100.

TABLE 2.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND CHARACTER OF ORGANIZATION.	Number of enterprises.	Number of wage earners.	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Total.	Per enterprise.	Enterprises.	Wage earners.	Value of products.
ALL INDUSTRIES.....	20	933	\$1,350,747	\$67,537	100.0	100.0	100.0
Corporation.....	12	673	1,007,732	91,478	60.0	72.1	81.3
Individual.....	4	19	10,716	2,679	20.0	3.0	0.3
Firm.....	4	241	242,300	60,575	20.0	25.8	17.9
GRANITE.....	10	322	747,076	74,708	100.0	100.0	100.0
Corporation.....	5	236	580,023	117,205	50.0	73.3	78.3
Firm.....	5	80	161,953	32,301	50.0	26.7	21.7

<sup>1</sup> Includes 3 individuals.

TABLE 3.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.		INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.
ALL INDUSTRIES.....	20	100.0	933	100.0	GRANITE.....	10	100.0	322	100.0
1 to 5.....	4	20.0	11	1.2	1 to 5.....	4	40.0	11	3.4
6 to 20.....	5	25.0	64	6.9	6 to 20.....	2	20.0	24	7.5
21 to 50.....	4	20.0	128	13.7	21 to 50.....	1	10.0	41	12.7
51 to 100.....	5	25.0	359	38.5	51 to 100.....	3	30.0	240	76.4
101 to 500.....	2	10.0	371	39.8					

TABLE 4.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE---					
	Enterprises.	Wage earners.	30 to 43.		44 to 53.		54 to 62.	
			Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
All industries.....	20	933	1	77	3	174	10	682
Granite.....	10	322	1	77	3	174	8	71
All other industries.....	10	611					10	611

# MINES AND QUARRIES—SOUTH CAROLINA.

**TABLE 5.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1919.**

[The month of maximum employment for each industry is indicated by **bold-faced** figures and that of minimum employment by *italic* figures.]

INDUSTRY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	933	793	784	913	922	896	893	974	<b>1,031</b>	1,006	998	1,010	1,006	76.0
Granite.....	322	307	301	302	311	315	<i>294</i>	320	346	343	324	<b>351</b>	350	83.8
All other industries.....	611	486	483	611	611	581	599	654	685	663	644	659	656	70.5

**TABLE 6.—DETAILED STATISTICS FOR MINING INDUSTRIES: 1919.**

	PRODUCING ENTERPRISES.				PRODUCING ENTERPRISES.		
	Total.	Granite.	All other. <sup>1</sup>		Total.	Granite.	All other. <sup>1</sup>
Number of enterprises.....	20	10	10	Persons engaged in industry—Continued. Wage earners by occupation (Dec. 15)—Continued. Timbermen, trackmen, and men engaged in hauling, tramming, etc.— Above ground.....	86		89
Number of mines and quarries.....	20	10	10		305	110	285
Capital.....	\$3,205,232	\$904,240	\$2,210,992	18		18	
Principal expenses:				80	8	81	
Salaries and wages—				Wage earners employed in mills and beneficiating plants—			
Officers.....	\$67,040	\$58,780	\$9,100	Above ground.....			
Superintendents and managers.....	\$40,926	\$12,348	\$28,578	5		5	
Technical employees.....	\$6,000	\$3,000	\$3,000	Number of females included in wage earners reported above—			
Clerks, etc.....	\$24,968	\$13,293	\$11,075	Above ground.....			
Wage earners.....	\$980,484	\$278,102	\$402,322	31,684	2,364	20,320	
Supplies and materials.....	\$303,371	\$100,372	\$103,999	31,744	2,374	20,370	
Fuel.....	\$122,170	\$33,742	\$88,428	31,630	2,310	20,320	
Power.....	\$28,270	\$24,687	\$3,583	104	64	50	
Royalties and rents.....	\$7,512	\$3,702	\$3,750	10	10		
Taxes.....	\$17,556	\$7,278	\$10,278	Timber and other lands owned and leased.....			
Expenditures for development (included in the above items).....	\$111,093		\$111,093	4,656	2,392	2,264	
Value of products.....	\$1,350,747	\$747,976	\$602,771	2,572	1,057	1,515	
Persons engaged in industry.....	1,008	356	652	Steam engines—			
Proprietors and firm members (total).....	15	9	6	Number.....			
Number performing manual labor.....	2	2		Horsepower.....			
Salaried officers.....	14	10	4	Internal-combustion engines—			
Superintendents and managers.....	20	6	14	Number.....			
Technical employees.....	2	1	1	Horsepower.....			
Clerks, etc.....	24	8	16	Purchased power (horsepower, total).....			
Wage earners (average number).....	933	322	611	Electric motors operated by purchased current—			
Wage earners by occupation (Dec. 15):				Number.....			
Above ground (total).....	1,003	303	640	Horsepower.....			
Below ground (total).....	20		20	Electric motors run by current generated by enterprise using:			
Foremen, shift bosses, etc.—				Number.....			
Above ground.....	34	17	17	Horsepower.....			
Below ground.....	2		2	Fuel used:			
Enginemen, hoistmen, electricians, mechanics, etc.—				Coal, bituminous..... tons, 2,000 pounds..			
Above ground.....	82	34	48	Wood..... cords..			
Below ground.....	1		1	Gasoline and other volatile oils..... barrels..			
Miners, quarrymen, and drillmen, including their helpers—				18,940	5,288	13,061	
Above ground.....	317	104	123	3,113	432	2,681	
Below ground.....	8		8	86	12	74	

<sup>1</sup> Includes enterprises as follows: Barytes, 1; clay, 7; phosphate rock, 2.