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FOURTEENTH CENSUS OF THE UNITED STATES

MINES AND QUARRIES 1919

SUMMARY OF THE CENSUS OF MINES AND QUARRIES FOR THE UNITED STATES

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INTRODUCTION AND GENERAL EXPLANATION.

The statistics for mines and quarries taken as a part of the Fourteenth Decennial Census are presented in this bulletin. It contains a general summary and analysis of the statistics and general tables which bring together the principal statistics. The data are classified and presented by states and by industries and are compared with the corresponding data presented by the censuses of 1909, 1902, and 1889.

Scope of the census.—Census statistics of mines and quarries and petroleum and natural-gas wells were 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.

Territory covered.—The census of mines and quarries for 1919, taken in connection with the Fourteenth Decennial Census, covered the United States proper, also Alaska, Hawaii, and Porto Rico.

Industries and enterprises canvassed.—The Fourteenth Census covered all classes of mines, quarries, and mineral milling or reduction works (not including smelters and refineries operated in connection with mines and quarries), and petroleum and natural-gas wells and natural-gas gasoline plants that were in operation during any portion of the year 1919. The canvass of mines, quarries, and petroleum and natural-gas wells covered both producing enterprises and those whose operations were confined to development work. Mines, quarries, or wells that were idle during the entire year 1919 were omitted from the canvass and enterprises producing less than $500 worth of products or, in the case of bituminous-coal mines, producing less than 1,000 tons of coal were also omitted. Operations confined to development work on which expenditures amounted to less than $5,000 during the calendar year 1919 were likewise omitted. The following operations were specifically omitted: The mining of placer gold and the hunting for precious stones by itinerant individuals and miners employing no help; prospecting; the digging or dredging of sand and gravel; the digging and preparation of peat; the digging and preparation of marls, both calcareous and greensand; the production of natural mineral waters; and mining of minor and rare minerals, unless conducted as part of an established industry producing other mineral products.

Relation of the statistics of mines and quarries, etc., and of manufactures.—The census of the mining industries (including the quarrying and the petroleum and natural-gas industries which are for convenience spoken of as mining industries) was taken coincidently with the census of manufactures for 1919.

Sharp distinction between mining operations and manufacturing operations which prepare the mine product for use is impossible in the case of many plants. Mining ceases as soon as substances have been removed from the earth, and all the processes thereafter performed on those substances are in the nature of manufacturing. Such distinction can not be made strictly for all census statistics, and not at all without undue dependence on estimates. Therefore, the census of mines and quarries includes with mining those processes conducted at or near the mine by the mine operator for the purpose of preparing the crude mine product for use or for market. Such operations, designated beneficiating processes, include crushing; cleaning by washing or screening; grading and sorting by size; separation from associated worthless material; concentration; burning; calcining or roasting; grinding; and cutting and polishing. Although much of such work is theoretically in the nature of manufacture, it is not ordinarily considered as manufacture by the operators, especially when of simple character and conducted by them at the mines or quarries. For the purposes of the Thirteenth and Fourteenth Censuses such business, as a whole, was treated as pertaining to the mining and quarrying industries.

Some of these industries are also included in the statistics of manufactures for two reasons: First, because similar processes are conducted strictly as manufacturing on purchased raw materials by concerns which do not operate mines and quarries; therefore, a complete review of manufacturing industries in these lines requires inclusion of those operations carried on by concerns that also do mining. Second, because the censuses of manufactures for 1904, 1909,

and 1914 included these industries they are, therefore, included in the 1919 census for the sake of complete comparability.

The treatment of natural gas or so-called "casing-head gas" for the extraction of gasoline has been included with the statistics on mining as a part of the petroleum and natural-gas industries, for the reason that a large part of this industry has been conducted by the operators of the gas-producing wells, and in connection with their business of gas distribution. The trend in this new industry seems, however, to indicate that the gasoline-extraction business is to be more generally conducted by separate enterprises. The complete segregation of the 1919 statistics relating to the production of natural-gas gasoline as a distinct industry was not possible because many reports were consolidated with reports on well operations.

On the other hand, some mining industries have been treated as a part of manufacturing industries and have not been included in any way in the statistics of mines and quarries. This was chiefly for the reason that the manufacturing phases are predominant in these industries, and accuracy in reporting could not be secured by estimated segregation of the data for mining from those for manufacturing. There was also the further reason of preserving comparability between the censuses of manufactures for the years 1904, 1914, and 1919. This class of operations excluded from the statistics for mines and quarries includes chiefly: The mining of clay and the manufacturing of clay products at the same locality when carried on in the same establishment; the quarrying of limestone and the burning of the stone into lime carried on in the same establishment; the quarrying of limestone, shale, and cement rock, and the manufacture of these into Portland cement by the same establishment; the mining of salt or the raising of brines and their conversion into commercial salt.

The actual practice of the Bureau of the Census at the Fourteenth Census with respect to industries on the border line between mining and manufacturing has been as follows:

1. In the brick and tile, pottery, cement, and lime industries the digging of clay and the quarrying of stone are a simple and minor part of the business in which much the greater part of the activities are of a manufacturing character. Statistics for establishments in these industries, engaged in both mining and manufacturing, are included only in the census of manufactures.

2. In the coal and coke industry complete segregation was made of all coal-mining statistics and coke-manufacturing statistics. If the operating establishment did not keep separate accounts by means of which absolute segregation of data could be obtained, an estimated segregation was made.

3. In the copper and lead and zinc industries mining statistics were completely segregated from manufacturing, i. e., smelting and refining, by estimate, as for coal and coke, if necessary.

4. On the other hand, in other industries in which establishments conducted both mining or quarrying operations and more or less elaborate manufacturing operations, segregated reports for each class of operations were secured whenever possible. When this was not possible the data for each such establishment as a whole has been included in both the census of mines and quarries and also in the census of manufactures. Industries in this category include basalt or trap rock, granite, limestone, marble, sandstone, and slate quarrying, the mining of abrasive materials, feldspar, fuller's earth, graphite, gypsum, mineral pigments, quartz or silica, talc and soapstone. In the stone-quarrying industries the establishments included in both the mining and manufacturing statistics were chiefly producers of crushed and ground stone and were classified by the census of manufactures as in the roofing and paving-material industries. There were also included, moreover, in both sets of statistics full data on a few establishments cutting and dressing stone for construction and other purposes which did not report separately for mining and for manufacturing, and for which no basis for segregation was available. In the other industries, above enumerated, the data on most of the establishments which mined and prepared their product by processes of grinding, calcining, etc., necessarily were included in both the mining and manufacturing tabulations.

The practice of the Census Bureau at the Fourteenth Census with respect to industries on the border line between mining and manufacturing differed from that at the preceding census by entirely excluding from the mines and quarries statistics data on coke making and smelting and refining, and further, in that in other border-line industries the effort was made to segregate for separate tabulations, so far as possible, the statistics relating properly to mining and to manufacturing. Thus, the amounts which have been included in the statistics for mines and quarries and for manufactures have been reduced to a minimum. Had such duplication in the coal and coke and mining and metallurgical industries alone been eliminated in the 1909 Census, the amounts included in both sets of statistics for that year would have been reduced by approximately 85 per cent—that is, from involving approximately 18 per cent to less than 2 per cent of the total value of products reported by the census of mines and quarries. As duplication in other industries has also been materially reduced in the 1919 statistics, it is evident that the remaining duplication can not amount to as much as 2 per cent of the total value of products reported by the census of mines and quarries and one-

tenth of 1 per cent of the total value of products reported by the census of manufactures. For this reason no special tabulation has been made to determine the precise extent of duplication of statistics in 1919.

The enterprise.—As used in the text and tables the term enterprise represents one or more mines and quarries, well 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 below—"Classification by 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, was considered as a single mine or quarry. Many individual openings, therefore, were not counted as individual mines. The total number reported comprised those in productive 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 the number generally used in this report. 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.

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 or decrease in the volume of business.

Persons engaged in the industries.—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 1909 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 number 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 average thus obtained is generally less than the number of wage earners reported for the representative day and more nearly approximates the number of wage earners that would be required to perform the work done if all were continuously employed during the year. 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 total 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 it is believed to be less significant than the average number. The number reported for the representative day, on account of the unavoidable variations of date, involves more or less duplication of persons working in different industries at different times; does not represent the total number employed in all industries at any one time;

and gives undue weight to seasonal industries as compared with industries in continuous operation.

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 by each enterprise. Occasional variations in hours in an establishment for 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 1909. 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 1909 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.

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 figures for wage earners, as already explained, are averages based on the number employed on the 15th day of each month and, although 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.

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 of less than the amount purchased during the year. The term "supplies and materials" covers mine, mill, quarry, and well supplies, and mineral or natural gas purchased for treatment, resale, or distribution.

Contract work.—The amounts reported under this head include expenditures for both productive operations and those prosecuted for development only; they are in effect indirect expenditures for salaries, wages, supplies and materials, fuel, and power.

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 all Federal, state, county, and local taxes. The data compiled with 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 capital stock, income, and excess-profits 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. 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 is shown as expenditures for development work. In the statistics on producing enterprises the part of expenses ascribed to development is relatively small, but in the statistics for nonproducing enterprises it is a large part of the total of all expenses reported.

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 1919 product 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.

The total value of products reported includes, in addition to the value of the principal mineral produced as indicated by the industry designation, also the value of other mineral or other products, and amounts re-

ceived for power sold or work or miscellaneous services for other enterprises. It is to be noted, particularly with respect to the industries producing metalliferous ores, that amounts received by the producers, i. e., the value of products as reported by the census, stand in no readily discernible relation to quantity and market value of products recoverable from the materials mined. The census figures on the value of products for the copper-mining industry, for example must not be taken as value of copper produced, but only as the value at the mine of ores, concentrates, etc.

Quantity of products.—Statistics on quantities of mineral products are presented only in the special reports on the several mining industries. They are for the most part, and except as explained in those special reports, the statistics which have been tabulated by the United States Geological Survey. More detailed and elaborate statistics on quantities of all mineral products will be found in the reports of the United States Geological Survey.

Differences between products reported by the Bureau of the Census and the Geological Survey.—The statistics showing the quantities and values of mineral products were obtained by the Bureau of the Census in cooperation with the Geological Survey, but the two bureaus followed different methods in compiling and presenting these statistics. Between these methods there is—first, the fundamental difference that the Bureau of the Census endeavors to present the total actual output and its value to the producer for the calendar year, whereas the Geological Survey reports "marketed production," sales, or shipments, including the amount used by the producers; the two sets of statistics may therefore be quite different; and second, the Geological Survey shows separately the quantity and value of each mineral product, whereas the Bureau of the Census presents the value of products of each mining industry or group of mining enterprises, classified for purposes of tabulation as an industry. Thus the Bureau of the Census figures for an industry include the value of some products not indicated by the industry designation, whereas the Geological Survey tabulates the value of each product under its proper designation, irrespective of its source.

For example, the crude or mine products of a metalliferous-lode-mining enterprise include varying combinations of the metals gold, silver, copper, lead, and zinc, and sometimes other metals. The Bureau of the Census classifies each of such enterprises according to the metal of predominant worth in ores produced, and tabulates the amount received by the producer for ore and concentrates, etc., as the total value of products in the industry classification to which the particular enterprise is assigned. The Geological Survey, on the other hand, presents separately the quantity and value of the several metals recoverable from ores, etc. Therefore the statistics compiled by the two bureaus for the gold, silver, copper, lead, and zinc-mining industries are not comparable. Similar differences in presenting results apply also to the rare-metals-mining industry. Again, the total value of all products of the mica mines is not identical with the value of the output of mica, but, as reported by the Bureau of the Census, includes the value of some feldspar or other products mined in connection with the principal product.

Another cause contributing to the difference in the reports of the two bureaus is the fact that in nearly all industries some enterprises report raw or crude mine or quarry products, and other enterprises in the same industry report milled, dressed or otherwise beneficiated products. Except where a distinct and separate report on the finishing operations was obtained for inclusion in the tabulations by the census of manufactures all operations involving milling, dressing, or other beneficiation were included in the tabulation of the census of mines and quarries, as explained in the paragraphs on the relation between statistics of mines and quarries and of manufactures. The Geological Survey did not in all cases follow the same rules, sometimes reporting only raw products where the Bureau of the Census reported finished products, or vice versa. Thus, the Geological Survey reports value of gypsum in all finished gypsum products, whereas the Bureau of the Census reports value of gypsum rock and the value of only such gypsum products as were reported in a schedule inseparably combining mining and milling operations. On the other hand, the Geological Survey reports only the value of crude magnesite produced, whereas the census of mines and quarries tabulates the value of both crude and calcined magnesite as reported by the producers.

Another difference of considerable moment in the minor industries, but affecting also all industries, is that the Geological Survey included in its tabulations products reported by establishments not included in the census tabulations. These were of four kinds: Governmental, penal, and eleemosynary institutions which are omitted from the general tables presented by the census of mines and quarries; small enterprises not within the scope of the census; nonproducing enterprises which marketed or used previously mined product; and enterprises from which the Bureau of the Census was unable to obtain financial and other data called for by its schedule, or could secure only a defective report which was not tabulated, whereas the Geological Survey was able to obtain the desired information on product.

In addition to the foregoing general differences in method, there are differences peculiar to certain industries. Thus, in the natural-gas industry the Bureau of the Census used only reports of producing or well-operating companies, whereas the Geological Survey

made use of and to some extent included in its statistics the reports of distributing companies which purchased their natural gas from producing companies. In the sandstone industry the Bureau of the Census includes enterprises which crushed the stone to sand at the quarries, while the Geological Survey includes this production under sand and gravel only. Other special differences which were significantly large for 1919 are explained in footnotes appended to the following table. This table shows the value of products as given in the general tables of this report, and as published by the Geological Survey in its report "Mineral Resources of the United States, 1919." The differences existing between the two reports are shown by amount and by the per cent these amounts are of the total reported by the Geological Survey.

TABLE SHOWING DIFFERENCES IN VALUE OF PRODUCTS AS REPORTED BY THE BUREAU OF THE CENSUS IN "MINES AND QUARRIES, 1919," AND BY THE GEOLOGICAL SURVEY IN "MINERAL RESOURCES OF THE UNITED STATES, 1919."

INDUSTRY.	Report of Bureau of the Census.	Report of Geological Survey.	DIFFERENCE.[1]	
			Amount.	Per cent.
FUELS:				
Coal, anthracite	$364,084,142	$364,926,950	−$842,808	−0.2
Coal, bituminous	1,145,977,565	1,160,616,013	−14,638,448	−1.3
Petroleum and natural gas	[2] 931,793,423	[2] 956,951,063	−25,157,640	−2.6
METALLIFEROUS ORES:				
Iron	218,217,905	[3] 197,296,282	+20,921,623	+10.6
Copper	(4)	(4)		
Gold and silver, lode mines	(4)	(4)		
Gold, placer mines	(4)	(4)		
Lead and zinc	(4)	(4)		
Manganese	2,188,312	[3] 3,349,355	−1,161,043	−34.7
Quicksilver	1,803,484	1,933,560	−130,076	−6.7
Rare metals	(4)	(4)		
STONE:				
Basalt	9,657,977	8,944,686	+713,291	+8.0
Granite	18,279,345	19,345,714	−1,066,369	−5.5
Limestone	52,943,924	53,171,701	−227,777	−0.4
Marble	4,397,912	[5] 8,042,297	−3,644,385	−45.3
Sandstone	10,684,969	[6] 5,283,842	+5,401,127	+102.2
Slate	5,720,792	6,030,648	−309,856	−5.1

INDUSTRY.	Report of Bureau of the Census.	Report of Geological Survey.	DIFFERENCE.[1]	
			Amount.	Per cent.
MISCELLANEOUS:				
Abrasive materials	$721,728	[7] $1,484,915	−$763,187	−51.4
Asbestos	249,839	251,265	−1,426	−0.6
Asphalt	749,520	682,989	+66,531	+9.7
Barytes	1,592,245	[8] 1,727,822	−135,577	−7.8
Bauxite	2,190,279	2,201,747	−11,468	−0.5
Chromite	105,841	129,302	−23,461	−18.1
Clay	10,086,298	[9] 7,090,631	+2,995,667	+42.2
Feldspar	584,296	585,200	−904	−0.2
Fluorspar	3,334,880	3,525,574	−190,694	−5.4
Fuller's earth	2,019,226	1,998,829	+20,397	+1.0
Graphite	869,403	[10] 778,857	+90,546	+11.6
Gypsum	6,805,940	15,727,907	−8,921,967	−56.7
Magnesite	2,169,571	[11] 1,248,415	+921,156	+73.8
Mica	607,025	541,651	+65,374	+12.1
Millstones	64,631	66,972	−2,341	−3.5
Mineral pigments	480,768	(12)		
Phosphate rock	10,300,198	11,591,268	−1,291,070	−11.1
Pyrite	2,408,648	2,558,172	−149,524	−5.8
Silica	371,638	373,571	−1,933	−0.5
Sulphur	17,935,882	[13] 10,252,000	+7,683,882	+75.0
Talc and soapstone	2,302,393	2,352,675	−50,282	−2.1

[1] The plus (+) or minus (−) signs indicate the amounts by which the Bureau of the Census figures exceed or fall below those published by the Geological Survey.
[2] Includes natural-gas gasoline. Difference due to different bases of tabulation.
[3] Differences partly due to different classifications of ores as manganiferous iron ores and iron ores.
[4] Comparable statistics not available as the Bureau of the Census reports net value to producers of mine products, and the Geological Survey reports the gross value of metals in ores produced.
[5] Includes value of dressed and finished products for which the Bureau of the Census reports only the value of rough stone.
[6] Not including value (approximately $5,000,000) of sandstone classified as such by the Bureau of the Census, but crushed and ground by the producers and therefore classified as sand by the Geological Survey.
[7] Total value of abrasive materials as reported by the Geological Survey is $2,887,902 from which has been deducted the value of millstones separately reported by the census of mines and quarries, and the value of grindstones and pulpstones reported by the census of manufactures; the balance—$1,484,915—includes the value of a relatively large amount of other material not included by the census of mines and quarries with abrasive materials.
[8] Includes, in addition to amounts reported by producers, data from other sources covering output by small producers not canvassed.
[9] Only raw clay sold as such and does not include production by clay-products manufacturers who made separate reports to the census of mines and quarries.
[10] Includes value of manufactured products which are not included in the value reported by the census of mines and quarries.
[11] Based on valuation of crude magnesite, whereas the census of mines and quarries includes the value of crude and calcined products as reported by the producer.
[12] Not reported.
[13] Marketed production without regard to large output held in stocks.

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 those connected with mine and quarry operation; 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 the horsepower of motors, principally electric, and of other equipment operated by power purchased from other concerns. It does not cover the power of electric motors taking their current from generators operated by prime movers reported 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, fuel and other heavy oils, gasoline or other volatile oils, and natural 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.

SUMMARY OF RESULTS FOR THE UNITED STATES.

PRINCIPAL STATISTICS.

Summary for continental United States and outlying possessions: 1919.—Table 1 presents the results of the Fourteenth Census which relate to the mining industries in 1919 and shows the principal statistics for all mines and quarries and petroleum and natural-gas wells within the area of enumeration. This area included, in addition to continental United States, the outlying territories of Alaska, Hawaii, and Porto Rico. The figures here given include nonproducing as well as producing mines, quarries, and petroleum and natural-gas enterprises, and constitute the most general summary of results of the canvass.

TABLE 1.—SUMMARY OF PRINCIPAL STATISTICS: 1919.

	Total.	Continental United States.	Alaska.	Hawaii.	Porto Rico.
Number of enterprises	22,361	21,997	346	5	13
Number of mines and quarries	14,802	14,417	367	5	13
Number of petroleum and natural-gas wells	257,681	257,673	8	.....	.....
Number of natural-gas gasoline plants	1,115	1,115	.....	.....	.....
Persons engaged	1,088,444	1,084,796	3,267	155	226
Proprietors and firm members, total	22,769	22,155	593	4	17
Number performing manual labor	5,783	5,272	505	.....	6
Salaried employees	75,688	75,457	199	6	26
Wage earners (average number)	989,987	987,184	2,475	145	183
Wage earners Dec. 15, or nearest representative day	1,100,186	1,096,458	[1] 3,379	140	209
Above ground	389,523	386,932	2,242	140	209
Below ground	710,663	709,526	1,137	.....	.....
Power used (aggregate horsepower)	6,816,814	6,786,475	29,979	325	35
Capital	$7,225,446,992	$7,108,623,496	$116,626,441	$112,882	$84,173
Principal expenses	2,556,682,424	2,545,925,350	10,493,020	171,850	92,204
Salaries	151,820,643	151,272,451	533,076	5,533	9,583
Wages	1,309,565,597	1,304,409,342	5,010,611	89,365	56,279
Supplies and materials	531,688,470	528,853,639	2,789,755	34,423	10,653
Cost of ore, coal, and natural gas purchased as material or for resale	35,905,352	35,905,352	.....	.....	.....
Fuel and purchased power	124,610,053	123,509,588	1,080,348	14,560	5,557
Royalties and rents	176,478,995	176,129,858	314,066	26,282	8,789
Taxes	141,878,154	141,567,734	307,390	1,687	1,343
Contract work	82,696,872	82,239,098	457,774	.....	.....
Value of products	3,174,507,462	3,158,463,966	15,634,801	250,538	158,157

[1] For Alaska a report for Sept. 15 was requested.

Less than 2 per cent of the total number of enterprises reported and less than one-third of 1 per cent of the persons engaged in the mining industries were in Alaska. The mining operations in Hawaii and Porto Rico were insignificant. The value of products of the mining industries in the outlying territories was approximately one-half of 1 per cent of the aggregate for the United States and its territories. Owing to the fact that there were few mining enterprises in Alaska, Hawaii, and Porto Rico and that the operations conducted by them were relatively unimportant, and to the additional fact that the canvass made in the territories was somewhat different in scope and form of inquiry from the canvass made in continental United States, the discussion and presentation of statistics relating to mining operations are confined in this section of the report, except in Table 1, to the data reported for the continental United States (referred to simply as the United States). The statistics for Alaska are presented in a separate bulletin relating to that territory whereas those for Hawaii and Porto Rico are presented only in the preceding table.

Principal statistics for producing and nonproducing enterprises: 1919.—At the Fourteenth Census 21,280 producing mining enterprises were reported for the United States. These employed an average of 981,560 wage earners, used power equipment rated at 6,750,000 horsepower and had invested capital amounting to approximately $7,000,000,000. The principal expenses of these enterprises in 1919 amounted to more than $2,500,000,000, of which $311,000,000 was for development work, and the products were valued at more than $3,158,000,000. The census also reported 717 nonproducing enterprises which, in 1919, employed an average of 5,624 wage earners, had invested capital amounting to $153,000,000. The principal expenses of this class of enterprises amounted to over $25,000,000, of which nearly $23,000,000 was for development work. Table 2 compares the principal statistics for producing and nonproducing enterprises in the United States and shows the per cent which the amount of each item reported for nonproducing operations is of the total. The most satisfactory index of the relative importance of the two classes of enterprises is the average number of wage earners employed, the figures for nonproducing enterprises representing six-tenths of 1 per cent of the total. It will be seen that for 1919 nonproducing enterprises, that is, those whose activities were limited to development or exploration in anticipation of productive operations, were relatively unimportant.

TABLE 2.—PRINCIPAL STATISTICS, PRODUCING AND NONPRODUCING ENTERPRISES: 1919.

	All enterprises.	Producing enterprises.	Nonproducing enterprises.	
			Number or amount.	Per cent of total.
Number of enterprises	21,997	21,280	717	3.3
Number of mines and quarries	14,417	13,844	573	4.0
Number of petroleum and natural-gas wells	257,673	257,673	.....	.....
Number of natural-gas gasoline plants	1,115	1,115	.....	.....
Persons engaged	1,084,796	1,077,675	7,121	0.7
Proprietors and firm members	22,155	21,918	237	1.1
Number performing manual labor	5,272	5,245	27	0.5
Salaried employees	75,457	74,197	1,260	1.7
Wage earners (average number)	987,184	981,560	5,624	0.6
Wage earners, Dec. 15, or nearest representative day	1,096,458	1,088,189	8,269	0.8
Above ground	386,932	382,766	4,166	1.1
Below ground	709,526	705,423	4,103	0.6
Power used (aggregate horsepower)	6,786,475	6,723,786	62,689	0.9
Capital	$7,108,623,496	$6,955,466,831	$153,156,665	2.2
Principal expenses:				
Salaries	151,272,451	149,328,985	1,943,466	1.3
Wages	1,304,409,342	1,295,936,226	8,473,116	0.6
Supplies and materials	528,853,639	519,593,676	9,259,963	1.8
Cost of ore, coal, and natural gas purchased as material or for resale	35,905,352	35,905,352	.....	.....
Fuel and purchased power	123,509,588	122,105,930	1,403,658	1.1
Royalties and rents	176,129,858	175,293,984	835,874	0.5
Taxes	141,567,734	140,999,626	568,108	0.4
Contract work	82,239,098	79,380,177	2,858,921	3.5
Expenditures for development (included in the above items)	334,015,265	311,276,508	22,738,757	6.8
Value of products	3,158,463,966	3,158,463,966	.....	.....

Although of minor importance the data relating to nonproducing enterprises are necessarily included in a complete canvass of mining activities, but a distinction between nonproducing and producing enterprises and a separate presentation of data relating to them is necessary to preserve the proper balance between the various items reported, and especially to keep the figures in regard to production in proper relation to figures on various factors of operation, such as the number of persons employed, power used, and expenses of operation, etc. For purposes of comparison, moreover, especially between states, industries, or censuses, it is necessary to confine the statistical presentations and discussions to the data for producing enterprises. Therefore, as well as because of the small importance of nonproducing activities in 1919, the remaining text and tables in this section will deal only with producing enterprises.

Principal mining industries.—In Table 3 the principal mining industries in 1919 are ranked according to value of products. This table shows the number of enterprises in each industry, the average number of wage earners employed, and the value of products with the per cent distribution for the last two items.

Statistics are presented for 12 industries which in 1919 had products exceeding $10,000,000 in value. These 12 industries contributed 98 per cent of the total value of products of the mining industries and employed 97.6 per cent of the total average number of wage earners engaged in producing enterprises. Statistics are also given for five other mining industries having products between $4,000,000 and $10,000,000 in value. The 17 industries shown separately in this table employed 98.9 per cent of the total average number of wage earners in productive mining enterprises, and contributed 99.2 per cent of the total value of products of the mining industries.

TABLE 3.—PRINCIPAL INDUSTRIES, PRODUCING ENTERPRISES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of enterprises.	Wage earners.		Value of products.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries	21,280	981,560	100.0	$3,158,463,966	100.0
Coal	6,890	693,170	70.6	1,510,061,707	47.8
Anthracite	254	147,372	15.0	364,084,142	11.5
Bituminous	6,636	545,798	55.6	1,145,977,565	36.3
Petroleum and natural gas	9,814	93,205	9.5	931,793,423	29.5
Iron ore	290	45,741	4.7	218,217,905	6.9
Copper	195	43,717	4.5	181,258,087	5.7
Lead and zinc	432	21,884	2.2	75,579,347	2.4
Gold and silver, lode mines	740	15,436	1.6	58,832,330	1.9
Limestone	895	22,069	2.2	52,943,924	1.7
Granite	358	8,049	0.8	18,279,345	0.6
Sulphur	4	1,129	0.1	17,935,882	0.6
Sandstone	255	4,287	0.4	10,684,969	0.3
Phosphate rock	48	4,373	0.4	10,300,198	0.3
Clay	345	5,453	0.6	10,086,298	0.3
Basalt	163	3,336	0.3	9,657,977	0.3
Gold, placer mines	112	1,380	0.1	9,368,561	0.3
Gypsum	47	2,191	0.2	6,805,940	0.2
Slate	101	3,513	0.4	5,720,792	0.2
Marble	48	1,732	0.2	4,397,912	0.1
All other	543	10,895	1.1	26,539,369	0.8

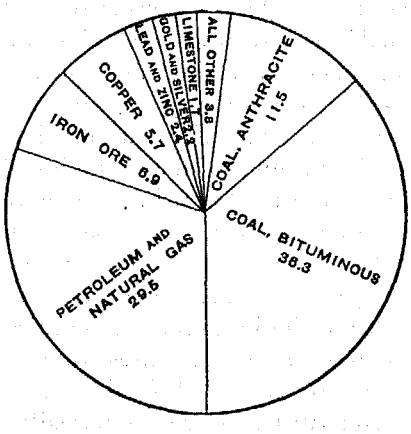
Coal mining far outranked all other industries in importance. In 1919 it contributed nearly one-half of the total value of products reported, and it furnished occupation to more than 70 per cent of all the wage earners employed by producing mining, quarrying, and well operations. Anthracite mines furnished approximately one-fourth and the bituminous coal mines three-fourths of the total value of coal produced, but the anthracite mines employed only a little more than one-fifth of the average number of wage earners while bituminous mines employed four-fifths of that number. The other industry producing mineral fuel—petroleum and natural gas—ranked second in importance in value of products, with nearly three-tenths of the total for the United States. This industry also ranked second in the number of wage earners employed which number was, however, less than one-tenth of the total for the United States.

The industries next in importance on the basis of the value of products, in the order named, were the mining of iron ore, copper ores, lead and zinc ores, and gold and silver ores. The quarrying of limestone, which ranked next to gold and silver mining in value of products, outranked both lead and zinc and gold and silver mining in the number of wage earners employed. Taken collectively, the stone-quarrying industries—limestone, granite, sandstone, basalt, slate, and marble—ranked fifth, that is, next after copper mining, in

both the number of wage earners employed and value of products.

The relative importance of the value of products of the several mining industries in 1919 are shown graphically by the diagram following.

PERCENTAGE DISTRIBUTION OF VALUE OF PRODUCTS, BY INDUSTRIES: 1919.



By-products.—The values of products given in the foregoing table and discussion include, in addition to the values of the minerals indicated by the name of the industry, the value of by-products. The term "by-products" is here used to designate collectively mineral and other products and the receipts for custom milling or other processes, for power sold, and for work or miscellaneous services furnished other enterprises, all of which were incident to the production of the principal mineral product.

Table 4 shows the value of the different classes of by-products for all industries combined and for each industry separately. Table 5 shows the value of the different classes of by-products reported for the United States and for each state separately. Table 6 shows the various by-products, the number of states, enterprises, and industries reporting each by-product.

TABLE 4.—VALUE OF BY-PRODUCTS, BY CLASSES, FOR EACH INDUSTRY: 1919.

INDUSTRY.	Total.	Mineral.	Not specified.	Custom milling, etc.	Power sold and work or miscellaneous services for other enterprises.
All industries	$9,569,113	$2,153,489	$490,684	$1,110,265	$5,814,675
Coal:					
Anthracite	139,368	.....	8,750	.....	130,618
Bituminous	1,654,918	486,831	6,194	.....	1,161,893
Petroleum and natural gas	3,095,608	.....	.....	.....	3,095,608
Iron ore	268,594	150,756	7,134	.....	110,704
Copper	995,982	5,433	.....	271,897	718,652
Lead and zinc	325,827	83,706	99,338	41,484	101,299
Gold and silver, lode mines	1,022,013	90,734	1,201	793,189	136,889
Gold, placer mines	69,241	67,675	.....	1,000	566
Stone:					
Limestone	976,407	589,884	148,814	.....	237,709
Granite	31,728	.....	6,250	.....	25,478
Sandstone	12,835	.....	400	.....	12,435
Basalt	227,449	33	190,646	.....	36,770
Slate	738	.....	.....	.....	738
Marble	12,059	12,059	.....	.....	.....

TABLE 4.—VALUE OF BY-PRODUCTS, BY CLASSES, FOR EACH INDUSTRY: 1919—Continued.

INDUSTRY.	Total.	Mineral.	Not specified.	Customs milling, etc.	Power sold and work or miscellaneous services for other enterprises.
Abrasive materials	$17,038	$16,344	.....	.....	$694
Barytes	18,316	18,316	.....	.....	.....
Clay	373,657	349,054	$4,535	.....	20,068
Feldspar	8,788	2,273	2,926	.....	3,589
Fluorspar	48,224	45,823	.....	$215	2,186
Graphite	750	.....	750	.....	.....
Magnesite	210	.....	.....	.....	210
Manganese	32,959	32,440	.....	.....	519
Mica	599	224	.....	.....	375
Mineral pigments	20,276	15,493	1,183	.....	3,600
Phosphate rock	7,208	197	.....	.....	7,011
Pyrite	193,509	180,946	12,563	.....	.....
Rare metals	2,480	.....	.....	2,480	.....
Silica	4,699	4,699	.....	.....	.....
Sulphur	1,614	.....	.....	.....	1,614
Talc and soapstone	6,019	569	.....	.....	5,450

TABLE 5.—VALUE OF BY-PRODUCTS, BY CLASSES, FOR EACH STATE: 1919.

	Total.	Mineral.	Not specified.	Custom milling, etc.	Power sold and work or miscellaneous services for other enterprises.
United States	$9,569,113	$2,153,489	$490,684	$1,110,265	$5,814,675
Alabama	33,610	33,610	.....	.....	.....
Arizona	752,152	3,597	.....	31,417	717,138
Arkansas	13,916	.....	.....	.....	13,916
California	1,145,719	224,578	1,374	67,434	852,333
Colorado	599,012	98,492	92,313	361,433	46,774
Connecticut	6,250	.....	6,250	.....	.....
Delaware	19,020	.....	4,520	.....	14,500
Florida	5,000	197	.....	.....	4,803
Georgia	31,621	17,500	13,746	.....	375
Idaho	8,216	.....	.....	8,193	23
Illinois	222,000	108,124	11,434	.....	102,442
Indiana	61,801	38,073	.....	.....	23,728
Iowa	10,211	.....	.....	.....	10,211
Kansas	67,814	.....	.....	.....	67,814
Kentucky	127,138	6,355	.....	215	120,568
Louisiana	86,032	.....	.....	.....	86,032
Maine	3,598	672	2,926	.....	.....
Maryland	23,275	23,023	.....	.....	252
Massachusetts	3,015	33	.....	.....	2,982
Michigan	323,339	118,971	.....	175,006	29,362
Minnesota	44,672	.....	.....	.....	44,672
Missouri	52,180	19,599	10,995	1,766	19,820
Montana	215,159	115,660	.....	4,817	94,682
Nebraska	694	.....	.....	.....	694
Nevada	468,655	.....	450	450,624	17,581
New Hampshire	224	224	.....	.....	.....
New Jersey	93,655	11,534	.....	.....	82,121
New Mexico	45,308	.....	.....	1,338	43,970
New York	84,636	35,316	9,949	.....	39,371
North Carolina	8,350	4,800	.....	.....	3,550
North Dakota	779	.....	.....	.....	779
Ohio	976,086	795,592	3,653	.....	176,841
Oklahoma	1,076,195	.....	.....	.....	1,076,195
Oregon	4,966	4,841	15	.....	110
Pennsylvania	1,883,763	353,607	253,371	.....	1,276,785
Rhode Island	1,634	.....	.....	.....	1,634
South Carolina	6,229	.....	.....	.....	6,229
South Dakota	3,289	.....	.....	3,289	.....
Tennessee	70,375	5,711	.....	.....	64,664
Texas	310,340	.....	.....	.....	310,340
Utah	74,905	1,946	.....	74	72,885
Vermont	5,925	.....	.....	.....	5,925
Virginia	21,640	.....	.....	.....	21,640
Washington	70,769	7,330	.....	.....	63,439
West Virginia	391,986	100,528	3,000	.....	288,458
Wisconsin	96,326	14,818	76,688	4,059	161
Wyoming	17,634	8,758	.....	.....	8,876

TABLE 6.—BY-PRODUCTS: 1919.

BY-PRODUCT.	Number of states reporting.	Number of enterprises reporting.	Number of industries reporting.	Value.
Total	47	[1] 508	30	$9,569,113
Mineral by-products				2,153,489
Barytes	1	1	1	7,600
Clay	7	37	5	340,965
Coal, bituminous [2]	6	33	2	342,228
Coke	3	3	1	96,016
Copper	2	2	2	170,502
Feldspar	2	3	3	3,793
Fuller's earth	1	1	1	33
Gold and silver	3	3	2	33,693
Iron	1	1	1	693
Lead and zinc	4	8	3	65,011
Lime	5	12	1	574,688
Limestone	4	4	3	19,040
Manganese	5	5	3	210,128
Marble	1	2	1	3,849
Mica	2	5	2	3,301
Mineral pigments	3	4	3	41,706
Platinum	2	14	1	67,675
Pyrite	6	17	4	140,067
Sandstone	3	3	3	26,918
Silica	2	2	2	997
Talc and soapstone	1	1	1	1,699
Tungsten (rare metals)	1	1	1	2,887
Products not specified	14	35	15	490,684
Custom milling, etc.	13	31	9	1,110,265
Power, work, and miscellaneous services:				
Mines and quarries	40	315	23	2,719,067
Petroleum and natural-gas industry	14	(1)	1	3,095,608

[1] Enterprises reporting by-products in the petroleum and natural-gas industry were not enumerated.
[2] Quantity—139,607 net tons.

PROGRESS OF THE INDUSTRIES.

Comparative summary for producing enterprises: 1919, 1909, 1902, and 1889.—Table 7 gives the principal statistics, in so far as comparable figures are available, for producing mines, quarries, and petroleum and natural-gas wells in the United States as reported at the census of 1919 and the three preceding censuses of mines and quarries. Even for the figures given there is not entire comparability because of different classifications in the mining industries at the different censuses. At the census of 1909 the conversion of coal into coke at the coal mines was included, but at the census of 1919 and the censuses for the two earlier years the coke industry was not included in the census of mines and quarries. The making of cement in 1902 and the burning of limestone into lime at the quarries in 1889 and 1902 were included in the statistics of mines and quarries in the censuses for those years, but were classified as manufacturing at the later censuses. No attempt has been made to adjust the figures in order to eliminate these and other differences.

Table 7 shows marked increases from 1889 to 1902 and from 1902 to 1909. It further shows that between 1909 and 1919 there was practically no increase in the number of enterprises, a decrease in the number of mines and quarries, and only a negligible increase in the number of wage earners employed. Large increases are shown for horsepower used, capital invested, and the principal expenses of operation, but the increases in expenses are mainly due to price increases, except the increase in "taxes," which is due to the impost of Federal income tax and special state taxes on mining since 1909.

TABLE 7.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919, 1909, 1902, AND 1889.

	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919	1902–1909	1889–1902
Number of enterprises	21,280	21,268	46,858	(2)	0.1	−54.6	
Number of mines and quarries	13,844	18,164	17,039	22,084	−23.8	6.6	−22.8
Number of petroleum and natural-gas wells	257,673	166,320	123,200	37,410	54.9	35.0	229.3
Number of natural-gas gasoline plants	1,115						
Persons engaged	1,077,675	1,041,682			3.5		
Proprietors and firm members, total	21,918	29,922	(2)	(2)	−26.7		
Number performing manual labor	5,245	8,861	(2)	(2)	−40.8		
Salaried employees	74,197	44,127	38,128	6,541	68.1	15.7	482.9
Wage earners (average number)	981,560	967,633	581,728	536,043	1.4	66.3	8.5
Wage earners, December 15, or nearest representative day	1,088,189	1,065,283	[3] 581,728	[3] 536,043	2.2		8.5
Above ground	382,766	366,962	221,505	244,127	4.3	65.7	−9.3
Below ground	705,423	698,321	360,223	291,916	1.0	93.9	23.4
Power used (aggregate horsepower)	6,723,786	4,608,253	2,867,562	(4)	45.9	60.7	
Capital	$6,955,460,831	$3,380,525,841	(2)	$1,310,535,318	105.8		
Principal expenses:							
Salaries	149,328,985	53,393,551	$39,020,552	5,520,600	179.7	36.8	606.8
Wages	1,295,936,226	586,774,079	369,959,960	222,041,887	103.8	58.6	66.6
Supplies and materials	519,593,676	173,411,438	[5] 123,814,967	86,075,925	199.6		43.8
Cost of ore, coal, and natural gas purchased as material or for resale	35,905,352	29,318,316			22.5		
Fuel and purchased power	122,105,930	45,136,550	(4)	(4)	170.5		
Royalties and rents	175,293,984	63,973,585	34,530,713	(4)	174.0	85.3	
Taxes	140,999,626	17,796,763	(4)	(4)	692.3		
Contract work	79,380,177	28,887,898	20,677,938	(4)	174.8	39.7	
Value of products	3,158,463,966	1,238,410,322	796,826,417	438,111,548	155.0	55.4	81.9

[1] A minus sign (−) denotes decrease. Percentages are omitted where figures are not comparable.
[2] Not reported.
[3] Average number.
[4] Comparable figures not available.
[5] Includes cost of fuel.

Comparative statistics in detail for the years 1919 and 1909, by industries, are given in the first of the general tables, page 30. Table 8 gives for the leading mining and quarrying industries the value of products in 1919, 1909, and 1902 with the percentages of increase, and the same information is presented graphically by the diagram herewith.

TABLE 8.—COMPARISON OF VALUE OF PRODUCTS FOR THE LEADING MINING INDUSTRIES: 1919, 1909, AND 1902.

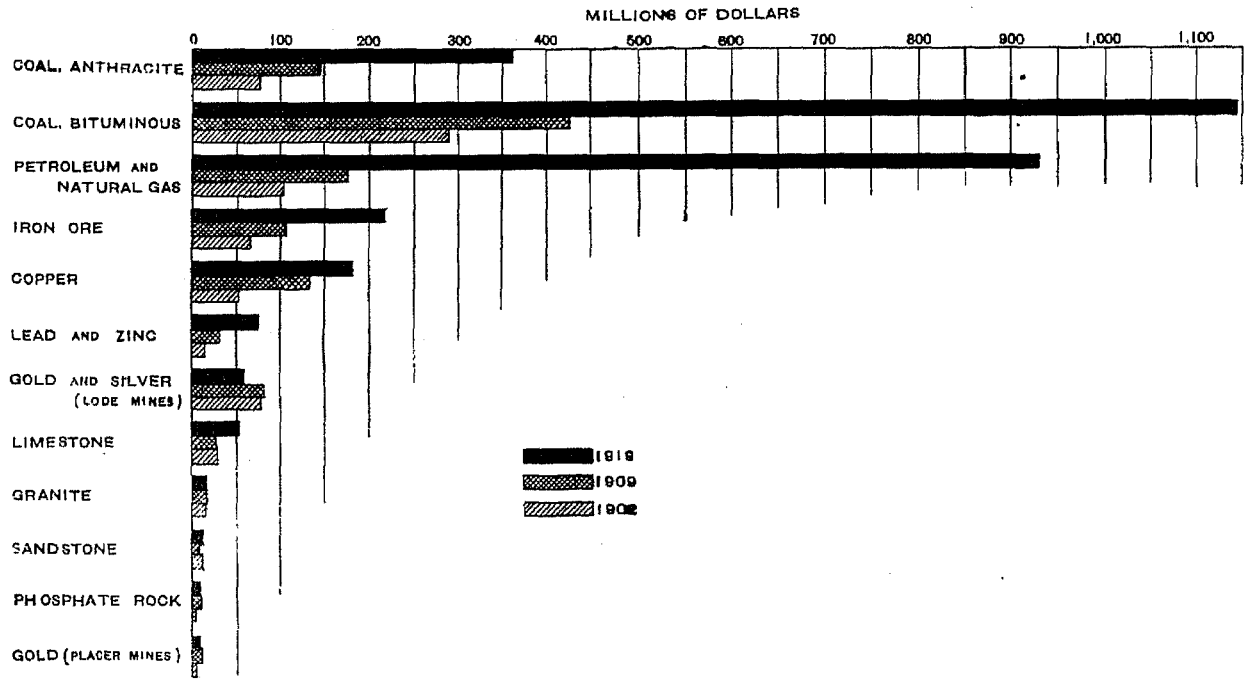
INDUSTRY.	1919	1909	1902	PER CENT OF INCREASE.[1]	
				1909–1919	1902–1909
Coal:					
Anthracite	$364,084,142	$149,180,471	$76,173,586	144.1	95.8
Bituminous	1,145,977,565	427,902,464	290,858,483	167.8	47.1
Petroleum and natural gas	931,793,423	185,416,684	102,265,602	402.5	71.6
Iron ore	218,217,905	106,947,082	65,465,321	104.0	63.4
Copper	181,258,087	134,616,987	51,178,036	34.6	163.0
Lead and zinc	75,579,347	31,363,094	14,600,177	141.0	114.8
Gold and silver, lode mines	58,832,330	83,885,928	77,154,326	−29.9	8.7
Limestone	52,943,924	29,832,492	30,441,801	77.5	−2.0
Granite	18,279,345	18,997,976	18,257,944	−3.8	4.1
Sandstone	10,684,969	9,290,929	11,022,460	15.0	−15.7
Phosphate rock	10,300,198	10,781,192	4,922,943	−4.5	119.0
Gold, placer mines	9,368,561	10,237,252	5,327,726	−8.5	92.2

[1] A minus sign (−) denotes decrease.

The greatest relative increase in the seven-year period, 1902–1909, was in the copper-mining industry. This increase is, however, misleading because the value for 1909 includes the value of smelter and refinery products, whereas the value for 1902 is limited to mine products. The next greatest relative increase for the period was in the phosphate-rock mining industry. The greatest decrease for the period 1909 to 1919 is shown for gold and silver-lode mining which, with the placer-mining industry, suffered because of the fixed price of their principal product. The increases shown for the decennial period 1909 to 1919 are exaggerated and the decreases are understated because of the rise in prices. There were, nevertheless, large actual increases in coal-mining, petroleum, and natural-gas production. In the copper-mining industry the actual increase is masked in the table because smelter and refinery statistics were included with mining statistics for 1909. There were also smaller increases in iron-ore and lead and zinc mining and in limestone quarrying.

Comparative statistics in detail for the years 1919 and 1909, by states, are given in the second of the general tables, page 32. Table 9 gives for the leading states the value of products of the mining industries in 1919, 1909, and 1902, and the same information is shown by the diagram on page 14. The greatest relative increases for the seven-year period 1902–1909 were in Louisiana and Oklahoma, where there was great development of the oil and gas industry, and in Nevada where there was large increase in metal mining during that period. The greatest increases for the period 1909–1919 were shown in Texas and the next greatest in Oklahoma, Kentucky, and Louisiana, for which the great expansion in the petroleum and natural-gas industry were responsible. Notable increases are also shown for Kansas, Wyoming, West Virginia, New Mexico, and Virginia, and are ascribable largely, if not entirely, to growth in the coal-mining and petroleum and natural-gas industry. All these

VALUE OF PRODUCTS, LEADING MINING INDUSTRIES: 1919, 1909, AND 1902.



increases are, of course, exaggerated by the price increases during the decade. Very small increases are shown for Colorado and Missouri and decreases are shown for Montana and Nevada. These changes were the result of depression in the metal-mining industries during 1919.

VALUE OF PRODUCTS, MINING INDUSTRIES, BY STATES: 1919, 1909, AND 1902.

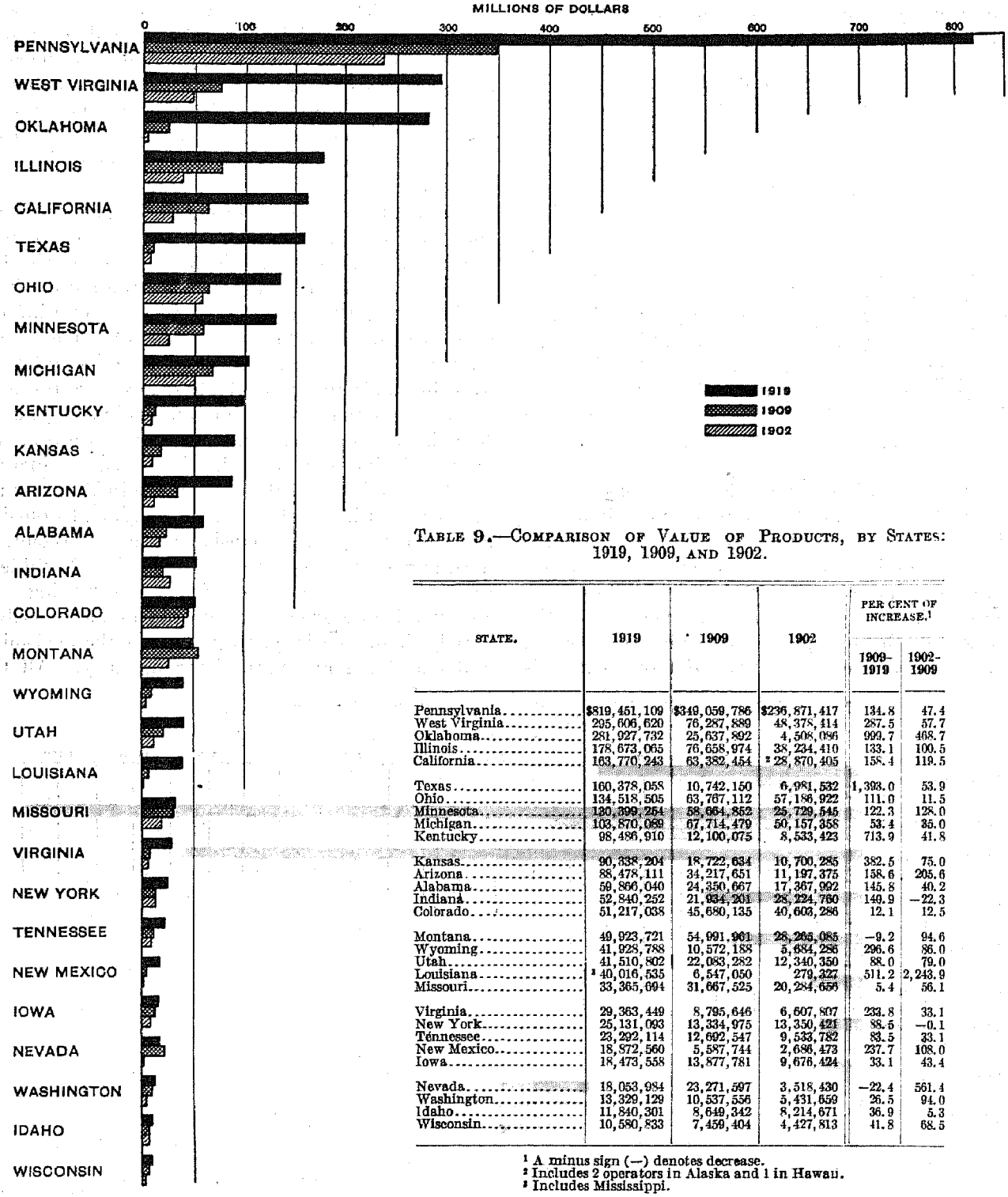


TABLE 9.—COMPARISON OF VALUE OF PRODUCTS, BY STATES: 1919, 1909, AND 1902.

STATE.	1919	1909	1902	PER CENT OF INCREASE.[1]	
				1909–1919	1902–1909
Pennsylvania	$819,451,109	$349,059,786	$236,871,417	134.8	47.4
West Virginia	295,606,620	76,287,889	48,378,414	287.5	57.7
Oklahoma	281,927,732	25,637,892	4,508,086	999.7	468.7
Illinois	178,673,065	76,658,974	38,234,410	133.1	100.5
California	163,770,243	63,382,454	[2] 28,870,405	158.4	119.5
Texas	160,378,058	10,742,150	6,981,532	1,393.0	53.9
Ohio	134,518,505	63,767,112	57,186,922	111.0	11.5
Minnesota	130,399,264	58,664,852	25,729,545	122.3	128.0
Michigan	103,870,069	67,714,479	50,157,358	53.4	35.0
Kentucky	98,486,910	12,100,075	8,533,423	713.9	41.8
Kansas	90,338,204	18,722,634	10,700,285	382.5	75.0
Arizona	88,478,111	34,217,651	11,197,375	158.6	205.6
Alabama	59,866,040	24,350,667	17,367,992	145.8	40.2
Indiana	52,840,252	21,934,201	28,224,760	140.9	−22.3
Colorado	51,217,038	45,680,135	40,603,286	12.1	12.5
Montana	49,923,721	54,991,901	28,265,085	−9.2	94.6
Wyoming	41,928,788	10,572,188	5,684,286	296.6	86.0
Utah	41,510,802	22,083,282	12,340,350	88.0	79.0
Louisiana	[3] 40,016,535	6,547,050	279,327	511.2	2,243.9
Missouri	33,365,694	31,667,525	20,284,659	5.4	56.1
Virginia	29,363,449	8,795,646	6,607,807	233.8	33.1
New York	25,131,093	13,334,975	13,350,421	88.5	−0.1
Tennessee	23,292,114	12,692,547	9,533,782	83.5	33.1
New Mexico	18,872,560	5,587,744	2,686,473	237.7	108.0
Iowa	18,473,558	13,877,781	9,676,424	33.1	43.4
Nevada	18,053,984	23,271,597	3,518,430	−22.4	561.4
Washington	13,329,129	10,537,556	5,431,659	26.5	94.0
Idaho	11,840,301	8,649,342	8,214,671	36.9	5.3
Wisconsin	10,580,833	7,459,404	4,427,813	41.8	68.5

[1] A minus sign (—) denotes decrease.
[2] Includes 2 operators in Alaska and 1 in Hawaii.
[3] Includes Mississippi.

GEOGRAPHIC DISTRIBUTION.

Distribution of mining enterprises by geographic divisions: 1919.—The distribution of the mining industries by geographic divisions is shown in Table 10 and by states in Table 11. These tables give the number of enterprises, mines, quarries, and wells and also the average number of wage earners employed and the value of products with the per cent distribution for wage earners and value of products.

TABLE 10.—STATISTICS FOR PRODUCING ENTERPRISES, BY GEOGRAPHIC DIVISIONS: 1919.

DIVISION.	Number of enterprises.	Number of mines and quarries.	Number of wells.	WAGE EARNERS.		VALUE OF PRODUCTS.	
				Average number.	Per cent of total.	Amount.	Per cent of total.
United States	21,280	13,844	257,673	981,560	100.0	$3,158,463,966	100.0
New England	302	334	.....	7,213	0.7	18,723,573	0.6
Middle Atlantic	6,604	3,870	91,511	334,175	34.0	853,891,104	27.0
East North Central	3,776	2,324	54,413	190,011	19.4	480,482,744	15.2
West North Central	1,722	1,270	12,691	62,253	6.3	280,111,296	8.9
South Atlantic	2,284	1,976	27,363	129,707	13.2	352,073,775	11.1
East South Central	1,405	1,475	5,228	90,612	9.2	181,645,064	5.8
West South Central	2,821	495	56,087	60,936	6.2	490,726,862	15.5
Mountain	1,508	1,598	1,183	81,519	8.3	321,825,305	10.2
Pacific	858	502	9,197	25,134	2.6	178,984,243	5.7

The Middle Atlantic division easily ranked first among the several geographic divisions, the value of its mineral products during 1919 amounting to $853,891,104, or 27 per cent of the total value for the United States. Next in order was the West South Central division, with products valued at $490,726,862, or 15.5 per cent of the total. The mineral products of the first division consisted largely of coal and of the second, mainly of petroleum and natural gas. Other divisions with considerable mineral production are the East North Central, South Atlantic, and the Mountain divisions. The percentage distribution of the value of products by geographic divisions for 1919 is shown graphically by the diagram herewith.

PERCENTAGE DISTRIBUTION OF VALUE OF PRODUCTS, BY GEOGRAPHIC DIVISIONS: 1919.

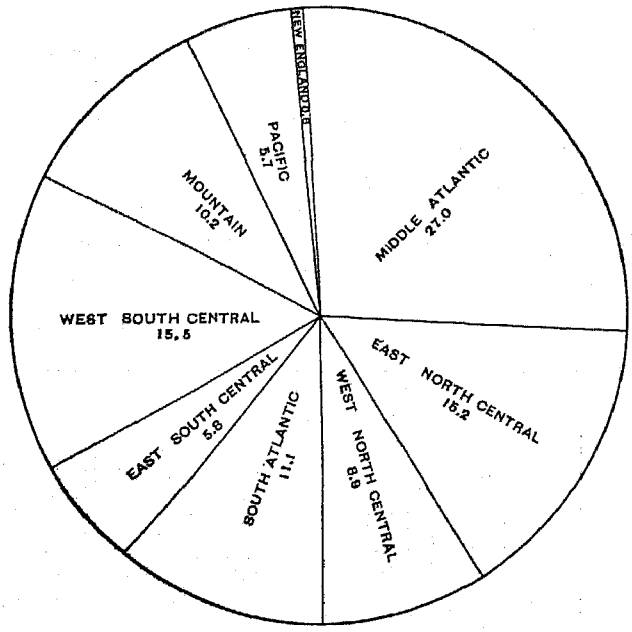


TABLE 11.—STATISTICS FOR PRODUCING ENTERPRISES, BY STATES: 1919.

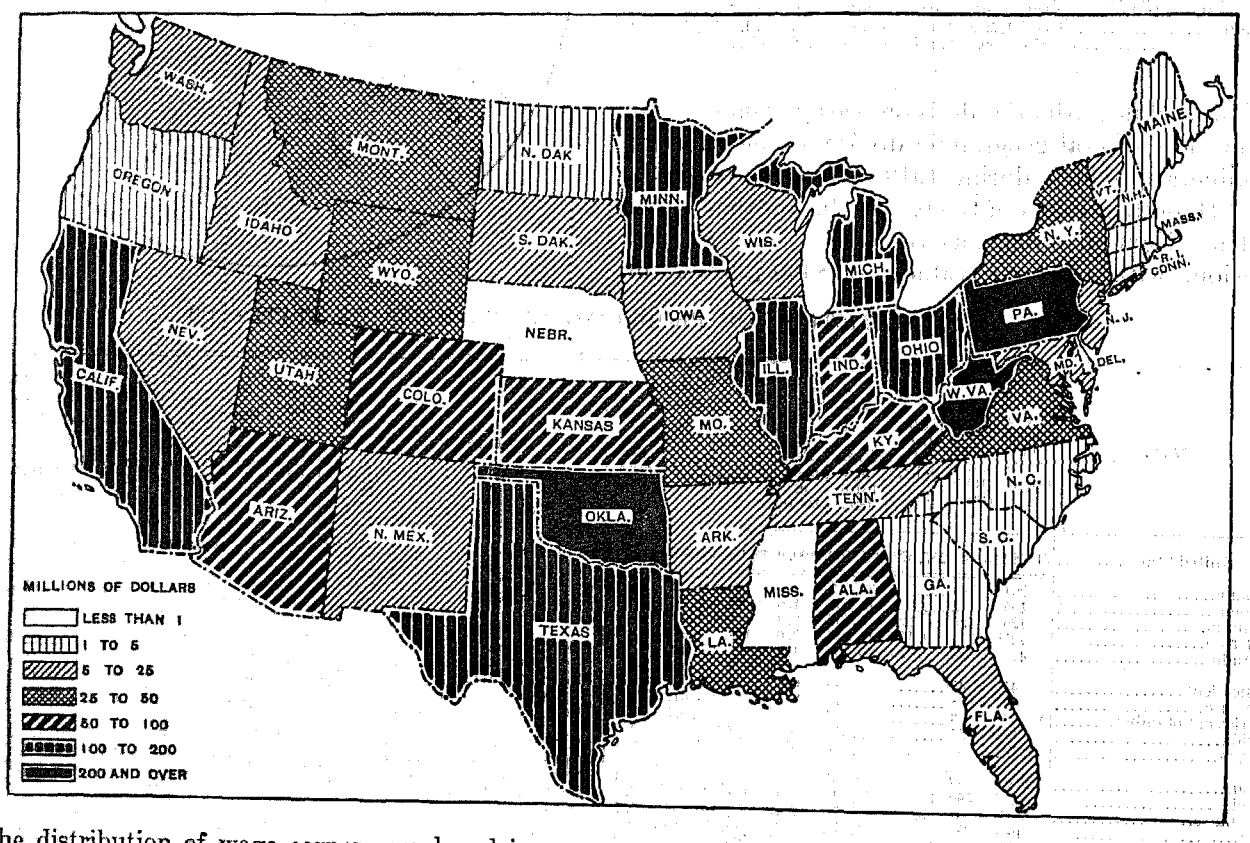
STATE.	Number of enterprises.	Number of mines and quarries.	Number of wells.	WAGE EARNERS.		VALUE OF PRODUCTS.	
				Average number.	Per cent of total.	Amount.	Per cent of total.
United States	21,280	13,844	257,673	981,560	100.0	$3,158,463,966	100.0
Alabama	264	348	.....	32,579	3.3	59,866,040	1.9
Arizona	155	172	.....	15,268	1.6	88,478,111	2.8
Arkansas	126	126	124	3,630	0.4	8,404,537	0.3
California	725	357	9,197	19,344	2.0	163,770,243	5.2
Colorado	477	523	70	16,790	1.7	51,217,038	1.6
Connecticut	41	47	.....	543	0.1	1,649,003	0.1
Delaware	7	8	.....	116	(1)	243,647	(1)
District of Columbia	3	3	.....	12	(1)	15,627	(1)
Florida	36	55	.....	3,372	0.3	8,976,413	0.3
Georgia	74	82	.....	2,397	0.2	4,082,152	0.1
Idaho	82	83	.....	2,455	0.3	11,840,301	0.4
Illinois	772	590	16,498	79,123	8.1	178,673,065	5.7
Indiana	503	398	2,456	26,751	2.7	52,840,252	1.7
Iowa	198	226	.....	11,274	1.1	18,473,558	0.6
Kansas	814	238	12,690	16,136	1.6	90,338,204	2.9
Kentucky	938	864	5,214	43,563	4.4	98,486,910	3.1
Louisiana and Mississippi	137	4	2,479	5,228	0.5	40,016,535	1.3
Maine	50	51	.....	979	0.1	1,823,442	0.1
Maryland	126	161	.....	5,628	0.6	9,698,577	0.3
Massachusetts	74	79	.....	1,704	0.2	4,175,699	0.1
Michigan	122	165	19	31,292	3.2	103,870,089	3.3
Minnesota	135	196	.....	17,265	1.8	130,399,254	4.1
Missouri	468	494	.....	14,857	1.5	33,365,694	1.1
Montana	259	269	28	16,129	1.6	$49,923,721	1.6
Nebraska	9	9	.....	162	(1)	292,766	(1)
Nevada	203	207	.....	4,231	0.4	18,053,984	0.6
New Hampshire	30	33	.....	682	0.1	1,568,105	(1)
New Jersey	97	102	.....	4,576	0.5	9,308,902	0.3
New Mexico	85	103	1	7,100	0.7	18,872,560	0.6
New York	700	147	14,186	6,202	0.6	25,131,093	0.8
North Carolina	102	106	.....	1,890	0.2	2,736,543	0.1
North Dakota	79	79	.....	774	0.1	1,927,304	0.1
Ohio	2,283	1,064	35,440	49,298	5.0	134,518,505	4.3
Oklahoma	1,934	284	44,735	33,914	3.5	281,927,732	8.9
Oregon	50	52	.....	740	0.1	1,884,871	0.1
Pennsylvania	5,807	3,621	77,325	323,397	32.9	819,451,109	25.9
Rhode Island	14	15	.....	369	(1)	952,204	(1)
South Carolina	20	20	.....	933	0.1	1,350,747	(1)
South Dakota	23	28	1	1,785	0.2	5,314,516	0.2
Tennessee	203	263	14	14,470	1.5	23,292,114	0.7
Texas	624	81	8,749	18,164	1.9	160,378,058	5.1
Utah	141	154	.....	9,847	1.0	41,510,802	1.3
Vermont	93	109	.....	2,936	0.3	8,555,030	0.3
Virginia	202	216	.....	14,547	1.5	29,363,449	0.9
Washington	83	93	.....	5,050	0.5	13,329,129	0.4
West Virginia	1,714	1,325	27,363	100,812	10.3	295,606,620	9.3
Wisconsin	92	107	.....	3,547	0.4	10,580,833	0.3
Wyoming	106	87	1,084	9,699	1.0	41,928,788	1.3

[1] Less than one-tenth of 1 per cent.

The prominence of the Middle Atlantic division in mineral production is due wholly to the state of Pennsylvania, which, as shown in Tables 9 and 11, with products (mainly coal) valued at over $800,000,000, in 1919 reported more than one-fourth of the value of all mineral products in the United States. No other state approaches Pennsylvania in importance in the mining industries. West Virginia, which ranks second, had products valued at nearly $300,000,000, about two-thirds of which was the value of coal and about one-third the value of petroleum and natural gas. The total value of products for this state was a little more than one-third of the value shown for Pennsylvania and 9.3 per cent of the total shown for the United States. Oklahoma ranked third with products, mainly petroleum and natural gas, valued at nearly $282,000,000, or a little more than one-third of the value shown for Pennsylvania and 8.9 per cent of the total for the United States. Other states having mineral products valued at more than $100,000,000 in 1919 were Illinois, California, Texas, Ohio, Minnesota, and Michigan. The nine states named, reported in 1919, 71.8 per cent of the value of all mineral products for the United States.

There are several states in which the mineral production is quite insignificant—Connecticut, Delaware, District of Columbia, Maine, Mississippi, Nebraska, New Hampshire, North Carolina, North Dakota, Oregon, Rhode Island, and South Carolina each contributing less than one-tenth of 1 per cent of the value of mineral products. The value of products for Arkansas, Florida, Georgia, Idaho, Maryland, Massachusetts, New Jersey, South Dakota, Vermont, Washington, and Wisconsin were each less than one-half of 1 per cent of the total for the United States. The combined value of products of these 23 states was less than 4 per cent of the total for the United States. The map following shows the relative value of products of the mining industries in the several states.

VALUE OF PRODUCTS, MINING INDUSTRIES, BY STATES: 1919.

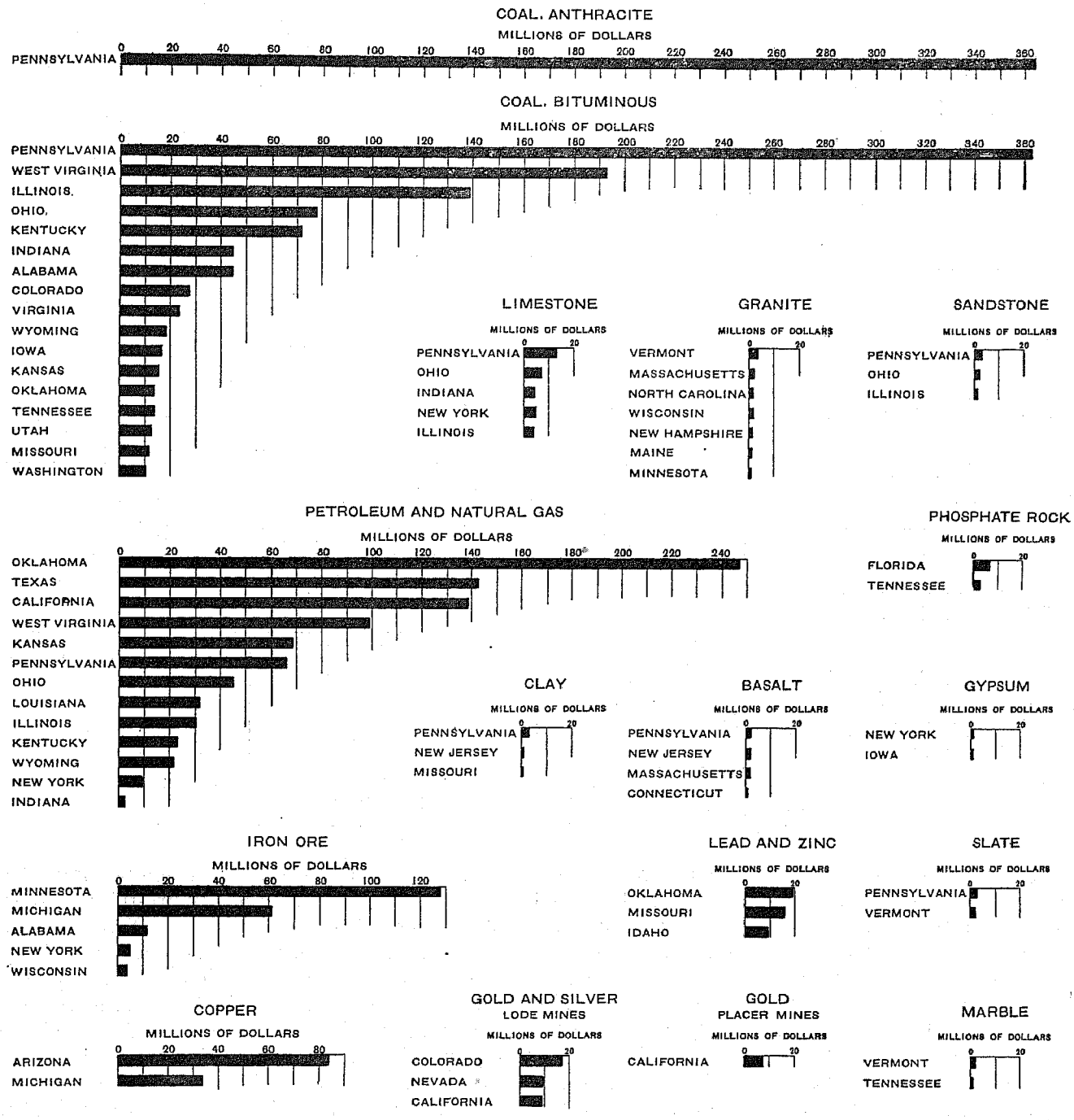


The distribution of wage earners employed in producing mining enterprises follows approximately the distribution of the total value of products except, however, that where coal is the chief mineral product the average number of wage earners is relatively greater, and where petroleum and natural gas are the principal products, the average number of wage earners is relatively less. Thus, as shown by Table 10, the Middle Atlantic division reported 34 per cent of all wage earners, a considerably greater percentage than its share of the total value of products. An excess in percentage of total wage earners over percentage of total value of products was also reported for the coal-producing East North Central and South Atlantic divisions, which ranked second and third, respectively, on the basis of wage earners employed. The reverse is markedly the case in the West South Central division, in which petroleum and natural gas produc-

tion was the principal industry, and which ranked seventh in the average number of wage earners, but second in value of products.

Distribution of the principal industries by states: 1919.—Table 12 gives the number of enterprises, the average number of wage earners, and the value of products for the leading states for each of 16 leading mining industries, and shows for each industry and state the per cent distribution of the total number of wage earners and total value of products. The same data on value of products are presented graphically by the diagram herewith.

VALUE OF PRODUCTS, LEADING MINING INDUSTRIES, BY STATES: 1919.



Pennsylvania contributed nearly one-third of the value of products of the bituminous coal mines in 1919, and the group of six contiguous states, Pennsylvania, West Virginia, Illinois, Ohio, Kentucky, and Indiana, together reported more than three-fourths of the total. The table shows altogether 17 states in all parts of the United States each of which produced bituminous coal valued at more than $10,000,000 and which together accounted for 96.5 per cent of the total.

The anthracite coal production is practically confined to the state of Pennsylvania and is shown separately for that state only.

TABLE 12.—PRINCIPAL INDUSTRIES, BY STATES, RANKED BY VALUE OF PRODUCTS, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND STATE.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent of total.	Amount.	Per cent of total.
COAL, ANTHRACITE	254	147,372	100.0	$364,084,142	100.0
Pennsylvania	254	147,372	100.0	364,084,142	100.0
COAL, BITUMINOUS	6,636	545,798	100.0	1,145,977,565	100.0
Pennsylvania	1,938	154,992	28.4	362,973,952	31.7
West Virginia	926	87,095	16.0	193,108,343	16.9
Illinois	447	73,780	13.5	138,767,835	12.1
Ohio	788	40,452	7.4	77,988,602	6.8
Kentucky	635	39,769	7.3	72,432,840	6.3
Indiana	295	24,479	4.5	45,492,726	4.0
Alabama	188	24,648	4.5	45,359,441	4.0
Colorado	161	11,252	2.1	28,342,195	2.5
Virginia	108	11,215	2.1	23,763,440	2.1
Wyoming	46	7,091	1.3	18,723,451	1.6
Iowa	167	10,584	1.9	16,903,358	1.5
Kansas	129	8,084	1.5	15,748,535	1.4
Oklahoma	94	7,040	1.3	14,477,317	1.3
Tennessee	107	9,556	1.8	14,024,432	1.2
Utah	27	3,647	0.7	12,632,035	1.1
Missouri	179	7,285	1.3	12,077,845	1.1
Washington	35	4,413	0.8	10,737,656	0.9
PETROLEUM AND NATURAL GAS	9,814	93,205	100.0	931,793,423	100.0
Oklahoma	1,699	21,180	22.7	247,497,450	26.6
Texas	553	13,599	14.6	143,337,362	15.4
California	403	12,344	13.2	139,018,663	14.9
West Virginia	751	12,302	13.2	99,518,304	10.7
Kansas	613	6,305	6.8	68,515,158	7.4
Pennsylvania	3,140	9,065	9.7	66,271,961	7.1
Ohio	1,333	5,123	5.5	45,483,525	4.9
Louisiana	133	4,841	5.2	32,016,085	3.4
Illinois	236	2,752	3.0	31,263,563	3.4
Kentucky	196	2,119	2.3	23,329,521	2.5
Wyoming	39	2,167	2.3	21,959,937	2.4
New York	561	868	0.9	9,900,894	1.1
Indiana	131	403	0.4	2,604,395	0.3
IRON ORE	290	45,741	100.0	218,217,905	100.0
Minnesota	89	16,236	35.5	128,377,174	58.8
Michigan	65	16,160	35.3	60,906,692	27.9
Alabama	39	6,485	14.2	12,291,760	5.6
New York	7	1,811	4.0	5,264,443	2.4
Wisconsin	6	1,145	2.5	3,826,872	1.8
COPPER[1]	195	43,717	100.0	181,258,087	100.0
Arizona	75	14,237	32.6	84,217,141	46.5
Michigan	22	12,235	28.0	34,476,336	19.0
LEAD AND ZINC[2]	432	21,884	100.0	75,579,347	100.0
Oklahoma	111	5,253	24.0	18,979,726	25.1
Missouri	93	4,793	21.9	15,879,177	21.0
Idaho	20	1,820	8.3	9,529,723	12.6
GOLD AND SILVER, LODE MINES[3]	740	15,436	100.0	58,832,330	100.0
Colorado	198	3,495	22.6	16,785,716	28.5
Nevada	148	2,084	13.5	9,687,431	16.5
California	99	2,881	18.7	8,773,757	14.9
LIMESTONE[4]	895	22,069	100.0	$52,943,924	100.0
Pennsylvania	184	5,573	25.3	12,881,213	24.3
Ohio	90	2,262	10.2	6,742,496	12.7
Indiana	67	1,800	8.2	4,619,801	8.7
New York	55	1,739	7.9	4,597,942	8.7
Illinois	41	1,244	5.6	3,776,626	7.1
GRANITE	358	8,049	100.0	18,279,345	100.0
Vermont	27	1,062	13.2	3,563,734	19.5
Massachusetts	42	1,034	12.8	2,405,165	13.2
North Carolina	16	959	11.9	1,576,250	8.6
Wisconsin	14	753	9.4	1,484,979	8.1
New Hampshire	23	589	7.3	1,427,979	7.8
Maine	42	747	9.3	1,300,996	7.1
Minnesota	27	392	4.9	1,135,391	6.2
SANDSTONE	255	4,287	100.0	10,684,969	100.0
Pennsylvania	100	1,673	39.0	3,534,563	33.1
Ohio	21	875	20.4	2,759,352	25.8
Illinois	15	288	6.7	1,329,389	12.4
PHOSPHATE ROCK	48	4,373	100.0	10,300,198	100.0
Florida	23	2,330	53.3	6,678,888	64.8
Tennessee	19	1,568	35.9	3,139,671	30.5
CLAY[5]	345	5,453	100.0	10,086,298	100.0
Pennsylvania	62	1,337	24.5	2,546,485	25.2
New Jersey	35	868	15.9	1,482,358	14.7
Missouri	41	622	11.4	1,420,585	14.1
BASALT	163	3,336	100.0	9,657,977	100.0
Pennsylvania	29	721	21.6	2,298,791	23.8
New Jersey	36	637	19.1	1,928,025	20.0
Massachusetts	21	547	16.4	1,548,611	16.0
Connecticut	20	363	10.9	1,262,579	13.1
GOLD, PLACER MINES	112	1,380	100.0	9,368,561	100.0
California	60	1,102	79.9	7,937,654	84.7
GYPSUM	47	2,191	100.0	6,805,940	100.0
New York	6	400	18.3	1,110,463	16.3
Iowa	5	444	20.3	1,092,920	16.1
SLATE	101	3,513	100.0	5,720,792	100.0
Pennsylvania	42	1,892	53.9	2,651,533	46.3
Vermont	38	1,039	29.6	2,057,388	36.0
MARBLE	48	1,732	100.0	4,397,912	100.0
Vermont	15	570	32.9	2,108,872	48.0
Tennessee	13	540	31.2	1,088,131	24.7

[1] Montana and Utah, ranking 3 and 4, respectively, not shown in order to avoid disclosure of individual operations.
[2] Montana, ranking 4, not shown in order to avoid disclosure of individual operations.
[3] Utah, ranking 4, not shown in order to avoid disclosure of individual operations.
[4] Michigan, ranking 6, not shown in order to avoid disclosure of individual operations.
[5] Ohio, ranking 4, not shown in order to avoid disclosure of individual operations.

The production of petroleum and natural gas was chiefly from three areas—in eastern, central, and western parts of the country. The central area, mainly in Kansas, Oklahoma, and Texas, reported nearly one-half of the total value of these products, and Oklahoma lead with 26.6 per cent of the total value of petroleum and natural-gas products for the United States. The eastern area was mainly in Pennsylvania, Ohio, and West Virginia, which states together reported nearly one-fourth of the total value. The area third in importance was in California, which reported a little more than one-seventh of the total value.

Localization of the metal-mining industry is more marked than for the fuel producing industries. Nearly one-half of the copper production was in Arizona and nearly one-fifth in Michigan. These two states leading in this industry reported nearly two-thirds of the value of products of the copper mines. Nearly one-half of the value of lead and zinc mines was reported in Oklahoma and Missouri and with the Kansas production (not shown in the table) added to these more than one-half of the total value is accounted for in this central region. Gold and silver mining is practically limited to the Western states. The three leading states, Colorado, Nevada, and California, together reported three-fifths, and Colorado alone reported more than one-fourth of the total value of products of this industry. Nearly three-fifths of the value of iron ore mined was reported by one state, Minnesota, and the value of iron ore produced in the adjacent states, Michigan and Wisconsin, brought the total for this northern central

region to nearly nine-tenths of the total for the United States.

Stone-quarrying enterprises are very widely distributed throughout the country, but as shown by the value of products for the states, the industries are much more important in New England and Middle Atlantic states than elsewhere. The phosphate-rock industry is practically all concentrated in Florida and Tennessee.

CHARACTER OF ORGANIZATION.

Table 13 presents a classification of mining enterprises according to the character, corporate or other, of the organizations operating them. The table gives, for all industries combined and for each of the leading industries separately, the number of enterprises operated by each form of organization and shows the average number of wage earners employed and the value of products with the distribution by classes.

TABLE 13.—CHARACTER OF ORGANIZATION, PRODUCING ENTERPRISES: 1919.

Industry and character of organization.	Number of enterprises.	Number of wage earners.	Value of products.		Per cent distribution.		
			Total.	Per enterprise.	Enterprise.	Wage earners.	Value of products.
ALL INDUSTRIES	21,280	981,560	$3,158,463,966	$148,424	100.0	100.0	100.0
Corporation	10,879	924,421	2,954,789,792	271,605	51.1	94.2	93.6
Individual	4,312	24,107	71,982,739	16,694	20.3	2.5	2.3
Firm	5,249	28,916	103,683,684	19,753	24.7	2.9	3.3
Other	840	4,116	28,007,751	33,343	3.9	0.4	0.9
COAL, ANTHRACITE	254	147,372	364,084,142	1,433,402	100.0	100.0	100.0
Corporation	170	143,615	355,328,907	2,090,170	66.9	97.5	97.6
Individual	37	431	962,441	26,012	14.6	0.3	0.3
Firm	42	2,879	6,741,024	160,501	16.5	2.0	1.9
Other	5	447	1,051,770	210,354	2.0	0.3	0.3
COAL, BITUMINOUS	6,636	545,798	1,145,977,565	172,691	100.0	100.0	100.0
Corporation	4,325	515,692	1,085,004,874	250,868	65.2	94.5	94.7
Individual	1,181	13,844	28,343,965	24,000	17.8	2.5	2.5
Firm	1,095	14,847	30,100,087	27,489	16.5	2.7	2.6
Other	35	1,415	2,528,639	72,247	0.5	0.3	0.2
PETROLEUM AND NATURAL GAS	9,814	93,205	931,793,423	94,945	100.0	100.0	100.0
Corporation	3,685	83,399	828,633,805	224,867	37.5	89.5	88.9
Individual	2,063	3,242	28,759,095	13,940	21.0	3.5	3.1
Firm	3,296	5,002	51,758,029	15,703	33.6	5.4	5.6
Other	770	1,562	22,642,493	29,406	7.8	1.7	2.4
IRON ORE	290	45,741	218,217,905	752,476	100.0	100.0	100.0
Corporation	267	45,152	216,718,813	811,681	92.1	98.7	99.3
Individual	12	221	390,551	32,546	4.1	0.5	0.2
Firm [1]	11	368	1,108,541	100,776	3.8	0.8	0.5
COPPER	195	43,717	181,258,087	929,529	100.0	100.0	100.0
Corporation	141	43,470	180,735,466	1,281,812	72.3	99.4	99.7
Individual	24	150	310,336	12,931	12.3	0.3	0.2
Firm [1]	30	97	212,285	7,076	15.4	0.2	0.1
LEAD AND ZINC	432	21,884	75,579,347	174,952	100.0	100.0	100.0
Corporation	287	20,508	70,551,148	245,823	66.4	93.7	93.3
Individual	40	372	1,510,296	37,757	9.3	1.7	2.0
Firm	100	870	3,156,133	31,561	23.1	4.0	4.2
Other	5	134	361,770	72,354	1.2	0.6	0.5
GOLD AND SILVER, LODE MINES	740	15,436	58,832,330	79,503	100.0	100.0	100.0
Corporation	396	14,448	55,715,104	140,695	53.5	93.6	94.7
Individual	138	401	802,301	5,814	18.6	2.6	1.4
Firm	198	480	1,963,422	9,916	26.8	3.1	3.3
Other	8	107	351,503	43,938	1.1	0.7	0.6
LIMESTONE	895	22,069	52,943,924	59,155	100.0	100.0	100.0
Corporation	462	18,324	45,890,605	99,330	51.6	83.0	86.7
Individual	289	2,011	3,705,252	12,821	32.3	9.1	7.0
Firm	140	1,635	3,112,907	22,235	15.6	7.4	5.9
Other	4	99	235,160	58,790	0.4	0.4	0.4
GRANITE	358	8,049	$18,279,345	$51,060	100.0	100.0	100.0
Corporation	152	6,392	14,504,529	95,425	42.5	79.4	79.3
Individual	126	938	2,109,442	16,742	35.2	11.7	11.5
Firm [2]	80	719	1,665,374	20,817	22.3	8.9	9.1
SULPHUR	4	1,129	17,935,882	4,483,971	100.0	100.0	100.0
Corporation	4	1,129	17,935,882	4,483,971	100.0	100.0	100.0
SANDSTONE	255	4,287	10,684,939	41,902	100.0	100.0	100.0
Corporation	142	3,574	9,405,068	66,233	55.7	83.4	88.0
Individual	61	279	500,761	8,209	23.9	6.5	4.7
Firm [1]	52	434	779,140	14,983	20.4	10.1	7.3
PHOSPHATE ROCK	48	4,373	10,300,198	214,587	100.0	100.0	100.0
Corporation	39	4,058	9,546,209	244,775	81.3	92.8	92.7
Individual	4	95	187,858	46,965	8.3	2.2	1.8
Firm	5	220	566,131	113,226	10.4	5.0	5.5
CLAY	345	5,453	10,086,298	29,236	100.0	100.0	100.0
Corporation	212	4,480	8,034,433	37,898	61.4	82.2	79.7
Individual	98	644	1,454,977	14,847	28.4	11.8	14.4
Firm [2]	35	329	596,888	17,054	10.1	6.0	5.9
BASALT	163	3,336	9,657,977	59,251	100.0	100.0	100.0
Corporation	104	2,809	8,327,873	80,076	63.8	84.2	86.2
Individual	40	356	973,250	24,331	24.5	10.7	10.1
Firm	16	149	336,073	21,005	9.8	4.5	3.5
Other	3	22	20,781	6,927	1.8	0.7	0.2
GOLD, PLACER MINES	112	1,389	9,368,561	83,648	100.0	100.0	100.0
Corporation	45	1,259	8,965,148	199,226	40.2	91.2	95.7
Individual	33	78	338,015	10,243	29.5	5.7	3.6
Firm [2]	34	43	65,398	1,923	30.4	3.1	0.7
GYPSUM	47	2,191	6,805,940	144,807	100.0	100.0	100.0
Corporation	43	2,176	6,782,826	157,740	91.5	99.3	99.7
Individual	4	15	23,114	5,779	8.5	0.7	0.3
SLATE	101	3,513	5,720,792	56,642	100.0	100.0	100.0
Corporation	71	3,007	5,021,062	70,719	70.3	85.6	87.8
Individual	8	131	187,699	23,462	7.9	3.7	3.3
Firm [1]	22	375	512,031	23,274	21.8	10.7	9.0
MARBLE	48	1,732	4,397,912	91,623	100.0	100.0	100.0
Corporation	44	1,672	4,318,737	98,153	91.7	96.5	98.2
Individual [3]	4	60	79,175	19,794	8.3	3.5	1.8

[1] Includes 1 "other" form of organization. [2] Includes 2 "other" forms of organization. [3] Includes 2 firms.

Among 21,280 enterprises of producing mines, quarries, and wells 10,879, or slightly more than half, were conducted by corporations. These enterprises employed 94.2 per cent of the total average number of persons engaged in the mining enterprises and reported 93.6 per cent of the total value of products. Individuals conducted about one-fifth, firms and partnerships about one-fourth, and other forms of organizations only a very small part of the total number of enterprises, and the number of wage earners employed and the value of products reported by these classes were quite unimportant. Furthermore, the average value of products was $271,605 per enterprise for those enterprises operated by corporations and only one-

eighth as much or less for enterprises operated by any other form of organization. Corporations were in the majority in each of the leading industries except petroleum and natural gas, granite, and gold-placer mining, and in these three they outnumbered organizations of other character and conducted the larger and more important enterprises.

SCALE OF OPERATION.

Size of enterprises by value of products.—Table 14 gives for all mining industries combined and for 16 leading mining industries separately a classification of enterprises according to value of products, and shows for each class the number of enterprises and the value of products with the per cent distribution.

TABLE 14.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS: 1919.

INDUSTRY AND VALUE OF PRODUCTS PER ENTERPRISE.	Number.	Per cent distribution.	VALUE OF PRODUCTS. Amount.	VALUE OF PRODUCTS. Per cent distribution.
ALL INDUSTRIES	21,280	100.0	$3,158,463,966	100.0
Less than $5,000	6,586	30.9	15,228,604	0.5
$5,000 to $20,000	5,539	26.0	58,745,473	1.9
$20,000 to $100,000	4,990	23.5	237,600,990	7.5
$100,000 to $500,000	3,005	14.1	686,788,422	21.7
$500,000 to $1,000,000	684	3.2	472,131,636	14.9
$1,000,000 to $5,000,000	392	1.8	754,160,595	23.9
$5,000,000 and over	84	0.4	933,808,246	29.6
COAL	6,890	100.0	1,510,061,707	100.0
Less than $5,000	855	12.4	2,801,020	0.2
$5,000 to $20,000	1,656	24.0	18,054,536	1.2
$20,000 to $100,000	2,049	29.7	102,223,266	6.8
$100,000 to $500,000	1,690	24.5	396,152,362	26.2
$500,000 to $1,000,000	409	5.9	281,472,982	18.6
$1,000,000 to $5,000,000	204	3.0	372,478,693	24.7
$5,000,000 and over	27	0.4	336,878,848	22.3
ANTHRACITE	254	100.0	364,084,142	100.0
Less than $5,000	37	14.6	89,997	(1)
$5,000 to $20,000	38	15.0	440,045	0.1
$20,000 to $100,000	43	16.9	1,843,631	0.5
$100,000 to $500,000	39	15.4	10,076,964	2.8
$500,000 to $1,000,000	32	12.6	24,276,649	6.7
$1,000,000 to $5,000,000	48	18.9	83,086,309	22.8
$5,000,000 and over	17	6.7	244,270,547	67.1
BITUMINOUS	6,636	100.0	1,145,977,565	100.0
Less than $5,000	818	12.3	2,711,023	0.2
$5,000 to $20,000	1,618	24.4	17,614,491	1.5
$20,000 to $100,000	2,006	30.2	100,379,635	8.8
$100,000 to $500,000	1,651	24.9	386,075,398	33.7
$500,000 to $1,000,000	377	5.7	257,196,333	22.4
$1,000,000 to $5,000,000	156	2.4	289,392,384	25.3
$5,000,000 and over	10	0.2	92,608,301	8.1
PETROLEUM AND NATURAL GAS	9,814	100.0	931,793,423	100.0
Less than $5,000	4,348	44.3	9,531,235	1.0
$5,000 to $20,000	2,797	28.5	28,919,564	3.1
$20,000 to $100,000	1,696	17.3	75,785,417	8.1
$100,000 to $500,000	684	7.0	150,748,376	16.2
$500,000 to $1,000,000	156	1.6	109,951,280	11.8
$1,000,000 to $5,000,000	96	1.0	204,187,367	21.9
$5,000,000 and over	37	0.4	352,670,184	37.8
IRON ORE	290	100.0	218,217,905	100.0
Less than $5,000	15	5.2	36,040	(1)
$5,000 to $20,000	29	10.0	392,775	0.2
$20,000 to $100,000	69	23.8	3,774,321	1.7
$100,000 to $500,000	98	33.8	26,453,784	12.1
$500,000 to $1,000,000	41	14.1	28,239,920	12.9
$1,000,000 to $5,000,000	35	12.1	63,674,560	29.2
$5,000,000 and over	3	1.0	95,646,505	43.8
COPPER	195	100.0	181,258,087	100.0
Less than $5,000	60	30.8	103,183	0.1
$5,000 to $20,000	33	16.9	369,280	0.2
$20,000 to $100,000	33	16.9	1,911,892	1.1
$100,000 to $500,000	28	14.4	6,799,421	3.8
$500,000 to $1,000,000	9	4.6	6,350,924	3.5
$1,000,000 to $5,000,000	19	9.7	43,121,957	23.8
$5,000,000 and over	13	6.7	122,601,430	67.6
LEAD AND ZINC	432	100.0	75,579,347	100.0
Less than $5,000	135	31.3	261,492	0.3
$5,000 to $20,000	80	18.5	817,185	1.1
$20,000 to $100,000	85	19.7	4,494,519	5.9
$100,000 to $500,000	102	23.6	25,190,455	33.3
$500,000 to $1,000,000	17	3.9	11,617,808	15.4
$1,000,000 and over [2]	13	3.0	33,197,888	43.9
GOLD AND SILVER, LODE MINES	740	100.0	$58,832,330	100.0
Less than $5,000	381	51.5	695,409	1.2
$5,000 to $20,000	149	20.1	1,500,964	2.6
$20,000 to $100,000	113	15.3	5,149,322	8.8
$100,000 to $500,000	67	9.1	14,986,545	25.5
$500,000 to $1,000,000	19	2.6	13,255,565	22.5
$1,000,000 and over [2]	11	1.5	23,244,525	39.5
LIMESTONE	895	100.0	52,943,924	100.0
Less than $5,000	208	23.2	507,076	1.0
$5,000 to $20,000	259	28.9	2,915,675	5.5
$20,000 to $100,000	310	34.6	14,429,913	27.3
$100,000 to $500,000	103	11.5	20,834,355	39.4
$500,000 to $1,000,000	10	1.1	6,904,529	13.0
$1,000,000 to $5,000,000	5	0.6	7,352,376	13.9
GRANITE	358	100.0	18,279,345	100.0
Less than $5,000	90	25.1	241,093	1.3
$5,000 to $20,000	104	29.1	1,027,383	5.6
$20,000 to $100,000	110	30.7	4,786,424	26.2
$100,000 to $500,000	50	14.0	9,344,547	51.1
$500,000 and over [3]	4	1.1	2,879,898	15.8
SANDSTONE	255	100.0	10,684,969	100.0
Less than $5,000	79	31.0	191,820	1.8
$5,000 to $20,000	78	30.6	841,052	7.9
$20,000 to $100,000	72	28.2	3,035,162	28.4
$100,000 and over [4]	26	10.2	6,616,935	61.9
PHOSPHATE ROCK	48	100.0	10,300,198	100.0
Less than $20,000 [5]	8	16.7	66,217	0.6
$20,000 to $100,000	16	33.3	897,741	8.7
$100,000 to $500,000	17	35.4	4,052,511	39.3
$500,000 and over [3]	7	14.6	5,283,729	51.3
CLAY	345	100.0	10,086,298	100.0
Less than $5,000	82	23.8	192,739	1.9
$5,000 to $20,000	118	34.2	1,248,365	12.4
$20,000 to $100,000	127	36.8	5,949,044	59.0
$100,000 to $500,000	18	5.2	2,696,150	26.7
BASALT	163	100.0	9,657,977	100.0
Less than $5,000	20	12.3	48,034	0.5
$5,000 to $20,000	40	24.5	490,470	5.1
$20,000 to $100,000	77	47.2	3,850,020	39.9
$100,000 and over [6]	26	16.0	5,269,453	54.6
GOLD, PLACER MINES	112	100.0	9,368,561	100.0
Less than $5,000	74	66.1	119,809	1.3
$5,000 to $20,000	12	10.7	112,178	1.2
$20,000 to $100,000	12	10.7	798,605	8.5
$100,000 to $500,000	11	9.8	2,611,707	27.9
$500,000 and over [3]	3	2.7	5,726,262	61.1
GYPSUM	47	100.0	6,805,940	100.0
Less than $5,000	3	6.4	5,042	0.1
$5,000 to $20,000	5	10.6	69,164	1.0
$20,000 to $100,000	18	38.3	941,620	13.8
$100,000 to $500,000	18	38.3	4,100,134	60.2
$500,000 to $1,000,000	3	6.4	1,689,980	24.8
SLATE	101	100.0	5,720,792	100.0
Less than $5,000	13	12.9	36,448	0.6
$5,000 to $20,000	21	20.8	276,824	4.8
$20,000 to $100,000	55	54.5	2,764,500	48.3
$100,000 and over [6]	12	11.9	2,643,020	46.2
MARBLE	48	100.0	4,397,912	100.0
Less than $5,000	4	8.3	10,702	0.2
$5,000 to $20,000	8	16.7	81,157	1.8
$20,000 to $100,000	25	52.1	1,255,344	28.5
$100,000 and over [3]	11	22.9	3,050,709	69.4

[1] Less than one-tenth of 1 per cent.
[2] Includes the group "$5,000,000 and over."
[3] Includes the group "$1,000,000 to $5,000,000."
[4] Includes the groups "$500,000 to $1,000,000" and "$1,000,000 to $5,000,000."
[5] Includes the group "Less than $5,000."
[6] Includes the group "$500,000 to $1,000,000."

The relative importance of large scale and small scale production in mining is shown by the fact that 6,586 enterprises, or 30.9 per cent of the total, reported products valued at less than $5,000 each, with an aggregate of $15,228,604, or only five-tenths of 1 per cent of the total value of products; whereas 476 enterprises reporting products valued at more than $1,000,000, although they constituted only 2.2 per cent of the total number of enterprises, reported over $1,600,000,000, or 53.5 per cent of the total value of products. The part contributed by enterprises reporting more than $1,000,000 worth of products was 33.4 per cent for bituminous coal and 89.9 per cent for anthracite coal; 59.7 per cent in the petroleum and natural-gas industry; ranged, in the metal-mining industries, from 39.5 per cent for gold and silver, lode mines, to 91.4 per cent for copper-mining enterprises; and was 73 per cent in the iron-ore-mining industry.

Size of enterprises by number of wage earners.—Table 15 gives, for all mining industries combined and for the 17 leading industries separately, a classification of producing enterprises according to the average number of wage earners employed and shows for each class the number and per cent distribution of wage earners and enterprises.

TABLE 15.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Average number.	Per cent distribution.
ALL INDUSTRIES	21,280	100.0	981,560	100.0
No wage earners	3,722	17.5		
1 to 5	7,912	37.2	16,761	1.7
6 to 20	3,948	18.6	44,506	4.5
21 to 50	2,309	10.9	76,040	7.7
51 to 100	1,372	6.4	98,621	10.0
101 to 500	1,743	8.2	377,339	38.4
501 to 1,000	182	0.9	125,278	12.8
Over 1,000	92	0.4	243,015	24.8
COAL	6,890	100.0	693,170	100.0
No wage earners	64	0.9		
1 to 5	1,574	22.8	4,476	0.6
6 to 20	1,588	23.0	18,543	2.7
21 to 50	1,258	18.3	41,638	6.0
51 to 100	901	13.1	65,336	9.4
101 to 500	1,304	18.9	277,528	40.0
501 to 1,000	134	1.9	90,541	13.1
Over 1,000	67	1.0	195,108	28.1
ANTHRACITE	254	100.0	147,372	100.0
No wage earners	2	0.8		
1 to 5	62	24.4	139	0.1
6 to 20	39	15.4	469	0.3
21 to 50	20	7.9	629	0.4
51 to 100	13	5.1	981	0.7
101 to 500	63	24.8	18,240	12.4
501 to 1,000	33	13.0	21,804	14.8
Over 1,000	22	8.7	105,110	71.3
BITUMINOUS	6,636	100.0	545,798	100.0
No wage earners	62	0.9		
1 to 5	1,512	22.8	4,337	0.8
6 to 20	1,549	23.3	18,074	3.3
21 to 50	1,238	18.7	41,009	7.5
51 to 100	888	13.4	64,355	11.8
101 to 500	1,241	18.7	259,288	47.5
501 to 1,000	101	1.5	68,737	12.6
Over 1,000	45	0.7	89,998	16.5
PETROLEUM AND NATURAL GAS	9,814	100.0	93,205	100.0
No wage earners	3,292	33.5		
1 to 5	4,925	50.2	8,852	9.5
6 to 20	1,034	10.5	11,036	11.8
21 to 50	296	3.0	9,874	10.6
51 to 100	133	1.4	9,592	10.3
101 to 500	102	1.0	21,978	23.6
501 to 1,000	24	0.2	17,358	18.6
Over 1,000	8	0.1	14,515	15.6
IRON ORE	290	100.0	45,741	100.0
No wage earners	5	1.7		
1 to 5	21	7.2	63	0.1
6 to 20	43	14.8	574	1.3
21 to 50	57	19.7	2,180	4.8
51 to 100	54	18.6	3,822	8.4
101 to 500	102	35.2	31,032	67.8
501 to 1,000	7	2.4	5,535	12.1
Over 1,000	1	0.3	2,535	5.5
COPPER	195	100.0	43,717	100.0
No wage earners	16	8.2		
1 to 5	53	27.2	129	0.3
6 to 20	35	17.9	406	0.9
21 to 50	27	13.8	859	2.0
51 to 100	11	5.6	835	1.9
101 to 500	30	15.4	8,676	19.8
501 to 1,000	12	6.2	8,817	20.2
Over 1,000	11	5.6	23,995	54.9
LIMESTONE	895	100.0	22,069	100.0
No wage earners	25	2.8		
1 to 5	288	32.2	713	3.2
6 to 20	301	33.6	3,445	15.6
21 to 50	179	20.0	5,456	24.7
51 to 100	59	6.6	4,109	18.6
101 to 500	43	4.8	8,346	37.8
LEAD AND ZINC	432	100.0	21,884	100.0
No wage earners	41	9.5		
1 to 5	121	28.0	266	1.2
6 to 20	104	24.1	1,195	5.5
21 to 50	74	17.1	2,443	11.2
51 to 100	45	10.4	3,054	14.0
101 to 500	39	9.0	7,164	32.7
501 to 1,000	4	0.9	2,412	11.0
Over 1,000	4	0.9	5,350	24.4
GOLD AND SILVER, LODE MINES	740	100.0	15,436	100.0
No wage earners	151	20.4		
1 to 5	273	36.9	643	4.2
6 to 20	178	24.1	1,872	12.1
21 to 50	71	9.6	2,474	16.0
51 to 100	31	4.2	2,244	14.5
101 to 500	35	4.7	6,691	43.3
Over 1,000	1	0.1	1,512	9.8
GRANITE	358	100.0	8,049	100.0
No wage earners	20	5.6		
1 to 5	119	33.2	288	3.6
6 to 20	117	32.7	1,173	14.6
21 to 50	60	16.8	1,862	23.1
51 to 100	28	7.8	2,035	25.3
101 to 500	14	3.9	2,691	33.4
CLAY	345	100.0	5,453	100.0
No wage earners	26	7.5		
1 to 5	108	31.3	273	5.0
6 to 20	131	38.0	1,487	27.3
21 to 50	57	16.5	1,824	33.4
51 to 100	19	5.5	1,270	23.3
101 to 500	4	1.2	599	11.0
PHOSPHATE ROCK	48	100.0	4,373	100.0
No wage earners	1	2.1		
1 to 5	2	4.2	9	0.2
6 to 20	10	20.8	122	2.8
21 to 50	11	22.9	360	8.2
51 to 100	10	20.8	679	15.5
101 to 500	14	29.2	3,203	73.2
SANDSTONE	255	100.0	4,287	100.0
No wage earners	9	3.5		
1 to 5	105	41.2	245	5.7
6 to 20	89	34.9	1,032	24.1
21 to 50	29	11.4	942	22.0
51 to 100	17	6.7	1,249	29.1
101 to 500	6	2.4	819	19.1
SLATE	101	100.0	3,513	100.0
No wage earners	1	1.0		
1 to 5	9	8.9	32	0.9
6 to 20	32	31.7	355	10.1
21 to 50	39	38.6	1,291	36.7
51 to 100	14	13.9	1,005	28.6
101 to 500	6	5.9	830	23.6

TABLE 15.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919—Continued.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Average number.	Per cent distribution.
BASALT	163	100.0	3,336	100.0
No wage earners	2	1.2	.....	.....
1 to 5	36	22.1	115	3.4
6 to 20	67	41.1	782	23.4
21 to 50	47	28.8	1,502	45.0
51 to 100	6	3.7	390	11.7
101 to 500	5	3.1	547	16.4
GYPSUM	47	100.0	2,191	100.0
1 to 5	4	8.5	11	0.5
6 to 20	14	29.8	190	8.7
21 to 50	15	31.9	506	23.1
51 to 100	8	17.0	518	23.6
101 to 500	6	12.8	966	44.1
MARBLE	48	100.0	1,732	100.0
No wage earners	1	2.1	.....	.....
1 to 5	4	8.3	12	0.7
6 to 20	20	41.7	250	14.4
21 to 50	16	33.3	531	30.7
51 to 100	2	4.2	147	8.5
101 to 500	5	10.4	792	45.7
GOLD, PLACER MINES	112	100.0	1,380	100.0
No wage earners	34	30.4	.....	.....
1 to 5	47	42.0	112	8.1
6 to 20	17	15.2	214	15.5
21 to 50	8	7.1	250	18.1
51 to 100	4	3.6	253	18.3
101 to 500	2	1.8	551	39.9
SULPHUR	4	100.0	1,129	100.0
6 to 20	1	25.0	14	1.2
101 to 500	2	50.0	500	44.3
501 to 1,000	1	25.0	615	54.5

The very small enterprises, employing no wage earners or from 1 to 20 men each, were most numerous. Enterprises in these classes constituted nearly three-fourths of the total for the United States, but the wage earners employed were only 6.2 per cent of the total number of wage earners. In the mining and quarrying industries, exclusive of petroleum and natural gas, the very small enterprises constituted little more than half of the total number of enterprises and those enterprises having 1 to 20 wage earners employed 4.3 per cent of the average number of wage earners in these industries; whereas, in the petroleum and natural-gas industry the small enterprises constituted approximately 95 per cent of all enterprises, and the wage earners employed were 21.3 per cent of the total average number of wage earners in the industry. On the other hand, 76 per cent of the total average number of wage earners were employed by enterprises having more than 100 men although such enterprises constituted only 9.5 per cent of the total number of enterprises.

A relatively large number of small enterprises is characteristic of each of the mining industries, but the ratio of small enterprises to large enterprises varies in different industries. The percentage of small enterprises, that is, those having no wage earners or fewer than 101 each, ranged from 25 per cent in the sulphur-mining industry to 98.8 per cent in the clay industry. The industries in which very large enterprises, those employing more than 1,000 wage earners each, were relatively numerous were: Anthracite-coal mining in which 71.3 per cent of all wage earners were employed by 22 enterprises; copper mining in which 54.9 per cent were employed by 11 enterprises; lead and zinc mining in which 24.4 per cent were employed by 4 enterprises; and bituminous-coal mining in which 16.5 per cent of the total number of wage earners were employed by 45 enterprises. In the petroleum and natural-gas industry the concentration of wage earners in large enterprises is not as marked as indicated in the table because the table is based on consolidated returns from large operators which combined data for several individual operations each of which was considerably smaller than the size shown for these larger enterprises in the table.

PERSONS ENGAGED IN MINING INDUSTRIES.

Persons according to occupational classes, sex, and age.—Table 16 shows the persons engaged in producing mining enterprises in the United States in various occupational classes and grouped according to sex, and also shows the number of wage earners over and under 16 years of age. For persons employed in clerical and supervisory capacities the numbers shown are for December 15 or the nearest representative day and for wage earners the number shown is the average number. The figures given for male and female wage earners and those under 16 years of age are estimated parts of the total average number of wage earners proportional to the numbers of females and persons under 16 years of age reported among the wage earners on December 15 or the nearest representative day.

TABLE 16.—PERSONS ENGAGED IN PRODUCING ENTERPRISES: 1919.

CLASS.	Total.	Male.	Female.
All classes	1,077,675	1,065,051	12,624
Proprietors and officials	60,409	58,330	2,079
Proprietors and firm members	21,918	20,231	1,687
Salaried officers of corporation	10,456	10,202	254
Superintendents and managers	21,704	21,648	56
Technical employees	6,331	6,249	82
Clerks and other subordinate salaried employees	35,706	25,649	10,057
Wage earners (average number)	981,560	981,072	488
Wage earners 16 years of age and over	981,361	980,873	488
Wage earners under 16 years of age	199	199	.....

Women constituted only 1.2 per cent of the total number of persons in the industries. Approximately 80 per cent of them were employed as clerks or other subordinate salaried employees and a very few were reported as wage earners.

Of the whole number of persons engaged in producing enterprises, 2 per cent were proprietors and firm members, 1 per cent were salaried officers, 2 per cent were superintendents and managers, 3.3 per cent were clerks and other subordinate salaried employees, and 91.1 per cent were wage earners.

Table 17 shows for the 17 most important mining industries the principal classes of persons engaged in the producing enterprises and the per cent of the total in each group. The proportion of proprietors and officials is as a rule small and is less than 10 per cent in all industries except gold-placer mining and petroleum and natural-gas production. The proportion of clerks and other subordinate salaried employees is also small. The proportion of wage earners ranges from 74.5 per cent in the petroleum and natural-gas industry to 95.2 per cent in anthracite-coal mining. The proportion of wage earners employed in metal mining as a whole is somewhat smaller than the proportion in coal mining and slightly larger than the proportion in stone quarrying.

TABLE 17.—PERSONS ENGAGED IN PRODUCING ENTERPRISES, BY INDUSTRIES: 1919.

INDUSTRY.	Total.	Proprietors and officials.	Clerks and other subordinate salaried employees.	Wage earners (average number).	PER CENT OF TOTAL.		
					Proprietors and officials.	Clerks and other subordinate salaried employees.	Wage earners.
All industries	1,077,675	60,409	35,706	981,560	5.6	3.3	91.1
Coal:							
Anthracite	154,882	4,120	3,390	147,372	2.7	2.2	95.2
Bituminous	583,608	22,403	15,407	545,798	3.8	2.6	93.5
Petroleum and natural gas	125,110	22,187	9,718	93,205	17.7	7.8	74.5
Iron ore	48,767	1,286	1,740	45,741	2.6	3.6	93.8
Copper	46,999	1,601	1,681	43,717	3.4	3.6	93.0
Limestone	24,705	1,727	909	22,069	7.0	3.7	89.3
Lead and zinc	24,030	1,374	772	21,884	5.7	3.2	91.1
Gold and silver, lode mines	17,531	1,693	402	15,436	9.7	2.3	88.0
Granite	8,951	696	206	8,049	7.8	2.3	89.9
Clay	6,087	460	174	5,453	7.6	2.9	89.6
Sandstone	4,897	434	176	4,287	8.9	3.6	87.5
Phosphate rock	4,761	223	165	4,373	4.7	3.5	91.9
Slate	3,852	269	70	3,513	7.0	1.8	91.2
Basalt	3,791	310	145	3,336	8.2	3.8	88.0
Gypsum	2,477	103	183	2,191	4.2	7.4	88.5
Marble	1,891	96	63	1,732	5.1	3.3	91.6
Gold, placer mines	1,651	232	39	1,380	14.1	2.4	83.6
Sulphur	1,273	59	85	1,129	4.6	6.7	88.7

Proprietors performing manual labor.—Table 18 gives for 15 principal mining industries the number and percentage of proprietors and firm members who performed manual labor compared with the total number. It would appear from the fact that out of a total of 21,918 proprietors and firm members, 5,245, or nearly one-fourth, were personally performing manual labor in or about their enterprises in 1919, that there was a considerable number of enterprises operated without the assistance of hired help or with little help. The industries in which proprietors performing manual labor were relatively most numerous include copper mining, gold, and silver lode-mining, and placer mining, in each of which industries more than half of the proprietors and firm members were working in their own mines; and bituminous-coal mining, lead and zinc mining, and granite quarrying in which nearly one-half of all proprietors belonged to this class. The petroleum and natural-gas industry reported the largest absolute number of proprietors and firm members performing manual labor, but these constituted a comparatively small percentage of the total number in that industry.

TABLE 18.—PROPRIETORS AND FIRM MEMBERS, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	Total.	PERFORMING MANUAL LABOR.	
		Number.	Per cent.
All industries	21,918	5,245	23.9
Coal:			
Anthracite	159	34	21.4
Bituminous	4,237	1,830	43.2
Petroleum and natural gas	14,223	1,987	14.0
Iron ore	41	9	.....
Copper	103	62	60.2
Lead and zinc	412	186	45.1
Gold and silver, lode mines	712	485	68.1
Limestone	633	175	27.6
Granite	328	145	44.2
Sandstone	179	53	29.6
Clay	187	48	25.7
Basalt	77	20	.....
Gold, placer mines	122	77	63.1
Gypsum	4	3	.....
Slate	64	21	.....
Marble	7	3	.....

Wage earners, by occupations.—Table 19 gives for all minining industries, and for the 17 most important industries separately, the number of wage earners in producing mines, classified by occupations, and segregates those who work above and below ground. This classification serves to distinguish those engaged in the more peculiarly mining occupations from another skilled class (including the groups "Enginemen, motormen, hoistmen, firemen, machinists, electricians, carpenters, and other mechanics"), on the one hand, and from the less skilled ("Muckers, loaders, laborers, and others not classified"), on the other hand.

Miners, quarrymen, cutters, and drillmen, including their helpers, constituted the most numerous class of wage earners in 1919, representing 39.2 per cent of the whole number employed in all industries combined. The percentage in this class in all industries, except in the petroleum and natural-gas industry in which they are not represented, was 43.2. The class of wage earners included under the heading "Muckers, loaders, laborers, and others not classified" was the next most numerous class, and the third was the class "Enginemen, hoistmen, electricians, mechanics, etc."

TABLE 19.—WAGE EARNERS, BY OCCUPATIONS, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	NUMBER OF WAGE EARNERS DEC. 15TH OR NEAREST REPRESENTATIVE DAY.													
	All classes.			Foremen, shift bosses, etc.		Enginemen, motormen, hoistmen, firemen, machinists, electricians, carpenters, and other mechanics.		Miners, cutters, quarrymen, and drillmen, including their helpers.		Timbermen, trackmen, and all men engaged in hauling, tramming, and caging.		Muckers, loaders, laborers, and others not classified.		In mills and beneficiating plants.
	Total.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.
All industries	1,088,189	382,766	705,423	10,314	15,437	134,117	30,145	30,702	395,398	25,583	138,491	135,239	125,952	46,811
Coal, total	769,646	155,364	614,282	5,082	12,020	43,123	26,775	7,168	354,485	17,503	116,805	59,437	104,197	23,051
Anthracite	152,243	46,618	105,625	435	1,098	10,488	4,331	138	59,401	2,769	17,325	12,291	23,470	20,497
Bituminous	617,403	108,746	508,657	4,647	10,922	32,635	22,444	7,025	295,084	14,733	99,480	47,152	80,727	2,554
Petroleum and natural gas	100,980	100,980	.....	.....	.....	[1] 94,230	.....	.....	.....	.....	.....	36,750	.....	.....
Iron ore	47,740	19,050	28,690	789	878	6,526	1,053	1,354	15,326	1,677	5,495	7,436	5,938	1,268
Copper	45,809	20,105	25,704	807	1,137	6,167	1,254	1,185	9,455	1,005	8,115	4,352	5,743	6,589
Lead and zinc	26,168	9,471	16,697	369	573	2,576	362	109	6,857	304	4,361	1,477	4,544	4,636
Limestone	25,052	24,272	780	957	10	3,278	53	8,433	204	1,930	104	8,716	409	958
Gold and silver, lode mines	17,322	5,830	11,492	313	485	1,713	515	208	4,980	296	2,202	1,339	3,310	1,961
Granite	9,166	9,166	.....	379	.....	858	.....	3,736	.....	544	.....	1,621	.....	2,028
Clay	6,302	4,547	1,755	174	57	349	25	815	1,066	426	400	2,527	207	256
Phosphate rock	5,913	5,764	149	291	3	1,154	.....	968	116	443	7	2,577	23	331
Sandstone	4,861	4,861	.....	197	.....	405	.....	1,599	.....	304	.....	1,621	.....	735
Slate	3,973	3,242	731	133	36	371	3	811	488	200	54	792	150	935
Basalt	3,799	3,799	.....	144	.....	473	.....	1,120	.....	192	.....	1,828	.....	42
Gypsum	2,556	1,381	1,175	37	40	105	40	159	445	25	208	239	442	816
Marble	1,856	1,856	.....	66	.....	150	.....	763	.....	41	.....	307	.....	529
Sulphur	1,622	1,615	7	43	.....	878	.....	.....	2	.....	.....	692	5	2
Gold, placer mines	1,534	1,459	75	106	4	463	.....	122	60	37	4	729	7	2

[1] Includes well drillers and pumpers.

In all the mining industries combined approximately 35 per cent of the wage earners were employed above ground and 65 per cent below ground. Excluding the petroleum and natural-gas industry, which employs no mining labor and none below ground, and also excluding wage earners employed in mills and beneficiating plants, approximately 75 per cent of the remaining 940,398 wage earners employed in mining worked below ground. The proportion below ground was greatest (five-sixths) in bituminous-coal mining. For the combined stone industries 3.1 per cent of all wage earners engaged in quarrying operations were employed below ground. These were in the limestone and slate industries only, as the granite, sandstone, basalt, and marble enterprises reported in 1919 were exclusively surface operations.

Persons not counted.—In addition to the persons in supervisory capacities and to the wage earners regularly and directly employed in mining industries there were other persons employed who were not enumerated in the census of mines and quarries. These were the persons engaged in that part of the work which was done by contract and also the wage earners employed directly by the reporting enterprises but which employed them only occassionally or for part time. The number of wage earners employed by contractors and also the number of persons in supervisory capacities employed in connection with contract work could not be ascertained. First, because the reporting operators could not make accurate returns and were not required to attempt to make such returns for the contractors engaged by them, and second, because the contract work is commonly temporary and the same men are from time to time shifted from one enterprise to another. This is particularly true of well drilling in the petroleum and natural-gas industry.

The relative importance of work done and hence of the number of persons engaged under contract as compared with the work performed by regular wage earners may be inferred from a comparison of the total amount paid out in wages with the total expenditure for contract work. The total amount paid by producing enterprises in 1919 for contract work was $79,380,177, a large part of which was cost of labor, and should be compared with $1,295,936,326 paid to wage earners employed directly.

Some small enterprises dispense with the services of regular wage earners by hiring occasional help or employ wage earners for part time only. The 1919 census includes 1,933 such enterprises in industries as follows:

Bituminous coal	33
Petroleum and natural gas	1,895
Iron ore	1
Gold and silver, lode mines	1
Lead and zinc	3

No wage earners have been counted for these enterprises, but the amounts paid by them in wages have been included in the tabulations.

Wage earners, by months.—Table 20 shows the number of wage earners reported for the 15th day of each month or the nearest representative day in producing enterprises in all mining industries combined and in the 17 leading industries separately. The table also shows the average number of wage earners, the months of minimum and maximum employment, and the ratio of the minimum to the maximum number.

TABLE 20.—WAGE EARNERS, BY MONTHS, FOR LEADING INDUSTRIES, PRODUCING ENTERPRISES: 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	981,560	1,025,871	985,369	969,499	952,305	958,506	965,230	1,005,219	1,031,628	1,043,719	**1,051,204**	*758,156*	1,032,014	72.1
Coal:														
Anthracite	147,372	146,241	145,985	143,437	*142,691*	144,925	145,010	148,397	149,220	149,522	150,847	150,594	**151,595**	94.1
Bituminous	545,798	589,804	561,861	550,126	532,682	535,110	541,647	566,897	583,120	593,304	**599,550**	*308,266*	587,149	51.4
Petroleum and natural gas	93,205	85,225	*85,119*	87,130	88,120	90,015	91,156	94,389	98,570	99,570	99,332	99,541	**100,293**	84.9
Iron ore	45,741	**47,493**	47,205	46,712	44,822	45,631	44,625	46,286	46,754	46,911	45,772	44,126	*42,655*	89.6
Copper	43,717	**58,025**	49,136	43,701	40,675	38,374	*37,885*	39,919	41,386	42,595	44,395	45,246	43,267	65.3
Limestone	22,069	18,085	*17,398*	18,847	21,476	22,992	23,667	24,599	**25,655**	25,303	23,901	22,538	20,367	67.8
Lead and zinc	21,884	**25,124**	23,434	22,574	21,506	20,196	*19,949*	20,207	21,050	21,162	21,579	22,631	23,196	79.4
Gold and silver, lode mines	15,436	*14,778*	14,915	15,095	14,921	15,184	15,540	16,319	**16,469**	15,349	15,536	15,456	15,670	89.7
Granite	8,049	*5,669*	5,844	6,504	7,771	8,620	8,945	9,071	**9,228**	9,024	9,101	8,741	8,070	61.4
Clay	5,453	4,849	*4,681*	4,851	5,373	5,522	5,582	5,771	5,883	**6,020**	5,853	5,538	5,513	77.8
Phosphate rock	4,373	4,583	4,865	4,741	4,972	3,259	*2,902*	3,419	3,873	4,094	4,639	5,358	**5,771**	50.3
Sandstone	4,287	3,471	*3,305*	3,681	4,128	4,411	4,533	4,667	**4,961**	4,916	4,726	4,598	4,047	66.6
Slate	3,513	*2,852*	2,909	3,060	3,415	3,580	3,764	3,858	3,572	3,594	3,729	3,896	**3,127**	72.6
Basalt	3,336	*2,037*	*2,037*	2,456	3,257	3,680	3,828	3,985	**4,097**	3,906	3,908	3,710	3,131	49.7
Gypsum	2,191	*1,574*	1,649	1,782	1,918	2,078	2,092	2,350	2,327	2,582	2,713	**2,715**	2,512	58.0
Marble	1,732	*1,459*	1,497	1,641	1,688	1,778	1,826	1,833	1,865	1,810	**1,875**	1,759	1,753	77.8
Gold, placer mines	1,380	*1,274*	1,312	*1,274*	1,317	1,424	1,420	**1,499**	1,430	1,404	1,425	1,433	1,348	85.0
Sulphur	1,129	1,492	1,390	1,406	**1,545**	1,503	*814*	832	845	883	932	973	933	52.7

For all industries combined the largest number of wage earners, 1,051,204, was reported for October and the smallest number, 758,156, or 72.1 per cent of the maximum, for November. It should be noted that these are the months of minimum and maximum in 1919 for the bituminous-coal mining industry which dominates all mining industries in the United States. (Bituminous-coal mining reported 55.6 per cent of the total average number of wage earners, 57 per cent of the maximum, and 40.7 per cent of the minimum number for all industries). The months of minimum and maximum employment in bituminous-coal mining, and therefore for the combined mining industries in the United States, were unusual on account of the great coal strike. Normally a winter month has been the month of maximum employment and a spring month the month of minimum employment in the bituminous-coal mining industry. Anthracite mining shows greater regularity of employment and the year 1919 was normal in this industry. For the copper, iron ore, and lead and zinc industries the table reflects depressed conditions following a period of heavy employment at the beginning of the year which marked the final stage of the war boom in these industries. For most of the remaining industries the month of maximum employment was, as would appear to be normal, in the summer or fall of the year. The gypsum, phosphate-rock, and slate industries, however, show maxima in November and December, because these industries began toward the close of the year to recover from depressed conditions—in the gypsum and slate industries caused by the war restrictions on the consumption of structural material, and in the phosphate-rock industry caused largely by labor difficulties.

Prevailing hours of labor.—In Table 21 the producing enterprises in the leading mining industries are classified according to the prevailing hours of labor per week and the number of wage earners in each group are shown. The wage earners of each enterprise are classed as a whole regardless of the fact that some worked more or fewer hours than those prevailing for the majority. For all industries combined, in a majority of enterprises employing wage earners and for nearly three-fourths of the wage earners, the prevailing hours of labor were 44 to 53 per week and for the most part the 8-hour day and 6-day week prevailed. In nearly one-third of the enterprises but for less than one-fifth of the wage earners the prevailing hours were 54 to 62 per week, which for the most part meant the 10-hour day and 6-day week. In the coal-mining industry the 44 to 53 hour week was the rule, although a considerable number of bituminous-coal enterprises employing relatively few wage earners worked shorter hours and certain classes of small anthracite enterprises worked longer hours. In the petroleum and natural-gas industry longer hours were the rule. Nearly half the wage earners worked from 54 to 62 hours per week and more than one-third had longer hours. In the metal-mining industries hours ranging from 44 to 53 and from 54 to 62 per week were most commonly reported. In some parts of the country in these industries the 8-hour day and 6-day week prevailed and in others the 10-hour day and 6-day week was the rule. In the quarrying industries as a whole the prevailing hours of labor were from 54 to 62 per week and the 10-hour day and 6-day week was the most commonly reported, but the granite-quarrying industry was an exception to this rule in that a majority of enterprises and wage earners had shorter hours.

TABLE 21.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR LEADING INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—											
			35 and under.		36 to 43.		44 to 53.		54 to 62.		63 to 71.		72 to 84.	
	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
All industries	[1]17,558	981,560	1,166	17,755	732	19,856	8,862	721,899	5,262	182,126	768	26,841	768	13,083
Coal:														
Anthracite	252	147,372	.....	.....	1	315	176	145,787	71	807	3	442	1	21
Bituminous	6,574	545,798	257	15,978	425	17,163	5,546	485,574	331	25,222	12	1,841	3	20
Petroleum and natural gas	6,522	93,205	852	1,295	225	327	1,623	13,227	2,356	44,068	714	21,726	752	12,562
Iron ore	285	45,741	1	11	4	219	151	20,311	124	24,637	5	563	.....	.....
Copper	179	43,717	.....	.....	2	7	79	21,150	97	21,166	1	1,394	.....	.....
Limestone	870	22,069	3	57	8	24	187	3,774	663	17,934	9	280	.....	.....
Lead and zinc	391	21,884	1	115	.....	.....	255	15,082	133	6,684	.....	.....	2	3
Gold and silver, lode mines	589	15,436	.....	.....	2	3	192	3,595	390	11,586	4	251	1	1
Granite	338	8,049	4	43	32	1,195	209	4,829	91	1,948	2	34	.....	.....
Clay	319	5,453	8	27	6	33	142	2,351	161	3,033	1	4	1	5
Phosphate rock	47	4,373	1	5	1	30	6	309	36	3,683	.....	.....	3	346
Sandstone	246	4,287	.....	.....	3	8	49	483	191	3,688	3	108	.....	.....
Slate	100	3,513	.....	.....	11	335	14	963	73	2,170	2	45	.....	.....
Basalt	161	3,336	1	20	1	3	49	728	110	2,585	.....	.....	.....	.....
Gypsum	47	2,191	.....	.....	1	1	12	830	32	1,317	2	43	.....	.....
Marble	47	1,732	.....	.....	.....	.....	3	50	43	1,667	1	15	.....	.....
Gold, placer mines	78	1,380	.....	.....	.....	.....	17	62	52	1,243	8	72	1	3
Sulphur	4	1,129	.....	.....	.....	.....	.....	.....	4	1,129	.....	.....	.....	.....
All other	509	10,895	38	204	10	193	152	2,794	304	7,559	1	23	4	122

[1] Exclusive of 3,722 enterprises employing no wage earners in industries as follows: Abrasive materials, 5; asphalt, 2; barytes, 1; basalt, 2; clay, 26; chromite, 5; coal, anthracite, 2; coal, bituminous, 62; copper, 16; feldspar, 2; fluorspar, 4; granite, 20; gold and silver, lode mines, 151; gold, placer mines, 34; iron ore, 5; lead and zinc, 41; limestone, 25; magnesite, 1; marble, 1; mica, 6; millstones, 5; mineral pigments, 2; petroleum and natural gas, 3,292; phosphate rock, 1; sandstone, 9; slate, 1; talc and soapstone, 1.

LAND TENURE.

Table 22 gives for all mining industries combined, and for the 17 leading industries separately, statistics relating to the acreage of land controlled, distinguishes the character of land and also the form of tenure of mineral land, and shows the acreage of mineral land operated.

The amount of difference between the total mineral land operated and the mineral land controlled is the acreage held under lease by some enterprises and which is also reported controlled by others who were the owners or prior lessees. This duplication does not appear in the amounts reported as mineral land operated. The aggregate of all land controlled by producing enterprises was 24,757,840 acres. The greater part of this land was mineral land, but over 2,000,000 acres, or more than one-twelfth of the total, were reported as "timber and other lands" which comprised lands held as sources of timber used in mining and land held for building sites, water resources, for tunnel and drainage purposes, and for other uses. Such lands are, however, particularly in the coal and iron-ore and copper-mining industries which reported most of the acreage of timber and other lands, held for their prospective value as mineral land. Not all of the area of mineral land reported was in actual use, for, although pertaining to mining operations reported, many large tracts included in the returns embraced extensive acreage held in reserve.

Nearly half of the total acreage controlled by mining enterprises in 1919 and more than half of the mineral land operated was reported by the petroleum and natural-gas industry. By far the largest part (more than three-fourths) of the remainder was reported by the coal industry. The holdings of land by the iron-ore and the copper-mining industries were also very large, and for these industries as well as for the coal industry the holdings of reserve land reported under the description of "timber and other lands" were extensive.

TABLE 22.—LAND OPERATED AND CONTROLLED, PRODUCING ENTERPRISES: 1919.

	Mineral land operated.	LAND CONTROLLED (ACRES).				
		Total.	Mineral land.			Timber and other lands.
			By ownership.	By lease.	Per cent owned.	
All industries	22,474,069	24,757,840	8,568,590	13,980,731	38.0	2,208,519
Coal:						
Anthracite	261,355	432,055	194,390	77,955	71.4	159,710
Bituminous	8,261,372	9,073,686	5,793,651	2,528,562	69.6	751,473
Petroleum and natural gas	12,171,388	12,171,388	1,172,068	10,999,320	9.6	.....
Iron ore	241,508	938,716	177,296	65,280	73.1	696,140
Copper	392,811	648,703	378,839	14,045	96.4	255,819
Lead and zinc	135,262	182,509	99,338	36,118	73.3	47,053
Gold and silver, lode mines	142,573	188,937	113,347	29,424	79.4	46,166
Limestone	122,820	175,986	84,717	38,306	68.9	52,963
Granite	30,659	37,747	23,799	6,950	77.4	6,998
Sulphur	12,946	20,511	12,946	.....	.....	7,565
Sandstone	48,729	56,802	34,726	15,435	69.2	6,641
Phosphate rock	160,447	241,810	156,418	4,029	97.5	81,363
Clay	105,706	112,801	70,498	35,263	66.7	7,040
Basalt	15,625	17,514	7,139	8,486	45.7	1,889
Gold, placer mines	62,857	79,817	51,219	11,738	81.4	16,860
Gypsum	41,703	42,193	36,581	5,122	87.7	490
Slate	5,440	8,245	3,673	1,767	67.5	2,805
Marble	28,969	35,250	11,818	17,159	40.8	6,273

Of the total amount of land controlled by producing enterprises 38 per cent was owned by the operators themselves and the remainder was held under lease. The petroleum and natural-gas industry, which reported most of the land as held under lease, presents a marked contrast to all the other industries shown in this table. Considering only the mineral land controlled in mining and quarrying, about 70 per cent was owned by the operators. In the coal industry this proportion was also about 70 per cent. In the other industries it ranged from 40.8 per cent in the marble industry and 45.7 per cent in the basalt industry to 96.4 per cent in the copper-mining industry and 97.5 per cent in the phosphate-rock industry.

POWER.

Table 23 shows for all mining industries combined, and for the leading mining industries separately, the number and horsepower of prime movers of various kinds and the number and horsepower of electric motors used. The table shows separately the number and horsepower of motors operated by purchased current and of those run by current generated by the enterprises reporting them. Five million horsepower, or 76 per cent of the aggregate horsepower used in mining, was furnished by prime movers and 1,600,000 horsepower, or 24 per cent, was furnished by electric motors operated by purchased current. A relatively negligible amount was obtained from power equipment of other kind operated by purchased power. As shown by the number and horsepower of electric motors run by the current generated by the enterprises reporting them, a considerable part of the horsepower of the prime movers was used indirectly through electric current generated in the enterprises reporting them. Of the total horsepower of prime movers more than three-fifths was in steam engines (not turbines) and nearly one-fourth was in internal-combustion engines. Steam turbines furnished a relatively small part of the power—chiefly for bituminous-coal mines and copper mines. Water power was used to only a small extent. Nearly all of the great number of internal-combustion engines were used in the petroleum and natural-gas industry.

The coal-mining industry reported 45.4 per cent of the aggregate horsepower used; the petroleum and natural-gas industry, 27.1 per cent; the copper industry, 7.8 per cent; the iron-ore mining industry, 5.5 per cent; the lead and zinc industry, 3.4 per cent; the limestone industry, 3.2 per cent; and the gold and silver-lode-mining industry, 2.2 per cent. The proportion used in other industries was small.

TABLE 23.—POWER USED, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	Aggregate horsepower.	PRIME MOVERS.									EQUIPMENT OPERATED BY PURCHASED POWER.			ELECTRIC MOTORS RUN BY CURRENT GENERATED BY THE ENTERPRISE REPORTING.	
		Total horsepower.	Steam engines (not turbines).		Steam turbines.		Internal-combustion engines.		Water wheels and turbines.		Electric motors.		Other.		
			Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Horsepower.	Number.	Horsepower.
All industries	6,723,786	5,111,531	46,433	3,238,288	553	473,985	56,988	1,361,146	287	38,112	40,500	1,603,390	8,865	32,980	1,258,795
Coal:															
Anthracite	899,783	782,090	5,298	730,141	45	50,665	73	1,284			1,881	117,693		3,801	185,723
Bituminous	2,155,412	1,383,934	9,177	1,166,862	313	195,779	1,246	21,219	9	74	21,186	771,131	347	21,044	707,341
Petroleum and natural gas	1,821,342	1,770,181	23,412	532,734			53,699	1,237,407	2	40	1,841	44,638	6,523	1,329	28,164
Iron ore	370,869	273,477	2,333	231,184	25	28,521	45	5,397	22	8,375	1,341	97,382	10	1,112	67,595
Copper	523,591	386,458	842	245,398	79	123,223	129	16,327	10	1,510	3,647	135,968	1,165	3,252	161,024
Lead and zinc	229,541	117,527	411	42,821	21	35,420	433	35,415	30	3,871	2,389	111,874	140	625	22,884
Gold and silver, lode mines	149,680	50,437	182	20,133	4	4,750	370	11,149	135	14,405	2,523	98,663	580	494	18,892
Limestone	213,717	126,387	1,776	109,778	17	10,701	252	5,043	9	865	2,046	87,330		267	11,421
Granite	55,674	34,711	744	30,231	3	2,360	84	1,343	4	777	450	20,903	60	34	1,520
Sulphur	15,291	15,291	544	11,581	23	3,320	13	390						50	1,284
Sandstone	33,869	21,197	340	19,081			71	2,116			386	12,672		155	4,696
Phosphate rock	49,639	46,976	100	17,140	17	17,751	44	12,085			38	2,663		320	33,107
Clay	21,243	16,932	263	15,653	1	100	105	1,179			181	4,271	40	66	1,815
Basalt	37,307	22,844	259	21,099	3	1,225	30	520			255	14,463		11	1,049
Gold, placer mines	35,632	3,406	2	40			16	719	25	2,647	624	32,226		22	601
Gypsum	15,032	7,038	47	6,132			9	572	3	334	290	7,994		103	1,447
Slate	20,613	8,778	193	8,669			1	8	2	101	426	11,835		4	44
Marble	15,628	6,021	85	5,619			2	15	3	387	408	9,607		19	480

FUEL USED.

Table 24 shows for all mining industries combined, and for the leading industries separately, the quantities of the various kinds of fuel used. In order of importance as measured by the aggregate consumption in all industries the fuels were: Bituminous coal, anthracite, natural gas, and fuel oils.

TABLE 24.—FUEL USED, BY PRODUCING ENTERPRISES: 1919.

INDUSTRY.	COAL.		Coke (tons, 2,000 pounds).	Wood (cords).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Natural gas (1,000 cubic feet).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).					
All industries	8,697,365	16,275,751	53,795	113,850	9,537,443	143,593	[1] 102,784,812
Coal:							
Anthracite	8,548,201	4,096	.....	.....	671	1,381	.....
Bituminous	.....	11,124,904	14,254	594	3,235	18,963	865,907
Petroleum and natural gas	.....	67,216	.....	2,852	5,898,610	45,654	99,067,358
Iron ore	69,753	1,499,612	24,070	912	3,807	3,550	[1] 89,354
Copper	14,889	1,364,172	9,744	5,236	1,322,100	6,932	33,456
Lead and zinc	33,526	503,278	272	3,570	72,517	6,261	1,390,098
Gold and silver, lode mines	45	191,526	369	17,755	130,269	15,821	.....
Limestone	5,409	673,989	937	4,765	33,221	11,397	5,887
Granite	1,723	115,250	55	4,297	13,164	2,411	.....
Sulphur	.....	308	20	.....	1,087,736	740	.....
Sandstone	2,418	128,832	1,530	160	8,621	1,423	145,943
Phosphate rock	28	121,273	146	39,961	657,284	10,871	.....
Clay	345	84,065	.....	1,424	51,646	1,819	9,009
Basalt	2,099	84,566	.....	2,129	15,390	620	.....
Gold, placer mines	72	992	1	1,691	114	491	.....
Gypsum	.....	76,086	1,534	43	62,893	1,752	.....
Slate	8,762	34,053	.....	214	36	1	.....
Marble	210	31,158	.....	323	.....	170	.....
All other	9,885	170,375	863	27,924	176,129	13,336	277,800

[1] 89,354 M cubic feet reported for the iron-ore industry was manufactured gas.

ENTERPRISES OPERATED BY GOVERNMENTAL INSTITUTIONS.[1]

Reports were obtained by the 1919 census of mines and quarries from 145 governmental institutions, including Federal, state, county, and municipal organizations, and from 1 other noncommercial mining enterprise. Enterprises operated by governmental institutions differ in their organization and methods of management from commercial enterprises. Statistics relating to them were therefore omitted from the general tabulation and are presented as a separate group. Table 25 presents the principal statistics for these enterprises grouped according to the character of labor employed. Eleven were operated by penal institutions and used convict labor, and the remainder were operated with hired labor. The statistics for all enterprises in these classes do not include, under persons engaged, the convicts whose services were utilized in the operations of the enterprise, nor other persons whose services were partly given to the mining operations in question but were chiefly engaged by other activities of the operating institution. They do include, however, salaried employees engaged in supervisory work and the guards or other prison officials who were employed in guarding the prisoners while at work. The total value of the products reported by the penal institutions was $479,165, which represented 17.5 per cent of the total product reported by the entire number of enterprises operated by governmental agencies.

In Table 26 the principal statistics for enterprises operated by governmental institutions are given for all industries in the United States combined and by industries and by states separately. Nine of the enterprises included in this group operated coal mines and mined nearly 175,000 short tons of coal valued at $469,745; 15, which were municipal enterprises, operated natural-gas wells; and the remainder, which included most of the enterprises, were stone quarries operated largely by state and county authorities in connection with road building and some in connection with Federal engineering projects.

The most important enterprises in this group were in the states of Tennessee, California, Pennsylvania, and Oregon. The total value of products reported from these four states represented more than half of the total value of products of all governmental institutions reported. In Tennessee the principal enterprise was a coal mine operated by the state penitentiary. In California and Pennsylvania the principal enterprises were stone quarries for road work under state control, and in Oregon, stone quarries for river and harbor work by the Federal Government.

[1] Includes, to avoid disclosure of the individual operation, one other form of noncommercial enterprise.

TABLE 25.—DETAILED STATISTICS FOR ENTERPRISES OPERATED BY GOVERNMENTAL INSTITUTIONS[1]: 1919.

	Total.	Penal: Operated by convict labor.	All other: Operated by hired labor.
Number of enterprises	146	11	135
Number of mines and quarries	180	11	169
Number of wells	68	.....	68
Capital	$1,998,165	$354,500	$1,643,665
Principal expenses—			
Salaries	$121,375	$27,150	$94,225
Wages	$1,004,583	$131,984	$872,599
Supplies and materials	$458,076	$107,531	$350,545
Fuel	$85,695	$26,502	$59,193
Purchased power	$19,619	$3,636	$15,983
Royalties and rents	$57,530	$1,500	$56,030
Contract work	$387,479	$41,107	$346,372
Value of products	$2,741,285	$479,165	$2,262,120
Persons engaged—			
Superintendents and managers	78	10	68
Technical employees	7	2	5
Clerks and other subordinate salaried employees	27	5	22
Wage earners (average number)	1,082	181	901
Wage earners, December 15 or nearest representative day:			
Above ground	1,685	179	1,506
Below ground	110	6	104
Wage earners by occupations:			
Foremen, etc.	175	112	63
Enginemen, firemen, hoistmen, electricians, mechanics, etc.	98	9	89
Miners, quarrymen, drillmen, including their helpers	702	24	678
Timbermen, trackmen, trammers, etc.	71	1	70
All others not classified	749	39	710
Females included in above	9	3	6
Persons engaged—Continued.			
Number of wage earners employed on the 15th day of each month:			
January	733	168	565
February	740	168	572
March	875	172	703
April	1,085	185	900
May	1,295	185	1,110
June	1,376	186	1,190
July	1,315	184	1,131
August	1,376	186	1,190
September	1,236	185	1,051
October	1,111	185	926
November	991	184	807
December	851	184	667
Power used (aggregate horsepower)	7,690	2,282	5,408
Prime movers:			
Steam engines—			
Number	135	8	127
Horsepower	4,278	1,460	2,818
Internal-combustion engines—			
Number	47	3	44
Horsepower	776	42	734
Equipment operated by purchased power:			
Electric motors—			
Number	91	21	70
Horsepower	2,636	780	1,856
Electric motors operated by current generated by the enterprise reporting—			
Number	8	5	3
Horsepower	340	270	70
Lands controlled (acres)—			
Mineral lands operated	9,949	1,323	8,626
Owned	6,290	1,313	4,977
Leased	3,659	10	3,649
Timber and other lands	95	88	7

[1] Includes 1 noncommercial enterprise not governmental.

TABLE 26.—PRINCIPAL STATISTICS BY INDUSTRIES AND STATES, FOR ENTERPRISES OPERATED BY GOVERNMENTAL INSTITUTIONS[1]: 1919.

	Number of enterprises.	Number of mines and quarries.	Number of wells.	PERSONS ENGAGED.		Power used (aggregate horsepower).	Capital.	PRINCIPAL EXPENSES.							Value of products.
				Salaried employees.	Wage earners (average number).			Salaries.	Wages.	Contract work.	Supplies and materials.	Fuel.	Purchased power.	Royalties and rents.	
United States, all industries	146	180	68	112	1,082	7,690	$1,998,165	$121,375	$1,204,582	$387,479	$458,076	$85,695	$19,619	$57,530	$2,741,285
INDUSTRIES.															
Coal, bituminous	9	9	.....	10	135	1,030	142,628	14,241	123,718	7,961	83,780	13,731	.....	2,401	469,745
Natural gas	15	.....	68	14	11	355	352,664	18,529	28,135	32,373	157,562	5,412	.....	17,409	335,900
Basalt (traprock)	35	63	.....	22	194	2,142	350,476	15,708	230,255	118,996	40,895	21,476	4,135	2,898	451,477
Granite	14	14	.....	11	153	955	564,024	13,605	167,706	6,585	80,396	12,742	4,673	15,308	461,494
Sandstone	7	7	.....	5	30	185	40,975	880	30,094	.....	9,221	700	.....	52	44,346
Limestone	66	87	.....	50	559	3,023	547,398	58,412	424,675	221,564	86,222	31,634	10,811	19,462	978,323
STATES.															
California	11	11	.....	9	114	748	501,251	10,659	120,737	5,000	66,128	8,892	4,259	16,314	382,165
Kentucky	15	17	.....	11	163	616	180,267	11,365	114,519	9,129	13,567	5,558	3,100	2,400	220,241
Massachusetts	5	5	.....	1	45	315	37,225	966	48,967	.....	6,034	4,181	1,688	.....	70,184
Minnesota	4	4	.....	4	10	397	95,700	3,637	9,261	2,085	3,445	474	1,798	2	40,792
Missouri	9	9	.....	2	120	175	1,500	2,691	78,071	19,568	12,101	5,780	.....	1,929	95,373
New York	6	5	2	6	69	569	124,114	9,263	48,853	.....	19,760	2,166	2,159	150	134,147
Ohio	7	2	23	13	13	155	146,044	16,800	30,400	26,323	136,203	5,350	.....	12,225	225,365
Oregon	22	50	.....	13	118	1,129	222,741	6,710	158,528	83,018	23,662	10,094	2,443	3,090	301,633
Pennsylvania	20	35	18	8	74	830	120,673	4,186	75,212	155,839	15,475	9,753	260	11,175	304,600
South Dakota	4	1	4	2	4	25	64,000	625	4,128	.....	932	.....	500	.....	18,656
Tennessee	5	5	.....	12	109	1,070	118,000	24,381	85,039	38,961	77,203	14,201	1,340	642	453,488
Virginia	5	5	.....	4	45	141	13,200	2,560	19,696	.....	1,179	664	300	2,526	75,779
West Virginia	3	3	.....	3	26	193	50,550	4,500	17,824	.....	4,212	2,194	.....	815	33,520
Wisconsin	11	11	.....	14	40	209	54,400	9,777	38,727	743	8,689	3,544	619	1,076	63,384
All other states[2]	19	17	21	10	132	1,118	268,500	13,255	154,621	46,813	69,486	12,844	1,153	5,186	321,958

[1] Includes 1 noncommercial enterprise not governmental.
[2] Includes enterprises in states as follows: Alabama, 1; Arizona, 1; Arkansas, 1; Colorado, 1; Idaho, 1; Indiana, 1; Kansas, 2; Mississippi, 1; New Jersey, 2; New Mexico, 1; North Dakota, 1; Oklahoma, 1; Rhode Island, 2; Vermont, 1; and Washington, 2.

GENERAL TABLES.

TABLE 1.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY INDUSTRIES, PRODUCING ENTERPRISES: 1919 AND 1909.

INDUSTRY AND CENSUS YEAR.	Number of enterprises.[1]	Number of mines, quarries, or wells.	Wage earners (average number).	Power used (aggregate horsepower).	PRINCIPAL EXPENSES. Salaries and wages.	Supplies and materials.	Cost of fuel and purchased power.	Royalties and rents.	Contract work.	Value of products.
All industries:[2]										
1919	**21,280**	.....	**981,560**	**6,723,786**	**$1,445,265,211**	**$555,499,028**	**$122,105,930**	**$175,293,984**	**$79,380,177**	**$3,158,463,966**
1909	**19,915**	.....	**967,633**	**4,608,253**	**[3] 640,167,630**	**202,729,754**	**45,136,550**	**63,973,585**	**28,887,898**	**1,238,410,322**
Per cent of increase	.....	.....	**1.4**	**45.9**	**125.8**	**174.0**	**170.5**	**174.0**	**174.8**	**155.0**
FUELS:										
Coal—										
Anthracite—										
1919	254	534	147,372	899,783	223,284,942	60,171,694	13,305,952	11,766,598	1,557,845	364,084,142
1909	192	423	169,367	676,753	96,900,963	23,504,740	3,193,226	7,980,739	1,701,514	149,180,471
Per cent of increase [4]	.....	.....	−13.0	33.0	130.4	156.0	316.7	47.4	−8.4	144.1
Bituminous—										
1919	6,636	8,282	545,798	2,155,412	751,270,106	142,432,551	37,177,169	22,295,056	2,855,966	1,145,977,565
1909	3,503	6,013	511,723	1,227,401	315,997,383	40,498,700	7,509,947	12,082,488	2,209,672	427,962,464
Per cent of increase	.....	.....	6.7	75.6	137.7	251.7	395.0	84.5	29.2	167.8
Petroleum and natural gas—										
1919	9,814	257,673	93,205	1,821,342	167,989,615	223,872,364	20,794,076	106,458,518	68,663,059	931,793,423
1909	7,793	166,320	36,744	1,221,969	34,333,531	49,835,890	1,444,595	21,282,820	16,736,510	185,416,684
Per cent of increase	.....	.....	153.7	49.0	389.3	349.2	1,339.4	400.2	310.3	402.5
METALS:										
Iron ore—										
1919	290	406	45,741	370,869	82,650,119	27,187,832	10,294,589	24,944,936	1,671,783	218,217,905
1909	176	483	47,246	346,534	33,121,418	12,597,428	4,632,289	15,174,735	2,698,842	106,947,082
Per cent of increase [4]	.....	.....	−3.2	7.0	149.5	115.8	122.2	64.4	−38.1	104.0
Copper—										
1919	195	226	43,717	523,591	74,429,935	35,803,425	14,866,015	536,819	421,753	181,258,087
1909	161	368	51,643	376,464	53,097,007	34,315,337	13,324,157	1,789,656	644,562	134,616,987
Per cent of increase [4]	.....	.....	−15.3	39.1	40.2	4.3	11.6	−70.0	−34.6	34.6
Gold and silver, lode mines—										
1919	740	799	15,436	149,680	26,823,418	17,709,188	3,959,260	1,015,719	1,237,043	58,832,330
1909	1,604	2,845	29,428	200,966	34,665,751	20,552,244	5,105,253	1,163,985	3,603,984	83,885,928
Per cent of increase [4]	.....	.....	−47.5	−25.5	−22.6	−13.8	−22.4	−12.7	−65.7	−29.9
Gold, placer mines—										
1919	112	132	1,380	35,632	2,350,865	2,244,728	1,144,333	85,899	132,807	9,308,561
1909	678	880	3,084	27,278	3,100,347	2,194,444	675,602	141,716	99,582	10,237,252
Per cent of increase [4]	.....	.....	−55.3	30.6	−24.2	2.3	69.4	−39.4	33.4	−8.5
Lead and zinc—										
1919	432	473	21,884	229,541	34,543,259	15,717,599	5,375,155	5,258,387	863,471	75,579,347
1909	977	1,142	16,807	110,559	11,570,223	6,783,070	2,400,724	2,301,850	197,259	31,363,094
Per cent of increase	.....	.....	30.2	107.6	198.6	131.7	123.9	128.4	337.7	141.0
Manganese—										
1919	35	37	909	5,800	1,220,003	447,833	98,335	183,087	149,237	2,188,312
1909	5	14	60	215	20,425	4,741	854	2,152	.....	31,216
Per cent of increase	.....	.....	1,415.0	2,597.7	5,873.1	9,346.0	11,414.6	8,407.8	.....	6,910.2
Quicksilver—										
1919	26	26	748	2,607	1,048,929	403,269	157,064	45,194	7,973	1,803,484
1909	12	12	544	784	486,125	130,847	54,531	5,268	9,878	868,458
Per cent of increase [4]	.....	.....	37.5	232.5	115.8	208.2	188.0	757.9	−19.3	107.7
Rare metals—										
1919	22	22	633	3,544	909,980	580,649	86,908	45,396	7,878	1,725,642
1909	26	132	531	3,237	485,151	153,269	126,325	1,375	41,476	968,238
Per cent of increase [4]	.....	.....	19.2	9.5	87.6	278.8	−31.2	3,201.5	−81.0	78.2
STONE:										
Limestone—										
1919	895	925	22,069	213,717	27,652,925	10,968,220	4,176,390	667,751	665,557	52,943,924
1909	1,665	1,916	30,289	125,024	15,800,181	3,754,125	1,507,628	488,919	201,880	29,832,492
Per cent of increase [4]	.....	.....	−27.1	70.9	75.0	192.2	177.0	36.6	229.7	77.5
Granite—										
1919	358	381	8,049	55,674	9,784,115	2,593,040	1,094,821	139,202	118,637	18,279,345
1909	707	826	18,744	61,095	12,181,727	1,921,912	757,078	194,349	65,744	18,997,976
Per cent of increase [4]	.....	.....	−57.1	−8.9	−19.7	34.9	44.6	−28.4	80.5	−3.8
Sandstone—										
1919	255	276	4,287	33,869	5,279,444	1,664,432	848,262	131,970	54,161	10,684,969
1909	1,158	1,314	9,812	36,556	5,352,818	1,039,969	349,180	154,513	79,456	9,290,829
Per cent of increase [4]	.....	.....	−56.3	−7.4	−1.4	60.0	142.9	−14.6	−31.8	15.0
Basalt—										
1919	163	174	3,336	37,307	4,742,554	2,030,869	719,988	250,199	41,406	9,657,977
1909	196	220	5,256	29,211	2,886,058	1,018,090	279,082	282,501	60,204	5,578,317
Per cent of increase [4]	.....	.....	−36.5	27.7	64.3	99.5	158.0	−11.4	−31.2	73.1
Slate—										
1919	101	104	3,513	20,613	3,537,504	632,459	417,459	157,788	95,633	5,720,792
1909	185	219	8,803	29,777	4,494,132	521,761	327,397	271,252	28,962	6,054,174
Per cent of increase [4]	.....	.....	−60.1	−30.8	−21.3	21.2	27.5	−41.8	230.2	−5.5
Marble—										
1919	48	62	1,732	15,628	1,706,559	552,439	224,385	34,380	20,582	4,397,912
1909	77	108	6,166	21,779	3,462,130	544,327	261,689	47,911	27,344	6,239,120
Per cent of increase [4]	.....	.....	−71.9	−28.2	−50.7	1.5	−14.3	−28.2	−24.7	−29.5

[1] Operators, not enterprises, in 1909.

[2] The totals for all industries include, besides those specified, statistics for the chromite industry in 1919 and for the borax, chromite, grindstone, marl, monazite and zircon, peat, and precious stones industries in 1909, for which comparable figures could not be given. The value of products of these industries was less than one-tenth of 1 per cent of the total for all industries in 1919 and one-tenth of 1 per cent in 1909.

[3] Includes $631,564 which could not be distributed among the stone industries

[4] A minus sign (−) denotes decrease.

TABLE 1.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY INDUSTRIES, PRODUCING ENTERPRISES: 1919 AND 1909—Continued.

INDUSTRY AND CENSUS YEAR.	Number of enterprises.[1]	Number of mines, quarries, or wells.	Wage earners (average number).	Power used (aggregate horsepower).	PRINCIPAL EXPENSES. Salaries and wages.	Supplies and materials.	Cost of fuel and purchased power.	Royalties and rents.	Contract work.	Value of products.
MISCELLANEOUS:										
Abrasive materials—										
1919	34	34	317	1,748	$377,522	$116,145	$56,122	$25,634	$62,231	$721,728
1909	49	82	403	1,344	191,442	37,086	23,637	12,206	9,052	498,290
Per cent of increase [2]			−21.3	30.1	97.2	213.2	137.4	110.0	587.5	44.8
Asbestos—										
1919	10	11	146	420	120,575	47,202	5,430	1,740		249,839
1909	5	20	54	380	41,329	23,120	400	45	400	65,140
Per cent of increase			170.4	10.5	191.7	104.2	1,257.5	3,766.7		283.5
Asphalt—										
1919	9	12	324	648	431,053	376,009	24,876	13,387	5,917	749,520
1909	12	19	205	828	173,106	66,159	13,598	1,517	15,546	466,461
Per cent of increase [2]			58.0	−21.7	149.0	468.3	82.9	782.5	−61.9	60.7
Barytes—										
1919	89	98	919	3,029	878,958	236,082	69,724	45,343	10,127	1,592,245
1909	23	42	240	262	110,493	21,756	6,468	14,232	14,346	224,766
Per cent of increase [2]			282.9	1,056.1	695.5	985.1	978.0	218.6	−29.4	608.4
Bauxite—										
1919	10	15	738	2,507	1,099,178	303,558	137,766	152,848		2,190,279
1909	10	10	563	1,565	230,759	21,665	33,624	6,909		670,829
Per cent of increase			31.1	60.2	376.3	1,301.1	309.7	2,112.3		226.5
Clay—										
1919	345	350	5,453	21,243	6,209,401	1,416,999	452,589	465,184	126,355	10,086,298
1909	261	336	3,262	8,868	1,586,509	280,953	108,389	85,403	48,068	2,945,948
Per cent of increase			67.2	139.5	291.4	404.4	317.6	444.7	162.9	242.4
Feldspar—										
1919	30	32	349	1,782	317,184	97,834	33,442	16,291	12,073	584,296
1909	22	28	247	993	135,356	40,852	15,892	9,238	8,681	271,437
Per cent of increase			41.3	79.5	134.3	139.5	110.4	77.4	39.1	115.3
Fluorspar—										
1919	54	72	1,124	7,138	1,491,076	634,498	163,239	101,311	145,916	3,334,880
1909	13	15	290	1,170	193,118	34,695	24,414	1,917	949	288,509
Per cent of increase			287.6	505.4	672.1	1,728.8	568.6	5,184.9	15,275.8	1,055.9
Fuller's earth—										
1919	9	9	824	2,538	634,854	338,011	299,363	5,899	8,556	2,019,226
1909	16	21	327	1,739	156,979	35,797	48,010	582	67	315,762
Per cent of increase			152.0	45.9	304.4	844.2	524.6	913.6	12,670.1	539.5
Graphite—										
1919	21	24	419	6,410	463,876	209,256	121,614	2,646	50,696	869,403
1909	19	20	294	2,647	186,083	69,601	35,922	5,765	4,000	344,130
Per cent of increase [2]			42.5	142.2	149.3	200.7	238.6	−54.1	1,167.4	152.6
Gypsum—										
1919	47	48	2,191	15,032	3,033,841	1,530,338	660,420	69,403	3,747	6,805,940
1909	78	222	3,462	17,685	2,372,766	986,658	573,459	74,916	16,558	5,812,810
Per cent of increase [2]			−36.7	−15.0	27.9	55.1	15.2	−7.4	−77.4	17.1
Magnesite—										
1919	11	11	448	2,540	747,487	332,206	296,105	47,193	50,846	2,169,571
1909	6	13	50	126	39,922	6,282	7,556	253		68,463
Per cent of increase			796.0	1,915.9	1,772.4	5,188.2	3,818.8	18,553.4		3,069.0
Mica—										
1919	65	69	448	803	335,066	107,933	22,668	18,893	7,325	607,025
1909	73	78	272	463	139,188	10,377	12,392	5,684	6,036	206,794
Per cent of increase			64.7	73.4	140.7	940.1	82.9	232.4	21.4	193.5
Millstones—										
1919	11	11	37	220	59,766	11,244	7,110	2,175		64,631
1909	14	14	51		16,850	483	25	271		34,441
Per cent of increase [2]			−27.5		254.7	2,228.0	28,340.0	702.6		87.7
Mineral pigments—										
1919	23	23	185	1,630	214,752	83,078	30,366	8,499	1,320	480,768
1909	23	26	151	849	60,856	14,710	7,775	3,469	20,388	151,015
Per cent of increase [2]			22.5	92.0	252.9	464.8	290.6	145.0	−93.5	218.4
Phosphate rock—										
1919	48	69	4,373	49,639	4,662,389	2,161,501	1,819,301	209,687	163,696	10,300,198
1909	51	153	7,873	50,526	3,806,651	898,657	1,360,368	345,568	251,849	10,781,192
Per cent of increase [2]			−44.5	−1.8	22.5	140.5	33.7	−39.3	−35.0	−4.5
Pyrite—										
1919	17	18	1,172	7,338	1,569,795	615,726	221,841	43,057	87,061	2,408,648
1909	11	12	1,086	5,758	463,321	152,143	71,537	887	2,730	676,984
Per cent of increase			7.9	27.4	238.8	304.7	210.1	4,754.2	3,089.0	255.8
Silica—										
1919	24	29	166	2,032	198,737	58,185	21,960	4,060	1,847	371,638
1909	14	14	158	1,219	94,774	17,461	12,065	2,959	16,351	231,025
Per cent of increase [2]			5.1	66.7	109.7	233.2	82.0	37.2	−88.7	60.9
Sulphur—										
1919	4	4	1,129	15,291	2,095,189	1,452,136	2,764,194			17,935,882
1909	4	4	366	3,114	434,887	248,383	708,384		361	4,432,066
Per cent of increase			208.5	391.0	381.8	484.6	290.2			304.7
Talc and soapstone—										
1919	28	30	958	7,053	1,049,988	345,166	155,564	38,958	52,757	2,302,393
1909	39	46	1,256	9,433	607,128	196,054	66,339	31,287	3,550	1,174,516
Per cent of increase [2]			−23.7	−25.2	72.9	76.1	134.5	24.5	1,388.1	96.0

[1] Operators, not enterprises, in 1909.

[2] A minus sign (−) denotes decrease.

TABLE 2.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY STATES, PRODUCING ENTERPRISES: 1919 AND 1909.

STATE AND CENSUS YEAR.	Number of enterprises.[1]	Number of mines and quarries.	Number of wells productive Dec. 31.	Wage earners (average number).	Power used (aggregate horsepower).	PRINCIPAL EXPENSES. Salaries and wages.	Supplies and materials.	Cost of fuel and purchased power.	Royalties and rents.	Contract work.	Value of products.
United States:											
1919[2]	21,280	13,844	257,673	931,560	6,723,786	$1,445,265,211	$555,499,028	$122,105,930	$175,293,984	$79,380,177	$3,158,463,966
1909	[3]19,915	18,164	166,320	967,633	4,608,253	[4]640,167,630	202,729,754	45,136,550	63,973,585	[5]28,887,898	1,238,410,322
Per cent of increase				1.4	45.9	125.8	174.0	170.5	174.0	174.8	155.0
ALABAMA:											
1919	264	318		32,579	145,775	40,164,557	7,480,910	3,080,283	838,101	167,070	59,866,040
1909	177	302		28,271	91,924	15,936,062	2,626,390	1,048,824	333,828	767,385	24,350,667
Per cent of increase [6]				15.2	58.6	152.0	185.5	193.7	151.1	−78.2	145.8
ARIZONA:											
1919	155	172		15,268	166,091	29,952,641	16,160,891	5,377,525	438,926	746,783	88,478,111
1909	135	251		12,838	47,272	14,520,940	6,929,758	5,603,989	8,256	238,082	34,217,651
Per cent of increase [6]				18.9	251.4	106.3	133.2	−4.0	5,216.4	212.5	158.0
ARKANSAS:											
1919	126	126	124	3,630	21,365	5,175,118	1,401,512	441,261	386,925	139,434	8,404,537
1909	96	146	62	4,935	14,080	3,264,607	368,207	138,987	193,990	117,195	4,603,845
Per cent of increase [6]				−26.4	51.7	58.5	280.6	217.5	99.5	19.0	82.6
CALIFORNIA:											
1919	725	357	9,197	19,344	313,213	36,889,720	32,692,276	7,047,225	10,910,833	1,377,278	163,770,243
1909	1,329	1,279	4,316	20,517	162,238	22,018,221	21,552,312	2,775,643	2,814,259	595,130	63,382,454
Per cent of increase [6]				−5.7	93.1	67.5	51.7	153.9	287.7	131.4	158.4
COLORADO:											
1919	477	523	70	16,790	116,351	28,193,572	11,954,556	2,706,480	1,583,712	397,930	51,217,038
1909	672	1,575	76	21,483	98,777	20,576,236	10,389,810	1,955,984	1,017,447	2,996,083	45,680,135
Per cent of increase [6]				−21.8	17.8	37.0	15.1	38.4	55.7	−86.7	12.1
CONNECTICUT:											
1919	41	47		543	8,520	791,100	304,096	120,374	10,604	27,038	1,649,003
1909	71	75		1,385	6,298	812,061	127,424	71,917	16,771	13,761	1,375,765
Per cent of increase [6]				−60.8	35.3	−2.6	138.6	67.4	−36.8	96.5	19.9
DELAWARE:											
1919	7	8		116	660	155,981	34,214	19,559	5,434	3,018	243,647
1909	9	9		493	1,480	287,742	152,054	26,378	4,392	5,800	516,213
Per cent of increase [6]				−76.5	−55.4	−45.8	−77.5	−25.9	23.7	−48.0	−52.8
FLORIDA:											
1919	36	55		3,372	44,969	3,774,015	1,836,229	1,687,696	140,815	121,202	8,976,413
1909	36	96		5,448	42,366	2,846,613	738,946	1,223,035	197,792	217,691	8,846,605
Per cent of increase [6]				−38.1	6.1	32.6	148.5	38.0	−28.8	−44.3	1.5
GEORGIA:											
1919	74	82		2,397	13,026	2,372,473	608,766	356,019	155,833	35,295	4,082,152
1909	92	109		3,383	10,698	1,468,065	254,021	146,666	58,717	1,903	2,874,595
Per cent of increase [6]				−29.1	21.8	61.6	139.7	142.7	165.4	1,754.7	42.0
IDAHO:											
1919	82	83		2,455	31,239	4,739,695	2,026,256	513,778	182,364	193,657	11,840,301
1909	174	370		3,246	26,278	4,403,425	1,847,458	356,199	27,632	23,036	8,649,342
Per cent of increase [6]				−24.4	18.9	7.6	9.7	44.2	560.0	740.7	36.9
ILLINOIS:											
1919	772	590	16,498	79,123	318,231	104,302,370	18,807,752	5,784,479	6,636,176	431,555	178,673,065
1909	915	759	10,918	72,086	225,330	49,491,382	8,574,817	1,325,880	3,579,472	2,376,956	76,658,974
Per cent of increase [6]				9.8	41.2	110.7	119.3	336.3	85.4	−81.8	133.1
INDIANA:											
1919	503	398	2,456	26,751	129,663	34,271,203	6,421,099	2,012,706	939,696	340,187	52,840,252
1909	1,010	480	10,373	23,936	95,039	15,884,009	1,846,499	551,821	595,274	295,982	21,934,201
Per cent of increase				11.8	36.4	115.8	247.7	264.7	57.9	14.9	140.9
IOWA:											
1919	198	226		11,274	32,171	13,810,123	2,072,308	748,844	335,530	33,464	18,473,558
1909	373	431		16,480	23,453	11,411,421	1,307,919	221,740	349,440	40,836	13,877,781
Per cent of increase [6]				−31.6	37.2	21.0	58.4	237.7	−4.0	−18.1	33.1
KANSAS:											
1919	814	238	12,690	16,136	133,984	25,248,693	33,395,983	4,305,575	10,712,223	3,997,644	90,338,204
1909	643	582	3,402	14,343	66,943	10,324,782	2,038,025	267,964	1,665,839	395,947	18,722,634
Per cent of increase				12.5	100.1	144.5	1,538.6	1,506.8	543.1	909.6	382.5
KENTUCKY:											
1919	938	864	5,214	43,563	148,893	56,861,204	15,659,195	2,522,749	5,814,424	3,265,715	98,486,910
1909	437	442	1,109	18,297	53,203	8,792,662	1,322,406	218,489	422,579	184,903	12,100,075
Per cent of increase				138.1	179.9	546.7	1,084.1	1,054.6	1,275.9	1,666.2	713.9
LOUISIANA AND MISSISSIPPI:											
1919	137	4	2,479	5,228	86,135	9,002,467	8,501,967	2,813,008	4,312,372	2,043,444	40,016,535
1909[7]	33	2	246	926	8,445	1,199,658	866,656	726,971	496,198	62,440	6,547,050
Per cent of increase				464.6	920.0	650.4	881.0	286.9	769.1	3,172.7	511.2
MAINE:											
1919	50	51		979	6,277	1,170,075	203,187	122,792	9,986	32,368	1,823,442
1909	97	102		2,144	8,141	1,451,868	219,579	84,683	16,302	6,728	2,056,063
Per cent of increase [6]				−54.3	−22.9	−19.4	−7.5	45.0	−38.7	381.1	−11.3
MARYLAND:											
1919	126	161		5,628	18,660	6,941,403	1,178,074	308,766	137,562	16,899	9,698,577
1909	126	173		7,190	18,118	3,668,129	478,555	104,156	133,786	8,303	5,782,045
Per cent of increase [6]				−21.7	3.0	89.2	146.2	196.4	2.8	103.5	67.7
MASSACHUSETTS:											
1919	74	79		1,704	12,498	2,393,446	494,249	263,345	59,067	11,186	4,175,699
1909	139	147		3,291	15,031	2,180,355	363,698	153,258	55,409	16,272	3,467,888
Per cent of increase [6]				−48.2	−16.9	9.8	35.9	71.8	6.6	−31.3	20.4
MICHIGAN:											
1919	122	165	19	31,292	337,882	54,717,746	15,204,063	8,444,697	6,668,923	29,439	103,870,089
1909	83	173	21	39,169	273,861	29,834,430	9,800,415	4,193,347	4,048,606	470,205	67,714,479
Per cent of increase [6]				−20.1	23.4	83.4	55.1	101.4	64.7	−93.7	53.4
MINNESOTA:											
1919	135	196		17,265	144,199	32,431,442	14,101,962	4,681,952	17,642,811	1,512,999	130,399,254
1909	153	250		16,586	151,834	13,475,789	6,736,806	2,024,606	10,731,959	2,157,108	58,664,852
Per cent of increase [6]				4.1	−5.0	140.7	109.3	131.3	64.4	−29.9	122.3
MISSOURI:											
1919	468	494		14,857	100,160	18,640,977	4,784,748	2,034,413	780,604	415,843	33,365,694
1909	1,021	1,224	39	23,420	109,672	15,668,490	6,201,595	2,220,657	1,954,092	162,084	31,667,526
Per cent of increase [6]				−36.6	−8.7	19.0	−22.9	−8.4	−60.1	156.6	5.4
MONTANA:											
1919	259	269	28	16,129	143,718	28,228,209	9,514,869	2,979,928	646,125	115,521	49,923,721
1909	373	543		18,846	174,389	22,774,479	16,397,323	3,628,050	1,822,875	394,499	54,991,961
Per cent of increase [6]				−14.4	−17.6	23.9	−42.0	−17.9	−64.6	−70.7	−9.2

[1] Operators, not enterprises, in 1909.
[2] The total for the United States includes, besides the states specified, statistics for the District of Columbia for which no statistics were reported for 1909.
[3] Exclusive of duplications, 307 operators having reported in two or more states.
[4] Includes $1,568,298 which could not be distributed among the several states.
[5] Includes $61,801 which could not be distributed among the several states.
[6] A minus sign (−) denotes decrease.
[7] Includes statistics for Louisiana only; nothing reported for Mississippi.

TABLE 2.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY STATES, PRODUCING ENTERPRISES: 1919 AND 1909—Continued.

STATE AND CENSUS YEAR.	Number of enterprises.[1]	Number of mines and quarries.	Number of wells productive Dec. 31.	Wage earners (average number).	Power used (aggregate horsepower).	PRINCIPAL EXPENSES. Salaries and wages.	Supplies and materials.	Cost of fuel and purchased power.	Royalties and rents.	Contract work.	Value of products.
NEBRASKA:											
1919	9	9	.....	162	1,847	$193,339	$60,996	$21,176	$9,715	.....	$292,766
1909	18	20	.....	349	815	186,582	35,474	22,019	1,551	$5,593	322,517
Per cent of increase [2]	.....	.....	.....	−53.6	126.6	3.6	71.9	−3.8	526.4	.....	−9.2
NEVADA:											
1919	203	207	.....	4,231	59,786	8,500,961	5,339,511	1,751,266	143,708	245,429	18,053,984
1909	266	374	.....	4,642	26,862	6,801,126	4,985,612	1,311,625	275,556	196,768	23,271,597
Per cent of increase [2]	.....	.....	.....	−8.9	89.1	25.0	7.1	33.5	−47.8	24.7	−22.4
NEW HAMPSHIRE:											
1919	30	33	.....	682	4,336	921,871	144,946	64,980	6,268	34,520	1,568,195
1909	45	53	.....	1,418	3,771	979,840	100,931	54,427	4,271	9,246	1,308,597
Per cent of increase [2]	.....	.....	.....	−51.9	15.0	−5.9	43.6	19.4	46.8	273.4	19.8
NEW JERSEY:											
1919	97	102	.....	4,576	33,901	6,119,411	2,194,539	719,938	276,555	57,948	9,308,902
1909	131	151	.....	6,315	18,048	3,064,247	674,962	319,329	101,026	44,489	8,347,501
Per cent of increase [2]	.....	.....	.....	−27.5	87.8	99.7	225.1	125.5	173.7	30.3	11.5
NEW MEXICO:											
1919	85	103	1	7,100	59,876	11,644,903	3,889,454	1,361,210	181,504	131,506	18,872,560
1909	98	285	.....	5,107	16,042	3,974,490	805,487	203,083	78,995	132,535	5,587,744
Per cent of increase [2]	.....	.....	.....	39.0	273.2	193.0	382.9	570.3	129.8	−0.8	237.7
NEW YORK:											
1919	700	147	14,186	6,202	91,339	8,928,382	7,416,586	1,402,245	649,472	789,360	25,131,093
1909	1,351	752	11,342	9,305	101,759	5,425,460	1,952,593	585,161	465,454	513,042	13,334,975
Per cent of increase [2]	.....	.....	.....	−33.3	−10.2	64.6	279.8	139.6	39.5	53.9	88.5
NORTH CAROLINA:											
1919	102	106	.....	1,890	5,039	1,688,674	467,460	220,731	36,071	5,745	2,736,543
1909	118	130	.....	2,215	6,062	985,804	152,714	103,319	20,212	37,386	1,358,617
Per cent of increase [2]	.....	.....	.....	−14.7	−16.9	71.3	206.1	113.6	78.5	−84.6	101.4
NORTH DAKOTA:											
1919	79	79	.....	774	2,037	1,188,772	283,633	37,694	30,868	30,750	1,927,304
1909	53	53	6	562	2,025	426,910	95,352	12,835	10,647	1,325	564,812
Per cent of increase	.....	.....	.....	37.7	0.6	178.5	197.5	193.7	189.9	2,220.8	241.2
OHIO:											
1919	2,283	1,064	35,440	49,298	337,611	66,152,128	19,209,516	4,131,068	6,339,816	3,929,476	134,518,505
1909	1,876	964	35,067	50,567	294,763	29,544,213	12,736,355	892,671	3,667,382	2,970,544	63,767,112
Per cent of increase [2]	.....	.....	.....	−2.5	14.5	123.9	50.8	362.8	72.9	32.3	111.0
OKLAHOMA:											
1919	1,934	284	44,735	33,914	448,173	59,341,652	65,216,973	4,793,574	30,688,890	18,982,377	281,927,732
1909	864	212	12,113	11,658	95,074	9,117,970	5,027,763	384,186	2,783,975	2,137,314	25,637,892
Per cent of increase	.....	.....	.....	190.9	371.4	550.8	1,197.1	1,147.7	1,002.3	788.1	999.7
OREGON:											
1919	50	52	.....	740	6,264	1,140,778	545,949	133,472	48,047	35,888	1,884,871
1909	116	161	.....	860	8,070	830,025	186,796	96,592	16,935	7,717	1,191,512
Per cent of increase [2]	.....	.....	.....	−14.0	−22.4	37.4	192.3	38.2	183.7	365.1	58.2
PENNSYLVANIA:											
1919	5,807	3,621	77,325	323,397	1,999,422	480,183,116	124,327,767	27,707,403	24,682,827	7,970,425	819,451,109
1909	4,851	3,000	59,780	361,013	1,618,806	210,531,202	48,274,254	6,423,190	15,379,127	5,976,032	349,059,786
Per cent of increase [2]	.....	.....	.....	−10.4	23.5	128.1	157.5	331.4	60.5	33.4	134.8
RHODE ISLAND:											
1919	14	15	.....	369	3,000	482,329	146,637	55,075	5,755	1,000	952,204
1909	21	27	.....	665	2,350	467,772	130,947	26,991	8,552	.....	897,606
Per cent of increase [2]	.....	.....	.....	−44.5	27.7	3.1	12.0	104.0	−32.7	.....	6.1
SOUTH CAROLINA:											
1919	20	20	.....	933	4,656	820,327	303,371	150,440	7,512	.....	1,350,747
1909	29	32	.....	1,814	7,012	708,669	124,618	117,899	10,336	6,680	1,252,792
Per cent of increase [2]	.....	.....	.....	−48.6	−33.6	15.8	143.4	27.6	−27.3	.....	7.8
SOUTH DAKOTA:											
1919	23	28	1	1,785	11,844	2,714,150	1,008,196	284,019	6,805	11,941	5,314,516
1909	39	43	3	3,456	15,648	3,431,812	1,109,671	421,048	4,776	50	6,432,417
Per cent of increase [2]	.....	.....	.....	−48.4	−24.3	−20.9	−9.1	−32.5	42.5	23,782.0	−17.4
TENNESSEE:											
1919	203	263	14	14,470	56,685	14,625,733	3,892,397	1,259,983	554,743	173,796	23,292,114
1909	216	365	1	16,338	34,523	8,346,871	1,613,571	645,376	617,097	54,372	12,692,547
Per cent of increase [2]	.....	.....	.....	−11.4	64.2	75.2	141.2	95.2	−10.1	219.6	83.5
TEXAS:											
1919	624	81	8,749	18,164	129,063	35,987,955	45,401,592	6,189,559	23,912,179	25,773,700	160,378,058
1909	236	92	2,279	6,379	32,003	4,539,257	1,833,415	255,614	917,799	152,096	10,742,150
Per cent of increase	.....	.....	.....	184.7	303.3	692.8	2,376.3	2,321.4	2,505.4	16,845.7	1,393.0
UTAH:											
1919	141	154	.....	9,847	86,131	19,113,565	8,043,453	2,019,110	150,955	491,178	41,510,802
1909	188	235	.....	10,089	47,226	10,184,378	4,027,324	1,074,119	71,911	265,066	22,083,282
Per cent of increase [2]	.....	.....	.....	−2.4	82.4	87.7	99.7	88.0	109.9	85.3	88.0
VERMONT:											
1919	93	109	.....	2,936	28,119	3,490,284	1,272,796	425,398	58,506	91,750	8,555,030
1909	137	182	.....	8,145	25,668	4,819,552	905,157	362,438	84,332	64,698	8,221,323
Per cent of increase [2]	.....	.....	.....	−64.0	9.5	−27.6	40.6	17.4	−30.6	41.8	4.1
VIRGINIA:											
1919	202	216	.....	14,547	57,880	17,798,411	4,760,370	1,216,894	830,435	340,851	29,363,449
1909	150	244	.....	15,257	34,630	5,842,408	1,173,866	484,527	418,353	119,028	8,795,646
Per cent of increase [2]	.....	.....	.....	−4.7	67.1	204.6	305.5	151.2	98.5	186.4	233.8
WASHINGTON:											
1919	83	93	.....	5,050	38,198	8,128,198	1,728,585	947,330	177,429	86,624	13,329,129
1909	93	170	.....	6,904	20,742	6,235,673	843,025	245,852	141,231	14,462	10,537,556
Per cent of increase [2]	.....	.....	.....	−26.9	84.2	30.3	105.0	285.3	25.6	499.0	26.5
WEST VIRGINIA:											
1919	1,714	1,325	27,363	100,812	704,279	134,532,198	46,611,574	6,908,796	14,845,553	3,889,691	295,606,620
1909	798	718	15,146	73,410	416,282	39,809,620	12,541,375	1,212,825	7,796,172	4,465,926	76,287,889
Per cent of increase [2]	.....	.....	.....	37.3	69.2	237.9	271.7	469.6	90.4	−12.9	287.5
WISCONSIN:											
1919	92	107	.....	3,547	26,766	5,368,350	1,969,512	857,265	535,600	135,293	10,580,833
1909	268	286	.....	4,710	24,864	3,339,831	877,925	435,993	445,146	40,957	7,459,404
Per cent of increase [2]	.....	.....	.....	−24.7	7.6	60.7	124.3	96.6	20.3	230.3	41.8
WYOMING:											
1919	106	87	1,084	9,699	62,757	15,963,344	6,422,769	1,072,787	1,765,597	715,960	41,928,788
1909	66	95	21	7,742	30,338	6,714,194	1,385,594	376,187	107,834	61,542	10,572,188
Per cent of increase	.....	.....	.....	25.3	106.9	137.8	363.5	185.2	1,537.3	1,063.4	296.6

[1] Operators, not enterprises, in 1909.

[2] A minus sign (−) denotes decrease.

TABLE 3.—DETAILED STATISTICS FOR MINES, QUARRIES, AND WELLS, PRODUCING AND

	INDUSTRY.	Number of enterprises.	Number of mines, quarries, or wells.	Number of enterprises operating beneficiating plants.	LAND CONTROLLED (ACRES). Mineral land. Operated.	Mineral land. Owned.	Mineral land. Leased.	Timber and other lands.	PERSONS ENGAGED IN INDUSTRY. Aggregate.	Proprietors and officials. Total.	Proprietors and firm members. Total.	Proprietors and firm members. Performing manual labor.	Salaried officers.	Superintendents and managers.	Technical employees.	Clerks and other subordinate salaried employees. Male.	Clerks and other subordinate salaried employees. Female.
1	**All industries**	21,997	.....	1,503	22,947,937	8,729,545	14,294,342	2,215,702	1,084,796	61,588	22,155	5,272	10,729	22,223	6,481	25,854	10,170
2	**Producing enterprises**	21,280	.....	1,503	22,474,069	8,568,590	13,980,731	2,208,519	1,077,675	60,409	21,918	5,245	10,456	21,704	6,331	25,649	10,057
	FUELS:																
3	Coal, anthracite	254	[1] 534	140	261,355	194,390	77,955	159,710	154,882	4,120	159	34	233	2,821	907	2,773	617
4	Coal, bituminous	6,636	8,282	134	8,261,372	5,793,651	2,528,562	751,473	583,608	22,403	4,237	1,830	5,870	9,750	2,546	11,085	4,322
5	Petroleum and natural gas	9,814	257,673	.....	12,171,388	1,172,068	10,999,320	.....	125,110	22,187	14,223	1,987	2,392	4,704	868	6,046	3,672
	METALS:																
6	Iron ore	290	406	74	241,508	177,296	65,280	696,140	48,767	1,286	41	9	130	616	499	1,454	286
7	Copper	195	226	57	392,811	378,839	14,045	255,819	46,999	1,601	103	62	185	596	717	1,493	188
8	Lead and zinc	432	473	262	135,262	99,338	36,118	47,053	24,030	1,374	412	186	166	547	249	593	179
9	Gold and silver, lode mines	740	799	191	142,573	113,347	29,424	46,166	17,531	1,693	712	485	236	505	240	319	83
10	Gold, placer mines	112	132	2	62,857	51,219	11,738	16,860	1,651	232	122	77	38	61	11	26	13
11	Manganese	35	37	8	51,574	12,463	39,111	16	1,032	89	35	6	16	29	9	27	7
12	Quicksilver	26	26	24	27,387	16,820	10,567	5,283	846	81	27	11	11	34	9	13	4
13	Rare metals [3]	22	22	11	18,779	17,200	1,579	30	750	65	11	3	11	32	11	40	12
	STONE:																
14	Limestone	895	925	44	122,820	84,717	38,306	52,963	24,705	1,727	633	175	375	672	47	701	208
15	Granite	358	381	152	30,659	23,799	6,950	6,998	8,951	696	328	145	137	197	34	133	73
16	Sandstone	255	276	66	48,729	34,726	15,435	6,641	4,897	434	179	53	106	143	6	115	61
17	Basalt	163	174	6	15,625	7,139	8,486	1,889	3,791	310	77	20	85	138	10	103	42
18	Slate	101	104	61	5,440	3,673	1,767	2,805	3,852	269	64	21	84	117	4	45	25
19	Marble	48	62	25	28,969	11,818	17,159	6,273	1,891	96	7	3	46	40	3	38	25
	MISCELLANEOUS:																
20	Abrasive materials [4]	34	34	14	15,885	10,334	5,551	1,433	379	53	25	6	6	19	3	3	6
21	Asbestos	10	11	3	2,371	2,200	171	.....	165	14	5	1	1	7	1	4	1
22	Asphalt	9	12	.....	8,889	8,759	130	.....	387	40	.....	.....	9	17	14	19	4
23	Barytes	89	98	5	37,135	31,971	5,164	10,622	1,071	138	93	3	8	31	6	12	2
24	Bauxite	10	15	7	3,997	1,164	2,833	23,998	806	35	2	.....	6	22	5	27	6
25	Chromite	15	16	1	3,389	1,034	2,355	61	60	29	24	12	3	2	.....	.....	.....
26	Clay	345	350	45	105,706	70,498	35,263	7,040	6,087	460	187	48	96	168	9	112	62
27	Feldspar	30	32	4	1,480	761	719	235	398	42	20	6	12	10	.....	5	2
28	Fluorspar	54	72	25	9,623	5,888	3,735	5,942	1,279	127	36	7	29	49	13	22	6
29	Fuller's earth	9	9	8	6,720	4,274	2,446	258	873	40	.....	.....	9	28	3	5	4
30	Graphite	21	24	16	8,114	7,931	183	186	493	49	6	2	5	30	8	22	3
31	Gypsum	47	48	27	41,703	36,581	5,122	490	2,477	103	4	3	28	66	5	135	48
32	Magnesite	11	11	7	2,931	1,375	1,556	930	499	38	13	.....	8	13	4	9	4
33	Mica	65	69	9	5,188	3,225	1,963	781	555	99	67	27	10	21	1	5	3
34	Millstones	11	11	.....	119	16	103	.....	53	15	14	10	.....	1	.....	1	.....
35	Mineral pigments	23	23	11	2,483	1,997	486	1,836	223	30	13	4	7	10	.....	4	4
36	Phosphate rock	48	69	20	160,447	156,418	4,029	81,363	4,761	223	14	.....	43	106	60	134	31
37	Pyrite	17	18	12	9,103	5,532	3,571	8,958	1,268	43	.....	.....	10	27	6	42	11
38	Silica	24	29	8	1,989	1,263	726	439	206	35	17	7	4	14	.....	2	3
39	Sulphur	4	4	1	12,946	12,946	.....	7,565	1,273	59	.....	.....	8	28	23	62	23
40	Talc and soapstone	28	30	23	14,743	11,920	2,823	263	1,069	74	8	2	33	33	.....	20	17
41	**Nonproducing enterprises**	717	.....	.....	473,868	160,955	313,611	7,183	7,121	1,179	237	27	273	519	150	205	113
	FUELS:																
42	Coal	26	26	.....	24,707	14,317	10,390	97	529	50	5	2	13	17	15	4	4
43	Petroleum and natural gas	156	276	.....	260,131	3,645	256,486	.....	820	262	96	8	47	90	29	56	48
	METALS:																
44	Iron ore	18	18	.....	4,506	2,339	2,167	604	650	29	.....	.....	6	15	8	16	7
45	Gold, silver, copper, lead, or zinc.	500	512	.....	176,035	136,452	40,281	5,648	4,665	801	133	17	201	380	87	122	51
46	MISCELLANEOUS [5]	17	17	.....	8,489	4,202	4,287	834	457	37	3	.....	6	17	11	7	3

[1] Includes 79 anthracite culm washeries and 81 river dredges.
[2] Same number reported for one or more other months.
[3] Includes enterprises in industries as follows: Molybdenum, 2; titanium, 2; tungsten, 6; uranium and vanadium, 12.

NONPRODUCING ENTERPRISES, FOR THE UNITED STATES, BY INDUSTRIES: 1919.

PERSONS ENGAGED IN INDUSTRY—continued.																						
Wage earners.			Wage earners, Dec. 15, or nearest representative day.																			
Average number.	Number 15th day of—		Total.		Foremen, shift bosses, etc.		Enginemen, hoistmen, electricians, mechanics, etc.		Miners, quarrymen, and drillmen, including their helpers.		Timbermen, trackmen, and men engaged in hauling, tramming, etc.		Muckers, loaders, and others not classified.		In mills and beneficiating plants (above ground).	Under 16 years of age (above ground).	Females (above ground).	Capital.	
	Maximum month.	Minimum month.	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground					
987,184	Oc 1,057,820	No 765,067	386,932	709,526	10,526	15,696	135,665	30,349	31,388	397,636	25,896	139,052	136,646	126,793	46,811	222	612	*Dollars.* 7,108,623,496	1
981,560	Oc 1,051,204	No 758,156	382,766	705,423	10,314	15,437	134,117	30,145	30,702	395,398	25,583	138,491	135,239	125,952	46,811	221	541	6,955,466,831	2
147,372	De 151,595	Ap 142,691	46,618	105,625	435	1,098	10,488	4,331	138	59,401	2,769	17,325	12,291	23,470	20,497	119	.....	433,868,039	3
545,798	Oc 599,550	No 308,266	108,746	508,657	4,647	10,922	32,635	22,444	7,025	295,084	14,733	99,480	47,152	80,727	2,554	61	58	1,904,450,123	4
93,205	De 100,293	Fe 85,119	100,980	.....	.....	.....	64,230	.....	.....	.....	.....	.....	36,750	.....	.....	.....	118	2,421,485,942	5
45,741	Ja 47,493	De 42,555	19,050	28,690	789	878	6,526	1,053	1,354	15,326	1,677	5,495	7,436	5,938	1,268	6	7	501,396,044	6
43,717	Ja 58,025	Je 37,885	20,105	25,704	807	1,137	6,167	1,254	1,185	9,455	1,005	8,115	4,352	5,743	6,589	4	74	853,639,017	7
21,884	Ja 25,124	Je 19,949	9,471	16,697	369	573	2,576	362	109	6,857	304	4,361	1,477	4,544	4,636	4	18	197,223,814	8
15,436	Au 16,469	Ja 14,778	5,830	11,492	313	485	1,713	515	208	4,980	296	2,202	1,339	3,310	1,961	.....	49	280,388,711	9
1,380	Jy 1,499	Ja [2] 1,274	1,459	75	106	4	463	.....	122	60	37	4	729	7	2	1	12	24,574,441	10
909	Fe 1,323	No 622	698	1,048	34	45	154	4	42	694	68	127	291	178	109	2	.....	7,268,426	11
748	Ja 990	Ap 595	455	379	17	16	109	7	31	151	42	114	83	91	173	.....	2	4,423,601	12
633	Ja 921	My 530	599	357	38	22	108	5	104	197	61	66	183	67	105	3	12	4,889,912	13
22,069	Au 25,655	Fe 17,398	24,272	780	957	10	3,278	53	8,433	204	1,930	104	8,716	409	958	9	10	82,124,367	14
8,049	Au 9,228	Ja 5,669	9,166	.....	379	.....	858	.....	3,736	.....	544	.....	1,621	.....	2,028	2	1	18,823,980	15
4,287	Au 4,961	Fe 3,305	4,861	.....	197	.....	405	.....	1,599	.....	304	.....	1,621	.....	735	1	2	18,955,321	16
3,336	Au 4,097	Ja [2] 2,037	3,799	.....	144	.....	473	.....	1,120	.....	192	.....	1,828	.....	42	.....	2	12,899,171	17
3,513	De 3,927	Ja 2,852	3,242	731	133	36	371	3	811	488	200	54	792	150	935	4	.....	6,923,172	18
1,732	Oc 1,875	Ja 1,459	1,856	.....	66	.....	150	.....	763	.....	41	.....	307	.....	529	.....	.....	9,033,522	19
317	Se 369	Ap 255	398	7	13	.....	41	.....	106	5	24	.....	113	2	101	.....	1	1,442,909	20
146	Oc 241	Ja 43	105	100	3	2	8	.....	27	75	5	3	47	20	15	.....	.....	772,299	21
324	Jy 594	Fe 156	362	78	15	2	35	.....	75	26	8	34	229	16	.....	.....	.....	3,171,405	22
919	Se 1,089	Fe 756	1,155	.....	32	.....	74	.....	318	.....	53	.....	629	.....	49	1	.....	2,290,455	23
738	De 934	Je 581	941	.....	37	.....	77	.....	539	.....	111	.....	65	.....	112	.....	.....	1,950,173	24
31	Fe 39	De 19	44	15	2	1	3	.....	27	9	1	2	9	3	2	.....	.....	1,572,908	25
5,453	Se 6,020	Fe 4,681	4,547	1,755	174	57	349	25	815	1,066	426	400	2,527	207	256	1	7	17,644,524	26
349	Au [2] 395	Ja 291	432	.....	16	.....	27	.....	228	.....	51	.....	66	.....	44	.....	2	729,404	27
1,124	Ja 1,377	Mh 957	765	560	45	36	221	35	55	183	32	166	211	140	201	.....	.....	8,046,827	28
824	Se 923	Ja 687	891	.....	23	.....	50	.....	202	.....	50	.....	39	.....	527	.....	29	1,877,233	29
419	Se 475	De 356	517	44	31	3	73	2	69	8	29	23	140	8	175	.....	1	3,755,055	30
2,191	No 2,715	Ja 1,574	1,381	1,175	37	40	105	40	159	445	25	208	239	442	816	.....	11	13,541,548	31
448	De 670	Fe 236	484	191	25	10	65	2	57	56	26	14	124	109	187	.....	.....	2,612,605	32
448	De 497	Fe 400	378	149	22	11	15	4	115	87	11	19	85	28	130	.....	77	699,373	33
37	My [2] 42	Ja [2] 26	42	.....	1	.....	.....	.....	31	.....	9	.....	1	.....	.....	.....	.....	53,105	34
185	Jy 217	Fe 155	191	48	9	4	20	.....	34	21	7	13	69	10	52	.....	.....	815,572	35
4,373	De 5,771	Je 2,902	5,764	149	291	3	1,154	.....	968	116	443	7	2,577	23	331	1	23	72,733,956	36
1,172	Ja 1,651	De 930	590	578	26	28	129	2	41	201	20	108	214	239	160	.....	13	4,455,785	37
166	Jy 224	De 109	229	.....	10	.....	17	.....	40	.....	18	.....	111	.....	33	.....	2	661,711	38
1,129	Ap 1,545	Je 814	1,615	7	43	.....	878	.....	.....	2	.....	.....	692	5	2	.....	4	28,046,634	39
958	No 1,058	Fe 844	728	332	28	14	72	4	16	201	31	47	84	66	497	2	6	6,225,747	40
5,624	De 6,975	Fe 3,932	4,166	4,103	212	259	1,548	204	686	2,238	313	561	1,407	841	.....	1	71	153,156,665	41
471	No 833	Ja 211	474	347	19	9	68	10	31	271	79	29	277	28	.....	1	.....	5,617,170	42
454	De 634	Ja 260	762	.....	.....	.....	520	.....	.....	.....	.....	.....	242	.....	.....	.....	5	24,960,853	43
598	Ja 819	Oc 452	425	219	20	16	151	24	46	67	58	81	150	31	.....	.....	1	10,884,660	44
3,691	De 4,327	Fe 2,525	1,905	3,421	155	226	784	162	203	1,848	156	436	607	749	.....	.....	59	105,260,998	45
410	No 703	Je 283	600	116	18	8	25	8	406	52	20	15	131	33	.....	.....	6	6,432,984	46

[4] Includes enterprises in industries as follows: Diatomaceous earth, 9; emery, 2; garnet, 2; pebbles and lining for grinding mills, 3; pumice, 6; rotten stone, 1; stone for whetstones, 2; tripoli, 9.

[5] Includes enterprises in industries as follows: Barytes, 1; cobalt, 1; limestone, 1; manganese, 2; marble, 1; mica, 1; molybdenum, 2; phosphate rock, 1; pyrite, 1; quicksilver, 2; silica, 1; sulphur, 1; tin, 1; vanadium, 1.

TABLE 3.—DETAILED STATISTICS FOR MINES, QUARRIES, AND WELLS, PRODUCING AND

	INDUSTRY.	PRINCIPAL EXPENSES OF OPERATION AND DEVELOPMENT.										
		Total.	Salaries and wages.			Supplies and materials.	Cost of ore, coal, and natural gas purchased as material or for resale.	Cost of fuel.	Cost of purchased power.	Royalties and rents.	Taxes—Federal, state, county, and local.	Contract work.
			Salaried officers, superintendents, managers, and technical employees.	Clerks and other subordinate salaried employees.	Wage earners.							
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1	**All industries**	**2,543,887,062**	**105,892,362**	**45,380,089**	**1,304,409,342**	**528,853,639**	**35,905,352**	**94,848,752**	**28,660,836**	**176,129,858**	**141,567,734**	**82,239,098**
2	**Producing enterprises**	**2,518,543,956**	**104,235,154**	**45,093,831**	**1,295,936,226**	**519,593,676**	**35,905,352**	**93,910,653**	**28,195,277**	**175,293,984**	**140,999,626**	**79,380,177**
	FUELS:											
3	Coal, anthracite	324,147,994	8,848,535	4,146,934	210,289,473	59,738,376	433,318	11,406,117	1,899,835	11,766,598	14,060,963	1,557,845
4	Coal, bituminous	990,738,244	50,334,218	18,334,820	682,601,068	142,432,551	.....	25,896,660	11,280,509	22,295,056	34,707,396	2,855,966
5	Petroleum and natural gas	626,468,862	21,375,372	12,692,996	134,521,247	195,058,693	28,813,671	19,828,776	965,300	106,458,518	38,690,630	68,663,659
	METALS:											
6	Iron ore	177,578,869	4,198,832	2,737,828	75,713,459	27,187,832	.....	8,700,358	1,594,231	24,944,936	30,829,610	1,671,783
7	Copper	138,286,993	5,018,974	3,020,767	66,390,194	34,275,369	1,528,056	11,310,485	3,555,530	536,819	12,229,046	421,753
8	Lead and zinc	65,084,781	2,714,694	1,120,246	30,708,319	15,311,548	406,051	2,783,249	2,591,906	5,258,387	3,326,910	863,471
9	Gold and silver, lode mines	53,070,119	2,466,693	539,068	23,817,657	13,040,897	4,668,291	1,623,124	2,336,136	1,015,719	2,325,491	1,237,043
10	Gold, placer mines	6,314,764	380,410	56,383	1,914,072	2,244,728	.....	20,459	1,123,874	85,899	356,132	132,807
11	Manganese	2,159,151	104,481	29,623	1,085,899	447,833	.....	52,228	46,107	183,087	60,656	149,237
12	Quicksilver	1,693,445	194,368	26,810	827,751	403,269	.....	127,931	29,133	45,194	31,016	7,973
13	Rare metals	1,666,420	114,724	47,021	748,235	573,649	7,000	41,416	45,492	45,396	35,609	7,878
	STONE:											
14	Limestone	45,250,704	2,614,748	1,111,845	23,926,332	10,968,220	.....	2,897,432	1,278,958	667,751	1,119,861	665,557
15	Granite	14,107,461	982,092	214,364	8,587,659	2,593,040	.....	833,636	261,185	139,202	377,646	118,637
16	Sandstone	8,173,578	630,306	200,327	4,448,811	1,664,432	.....	597,353	250,909	131,970	195,309	54,161
17	Basalt	7,983,629	598,157	153,090	3,991,307	2,030,869	.....	562,827	157,161	250,199	198,613	41,406
18	Slate	4,914,081	341,487	67,768	3,128,249	632,459	.....	228,954	188,505	157,788	73,238	95,633
19	Marble	2,661,848	191,396	62,723	1,452,440	552,439	.....	147,644	76,741	34,380	123,503	20,582
	MISCELLANEOUS:											
20	Abrasive materials	643,676	46,468	8,675	322,379	116,145	.....	56,122	.....	25,634	6,022	62,231
21	Asbestos	178,904	25,088	3,815	91,672	47,202	.....	3,380	2,050	1,740	3,957	.....
22	Asphalt	892,928	105,941	30,460	294,652	376,009	.....	24,876	.....	13,387	41,686	5,917
23	Barytes	1,259,058	82,375	27,736	768,847	218,582	17,500	50,389	19,335	45,343	18,824	10,127
24	Bauxite	1,795,740	103,438	53,933	941,807	303,558	.....	137,766	.....	152,848	102,390	.....
25	Chromite	94,465	5,475	.....	44,777	13,330	.....	1,575	.....	4,777	215	24,316
26	Clay	8,818,563	646,201	196,118	5,367,082	1,416,999	.....	397,655	54,934	465,184	148,035	126,355
27	Feldspar	489,717	45,966	7,458	263,760	97,834	.....	21,284	12,158	16,391	12,793	12,073
28	Fluorspar	2,878,431	259,997	35,302	1,195,777	634,498	.....	163,239	.....	101,311	342,391	145,916
29	Fuller's earth	1,406,250	85,482	8,209	541,163	338,011	.....	294,260	5,603	5,899	119,067	8,556
30	Graphite	871,211	104,099	18,235	341,542	209,256	.....	81,917	39,697	2,646	23,123	50,696
31	Gypsum	5,379,732	275,145	280,305	2,478,391	1,530,338	.....	516,148	144,272	69,403	81,983	3,747
32	Magnesite	1,488,006	78,918	16,267	652,302	300,741	31,465	258,411	37,694	47,193	14,169	50,846
33	Mica	495,364	36,658	9,921	288,487	107,933	.....	20,935	1,733	18,893	3,479	7,325
34	Millstones	80,311	10,000	1,800	47,966	11,244	.....	3,750	3,360	2,175	16	.....
35	Mineral pigments	341,051	31,620	8,679	174,453	83,078	.....	27,707	2,659	8,499	3,036	1,320
36	Phosphate rock	9,364,154	566,477	194,946	3,900,966	2,161,501	.....	1,739,833	79,468	209,687	347,580	163,696
37	Pyrite	2,594,728	123,319	61,741	1,384,735	615,726	.....	163,039	58,802	43,057	57,248	87,061
38	Silica	290,583	28,835	4,193	165,709	58,185	.....	16,434	5,526	4,060	5,794	1,847
39	Sulphur	7,189,753	292,117	120,898	1,682,174	1,452,136	.....	2,764,194	.....	.....	878,234	.....
40	Talc and soapstone	1,690,388	172,048	42,527	835,413	345,166	.....	109,090	46,474	38,958	47,955	52,757
41	**Nonproducing enterprises**	**25,343,106**	**1,657,208**	**286,258**	**8,473,116**	**9,259,963**	.....	**938,099**	**465,559**	**835,874**	**568,108**	**2,858,921**
	FUELS:											
42	Coal	1,415,640	74,761	5,225	590,824	651,231	.....	4,548	10,751	19,476	46,289	12,535
43	Petroleum and natural gas	6,655,716	305,228	105,128	875,923	3,031,107	.....	242,616	7,727	591,729	57,758	1,438,500
	METALS:											
44	Iron ore	3,212,948	76,266	31,647	985,092	654,141	.....	170,506	41,343	135,982	320,637	797,334
45	Gold, silver, copper, lead, or zinc.	13,256,365	1,122,291	133,419	5,636,646	4,684,728	.....	480,666	404,158	62,848	138,291	593,318
46	MISCELLANEOUS	802,437	78,662	10,839	384,631	238,756	.....	39,763	1,580	25,839	5,133	17,234

NONPRODUCING ENTERPRISES, FOR THE UNITED STATES, BY INDUSTRIES: 1919—Continued.

Expenditures for development (included in principal expenses).	Value of products.	POWER USED.															
		Aggregate.	Prime movers.									Equipment operated by purchased power.			Electric motors run by current generated by the enterprise reporting.		
			Total horsepower.	Steam engines (not turbines).		Steam turbines.		Internal-combustion engines.		Water wheels, and turbines.		Electric motors.		Other.			
				Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Horsepower.	Number.	Horsepower.	
Dollars.	*Dollars.*																
334,015,265	3,158,463,966	6,786,475	5,147,613	46,744	3,259,076	555	474,315	57,417	1,372,698	329	41,524	41,114	1,629,580	9,282	33,039	1,260,466	1
311,275,508	3,158,463,966	6,723,786	5,111,531	46,433	3,238,288	553	473,985	56,988	1,361,146	287	38,112	40,500	1,603,390	8,865	32,980	1,258,795	2
6,189,990	364,084,142	899,783	782,090	5,298	730,141	45	50,665	73	1,284	.....	.....	1,881	117,693	.....	3,801	185,723	3
30,044,379	1,145,977,565	2,155,412	1,383,934	9,177	1,166,862	313	195,779	1,246	21,219	9	74	21,186	771,131	347	21,044	707,341	4
230,867,499	931,793,423	1,821,342	1,770,181	23,412	532,734	.....	.....	53,699	1,237,407	2	40	1,841	44,638	6,523	1,320	28,104	5
14,657,841	218,217,905	370,869	273,477	2,333	231,184	25	28,521	45	5,397	22	8,375	1,341	97,382	10	1,112	67,595	6
13,302,349	181,258,087	523,591	386,458	842	245,398	79	123,223	129	16,327	10	1,510	3,047	135,968	1,165	3,252	161,024	7
4,268,914	75,579,347	229,541	117,527	411	42,821	21	35,420	433	35,415	30	3,871	2,389	111,874	140	625	22,884	8
7,862,971	58,832,330	149,680	50,437	182	20,133	4	4,750	370	11,149	135	14,405	2,523	98,663	580	494	18,892	9
201,259	9,368,561	35,632	3,406	2	40	.....	.....	16	719	25	2,647	624	32,226	.....	22	601	10
238,408	2,188,312	5,800	2,610	36	1,911	.....	.....	24	699	.....	.....	67	3,190	.....	3	310	11
161,598	1,803,484	2,607	1,441	4	106	.....	.....	78	1,335	.....	.....	39	1,166	.....	9	66	12
161,958	1,725,642	3,544	1,406	8	483	.....	.....	22	693	2	230	60	2,138	.....	28	350	13
764,673	52,943,924	213,717	126,387	1,776	109,778	17	10,701	252	5,043	9	865	2,046	87,330	.....	267	11,421	14
156,870	18,279,345	55,674	34,711	744	30,231	3	2,360	84	1,343	4	777	450	20,903	60	34	1,520	15
96,555	10,684,969	33,869	21,197	340	19,081	.....	.....	71	2,116	.....	.....	386	12,672	.....	155	4,696	16
131,800	9,657,977	37,307	22,844	259	21,099	3	1,225	30	520	.....	.....	255	14,463	.....	11	1,049	17
60,531	5,726,792	20,613	8,778	193	8,669	.....	.....	1	8	2	101	426	11,835	.....	4	44	18
30,914	4,397,912	15,628	6,021	85	5,619	.....	.....	2	15	3	387	408	9,607	.....	19	480	19
14,849	721,728	1,748	1,748	17	1,283	.....	.....	16	240	1	225	.....	.....	.....	3	120	20
46,503	249,839	420	355	1	75	.....	.....	6	155	3	125	2	65	.....	.....	.....	21
376,579	749,520	648	648	6	545	.....	.....	5	103	.....	.....	.....	.....	.....	.....	.....	22
20,503	1,592,245	3,029	2,049	31	1,730	.....	.....	16	269	1	50	28	980	.....	6	225	23
11,064	2,190,279	2,507	2,507	28	840	.....	.....	11	1,667	.....	.....	.....	.....	.....	94	2,564	24
2,650	105,841	136	136	.....	.....	.....	.....	11	136	.....	.....	.....	.....	.....	.....	.....	25
265,009	10,086,298	21,243	16,932	263	15,653	1	100	105	1,179	.....	.....	181	4,271	40	66	1,815	26
13,197	584,296	1,782	1,227	16	1,081	.....	.....	8	70	2	76	7	555	.....	.....	.....	27
393,465	3,334,880	7,138	7,138	121	6,036	1	50	87	1,052	.....	.....	.....	.....	.....	47	729	28
23,595	2,019,226	2,538	2,250	35	1,720	.....	.....	9	530	.....	.....	10	288	.....	2	18	29
164,849	869,403	6,410	2,241	15	1,873	.....	.....	7	368	.....	.....	106	4,169	.....	10	552	30
12,050	6,805,940	15,032	7,038	47	6,132	.....	.....	9	572	3	334	290	7,994	.....	103	1,447	31
10,868	2,169,571	2,540	827	2	80	.....	.....	26	747	.....	.....	70	1,713	.....	.....	.....	32
65,024	607,025	803	763	22	700	.....	.....	6	63	.....	.....	3	40	.....	.....	.....	33
.....	64,631	220	60	1	60	.....	.....	.....	.....	.....	.....	2	160	.....	.....	.....	34
5,456	480,768	1,630	1,460	18	862	.....	.....	6	228	5	370	8	170	.....	.....	.....	35
353,237	10,300,198	42,639	46,976	100	17,140	17	17,751	44	12,085	.....	.....	38	2,663	.....	320	33,107	36
145,615	2,408,648	7,338	3,224	35	1,970	1	120	7	84	6	1,050	98	4,114	.....	27	3,696	37
37,921	371,638	2,032	1,699	10	860	.....	.....	10	354	4	485	11	333	.....	.....	.....	38
56,478	17,935,882	15,291	15,291	544	11,581	23	3,320	13	390	.....	.....	.....	.....	.....	50	1,284	39
59,087	2,302,393	7,053	4,057	19	1,777	.....	.....	11	165	9	2,115	77	2,996	.....	43	1,078	40
22,738,757	.....	62,689	36,082	311	20,788	2	330	429	11,552	42	3,412	614	26,190	417	59	1,671	41
1,253,604	.....	2,534	1,819	13	1,785	.....	.....	4	34	.....	.....	21	715	.....	4	150	42
5,685,921	.....	5,543	5,047	103	3,695	.....	.....	67	1,352	.....	.....	8	496	.....	1	2	43
2,702,453	.....	10,175	6,235	41	6,201	.....	.....	2	34	.....	.....	44	3,940	.....	6	750	44
12,366,117	.....	42,785	21,454	142	7,997	2	330	344	9,715	42	3,412	540	20,914	417	48	769	45
730,662	.....	1,652	1,527	12	1,110	.....	.....	12	417	.....	.....	1	125	.....	.....	.....	46

TABLE 4.—DETAILED STATISTICS FOR MINES, QUARRIES, AND WELLS, PRODUCING AND

	STATE.	Number of enterprises.	Number of mines and quarries.	Number of wells productive Dec. 31.	LAND CONTROLLED (ACRES). Mineral lands. Operated.	Mineral lands. Owned.	Mineral lands. Leased.	Timber and other lands.	PERSONS ENGAGED IN INDUSTRY. Aggregate.	Proprietors and officials. Total.	Proprietors and firm members. Total.	Proprietors and firm members. Performing manual labor.	Salaried officers.	Superintendents and managers.	Technical employees.	Clerks and other subordinate salaried employees. Male.	Clerks and other subordinate salaried employees. Female.
1	**United States**	**21,997**	**14,417**	**257,673**	**22,947,937**	**8,729,545**	**14,294,342**	**2,215,702**	**1,084,796**	**61,588**	**22,155**	**5,272**	**10,729**	**22,223**	**6,481**	**25,854**	**10,170**
2	**Producing enterprises**	**21,280**	**13,844**	**257,673**	**22,474,069**	**8,568,590**	**13,980,731**	**2,208,519**	**1,077,675**	**60,409**	**21,918**	**5,245**	**10,456**	**21,704**	**6,331**	**25,649**	**10,057**
3	Alabama	264	348	.....	728,806	636,368	93,278	102,552	34,632	989	41	6	248	482	218	846	218
4	Arizona	155	172	.....	70,431	56,962	13,469	17,328	16,831	892	105	68	94	300	393	581	90
5	Arkansas	126	126	124	76,416	18,181	58,315	14,912	4,073	307	109	68	59	124	15	114	22
6	California	725	357	9,197	588,517	376,108	212,429	38,003	22,201	1,671	442	172	393	709	127	885	301
7	Colorado	477	523	70	211,260	148,109	63,537	10,293	18,502	1,117	378	237	212	417	110	450	145
8	Connecticut	41	47	.....	2,995	2,815	225	160	642	72	27	5	19	22	4	16	11
9	Delaware	7	8	.....	264	250	14	9	130	10	2	1	4	4	.....	3	1
10	District of Columbia	3	3	.....	13	10	3	.....	15	3	3	.....	.....	.....	.....	.....	.....
11	Florida	36	55	.....	118,050	114,560	3,490	79,335	3,694	197	8	2	44	91	54	99	26
12	Georgia	74	82	.....	37,736	22,095	15,651	17,862	2,608	149	33	4	45	63	8	49	13
13	Idaho	82	83	.....	27,874	24,877	3,097	3,286	2,759	215	83	32	27	69	36	71	18
14	Illinois	772	590	16,498	945,362	617,833	329,448	84,502	84,309	3,185	691	126	685	1,561	248	1,525	476
15	Indiana	503	398	2,456	266,988	119,263	151,036	10,214	28,738	1,338	339	164	371	535	93	485	164
16	Iowa	198	225	.....	68,724	33,536	36,433	3,703	12,034	536	200	143	128	195	13	156	68
17	Kansas	814	238	12,690	549,300	69,621	480,629	14,161	18,089	1,656	807	123	286	412	151	588	309
18	Kentucky	938	864	5,214	1,093,941	506,713	587,223	101,898	47,893	2,640	386	115	805	1,118	331	1,326	364
19	Louisiana and Mississippi	137	4	2,479	329,869	17,196	312,673	8,565	6,095	403	61	2	74	223	45	345	119
20	Maine	50	51	.....	3,562	2,602	995	3,623	1,093	95	52	36	15	24	4	9	10
21	Maryland	126	161	.....	57,470	36,635	20,879	8,680	6,116	325	84	26	85	125	31	118	45
22	Massachusetts	74	79	.....	5,223	4,701	522	1,131	1,910	140	50	10	43	40	7	44	22
23	Michigan	122	165	19	114,356	90,683	23,799	430,773	33,202	848	19	6	121	379	329	889	173
24	Minnesota	135	196	.....	24,836	5,899	19,874	259,768	18,562	543	40	19	63	253	187	672	82
25	Missouri	468	494	.....	194,732	149,345	45,492	33,124	16,358	1,105	497	219	198	355	55	291	105
26	Montana	259	299	28	107,541	79,300	29,653	12,13[illegible]	17,345	744	293	199	68	218	165	412	60
27	Nebraska	9	9	.....	1,081	821	260	.....	186	20	5	1	2	11	2	2	2
28	Nevada	203	207	.....	45,114	35,901	9,236	7,030	4,860	461	151	120	86	156	68	143	25
29	New Hampshire	30	33	.....	10,030	8,698	1,332	501	757	63	30	17	6	25	2	6	6
30	New Jersey	97	102	.....	27,006	19,885	7,121	10,846	5,029	230	40	20	53	80	57	155	68
31	New Mexico	85	103	1	673,051	642,019	31,092	38,760	7,607	302	69	29	20	108	105	176	29
32	New York	700	147	14,186	365,463	79,668	285,795	119,168	7,913	1,246	896	202	144	168	38	360	105
33	North Carolina	102	106	.....	10,015	4,284	5,731	1,068	2,108	184	90	36	29	59	6	27	7
34	North Dakota	79	79	.....	17,734	9,305	8,429	824	939	135	75	23	16	27	17	24	6
35	Ohio	2,283	1,064	35,440	1,914,023	413,597	1,519,201	29,889	56,736	5,408	3,309	509	791	1,159	149	1,279	751
36	Oklahoma	1,934	284	44,735	1,844,305	192,771	1,651,746	5,468	40,855	3,929	1,106	58	840	1,656	327	1,378	1,634
37	Oregon	50	52	.....	22,963	16,472	6,591	1,580	847	91	37	20	9	36	9	12	4
38	Pennsylvania	5,807	[2]3,621	77,325	4,352,082	1,750,822	2,615,052	359,053	350,338	18,491	8,822	2,126	2,042	6,077	1,550	6,318	2,132
39	Rhode Island	14	15	.....	570	512	58	704	421	37	6	.....	5	20	6	5	10
40	South Carolina	20	20	.....	31,684	31,630	104	10	1,008	51	15	2	14	20	2	16	8
41	South Dakota	23	28	1	11,538	11,056	482	31,750	1,880	58	15	11	5	15	23	27	10
42	Tennessee	203	263	14	361,660	205,832	156,856	112,318	15,450	618	67	17	170	306	75	282	80
43	Texas	624	81	8,749	1,397,678	107,867	1,289,841	88,552	22,890	2,010	484	52	329	971	226	1,427	1,289
44	Utah	141	154	.....	324,582	319,143	7,023	13,796	10,758	485	53	16	96	200	136	359	67
45	Vermont	93	109	.....	16,048	14,417	1,631	2,121	3,239	209	60	18	52	86	11	49	45
46	Virginia	202	216	.....	494,909	365,982	129,966	20,661	15,537	558	71	19	135	290	62	361	71
47	Washington	83	93	.....	73,061	48,404	24,897	15,850	5,397	199	33	16	37	92	37	93	55
48	West Virginia	1,714	1,325	27,363	4,578,747	1,0903,20	3,514,884	82,230	110,327	5,939	1,667	124	1,363	2,173	736	2,871	705
49	Wisconsin	92	107	.....	12,064	6,938	5,126	6,986	3,889	215	48	19	38	105	24	93	34
50	Wyoming	106	87	1,084	264,695	58,584	206,113	3,280	10,273	290	19	7	87	145	39	212	72
51	**Nonproducing enterprises**	**717**	**573**	**[3]276**	**473,868**	**160,955**	**313,611**	**7,183**	**7,121**	**1,179**	**237**	**27**	**273**	**519**	**150**	**205**	**113**
52	Arizona	95	96	.....	36,501	34,732	1,769	339	952	122	5	3	40	64	13	18	14
53	California	60	54	15	32,086	26,691	5,408	347	524	100	28	4	16	48	8	13	8
54	Colorado	60	63	.....	11,377	6,118	5,342	399	603	105	28	3	16	44	17	14	6
55	Idaho	50	50	.....	20,513	17,683	2,830	155	455	73	8	2	13	42	10	5	4
56	Kansas	13	3	25	24,990	941	24,651	.....	88	25	16	1	4	4	1	4	2
57	Kentucky	11	3	36	26,139	3,370	22,769	29	133	62	49	.....	4	9	.....	1	2
58	Louisiana	6	.....	11	20,970	30	20,940	.....	50	13	.....	.....	.....	11	2	1	4
59	Michigan	6	6	.....	5,689	5,179	510	132	270	12	.....	.....	2	6	4	6	7
60	Minnesota	10	10	.....	1,292	.....	1,292	240	302	15	.....	.....	6	6	3	8	4
61	Montana	36	36	.....	6,139	4,152	1,987	500	320	48	4	.....	10	30	4	6	3
62	Nevada	118	118	.....	19,096	18,168	928	739	938	206	10	2	75	99	22	38	9
63	New Mexico	18	19	.....	6,205	5,022	1,183	188	153	29	3	2	7	11	8	8	.....
64	Ohio	6	1	17	33,439	1,000	32,439	.....	180	5	.....	.....	2	3	.....	2	1
65	Oklahoma	30	2	55	5,924	150	5,774	.....	73	26	3	.....	9	14	.....	.....	2
66	Oregon	6	6	.....	4,030	2,660	1,370	.....	42	4	1	.....	.....	2	1	2	.....
67	Pennsylvania	13	10	8	9,047	6,947	2,100	63	152	39	18	3	2	6	13	1	2
68	South Dakota	5	5	.....	2,331	1,181	1,150	640	78	7	1	.....	3	3	.....	1	1
69	Texas	65	1	69	153,521	546	152,975	.....	344	84	10	6	26	40	8	42	32
70	Utah	48	48	.....	16,878	15,242	1,636	1,720	488	76	23	.....	21	30	2	12	6
71	Virginia	4	4	.....	3,195	2,095	1,100	703	137	10	.....	.....	2	4	4	7	1
72	Washington	15	13	4	6,365	2,105	4,260	749	133	27	10	1	3	11	3	1	.....
73	West Virginia	8	3	14	14,985	2,088	12,897	.....	37	16	9	.....	2	4	1	2	1
74	Wisconsin	4	4	.....	805	40	765	120	119	13	6	.....	.....	4	3	1	.....
75	Wyoming	15	4	21	7,406	600	6,806	.....	126	37	.....	.....	7	11	19	6	1
76	All other [1]	15	14	1	4,945	4,215	730	120	424	25	5	.....	3	13	4	6	3

[1] Same number reported for one or more other months.
[2] Includes 79 anthracite culm washeries and 81 river dredges.
[3] Wells on which work was done during the year, not productive and number not included in United States total.

NONPRODUCING ENTERPRISES, FOR THE UNITED STATES, BY STATES: 1919.

PERSONS ENGAGED IN INDUSTRY—continued.																					
Wage earners.			Wage earners, Dec. 15 or nearest representative day.																		
Average number.	Number, 15th day of—		Total.		Foremen, shift bosses, etc.		Enginemen, hoistmen, electricians, mechanics, etc.		Miners, quarrymen, and drillmen, including their helpers.		Timbermen, trackmen, and men engaged in hauling, tramming, etc.		Muckers, loaders, and others not classified.		In mills and beneficiating plants (above ground).	Under 16 years of age (above ground).	Females (above ground).	Capital.	
	Maximum month.	Minimum month.	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground	Above ground	Below ground					
987,184	Oc 1,057,520	No 765,067	386,932	709,526	10,526	15,696	135,665	30,349	31,388	397,636	25,896	139,052	136,646	126,793	46,811	222	612	*Dollars.* 7,108,623,496	1
981,560	Oc 1,051,204	No 758,156	382,766	705,423	10,314	15,437	134,117	30,145	30,702	395,308	25,583	138,491	135,239	125,952	46,811	221	541	6,955,466,831	2
32,579	Fe 34,682	No 28,781	9,862	24,922	387	513	2,792	1,058	887	13,858	1,332	4,712	2,905	4,751	1,558	.....	6	84,167,016	3
15,268	Ja 19,065	Ap 12,808	7,231	9,891	261	330	2,251	542	880	3,532	219	2,559	2,093	2,848	1,527	.....	8	402,419,671	4
3,630	Se 4,879	No 1,416	1,885	3,261	74	57	364	26	727	2,356	206	450	384	372	130	.....	.....	8,688,453	5
19,344	No 19,916	Ap 18,716	17,147	3,557	215	163	11,554	115	417	1,586	208	575	3,933	1,128	820	1	31	446,782,385	6
16,789	De 18,155	No 15,175	5,703	14,090	247	388	1,507	519	428	8,375	397	2,458	2,249	2,356	875	3	44	147,154,642	7
543	Jy 598	Fe 427	616	14	32	2	81	.....	198	12	51	.....	214	.....	40	.....	.....	3,557,208	8
116	Je 153	Fe 51	132	.....	6	.....	11	.....	58	.....	.....	.....	50	.....	7	.....	.....	229,023	9
12	Oc 19	Ja [1] 6	11	.....	1	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	6,632	10
3,372	De 4,912	Je 1,836	4,898	.....	256	.....	985	.....	845	.....	274	.....	1,928	.....	610	1	52	58,067,662	11
2,397	Au 2,586	No 2,271	2,382	273	81	14	285	3	673	157	197	44	761	55	385	.....	15	6,184,470	12
2,455	De 3,268	Se 1,648	1,516	2,229	70	80	296	91	136	850	32	458	394	750	588	.....	11	71,093,746	13
79,123	Oc 89,321	No 16,782	14,880	75,566	485	930	6,667	2,207	729	43,002	924	16,822	5,298	12,605	777	.....	20	221,836,571	14
25,751	Oc 31,544	No 5,818	6,934	25,623	338	474	2,051	881	902	14,191	586	5,584	2,363	4,493	634	2	4	63,198,281	15
11,274	Ja 13,221	No 3,404	1,844	11,300	100	181	442	98	179	7,284	255	2,885	742	852	126	.....	1	16,699,094	16
16,136	Ja 17,448	No 8,843	9,205	8,677	138	127	4,299	78	439	6,246	164	1,652	3,768	574	397	.....	.....	255,935,897	17
43,563	Oc 48,834	No 35,516	13,321	36,339	445	952	3,860	1,604	1,482	19,584	1,575	6,904	5,796	7,295	163	8	.....	201,247,725	18
5,228	De 6,680	Je 4,418	7,384	.....	2	.....	3,331	.....	21	.....	.....	.....	4,030	.....	.....	.....	5	97,620,466	19
979	Je 1,288	Fe 438	1,159	51	48	5	127	.....	341	27	147	.....	78	19	418	.....	.....	1,692,082	20
5,628	Oc 6,221	Mh 5,101	1,842	4,469	69	125	293	131	501	3,213	163	665	768	335	48	2	.....	21,078,980	21
1,704	Au 2,632	Fe 1,017	1,880	21	76	2	204	.....	570	13	126	2	545	4	359	1	.....	1,882,574	22
31,292	Fe 34,729	Je 28,836	11,894	20,575	391	647	4,357	653	512	10,396	587	5,773	3,788	3,106	2,259	2	58	283,528,279	23
17,265	Jy 18,804	De 15,109	9,342	9,253	434	269	3,267	257	1,010	5,362	775	1,493	3,335	1,872	521	2	2	310,095,559	24
14,857	Ja 17,319	No 8,965	7,229	10,764	247	228	1,337	153	1,273	5,796	713	2,218	2,196	2,359	1,462	5	2	47,926,850	25
16,129	Ja 20,911	No 13,922	4,226	13,639	197	513	1,188	463	109	7,432	112	3,815	1,173	816	1,447	.....	4	209,286,955	26
162	My 192	Ja 128	159	.....	9	.....	11	.....	61	.....	33	.....	42	.....	3	.....	.....	325,788	27
4,231	Ja 5,118	Au 3,366	2,725	2,517	221	153	693	69	119	1,210	207	459	388	626	1,097	.....	21	82,500,057	28
682	Au 887	Ja 344	773	16	22	1	75	.....	247	15	15	.....	55	.....	359	1	.....	1,658,509	29
4,576	Se 4,780	Je 4,162	3,533	1,378	124	48	545	60	429	693	130	391	1,885	186	426	1	1	16,905,356	30
7,100	Ja 8,152	No 6,380	2,812	4,678	65	124	840	224	117	2,718	259	793	796	819	735	4	1	93,994,713	31
6,202	Jy 6,690	Fe 5,553	4,932	1,484	194	81	1,261	120	754	454	248	157	1,817	672	628	.....	.....	95,446,438	32
1,890	Se 2,062	Ja 1,696	1,903	176	79	14	88	8	548	51	242	46	448	57	498	2	76	2,250,434	33
774	De 1,158	Je 472	318	836	15	16	42	16	35	550	35	158	191	96	.....	.....	2	1,865,347	34
49,298	Se 56,792	No 18,793	16,837	40,291	494	660	7,352	1,507	1,707	18,163	975	7,726	5,934	12,235	375	.....	.....	256,057,996	35
33,914	Oc 36,674	No 29,510	26,896	11,333	197	291	13,837	124	238	6,145	297	2,771	11,053	2,002	1,184	.....	2	740,757,178	36
740	Se 934	Mh 555	651	322	27	13	101	37	114	130	82	60	225	73	102	.....	9	4,780,913	37
323,397	Se 341,352	No 265,170	95,748	250,822	2,053	4,803	27,305	11,398	5,305	151,949	7,219	41,006	32,112	41,666	21,744	162	.....	1,317,519,289	38
369	Se 438	Ja 246	420	2	20	.....	53	.....	166	2	11	.....	100	.....	70	.....	.....	810,066	39
933	Au 1,031	Fe 784	1,003	29	34	2	82	1	317	8	86	.....	395	18	89	.....	5	3,205,232	40
1,785	Jy 1,890	No 1,574	1,065	624	48	35	320	24	96	282	63	38	296	245	242	.....	2	28,131,922	41
14,470	Oc 15,777	No 10,406	6,682	9,382	249	195	973	471	1,207	5,562	872	2,099	2,798	1,055	583	3	.....	51,466,345	42
18,164	Se 20,975	Ja 14,661	18,715	2,732	131	65	9,839	86	232	1,863	148	509	8,166	209	199	10	35	361,684,392	43
9,847	Ja 11,962	Je 8,072	4,536	6,370	190	159	1,124	494	327	2,510	943	1,516	1,014	1,601	938	.....	12	178,521,276	44
2,936	Je 3,156	Fe 2,698	2,983	339	164	15	338	7	1,420	175	55	23	358	119	648	.....	3	10,710,058	45
14,517	Oc 15,398	Ap 13,308	5,181	10,474	242	307	1,065	1,078	820	5,280	473	2,419	1,990	1,390	591	3	31	57,035,775	46
5,050	Ja 5,956	No 1,844	1,982	3,971	96	135	492	195	257	2,344	148	998	638	299	351	3	6	22,914,934	47
109,812	De 108,720	Mh 92,824	34,303	75,578	889	2,114	13,395	4,971	2,013	37,962	3,713	16,853	14,002	13,678	291	2	.....	533,138,835	48
3,547	My 2,720	De 3,133	2,228	1,627	70	65	361	79	627	782	74	335	638	366	458	1	10	18,631,034	49
9,699	Ja 10,939	Jy 8,942	3,948	6,608	71	101	2,375	297	159	3,269	212	1,065	1,077	1,876	54	2	62	101,774,873	50
5,624	**De 6,975**	**Fe 3,932**	**4,166**	**4,103**	**212**	**259**	**1,548**	**204**	**686**	**2,238**	**313**	**561**	**1,407**	**841**	.....	**1**	**71**	**153,156,665**	**51**
798	Se 928	Fe 568	422	763	25	49	188	40	29	416	39	44	141	214	.....	.....	9	30,214,991	52
403	De 696	Ja 284	367	299	14	22	207	9	25	153	13	56	108	59	.....	.....	1	13,494,898	53
478	Se 576	Ap 366	247	420	28	19	68	11	24	268	16	36	111	86	.....	.....	21	10,255,486	54
373	Oc 484	Ja 232	170	279	12	16	37	8	25	164	6	38	90	53	.....	.....	15	8,973,508	55
57	Se 90	Fe [1] 20	57	29	2	3	19	4	.....	4	8	15	28	3	.....	.....	.....	1,287,190	56
68	Mh 93	Ja 32	61	25	3	1	19	.....	.....	15	3	.....	36	9	.....	.....	.....	564,271	57
32	De 56	Ja [1] 19	57	.....	.....	.....	54	.....	.....	.....	.....	.....	3	.....	.....	.....	2	656,487	58
245	Au 282	Je 177	102	147	3	10	52	5	.....	44	9	84	38	4	.....	.....	.....	6,806,529	59
275	Ja 463	Oc 168	270	59	15	6	73	11	30	8	34	21	118	13	.....	.....	1	6,427,966	60
263	Jy 361	Ja 189	112	312	12	20	61	3	8	185	11	36	20	68	.....	.....	5	5,600,421	61
685	Jy 920	Ja 381	343	691	33	52	139	40	80	371	23	97	68	131	.....	.....	4	18,195,968	62
116	De 148	Ja 74	107	128	9	12	47	19	9	57	5	27	37	13	.....	.....	1	3,711,293	63
172	No 240	Ja 117	28	198	3	2	10	8	.....	178	3	10	12	.....	.....	.....	.....	1,086,011	64
45	Se 60	Ja 34	67	5	1	.....	45	.....	.....	5	.....	.....	21	.....	.....	.....	.....	2,106,956	65
36	Se 65	Je 14	24	55	2	2	3	2	6	30	6	3	7	18	.....	.....	.....	1,091,649	66
110	De 274	Ja 24	250	22	6	2	11	.....	29	8	55	4	149	8	.....	1	.....	3,244,212	67
69	Oc [1] 99	Ja [1] 38	84	32	7	7	24	.....	23	25	.....	.....	30	.....	.....	.....	.....	2,434,756	68
186	De 311	Ja 85	313	24	.....	1	198	2	.....	16	.....	3	115	2	.....	.....	.....	17,154,980	69
394	Se 478	Fe 250	129	352	14	17	34	34	18	141	12	62	51	98	.....	.....	8	8,521,338	70
119	De 145	Mh [1] 98	120	22	6	1	43	.....	10	8	15	4	46	9	.....	.....	.....	1,317,137	71
105	Se [1] 151	Ap 38	94	53	2	4	29	1	5	35	8	2	50	11	.....	.....	1	2,946,772	72
18	No 46	My 5	41	4	1	.....	15	.....	.....	4	.....	.....	25	.....	.....	.....	.....	525,173	73
105	My 137	Ja [1] 58	65	62	.....	5	15	5	16	52	17	.....	17	.....	.....	.....	.....	744,078	74
82	Au 118	Ja 39	112	10	1	.....	64	.....	1	8	.....	1	46	1	.....	.....	3	2,655,050	75
390	No 680	Mh 254	524	112	13	8	93	2	348	43	30	18	40	41	.....	.....	.....	3,139,544	76

[1] Includes enterprises as follows: Alabama, 2; Arkansas, 2; Connecticut, 1; Florida, 1; Georgia, 1; Illinois, 1; Iowa, 1; Maine, 1; Missouri, 1; New York, 1; North Carolina, 2; Tennessee, 1.

TABLE 4.—DETAILED STATISTICS FOR MINES, QUARRIES, AND WELLS, PRODUCING AND

	STATE.	PRINCIPAL EXPENSES OF OPERATION AND DEVELOPMENT.										
		Total.	Salaries and wages.			Supplies and materials.	Cost of ore, coal and natural gas purchased as material or for resale.	Cost of fuel.	Cost of purchased power.	Royalties and rents.	Taxes—Federal, state, county, and local.	Contract work.
			Salaried officers, superintendents, managers, and technical employees.	Clerks and other subordinate salaried employees.	Wage earners.							
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1	**United States**	**2,543,887,062**	**105,892,362**	**45,380,089**	**1,304,409,342**	**528,853,639**	**35,905,352**	**94,848,752**	**28,660,836**	**176,129,858**	**141,567,734**	**82,239,098**
2	**Producing enterprises**	**2,518,543,956**	**104,235,154**	**45,093,831**	**1,295,936,226**	**519,593,676**	**35,905,352**	**93,910,653**	**28,195,277**	**175,293,984**	**140,999,626**	**79,380,177**
3	Alabama	53,430,551	2,588,339	1,346,495	36,229,723	7,480,910	.....	2,431,350	648,933	838,101	1,699,630	167,070
4	Arizona	60,429,191	2,465,825	1,293,504	26,193,312	14,632,835	1,528,056	4,132,257	1,245,268	438,926	7,752,425	746,783
5	Arkansas	7,718,693	441,616	160,211	4,573,291	1,235,726	165,786	330,146	111,115	386,925	174,443	139,434
6	California	98,944,077	3,646,344	1,495,206	31,748,170	31,816,525	875,751	4,424,508	2,622,717	10,910,833	10,026,745	1,377,278
7	Colorado	45,973,002	1,962,751	825,778	25,405,043	7,672,203	4,282,353	1,253,016	1,453,464	1,583,712	1,136,752	397,930
8	Connecticut	1,298,269	118,816	25,660	646,624	304,096	.....	75,788	44,586	10,604	45,057	27,038
9	Delaware	219,429	15,974	4,505	135,502	34,214	.....	19,559	.....	5,434	1,223	3,018
10	District of Columbia	10,730	.....	.....	8,150	1,284	.....	1,063	.....	128	105	.....
11	Florida	7,968,486	519,196	147,606	3,107,813	1,836,229	.....	1,613,472	74,224	140,815	408,529	121,202
12	Georgia	3,582,746	281,935	73,078	2,017,460	591,266	17,500	296,647	59,372	155,833	54,360	35,295
13	Idaho	8,304,819	399,426	138,645	4,201,624	2,026,256	.....	159,294	354,484	182,364	649,069	193,657
14	Illinois	142,852,787	7,490,424	2,633,442	94,178,504	18,716,093	91,659	4,810,013	974,466	6,636,176	6,890,455	431,555
15	Indiana	45,575,744	3,216,253	862,026	30,192,924	6,370,553	50,546	1,737,090	275,616	939,696	1,590,853	340,187
16	Iowa	17,187,080	1,064,602	279,095	12,466,426	2,072,308	.....	606,285	142,559	335,530	186,811	33,464
17	Kansas	79,933,866	2,135,884	1,164,010	21,948,799	33,097,630	298,353	4,067,088	238,487	10,712,223	2,273,748	3,997,644
18	Kentucky	86,728,587	5,467,309	1,843,307	49,550,588	15,618,091	41,104	1,937,821	584,928	5,814,424	2,605,300	3,265,715
19	Louisiana and Mississippi	28,412,211	937,341	560,469	7,504,657	7,761,445	740,522	2,812,084	924	4,312,372	1,738,953	2,043,444
20	Maine	1,572,661	102,200	16,079	1,051,796	203,187	.....	77,561	45,231	9,986	34,253	32,368
21	Maryland	8,799,841	630,956	158,703	6,151,744	1,178,074	.....	247,837	60,929	137,562	208,137	16,899
22	Massachusetts	3,304,302	252,058	72,544	2,068,844	494,249	.....	186,694	76,651	59,067	83,009	11,186
23	Michigan	91,340,001	2,775,974	1,535,585	50,406,187	15,204,063	.....	7,455,207	989,490	6,668,923	6,275,133	29,439
24	Minnesota	96,445,817	1,707,779	1,340,642	29,383,021	14,101,962	.....	4,155,158	526,794	17,642,811	26,074,651	1,512,999
25	Missouri	28,728,052	1,400,938	462,686	16,777,353	4,784,079	669	1,743,747	290,666	780,604	2,071,467	415,843
26	Montana	42,502,917	1,525,799	978,502	25,723,908	9,452,659	62,210	1,267,627	1,712,301	646,125	1,018,265	115,521
27	Nebraska	286,512	24,180	2,957	166,202	60,996	.....	11,800	9,376	9,715	1,286	.....
28	Nevada	16,443,538	866,955	232,893	7,401,113	5,339,511	.....	1,112,427	638,839	143,708	462,663	245,429
29	New Hampshire	1,197,304	82,864	13,460	825,547	144,946	.....	41,567	23,413	6,268	24,719	34,520
30	New Jersey	9,740,156	476,721	249,829	5,392,861	2,194,539	.....	621,584	98,354	276,555	371,765	57,948
31	New Mexico	18,044,497	733,249	417,797	10,493,857	3,879,948	9,506	1,292,260	68,950	181,504	835,920	131,506
32	New York	19,990,461	852,046	579,555	7,496,781	4,724,500	2,092,086	967,027	435,218	649,472	804,416	789,360
33	North Carolina	2,439,802	172,569	27,043	1,489,062	467,460	.....	213,392	7,339	36,071	21,121	5,745
34	North Dakota	1,591,639	120,788	38,858	1,029,126	283,633	.....	32,853	4,841	30,868	19,922	30,750
35	Ohio	103,790,793	5,599,867	2,442,357	58,100,904	16,116,949	3,092,567	2,949,460	1,181,608	6,339,816	4,028,789	3,929,476
36	Oklahoma	189,361,709	8,170,062	4,362,390	46,809,200	55,458,900	9,758,073	3,826,667	966,907	30,688,890	10,338,243	18,982,377
37	Oregon	1,930,790	125,452	22,369	992,957	545,949	.....	68,689	64,783	48,047	26,656	35,888
38	Pennsylvania	693,618,939	24,489,816	10,474,657	445,218,643	118,817,334	5,510,433	21,818,407	5,888,996	24,682,827	28,747,401	7,970,425
39	Rhode Island	700,075	67,693	14,988	399,648	146,637	.....	45,526	9,549	5,755	9,279	1,000
40	South Carolina	1,299,206	114,875	24,968	680,484	303,371	.....	122,170	28,270	7,512	17,556	.....
41	South Dakota	4,450,596	155,254	61,556	2,497,340	1,008,196	.....	238,703	45,316	6,805	425,485	11,941
42	Tennessee	21,115,569	1,258,804	379,591	12,987,338	3,892,397	.....	1,037,175	222,808	554,743	608,917	173,796
43	Texas	141,310,966	4,268,560	2,161,398	29,557,997	45,040,955	360,637	6,093,106	96,453	23,912,179	4,045,981	25,773,700
44	Utah	31,883,415	1,279,951	636,962	17,196,652	7,745,492	297,961	834,480	1,184,630	150,955	2,065,154	491,178
45	Vermont	5,645,298	365,479	83,254	3,041,551	1,272,796	.....	220,276	205,122	58,506	306,564	91,750
46	Virginia	26,190,879	1,149,079	541,083	16,108,249	4,760,370	.....	740,098	476,796	830,435	1,243,918	340,851
47	Washington	11,351,484	463,733	198,813	7,465,652	1,728,585	.....	788,730	158,600	177,429	283,318	86,624
48	West Virginia	217,866,739	10,840,047	4,114,202	119,577,949	40,740,077	5,871,497	3,921,485	2,987,311	14,845,553	11,078,927	3,889,691
49	Wisconsin	9,101,901	462,207	155,908	4,750,235	1,885,710	83,802	309,187	548,078	535,600	235,881	135,293
50	Wyoming	27,936,829	947,164	439,765	14,576,415	6,348,488	74,281	762,272	310,515	1,765,597	1,996,372	715,960
51	**Nonproducing enterprises**	**25,343,106**	**1,657,208**	**286,258**	**8,473,116**	**9,259,963**	.....	**938,099**	**465,559**	**835,874**	**568,108**	**2,858,921**
52	Arizona	3,131,808	242,669	30,969	1,227,673	1,125,341	.....	161,276	94,964	1,695	27,401	219,820
53	California	1,727,283	135,584	18,534	599,718	801,817	.....	42,646	47,133	12,271	13,943	55,637
54	Colorado	1,375,197	145,801	23,285	636,657	402,920	.....	57,241	40,567	23,688	18,983	26,055
55	Idaho	1,118,894	104,734	7,148	533,476	371,992	.....	46,558	11,466	14,138	6,951	22,431
56	Kansas	379,758	27,178	7,245	72,857	136,953	.....	8,044	34,846	26,722	537	65,376
57	Kentucky	295,272	20,913	1,576	71,516	116,254	.....	3,705	137	13,250	1,088	66,833
58	Louisiana	685,420	19,763	4,246	47,318	103,387	.....	10,672	.....	400,503	40,590	58,941
59	Michigan	804,445	30,474	14,697	344,303	292,498	.....	45,014	15,670	24,391	32,051	5,347
60	Minnesota	2,027,079	29,480	12,401	452,071	340,312	.....	78,209	27,028	103,591	308,192	675,795
61	Montana	774,698	51,763	3,502	439,802	200,287	.....	42,904	12,907	.....	6,226	17,307
62	Nevada	2,749,054	297,658	34,844	1,102,205	1,015,098	.....	59,032	102,532	436	27,762	109,487
63	New Mexico	390,931	46,674	4,567	216,533	88,487	.....	28,075	366	1,939	2,761	1,529
64	Ohio	514,354	11,300	2,920	209,790	259,048	.....	1,966	8,250	3,570	2,334	15,176
65	Oklahoma	664,035	20,510	4,685	85,189	274,760	.....	32,047	.....	45,074	2,883	198,887
66	Oregon	116,111	3,502	1,400	45,863	47,674	.....	1,409	.....	.....	1,789	14,474
67	Pennsylvania	412,665	24,935	1,445	134,705	166,573	.....	1,193	1,324	1,050	40,224	41,216
68	South Dakota	185,966	4,735	1,065	99,414	55,192	.....	9,402	4,497	.....	1,533	10,128
69	Texas	3,209,095	161,985	71,130	374,523	1,524,743	.....	129,614	.....	104,224	4,413	838,463
70	Utah	1,730,197	68,584	4,744	571,029	863,352	.....	20,489	48,623	17,076	9,882	126,418
71	Virginia	228,065	21,158	10,464	99,559	76,802	.....	6,084	6,574	1,200	1,762	4,482
72	Washington	397,649	36,753	1,833	163,795	161,693	.....	6,810	3,500	9,415	6,101	7,749
73	West Virginia	158,621	11,250	1,205	19,015	64,544	.....	68	.....	4,990	2,680	54,869
74	Wisconsin	374,987	18,752	2,700	142,510	28,357	.....	54,666	.....	8,000	3,124	116,878
75	Wyoming	818,226	66,914	7,492	133,854	441,134	.....	42,860	.....	18,199	3,130	104,643
76	All other[1]	1,073,276	54,139	12,161	649,741	300,745	.....	48,115	5,175	452	1,768	980

[1] Includes enterprises as follows: Alabama, 2; Arkansas, 2; Connecticut, 1; Florida, 1; Georgia, 1; Illinois, 1; Iowa, 1; Maine, 1; Missouri, 1; New York, 1; North Carolina, 2; Tennessee, 1.

NONPRODUCING ENTERPRISES, FOR THE UNITED STATES, BY STATES: 1919.

Expenditures for development (included in principal expenses).	Value of products.	POWER USED. Aggregate.	Prime movers. Total horsepower.	Steam engines (not turbines). Number.	Steam engines (not turbines). Horsepower.	Steam turbines. Number.	Steam turbines. Horsepower.	Internal-combustion engines. Number.	Internal-combustion engines. Horsepower.	Water wheels, and turbines. Number.	Water wheels, and turbines. Horsepower.	Equipment operated by purchased power. Electric motors. Number.	Electric motors. Horsepower.	Other. Horsepower.	Electric motors run by current generated by the enterprise reporting. Number.	Electric motors run by current generated by the enterprise reporting. Horsepower.	
Dollars.	*Dollars.*																
334,015,265	3,158,463,966	6,786,475	5,147,613	46,744	3,259,076	555	474,315	57,417	1,372,698	329	41,524	41,114	1,629,580	9,282	33,639	1,260,466	1
311,276,508	3,158,463,966	6,723,786	5,111,531	46,433	3,238,288	553	473,985	56,988	1,361,146	287	38,112	40,500	1,603,390	8,865	32,980	1,258,795	2
897,961	59,866,040	145,775	92,657	736	90,697	6	1,667	34	819	9	74	1,147	53,118	.....	701	30,085	3
7,233,390	88,478,111	166,091	138,529	202	52,634	21	73,037	166	12,858	.....	.....	632	26,547	1,015	1,155	77,545	4
421,908	8,404,537	21,365	15,552	174	13,003	.....	.....	30	2,549	.....	.....	141	5,813	.....	124	3,184	5
27,655,157	163,770,243	313,212	206,805	3,144	88,052	5	1,750	3,056	105,615	107	11,388	2,882	106,363	45	413	19,382	6
3,864,109	51,217,028	116,351	46,481	484	40,012	2	1,050	55	1,159	21	4,260	1,802	69,080	190	342	12,525	7
10,747	1,649,603	8,520	4,831	64	4,675	.....	.....	7	80	2	76	46	3,689	.....	8	44	8
.....	243,647	660	660	19	632	.....	.....	4	28	.....	.....	.....	.....	.....	.....	.....	9
.....	15,627	97	97	.....	.....	.....	.....	5	97	.....	.....	.....	.....	.....	.....	.....	10
301,881	8,976,413	44,969	42,689	83	12,428	17	17,751	52	12,510	.....	.....	34	2,280	.....	272	31,710	11
77,750	4,082,152	13,026	9,502	129	7,909	1	100	25	393	7	1,100	62	3,494	30	31	3,797	12
532,077	11,840,301	21,239	2,811	23	1,103	2	930	18	364	16	414	545	28,248	180	19	1,120	13
4,331,319	178,673,065	318,231	261,934	2,077	208,782	42	19,728	1,855	33,424	.....	.....	1,432	56,267	30	3,218	97,160	14
2,111,492	52,840,252	129,663	100,632	898	92,120	16	2,052	349	6,460	.....	.....	785	29,031	.....	875	43,102	15
587,368	18,473,558	32,171	19,626	256	17,078	4	1,690	94	858	.....	.....	358	12,540	5	88	4,670	16
23,448,955	90,238,294	133,984	121,477	903	36,605	.....	.....	3,160	84,287	7	585	499	12,507	.....	398	8,886	17
12,847,964	98,486,910	148,893	102,176	716	65,827	43	23,786	815	12,563	.....	.....	1,174	46,717	.....	1,953	53,817	18
11,001,642	40,016,535	86,125	86,101	1,389	31,009	18	720	1,878	54,372	.....	.....	2	34	.....	53	791	19
10,897	1,823,442	6,277	3,562	74	3,397	.....	.....	14	165	.....	.....	57	2,715	.....	.....	.....	20
191,878	9,698,577	18,660	14,018	172	12,302	1	750	24	516	3	450	139	4,642	.....	94	3,872	21
23,813	4,175,699	12,498	7,736	194	7,406	.....	.....	2	45	2	285	101	4,757	5	1	10	22
2,657,899	103,870,089	337,882	274,084	1,082	208,797	28	56,770	15	417	16	8,100	976	63,798	.....	1,603	107,750	23
9,953,690	130,399,254	144,199	114,254	1,293	111,508	4	1,629	36	1,217	.....	.....	578	29,845	.....	436	13,563	24
1,141,088	32,365,694	100,169	82,967	673	51,653	20	25,560	170	5,754	.....	.....	613	17,103	90	486	16,850	25
3,145,120	49,923,721	143,718	50,593	117	41,987	13	4,350	52	1,033	20	3,223	1,543	92,125	.....	179	6,696	26
41,582	292,766	1,817	1,317	18	1,282	.....	.....	2	35	.....	.....	13	530	.....	.....	.....	27
2,486,280	18,053,984	50,786	18,342	34	9,035	1	3,600	193	5,539	5	168	801	32,444	.....	290	10,086	28
55,049	1,568,195	4,336	2,673	73	2,625	.....	.....	5	48	.....	.....	49	1,663	.....	.....	.....	29
831,085	9,308,992	33,991	26,847	137	16,357	7	10,065	35	425	.....	.....	104	7,054	.....	213	8,742	30
3,221,461	18,872,560	59,876	55,031	66	22,579	55	22,779	94	9,653	1	20	130	4,845	.....	1,257	24,854	31
2,222,809	25,131,093	91,339	62,426	900	30,055	8	9,720	1,533	21,726	4	925	595	28,913	.....	139	6,321	32
34,534	2,736,543	5,036	4,641	81	4,341	.....	.....	10	125	1	175	14	398	.....	19	501	33
95,885	1,927,304	2,037	1,783	28	1,530	.....	.....	38	253	.....	.....	24	254	.....	9	100	34
7,931,195	134,518,565	337,611	272,716	2,239	138,339	4	3,275	6,308	131,074	1	28	1,956	64,775	120	1,620	40,687	35
55,218,905	281,927,732	448,173	415,781	2,649	99,792	4	700	9,603	314,989	2	300	695	31,492	900	207	6,161	36
205,972	1,884,871	6,264	1,579	27	1,201	.....	.....	9	141	10	237	111	4,685	.....	22	464	37
24,930,973	819,451,100	1,999,422	1,638,599	16,841	1,274,108	146	137,213	14,433	226,513	12	765	8,521	355,170	5,653	12,146	471,216	38
14,200	952,204	3,000	1,844	58	1,840	.....	.....	1	4	.....	.....	29	1,156	.....	.....	.....	39
111,693	1,350,747	4,656	2,572	48	2,450	.....	.....	10	122	.....	.....	36	2,084	.....	4	200	40
41,903	5,314,516	11,844	9,834	10	4,855	2	4,500	9	354	9	125	91	2,010	.....	311	11,945	41
537,864	23,292,114	56,685	39,297	327	36,226	4	2,008	66	1,046	1	17	324	17,378	10	342	12,562	42
71,703,732	160,378,058	129,063	125,909	2,454	72,967	6	2,700	1,829	50,240	1	2	129	3,154	.....	163	4,623	43
3,168,643	41,510,802	86,131	31,083	275	26,730	4	2,085	22	471	8	1,797	2,300	54,733	315	166	8,645	44
36,499	8,555,030	28,119	8,990	120	5,887	1	1,500	3	32	7	1,571	696	19,109	20	26	664	45
919,206	29,363,449	57,880	23,641	266	20,372	5	1,530	37	337	5	1,402	1,012	34,239	.....	325	12,205	46
771,066	13,329,129	38,198	24,332	126	20,662	7	1,781	41	1,539	4	350	282	13,666	200	315	10,619	47
17,516,298	205,606,620	704,279	485,899	4,280	216,152	40	18,969	10,523	250,778	.....	.....	6,185	218,323	57	2,865	95,084	48
650,622	10,580,833	26,766	7,704	97	6,971	.....	.....	16	458	6	275	500	19,062	.....	14	1,080	49
6,060,835	41,928,788	62,757	48,817	317	22,916	16	18,240	238	7,661	.....	.....	355	13,940	.....	108	4,474	50
22,738,757	.....	62,689	36,082	311	20,788	2	330	429	11,552	42	3,412	614	26,190	417	59	1,671	51
3,078,718	.....	9,279	6,107	15	1,106	.....	.....	131	4,941	.....	.....	58	3,172	.....	10	173	52
1,512,352	.....	6,504	3,084	26	622	.....	.....	29	547	19	1,915	64	3,420	.....	13	281	53
1,332,902	.....	4,644	1,926	22	1,062	.....	.....	8	172	6	692	73	2,563	155	1	25	54
1,097,535	.....	3,272	2,373	26	1,407	.....	.....	29	536	10	430	18	867	32	.....	.....	55
273,425	.....	1,547	627	7	554	.....	.....	4	73	.....	.....	17	820	100	2	10	56
255,112	.....	686	406	6	366	.....	.....	3	40	.....	.....	2	280	.....	2	140	57
209,977	.....	181	181	6	181	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58
658,508	.....	2,960	980	4	650	2	330	.....	.....	.....	.....	30	1,980	.....	.....	.....	59
1,583,584	.....	3,816	1,875	22	1,866	.....	.....	1	9	.....	.....	25	1,941	.....	.....	.....	60
712,084	.....	2,796	1,736	18	1,317	.....	.....	19	294	2	125	19	1,060	.....	1	15	61
2,693,067	.....	8,996	2,554	3	90	.....	.....	96	2,464	.....	.....	158	6,422	20	3	45	62
296,233	.....	1,507	1,437	23	1,195	.....	.....	17	242	.....	.....	1	70	.....	.....	.....	63
508,480	.....	371	96	2	46	.....	.....	2	50	.....	.....	10	275	.....	.....	.....	64
604,205	.....	1,061	1,061	17	777	.....	.....	14	284	.....	.....	.....	.....	.....	.....	.....	65
114,237	.....	235	235	3	110	.....	.....	1	20	2	105	.....	.....	.....	.....	.....	66
301,516	.....	159	108	4	85	.....	.....	2	23	.....	.....	5	51	.....	.....	.....	67
148,669	.....	895	600	7	600	.....	.....	.....	.....	.....	.....	10	295	.....	.....	.....	68
2,886,256	.....	2,259	2,259	42	1,763	.....	.....	25	496	.....	.....	.....	.....	.....	1	2	69
1,695,273	.....	3,498	796	4	195	.....	.....	18	561	1	40	116	2,592	110	20	230	70
224,202	.....	435	435	3	350	.....	.....	1	10	1	75	.....	.....	.....	.....	.....	71
381,662	.....	735	560	5	280	.....	.....	10	250	1	30	5	175	.....	.....	.....	72
133,107	.....	47	47	.....	.....	.....	.....	2	47	.....	.....	.....	.....	.....	.....	.....	73
359,085	.....	1,480	1,480	7	1,335	.....	.....	5	145	.....	.....	.....	.....	.....	2	400	74
782,222	.....	721	721	18	621	.....	.....	6	100	.....	.....	.....	.....	.....	.....	.....	75
896,256	.....	4,605	4,398	21	4,150	.....	.....	6	248	.....	.....	3	207	.....	4	350	76

TABLE 5.—WAGE EARNERS, BY MONTHS, ALL MINING ENTERPRISES, BY 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 1 TH 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	987,184	1,030,037	989,301	973,868	956,932	963,827	970,832	1,011,390	1,038,038	1,050,107	1,057,820	*765,067*	1,038,989	72.3
Producing enterprises	981,560	1,025,871	985,369	969,499	952,305	958,506	965,230	1,005,219	1,031,628	1,043,719	1,051,204	*758,156*	1,032,014	72.1
FUELS:														
Coal, anthracite	147,372	146,241	145,985	143,437	*142,691*	144,925	145,010	148,397	149,220	149,522	150,847	150,594	**151,595**	94.2
Coal, bituminous	545,798	580,864	561,861	550,126	532,682	535,110	541,647	566,897	583,120	593,304	**599,550**	*308,266*	537,149	51.4
Petroleum and natural gas	93,205	85,225	*85,119*	87,130	88,120	90,015	91,156	94,389	98,570	99,570	99,332	99,541	**100,293**	84.9
METALS:														
Iron ore	45,741	**47,493**	47,205	46,712	44,822	45,631	44,625	46,286	46,754	46,911	45,772	44,126	*42,555*	89.6
Copper	43,717	**58,025**	49,136	43,701	40,675	38,374	*37,885*	39,919	41,386	42,595	44,395	45,246	43,267	65.3
Lead and zinc	21,884	**25,124**	23,434	22,574	21,506	20,196	*19,949*	20,207	21,050	21,162	21,579	22,631	23,196	79.4
Gold and silver, lode mines	15,436	*14,778*	14,915	15,095	14,921	15,184	15,540	16,319	**16,469**	15,349	15,536	15,456	15,670	89.7
Gold and silver, placer mines	1,380	*1,274*	1,312	*1,274*	1,317	1,424	1,420	**1,499**	1,430	1,404	1,425	1,433	1,348	85.0
Manganese	909	1,202	**1,323**	1,155	1,159	1,115	767	782	758	745	656	*622*	624	47.0
Quicksilver	748	**990**	775	769	*595*	676	779	766	758	742	708	*715*	703	60.1
Rare metals	633	**921**	834	727	544	*530*	567	557	569	558	646	598	545	57.5
STONE:														
Limestone	22,069	18,085	*17,398*	18,847	21,476	22,992	23,667	24,599	**25,655**	25,303	23,901	22,538	20,367	67.8
Granite	8,049	*5,669*	5,844	6,504	7,771	8,620	8,945	9,071	**9,228**	9,024	9,101	8,741	8,070	61.4
Sandstone	4,287	3,471	*3,305*	3,681	4,128	4,411	4,533	4,667	**4,961**	4,916	4,726	4,598	4,047	66.6
Basalt	3,336	*2,037*	*2,037*	2,456	3,257	3,680	3,828	3,985	**4,097**	3,906	3,908	3,710	3,131	49.7
Slate	3,513	*2,852*	2,909	3,060	3,415	3,580	3,764	3,858	3,572	3,594	3,729	3,896	**3,927**	72.6
Marble	1,732	*1,459*	1,497	1,641	1,688	1,778	1,826	1,833	1,865	1,810	**1,875**	1,759	1,753	77.8
MISCELLANEOUS:														
Abrasive materials	317	340	348	303	*255*	306	307	336	342	369	308	288	302	69.1
Asbestos	146	*43*	74	77	112	138	130	159	159	199	**241**	239	181	17.8
Asphalt	324	157	*156*	170	197	212	242	**594**	528	401	407	399	425	26.3
Barytes	919	773	*756*	782	826	887	938	980	983	**1,089**	1,065	985	964	69.4
Bauxite	738	755	656	636	637	612	*581*	643	828	900	847	827	934	62.2
Chromite	31	36	**39**	25	27	36	38	31	25	35	28	33	*19*	48.7
Clay	5,453	4,849	*4,681*	4,851	5,373	5,522	5,582	5,771	5,883	6,020	5,853	5,538	5,513	77.8
Feldspar	349	*291*	297	342	334	347	371	346	**395**	**395**	352	339	379	73.7
Fluorspar	1,124	**1,377**	1,059	*957*	1,007	998	1,001	1,031	1,134	1,288	1,313	1,211	1,112	69.5
Fuller's earth	824	*687*	691	715	784	829	840	880	916	**923**	858	870	895	74.4
Graphite	419	432	398	378	454	470	447	398	407	**475**	415	398	*356*	74.9
Gypsum	2,191	*1,574*	1,649	1,782	1,918	2,078	2,092	2,350	2,327	2,582	2,713	**2,715**	2,512	58.0
Magnesite	448	482	*236*	342	282	245	250	435	534	615	629	656	**670**	35.2
Mica	448	414	*400*	416	430	430	431	439	464	478	490	487	**497**	80.5
Millstones	37	*26*	*26*	37	40	**42**	**42**	41	40	40	38	38	34	61.9
Mineral pigments	185	159	*155*	181	175	198	178	**217**	193	193	193	187	191	71.4
Phosphate rock	4,373	4,583	4,865	4,741	4,972	3,259	*2,902*	3,419	3,873	4,094	4,639	5,358	**5,771**	50.3
Pyrite	1,172	1,651	1,618	1,444	1,124	1,078	988	1,076	1,065	1,118	1,017	955	*980*	50.3
Silica	166	138	142	149	161	171	217	**224**	220	185	144	132	*109*	48.7
Sulphur	1,129	1,492	1,390	1,406	**1,545**	1,503	*814*	832	845	883	932	973	933	52.7
Talc and soapstone	958	902	*844*	876	885	904	931	986	1,005	1,022	1,036	1,058	1,047	79.8
Nonproducing enterprises	5,624	4,166	*3,932*	4,369	4,627	5,321	5,602	6,171	6,410	6,388	6,616	6,911	6,975	56.4
FUELS:														
Coal	471	*211*	232	268	278	291	382	463	507	625	735	**833**	827	25.3
Petroleum and natural gas	454	*260*	274	325	352	424	450	461	531	538	577	622	**634**	41.0
METALS:														
Iron ore	598	**819**	595	575	634	698	639	606	624	527	*452*	477	530	55.2
Gold, silver, copper, lead or zinc	3,691	2,565	*2,526*	2,880	3,079	3,623	3,848	4,306	4,325	4,254	4,284	4,276	4,327	58.4
MISCELLANEOUS, all other	410	311	306	321	284	285	*283*	335	423	444	568	703	657	40.3

TABLE 6.—WAGE EARNERS, BY MONTHS, ALL MINING ENTERPRISES, BY STATES: 1919.

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

STATE.	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.	
United States	987,184	1,030,037	989,301	973,868	956,932	963,827	970,832	1,011,390	1,038,038	1,050,107	1,057,820	*765,067*	1,038,989	72.3
Producing enterprises	981,560	1,025,871	985,369	969,499	952,305	958,506	965,230	1,005,219	1,031,628	1,043,719	1,051,204	*758,156*	1,032,014	72.1
Alabama	32,579	34,594	**34,682**	34,252	32,719	31,117	31,042	31,751	32,521	32,936	33,747	*28,781*	32,806	83.0
Arizona	15,268	**19,065**	16,273	13,358	*12,808*	13,199	13,280	14,366	15,588	16,036	16,441	16,484	16,318	67.2
Arkansas	3,630	3,783	3,404	3,224	3,141	3,240	3,288	4,052	4,542	**4,879**	4,760	*1,416*	3,821	29.0
California	19,344	19,552	19,319	19,238	*18,716*	19,298	19,079	19,266	19,176	19,182	19,555	**19,916**	19,831	94.0
Colorado	16,790	18,151	17,600	17,460	16,716	15,723	15,681	16,424	17,086	16,782	16,527	*15,175*	**18,155**	83.6
Connecticut	543	447	*427*	491	535	590	591	**598**	583	558	565	578	553	71.4
Delaware	116	58	*51*	73	121	136	**153**	147	144	132	118	127	132	33.3
District of Columbia	12	*6*	*6*	8	9	14	17	12	12	17	**19**	13	11	31.6
Florida	3,372	3,848	3,903	3,861	3,934	2,202	*1,836*	2,330	2,745	2,961	3,650	4,282	**4,912**	37.4
Georgia	2,397	2,386	2,408	2,393	2,339	2,288	2,328	2,501	**2,586**	2,510	2,479	*2,271*	2,275	87.8
Idaho	2,455	2,773	2,733	2,067	2,056	2,391	2,517	2,746	2,175	*1,645*	2,008	3,078	**3,268**	50.4
Illinois	79,123	89,224	86,988	85,233	82,026	80,235	79,033	81,643	83,906	87,056	**89,321**	*16,782*	88,029	18.8
Indiana	26,751	29,961	28,209	26,939	25,837	27,074	26,875	28,145	29,434	30,997	**31,544**	*5,818*	30,269	18.4
Iowa	11,274	**13,221**	12,926	12,592	11,194	10,868	10,622	11,012	11,811	12,524	13,052	*3,404*	12,062	25.7
Kansas	16,136	**17,448**	17,262	17,207	16,851	17,214	16,982	17,191	16,397	16,397	16,415	*8,843*	15,425	50.7
Kentucky	43,563	43,980	40,949	40,949	40,081	41,154	42,203	46,231	47,350	47,373	**48,834**	*35,516*	48,136	72.7
Louisiana	5,221	4,913	4,706	4,943	5,047	4,864	*4,407*	4,523	5,014	5,505	5,655	6,401	**6,674**	66.0
Maine	979	461	*438*	712	968	1,236	**1,288**	1,175	1,204	1,141	1,116	1,076	933	34.0
Maryland	5,628	5,829	5,305	*5,101*	5,171	5,424	5,460	5,743	6,119	6,157	**6,221**	5,144	5,862	82.0
Massachusetts	1,704	1,037	*1,017*	1,236	1,757	1,889	1,946	1,978	**2,032**	1,956	1,997	1,913	1,690	50.0
Michigan	31,292	34,436	**34,729**	34,420	30,655	29,705	*28,836*	29,593	30,303	31,365	31,780	29,202	30,414	83.0
Minnesota	17,265	16,033	16,364	16,010	17,054	18,643	18,587	**18,804**	18,667	18,178	17,348	16,383	*15,160*	80.3
Mississippi	7	.....	.....	*5*	12	15	11	**17**	12	6	.....	.....	6	29.4
Missouri	14,857	**17,319**	16,479	15,406	15,014	14,501	14,401	14,871	14,907	15,672	15,729	*8,965*	15,020	51.8
Montana	16,129	**20,911**	16,661	16,017	15,329	15,104	15,324	15,910	16,197	15,530	16,685	*13,922*	15,958	66.6
Nebraska	162	*128*	134	157	174	**192**	176	163	169	179	169	153	150	66.7
Nevada	4,231	**5,118**	4,275	4,143	4,063	4,227	4,428	4,381	*3,366*	3,656	4,081	4,467	4,567	65.8
New Hampshire	682	*344*	360	398	571	708	830	839	**887**	860	871	818	698	38.8
New Jersey	4,576	4,704	4,592	4,647	4,763	4,526	*4,162*	4,713	4,741	**4,780**	4,678	4,328	4,278	87.1
New Mexico	7,100	**8,152**	7,584	7,437	7,236	7,013	6,836	6,561	7,084	7,102	6,975	*6,380*	6,840	78.3
New York	6,202	6,180	*5,553*	5,627	6,040	6,429	6,450	**6,690**	6,569	6,537	6,474	6,108	5,767	83.0
North Carolina	1,890	*1,606*	1,728	1,846	1,849	1,852	1,878	1,931	1,898	**2,062**	1,996	1,966	1,978	82.3
North Dakota	774	1,011	878	807	636	497	*472*	518	550	776	931	1,054	**2,158**	40.8
Ohio	49,298	51,820	48,325	48,005	47,838	50,336	52,236	53,518	56,340	**56,792**	56,448	*18,793*	51,125	33.1
Oklahoma	33,914	32,940	32,531	32,713	33,058	33,205	33,015	34,320	35,886	36,617	**36,674**	*29,510*	36,499	80.5
Oregon	740	617	565	*555*	580	695	721	810	869	**934**	912	826	796	59.4
Pennsylvania	323,397	330,698	323,086	318,975	314,592	315,610	321,150	333,232	340,386	**341,352**	340,316	*265,170*	336,197	77.7
Rhode Island	369	*246*	281	303	349	389	393	427	424	**438**	395	404	379	56.2
South Carolina	933	793	*784*	913	922	896	893	974	**1,031**	1,006	968	1,010	1,006	76.0
South Dakota	1,785	1,801	1,868	1,860	1,819	1,793	1,826	**1,890**	1,866	1,828	1,663	*1,574*	1,632	83.3
Tennessee	14,470	15,364	14,322	14,114	13,677	14,572	14,731	14,974	15,304	15,227	**15,777**	*10,406*	15,172	66.0
Texas	18,164	*14,661*	15,003	15,942	16,688	17,263	17,259	18,459	20,420	**20,975**	20,853	19,474	20,971	69.9
Utah	9,847	**11,962**	10,636	9,283	8,937	8,098	*8,072*	9,184	10,069	10,319	10,315	10,577	10,712	67.5
Vermont	2,936	2,725	*2,698*	2,721	2,856	3,015	**3,156**	3,146	2,877	2,860	3,005	3,082	3,091	85.5
Virginia	14,547	14,932	14,541	13,722	*13,308*	13,746	13,732	14,821	15,096	15,224	**15,398**	14,982	15,062	86.4
Washington	5,050	**5,956**	5,737	5,672	5,321	5,104	4,948	5,195	5,455	5,659	5,567	*1,844*	4,142	31.0
West Virginia	100,812	100,187	93,274	*92,824*	93,737	97,313	99,454	104,774	106,637	107,801	107,778	97,245	**108,720**	85.4
Wisconsin	3,547	3,461	3,368	3,452	3,636	**3,720**	3,676	3,712	3,717	3,604	3,606	3,479	*3,133*	84.2
Wyoming	9,699	**10,939**	10,407	10,188	9,565	9,123	8,949	*8,942*	9,476	9,723	9,788	9,016	10,272	81.7
Nonproducing enterprises	5,624	4,166	*3,932*	4,369	4,627	5,321	5,602	6,171	6,410	6,388	6,616	6,911	**6,975**	56.4
Alabama	140	**180**	176	170	159	158	129	129	127	122	112	112	*106*	58.9
Arizona	798	637	*568*	715	705	811	879	892	909	**928**	879	811	842	61.2
Arkansas	5	*6*	*6*	*6*	*6*	.....	.....	.....	7	7	7	7	**8**	75.0
California	403	*284*	285	292	309	343	322	361	433	490	528	583	**606**	46.9
Colorado	478	390	378	410	*366*	401	468	552	549	**576**	556	551	539	63.5
Connecticut	7	**7**	7	7	7	7	7	7	7	7	7	7	7	.....
Florida	126	.....	.....	.....	*44*	48	*44*	75	142	160	251	**408**	340	10.8
Georgia	5	.....	6	5	*4*	7	7	7	**9**	8	7	.....	.....	44.4
Idaho	373	*232*	257	249	281	347	404	462	462	455	**484**	437	406	47.9
Illinois	8	.....	.....	.....	.....	.....	.....	.....	.....	24	24	24	24	.....
Iowa	28	.....	.....	.....	23	27	24	*22*	24	36	64	**70**	46	31.4
Kansas	57	28	*20*	32	*20*	22	67	75	82	**90**	75	88	85	22.2
Kentucky	68	*32*	46	**93**	74	67	76	74	70	79	60	73	72	34.4
Louisiana	32	*19*	20	20	26	21	*19*	33	32	**34**	51	53	**56**	33.9
Maine	9	**12**	**12**	**12**	**12**	11	11	11	11	10	*6*	.....	.....	50.0
Michigan	245	267	233	215	229	254	*177*	265	**282**	264	263	240	251	62.8
Minnesota	275	**463**	286	275	292	326	296	275	293	220	*168*	180	226	36.3
Missouri	11	3	.....	.....	10	**26**	19	21	19	10	22	*1*	*1*	3.8
Montana	263	*189*	200	198	225	248	287	**361**	283	289	304	283	289	52.4
Nevada	685	*381*	403	456	584	746	817	**920**	830	615	737	825	906	41.4
New Mexico	116	74	85	90	85	120	135	131	143	132	122	127	**148**	50.0
New York	20	*17*	*17*	18	*17*	*17*	*17*	*17*	21	21	**26**	**26**	**26**	65.4
North Carolina	29	31	30	33	*24*	*24*	25	**35**	34	31	29	*24*	28	68.6
Ohio	172	*117*	141	134	148	151	154	166	170	191	226	**240**	226	48.8
Oklahoma	45	*34*	38	43	36	42	41	46	54	**60**	52	47	**47**	56.7
Oregon	36	21	27	32	23	27	*14*	22	47	**65**	50	53	51	21.5
Pennsylvania	110	*24*	31	52	50	45	60	102	100	153	182	247	**274**	8.8
South Dakota	69	*58*	*58*	*58*	39	61	74	73	79	92	**99**	**99**	98	38.4
Tennessee	2	*1*	*1*	3	*1*	3	3	**3**	3	*1*	*1*	*1*	**3**	33.3
Texas	186	*85*	91	106	122	141	183	179	225	246	262	281	**311**	27.3
Utah	394	284	*250*	408	398	379	348	364	441	**478**	460	471	447	52.3
Virginia	119	135	116	*98*	*98*	110	111	108	112	111	141	143	**145**	67.6
Washington	105	78	65	43	*38*	78	108	123	140	**154**	150	**154**	129	24.7
West Virginia	18	.....	.....	.....	.....	*5*	29	20	25	27	25	**46**	39	10.9
Wisconsin	105	*58*	*58*	59	108	**137**	136	131	127	115	102	114	115	42.3
Wyoming	82	*39*	41	57	64	111	111	109	**118**	87	84	85	78	33.1

TABLE 7.—FUEL USED, ALL MINING ENTERPRISES, BY INDUSTRIES: 1919.

INDUSTRY.	COAL.		Coke (tons, 2,000 pounds).	Wood (cords).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Natural gas (1,000 cu. ft.).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).					
All industries	**8,697,367**	**16,339,839**	**59,794**	**131,803**	**9,747,151**	**156,936**	**[1] 103,432,217**
Producing enterprises	**8,697,365**	**16,275,751**	**53,795**	**113,850**	**9,537,443**	**143,593**	**[1] 102,784,812**
FUELS:							
Coal, anthracite	8,548,201	4,096			671	1,381	
Coal, bituminous		11,124,904	14,254	594	3,235	18,963	865,907
Petroleum and natural gas		67,216		2,852	5,898,610	45,654	99,967,358
METALS:							
Iron ore	69,753	1,499,612	24,070	912	3,807	3,550	[1] 89,354
Copper	14,889	1,364,172	9,744	5,236	1,322,100	6,932	33,456
Lead and zinc	33,526	503,278	272	3,570	72,517	6,261	1,390,098
Gold and silver, lode mines	45	191,526	360	17,755	130,269	15,821	
Gold, placer mines	72	992	1	1,691	114	491	
Manganese		6,057		355	105	995	
Quicksilver	1	5		3,291	20,957	3,857	
Rare metals		3,102		1,158	300	1,933	
STONE:							
Limestone	5,409	673,989	937	4,765	33,221	11,397	5,887
Granite	1,723	115,250	55	4,297	13,164	2,411	
Sandstone	2,418	128,832	1,530	160	8,621	1,423	145,943
Basalt	2,099	84,566		2,129	15,390	620	
Slate	8,762	34,053		214	36	1	
Marble	210	31,158		328		170	
MISCELLANEOUS:							
Abrasive materials	3,359	3,016		433	44	332	
Asbestos		300			300	100	
Asphalt		5,427		38	2,761	154	
Barytes		5,874		500	83	659	
Bauxite		10,914		7,962	575	344	275,977
Chromite						150	
Clay	345	84,065		1,424	51,646	1,819	9,009
Feldspar		3,124		200	37	134	
Fluorspar		41,677		710	151	1,220	
Fuller's earth	100	10,857		9,878	82,461	713	
Graphite	5,100	2,853		690	1,785	487	
Gypsum		76,086	1,534	43	62,893	1,752	
Magnesite		22,178	645	780	66,563	1,124	
Mica	3	2,655		881	7	131	
Millstones	3	780					
Mineral pigments	863	4,239		290		244	
Phosphate rock	28	121,273	146	39,961	657,284	10,871	
Pyrite		31,661		311		388	
Silica	30	2,680				114	1,428
Sulphur		308	20		1,087,736	740	
Talc and soapstone	426	12,976	218	447		257	395
Nonproducing enterprises	**2**	**64,088**	**5,999**	**17,953**	**209,708**	**13,343**	**647,405**
FUELS:							
Coal		1,691				30	
Petroleum and natural gas		6,222		1,256	181,037	2,357	624,113
METALS:							
Iron		32,498	5,987	350		83	
Gold, silver, copper, lead or zinc	2	20,727	12	15,470	26,980	10,775	23,292
MISCELLANEOUS, all other		2,950		877	1,691	98	

[1] 89,354 M cubic feet reported for the iron-ore industry was manufactured gas.

TABLE 8.—FUEL USED, ALL MINING ENTERPRISES, BY STATES: 1919.

STATE.	COAL.		Coke (tons, 2,000 pounds).	Wood (cords).	Fuel oil (barrels).	Gasoline and other volatile oils (barrels).	Natural gas (1,000 cu. ft.).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).					
United States	**8,697,367**	**16,339,839**	**59,794**	**131,803**	**9,747,151**	**156,936**	**[1] 103,432,217**
Producing enterprises	**8,697,365**	**16,275,751**	**53,795**	**113,850**	**9,537,443**	**143,593**	**[1] 102,784,812**
Alabama		761,268	31,723	1,965	410	1,003	
Arizona		84,938	174	1,602	1,279,173	6,706	
Arkansas		74,238		3,020	833	667	328,057
California	125	1,927	1,205	8,241	2,264,670	10,301	19,981,849
Colorado	112	409,278	110	1,109	4,588	1,684	6,820
Connecticut	78	11,691		335		118	
Delaware		2,543				34	
District of Columbia						77	
Florida	100	32,688	146	44,567	787,431	11,610	
Georgia		55,354		6,442	397	822	
Idaho		15,360	84	3,891	726	723	
Illinois		2,092,655	400		7,536	4,272	1,809,962
Indiana	1,366	780,153	10		678	1,529	329,788
Iowa		210,939	465	115	42	1,675	
Kansas		212,503		747	694,541	3,972	8,088,328
Kentucky		724,385		675	38,148	12,069	751,455
Louisiana and Mississippi		2,400			1,141,582	457	13,546,954
Maine		9,586		250		236	
Maryland	2	67,827		65		686	
Massachusetts	69	22,871	50	290	29	57	
Michigan	18,891	1,371,023	4,013		2,826	1,570	33,781
Minnesota	3,248	726,392	758	477	1,230	2,666	
Missouri		488,858		2,936	14,161	2,425	21,898
Montana		325,737	4,874	5,683	951	1,459	671,621
Nebraska		1,834				44	
Nevada		113,708	376	2,977	64,363	8,476	
New Hampshire	53	5,027		420	88	162	
New Jersey	57,267	62,486	151	21	18,880	618	
New Mexico		232,846	62	387	50,784	1,904	
New York	52,356	82,852	1,123	250	430	1,084	1,097,257
North Carolina		41,234	5	960	16	277	
North Dakota		16,437				451	
Ohio	100	862,717	788	139	1,385	4,946	5,439,260
Oklahoma		280,339		110	237,780	21,011	16,338,709
Oregon		5,280		3,688	6,548	662	
Pennsylvania	8,561,045	3,574,674	219	2,376	1,608	13,801	[1] 10,047,604
Rhode Island	118	6,316		6		187	
South Carolina		18,949		3,113		86	
South Dakota		42,111	236	2,719	2,748	327	
Tennessee		298,649	29	5,831	1,240	1,017	1,350
Texas		66,743	5,170	2,176	2,739,860	13,287	10,396,846
Utah	28	197,366	1,123	39	2,276	1,487	
Vermont	2,328	24,886	218	261		67	
Virginia	64	209,851	170	1,386	706	499	
Washington		197,152		2,747	47,095	2,110	
West Virginia		1,157,991		50	524	2,541	12,149,549
Wisconsin	15	50,600	99	1,778	1,950	929	
Wyoming		241,089	14	6	119,210	802	1,743,724
Nonproducing enterprises	**2**	**64,088**	**5,999**	**17,953**	**209,708**	**13,343**	**647,405**
Arizona		292		949	22,117	7,029	
California	2	61	2	3,465	3,297	1,602	110,854
Colorado		4,023		1,692	750	182	
Idaho		2,035	6	3,426	303	376	
Kansas		1,025			480	56	9,694
Kentucky		716				8	690
Louisiana and Mississippi				1,256	3,045		5,250
Michigan		6,346	4			57	
Minnesota		12,358				50	
Montana		4,202		1,082	560	349	
Nevada		154		363	3,080	1,544	
New Mexico		2,720		474	65	178	
Ohio		474					2,200
Oklahoma		2,200			2,186		54,098
Oregon				320		48	
Pennsylvania		178				10	
South Dakota		1,000		1,390			
Texas		1,529			159,791	900	377,869
Utah		1,427		295	1,350	249	
Virginia		870			158	50	
Washington		516		362		310	5,000
West Virginia							1,350
Wisconsin		8,918		350		102	
Wyoming		1,516		354	12,526	124	80,400
All other [2]		11,528	5,987	2,175		119	

[1] Includes 89,354 M cubic feet of manufactured gas.
[2] Includes Alabama, Arkansas, Connecticut, Florida, Georgia, Illinois, Iowa, Maine, Missouri, New York, North Carolina, and Tennessee.

TABLE 9.—NUMBER OF ENTERPRISES

INDUSTRY.	UNITED STATES.	STATES.																						
		Alabama.	Arizona.	Arkansas.	California.	Colorado.	Connecticut.	Delaware.	Dist. Columbia.	Florida.	Georgia.	Idaho.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.
All industries	21,997	266	250	128	785	537	42	7	3	37	75	132	773	503	199	827	949	141	51	126	74	128	145	2	469
Producing enterprises	21,280	264	155	126	725	477	41	7	3	36	74	82	772	503	198	814	938	135	50	126	74	122	135	2	468
Abrasive materials	34			1	4							1	5			3							1		2
Asbestos	10		2		1						1									1					
Asphalt	9				2												1								
Barytes	89	1			1						7						5								66
Basalt	163				16		20	1				1								10	21	1			
Bauxite	10	1		4							4														
Chromite	15				12															1					
Clay	345	4			13	21		4		3	11		10	9	1	1	18			8	1	4	1	2	41
Coal, anthracite	254																								
Coal, bituminous	6,636	188		85	1	161					1	1	447	295	167	129	635			58		11			179
Copper	195		75		15	5						8										22			1
Feldspar	30				1		4				1								4	8					
Fluorspar	54					4							11				29								
Fuller's earth	9									5	1										1				
Gold and silver, lode mines	740		51		99	193					1	32													
Gold, placer mines	112		1		60	5						11													
Granite	358		3	2	17	8	11	2	3		20								42	9	42		27		2
Graphite	21	9			1	1																			
Gypsum	47		1		1	2									5	3						4			
Iron ore	290	39		1	1		1				9	1								1	1	65	89		8
Lead and zinc	432		15	11	17	27						20	6			30									93
Limestone	895	15	4	6	13	14	1			4	5	3	41	67	25	35	47	1	1	11	1	11	10		70
Magnesite	11				8																				
Manganese	35		1	2	3	4																	6		
Marble	48	2			3						1									2	3	1			1
Mica	65	1									5														
Millstones	11																								
Mineral pigments	23	1			2						2						1								
Molybdenum	2					1																			
Petroleum and natural gas	9,814			7	403	10							236	131		613	196	133				1			
Phosphate rock	48									23		2					1								
Pyrite	17	1			3	1					3		1												1
Quicksilver	26				17																				
Sandstone	255	2	2	7	6	7	3					2	15	1			5			2	1	2	1		4
Silica	24				1		1													9	2				
Slate	101																		3	4					
Sulphur	4																	1							
Talc and soapstone	28				3						2									2	1				
Titanium	2									1															
Tungsten	6				1	2																			
Uranium and vanadium	12					6																			
Nonproducing enterprises	717	2	95	2	60	60	1			1	1	50	1		1	13	11	6	1			6	10		1
Barytes	1																								
Cobalt	1											1													
Coal	26					1							1		1	1	3								
Gold, silver, copper, lead, or zinc	500		94		46	58					1	48				2						3			1
Iron ore	18	2																				3	10		
Limestone	1																								
Manganese	2			1																					
Marble	1																								
Mica	1																								
Molybdenum	2		1																						
Petroleum and natural gas	156			1	13											10	8	6							
Phosphate rock	1									1															
Pyrite	1																								
Quicksilver	2				1							1													
Silica	1						1																		
Sulphur	1																								
Tin	1																								
Vanadium	1					1																			

IN EACH STATE, BY INDUSTRIES: 1919.

INDUSTRY.	STATES.																							
	Montana.	Nebraska.	Nevada.	New Hampshire.	New Jersey.	New Mexico.	New York.	North Carolina.	North Dakota.	Ohio.	Oklahoma.	Oregon.	Pennsylvania.	Rhode Island.	South Carolina.	South Dakota.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	Washington.	West Virginia.	Wisconsin.	Wyoming.
All industries	295	9	321	30	97	103	701	104	79	2,289	1,964	56	5,820	14	20	28	204	689	189	93	206	98	1,722	96	121
Producing enterprises	259	9	203	30	97	85	700	102	79	2,283	1,934	50	5,807	14	20	23	203	624	141	93	202	83	1,714	92	106
Abrasive materials		1	2	1			4				2	1	1								1	4			
Asbestos								2														1			2
Asphalt											2							1	3						
Barytes								1							1		5				1			1	
Basalt					36		4					9	29	4				1				8		2	
Bauxite																	1								
Chromite												1													1
Clay	3				35	1	2	6		49		1	62		7		10	2	3	1	1	4	5		1
Coal, anthracite													254												
Coal, bituminous	67					21		1	79	788	94	3	1,938			5	107	33	27		108	35	926		46
Copper	21		15			7						3					2		13	2		6			
Feldspar							2	10																	
Fluorspar			1	1		7													1						
Fuller's earth			1															1							
Gold and silver, lode mines	116		148			23						8				4		1	49			10			
Gold, placer mines	9		8			1						16										1			
Granite	3			23	4		7	16			6	2	29	8	10	1		8		27	7	5		14	
Graphite	1		1				2						3	2				1							
Gypsum			3			1	6			2	5	1				2		3	2		2				4
Iron ore	2				5	5	7	6					5				12	1	2		21	1		6	1
Lead and zinc	16		15		2	13	1				111		1			1	3		24			3		23	
Limestone	7	8	1		10		55	2		90	13	4	184			3	21	12	7	4	31		17	33	8
Magnesite																						3			
Manganese	6					1											3				9				
Marble							6										13	1		15					
Mica				5		2		49								1					2				
Millstones							6	3													2				
Mineral pigments													13				2		1		1				
Molybdenum						1																			
Petroleum and natural gas	5					1	561			1,333	1,699		3,140			1	1	553					751		39
Phosphate rock															2		19		1						
Pyrite							2														5				
Quicksilver			4									1						4							
Sandstone	2				5		22	1		21	2		100			5	2		2		2	1	15	12	3
Silica	1					1		2					4				2							1	
Slate							9						42						1	38	4				
Sulphur			1															2							
Talc and soapstone							4	3					2							6	4	1			
Titanium																					1				
Tungsten			3																						
Uranium and vanadium																			5						1
Nonproducing enterprises	36		118			18	1	2		6	30	6	13			5	1	65	48		4	15	8	4	15
Barytes																	1								
Cobalt																									
Coal										1		1	10					1			1	2	3		
Gold, silver, copper, lead, or zinc	36		117			17	1	1			2	5				4			47		1	11		2	3
Iron ore																			1					2	
Limestone																					1				
Manganese						1																			
Marble			1																						
Mica								1																	
Molybdenum																									
Petroleum and natural gas										5	28		3					64				2	5		11
Phosphate rock																									
Pyrite																					1				
Quicksilver																									
Silica																									
Sulphur																									1
Tin																1									
Vanadium																									