
**GENERAL REPORT AND REPORTS FOR STATES
AND FOR INDUSTRIES**

INTRODUCTION AND GENERAL EXPLANATIONS

Scope of the report.—The statistics for mines and quarries, compiled as part of the Fifteenth Decennial Census, are presented in this volume. It contains (1) a general summary of the statistics; (2) general tables which bring together the principal statistics in convenient form; (3) a presentation of the principal statistics of the mining industries in the individual States; and (4) presentations of the statistics of all mining industries—anthracite and bituminous-coal mining; the mining of gold, silver, copper, lead, and zinc; iron-ore mining; stone quarrying; the production of sand and gravel; phosphate-rock mining; clay mining; gypsum mining; the mining of miscellaneous minerals.

The summary report for the United States shows the progress of the industries by comparison of the results of the census for 1929 with those for preceding censuses of mines and quarries; statistics for the industries as a whole, by States; statistics for individual industries for the United States as a whole; type of ownership; size of operating enterprises; power equipment, by kind, number, and capacity; time in operation for enterprises and length of working week for wage earners; the numbers of persons engaged in the industries, classified as proprietors and firm members, salaried officers and employees, and wage earners; and fuel consumption, by kind.

The reports for the individual States include: (1) A comparison for 1929 and 1919 of the principal statistics for the producing mining enterprises for the State as a whole; (2) the character of organization of the mining enterprises for the State and for the principal industries, the size of mining enterprises by average number of wage earners for the State and for selected industries, the prevailing hours of labor for wage earners employed in mining enterprises, the number of wage earners employed each month, and power equipment, by kind, number, and capacity; (3) the principal statistics in detail for each industry in the State that can be shown without disclosure of data for individual enterprises.

The reports for each of the leading mining industries include statistics showing the progress of the industry by comparison of the results of the census of 1929 with those of previous censuses; the geographic distribution of the industries; type of ownership; scale of operation; time in operation for enterprises and length of working week for wage earners; persons engaged; and power used in mining enterprises. In addition, the presen-

tation for each industry includes a general statistical table showing by States, in so far as possible without disclosure of data for individual enterprises, all available data in detail.

Scope of the census.—Census data are compiled primarily for the purpose of showing the absolute and the relative magnitude and the growth or the decline of the several industries covered. Incidentally, the effort is made to present statistics throwing light on type of ownership, size of enterprises, time in operation, and similar subjects. When the statistics are used for these purposes, particularly in connection with any attempt to derive from them figures purporting to show average wages, cost of production, or profits, it is imperative that due attention be given to their limitations.

The statistics given in the census reports for 1929 include data for all mineral-producing activities with the following exceptions:

(1) The production of petroleum and natural gas, salt, products derived from natural brines (salt, bromine, calcium chloride, iodine, etc.), marls, natural mineral waters, certain minor and rare minerals (tin, zirconium, chromium, beryllium, magnesium, radium ores, monazite, etc.), and noncommercial clay (clay mined by clay-products manufacturers and used in their own production).

(2) The production of bituminous coal by enterprises whose output was less than 1,000 tons.

(3) The production of sand and gravel by enterprises whose output was less than 25,000 tons. Data for a number of glass-sand and molding-sand enterprises reporting less than 25,000 tons are included, but no data were collected from a larger number of such enterprises whose output fell below this limit.

(4) The production of other mining or quarrying enterprises whose output was valued at less than \$2,500; or, if not productive, in which development work costing less than \$2,500 was done.

(5) Production by governmental (State, county, and municipal) enterprises, as well as production of stone, sand, and gravel by railroad and public-utility plants for their own consumption. (However, production of coal by governmental enterprises was covered in the canvass.)

(6) The mining of placer gold and the hunting for precious stones by itinerant individuals and miners employing no help.

The scope of the census for 1929 differed considerably from that for 1919, as follows:

(1) The petroleum and natural-gas industries were canvassed for 1919 but not for 1929.

(2) The sand and gravel, glass-sand, and molding-sand industries were canvassed for the first time for 1929.

(3) The quarrying of limestone carried on in connection with the manufacture of lime and cement was also covered by the census for 1929 but not by that for 1919.

(4) Data for the production of sandstone ground into sand are included in the statistics for the glass-sand, the sand and gravel, or the silica industry, according to the nature of the product, whereas in other censuses these data have been included in the statistics for the sandstone industry.

Milling and manufacturing.—Much of the products of mines must be beneficiated, improved in grade, or otherwise treated at or near the mine before the material is suitable for smelting, manufacturing, or other purposes. Among the processes employed are crushing, grinding, washing, drying, air separation, flotation, amalgamation, sintering, etc. Although such milling processes are in the nature of manufacturing, they are commonly considered as belonging to the mining industries, and when they are performed at or near mines by mining enterprises, or by enterprises operating on a custom basis, the data pertaining to them are included in the statistics for the several mining industries. On the other hand, certain other processes by which the mined product is materially changed in nature or otherwise adapted to use, and which ordinarily represent the major activities of the enterprises, are considered as manufacturing, and data for these are not included in the statistics for mines and quarries. Such processes include:

- (1) The smelting and refining of metals.
- (2) The manufacture of cement and lime, and of gypsum, clay, and phosphate products, etc.
- (3) The processing of stone (shaping, dressing, polishing, etc.).

Exceptions to this occur in the cases of a number of establishments which produced lime or processed stone in connection with their quarrying activities but which were unable to segregate the data for these manufacturing activities from those for quarrying. In such instances the manufacturing data are included in the statistics for the quarrying industries.

On the other hand, some mining and quarrying activities have been treated as belonging to manufacturing industries and data for these have not been included in any way in the statistics for mines and quarries. This was chiefly for the reason that the manufacturing phases are predominant in these industries, and accuracy could not be attained by an estimated segregation of the data for mining from those for manufacturing. There was also the further reason that it was necessary to preserve comparableness between the figures for the censuses of manufactures for 1909, 1919, and 1929. This class of operations, excluded from the census for mines and quarries, includes chiefly: The mining of clay and the manufacture of clay products at the same locality when carried on in the same establishment; the mining of salt and the raising of brines and their conversion into commercial salt and other products.

Period covered.—The returns relate to the calendar year 1929 or to the business year which corresponded

most nearly to that calendar year, and cover a year's operations, except for enterprises which began or discontinued business within the year.

The enterprise.—As used in this report the term "enterprise" represents one or more mines or quarries, all within the same county, operated under a common ownership or under unified control, or for which only one set of books of account was kept, and for which a single report was made. Thus a single enterprise may comprise a number of plants at several localities within the same county, but reports for individual mines and quarries were obtained whenever it was practicable for the operator to make such reports. In all cases where the plants under one unified control were not all located within the same county, a separate report was obtained for the enterprise or enterprises in each of the counties. The enterprise is further defined as being limited to a single industry. In cases where plants in different industries were operated under unified control, a separate report was obtained as a rule, for the plant or plants in each industry, but in a very few cases where separate reports for plants in two or more industries could not be obtained, a single enterprise represents more than one industry. (See "Classification of enterprises by industries.") The number of enterprises shown in the tables is equivalent to the number of individual reports tabulated, and does not represent the number of individual operators. The latter is considerably smaller than the number of enterprises, because most operators were able to file a separate return for each mine or quarry operated.

Number of mines and quarries.—Under this designation is given the count of the numbers of mines and quarries shown by the returns received. The unit of enumeration for mines and quarries is difficult to define. As a rule, each group of workings at a given locality in which operations were conducted as a unit or were unified by common management or joint handling of some part of the mining process has been considered as a single mine or quarry. Many individual openings, therefore, are not counted as individual mines. The total number reported represents those in operation in 1929.

Classification of enterprises by industries.—The enterprises reported have been grouped by industries according to the kinds of products. In the case of metal mines whose products contained two or more metals, the enterprises were classified according to the metal of chief value. In other cases in which two or more minerals were produced in the same operation, and for which it was impracticable for the operators to file separate returns for the several products, the classification has been determined by the principal product. However, only a few enterprises made consolidated reports covering more than one kind of product.

Several changes have been made in the classification of enterprises for 1929 as compared with 1919, as follows:

(1) Data for production of diatomaceous earth and siliceous mica schist (ganister) have been included in the statistics for the silica industry instead of in those for the abrasive-materials and sandstone industries, respectively, as for 1919.

(2) Data for production of fuller's earth and filtering earths have been combined for 1929.

(3) Data for production of glass sand from quarried sandstone are included in the statistics for the glass-sand industry for 1929 instead of in those for the sandstone industry as for 1919.

(4) Separate industry classifications are shown for gold, silver, lead, and zinc enterprises for 1929, instead of the dual classifications (gold-silver and lead-zinc) used in previous censuses.

Influence of changes in prices.—In comparing figures for the values of products with the corresponding ones for earlier censuses, account should be taken of changes in the prices of commodities. 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 production.

Persons engaged in the industries.—The following general classes of persons engaged in the mining and quarrying industries are distinguished: (1) Proprietors and firm members, (2) salaried officers of corporations, (3) other salaried employees (including superintendents, managers, technical employees, clerks, and others on a salary basis), and (4) wage earners. In the reports of the census for 1919, separate figures were given for technical employees and for clerks and other subordinate salaried employees.

The figures for employees do not include the numbers employed in connection with expenditures for contract work, as no record is normally kept for those persons engaged by contractors in the fulfillment of a particular contract. Such contractual arrangements, when made, are ordinarily restricted to the sinking of shafts, the driving of tunnels, the construction of surface plants, etc., and only infrequently do they involve the actual extraction of minerals.

The number of persons engaged in each industry was reported for a single representative day. The 14th of December was selected as representing normal conditions of employment in most industries, but where this date was not a representative one a 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 such employees does not ordinarily vary much from month to month.

The average number of wage earners was obtained by totaling the number reported as employed on the 15th of each month and dividing the sum by 12. The importance of the industry as an employer of labor is

believed to be more accurately measured by this average than by the number employed on any given date.

Salaries and wages.—Under these heads are given the total payments during the year for salaries and for wages, respectively. The Census Bureau has not undertaken to calculate the average annual earnings either of salaried employees or of wage earners. Such averages would possess little real value, because they would be based on the earnings of employees of both sexes, of all ages, in different occupations, and of widely varying degrees of skill. Furthermore, so far as wage earners are concerned, it would be impossible to calculate accurately even so simple an average as this, since the number of wage earners fluctuates rapidly and irregularly in every industry, and in some to a very great extent from day to day. The Census Bureau's figures for wage earners, as already explained, are averages based on the number employed on the 15th of each month, and while representing the number, according to the pay rolls, to whom wages were paid on that date, they doubtless represent a larger number than would be required to perform the work in any industry if all were continuously employed during the year.

Prevailing hours of labor.—No attempt was made to ascertain the exact numbers of wage earners working given numbers of hours per week. The inquiry called merely for a report as to the prevailing practice followed in each enterprise. Occasional variations in hours from one part of the year to another, as well as differences in hours for underground and for surface workers, were disregarded, and no attention was paid to the fact that the hours of labor of a few wage earners might be different from those of the majority. All the wage earners in 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 presentation of the hours of labor.

Expenses.—The expenses reported in the census for 1929 were salaries and wages; cost of supplies and fuels, including the freight charges thereon; cost of purchased electric energy; and cost of contract work. The reports for 1919 included, in addition, data for royalties, rents, taxes, and cost of materials purchased for resale.

Supplies, fuel, and power.—Statistics for cost of supplies, fuel, and purchased electric energy relate to the amounts consumed during the year, which may be more or less than the amounts purchased during the year. The term "supplies" is applicable to mine, mill, and quarry supplies.

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. (See "Persons engaged in the industries.")

Expenditures for development work.—The expenses reported as defined above include costs both of productive operations and of development work. In the statistics for producing enterprises those parts of the expenses for salaries, wages, contract work, supplies, fuel, and electric energy which were charged by the mine operators to development work are shown as expenditures for such work.

Cost of mining and profits.—The census statistics do not show the entire cost of mining operations, and consequently can not be used for the calculation of profits. No account has been taken of depletion, depreciation, interest, rent of offices and buildings, insurance, taxes, rents, royalties, selling expenses, and other sundry expenses.

Value of products.—The amounts given under this heading represent the selling values at point of production, or f. o. b. at point of shipment, or such other values as may represent the net values of or the amounts received for the products mined or quarried in 1929 according to the terms under which they were disposed of, and also include the values, at point of production, of products used by the operating company. The total value of products includes, in addition to the value of the principal product, the amounts received for secondary products, custom milling, power sold, and miscellaneous services. It is to be noted, particularly with respect to the industries producing metalliferous ores, that amounts received by the producers, i. e., the values of products as reported by the census, stand in no readily discernible relation to the quantities and the market values of products recoverable from the materials mined. The census figure for the value of products for the copper-mining industry, for example, must not be taken as the 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. More detailed and elaborate statistics on quantities of all mineral products will be found in the reports of the United States Bureau of Mines.

Power equipment.—The item "aggregate horsepower" represents the horsepower rating of prime movers used by the enterprises for generating power plus that of electric motors driven by energy purchased from other concerns. It does not cover the rating of electric motors taking their current from generators operated by prime movers reported by the same enterprise (such equipment is reported separately), because the inclusion of this would obviously result in duplication. The figures on power equipment represent the

rated capacity of the engines, motors, etc., and not the amount of power in actual daily use.

The statistics for power equipment comprise data for both stationary and mobile equipment. The latter class embraces the power equipment of portable cutting, loading, and conveying machines, shovels, dredges, locomotives, and other machinery moved from place to place in the course of operations, as contrasted with fixed or stationary installations, such as central power plants, hoisting equipment, etc.

Fuel.—Statistics on the quantity of fuel used are shown only for anthracite, bituminous coal, coke, fuel oil, gasoline, kerosene, and gas. They relate to the quantity used during the year, which may be more or less than the quantity purchased.

Special industry and State reports.—Statistics in greater detail for the major individual industries, as well as fuller explanations relating to methods of compilation and completeness of this census, are given in the following industry reports: Coal; Gold, Silver, Copper, Lead, and Zinc; Iron Ore; Stone; Sand and Gravel; Phosphate Rock; Clay; Gypsum; Miscellaneous Mineral Industries. Reports for individual States present convenient summaries of the statistics for the several industries in these geographic units; these State reports, however, do not present the statistics in as much detail as do the industry reports.

Differences between the value of products reported by the Bureau of the Census in "Mines and Quarries, 1929," and by the Bureau of Mines in "Mineral Resources of the United States, 1929."—The Bureau of Mines compiles annual statistics pertaining primarily to the quantity and value of mineral products. The Bureau of the Census collects decennially data relating to employment, principal expenses, and other items, as well as value of production for the mining industries. For 1929 the task of canvassing the industries was done independently by the two bureaus, while at preceding censuses the Bureau of the Census and Geological Survey cooperated in the collection of data and, to a considerable extent, collaborated in the preparation of the reports. The figures of production for 1929, collected and compiled independently by the two bureaus, as they were, for over 11,000 mines and quarries, are naturally to be expected to present differences. However, the differences are accounted for principally by the different methods followed and objectives sought 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 value to the producer of the actual output for the calendar year, whereas the Bureau of Mines reports for a number of industries "marketed production," sales, or shipments, and therefore, the two sets of statistics may be quite different; and second, the Bureau of Mines 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 covered by the industry designation, whereas the Bureau of Mines tabulates the value of each mineral product, irrespective of its source.

For example, the crude or mine products of a metal-mining enterprise may include varying combinations of 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 value 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 Bureau of Mines, on the other hand, presents separately the quantity and value (based on New York average sales realizations for refined product) of the several metals recoverable from ores, etc. Therefore, the values reported by the Bureau of Mines for gold, silver, copper, lead, and zinc production are not comparable with the value of products of the metal-mining industries as compiled and presented by the Bureau of the Census.

Another reason contributing to the differences in the reports of the two bureaus is the fact that mineral products are often dressed, calcined, or otherwise processed by the producers. As far as practicable, census figures relate only to the value of crude mined or beneficiated products, while those of the Bureau of Mines include, in some instances, the value of manufactured products.

For example, quarry operators who also dressed and finished their stone were requested to report (and in

most instances so reported) the value of the rough quarry product to the census, while for such operators the value of finished stone is compiled by the Bureau of Mines. Likewise, the value of gypsum reported by the Bureau of the Census represents crude gypsum, while that reported by the Bureau of Mines includes data for calcined gypsum produced by mining enterprises. On the other hand, the Bureau of Mines 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 Bureau of Mines includes in its tabulations products reported by enterprises not included in the census tabulations. These were of four kinds: Governmental, penal, and eleemosynary institutions, data for which are omitted (except for coal) 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 products mined previously to 1929; and a few minor enterprises from which the Bureau of the Census was unable to obtain financial and other data called for by its schedule, or for which it could secure only a defective report which was not tabulated, whereas the Bureau of Mines was able to obtain the desired information on product.

The following table shows the value of products as given in the general tables of this report, and as published by the Bureau of Mines in its report "Mineral Resources of the United States, 1929." The differences existing between the figures of the two reports are shown by amounts and by the per cents these amounts are of the total reported by the Bureau of Mines.

MINES AND QUARRIES

TABLE SHOWING DIFFERENCES IN VALUE OF PRODUCTS AS REPORTED BY THE BUREAU OF THE CENSUS IN "CENSUS OF MINES AND QUARRIES, 1929," AND BY THE BUREAU OF MINES IN "MINERAL RESOURCES OF THE UNITED STATES, 1929"

INDUSTRY	Bureau of Census	Bureau of Mines	DIFFERENCE ¹		INDUSTRY	Bureau of Census	Bureau of Mines	DIFFERENCE ¹	
			Amount	Per cent				Amount	Per cent
Coal:					Other nonmetals—Continued.				
Anthracite (Pennsylvania).....	\$384,854,300	\$335,642,751	-\$788,451	-0.2	Asbestos.....	\$397,482	\$351,004	+\$46,478	+13.2
Bituminous.....	966,693,771	952,781,000	+13,912,771	+1.4	Asphalt (native) and bituminous rock.....			-346,657	-6.3
Metals:					Barite.....	5,123,836	5,470,493	-49,392	-2.7
Iron ore.....	197,334,548	197,148,640	+185,908	+0.1	Clay.....	1,801,314	1,850,706	-49,392	-2.7
Copper.....	(?)	(?)			Feldspar.....	10,753,445	7,14,850,744	-4,097,299	-27.6
Lead.....	(?)	(?)			Fluorspar.....	1,935,335	1,270,640	+668,695	+51.6
Zinc.....	(?)	(?)			Fuller's earth.....	2,858,344	2,791,126	+67,218	+2.4
Gold—					Gypsum.....	8 4,811,629	4,309,723	+501,906	+11.6
Lode.....	(?)	(?)			Magnesite.....	(?)	(?)		
Placer.....	(?)	(?)			Mica.....	516,305	404,222	+112,083	+27.7
Silver.....	(?)	(?)			Millstones and pulpstones.....	620,835	655,335	-34,500	-5.3
Mercury.....	2,820,166	2,892,638	-72,472	-2.5	Phosphate rock.....	13,043,769	13,153,259	-109,490	-0.8
Manganese.....	1,184,561	3 1,612,357	-427,796	-26.5	Sand, glass.....	10 5,359,216	10 3,788,471	+1,570,745	+41.5
Minor metals.....	6,649,976	(?)			Sand, molding.....	10 4,775,957	10 6,410,343	-1,634,386	-25.5
Bauxite.....	2,238,892	2,265,638	-26,746	-1.2	Sand and gravel.....	10 102,311,914	10 122,637,165	-20,325,251	-16.6
Tungsten.....	733,970	654,000	+79,970	+12.2	Silica.....	4,645,142	(11)		
Molybdenum.....	(?)	(?)			Diatomaceous earth.....				
Titanium.....	(?)	(?)			Ganister.....				
Vanadium.....	(?)	(?)			Mica schist, siliceous.....	(?)	(11)		
Stone.....					Quartz (silica rock).....				
Limestone.....	195,995,124	0 213,937,940	-17,942,816	-8.4	Quartzite.....				
Granite.....	117,257,784	113,006,071	+4,251,713	+3.6	Silica sand.....				
Basalt.....	30,381,373	34,225,110	-3,843,737	-11.2	Tripoli.....				
Slate.....	15,543,637	18,046,197	-2,502,560	-16.0	Sulphur and pyrites.....	12 37,126,148	12 45,050,141	-7,923,993	-17.6
Marble.....	10,486,390	11,245,178	-758,788	-6.7	Sulphur.....	(?)	12 43,800,000		
Sandstone.....	7,538,905	16,545,312	-9,006,407	-54.4	Pyrites.....	(?)	1,250,141		
Miscellaneous.....	8,475,008	11,023,981	-2,548,973	-29.7	Talc and soapstone.....	2,057,953	13 2,628,662	-570,709	-12.3
Other nonmetals:					Miscellaneous minerals.....	14 3,502,876	14 4,843,527	-1,340,651	-27.7
Abrasive materials.....	1,411,284	1,695,019	-283,735	-10.7	Borates.....		4,515,375		
Emery.....		10,722			Cyanite.....		(?)		
Garnet and industrial sapphires and diamonds.....		435,420			Graphite.....		310,801		
Grinding pebbles and tube-mill lining.....	(?)	66,178			Lithium minerals.....		(?)		
Grindstones.....		617,618			Mineral pigments.....		(?)		
Oilstones, whetstones, scythestones, and rubbing stones.....		212,017			Tantalum.....		17,261		
Pumice and volcanic ash (pumelite).....		353,084			Vermiculite.....		(?)		

¹ The plus (+) or minus (-) sign indicates the amounts by which the Bureau of the Census figures exceed or fall below those published by the Bureau of Mines.

² Comparable statistics not available as the Bureau of the Census reports net value to producers of mine products, while the Bureau of Mines reports the refined value of recoverable metals based on New York average sales realizations.

³ Includes production of manganese ores incidental or secondary to mining of other mineral products.

⁴ Not available from Bureau of Mines reports.

⁵ Included in total; not compiled separately.

⁶ Includes value of dressed and finished products for which the Bureau of the Census reports only the value of rough stone; includes value of noncommercial production, which is omitted from census figures; excludes value of limestone produced and consumed by lime and cement manufacturers, which is included in census figures; includes value of siliceous mica schist and ganister used for refractory purposes, which is included in the figures for the silica industry by the census.

⁷ Includes value of clay mined and sold by manufacturers of clay products, which is not included in census figures.

⁸ Includes value of chemically treated clays for filtering purposes.

⁹ Not comparable. See explanation preceding table.

¹⁰ Census figures for these industries do not include data for enterprises whose production was less than 25,000 tons, for noncommercial production, nor for the production of unprepared (i. e., not washed and/or screened) production. Census figures for glass sand include data for production derived from ground sandstone.

¹¹ Not comparable. Census figures include value of ganister, siliceous mica schist, tripoli, and diatomaceous earth, which are classified differently by the Bureau of Mines.

¹² Bureau of Mines figures represent sales value based, in part, on estimated prices, while census figures represent mine value of production as reported. The value of pyrites included in census figures was less than 2 per cent.

¹³ Bureau of Mines figures represent sales of talc only, while census figures are for production of both talc and soapstone.

¹⁴ Difference due principally to value of shipments reported for borates by Bureau of Mines, contrasted with value of production included in census figures.

MINES AND QUARRIES—GENERAL REPORT

PRINCIPAL STATISTICS

Summary for the United States: 1902-1929 (Table 1).—This table gives principal statistics for the mining and quarrying industries, with necessary revisions for comparative purposes, as far as possible to make them, for the census for 1929 and the three next preceding censuses. However, the figures given are not entirely comparable because of different classifications in the mining industries at the different censuses: At the census for 1909 data for the conversion of coal into coke at coal mines were included, but were not included for the other years shown; data for the burning of limestone into lime at quarries are included in the sta-

tistics for 1902, but are included in those for manufacturing industries at the later censuses; data for the quarrying of limestone by cement and lime producers are included in the statistics for 1929, but are not included in those for 1919 and 1909; data for those smelting and refining operations conducted by metal-mining enterprises are included in the figures for 1909 (especially significant in the copper figures), but are excluded for all such operations in the other years. No attempt has been made to adjust the figures in order to eliminate these differences. Changes in the price level and other factors should be considered in the interpretation of the figures for the years shown.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1902-1929

[This and all other tables, except Tables 4, 28, 29, and 32, relate to producing enterprises only]

	1929		1919 ¹	1909 ¹	1902 ¹	PER CENT OF INCREASE OR DECREASE (—)		
	All industries	Revised (for comparative purposes) ¹				1910-1929	1909-1919	1902-1909
Number of enterprises ²	10,135	9,003	11,466	12,089	14,816	-21.0	-5.2	-18.4
Number of mines and quarries.....	11,602	10,277	13,731	18,127	16,892	-25.2	-24.3	7.3
Persons engaged, total.....	803,948	841,652	952,565	982,320	-----	-11.6	-3.0	-----
Proprietors and firm members.....	4,897	4,629	7,605	13,703	(⁴)	-30.8	-43.8	-----
Salaried officers and employees ⁵	52,633	48,666	50,515	37,940	32,237	-13.9	48.9	17.7
Wage earners (average for the year) ⁶	806,418	788,357	888,355	930,680	546,349	-11.3	-4.5	70.3
Power equipment, total horsepower.....	7,514,843	6,970,091	4,900,102	3,384,769	1,059,254	42.2	44.8	104.4
Prime movers.....	2,743,025	2,502,132	3,341,350	3,179,270	1,036,490	-25.1	5.1	94.3
Electric motors driven by purchased energy.....	4,771,818	4,467,959	1,558,752	205,489	19,704	180.6	658.0	980.7
Principal expenses, total ⁷	\$1,661,161,937	\$1,600,941,456	\$1,720,930,032	\$814,320,031	\$474,033,569	-7.0	111.3	71.8
Salaries ⁸	137,688,624	126,008,291	115,860,017	46,002,005	33,107,246	8.8	151.4	30.2
Wages.....	1,091,980,848	1,006,605,507	1,161,414,979	559,540,144	347,304,451	-8.2	107.6	61.1
Contract work.....	17,056,464	16,595,238	10,716,518	12,151,388	3,251,079	54.3	-11.8	273.7
Supplies and materials.....	293,568,883	280,622,710	331,626,064	152,850,925	-----	-15.4	117.0	-----
Fuel.....	49,145,581	44,698,207	74,081,877	43,672,969	-----	-34.7	132.0	117.0
Purchased electric energy.....	71,769,087	66,416,383	27,229,677	-----	-----	143.9	-----	-----
Value of products ⁹	2,392,831,178	2,280,384,001	2,226,070,543	1,052,569,127	669,064,027	2.4	111.5	57.1
Expenditures for development (included above in "Principal expenses").....	76,488,000	76,426,000	80,400,000	(¹⁰)	(¹⁰)	-5.0	-----	-----
Machinery and other equipment purchased during the year (total cost).....	84,508,448	76,546,101	(⁴)	(⁴)	(⁴)	-----	-----	-----

¹ The figures for the several years have been adjusted to make them comparable. See GENERAL EXPLANATIONS—Scope of the census. See also Table 24, footnote 2.

² See GENERAL EXPLANATIONS—The enterprise.

³ Operators.

⁴ Not reported.

⁵ Includes data for salaried officers and employees of "Central administrative" offices. (See Table 17.)

⁶ See GENERAL EXPLANATIONS—Persons engaged.

⁷ See GENERAL EXPLANATIONS—Expenses.

⁸ Not including cost of purchased electric energy, probably a negligible amount for that year.

⁹ See GENERAL EXPLANATIONS—Value of products.

¹⁰ Not reported separately; included in figures for "Principal expenses."

By-products (Tables 2 and 3).—The values of products given in the tables of this report include, in addition to the values of the minerals indicated by the names of the industries, 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 incidental to the production of the principal mineral product.

Table 2 shows the value of the different classes of by-products for all industries combined and for each industry separately. Table 3 shows the value of the various by-products, reported by mining enterprises, assembled from the data for the several industries.

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TABLE 2.—VALUE OF BY-PRODUCTS, BY CLASSES, BY INDUSTRIES: 1929

INDUSTRY	Total	Mineral	Miscellaneous and unspecified products	Custom milling	Power sold and work or miscellaneous services for other enterprises	INDUSTRY	Total	Mineral	Miscellaneous and unspecified products	Custom milling	Power sold and work or miscellaneous services for other enterprises
All industries, total.....	\$12,350,821	\$5,111,207	\$1,500,892	\$2,612,286	\$3,060,466	Abrasive materials.....	\$15,357	\$15,357			
Coal:						Asphalt and bituminous rock.....	1,081	710	\$371		
Anthracite.....	100,289				100,289	Barite.....	7,659	7,659			
Bituminous.....	986,483	8,523			977,960	Clay.....	36,623	23,060	12,252		\$1,311
Iron ore.....	1,249,006	119,660	1,412		1,128,044	Feldspar.....	18,250	18,250			
Copper.....	1,450,230	791,291	244,600		423,339	Fluorspar.....	33,397	33,397			
Lead.....	2,030,568	183,144	656,651	1,188,965	1,808	Fuller's and filtering earths.....	1,170				1,170
Zinc.....	1,016,272	528,094	9,712	349,800	128,066	Manganese.....	262,158			\$237,517	24,041
Gold, lode.....	755,276	300				Mica.....	6,249	6,249			
Gold, placer.....	7,476	7,376			100	Sand, glass.....	1,581,805	1,581,805			
Silver.....	119,870	17,594	829	99,263	1,954	Sand, molding.....	847,584	806,820			40,765
Stone:						Sand and gravel.....	335,308	335,308			(1)
Limestone.....	752,050	209,116	323,035		123,000	Silica.....	2,848	2,848			
Granite.....	90,002	49,025	33,537		7,500	Sulphur and pyrites.....	94,155				94,155
Sandstone.....	55,310	55,310				Talc and soapstone.....	62,935	62,935			
Basalt.....	49,446	17,791	31,355		300						
Marble.....	15,355	9,690	230		5,495						
Miscellaneous.....	357,699	129,346	222,753		5,600						

(1) Not called for on schedule.

TABLE 3.—BY-PRODUCTS: 1929

BY-PRODUCT	Value	BY-PRODUCT	Value	BY-PRODUCT	Value
Total.....	\$12,350,821	Limestone.....	\$561,693	Sand and gravel.....	\$2,373,861
Mineral by-products, total.....	5,111,207	Manganese.....	515,925	Sandstone.....	29,623
Barite.....	480	Marble.....	6,968	Silica.....	36,556
Clay.....	184,805	Mica.....	28,702	Other minerals.....	5,990
Coal.....	2,742	Mineral pigments.....	58,701	Miscellaneous and unspecified products.....	1,500,892
Feldspar.....	6,249	Miscellaneous stone.....	252,988	Custom milling.....	2,612,286
Granite.....	7,943	Platinum.....	7,370	Power sold and work or miscellaneous services for other enterprises.....	3,060,466
Iron.....	9,912	Pulps and grindstones.....	50,948		
Lead.....	34,175	Pyrites.....	234,753		
Lime.....	78,796	Sand, glass.....	215,627		
		Sand, molding.....	356,394		

Nonproducing mines and quarries (Table 4).—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, expenses of operation, etc. While every effort was made to get returns for all nonproducing enterprises, there were, nevertheless, a number of cases in which contact with operators was not effected, either by mail or by field canvass, due to isolated location, intermittent activity, or other causes. The figures do not include data for those enterprises which, although primarily engaged in development work, reported products valued at more than

\$2,500, as these are classed as producing enterprises, statistics for which include data for production as well as development.

The number of wage earners employed in nonproducing enterprises in 1929 was equal to only seven-tenths of 1 per cent of the number employed in producing enterprises, while the expenditures for development work by these enterprises was equal to 17.2 per cent of the corresponding expenditures of producing enterprises and less than eight-tenths of 1 per cent of the aggregate of "Principal expenses" reported for producing enterprises. The metal-mining industries accounted for 87.4 per cent of the total amount reported spent for development work by nonproducing enterprises in 1929, while the iron-ore and coal industries accounted for only 2.6 and 2.1 per cent, respectively. The statistics for nonproducing enterprises are included only in this table and in Tables 28, 29, and 32.

TABLE 4.—SUMMARY FOR NONPRODUCING ENTERPRISES, FOR THE UNITED STATES: 1929

[Data for nonproducing enterprises are given only in this table and in Tables 28, 29, and 32]

	1929	1919	Per cent of increase or decrease (-)		1929	1919	Per cent of increase or decrease (-)
Number of enterprises.....	801	501	53.5	Principal expenses, total.....	\$14,776,237	\$17,032,895	-17.6
Number of mines and quarries.....	904	573	57.8	Salaries.....	1,384,118	1,533,110	-9.7
Persons engaged, total.....	6,532	6,301	3.7	Wages.....	7,905,459	7,597,193	4.1
Proprietors and firm members.....	32	141	-77.3	Supplies and materials.....	3,985,665	6,228,856	-36.0
Salaried officers and employees.....	698	990	-29.5	Fuel.....	218,130	695,483	-68.6
Wage earners (average for the year).....	5,802	5,170	12.2	Purchased electric energy.....	425,600	457,832	-7.0
Power equipment, total horsepower.....	69,620	57,146	21.8	Contract work.....	857,265	1,420,421	-39.6
				Expenditures for development (included above in "Principal expenses").....	13,158,491	17,052,836	-22.8

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Rank of industries and States according to value of products (Tables 5, 6, and 7).—The coal industries contributed 56.5 per cent of the total value of products for 1929. These, together with the next three in importance—copper, iron-ore, and limestone industries—contributed 81.4 per cent of the total and

employed 87.7 per cent of the total number of wage earners (average for the year). Table 6 shows industries ranked according to value of products for 1929, with comparative figures for value of products for 1919 and 1909. Table 7 shows similar statistics for States.

TABLE 5.—PRINCIPAL INDUSTRIES RANKED IN ORDER OF VALUE OF PRODUCTS: 1929

INDUSTRY	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	VALUE OF PRODUCTS		INDUSTRY	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	VALUE OF PRODUCTS	
					Amount	Per cent of total						Amount	Per cent of total
All industries, total	10,136	11,602	806,418	\$1,091,980,848	\$2,302,831,178	100.0							
Coal, total	5,174	5,923	601,533	804,767,131	1,351,548,071	56.5	Phosphate rock	26	33	3,201	\$3,303,940	\$13,043,769	0.5
Anthracite (Pa.)	198	303	142,801	229,967,069	384,854,300	16.1	Clay	109	236	4,139	3,757,988	10,753,445	0.4
Bituminous	4,976	5,620	458,732	574,800,072	966,693,771	40.4	Slate	120	130	4,098	4,884,038	10,488,390	0.4
Copper	143	180	44,502	73,109,785	283,517,373	11.8	Stone, miscellaneous	204	234	1,841	2,405,006	8,475,008	0.4
Iron ore	190	208	28,516	40,905,190	197,334,548	8.2	Silver	67	74	2,593	4,326,719	8,457,263	0.4
Limestone	1,167	1,266	32,300	39,188,364	117,257,784	4.9	Marble	70	88	3,350	3,291,541	7,538,005	0.3
Sand and gravel	1,167	1,165	15,994	22,779,984	102,811,914	4.3	Minor metals ¹	26	30	1,244	1,500,851	6,049,976	0.3
Lead	155	171	14,007	22,917,435	67,561,778	2.8	Sandstone	145	172	2,156	2,626,437	6,311,977	0.3
Zinc	148	204	11,900	16,274,389	44,866,026	1.9	Gypsum	60	63	2,078	2,627,733	5,740,188	0.2
Sulphur and pyrites	9	10	2,199	3,482,606	37,126,148	1.6	Sand, glass	25	32	1,080	1,313,503	5,359,216	0.2
Granite	406	434	10,037	12,639,524	80,381,373	3.3	Asphalt and bituminous rock	21	25	1,123	1,254,836	5,123,836	0.2
Gold, lode	174	184	5,353	8,655,505	17,650,174	0.7	Fuller's and filtering earths	22	24	991	853,223	4,811,620	0.2
Gold, placer	32	37	578	970,010	3,779,241	0.2	Sand, molding	90	128	1,037	1,290,854	4,775,957	0.2
Basalt	137	144	3,053	4,498,093	16,543,687	0.6	Silica ²	70	73	1,433	1,677,497	4,045,142	0.2
							Other industries ³	308	344	6,132	6,590,892	21,780,360	0.9

¹ Bauxite, 9 enterprises; molybdenum, 2; titanium, 1; tungsten, 12; vanadium, 2.

² Diatomaceous earth, 10 enterprises; ganister, 13; quartz, 6; quartzite, 2; siliceous mica schist, 3; tripoli, 8.

³ Abrasive materials, 30 enterprises; asbestos, 11; barite, 42; feldspar, 51; fluor spar, 28; magnesite, 6; manganese, 19; mercury, 40; mica, 24; millstones and pulpstones, 14; talc and soapstone, 25; miscellaneous minerals, 19.

TABLE 6.—SUMMARY FOR VALUE OF PRODUCTS, BY INDUSTRIES: 1929, 1919, AND 1909

Industries are ranked in order of value of products for 1929. See GENERAL EXPLANATIONS—Scope of the Census. Figures for the anthracite industry for 1909 include data for 3 enterprises in Colorado and New Mexico, classified as anthracite at the census of 1909 but included in the bituminous-coal industry for 1919 and 1929

INDUSTRY	1929	1919	1909	PER CENT OF INCREASE OR DECREASE (—)		INDUSTRY	1929	1919	1909	PER CENT OF INCREASE OR DECREASE (—)	
				1919-1929	1909-1929					1919-1929	1909-1919
Coal, total	\$1,351,548,071	\$1,510,061,707	\$577,142,935	-10.5	161.6	Sandstone ¹	\$6,311,977	\$10,684,969	\$9,290,829	-40.9	15.0
Anthracite (Pa.)	384,854,300	304,084,142	149,180,471	-5.7	144.1	Gypsum	5,740,188	0,805,940	5,812,310	-15.7	17.1
Bituminous	966,693,771	1,145,977,565	427,962,464	-15.0	167.8	Sand, glass	5,359,216	(1)	(1)		
Copper	283,517,373	181,258,087	134,016,687	56.4	34.6	Asphalt and bituminous rock	6,123,830	749,520	499,461	583.0	60.7
Iron ore	197,334,548	218,217,905	100,947,082	-9.0	104.0	Fuller's and filtering earths	4,811,620	2,019,226	315,792	138.3	530.5
Limestone	117,257,784	52,943,924	29,832,492	121.5	77.5	Sand, molding	4,775,957	(1)	(1)		
Sand and gravel	102,311,914	(1)	(1)			Silica ²	11,4,045,142	371,688	231,025	1,140.9	60.9
Lead	67,561,778	2,75,570,347	31,363,094	48.8	141.0	Gold, placer	3,779,241	9,368,561	10,237,252	-59.7	-8.5
Zinc	44,866,026	20,344,530	5,109,050	82.5	268.2	Miscellaneous minerals ³	3,502,870	1,350,171	495,145	159.4	172.7
Sulphur and pyrites	37,126,148	18,278,845	18,967,970	66.2	-3.8	Fluor spar	2,858,344	3,354,880	288,509	-14.3	1,055.9
Granite	30,381,373	9,657,977	5,578,317	60.9	73.1	Mercury	2,820,166	1,803,484	808,468	56.4	107.7
Gold, lode	17,650,174	58,832,330	83,885,928	-4.5	-4.5	Talc and soapstone	2,687,959	2,302,393	1,174,519	10.7	96.0
Basalt	15,843,687	3,657,977	(1)			Magnesite	2,043,605	2,160,671	68,469	-5.8	3,069.0
Phosphate rock	13,043,769	10,300,198	10,781,192	26.6	-4.5	Feldspar	1,935,335	584,206	271,437	231.2	115.3
Clay	10,753,445	10,086,298	2,945,048	6.6	242.4	Barite	1,801,314	1,592,245	224,769	13.1	603.4
Slate	10,486,300	5,720,792	0,054,174	83.3	-5.5	Abrasive materials ⁴	1,411,284	721,728	911,589	95.5	-20.8
Stone, miscellaneous	8,475,008	(1)	(1)			Manganese	1,184,561	2,188,312	31,216	45.0	6,910.2
Silver	8,457,263	(1)	(1)			Millstones and pulpstones	620,835	64,631	34,441	860.6	87.7
Marble	7,538,005	4,397,912	6,239,120	71.4	-20.5	Mica	516,805	607,025	205,704	-14.9	163.5
Minor metals ⁵	6,649,976	3,915,921	1,639,067	69.8	138.9	Asbestos	397,482	240,839	65,140	59.1	233.5

¹ Not canvassed prior to 1929.

² Figures for the lead and zinc industries not shown separately in reports for 1919 and 1909.

³ Includes figures for the silver-mining industry, not shown separately in reports for 1919 and 1909.

⁴ Included in the figures for the other stone industries (principally basalt and sandstone).

⁵ Included with figures for the gold-mining (lode) industry.

⁶ Bauxite, molybdenum, titanium, tungsten, vanadium.

⁷ Including for 1929, data for quarrying enterprises whose final product (glass sand, molding sand, or silica material) was derived from sandstone, siliceous mica schist (for use as ganister), etc. The data for these enterprises are included in the glass-sand, molding-sand, or silica industries for 1929.

⁸ Data for enterprises producing glass sand from quarried sandstone included for 1929, while similar data were included in statistics for the sandstone industry for 1919 and 1909.

⁹ Data for enterprises producing molding sand from quarried sandstone included for 1929, while similar data were included in statistics for the sandstone industry for 1919 and 1909.

¹⁰ Diatomaceous earth, ganister, quartz, quartzite, siliceous mica schist, tripoli.

¹¹ Data for enterprises producing diatomaceous earth, siliceous mica schist (for use as ganister), and silica sand from quarried sandstone included for 1929, while similar data were included in statistics for abrasive materials or sandstone industries in 1919 and 1909.

¹² Borates, cyanite, graphite, lithium minerals (amblygonite, lepidolite, and spodumene), mineral pigments, tantalum, vermiculite.

¹³ Emery; garnet and industrial sapphires and diamonds; grinding pebbles and tube-mill lining; grindstones, oilstones, whetstones, scythes, and rubbing stones; pumice and volcanic ash (pumicite).

MINES AND QUARRIES

TABLE 7.—SUMMARY FOR VALUE OF PRODUCTS, BY STATES: 1929, 1919, AND 1909

[The figures for 1929, 1919, and 1909 have been adjusted to make them comparable. See footnotes 1, 2, and 3]

STATE	1929		1919 ²	1909 ³	PER CENT OF INCREASE OR DECREASE (-)	
	All industries	Revised (for comparative purposes) ¹			1919-1929	1909-1919
Pennsylvania.....	\$694,975,146	\$683,530,842	\$753,179,148	\$309,862,311	-9.2	143.1
West Virginia.....	223,930,754	222,316,885	196,088,316	48,099,802	13.4	307.7
Illinois.....	132,948,261	124,771,725	147,409,502	57,763,159	-15.4	155.2
Minnesota.....	132,400,530	130,359,063	130,399,254	58,064,852	(⁴)	122.3
Arizona.....	116,477,536	116,134,804	88,478,111	34,161,165	31.3	159.0
Kentucky.....	103,340,025	102,502,027	75,157,389	11,207,794	36.4	570.6
Michigan.....	95,261,833	87,819,104	103,870,089	67,714,479	-15.5	53.4
Utah.....	83,098,029	82,843,031	41,510,802	22,083,282	99.6	88.0
Montana.....	65,182,707	64,773,600	49,665,675	54,991,961	30.4	-9.7
Ohio.....	60,095,705	51,757,468	89,034,980	34,146,153	-41.9	100.7
Alabama.....	54,665,658	53,362,904	56,866,040	24,350,667	-10.9	145.8
Texas.....	49,758,382	44,333,618	17,040,096	4,350,837	100.2	291.7
Indiana.....	48,992,780	44,297,266	50,235,887	18,709,582	-11.8	168.5
Missouri.....	47,276,257	43,479,210	33,365,694	31,656,070	30.3	5.4
Colorado.....	41,530,446	41,205,031	51,063,444	45,362,455	-19.3	12.6
California.....	38,645,880	30,638,618	24,751,580	33,961,780	23.8	-27.1
New York.....	36,045,204	24,272,177	15,230,199	10,665,979	50.4	42.8
Oklahoma.....	33,139,080	31,559,049	34,430,282	7,952,800	-8.3	332.9
Virginia.....	29,540,524	28,705,823	29,363,449	8,795,646	-2.2	233.8
New Mexico.....	27,141,764	27,141,764	18,872,560	5,587,744	43.8	237.7
Nevada.....	26,658,631	26,494,536	18,053,984	23,240,001	46.8	-22.3
Tennessee.....	24,186,449	22,049,625	23,292,114	12,692,547	-5.3	83.5
Kansas.....	22,463,599	20,688,495	21,823,046	18,040,854	-5.2	81.2
Idaho.....	20,745,615	20,745,615	11,340,301	8,649,342	75.2	36.9
Wyoming.....	18,817,045	18,817,045	10,968,351	10,553,259	-5.8	89.2
Iowa.....	16,910,280	14,648,383	18,473,558	13,877,781	-20.7	33.1
New Jersey.....	15,789,610	11,100,362	9,308,902	8,347,501	19.2	11.5
Florida.....	14,014,933	13,524,552	8,976,413	8,846,665	50.7	1.5
Washington.....	13,366,919	12,270,303	13,329,129	10,537,556	-7.9	26.6
Wisconsin.....	13,163,414	10,401,057	10,580,833	7,469,404	-1.7	41.8
Arkansas.....	11,367,754	9,795,695	7,782,703	4,477,445	25.9	73.8
Maryland.....	11,122,195	7,341,258	9,698,577	5,782,045	-24.3	67.7
Massachusetts.....	10,387,014	8,570,533	4,175,699	3,467,888	105.2	20.4
Vermont.....	10,275,907	10,275,907	8,555,030	8,221,323	20.1	4.1
Georgia.....	9,611,210	9,439,132	4,082,152	2,874,595	131.2	42.0
North Carolina.....	5,081,239	5,031,316	2,736,543	1,358,617	105.8	101.4
Connecticut.....	4,193,403	3,810,102	1,649,003	1,375,705	131.1	19.9
Oregon.....	3,512,125	2,410,038	1,884,871	1,191,512	27.9	58.2
Maine.....	3,468,040	3,468,040	1,828,442	2,056,093	90.2	-11.3
South Carolina.....	3,092,967	3,092,967	1,350,747	1,252,792	129.0	7.8
Nebraska.....	2,139,767	459,628	292,766	322,617	57.0	-9.2
New Hampshire.....	1,562,387	1,562,387	1,568,195	1,308,597	-0.4	19.8
Rhode Island.....	809,351	809,351	952,204	897,600	-15.0	6.1
GROUPS OF STATES						
North Dakota and South Dakota.....	10,827,307	10,526,518	7,241,820	6,997,229	45.4	3.5
Louisiana, Mississippi, Delaware, and District of Columbia.....	3,407,892	467,555	8,259,724	4,885,277	-94.1	69.1

¹ Figures for 1929 have been revised by the omission of data for the sand and gravel, glass-sand, and molding-sand industries wherever possible to do so without disclosing data reported by individual enterprises. However, the data for these industries are included for 12 States, which together reported a value of products of only \$1,198,977 for these industries. Also, data for the production of sand derived from quarried sandstone are included in the figures for 1929 (except as indicated in footnote 4) as similar production also fall within the scope of the censuses for earlier years.

² Figures for 1919 have been revised by the omission of data for petroleum and natural gas industries, wherever possible to do so. However, data for these industries are included for 4 States, which together reported a value of products of only \$43,131 for these industries.

³ Figures for 1909 have been revised by the omission of data for petroleum and natural gas, peat, and precious stones industries wherever possible to do so. However, data for these industries are included for 14 States, which together reported a value of products of only \$242,572 for these industries.

⁴ Not including data for sand derived from quarried sandstone. (See footnote 1.)

⁵ Less than one-tenth of 1 per cent.

GEOGRAPHIC DISTRIBUTION

Distribution of mining and quarrying enterprises by geographic divisions; and condensed summary for industries, by States: 1929 (Tables 8 and 9).—The prominence of the Middle Atlantic division in mineral production is due wholly to the State of Pennsylvania,

which, as shown in Table 7, with products (mainly coal) valued at nearly \$700,000,000, reported 29 per cent of the total value of mineral products (exclusive of petroleum and natural gas) in the United States. The principal statistics, by States, are given in Table 25, for 1929, 1919, and 1909.

MINES AND QUARRIES

TYPE OF OWNERSHIP

Corporations operated 66 per cent of the total number of mines and quarries, employed 94.7 per cent of the wage earners, and produced 95.7 per cent of the

total value of products, as reported for the census for 1929. "Other" forms of organization include partnerships, enterprises operated by individuals, cooperative enterprises, etc.

TABLE 10.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO TYPE OF OWNERSHIP, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND TYPE OF OWNERSHIP	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND TYPE OF OWNERSHIP	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
All industries, total.....	10,135	11,002	806,418	\$2,392,831,178	Gold, lode, total.....	174	184	5,353	\$17,050,174
Corporate.....	6,387	7,656	763,615	2,289,211,879	Corporate.....	113	122	4,900	16,461,007
Other ¹	3,748	3,346	42,803	103,619,299	Other ¹	61	62	453	1,189,167
Coal, anthracite, total.....	198	303	142,801	384,854,300	Basalt, total.....	137	144	3,053	15,543,687
Corporate.....	142	246	139,033	373,371,084	Corporate.....	89	96	2,620	13,736,397
Other ¹	56	57	3,768	11,482,616	Other ¹	48	48	433	1,757,290
Coal, bituminous, total.....	4,976	5,620	458,732	966,693,771	Clay, total.....	199	236	4,130	10,753,445
Corporate.....	2,934	3,542	435,811	927,763,746	Corporate.....	122	136	3,349	8,302,400
Other ¹	2,042	2,078	22,921	38,930,025	Other ¹	77	100	790	2,360,985
Copper, total.....	143	180	44,502	283,517,373	Slate, total.....	120	130	4,098	10,486,300
Corporate.....	92	128	44,047	282,226,806	Corporate.....	70	74	3,374	8,850,940
Other ¹	51	52	455	1,290,567	Other ¹	50	56	724	1,635,450
Iron ore, total.....	180	208	28,516	197,334,548	Stone, miscellaneous, total.....	204	234	1,841	8,476,008
Corporate.....	169	197	28,411	196,003,288	Corporate.....	60	87	971	5,948,302
Other ¹	11	11	105	341,260	Other ¹	144	147	870	2,520,706
Limestone, total.....	1,167	1,256	32,300	117,257,784	Silver, total.....	67	74	2,593	8,457,263
Corporate.....	746	805	27,692	104,969,760	Corporate.....	47	52	2,332	7,313,286
Other ¹	421	451	4,608	12,288,024	Other ¹	20	22	261	1,143,977
Sand and gravel, total.....	957	1,165	15,094	102,311,914	Marble, total.....	70	88	3,350	7,538,905
Corporate.....	738	913	14,147	91,673,784	Corporate.....	61	70	3,301	7,380,787
Other ¹	219	252	1,847	10,638,130	Other ¹	9	9	49	158,118
Lead, total.....	165	171	14,007	67,561,778	Sandstone, total.....	145	172	2,158	6,311,977
Corporate.....	112	127	13,671	66,817,826	Corporate.....	74	90	1,574	4,642,894
Other ¹	43	44	336	743,952	Other ¹	71	82	582	1,669,083
Zinc, total.....	148	204	11,900	44,866,025	Gold, placer, total.....	32	37	578	3,779,241
Corporate.....	118	162	10,636	39,286,478	Corporate.....	20	25	508	3,606,157
Other ¹	30	42	1,264	5,579,548	Other ¹	12	12	70	173,084
Granite, total.....	406	434	10,037	30,381,373					
Corporate.....	203	223	8,371	25,901,847					
Other ¹	203	211	1,666	4,479,526					

¹ Partnerships, enterprises operated by individuals, etc.

SCALE OF OPERATION

Enterprises classified according to value of products (Table 11).—Only 416 enterprises, or 4.1 per cent of the total number (10,135), reported a value of products of \$1,000,000 or more. These large enterprises contributed 56.9 per cent of the total value of

products, and employed 46.4 per cent of the total number of wage earners. Conversely, the 6,975 enterprises in the smallest three groups shown, or 68.8 per cent of the total number, contributed only 7.8 per cent of the total value of products.

Size of enterprises according to total rating of power equipment (Table 13).—Those enterprises (559, or 6.6 per cent of the total number of enterprises covered by this table) having power equipment rating of 2,500 or more horsepower accounted for 57.9 per cent of the aggregate power used in the mining and quarrying industries. The two largest horsepower classes ac-

counted for 57.1 per cent of the total kilowatt capacity for electric generators. The horsepower rating of inactive prime movers in the larger classes reflects, in large measure, the displacement of prime movers by motors driven by purchased electric energy, statistics showing the increase of which are given in Table 1.

TABLE 13.—NUMBER AND RATED CAPACITY OF PRIME MOVERS, MOTORS, AND GENERATORS, FOR ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT, FOR SELECTED INDUSTRIES: 1929

[No power equipment was reported by 1,637 enterprises, 1,225 of which reported a value of products of less than \$20,000 each and a total value which was less than 1 per cent of that for all mining and quarrying industries. The remaining enterprises (442) were also relatively small. Enterprises reporting no power equipment were distributed among the industries as follows: Coal, bituminous, 1,207; clay, 60; copper, 35; lead, 35; gold, lode, 29; granite, 29; barite, 22; sand, molding, 21; limestone, 16; silica, 16; sandstone, 14; stone, miscellaneous, 12; iron ore, 10; coal, anthracite, 8; other industries, 63]

Table with 17 main columns: Industry and Horsepower Rating, Number of enterprises, Aggregate horsepower, Total horsepower of prime movers, Steam engines (Number, Horsepower), Steam turbines (Number, Horsepower), Internal-combustion engines (Number, Horsepower), Water wheels and water turbines (Number, Horsepower), Horsepower rating of inactive prime movers, Electric motors driven by purchased energy (Number, Horsepower), Electric motors generated by enterprises reporting (Number, Horsepower), and Electric generators (Number, Kilowatts). Rows include All industries, Coal, Bituminous, Copper, and Iron ore, each with sub-rows for horsepower rating ranges.

1 See headnote.

2 Included in "Total horsepower of prime movers."

3 Combined to avoid disclosing, exactly or approximately, the data reported by individual enterprises.

MINES AND QUARRIES

PERSONS ENGAGED

Persons engaged, by class and sex (Table 15).—Of the total number of persons employed in the mining and quarrying industries, only 4,526, or one-half of 1 per cent, were females. These were employed mainly in clerical and subordinate administrative positions. The total number of female employees was distributed among the mining-industry groups, as follows: Coal, 2,257; metals, 745; stone, 556; other, 968. The number of employees of central-administrative offices are not included in the figures given in this table, but are

shown separately in Table 17. Also, the figures for employees do not include the number employed in connection with expenditures for contract work, as no record is normally kept for those persons engaged by contractors in the fulfillment of a particular contract. Such contractual arrangements, when made, are ordinarily restricted to the sinking of shafts, driving of tunnels, construction of surface plants, etc., and only infrequently do they involve the actual mining of mineral products.

TABLE 15.—PERSONS ENGAGED, BY SEX, FOR THE UNITED STATES: 1929

[This table does not include data for salaried officers and employees of "Central Administrative" offices. See Table 17]

CLASS	Total	Male	Female	CLASS	Total	Male	Female
Total (all classes).....	859,346	854,820	4,526	Other salaried officers and employees ¹	42,431	38,535	3,896
Proprietors and firm members.....	4,897	4,854	43	Wage earners (average for the year) ²	806,418	806,033	385
Principal salaried officers of corporations ¹	5,600	5,398	202				

¹ Enterprises with a value of product of less than \$20,000 were permitted to report on an abbreviated schedule which did not call for information for proprietors and firm members pertaining to sex. Therefore, 3,220 persons so reported by these enterprises were classified as male.

² Number of salaried officers and employees of enterprises whose value of product was less than \$20,000 each, included in the figures for wage earners.

TABLE 16.—PERSONS ENGAGED, BY INDUSTRIES: 1929

[This table does not include data for salaried officers and employees of "Central Administrative" offices. See Table 17]

INDUSTRY	Total (all classes)	Proprietors and firm members	Principal salaried officers of corporations	Other salaried officers and employees	WAGE EARNERS (average for the year)		INDUSTRY	Total (all classes)	Proprietors and firm members	Principal salaried officers of corporations	Other salaried officers and employees	WAGE EARNERS (average for the year)	
					Number	Per cent of total						Number	Per cent of total
All industries, total.....	859,346	4,897	5,600	42,431	806,418	100.0	Basalt.....	3,429	51	86	240	3,053	0.4
Coal, total.....	633,035	3,021	2,845	25,036	601,533	74.6	Silver.....	1,838	25	45	175	2,593	0.3
Anthracite (Pennsylvania).....	150,494	38	103	7,492	142,801	17.7	Sulphur and pyrites.....	2,505	1	8	297	2,199	0.3
Bituminous.....	482,541	2,983	2,682	18,144	458,732	56.9	Sandstone.....	2,466	84	51	175	2,160	0.3
Copper.....	48,043	76	62	3,403	44,502	5.5	Stone, miscellaneous.....	2,244	161	35	207	1,841	0.2
Limestone.....	35,582	497	471	2,514	32,300	4.0	Gypsum.....	2,214	2	10	124	2,078	0.3
Iron ore.....	80,707	9	22	2,160	28,516	3.5	Silica ¹	1,657	8	22	194	1,433	0.2
Sand and gravel.....	19,915	249	908	2,704	15,994	2.0	Minor metals ²	1,410	4	16	155	1,244	0.2
Lead.....	16,004	58	72	872	14,007	1.7	Asphalt and bituminous rock.....	1,307	1	39	144	1,123	0.1
Zinc.....	12,789	25	74	800	11,900	1.5	Sand, molding.....	1,256	19	60	140	1,037	0.1
Granite.....	11,191	279	229	646	10,037	1.2	Fluorspar.....	1,184	13	13	105	1,053	0.1
Gold, lode.....	5,385	89	71	372	5,353	0.7	Mercury.....	1,127	10	16	72	1,029	0.1
Clay.....	4,560	72	35	264	4,139	0.5	Sand, glass.....	1,125	-----	25	70	1,030	0.1
Slate.....	4,450	86	33	132	4,098	0.5	Fuller's and filtering earths.....	1,096	-----	21	84	991	0.1
Marble.....	3,564	7	44	198	3,350	0.4	Other industries ³	5,214	53	122	411	4,628	0.6
Phosphate rock.....	3,490	2	5	282	3,201	0.4							

¹ Diatomaceous earth, ganister, quartz, quartzite, silica rock, silica sand, siliceous mica schist, tripoli.

² Bauxite, molybdenum, titanium, tungsten, vanadium.

³ Abrasive materials, asbestos, barite, feldspar, gold (placer), magnesite, manganese, mica, millstones and pulpstones, talc and soapstone, miscellaneous minerals.

Central-administrative-office employees (Table 17).—This table was compiled from data reported separately on special schedules and not included in the returns for the operating enterprises. It gives the number of employees reported by offices maintained independently of mine offices and usually at a distance from the mining operations, as in New York City, Chicago, or Philadelphia. Figures for these employees are included only in this table and in Table 1. In the

cases of companies whose activities include manufacturing operations—smelting, refining (metals); calcining (gypsum, lime, etc.); finishing and polishing (stone); etc.—as well as mining, the data for central-administrative-office employees have been omitted from this table, and included in the statistics for the census of manufactures. In other words, data for these employees have been attributed to the final producing activities of such companies.

TABLE 17.—CENTRAL-ADMINISTRATIVE-OFFICE EMPLOYEES—NUMBER, BY SEX, AND SALARIES: 1929

INDUSTRY	NUMBER						SALARIES		
	Total		Principal salaried officers of corporations		Other central-administrative-office employees		Total	Principal salaried officers of corporations	Other central-administrative-office employees
	Male	Female	Male	Female	Male	Female			
All industries, total.....	3,628	974	721	22	2,907	952	\$16,038,784	\$7,217,165	\$8,821,619
Coal:									
Anthracite.....	645	70	63	-----	582	70	1,945,611	604,543	1,341,068
Bituminous.....	2,189	671	417	12	1,772	659	9,806,570	4,277,691	5,528,879
Metals:									
Gold, silver, copper, lead, and zinc.....	243	58	53	1	190	57	1,598,498	853,020	745,478
Iron ore.....	243	48	68	-----	175	48	1,213,178	669,492	543,686
Stone:									
Basalt.....	29	10	16	-----	13	10	199,134	116,099	83,035
Granite.....	6	2	3	-----	3	2	14,085	8,160	5,925
Limestone.....	169	49	54	2	105	47	705,858	373,547	327,311
Marble.....	7	2	4	-----	3	2	32,890	26,860	6,040
Sandstone.....	17	8	4	1	13	7	46,438	17,280	29,158
Slate.....	7	1	1	-----	6	1	36,220	12,000	24,220
Miscellaneous.....	33	28	15	1	18	27	164,996	101,780	63,216
Other nonmetals:									
Barite.....	17	9	2	-----	15	0	84,199	22,300	61,899
Bauxite.....	3	8	3	4	-----	4	58,329	38,233	20,096
Clay.....	10	4	4	-----	6	4	49,040	26,520	22,520
Feldspar.....	6	2	5	1	1	1	18,700	14,800	3,900
Phosphate rock.....	14	4	9	-----	5	4	70,038	54,850	15,188

Size of enterprises according to number of wage earners (Table 18).—Small enterprises, those employing not more than 50 wage earners, constituted 73.2 per cent of the total number of enterprises shown in the table, but employed only 11.8 per cent of the wage earners, and contributed only 12.7 per cent of the total

value of products of the mining and quarrying industries in 1929. In contrast, the 252 enterprises in the three largest classes, or 2.5 per cent of the total, employed 41 per cent of all wage earners, and produced 44.7 per cent of the total value of products. (See GENERAL EXPLANATIONS—Scope of the Census.)

TABLE 18.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for 36 enterprises (which employed no wage earners) in industries as follows: Fluorspar, 2; gold, lode, 5; granite, 8; lead, 5; limestone, 2; sandstone, 2; silver, 1; slate, 9; stone, miscellaneous, 2. The work in these mines was done on contract, or by proprietors and firm members]

INDUSTRY AND NUMBER OF WAGE EARNERS PER ENTERPRISE	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)		Wages	Value of products	INDUSTRY AND NUMBER OF WAGE EARNERS PER ENTERPRISE	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)		Wages	Value of products
			Number	Per cent of total						Number	Per cent of total		
All industries, total.....	10,009	11,566	800,418	100.0	\$1,091,989,848	\$2,392,675,433	Copper, total.....	143	180	44,502	100.0	\$73,190,785	\$283,517,373
Not reported ²	31	34	-----	-----	-----	398,788	Not reported.....	2	2	104	0.2	125,553	236,070
1 to 5.....	2,742	2,799	8,194	1.0	9,396,707	26,534,310	1 to 5.....	33	33	-----	-----	-----	-----
6 to 20.....	3,004	3,217	34,079	4.2	41,157,843	110,865,937	6 to 20.....	40	41	496	1.1	695,767	1,409,286
21 to 50.....	1,611	1,795	53,183	6.6	62,880,743	165,715,372	21 to 50.....	14	17	398	0.9	473,095	339,018
51 to 100.....	1,055	1,201	76,362	9.5	90,300,011	203,492,140	51 to 100.....	12	13	877	2.0	1,180,777	2,149,213
101 to 250.....	988	1,267	158,623	19.7	197,858,911	438,137,794	101 to 250.....	11	13	1,859	4.2	3,094,149	5,740,688
251 to 500.....	416	607	145,883	18.1	193,149,968	376,989,018	251 to 500.....	10	15	8,333	7.6	6,413,749	10,844,290
501 to 1,000.....	169	274	110,931	13.8	157,945,002	354,318,185	501 to 1,000.....	7	9	5,096	11.5	8,277,633	28,334,809
1,001 to 2,500.....	60	188	87,279	10.8	129,075,507	327,712,509	1,001 to 2,500.....	11	13	32,270	72.5	53,934,062	224,913,119
2,501 and over.....	23	184	131,834	16.4	210,210,150	388,515,430	2,501 and over.....	3	24	-----	-----	-----	-----
Coal:							Limestone, total ¹	1,105	1,254	32,300	100.0	30,188,364	117,251,184
Anthracite, total.....	198	303	142,801	100.0	229,967,059	384,854,300	1 to 5.....	283	286	807	2.8	966,867	2,793,932
1 to 5.....	31	31	85	0.1	133,120	340,570	6 to 20.....	438	465	5,400	16.7	5,726,795	17,037,706
6 to 20.....	20	21	221	0.2	305,699	635,445	21 to 50.....	288	312	9,313	28.8	11,602,934	35,207,255
21 to 50.....	21	21	710	0.5	1,008,401	2,015,361	51 to 100.....	107	119	7,436	23.0	8,577,731	24,069,070
51 to 100.....	17	18	1,113	0.8	1,929,131	4,157,503	101 to 250.....	41	65	6,398	19.8	8,312,732	23,080,032
101 to 250.....	32	34	5,052	3.5	7,865,376	12,391,226	251 to 500.....	0	0	-----	-----	-----	-----
251 to 500.....	19	19	6,983	4.9	11,818,793	20,399,365	501 to 1,000.....	2	3	2,856	8.8	4,101,255	14,863,079
501 to 1,000.....	34	36	23,291	16.3	36,788,252	65,445,514	1,001 to 2,500.....	10	11	-----	-----	-----	-----
1,001 to 2,500.....	19	24	17,255	12.1	28,634,747	46,256,126	2,501 and over.....	1	3	-----	-----	-----	-----
2,501 and over.....	13	99	89,091	61.7	141,983,040	235,393,210	Iron ore, total.....	180	208	28,616	100.0	40,905,190	197,334,548
1 to 5.....	1,384	1,384	3,979	0.9	4,085,903	7,463,210	None.....	1	1	20	0.1	38,718	214,120
6 to 20.....	1,109	1,123	12,316	2.7	13,628,802	21,454,276	1 to 5.....	7	7	-----	-----	-----	-----
21 to 50.....	676	720	23,169	5.1	24,360,921	40,831,155	6 to 20.....	13	13	153	0.5	194,357	933,867
51 to 100.....	619	692	45,624	9.9	50,637,241	84,438,106	21 to 50.....	28	31	949	3.3	1,335,912	13,001,900
101 to 250.....	708	830	114,505	25.0	137,277,417	235,169,035	51 to 100.....	45	46	3,452	12.1	5,167,454	22,538,910
251 to 500.....	334	472	116,890	25.5	150,100,319	245,678,623	101 to 250.....	69	70	9,663	33.9	14,313,594	76,392,497
501 to 1,000.....	105	196	67,093	14.6	88,961,042	145,588,095	251 to 500.....	16	20	5,262	18.5	7,728,541	38,846,567
1,001 to 2,500.....	34	142	47,404	10.3	64,027,533	108,148,409	501 to 1,000.....	10	11	-----	-----	-----	-----
2,501 and over.....	7	61	27,762	6.0	41,720,894	77,922,857	1,001 to 2,500.....	1	3	-----	-----	-----	-----

See footnotes at end of table.

MINES AND QUARRIES

TABLE 18.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929—Continued

INDUSTRY AND NUMBER OF WAGE EARNERS PER ENTERPRISE	Number of enterprises	Number of mines and quarries		Wage earners (average for the year)		Wages	Value of products	INDUSTRY AND NUMBER OF WAGE EARNERS PER ENTERPRISE	Number of enterprises	Number of mines and quarries		Wage earners (average for the year)		Wages	Value of products
		Number	Percent of total	Number	Percent of total					Number	Percent of total	Number	Percent of total		
Sand and gravel, total ¹	957	1,166	15,994	100.0		\$22,779,984	\$102,311,914	Marble, total	70	88	3,350	100.0	\$3,291,541	\$7,538,005	
1 to 5	263	292	976	6.1	1,594,404	8,394,483	1 to 5	14	14	38	1.1	46,148	180,785		
6 to 20	485	561	5,216	32.8	7,827,148	34,897,567	6 to 20	24	25	283	8.4	316,149	875,326		
21 to 50	180	214	4,964	31.0	6,005,331	28,543,520	21 to 50	10	10	277	8.3	343,047	609,916		
51 to 100	31	49	2,175	13.6	3,021,472	11,283,530	51 to 100	13	16	904	27.0	803,944	1,767,440		
101 to 250	17	48	2,663	16.6	3,671,584	19,102,814	101 to 250	8	11	1,848	55.2	1,782,253	4,045,488		
251 to 500	1	1					251 to 500	1	12						
Lead, total ¹	150	166	14,007	100.0	22,917,435	67,541,810	Phosphate rock, total	26	33	3,201	100.0	3,303,940	13,043,769		
1 to 5	36	38	103	0.7	118,078	256,181	1 to 5	1	1	53	1.7	52,168	226,000		
6 to 20	38	42	435	3.1	618,816	855,923	6 to 20	5	5	115	3.6	86,485	235,402		
21 to 50	32	32	990	7.1	1,528,266	3,284,171	21 to 50	3	3	379	11.8	394,843	1,372,941		
51 to 100	16	17	1,144	8.2	1,746,630	5,261,619	51 to 100	6	6	1,619	50.6	1,628,574	5,664,823		
101 to 250	13	10	2,170	15.5	3,356,862	7,862,014	101 to 250	9	14	1,035	32.3	1,141,870	5,544,594		
251 to 500	9	11	3,786	27.0	6,526,132	18,005,058	251 to 500	3	4						
501 to 1,000	5	7	5,379	38.4	9,022,632	32,023,845	Basalt, total	137	144	3,053	100.0	4,498,093	15,543,687		
1,001 to 2,500	1	3					Not reported	1	1			100,240	295,918		
Zinc, total	148	204	11,900	100.0	16,274,339	44,866,026	1 to 5	27	27	83	2.7	1,111,735	3,449,271		
1 to 5	18	19	60	0.5	59,558	164,158	6 to 20	64	65	738	24.2	1,415,268	4,853,114		
6 to 20	32	35	415	3.5	551,596	1,399,311	21 to 50	29	30	920	30.4	1,223,585	4,033,888		
21 to 50	20	31	960	8.1	1,331,994	4,041,469	51 to 100	13	16	889	29.1	647,229	2,911,496		
51 to 100	42	46	2,983	25.1	3,997,911	12,454,427	101 to 250	3	5	414	13.6				
101 to 250	18	16	2,739	23.0	3,702,333	10,412,038	Silver, total ¹	66	73	2,593	100.0	4,326,719	8,453,782		
251 to 500	6	33	2,176	18.3	2,644,056	7,755,292	Not reported	1	1	46	1.8	61,566	148,907		
501 to 1,000	2	2	2,567	21.6	3,986,886	8,638,331	1 to 5	13	15	204	11.3	422,022	946,783		
1,001 to 2,500	1	2					6 to 20	23	24	511	19.7	878,769	1,132,122		
Granite, total ¹	398	426	10,037	100.0	12,039,524	30,865,773	21 to 50	10	10	454	17.5	823,920	1,803,708		
Not reported	3	3				21,194	51 to 100	6	7	1,288	49.7	2,140,442	4,362,262		
1 to 5	149	161	380	3.8	464,178	1,380,277	101 to 250	6	6						
6 to 20	124	134	1,381	13.8	1,691,494	4,055,062	251 to 500	1	1						
21 to 50	72	83	2,426	24.2	3,152,080	7,060,090	Sulphur and pyrites, total	0	10	2,199	100.0	3,482,606	87,126,148		
51 to 100	30	34	2,141	21.3	2,384,804	5,835,977	6 to 20	3	3	2,199	100.0	3,482,606	37,126,148		
101 to 250	17	17	2,510	25.0	3,430,388	7,371,880	51 to 100	3	3						
251 to 500	3	4	1,199	11.9	1,616,560	3,730,393	501 to 1,000	3	4						
Gold, lode, total ¹	169	179	5,353	100.0	8,655,605	17,626,574	Sandstone, total ¹	143	170	2,156	100.0	2,026,437	6,306,477		
Not reported	8	3				10,616	1 to 5	45	45	132	6.1	142,390	412,607		
1 to 5	66	69	183	3.4	233,423	663,002	6 to 20	60	81	810	37.6	1,000,622	2,251,022		
6 to 20	62	67	678	12.6	948,647	1,635,478	21 to 50	23	35	709	32.9	851,587	2,197,086		
21 to 50	15	15	490	9.3	825,020	1,528,070	51 to 100	6	5	505	23.4	631,838	1,445,762		
51 to 100	13	13	894	16.7	1,490,005	2,329,462	101 to 250	1	4						
101 to 250	8	10					Gypsum, total	60	63	2,078	100.0	2,627,733	5,740,188		
251 to 500	1	1	3,104	58.0	5,158,410	11,461,946	1 to 5	10	10	32	1.5	39,307	114,720		
1,001 to 2,500	1	1					6 to 20	18	19	216	10.4	257,475	735,806		
Clay, total	199	236	4,139	100.0	3,757,998	10,753,445	21 to 50	16	17	545	26.2	694,481	1,789,602		
Not reported	2	2				170,791	51 to 100	14	16	1,285	61.8	1,636,490	3,100,060		
1 to 5	80	67	185	4.5	170,791	477,060	101 to 250	2	2						
6 to 20	36	104	960	23.2	961,822	2,535,495	Stone, miscellaneous, total ¹	202	232	1,841	100.0	2,405,906	8,466,608		
21 to 50	35	38	1,159	28.0	1,217,051	3,229,664	Not reported	1	1	309	16.8	382,897	1,353,444		
51 to 100	11	14	829	20.0	670,367	2,218,588	1 to 5	115	116	71	38.5	916,186	3,497,088		
101 to 250	3	3	1,006	24.3	737,967	2,202,648	6 to 20	68	71	429	23.3	470,391	1,342,006		
251 to 500	2	3					21 to 50	14	15	429	23.3				
Slate, total ¹	111	121	4,098	100.0	4,884,038	10,431,044	51 to 100	2	3	304	21.4	630,432	2,273,470		
1 to 5	15	15	44	1.1	60,718	135,000	101 to 250	2	26						
6 to 20	37	38	466	11.4	588,630	1,013,172									
21 to 50	30	32	1,029	25.1	1,247,965	3,361,801									
51 to 100	19	23	1,272	31.0	1,568,126	3,392,169									
101 to 250	10	13	1,287	31.4	1,428,663	2,528,312									

¹ See headnote.
² Includes data for 1 enterprise in the iron-ore industry which reported "No wage earners." The work in this mine was done on contract, and therefore no wage earners were employed.
³ Combined to avoid disclosing, exactly or approximately, the data reported by individual enterprises.

Prevailing hours of labor (Table 19).—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, the 48-hour week predominated, enterprises in this class employing 66.7 per cent. of the number of wage earners and contributing 59.3 per

cent of the value of products of the enterprises covered by this table. Those enterprises in which wage earners were normally employed more than 48 hours per week accounted for 19.1 per cent of the number of wage earners and produced 30.9 per cent of the total product shown.

MINES AND QUARRIES

TABLE 19.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1929—Continued

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
Gypsum, total.....	60	63	2,078	\$2,627,733	\$5,740,183	Stone, miscellaneous, total ¹	113	143	1,569	\$2,089,728	\$7,748,048
Under 25.....	1	1	89	112,487	276,481	36 and over but under 40.....	2	2	74	74,422	160,185
25 and over but under 36.....	2	2	180	221,891	419,777	44 and over but under 48.....	3	3	381	562,142	2,191,543
40.....	3	3	650	861,937	1,721,566	48.....	36	41	149	150,628	427,876
44 and over but under 48.....	1	1	104	101,176	213,537	Over 48 but under 54.....	10	11	743	942,697	3,366,281
48.....	20	20	1,055	1,330,242	3,103,827	54 and over but under 63.....	52	57	222	359,939	1,593,763
Over 48 but under 54.....	3	3				63 and over.....	10	20	534	928,005	3,743,941
54 and over but under 63.....	28	31				Gold, placer, total ¹	24	29			
63 and over.....	2	2				25 and over but under 36.....	1	1			
Sandstone, total ¹	123	160	2,058	2,516,315	6,131,345	48.....	3	3	39	51,003	92,610
Under 25.....	1	1	137	149,656	384,280	Over 48 but under 54.....	1	1			
40.....	4	5	344	375,980	754,178	54 and over but under 63.....	10	24	495	877,992	3,651,331
Over 40 but under 44.....	1	1	399	527,620	1,416,268						
44 and over but under 48.....	14	17	71	85,456	284,794						
48.....	28	28									
Over 48 but under 54.....	7	12									
54 and over but under 63.....	66	84	1,107	1,377,594	3,291,835						
63 and over.....	2	2									

¹ See headnote.
² Includes data for 1 small enterprise shown as "Not reported" in the figures for the iron-ore industry, to avoid disclosure of individual operations.
³ Combined to avoid disclosing, exactly or approximately, the data reported by individual enterprises.

Days per week in operation (Table 20).—The classification of an enterprise for this table is based upon the number of days per week most representative of operations for the year as a whole and does not take into account those variations in weekly operations due

to market changes or other factors. Enterprises in which the 6-day week prevailed employed 78.6 per cent of the total number of wage earners, and accounted for 77.1 per cent of the total value of products of the mining and quarrying enterprises covered by this table.

TABLE 20.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO NUMBER OF DAYS IN OPERATION PER WEEK, BY INDUSTRIES: 1929

[This table does not include data for 2,720 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to time in operation. The number of enterprises in this class was distributed as follows: Coal, bituminous, 2,165; limestone, 149; granite, 95; stone, miscellaneous, 91; gold, lode, 60; copper, 42; lead, 35; sandstone, 22; slate, 20; silver, 17; zinc, 10; basalt, 9; gold, placer, 8; marble, 7. The combined value of products represented by these enterprises was \$22,132,084, or less than 1 per cent of that for all mining and quarrying industries.]

INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products	INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products
All industries, total ²	7,415	8,982	833,294	\$1,077,627,073	\$2,370,099,094	Copper, total ³	101	138	43,162	\$72,917,249	\$263,230,039
Not reported.....	40	43	102	102,621	574,924	4.....	1	1	750	1,403,649	7,483,334
3 or under.....	141	150	13,868	11,442,122	18,403,855	4½.....	4	5	25,400	41,105,039	132,333,166
3½.....	85	43	5,421	5,779,807	9,076,565	6.....	46	77	10,916	30,407,961	143,408,500
4.....	191	237	29,312	32,332,100	52,361,303	Limestone, total ³	1,018	1,107	34,532	33,500,050	115,833,124
4½.....	60	70	7,980	8,368,650	14,529,302	3 or under.....	1	1	130	239,702	571,140
5.....	448	513	45,746	52,324,372	94,054,034	3½.....	2	3	332	250,780	533,987
5½.....	790	908	35,010	41,222,347	68,098,488	4.....	6	6	726	741,168	2,158,109
6.....	5,297	6,439	654,007	859,287,754	1,828,653,222	5.....	36	39	5,632	6,608,348	19,323,043
6½.....	26	34	5,545	5,852,657	19,284,305	5½.....	203	235	20,655	29,495,180	90,444,943
7.....	307	445	37,193	60,425,443	238,865,000	6.....	742	793	1,021	1,164,863	2,801,896
Coal, anthracite, total.....	198	303	147,260	229,967,059	384,864,300	7.....	28	30			
3 or under.....	2	2				Iron ore, total.....	180	208	28,582	40,905,190	197,334,648
3½.....	1	1	714	601,897	839,905	Not reported.....	1	1	96	95,272	1,166,231
4.....	1	1				2.....	2	4			
4½.....	3	3	475	556,154	938,836	3.....	9	10	794	1,074,148	3,190,011
5.....	6	6	80	97,760	130,993	4.....	9	9	935	1,318,803	3,843,106
5½.....	14	16	3,429	5,461,684	8,529,593	5.....	155	179	23,572	38,178,171	187,782,070
6.....	170	273	142,656	223,249,674	374,355,973	6.....	4	5	185	238,796	1,351,630
Coal, bituminous, total ²	2,821	3,465	472,965	563,040,468	948,966,686	7.....	34	44	1,270	1,285,260	5,516,400
3 or under.....	124	133	13,277	11,039,017	17,751,639	Sand and gravel, total.....	957	1,165	18,835	22,779,984	102,311,914
3½.....	33	41	6,397	5,727,775	9,012,723	4.....	8	9	151	247,296	831,461
4.....	159	204	28,370	30,093,586	49,199,860	5.....	20	22	269	298,130	919,373
4½.....	46	66	7,858	8,742,060	14,075,921	6.....	80	91	1,015	1,246,688	4,798,907
5.....	269	317	40,437	46,037,039	80,190,041	6½.....	814	998	16,171	19,702,610	90,245,773
5½.....	84	99	8,453	9,815,204	17,291,716	7.....	1	1			
6.....	2,101	2,600	368,774	449,167,986	769,747,731						
6½.....	5	5	393	647,201	1,697,055						

See footnotes at end of table.

GENERAL REPORT

TABLE 20.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO NUMBER OF DAYS IN OPERATION PER WEEK, BY INDUSTRIES: 1929—Continued

[See note at head of this table]

INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products	INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products
Lead, total ²	120	136	14, 330	\$22, 706, 576	\$67, 325, 557	Stone, miscellaneous, total ²	113	143	2, 189	\$2, 080, 728	\$7, 748, 648
Not reported.....	1	1	3 7,888	12, 045, 578	41, 229, 928	4.....	1	1	86	56, 864	169, 984
4.....	1	1				5.....	3	3	210	199, 129	522, 957
6.....	58	67	1, 518	2, 594, 460	6, 918, 783	5½.....	15	16	1, 749	1, 694, 344	6, 601, 621
8.....	8	10	4, 924	8, 066, 548	19, 176, 870	6.....	88	117	135	142, 391	454, 786
6½.....	52	57				7.....	6	6			
7.....						Sulphur and pyrites, total.....	9	10	2, 040	3, 482, 006	37, 126, 148
Zinc, total ²	138	194	12, 757	16, 237, 378	44, 779, 323	6.....	5	6	2, 040	3, 482, 006	37, 126, 148
5.....	1	1	3 424	475, 215	1, 777, 991	6½.....	1	1			
5½.....	1	1				7.....	3	3			
6.....	105	153	8, 962	11, 105, 925	31, 527, 736	Gypsum, total.....	60	63	1, 912	2, 627, 733	5, 740, 188
6½.....	30	35	3, 371	4, 656, 238	11, 473, 596	3 or under.....	1	1	78	112, 487	276, 481
7.....						4.....	2	2	121	152, 067	347, 341
Granite, total ²	311	339	10, 786	12, 404, 284	29, 809, 525	5.....	5	5	334	379, 902	730, 821
Not reported.....	5	5	9	7, 720	44, 939	5½.....	4	4	31, 370	1, 983, 277	4, 385, 545
3 or under.....	3	3	3 90	51, 595	99, 336	6.....	46	49			
3½.....	1	1				7.....	2	2			
4.....	3	3	3 248	99, 355	240, 693	Silica, total ²	70	73	1, 506	1, 677, 407	4, 645, 142
4½.....	1	1	862	706, 348	1, 744, 170	Not reported.....	1	1	10	11, 131	23, 597
5.....	25	28	5, 692	7, 038, 297	14, 607, 439	3 or under.....	2	2			
5½.....	144	153	3, 036	4, 440, 969	13, 072, 948	4.....	1	1	86	56, 234	130, 301
6.....	129	145				5.....	5	5	151	141, 311	468, 135
6½.....						5½.....	11	11	1, 259	1, 465, 731	4, 023, 010
7.....						6.....	60	53			
Gold, lode, total ²	114	124	5, 492	8, 339, 052	17, 220, 059	Asphalt and bituminous rock, total.....	21	25	1, 481	1, 254, 835	5, 123, 836
3 or under.....	1	1	74	121, 166	131, 808	6.....	21	25	1, 481	1, 254, 835	5, 123, 836
5½.....	1	1				Minor metals, total ²	20	30	1, 289	1, 506, 851	6, 649, 976
6.....	50	54	2, 457	3, 624, 920	5, 850, 853	Not reported.....	1	1	25	6, 725	31, 265
6½.....	60	66	2, 961	4, 592, 966	11, 237, 398	5.....	2	2	61	47, 577	89, 925
7.....						6.....	4	4	835, 184	3, 872, 894	2, 655, 892
Clay, total.....	109	236	4, 118	3, 767, 998	10, 753, 445	6½.....	12	15	388	014, 865	
Not reported.....	2	2	10	9, 899	71, 867	7.....	7	7			
3 or under.....	2	2				Sand, molding, total.....	90	128	1, 236	1, 290, 854	4, 775, 957
4.....	2	2	93	93, 419	413, 720	Not reported.....	7	9			
4½.....	2	2	255	244, 331	737, 202	4.....	1	1	28	25, 321	136, 569
5.....	14	14	1, 131	852, 740	2, 966, 402	5.....	4	4	230	243, 876	723, 832
5½.....	32	37	2, 322	2, 237, 032	5, 378, 957	5½.....	19	26	978	1, 022, 167	3, 803, 889
6.....	137	167				6.....	59	80			
6½.....	2	4	307	265, 607	685, 231	Fluorspar, total.....	28	36	1, 100	1, 112, 322	2, 858, 344
7.....	6	6				Not reported.....	1	1	1,100	1, 112, 322	2, 858, 344
Slate, total ²	100	110	4, 011	4, 803, 834	10, 325, 664	5.....	25	33			
Not reported.....	12	12	91	94, 076	168, 072	6.....	1	1			
5.....	7	7	435	501, 046	933, 420	7.....	1	1			
5½.....	61	71	2, 796	3, 221, 987	6, 417, 346	Fuller's and filtering earths, total.....	22	24	1, 043	853, 228	4, 811, 629
6.....	20	20	689	986, 125	2, 806, 826	5½.....	5	6	520	363, 133	1, 542, 742
Marble, total ²	63	81	3, 388	3, 249, 690	7, 490, 368	6.....	15	16	523	490, 095	3, 268, 887
3 or under.....	1	1	114	105, 013	287, 130	7.....	2	2			
4.....	1	1				Sand, glass, total.....	25	32	1, 027	1, 313, 503	5, 359, 216
5.....	3	3	1, 649	1, 527, 485	3, 217, 308	4.....	1	1	1,027	1, 313, 503	5, 359, 216
5½.....	20	24	1, 025	1, 017, 192	3, 985, 930	5½.....	6	18			
6.....	38	52				6.....	18	20			
Basalt, total ²	128	135	3, 342	4, 456, 211	15, 456, 473	Mercury, total.....	40	40	1, 026	1, 383, 603	2, 820, 166
Not reported.....	1	1	97	187, 449	497, 738	Not reported.....	4	4			
5.....	9	9	774, 472	2, 325, 098	2, 325, 098	6.....	13	13	295	282, 641	27, 845
5½.....	13	15	2, 473	3, 427, 132	12, 448, 887	7.....	23	23	731	1, 100, 902	653, 015
6.....	99	103	105	184, 760	184, 760	Barite, total.....	42	44	874	648, 488	1, 801, 314
6½.....	6	7				Not reported.....	2	3	40	37, 843	143, 595
7.....						5.....	4	4	57	23, 775	71, 024
Phosphate rock, total.....	26	33	3, 294	3, 303, 940	13, 043, 769	5½.....	3	4	745	563, 699	1, 422, 880
5.....	3	5	457	509, 313	2, 181, 786	6.....	30	30	23	23, 171	163, 816
5½.....	6	6	359	360, 831	1, 053, 927						
6.....	17	22	2, 478	2, 433, 796	9, 808, 066						
Sandstone, total ²	123	150	2, 872	2, 516, 315	6, 131, 345						
3 or under.....	1	1	122	127, 527	482, 641						
4.....	1	1									
4½.....	1	1	683	481, 011	843, 449						
5.....	11	15	195	133, 595	396, 847						
5½.....	13	14	1, 872	1, 824, 182	4, 458, 408						
6.....	96	118									
Silver, total ²	50	57	2, 592	4, 125, 163	8, 327, 914						
6.....	12	14	594	1, 064, 685	2, 083, 646						
6½.....	2	2	1,998	3, 060, 478	6, 244, 268						
7.....	36	41									

See footnotes at end of table.

MINES AND QUARRIES

TABLE 20.—CONDENSED SUMMARY FOR ENTERPRISES CLASSIFIED ACCORDING TO NUMBER OF DAYS IN OPERATION PER WEEK, BY INDUSTRIES: 1929—Continued

[See note at head of this table]

INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products	INDUSTRY AND DAYS PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners, December 14 or nearest representative day ¹	Wages	Value of products			
Feldspar, total.....	51	53	671	\$526, 896	\$1, 035, 335	Manganese, total.....	19	21	381	\$392, 362	\$1, 184, 561			
3 or under.....	2	2	} \$ 13	6, 676	24, 543	5.....	1	1	} \$ 243	198, 073	471, 973			
7.....	1	1				5½.....	1	1						
5.....	6	6	44	33, 515	98, 682	6.....	12	12	} 138	104, 289	712, 588			
5½.....	14	21	194	157, 345	558, 247	6½.....	1	1						
6.....	23	23	420	329, 360	1, 253, 363	7.....	4	6	Miscellaneous minerals, total ⁷	19	19	337	301, 197	3, 502, 876
Gold, placer, total ²	24	20	601	928, 995	3, 743, 941	5½.....	4	4	49	32, 375	134, 617			
6.....	4	4	33	37, 125	66, 405	6.....	13	13	} \$ 288	268, 822	3, 368, 259			
7.....	20	25	568	891, 870	3, 677, 536	7.....	2	2						
Talc and soapstone, total.....	25	28	590	615, 355	2, 087, 953	Asbestos, total.....	11	11	270	236, 789	397, 482			
Not reported.....	1	1	} \$ 7	4, 742	20, 446	5½.....	2	2	} \$ 270	236, 789	397, 482			
4.....	1	1				5.....	7	7						
5.....	1	1	275	204, 749	614, 791	6.....	8	8	} 248	195, 142	516, 305			
5½.....	7	7	262	329, 328	1, 047, 213	7.....	1	1						
6.....	11	14	46	76, 536	405, 504	Mica, total.....	24	32	248	195, 142	516, 305			
7.....	4	4	478	491, 484	1, 411, 284	5.....	1	1	} \$ 92	81, 856	165, 102			
Abrasive materials, total ⁴	30	30	15	12, 328	56, 363	5½.....	7	9						
Not reported.....	1	1	54	48, 420	133, 919	6.....	16	22	156	113, 786	351, 203			
3 or under.....	1	1	409	430, 736	1, 221, 002	Millstones and pulpstones, total.....	14	14	180	221, 318	620, 835			
5.....	1	1	387	465, 936	2, 043, 905	5.....	1	1	} \$ 180	221, 318	620, 835			
5½.....	5	5	387	465, 936	2, 043, 905	5½.....	2	2						
6.....	1	1	405, 936	2, 043, 905	2, 043, 905	6.....	11	11						
7.....	4	4												

¹ The totals differ, in some industries considerably, from those for "Wage earners (average for the year)" given in other tables of this report. See GENERAL EXPLANATIONS—Persons Engaged.

² See headnote.

³ Combined to avoid disclosing, exactly or approximately, the data reported by individual enterprises.

⁴ Diatomaceous earth, 10 enterprises; ganister, 18; quartz, 9; quartzite, 2; silica rock, 6; silica sand, 14; siliceous mica schist, 3; tripoli, 8.

⁵ Bauxite, 9 enterprises; molybdenum, 2; titanium, 1; tungsten, 12; vanadium, 2.

⁶ Emery, 2 enterprises; garnet and industrial sapphires and diamonds, 6; grinding pebbles and tube-mill lining, 2; grindstones, oilstones, whetstones, scythestones, and rubbing stones, 13; pumice and volcanic ash (pumilite), 7.

⁷ Borates, 2 enterprises; cyanite, 2; graphite, 5; lithium minerals (amblygonite, lepidolite, and spodumene), 4; mineral pigments, 4; tantalum, 1; vermiculite, 1.

Wage earners employed, by months (Tables 21, 22, and 23).—Table 21 gives the numbers of wage earners employed under ground in underground mines and quarries, contrasted with those employed in open-pit

mines and quarries together with surface employees of underground operations. Tables 22 and 23 reflect in a general way the extent of employment during the year, for industries, and by States.

MINES AND QUARRIES

TABLE 22.—WAGE EARNERS, BY MONTHS, BY INDUSTRIES: 1929

[The month of maximum employment 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 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, total.....	806, 418	811, 140	813, 080	809, 827	800, 310	796, 969	783, 406	732, 356	805, 132	814, 566	827, 684	824, 005	808, 480	94.5
COAL														
Anthracite (Pennsylvania).....	142, 801	161, 783	147, 181	139, 468	145, 788	144, 770	132, 150	<i>127, 103</i>	140, 835	144, 195	146, 308	140, 792	147, 241	83.7
Bituminous.....	458, 732	479, 163	482, 908	474, 797	444, 051	435, 012	432, 622	430, 280	445, 179	455, 887	468, 471	474, 072	470, 444	89.6
METALS														
Copper.....	44, 502	<i>42, 875</i>	43, 923	45, 593	46, 837	46, 850	44, 905	44, 714	43, 776	43, 201	44, 456	44, 924	42, 468	90.4
Iron ore.....	28, 510	25, 649	26, 114	26, 633	28, 030	29, 859	30, 278	30, 223	30, 300	29, 984	29, 499	28, 104	26, 910	84.7
Lead.....	14, 007	13, 825	13, 486	13, 700	13, 791	13, 878	14, 203	14, 226	14, 370	14, 270	14, 101	14, 263	13, 986	93.8
Zinc.....	11, 900	11, 063	10, 962	11, 960	12, 540	12, 194	12, 588	12, 327	12, 611	12, 386	12, 593	11, 739	9, 865	78.2
Gold, lode.....	5, 353	5, 188	<i>5, 120</i>	5, 198	5, 332	5, 407	5, 492	5, 534	5, 462	5, 394	5, 437	5, 340	5, 382	92.5
Silver.....	2, 593	2, 524	2, 573	2, 525	2, 553	2, 564	2, 672	2, 697	2, 644	2, 652	2, 682	2, 578	<i>2, 448</i>	90.8
Gold, placer.....	578	552	<i>544</i>	552	523	587	598	590	596	577	574	580	577	87.3
Mercury.....	1, 029	885	902	894	930	985	1, 000	1, 103	1, 147	1, 177	1, 128	1, 124	1, 064	75.2
Manganese.....	354	<i>327</i>	345	346	353	370	379	373	360	346	362	366	353	87.7
Minor metals, total.....	1, 244	1, 110	<i>1, 105</i>	1, 133	1, 156	1, 265	1, 305	1, 370	1, 351	1, 320	1, 272	1, 266	1, 273	80.7
Bauxite.....	602	<i>554</i>	558	563	586	635	651	654	654	638	582	587	597	84.7
Other ¹	642	556	<i>547</i>	570	570	630	654	710	713	788	685	669	658	74.1
STONE														
Limestone.....	32, 300	<i>24, 507</i>	25, 452	29, 299	33, 130	35, 025	36, 800	37, 010	37, 071	35, 442	34, 722	31, 527	26, 621	66.1
Granite.....	10, 037	<i>8, 405</i>	8, 457	9, 407	10, 134	10, 887	11, 078	11, 028	11, 164	10, 780	10, 577	9, 873	8, 654	75.3
Basalt.....	3, 053	<i>2, 062</i>	2, 127	2, 546	3, 181	3, 457	3, 539	3, 503	3, 545	3, 511	3, 374	3, 161	2, 631	58.2
Slate.....	4, 098	4, 195	4, 207	4, 288	4, 098	4, 177	4, 222	4, 048	4, 093	4, 093	4, 045	3, 912	<i>3, 874</i>	89.4
Marble.....	3, 350	3, 249	3, 229	3, 260	3, 328	3, 443	3, 421	3, 424	3, 528	3, 500	3, 416	3, 258	<i>3, 137</i>	88.9
Sandstone.....	2, 156	1, 312	<i>1, 202</i>	1, 087	2, 526	2, 577	2, 695	2, 662	2, 601	2, 552	2, 491	2, 078	1, 407	47.9
Miscellaneous.....	1, 841	1, 338	<i>1, 286</i>	1, 514	1, 729	1, 870	2, 089	2, 192	2, 274	2, 232	2, 180	1, 920	1, 456	56.6
OTHER NONMETALS														
Abrasive materials ²	462	<i>349</i>	367	370	441	490	525	519	522	531	520	407	439	65.7
Asbestos.....	105	201	<i>160</i>	237	241	246	192	194	206	174	164	165	163	65.0
Asphalt and bituminous rock.....	1, 123	861	882	1, 277	1, 302	1, 309	1, 448	1, 436	1, 483	1, 070	941	805	<i>606</i>	40.9
Barite.....	844	831	809	847	803	882	881	888	886	865	824	760	<i>763</i>	83.4
Clay.....	4, 139	4, 024	<i>4, 016</i>	4, 181	4, 221	4, 239	4, 201	4, 180	4, 157	4, 128	4, 185	4, 117	4, 020	94.7
Feldspar.....	598	573	558	<i>520</i>	547	650	665	681	655	593	597	557	544	77.7
Fluorspar.....	1, 053	1, 089	1, 026	1, 089	1, 134	1, 191	1, 100	1, 055	1, 102	1, 038	975	972	<i>869</i>	73.0
Fuller's and filtering earths.....	991	933	964	887	920	1, 009	923	1, 044	1, 051	1, 012	1, 023	1, 067	1, 031	83.3
Gypsum.....	2, 078	2, 070	1, 952	2, 035	2, 211	2, 230	2, 184	2, 184	2, 239	2, 118	2, 113	1, 913	<i>1, 692</i>	75.6
Magnesite.....	351	279	<i>263</i>	278	339	350	364	407	410	403	395	371	351	65.4
Mica.....	226	184	183	230	234	240	239	239	248	248	245	247	<i>175</i>	70.6
Millstones and pulpstones.....	164	120	132	141	161	175	207	197	190	193	179	154	<i>116</i>	56.0
Phosphate rock.....	3, 201	3, 142	3, 220	3, 172	3, 202	3, 142	3, 164	3, 211	3, 267	3, 412	<i>3, 076</i>	3, 188	3, 184	90.1
Sand, glass.....	1, 030	1, 035	1, 038	1, 038	1, 061	1, 050	1, 085	1, 023	1, 034	1, 040	1, 007	988	<i>966</i>	90.7
Sand, molding.....	1, 637	<i>532</i>	550	760	1, 037	1, 144	1, 268	1, 263	1, 265	1, 291	1, 279	1, 185	842	41.2
Sand and gravel.....	15, 994	<i>11, 347</i>	11, 030	13, 854	16, 716	17, 677	18, 367	18, 676	18, 677	18, 383	18, 013	15, 812	12, 768	60.8
Silica ³	1, 433	1, 300	<i>1, 284</i>	1, 354	1, 463	1, 480	1, 490	1, 543	1, 558	1, 502	1, 458	1, 404	1, 360	82.4
Sulphur and pyrites.....	2, 199	1, 986	2, 022	<i>1, 971</i>	2, 648	2, 450	2, 305	2, 328	2, 347	2, 170	2, 120	2, 052	1, 991	74.4
Talc and soapstone.....	550	522	518	<i>517</i>	519	553	550	553	562	568	587	574	564	88.1
Miscellaneous minerals ⁴	305	<i>260</i>	288	284	294	316	300	322	327	330	311	321	300	78.8

¹ Molybdenum, titanium, tungsten, vanadium.² Emery; garnet and industrial sapphires and diamonds; grinding pebbles and tube-mill lining; grindstones, oilstones, whetstones, scythestones, and rubbing stones; pumice and volcanic ash (pumicite).³ Diatomaceous earth, ganister, quartz, quartzite, silica rock, silica sand, siliceous mica schist, tripoli.⁴ Borates, cyanite, graphite, lithium minerals (amblygonite, lepidolite, and spodumene), mineral pigments, tantalum, vermiculite.

GENERAL REPORT

TABLE 23.—WAGE EARNERS, BY MONTHS, BY STATES: 1929

[The month of maximum employment 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 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, total.....	806,418	811,140	813,080	809,827	800,310	796,969	783,466	<i>782,856</i>	805,132	814,566	827,684	824,005	808,480	94.5
<i>Individual States</i>														
Alabama.....	31,978	32,630	32,626	32,586	32,405	31,893	31,820	31,009	31,633	<i>31,589</i>	31,568	31,784	31,713	96.2
Arizona.....	10,567	<i>14,891</i>	15,598	16,286	17,018	17,133	17,143	17,253	16,941	16,446	16,919	16,800	16,372	86.3
Arkansas.....	5,030	5,664	5,576	4,011	<i>3,959</i>	3,819	4,230	4,846	5,351	5,733	5,888	5,938	5,947	65.5
California.....	8,048	7,407	<i>7,462</i>	7,621	7,001	7,913	8,054	8,257	8,428	8,399	8,518	8,513	8,158	86.9
Colorado.....	14,562	16,288	16,109	15,341	13,142	12,741	<i>12,661</i>	12,824	13,232	14,743	15,536	16,016	16,205	77.1
Connecticut.....	816	<i>546</i>	574	659	824	899	945	966	977	962	924	833	688	55.9
Florida.....	3,173	3,199	3,205	3,066	3,146	3,132	3,098	3,249	3,318	3,190	3,182	3,127	3,154	93.0
Georgia.....	3,727	<i>3,476</i>	3,554	3,614	3,708	3,662	3,937	3,998	3,892	3,759	3,630	3,677	3,513	86.0
Idaho.....	4,133	4,133	<i>3,927</i>	4,145	4,249	4,327	4,412	4,423	4,412	4,249	4,142	4,209	4,080	88.8
Illinois.....	53,378	59,434	58,923	58,866	49,347	47,225	<i>46,683</i>	48,200	50,802	53,809	55,971	56,543	55,343	77.5
Indiana.....	16,742	16,630	16,803	17,210	16,716	16,958	17,083	16,624	16,355	16,854	17,153	16,405	<i>16,114</i>	93.6
Iowa.....	7,164	7,494	7,507	7,591	6,735	<i>6,156</i>	6,164	6,420	6,522	7,511	7,972	7,971	7,940	77.0
Kansas.....	7,297	7,612	7,784	8,046	6,692	<i>6,491</i>	6,701	6,779	7,505	7,612	7,802	7,712	6,764	80.7
Kentucky.....	57,818	58,514	58,940	58,992	56,934	56,204	<i>55,930</i>	56,376	57,493	57,516	59,217	58,977	58,000	94.4
Maine.....	1,170	609	<i>641</i>	1,130	1,330	1,399	1,456	1,427	1,418	1,339	1,262	1,119	1,012	37.2
Maryland.....	4,578	<i>4,337</i>	4,360	4,507	4,533	4,502	4,470	4,654	4,613	4,609	4,362	4,795	4,537	89.4
Massachusetts.....	2,419	1,834	1,961	2,189	2,604	2,732	2,670	2,688	2,773	2,616	2,611	2,484	<i>1,977</i>	65.2
Michigan.....	20,820	<i>18,870</i>	19,218	19,004	20,747	21,288	21,700	21,707	21,899	21,933	21,889	21,020	19,774	86.0
Minnesota.....	11,613	<i>5,798</i>	9,077	9,612	11,555	13,115	13,483	13,449	13,341	13,044	12,524	11,342	10,023	65.3
Missouri.....	13,418	12,829	<i>12,673</i>	13,165	12,976	13,101	13,207	13,314	14,014	14,285	14,287	13,943	13,225	88.7
Montana.....	14,627	14,677	15,198	15,561	15,704	15,492	14,032	13,843	13,618	14,172	14,681	14,900	<i>13,552</i>	86.3
Nebraska.....	2,270	107	118	169	272	320	382	389	375	339	340	302	232	27.5
Nevada.....	4,716	4,822	4,851	4,960	5,181	5,079	4,940	4,784	4,567	4,512	4,550	4,352	<i>4,048</i>	78.1
New Hampshire.....	569	338	467	426	551	632	723	735	712	697	635	513	<i>361</i>	49.1
New Jersey.....	3,630	3,282	<i>3,263</i>	3,436	3,617	3,639	3,682	3,758	3,846	3,794	3,881	3,749	3,629	84.5
New Mexico.....	6,086	7,129	7,210	7,450	7,113	7,100	6,967	7,015	6,893	6,650	6,835	6,815	<i>6,555</i>	88.4
New York.....	6,432	<i>4,600</i>	5,203	5,843	6,623	6,982	7,188	7,305	7,258	7,138	6,964	6,359	5,721	63.0
North Carolina.....	2,566	2,502	2,440	2,538	2,653	2,750	2,785	2,632	2,669	2,633	2,555	2,456	<i>2,252</i>	80.9
Ohio.....	27,001	25,672	26,524	27,047	25,794	<i>25,271</i>	26,192	26,671	27,695	28,115	28,792	28,575	27,669	87.8
Oklahoma.....	10,270	10,908	10,766	9,987	9,522	<i>8,776</i>	9,423	9,963	10,743	10,841	11,443	11,000	9,064	70.7
Oregon.....	776	606	585	681	832	913	879	839	895	800	855	773	<i>558</i>	61.1
Pennsylvania.....	276,492	285,053	282,639	276,002	280,204	278,411	264,687	<i>269,524</i>	273,150	276,482	279,833	280,924	281,140	91.0
Rhode Island.....	250	227	221	239	250	280	288	273	270	299	250	250	<i>217</i>	72.6
South Carolina.....	1,298	1,381	1,386	1,383	1,418	1,363	1,304	1,313	1,290	<i>1,136</i>	1,251	1,201	1,157	80.1
Tennessee.....	11,936	<i>11,557</i>	11,700	11,789	11,675	12,093	12,004	11,797	12,056	12,291	12,193	12,200	11,575	94.0
Texas.....	6,544	<i>5,908</i>	5,998	6,260	7,083	6,832	6,717	6,799	6,770	6,579	6,667	6,548	6,383	83.6
Utah.....	12,176	12,569	12,606	12,457	12,129	12,014	11,867	<i>11,657</i>	11,664	11,891	12,203	12,374	12,684	91.9
Vermont.....	3,154	3,162	3,210	3,227	3,108	3,212	3,228	3,160	3,273	3,251	3,147	3,005	<i>2,665</i>	87.5
Virginia.....	15,262	15,536	15,544	15,679	15,288	15,374	15,379	15,157	15,121	15,234	15,392	14,801	<i>14,043</i>	93.4
Washington.....	3,818	3,757	3,732	3,822	3,880	3,801	<i>3,724</i>	3,824	3,744	3,848	3,848	3,826	3,849	94.9
West Virginia.....	101,422	101,113	101,897	101,621	100,699	<i>100,486</i>	100,595	100,487	101,601	100,951	102,630	103,123	101,890	97.4
Wisconsin.....	2,907	<i>1,961</i>	1,975	2,215	2,699	3,233	3,453	3,587	3,579	3,482	3,238	2,983	2,428	54.7
Wyoming.....	5,282	5,566	5,732	5,426	5,000	4,711	<i>4,662</i>	4,693	5,042	5,544	5,598	5,759	5,713	81.0
<i>Groups of States</i>														
Delaware and District of Columbia.....	104	85	84	89	105	114	112	123	135	113	105	99	92	61.5
Louisiana and Mississippi.....	801	702	718	759	785	781	802	861	852	831	860	847	821	81.5
North Dakota and South Dakota.....	2,552	2,687	2,625	2,535	<i>2,219</i>	2,230	2,301	2,344	2,391	2,729	2,895	2,864	2,807	76.6

GENERAL TABLES

TABLE 24.—SUMMARY FOR THE UNITED STATES, BY INDUSTRIES: 1929, 1919, AND 1909—Continued

[See note at head of this table]

INDUSTRY AND CENSUS YEAR	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Horsepower rating of power equipment	PRINCIPAL EXPENSES				Value of products
					Wages	Contract work	Cost of supplies and materials	Cost of fuel and purchased electric energy	
OTHER NONMETALS—continued									
Fluorspar:									
1929	28	36	1,053	6,513	\$1,112,322	\$10,540	\$626,500	\$177,054	\$2,858,344
1919	54	72	1,124	7,138	1,195,777	145,918	634,498	163,230	3,334,880
1909	18	15	200	1,179	108,445	940	34,695	24,414	288,500
Per cent of increase or decrease (—)									
1919-1929			-6.3	-8.8	-7.0	-88.7	-1.3	8.5	-14.3
1909-1919			287.6	506.4	600.9	15,275.8	1,728.8	568.6	1,055.0
Fuller's and filtering earths:									
1929	22	24	991	8,221	853,228	350,979	425,011	440,933	4,811,629
1919	9	0	824	2,538	541,163	8,556	338,011	209,863	2,019,226
1909	16	21	327	1,739	118,629	67	35,797	48,010	315,762
Per cent of increase—									
1919-1929			20.3	223.9	57.7	4,002.1	25.7	49.0	138.3
1909-1919			152.0	46.9	356.2	(1)	844.2	524.6	539.5
Gypsum:									
1929	60	63	2,078	26,498	2,027,733	7,004	794,733	421,481	5,740,188
1919	47	48	2,101	15,632	2,478,301	3,747	1,530,338	660,420	6,805,940
1909	78	222	3,402	17,685	1,820,877	16,558	986,668	573,460	5,812,810
Per cent of increase or decrease (—)									
1919-1929			-5.2	76.3	6.0	86.9	-48.1	-36.2	-15.7
1909-1919			-36.7	-16.0	36.1	-77.4	55.1	15.2	17.1
Magnesite:									
1929	5	5	351	3,197	495,936	55,970	252,178	288,367	2,043,905
1919	11	11	448	2,540	652,302	50,846	332,206	206,105	2,169,571
1909	6	13	50	126	32,470		6,282	7,558	68,463
Per cent of increase or decrease (—)									
1919-1929			-21.7	25.9	-28.7	10.1	-24.1	-2.6	-5.8
1909-1919			(1)	1,015.9	1,908.4		5,188.2	3,818.8	3,069.0
Mica:									
1929	24	32	226	1,721	195,142		65,474	35,416	510,305
1919	65	69	448	803	288,487	7,325	107,933	22,668	607,025
1909	73	78	272	463	124,658	6,038	10,377	12,392	206,704
Per cent of increase or decrease (—)									
1919-1929			-49.6	114.3	-32.4		-39.3	56.2	-14.9
1909-1919			64.7	73.4	131.4	21.4	940.1	82.0	193.5
Millstones and pulpstones:									
1929	14	14	164	2,517	221,318		42,841	23,392	620,835
1919	11	11	37	220	47,960		11,244	7,110	64,631
1909	14	14	51		16,625		483	25	34,441
Per cent of increase—									
1919-1929			(1)	1,044.1	361.4		281.0	229.0	860.6
1909-1919			(1)		188.5		2,228.0	(1)	87.7
Phosphate rock:									
1929	26	33	3,201	104,146	3,303,940	20,936	1,542,887	1,983,422	13,043,769
1919	48	69	4,373	49,639	3,900,966	163,696	2,161,591	1,819,301	10,300,198
1909	51	153	7,873	50,526	3,215,661	251,849	898,667	1,860,868	10,781,192
Per cent of increase or decrease (—)									
1919-1929			-26.8	109.8	-15.3	-87.2	-28.6	9.0	26.6
1909-1919			-44.5	-1.8	21.3	-35.0	140.5	33.7	-4.5
Silica:									
1929	70	73	1,433	11,771	1,677,407	3,566	614,183	282,534	4,045,142
1919	24	29	160	2,032	165,709	1,847	58,185	21,900	371,638
1909	14	14	168	1,219	81,048	16,351	17,461	12,066	231,025
Per cent of increase or decrease (—)									
1919-1929			763.3	479.3	912.3	93.1	955.6	1,186.6	1,149.9
1909-1919			5.1	66.7	103.0	-88.7	233.2	82.0	60.9
Sulphur and pyrites:									
1929	9	10	2,199	33,932	3,482,066	10,269	3,339,850	4,474,013	37,126,148
1919	21	22	2,301	22,620	3,066,909	87,061	2,087,862	2,986,036	20,344,530
1909	15	16	1,462	8,872	732,957	3,091	400,523	770,921	6,109,050
Per cent of increase or decrease (—)									
1919-1929			-4.4	49.9	13.6	-88.2	61.5	49.8	82.5
1909-1919			58.5	156.1	318.4	2,716.6	416.3	282.9	298.2
Talc and soapstone:									
1929	25	28	550	10,630	615,355	16,795	530,717	128,278	2,087,953
1919	28	30	968	7,053	835,413	52,757	345,166	155,564	2,302,393
1909	39	46	1,260	9,433	504,110	3,550	196,054	66,330	1,174,516
Per cent of increase or decrease (—)									
1919-1929			-42.6	49.3	-26.3	-68.2	53.8	-17.5	16.7
1909-1919			-23.7	-26.2	65.7	1,386.1	76.1	134.5	96.0
Miscellaneous minerals:									
1929	19	19	305	3,978	301,197		167,630	87,717	3,592,376
1919	44	47	604	8,040	515,995	52,016	292,334	151,680	1,350,171
1909	42	46	445	3,496	204,043	24,388	84,311	43,697	466,146
Per cent of increase or decrease (—)									
1919-1929			-49.5	-50.5	-41.6		-42.7	-42.3	159.4
1909-1919			35.7	130.0	152.9	113.3	246.7	247.8	172.7

¹ Per cent not computed where base is less than 100.

MINES AND QUARRIES

TABLE 25.—SUMMARY FOR THE UNITED STATES, BY STATES, 1929, 1919, AND 1909

The figures have been adjusted for 1929 by the omission of data for the sand and gravel, glass-sand, and molding-sand industries; for 1919 by the omission of data for the petroleum and natural gas industries; and for 1909 by the omission of data for the petroleum and natural gas, peat, and precious stones industries. In some instances these data could not be omitted from figures for individual States because of disclosures of data for individual enterprises. Such inclusions, however, were very minor, and their effect upon the totals insignificant. (See footnotes 1, 2, 3, and 4, Table 7.)

STATE AND CENSUS YEAR	Number of enterprises ¹	Number of mines and quarries ²	Wage earners (average for the year) ³	Horsepower rating of power equipment	PRINCIPAL EXPENSES ⁴				Value of products ⁵
					Wages	Contract work	Cost of supplies and materials ⁶	Cost of fuel and purchased electric energy	
United States:									
1929	9,063	10,277	788,357	6,970,091	\$1,066,605,507	\$16,595,298	\$280,622,710	\$111,109,650	\$2,280,384,091
1919	11,466	13,731	888,355	4,900,102	1,161,414,979	10,716,518	331,626,664	101,311,854	2,225,670,543
1909	12,089	18,127	930,080	3,384,759	659,546,144	12,151,388	152,856,925	43,672,969	1,052,569,127
Per cent of increase or decrease (—)									
1919-1929			-11.3	42.2	-8.2	54.9	-15.4	9.7	2.4
1909-1919			-4.5	44.8	107.6	-11.8	117.0	132.0	111.5
Alabama:									
1929	212	242	31,674	255,656	30,692,942	95,072	8,240,921	2,782,801	53,362,004
1919	264	348	32,579	145,775	36,228,723	167,070	7,480,910	3,080,283	59,860,040
1909	177	302	28,271	91,924	14,257,709	767,385	2,620,390	1,048,824	24,350,667
Per cent of increase or decrease (—)									
1919-1929			-2.8	82.2	-15.3	-43.1	10.2	-9.7	-10.9
1909-1919			15.2	58.6	154.1	-78.2	185.5	193.7	145.8
Arizona:									
1929	120	134	16,533	201,456	23,238,107	1,152,201	17,414,110	5,684,755	116,134,804
1919	155	172	15,268	105,076	20,193,312	746,783	16,160,891	5,377,525	88,478,111
1909	120	242	12,822	47,272	13,485,930	238,982	6,028,044	5,603,989	34,101,166
Per cent of increase or decrease (—)									
1919-1929			8.3	22.0	7.8	54.3	7.8	5.7	31.3
1909-1919			19.1	249.2	94.2	212.5	133.3	-4.0	159.0
Arkansas:									
1929	112	121	4,744	30,620	4,565,463	100,000	928,092	483,248	9,795,095
1919	119	126	3,614	20,748	4,546,728	57,434	1,160,035	431,445	7,782,708
1909	93	146	4,933	14,080	3,025,066	38,964	330,818	138,937	4,477,445
Per cent of increase or decrease (—)									
1919-1929			31.3	47.6	0.4	85.6	-20.0	12.0	25.9
1909-1919			-26.7	47.4	50.3	47.4	250.7	210.4	73.8
California:									
1929	294	340	6,859	110,019	10,381,906	513,583	5,569,035	2,252,539	30,638,618
1919	322	357	7,000	93,124	9,330,626	378,512	4,796,617	2,452,895	24,751,580
1909	983	1,271	14,234	85,649	12,280,415	322,497	8,968,347	2,648,877	33,901,780
Per cent of increase or decrease (—)									
1919-1929			-2.0	18.1	10.7	35.7	-18.1	-8.2	23.8
1909-1919			-50.8	8.7	-23.6	17.4	-24.5	-7.4	-27.1
Colorado:									
1929	311	333	14,493	116,592	22,260,604	536,454	5,939,045	2,344,611	41,205,031
1919	466	523	16,710	114,448	25,263,057	397,930	11,826,142	2,651,622	51,063,444
1909	649	1,575	21,365	96,905	18,345,369	2,093,132	10,273,498	1,927,263	45,362,455
Per cent of increase or decrease (—)									
1919-1929			-13.3	1.9	-11.9	34.8	-40.8	-12.6	-19.3
1909-1919			-21.8	18.8	37.7	-86.7	15.1	30.1	12.6
Connecticut:									
1929	42	42	701	10,756	1,220,326	450	184,732	242,914	3,810,102
1919	41	47	543	8,520	646,624	27,038	304,090	120,374	1,649,003
1909	71	75	1,385	6,298	729,377	13,761	127,424	71,917	1,375,766
Per cent of increase or decrease (—)									
1919-1929			40.1	26.2	88.7	-98.3	-30.3	101.8	131.1
1909-1919			-60.8	35.3	-11.3	90.5	188.6	67.4	19.9
Florida:									
1929	57	65	3,061	106,384	3,045,821	27,528	1,721,148	2,035,725	13,524,552
1919	36	55	3,372	44,969	3,107,813	121,202	1,836,229	1,687,696	8,076,413
1909	36	96	5,448	42,366	2,350,854	217,601	738,046	1,223,035	8,846,665
Per cent of increase or decrease (—)									
1919-1929			-9.2	136.6	-2.0	-77.8	-0.3	20.6	50.7
1909-1919			-38.1	6.1	32.2	-44.3	148.5	38.0	1.5
Georgia:									
1929	74	81	3,665	34,386	2,898,100	846,259	955,978	787,745	9,439,132
1919	74	52	2,397	12,996	2,017,400	35,295	608,766	356,010	4,082,152
1909	92	109	3,383	10,698	1,278,159	1,903	254,021	146,666	2,874,595
Per cent of increase or decrease (—)									
1919-1929			52.9	164.6	43.7	881.0	57.0	121.3	131.2
1909-1919			-29.1	21.5	67.8	1,754.7	139.7	142.7	42.0
Idaho:									
1929	60	65	4,220	67,295	7,420,255	124,127	3,486,590	1,011,022	20,745,615
1919	82	83	2,455	31,059	4,201,624	193,657	2,026,250	513,778	11,840,301
1909	174	370	3,246	26,278	4,045,547	23,030	1,847,458	356,199	8,049,342
Per cent of increase or decrease (—)									
1919-1929			72.1	116.7	76.6	-35.9	72.1	96.8	75.2
1909-1919			-24.4	18.2	3.9	740.7	9.7	44.2	36.9
Illinois:									
1929	464	488	52,104	398,602	71,828,479	219,310	13,403,974	4,892,754	124,771,725
1919	536	590	76,371	282,801	90,900,989	72,473	17,023,021	5,629,830	147,409,502
1909	592	769	68,313	184,715	43,752,366	74,305	4,486,621	1,287,128	57,769,159
Per cent of increase or decrease (—)									
1919-1929			-31.7	40.9	-21.0	202.6	-20.9	-13.1	-15.4
1909-1919			11.8	53.1	107.8	-2.5	279.4	337.4	155.2

¹ See GENERAL EXPLANATIONS—The Enterprise.

² See footnote 2, Table 24.

³ See GENERAL EXPLANATIONS—Persons Engaged.

⁴ See GENERAL EXPLANATIONS—Expenses.

⁵ See footnote 5, Table 24.

⁶ See headnote.

⁷ Operators, not enterprises, in 1909. Exclusive of duplications, 168 operators having reported in two or more States; also exclusive of data for 22 operators which are included in the State figures. (See headnote.)

GENERAL TABLES

TABLE 25.—SUMMARY FOR THE UNITED STATES, BY STATES: 1929, 1919, AND 1909—Continued

[See note at head of this table]

STATE AND CENSUS YEAR	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Horsepower rating of power equipment	PRINCIPAL EXPENSES				Value of products
					Wages	Contract work	Cost of supplies and materials	Cost of fuel and purchased electric energy	
Indiana:									
1929	335	375	15,968	156,645	\$22,348,717	\$75,040	\$4,726,515	\$2,192,168	\$44,297,266
1919	372	398	26,348	121,994	29,717,136	120,651	6,638,678	1,947,162	50,235,857
1909	366	480	22,577	66,880	13,994,785	19,980	1,423,207	476,940	18,709,582
Per cent of increase or decrease (—)									
1919-1929			-39.4	28.4	-24.8	-40.8	-22.5	12.6	-11.8
1909-1919			16.7	82.4	112.8	534.5	327.0	309.1	168.5
Iowa:									
1929	201	207	6,766	38,945	8,805,963	5,103	1,432,905	548,722	14,648,383
1919	198	226	11,274	32,166	12,460,426	33,464	2,072,303	748,844	18,473,658
1909	373	431	16,480	23,453	10,870,446	40,836	1,307,919	221,740	13,877,781
Per cent of increase or decrease (—)									
1919-1929			-40.0	21.1	-29.4	-84.8	-30.9	-26.7	-20.7
1909-1919			-31.6	87.2	14.7	-18.1	58.4	237.7	33.1
Kansas:									
1929	234	257	7,061	67,665	8,104,133	213,880	3,101,066	1,259,323	20,088,495
1919	201	238	9,831	38,101	12,338,424	109,822	3,061,785	974,441	21,823,046
1909	426	582	13,318	30,097	9,120,268	102,887	922,697	200,596	12,040,864
Per cent of increase or decrease (—)									
1919-1929			-28.2	77.6	-34.3	94.8	1.3	20.2	-5.2
1909-1919			-20.2	26.6	35.2	6.7	231.8	273.9	81.2
Kentucky:									
1929	540	617	57,569	310,664	62,441,677	63,905	11,950,977	3,895,626	102,502,027
1919	742	864	41,444	135,098	40,905,070	362,945	11,611,317	2,289,338	75,157,389
1909	352	442	18,070	48,862	7,702,182	88,389	1,150,311	212,419	11,207,794
Per cent of increase or decrease (—)									
1919-1929			38.9	130.0	33.1	-81.0	2.9	70.2	36.4
1909-1919			129.4	176.5	509.0	299.3	909.4	977.7	570.6
Louisiana, Mississippi, Delaware, and District of Columbia:									
1929	7	8	108	1,491	220,127	1,887	46,020	55,000	487,585
1919	14	15	515	7,643	144,489	14,304	1,404,843	1,404,843	8,259,724
1909	11	11	861	4,580	517,049	5,800	398,051	732,603	4,885,277
Per cent of increase or decrease (—)									
1919-1929			-61.6	-80.5	-64.1	-86.9	-67.5	-66.1	-64.1
1909-1919			-40.2	66.9	18.5	148.2	-63.7	91.8	69.1
Maine:									
1929	52	56	1,170	12,076	1,576,518	8,160	267,117	154,211	3,468,040
1919	50	51	979	6,277	1,061,790	32,368	209,187	122,792	1,823,442
1909	97	102	2,144	8,141	1,332,242	6,728	219,579	84,683	2,056,063
Per cent of increase or decrease (—)									
1919-1929			19.5	92.4	40.9	-74.8	31.5	25.0	90.2
1909-1919			-54.3	-22.9	-21.1	381.1	-7.5	45.0	-11.8
Maryland:									
1929	102	119	3,087	23,987	4,125,442	397	955,299	335,067	7,341,258
1919	126	161	5,628	18,600	6,151,744	16,899	1,178,074	308,766	9,098,677
1909	126	173	7,190	18,118	3,339,632	8,303	478,555	104,156	5,782,045
Per cent of increase or decrease (—)									
1919-1929			-20.2	28.4	-32.9	-97.7	-18.9	8.8	-24.3
1909-1919			-21.7	3.0	84.2	103.5	140.2	106.4	67.7
Massachusetts:									
1929	73	77	2,207	26,741	3,656,905	17,143	1,095,716	455,338	8,570,533
1919	74	79	1,704	12,493	2,068,844	11,186	494,249	263,345	4,176,699
1909	139	147	3,291	15,031	1,066,997	16,272	363,698	153,258	3,467,888
Per cent of increase or decrease (—)									
1919-1929			29.5	114.0	76.8	53.3	103.5	72.9	105.2
1909-1919			-48.2	-16.9	5.2	-31.3	35.9	71.8	20.4
Michigan:									
1929	96	117	19,745	356,897	27,229,407	57,846	14,995,012	6,293,788	87,819,104
1919	122	165	31,282	337,882	50,406,187	29,439	15,294,093	8,444,697	103,870,089
1909	83	173	39,169	273,861	27,660,908	470,205	9,800,415	4,193,847	67,714,470
Per cent of increase or decrease (—)									
1919-1929			-26.9	5.3	-46.0	96.5	-1.6	-25.5	-15.5
1909-1919			-20.1	23.4	82.2	-93.7	55.1	101.4	53.4
Minnesota:									
1929	121	143	11,370	198,182	17,766,522	1,476,441	9,249,071	4,499,651	130,359,063
1919	135	198	17,265	144,199	20,383,021	1,512,999	14,101,682	4,681,062	130,390,254
1909	153	250	16,586	151,834	11,907,049	2,157,108	6,736,808	2,024,066	85,664,852
Per cent of increase or decrease (—)									
1919-1929			-34.1	37.4	-39.5	-2.4	-34.4	-3.9	(*)
1909-1919			4.1	-5.0	146.8	-20.9	109.3	131.3	122.3
Missouri:									
1929	373	401	12,793	147,866	15,537,816	136,082	5,368,569	2,990,904	43,479,216
1919	468	494	14,857	100,076	14,857,816	415,843	4,784,748	4,681,413	33,865,694
1909	1,009	1,224	23,420	109,452	14,303,570	155,244	6,196,052	2,220,527	31,656,070
Per cent of increase or decrease (—)									
1919-1929			-13.9	47.9	-7.4	-67.3	12.2	47.5	30.3
1909-1919			-36.6	-8.6	16.6	167.9	-22.8	-8.4	5.4
Montana:									
1929	141	169	14,575	201,749	25,718,006	272,960	8,088,062	2,394,434	64,773,500
1919	254	269	16,091	143,473	25,665,851	113,249	4,784,377	2,964,939	49,665,675
1909	373	543	18,846	174,389	21,361,406	394,499	16,397,323	3,628,050	54,991,961
Per cent of increase or decrease (—)									
1919-1929			-9.4	40.6	0.2	141.0	-14.0	-19.2	30.4
1909-1919			-14.6	-17.7	20.2	-71.3	-42.2	-18.3	-9.7

* Louisiana, 2 operators; Delaware, 9.
 * Less than one-tenth of 1 per cent decrease.

MINES AND QUARRIES

TABLE 25.—SUMMARY FOR THE UNITED STATES, BY STATES: 1929, 1919, AND 1909—Continued

[See note at head of this table]

STATE AND CENSUS YEAR	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Horsepower rating of power equipment	PRINCIPAL EXPENSES				Value of products
					Wages	Contract work	Cost of supplies and materials	Cost of fuel and purchased electric energy	
Nebraska:									
1929	6	8	137	1,605	\$182,110		\$73,796	\$22,263	\$459,628
1919	9	9	162	1,847	166,202		60,996	21,176	292,766
1909	18	20	349	815	169,937	\$5,593	35,474	22,019	322,517
Per cent of increase or decrease (—)									
1919-1929			-15.4	-13.1	9.6		21.0	5.1	67.0
1909-1919			-53.6	126.6	-2.2		71.9	-3.8	-9.2
Nevada:									
1929	101	104	4,685	72,915	8,104,266	331,545	5,222,924	1,654,998	26,494,536
1919	208	207	4,231	50,786	7,401,113	245,429	5,339,511	1,751,260	18,053,984
1909	262	370	4,030	26,862	5,912,989	196,768	4,981,522	1,311,625	23,249,001
Per cent of increase or decrease (—)									
1919-1929			10.7	43.6	9.5	35.1	-2.2	-5.5	46.8
1909-1919			-8.0	89.1	25.2	24.7	7.2	33.5	-22.3
New Hampshire:									
1929	36	39	569	5,455	772,709	6,288	100,009	97,003	1,502,387
1919	30	33	682	4,336	825,547	34,520	144,046	64,980	1,568,195
1909	45	53	1,418	3,771	926,352	9,246	100,931	54,427	1,308,597
Per cent of increase or decrease (—)									
1919-1929			-16.6	25.8	-6.4	-81.8	31.1	49.4	-0.4
1909-1919			-51.9	15.0	-10.9	273.4	43.6	19.4	19.8
New Jersey:									
1929	65	71	2,006	50,171	4,309,281	52,800	1,459,359	782,580	11,100,362
1919	97	102	4,576	33,901	6,392,861	57,948	2,194,539	719,938	9,308,902
1909	131	151	6,315	18,048	2,801,066	44,489	674,962	310,329	8,347,501
Per cent of increase or decrease (—)									
1919-1929			-36.5	48.0	-20.1	-8.8	-33.5	8.7	19.2
1909-1919			-27.5	87.8	92.5	30.3	225.1	125.5	11.5
New Mexico:									
1929	69	89	6,988	90,061	10,118,023	110,882	4,389,541	1,698,886	27,141,704
1919	85	103	7,100	59,876	10,493,857	131,506	3,889,454	1,361,210	18,872,500
1909	98	285	5,107	10,042	3,529,356	132,535	805,487	203,083	5,587,744
Per cent of increase or decrease (—)									
1919-1929			-1.6	51.9	-3.6	-11.1	12.9	24.8	43.8
1909-1919			39.0	273.2	197.3	-0.8	382.9	670.3	237.7
New York:									
1929	189	206	5,021	102,389	7,479,875	41,031	4,210,763	1,680,510	24,272,177
1919	139	147	5,334	61,143	6,409,549	172,277	3,508,693	1,210,769	15,230,109
1909	643	752	8,941	59,962	4,480,652	107,858	1,466,529	576,472	10,665,979
Per cent of increase or decrease (—)									
1919-1929			-5.9	67.5	18.7	-75.8	20.0	38.8	69.4
1909-1919			-40.3	2.0	43.0	59.7	139.3	110.0	42.9
North Carolina:									
1929	112	123	2,436	20,348	2,192,732	678	1,107,474	388,460	5,631,316
1919	102	108	1,890	5,039	1,489,062	5,745	467,460	220,731	2,736,543
1909	113	130	2,216	6,062	802,762	37,386	152,714	103,319	1,368,617
Per cent of increase or decrease (—)									
1919-1929			28.9	303.8	47.3	-88.2	136.9	78.0	105.8
1909-1919			-14.7	-18.9	72.6	-84.6	206.1	113.6	101.4
Ohio:									
1929	704	744	25,500	182,003	29,117,030	137,286	6,063,451	2,690,036	51,757,468
1919	950	1,064	44,175	184,271	51,766,625	517,018	10,919,447	3,271,174	89,034,980
1909	638	964	45,218	127,736	28,623,622	91,229	3,550,651	754,881	34,146,153
Per cent of increase or decrease (—)									
1919-1929			-42.3	1.2	-43.8	-73.4	-44.5	-17.8	-41.9
1909-1919			-2.3	44.3	119.1	466.7	225.9	333.3	160.7
Oklahoma:									
1929	196	245	10,047	98,481	13,317,098	255,089	5,442,746	1,898,763	31,559,649
1919	235	284	12,734	94,039	10,069,762	286,539	5,859,933	2,311,976	34,430,282
1909	153	212	8,792	34,878	5,500,746	34,041	1,002,394	326,468	7,652,800
Per cent of increase or decrease (—)									
1919-1929			-21.1	8.7	-17.1	-11.0	-7.1	-17.9	-8.3
1909-1919			44.8	174.6	192.0	741.7	484.6	608.2	332.9
Oregon:									
1929	44	44	635	7,249	957,831	95,019	343,377	188,311	2,410,038
1919	50	52	740	6,264	992,967	35,888	545,949	133,472	1,884,871
1909	116	161	860	8,070	705,192	7,717	186,796	90,692	1,191,512
Per cent of increase or decrease (—)									
1919-1929			-14.2	15.7	-8.5	164.8	-37.1	41.1	27.9
1909-1919			-14.0	-22.4	40.8	305.1	192.3	38.2	58.2
Pennsylvania: 10									
1929	1,756	2,120	275,138	2,143,828	401,987,709	7,467,703	76,745,167	27,995,800	683,530,842
1919	2,607	3,508	314,332	1,628,050	484,999,210	2,447,353	110,287,889	26,119,554	753,179,148
1909	1,821	3,000	354,289	1,139,860	193,329,150	2,678,847	40,170,350	6,024,163	309,862,311
Per cent of increase or decrease (—)									
1919-1929			-12.5	31.7	-7.6	205.1	-30.4	7.2	-9.2
1909-1919			-11.3	42.8	125.0	-8.6	174.5	333.6	143.1
Rhode Island:									
1929	14	14	256	4,237	384,865	2,000	143,785	73,483	809,381
1919	14	15	369	3,000	399,648	1,000	146,937	56,075	952,204
1909	21	27	665	2,359	409,883		139,947	26,991	897,606
Per cent of increase or decrease (—)									
1919-1929			-30.6	41.2	-3.7	100.0	-9.0	33.4	-15.0
1909-1919			-44.5	27.7	-2.5		12.0	104.0	6.1

10 See footnote 2, Table 24.

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TABLE 25.—SUMMARY FOR THE UNITED STATES, BY STATES, 1929, 1919, AND 1909—Continued

[See note at head of this table]

STATE AND CENSUS YEAR	Number of enterprises	Number of mines and quarries	Wages earners (average for the year)	Horsepower rating of power equipment	PRINCIPAL EXPENSES				Value of products
					Wages	Contract work	Cost of supplies and materials	Cost of fuel and purchased electric energy	
South Carolina:									
1929	33	35	1,208	18,470	\$929,506	\$7,950	\$392,920	\$323,163	\$3,092,967
1919	20	20	933	4,656	680,424	-----	303,371	150,440	1,350,747
1909	29	32	1,814	7,012	626,489	6,080	124,018	117,899	1,252,792
Per cent of increase or decrease (—)									
1919-1929			39.1	296.7	86.6	-----	20.5	114.8	129.0
1909-1919			-48.6	-33.6	8.6	-----	143.4	27.6	7.8
South Dakota and North Dakota:									
1929	150	150	2,507	35,202	3,334,393	8,740	1,755,900	295,146	10,526,518
1919	102	107	2,559	13,881	3,526,466	42,691	1,291,829	321,713	7,241,820
1909	92	90	4,018	17,073	3,588,996	1,375	1,205,023	433,883	6,907,220
Per cent of increase or decrease (—)									
1919-1929			-2.0	153.6	8.7	-79.5	35.9	-8.3	45.4
1909-1919			-36.3	-21.5	-1.7	3,004.8	7.2	-26.9	3.5
Tennessee:									
1929	140	167	11,441	73,772	10,333,308	139,907	2,416,657	1,402,674	22,049,925
1919	203	203	14,470	56,675	12,087,338	173,790	3,892,397	1,259,983	23,292,114
1909	210	305	16,338	34,523	7,858,583	54,372	1,013,571	645,376	12,602,547
Per cent of increase or decrease (—)									
1919-1929			-20.9	30.2	-20.4	-19.5	-37.9	11.3	-5.3
1909-1919			-11.4	64.2	76.5	219.6	141.2	96.2	83.5
Texas:									
1929	92	104	5,190	60,394	6,150,558	41,729	4,475,299	4,839,484	44,333,518
1919	71	81	4,505	21,514	4,988,868	7,543	2,200,867	1,761,709	17,040,696
1909	73	92	5,025	8,941	2,630,220	31,232	479,016	171,905	4,360,837
Per cent of increase or decrease (—)									
1919-1929			13.7	180.7	23.3	453.2	97.9	174.7	160.2
1909-1919			-0.2	140.6	89.7	-75.8	372.0	924.8	291.7
Utah:									
1929	117	131	12,149	179,475	21,225,133	2,051,993	13,571,393	4,103,672	32,843,031
1919	141	154	9,847	85,816	17,196,652	491,178	8,043,453	2,019,110	41,510,802
1909	188	235	10,089	47,226	8,086,851	265,000	4,027,324	1,074,119	22,083,282
Per cent of increase or decrease (—)									
1919-1929			23.4	109.1	23.4	317.8	68.7	103.2	99.6
1909-1919			-2.4	81.7	91.4	85.3	99.7	88.0	88.0
Vermont:									
1929	105	129	3,154	39,906	4,153,100	27,974	712,097	617,681	10,276,907
1919	93	109	2,936	28,099	3,041,551	91,760	1,272,796	425,398	8,555,030
1909	137	182	8,145	25,068	4,440,315	64,698	905,157	362,438	8,221,323
Per cent of increase or decrease (—)									
1919-1929			7.4	42.0	30.5	-69.5	-44.1	46.2	20.1
1909-1919			-64.0	9.5	-31.0	41.8	40.6	17.4	4.1
Virginia:									
1929	179	196	15,015	107,316	14,554,452	17,089	3,608,691	1,753,345	28,705,823
1919	202	216	14,547	57,880	10,108,240	340,851	4,700,370	1,216,394	29,363,449
1909	150	244	15,257	34,630	5,220,787	119,028	1,173,896	484,827	8,795,646
Per cent of increase or decrease (—)									
1919-1929			3.2	85.4	-0.6	-95.0	-24.2	44.1	-2.2
1909-1919			-4.7	67.1	208.0	186.4	305.5	151.2	233.8
Washington:									
1929	82	90	3,652	39,321	5,790,027	-----	1,240,436	630,808	12,270,808
1919	83	93	5,050	37,998	7,466,652	86,624	1,728,586	947,330	13,329,129
1909	93	170	6,904	20,742	5,891,007	14,492	843,025	245,852	10,537,560
Per cent of increase or decrease (—)									
1919-1929			-27.7	3.5	-22.4	-----	-28.2	-33.4	-7.9
1909-1919			-26.9	83.2	26.7	499.0	105.0	285.3	20.5
West Virginia:									
1929	723	870	101,085	664,530	128,417,959	292,028	25,038,260	9,222,197	222,816,885
1919	963	1,325	88,510	366,023	107,101,515	405,581	26,512,225	5,794,686	196,088,310
1909	356	718	66,657	160,144	31,582,761	62,279	5,313,375	762,892	48,099,802
Per cent of increase or decrease (—)									
1919-1929			14.2	81.6	19.8	-28.0	-5.6	59.1	13.4
1909-1919			32.8	128.6	239.3	661.2	399.0	659.6	307.7
Wisconsin:									
1929	99	104	2,517	49,158	3,545,162	25,230	1,387,612	708,561	10,401,057
1919	92	107	3,547	26,766	4,750,235	135,293	1,069,512	857,265	10,580,833
1909	268	286	4,710	24,864	3,081,359	40,957	877,925	435,093	7,459,404
Per cent of increase or decrease (—)									
1919-1929			-29.0	83.7	-26.4	-76.1	-26.5	-17.3	-1.7
1909-1919			-24.7	7.6	54.2	230.3	124.3	90.6	41.8
Wyoming:									
1929	56	73	5,282	50,855	9,663,759	32,521	2,114,512	774,831	18,817,045
1919	67	87	7,532	49,864	11,089,680	39,335	2,590,734	799,693	19,968,851
1909	59	95	7,729	30,053	6,255,637	33,151	1,277,348	372,922	10,553,259
Per cent of increase or decrease (—)									
1919-1929			-29.9	2.0	-12.9	-17.3	-18.4	-3.1	-5.8
1909-1919			-2.5	65.9	77.3	18.7	102.8	114.4	89.2

MINES AND QUARRIES

TABLE 26.—CONSUMPTION OF FUEL AND ELECTRIC ENERGY, BY INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to fuel and electric energy consumed. The combined value of products represented by these enterprises was less than 1 per cent of the total for all mining and quarrying industries]

INDUSTRY	FUEL AND ELECTRIC ENERGY CONSUMED							
	Fuel						Electric energy	
	Coal		Coke, tons (2,000 pounds)	Fuel oils, gallons	Gasoline and kerosene, gallons	Natural gas, M cubic feet	Purchased, kilo- watt-hours	Generated by enterprises reporting, kilowatt-hours
	Anthracite, tons (2,240 pounds)	Bituminous, tons (2,000 pounds)						
All Industries, total.....	5,223,195	8,825,007	136,896	169,985,047	16,565,785	1 25,536,328	5,382,178,325	2,080,612,116
COAL								
Anthracite.....	5,044,989	28,833	-----	36,930	92,033	-----	470,248,027	478,428,560
Bituminous.....	-----	4,524,407	30,301	711,941	754,074	1 303,000	2,044,348,813	464,540,925
METALS								
Copper.....	134	1,006,321	7,859	89,013,817	421,317	-----	758,119,336	734,614,117
Iron ore.....	52,448	804,815	85,953	2,300,241	506,898	1 2,227	376,636,018	90,735,238
Lead.....	4,766	131,059	382	970,500	108,402	132,344	447,702,055	50,718,102
Zinc.....	59,783	46,859	15	2,021,425	201,701	784,183	196,945,992	54,746,006
Gold, lode.....	5	119,278	208	505,967	135,738	6,279	52,427,901	56,636,628
Silver.....	11	5,424	18	1,161,157	117,261	-----	42,838,382	7,302,065
Gold, placer.....	-----	140	-----	-----	4,250	-----	67,617,908	216,000
Mercury.....	-----	21	-----	3,166,675	202,600	-----	5,328,950	2,145,756
Manganese.....	-----	8,955	-----	10,383	10,251	-----	3,881,089	-----
Minor metals ¹	150	20,283	10	730,240	60,287	482,048	14,476,851	599,000
STONE								
Limestone.....	44,066	805,238	4,574	6,178,983	3,616,524	117,742	294,930,770	37,056,618
Granite.....	5,401	79,454	245	1,443,618	630,081	1 14,056	56,884,163	943,200
Basalt.....	1,096	53,934	702	526,507	554,685	-----	30,746,089	-----
Slate.....	2,454	34,366	-----	91,204	26,730	-----	18,797,538	672,043
Marble.....	284	49,765	143	27,684	40,298	-----	21,720,805	108
Sandstone.....	1,075	30,060	-----	971,974	155,057	3,480	11,858,041	118,520
Miscellaneous.....	17	11,465	-----	1,790,727	434,971	67,200	16,287,892	-----
OTHER NONMETALS								
Abrasive materials ²	15	6,021	-----	358,093	91,639	1,800	346,142	292,000
Asbestos.....	-----	592	-----	143,006	16,250	-----	988,000	15,800
Asphalt and bituminous rock.....	-----	31,173	-----	978,702	112,471	-----	1,425,974	3,089,024
Barite.....	-----	8,703	-----	131,026	92,259	-----	5,649,847	57,720
Clay.....	627	115,248	2,158	127,547	445,982	10,230	14,348,908	241,476
Feldspar.....	52	783	511	71,607	60,246	-----	3,826,437	60,230
Fluorspar.....	-----	48,925	-----	84,889	181,049	-----	744,337	4,366,090
Fuller's and filtering earths.....	-----	16,505	2,474	6,018,754	470,080	4,014	2,845,352	3,627,359
Gypsum.....	623	13,085	646	771,782	266,641	5,033	19,264,882	5,251,706
Magnesite.....	-----	26,816	-----	359,394	5,670	-----	5,322,663	-----
Mica.....	2	1,617	7	41,000	40,524	-----	1,270,272	-----
Millstones and pulpstones.....	-----	1,175	-----	-----	-----	3,277	1,208,085	-----
Phosphate rock.....	-----	71,979	2	24,158,459	102,294	-----	109,902,672	50,702,426
Sand, glass.....	-----	62,010	-----	1,146,839	93,192	680	15,280,623	333,000
Sand, molding.....	-----	36,960	200	128,446	307,739	4,835	5,885,496	65,000
Sand and gravel.....	3,804	601,588	133	16,011,401	5,811,573	1 134,773	237,679,291	7,594,828
Silica ³	-----	13,215	-----	441,267	193,084	385,654	10,776,482	2,000
Sulphur and pyrites.....	-----	328	-----	5,108,883	19,804	23,072,773	2,735,292	15,453,523
Talc and soapstone.....	53	5,717	355	5,410	54,644	-----	8,467,612	900,000
Miscellaneous minerals ⁴	1,340	1,830	-----	243,553	16,243	-----	3,396,542	-----

¹ Includes 111,314 M cubic feet of manufactured gas, consumed in industries as follows: Coal, bituminous, 56,471 M; granite, 56 M; iron ore, 2,227 M; sand and gravel, 82,560 M.

² Bauxite, molybdenum, titanium, tungsten, vanadium.

³ Emery, garnet and industrial sapphires and diamonds; grinding pebbles and tube-mill lining; grindstones, oilstones, whetstones, scythestones, and rubbing stones; pumice and volcanic ash (pumicite).

⁴ Diatomaceous earth, ganister, quartz, quartzite, silica rock, silica sand, siliceous mica schist, tripoli.

⁵ Borates, cyanite, graphite, lithium minerals (amblygonite, lepidolite, and spodumene), mineral pigments, tantalum, vermiculite.

GENERAL TABLES

TABLE 27.—CONSUMPTION OF FUEL AND ELECTRIC ENERGY, BY STATES: 1929

[See headnote, Table 26]

STATE	FUEL AND ELECTRIC ENERGY CONSUMED							
	Fuel						Electric energy	
	Coal		Coke, tons (2,000 pounds)	Fuel oils, gallons	Gasoline and kerosene, gallons	Natural gas, M cubic feet	Purchased, kilo- watt-hours	Generated by enterprises re- porting, kilo- watt-hours
Anthracite, tons (2,240 pounds)	Bituminous, tons (2,000 pounds)							
United States, total.....	5, 223, 195	8, 825, 007	136, 890	169, 985, 047	16, 565, 785	1 25, 536, 328	5, 382, 178, 325	2, 080, 612, 110
<i>Individual States</i>								
Alabama.....		295, 848	18, 430	100, 298	96, 741		234, 764, 738	40, 141, 700
Arizona.....	77	4, 124	357	87, 523, 804	834, 583		132, 243, 548	451, 924, 097
Arkansas.....	3, 650	30, 374	10	1, 513, 263	214, 104	542, 180	15, 104, 637	
California.....	7	2, 816		13, 101, 007	1, 846, 025	390, 760	184, 671, 706	2, 595, 450
Colorado.....		289, 954	63	132, 867	100, 801	4, 014	93, 206, 726	16, 587, 400
Connecticut.....	224	17, 465	73	53, 252	90, 806		6, 950, 367	
Florida.....		36, 350		26, 801, 007	412, 843		106, 917, 257	52, 200, 426
Georgia.....	1, 317	97, 018	1, 815	3, 900, 065	154, 737		20, 594, 806	5, 330, 429
Idaho.....		21, 813	310	247, 785	32, 325		119, 814, 988	9, 351, 121
Illinois.....	1, 385	1, 160, 205		725, 071	771, 807		184, 265, 217	41, 556, 584
Indiana.....		458, 842		102, 373	310, 836		103, 569, 585	3, 626, 506
Iowa.....	985	92, 186	30	42, 561	282, 482		30, 943, 803	260, 670
Kansas.....	342	71, 889		372, 832	852, 643	801, 372	65, 320, 992	545, 058
Kentucky.....		541, 146	750	223, 821	325, 335	102, 345	175, 731, 000	55, 829, 180
Maine.....	2, 082	4, 284	76	9, 650	23, 096		5, 004, 412	70, 000
Maryland.....		55, 363	91	673, 700	145, 101	600	16, 533, 858	1, 492, 456
Massachusetts.....	292	21, 577	5	383, 807	456, 558	1 4, 833	13, 716, 792	902, 258
Michigan.....	845	1, 002, 107	2, 004	1, 040, 380	779, 600		174, 009, 915	222, 495, 092
Minnesota.....	115	469, 807	28, 280	464, 656	435, 106		107, 435, 531	4, 420, 538
Missouri.....	7	245, 036	96	1, 063, 431	415, 002	10, 844	205, 834, 623	71, 992, 038
Montana.....	110	138, 104	46	228, 783	114, 700		317, 574, 705	3, 515, 200
Nebraska.....	7	2, 927		42, 000	122, 637		7, 607, 829	
Nevada.....	7	114, 931	847	2, 463, 842	197, 851		43, 231, 122	77, 089, 646
New Hampshire.....	30	0, 007	7	60, 474	45, 016		2, 664, 146	162, 000
New Jersey.....	60, 853	35, 518	30	1, 797, 800	847, 474		23, 167, 307	23, 675, 263
New Mexico.....		239, 643		1, 021, 418	68, 134		18, 823, 556	110, 852, 282
New York.....	12, 465	128, 517	982	1, 242, 029	1, 260, 110	507	98, 349, 949	7, 633, 080
North Carolina.....		50, 462	236	82, 703	327, 735		13, 127, 202	773, 200
Ohio.....	389	380, 000	466	927, 533	850, 871	20, 163	125, 155, 527	8, 172, 100
Oklahoma.....		80, 734		2, 284, 807	646, 233	636, 566	98, 312, 664	16, 377, 300
Oregon.....		999		1, 953, 810	138, 683		7, 034, 660	616, 000
Pennsylvania.....	5, 128, 910	1, 307, 243	22, 469	2, 320, 075	1, 547, 559	106, 301	1, 279, 191, 466	600, 580, 823
Rhode Island.....	1, 203	3, 445		963	54, 500		1, 508, 704	
South Carolina.....	1, 625	21, 125	2, 308	30, 202	260, 064		11, 104, 801	
Tennessee.....		204, 720	10	261, 957	215, 500		80, 382, 515	7, 072, 000
Texas.....	903	54, 082	50	12, 342, 913	802, 347	1 23, 257, 784	17, 008, 974	10, 402, 348
Utah.....	38	100, 744	4, 942	356, 752	182, 555		468, 894, 624	661, 404
Vermont.....	431	15, 513	305	115, 278	31, 624		22, 571, 970	13, 405
Virginia.....	4, 719	84, 003	2, 924	140, 420	129, 758		99, 427, 850	2, 095, 993
Washington.....		50, 164	1	635, 430	188, 818		42, 725, 058	527, 056
West Virginia.....		567, 407		75, 887	75, 430	1 87, 880	536, 108, 188	113, 529, 744
Wisconsin.....	149	33, 724	47, 162	150, 525	415, 237	1 2, 227	40, 077, 009	52, 500
Wyoming.....		180, 857		80, 448	71, 026		13, 185, 701	50, 414, 145
<i>Groups of States</i>								
Delaware and District of Columbia.....	10	1, 830		500	10, 435		362, 970	
Louisiana and Mississippi.....		16, 143		1, 035, 860	107, 252		13, 410, 170	
North Dakota and South Dakota.....		77, 590	783	124, 433	263, 591	1 61, 662	2, 581, 251	45, 847, 400

¹ Includes 111,314 M cubic feet of manufactured gas, consumed in States as follows: Massachusetts, 4,833 M; North Dakota and South Dakota, 65,383 M; Texas, 34,887 M; West Virginia, 13,984 M; Wisconsin, 2,227 M.

MINES AND QUARRIES

TABLE 28.—DETAILED STATISTICS FOR NONPRODUCING ENTERPRISES, BY INDUSTRIES: 1929

	Total	Gold, silver, copper, lead, or zinc	Iron ore	Coal, bituminous	Other industries ¹
Number of enterprises.....	861	783	6	19	53
Number of mines and quarries.....	904	826	6	19	53
Persons engaged, total.....	6,500	5,889	124	103	384
Salaried officers and employees.....	698	637	17	(²)	44
Wage earners (average for the year).....	5,802	5,252	107	103	340
Principal expenses:					
Salaries and wages—					
Salaried officers and employees.....	\$1,384,118	\$1,253,376	\$33,942	(³)	\$96,800
Wage earners.....	\$7,905,459	\$7,204,957	\$144,793	\$118,513	\$437,196
Contract work.....	\$857,265	\$808,457	(⁴)	(⁴)	\$48,808
Supplies, fuel, and purchased electric energy.....	\$4,629,395	\$3,860,978	\$155,683	\$122,016	\$490,718
Expenditures for development (included above in "Principal expenses").....	\$13,158,491	\$11,503,564	\$337,000	\$281,519	\$1,036,408
Machinery and other equipment purchased during the year, total cost.....	\$2,224,384	\$1,802,116	\$422,208	(⁴)	(⁴)
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	69,620	62,602	1,820	916	4,282
Prime movers, total horsepower.....	37,091	33,386	105	467	3,133
Steam engines—					
Number.....	497	424	2	13	58
Horsepower.....	19,305	15,665	40	467	3,133
Steam turbines—					
Number.....	2	2			
Horsepower.....	18	18			
Internal-combustion engines—					
Number.....	270	268	2		
Horsepower.....	12,788	12,723	65		
Water wheels and water turbines—					
Number.....	52	52			
Horsepower.....	4,980	4,980			
Electric motors driven by purchased energy—					
Number.....	793	716	25	13	39
Horsepower.....	32,529	29,216	1,715	449	1,140
Electric motors driven by energy generated by enterprises reporting:					
Number.....	141	141			
Horsepower.....	4,069	4,069			
Electric generators:					
Number.....	34	34			
Kilowatts.....	6,004	5,004			

¹ Abrasive materials, 1 enterprise; asbestos, 1; clay, 3; feldspar, 3; fluor spar, 4; granite, 2; gypsum, 1; limestone, 1; manganese, 3; marble, 6; mercury, 13; mica, 1; sandstone, 1; silica, 2; sulphur, 1; tungsten, 10.

² Included in figures for wage earners.

³ Included in figures for wages.

⁴ Not reported.

GENERAL TABLES

TABLE 29.—DETAILED STATISTICS FOR NONPRODUCING ENTERPRISES, BY STATES: 1929

STATE	Number of enterprises	Number of mines and quarries	PERSONS ENGAGED IN INDUSTRY			PRINCIPAL EXPENSES OF OPERATION AND DEVELOPMENT				Expenditures for development (included in "Principal expenses")	Machinery and other equipment purchased during the year (total cost)
			Total	Salaried officers and employees	Wage earners (average for the year)	Salaries and wages		Contract work	Supplies, fuel, and purchased electric energy		
						Salaried officers and employees	Wage earners				
United States.....	861	904	6,500	698	5,802	\$1,384,118	\$7,905,459	\$857,205	\$4,620,395	\$13,158,401	\$2,224,384
Arizona.....	103	106	809	102	707	271,486	918,267	104,157	568,282	1,785,908	150,506
California.....	166	173	1,299	123	1,176	268,341	1,021,405	196,317	847,463	2,941,126	170,619
Colorado.....	117	123	636	99	537	146,845	699,931	77,450	363,068	1,158,744	51,408
Georgia.....	3	3	25	—	25	—	24,600	—	2,000	21,500	—
Idaho.....	93	101	631	80	551	132,152	833,693	181,693	349,302	1,428,368	120,833
Illinois.....	3	3	37	—	37	—	41,301	—	36,379	86,768	—
Kentucky.....	3	3	14	1	13	700	10,732	—	2,525	9,500	—
Michigan.....	3	3	53	3	50	5,650	80,124	14,630	107,360	212,100	23,172
Minnesota.....	4	4	82	11	71	27,208	102,595	—	125,391	260,000	420,418
Missouri.....	8	8	23	2	21	5,932	13,876	30,204	17,050	83,908	4,000
Montana.....	60	64	417	29	388	67,150	494,619	36,904	252,950	750,471	40,497
Nevada.....	77	77	590	60	530	142,314	792,983	12,881	558,065	1,162,365	63,664
New Mexico.....	24	25	151	21	130	21,232	132,415	1,400	51,053	175,125	13,185
North Carolina.....	5	6	22	3	19	7,000	18,269	—	16,025	36,197	25,000
Oklahoma.....	3	3	24	1	23	2,591	—	29,069	19,609	50,000	—
Oregon.....	50	59	334	23	311	30,170	371,555	15,783	184,432	492,695	66,712
Pennsylvania.....	5	5	9	1	8	800	7,525	—	1,560	21,450	—
South Dakota.....	3	3	32	4	28	11,273	44,064	1,000	29,534	91,419	6,311
Tennessee.....	3	3	54	1	53	960	61,370	—	38,838	64,025	17,103
Utah.....	66	69	496	65	431	93,373	630,040	—	422,251	1,177,153	90,394
Virginia.....	3	3	19	—	19	—	16,500	—	6,200	47,000	—
Washington.....	38	38	348	35	313	81,216	411,160	6,101	166,548	380,607	160,034
Wyoming.....	10	11	79	7	72	17,800	105,220	—	42,940	117,500	84,660
Other States ¹	11	11	316	27	289	51,325	442,771	37,195	419,970	597,972	694,808

STATE	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY														Electric motors driven by energy generated by enterprises reporting	Electric generators	
	Aggregate horse-power	Prime movers										Electric motors driven by purchased energy		Number			Kilo-watts
		Total horse-power	Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines								
			Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power			Number
United States.....	69,620	37,091	497	19,305	2	13	270	12,788	52	4,980	793	32,529	141	4,069	34	5,064	
Arizona.....	12,022	7,855	91	2,801	—	—	94	5,004	1	50	90	4,107	53	1,653	12	1,965	
California.....	11,809	6,437	132	3,173	1	6	43	1,485	24	1,773	184	5,372	16	650	7	1,780	
Colorado.....	7,610	3,311	28	2,005	1	12	9	283	9	1,011	109	4,299	13	305	3	390	
Georgia.....	276	225	1	225	—	—	—	—	—	—	1	50	—	—	—	—	
Idaho.....	5,330	3,225	29	1,482	—	—	14	743	5	1,000	48	2,105	1	200	(?)	(?)	
Illinois.....	222	132	2	132	—	—	—	—	—	—	4	90	—	—	—	—	
Kentucky.....	43	43	6	43	—	—	—	—	—	—	—	—	—	—	—	—	
Michigan.....	1,295	775	6	535	—	—	1	240	—	—	—	—	—	—	—	—	
Minnesota.....	1,320	175	3	140	—	—	1	35	—	—	19	1,145	—	—	—	—	
Missouri.....	1,053	101	5	101	—	—	—	—	—	—	24	952	—	—	—	—	
Montana.....	3,655	1,600	18	1,002	—	—	12	451	3	147	35	2,055	(?)	(?)	1	100	
Nevada.....	7,038	4,276	52	2,628	—	—	40	1,648	—	—	55	2,810	4	91	4	132	
New Mexico.....	1,415	1,250	22	507	—	—	14	683	—	—	2	165	1	75	1	130	
North Carolina.....	110	75	2	75	—	—	—	—	—	—	1	35	—	—	—	—	
Oklahoma.....	2,251	850	2	300	—	—	5	550	—	—	42	1,401	—	—	—	—	
Oregon.....	1,885	1,349	25	1,022	—	—	—	—	—	—	—	—	13	205	2	10	
Pennsylvania.....	75	15	3	15	—	—	5	230	2	97	20	536	—	—	—	—	
South Dakota.....	527	16	1	15	—	—	—	—	—	—	3	60	—	—	—	—	
Tennessee.....	650	—	—	—	—	—	—	—	—	—	18	512	—	—	—	—	
Utah.....	3,632	815	14	372	—	—	11	396	2	47	12	650	—	—	—	—	
Virginia.....	210	210	6	210	—	—	—	—	—	—	72	2,817	—	—	—	—	
Washington.....	2,779	2,342	30	1,097	—	—	16	390	6	855	20	437	18	365	2	318	
Wyoming.....	1,085	1,035	7	485	—	—	4	900	—	—	—	—	22	430	2	240	
Other States ¹	3,281	980	14	880	—	—	1	50	—	—	30	2,351	—	—	—	—	

¹ Alabama, 2 enterprises; Florida, 1; Iowa, 1; Kansas, 1; New York, 2; Ohio, 1; Texas, 1; West Virginia, 1; Wisconsin, 1.
² Not reported.

GENERAL TABLES

UNITED STATES, BY INDUSTRIES: 1929

Expenditures for development (included in principal expenses; thousands)	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY																Electric motors driven by energy generated by enterprises reporting	Electric generators	
	Value of products ¹	Machinery and other equipment purchased during the year (total cost)	Prime movers										Electric motors driven by purchased energy						
			Aggregate horsepower	Total horsepower of prime movers	Steam engines		Steam turbines		Internal-combustion engines		Water wheels and water turbines								
					Number	Horse-power	Number	Horse-power	Number	Horse-power	Number	Horse-power			Number	Horse-power			
<i>Dollars</i> 76,488	<i>Dollars</i> 2,392,831,178	<i>Dollars</i> 84,508,448	7,514,843	72,743,025	14,144	1,737,858	794	684,878	4,421	274,208	125	46,081	123,811	4,771,818	34,024	1,352,081	1,600	736,489	1
7,902 16,646	384,854,300 966,693,771	5,570,720 34,947,424	1,041,465 3,124,187	618,042 721,687	3,286 4,542	455,327 544,015	282	160,424 145,008	98	2,201 28,004	5	4,660	6,598 66,681	423,423 2,402,500	9,917 14,379	464,164 420,970	130 973	128,305 271,072	2 3
22,151 9,886 5,666 2,506 3,939 1,707 76 460 40 379	283,517,373 197,334,548 67,561,778 44,866,026 17,660,174 8,457,263 3,770,241 2,820,166 1,184,561 6,649,976	18,083,523 3,593,941 1,903,966 1,847,978 1,084,523 423,704 28,943 359,497 618,185 12,441 230,253	701,701 498,821 194,380 163,357 69,829 28,943 9,540 589 3,119 177 3,874	366,863 222,154 38,234 55,829 31,480 28,943 589 3,119 177 3,874	329 845	156,639 171,232	94 32	189,123 33,017	142 46	19,726 4,005	8 14	1,375 13,900	8,038 5,266	334,928 276,667	4,726 690	270,205 40,688	108 43	173,765 41,895	4 5
1,459 1,003 134 298 279 223	117,257,784 30,381,373 15,543,687 10,480,300 7,538,905 6,311,977 8,476,008	5,668,766 655,909 990,467 206,933 102,776 130,289 382,895	535,466 108,217 63,881 38,817 30,198 0,613 28,935 28,527	108,230 32,144 18,775 7,941 0,613 11,370 9,091	1,816 509	110,561 23,332	32 16	51,387 1,245	723 165	35,233 6,922	9 6	1,055 605	8,780 2,025	337,230 76,073	429 221	20,872 1,776	52 16	16,832 1,412	16 17
67 93 39	1,411,284 397,432 5,129,836	26,092 89,297 182,214	3,828 2,114 13,109	2,927 695 10,177	36 8	1,341 267	----- -----	----- -----	38 16	1,436 438	2 -----	150 -----	38 30	901 1,419	13 4	205 40	3 1	160 25	23 24
12 94 32 167 90	1,801,314 10,753,445 1,935,335 2,858,344 4,811,629	154,065 458,753 28,100 139,664 98,012	6,080 31,877 0,543 0,513 8,221	2,693 20,837 2,631 0,182 6,775	18 120	598 9,923	----- 5	----- 4,989	36 178	1,950 5,745	1 2	150 180	96 718	3,368 11,040	8 85	113 1,011	4 9	185 862	26 27
127 24 14 8	5,740,183 2,045,905 516,305 620,835	577,540 44,230 6,406 11,136	26,498 3,197 1,721 2,517	5,348 220 732 614	10 3	1,599 170	----- -----	----- -----	48 3	3,719 50	1 -----	80 -----	792 143	21,150 2,977	107 -----	1,939 -----	12 -----	1,233 -----	31 32
190 50 12	13,043,769 5,359,216 4,775,957	805,128 433,007 355,514	104,146 13,215 14,792	46,518 2,193 7,603	68 14	7,370 805	15 3	37,268 270	9 24	1,880 1,118	----- -----	----- -----	901 448	57,628 11,022	355 24	30,906 716	14 3	22,722 360	35 36
81 325 57 45	102,311,914 4,645,142 37,126,148 2,637,953 3,592,876	7,173,766 236,898 1,633,728 35,399 66,719	516,745 11,771 33,932 10,530 3,978	231,097 4,515 31,843 3,937 610	1,653 82 291 11 6	168,150 2,312 14,324 535 640	10 ----- 49 5	740 ----- 16,424 20 -----	1,125 49 38 17	72,207 2,205 1,895 407 70	----- ----- ----- 9	----- ----- ----- 2,075 -----	305 7,732 476 106 162 3,368	7,159 285,648 7,255 426 6,593 3,368	212 212 4 4 4 -----	6,501 ----- 13,528 750 -----	42 1 18 1 -----	3,828 ----- 8,202 250 -----	38 39 41 42

¹ Collieries, 241; dredges, 42; washeries (oum-bank), 20.
² Molybdenum, 2 enterprises; titanium, 1; tungsten, 12; vanadium, 2.
³ Emery, 2 enterprises; garnet and industrial sapphires and diamonds, 6; grinding pebbles and tube-mill lining, 2; grindstones, oilstones, whetstones, scythesstones, and rubbing stones, 13; pumice and volcanic ash (pumice), 7.
⁴ Diatomaceous earth, 10 enterprises; ganister, 18; quartz, 9; quartzite, 2; silica rock, 6; silica sand, 14; siliceous mica schist, 3; tripoli, 8.
⁵ Production of pyrites was of minor importance, representing less than 2 per cent of the combined value of products shown for sulphur and pyrites.
⁶ Borates, 2 enterprises; cyanite, 2; graphite, 5; lithium minerals (amblygonite, lepidolite, and spodumene), 4; mineral pigments, 4; tantalum, 1; vermiculite, 1.

GENERAL TABLES

TABLE 32.—NUMBER OF ENTERPRISES IN EACH STATE, BY INDUSTRIES: 1929—Continued

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
Producing enterprises, total	145	24	104	36	117	69	261	118	116	801	217	62	1,814	14	33	38	160	133	120	105	190	103	740	147	56
Abrasive materials, total	1	1		1			4			6			1							1			1		
Emery																									
Garnet and industrial sapphires and diamonds	1			1			2																		
Grinding pebbles and tube-mill lining																									
Grindstones, oilstones, whetstones, scythe-stones, and rubbing stones										6			1							1				1	
Pumice and volcanic ash (pumfote)		1																							
Asbestos								1												1					
Asphalt and bituminous rock											1								3	8					
Barite																									1
Basalt					26		2					10	20	1	1		2								1
Clay			2		17		5	2		19	1		31		0		5	1	1	2	1	8	2	1	5
Coal, anthracite (Pa.)													198												
Coal, bituminous	66					28	1	115	536	97	3	1,151				8	65	22	36	0	75	32	650	36	
Copper	7		18			14	2				2						2	2	0	1				1	
Feldspar				6			3	14								3						4			
Fluorspar			2			1																			
Fuller's and filtering earths			31									3							1	3			2		
Gold, lode	9											4													
Gold, placer						1						2													
Granite	5			18	1		13	67		7	4		24	0	17	7	5	2	24		5	1	3	18	1
Gypsum	2		5				11			3	4							6	3		24	5	2		2
Iron ore	1		2		4	2	5	1					4				4		3	3			1	3	1
Lead	16		9			5				6										20		1	2		1
Limestone	7	5	2		5	1	60	3		110	18	4	201	1		3	29	36	8	4	63	14	19	53	7
Magnesite																									
Manganese	4					1																			
Marble	1				1		0	1				1								1	0	5	1		
Mercury			10			2		10				4					13					1	2		
Mica				6			2		10		2							3	1			1			
Millstones and pulpstones							2	1		2													0		
Minor metals, total	1		2			1																1	1		
Bauxite																									
Molybdenum						1																			
Titanium																						1			
Tungsten	1		2																						
Vanadium																									
Miscellaneous minerals, total	2					1							1			4						1			
Borates																									
Cyanite																									
Graphite	1																					1			
Lithium minerals ¹						1										3									
Mineral pigments													1												
Tantalum																1									
Vermiculite	1																								
Phosphate rock																	12								1
Sand, glass			2			3				2	2		2									3		3	
Sand, molding					16		10			22			12											2	
Sand and gravel	4	18	1	4	33	1	02	6	1	73	21	18	46	2	6	3	20	41	3	1	8	21	17	48	
Sandstone					2	1	30			14	1	2	41			0	1				3	2	2	5	
Silica, total	1		2		5		2	1		3	1	2	18				1	1			1	1		4	
Diatomaceous earth			1				1					2											1		
Ganister													12												3
Mica schist, siliceous												2													
Quartz			1				1	1																	1
Quartzite	1																					1			
Silica rock										3			3												
Silica sand					5													1							
Tripoli											1						1								
Silver	12		14			1													1	11			2		
Slate					1		15						33							53		6			
Stone, miscellaneous	1		1	1	2	1	15	3		11	1	7	30	1			1	1				7	1	1	1
Sulphur and pyrites			1															4	1			3			
Talc and soapstone							3	3					1								4				1
Zinc	5		3		1	8	1				57								1		1	1			9

¹ Including mica schist, valuable principally for mica.
² Amblygonite, lepidolite, spodumene.

MINES AND QUARRIES

TABLE 32.—NUMBER OF ENTERPRISES IN EACH STATE, BY INDUSTRIES: 1929—Continued

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
Nonproducing enterprises, total.....	881	2	103		166	117				1	3	93	3		1	1	3					3	4		3
Abrasive materials.....	1																								
Asbestos.....	1																								
Clay.....	3										1														
Coal, bituminous.....	19				1							3		1			1								3
Feldspar.....	3																								
Fluorspar.....	4																2								
Gold, silver, copper, lead, or zinc.....	783		100		156	111				2	90				1							2			5
Granite.....	2				1																		1		
Gypsum.....	1				1																				
Iron ore.....	6	1			1																		3		
Limestone.....	1								1																
Manganese.....	3		1		1																				
Marble.....	6	1			1	1				1												1			
Mercury.....	13				6	1					1														
Mica ¹	1																								
Minor metals, total.....	10		2		1	2																			
Tungsten.....	10		2		1	2																			
Sandstone.....	1																								
Silica.....	3				1																				
Sulphur.....	1																								1

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	
Nonproducing enterprises, total.....	60		77			24	2	5		1	3	50	5		3	3	1	66		3	33	1	1		10	
Abrasive materials.....			1																							
Asbestos.....	1																									
Clay.....																										
Coal, bituminous.....	1												1									3	1			
Feldspar.....							1	2		1			4						1							
Fluorspar.....						1																				
Gold, silver, copper, lead, or zinc.....	58		69			23	1	1			3	48			3	1		63			2	34		1	9	
Granite.....																										
Gypsum.....																										
Iron ore.....																						1				
Limestone.....																										
Manganese.....																						1				
Marble.....																										
Mercury.....			4									2					1									
Mica ¹								1																		
Minor metals, total.....			3					1											1							
Tungsten.....			3					1											1							
Sandstone.....								1																		
Silica.....																	1									
Sulphur.....																		1								

¹ Including mica schist, valuable principally for mica.

CONSUMPTION OF FUELS AND ELECTRIC ENERGY IN MINING AND QUARRYING INDUSTRIES

INTRODUCTION

This report presents the results of the 1929 census of mines and quarries relating to the consumption of principal fuels and electric energy by producing enterprises in the mineral-producing industries. It gives comparative statistics for selected States and industries for 1929 and 1919, and statistics for fuel and electric energy consumption by counties for 1929.

The statistics do not include the following: (1) Data for fuel consumed by petroleum and natural-gas enterprises; (2) data for individual enterprises reporting products valued at less than \$20,000, the total of which amounted to less than one per cent of that for the mineral industries as a whole; and (3) data for smelting and refining industries, which are included in the statistics of the census of manufactures. (See GENERAL EXPLANATIONS—Scope of the Census, p. 3.)

Comparative statistics for the consumption of fuels and electric energy for selected mineral industries are given for 1929 and 1919 in Table 1. Marked decreases are shown for the consumption of anthracite and bituminous coal, amounting to 40 per cent and 50 per cent, respectively, and are accounted for principally in the coal-mining industries themselves.

Data for kilowatt-hours of electric energy consumed in the mineral industries were not collected for 1919, and therefore direct comparisons with the statistics for 1929 can not be made. However, a comparison of the cost of electric energy purchased in 1929 and in 1919 will throw some light on the increase in the consumption of this power item, but in making such a comparison the changes in prices per kilowatt-hour

must be taken into account. In practically every case the table shows an increase in the expenditure for purchased energy where decreases are shown for fuel consumption.

The large increase in the consumption of natural gas occurred in the sulphur industry and at the expense of fuel-oil consumption.

Statistics for the consumption of fuel and electric energy, for selected States, for 1929 and 1919 are shown in Table 2 and those for selected counties for 1929 in Table 3. The major portion of the consumption of fuels in the mineral industries was confined to relatively few counties. In fact, 39 counties accounted for 4,456,033 tons, or more than 50 per cent of the bituminous coal consumed. The anthracite industry itself accounted for practically 97 per cent of the anthracite consumed in the mining industries, only insignificant amounts being used in other industries. Four counties in Arizona and one in Florida reported 108,976,326 gallons of fuel oil, or more than 64 per cent of the total fuel oils used. The consumption of gasoline was relatively small and distributed among many counties. Twenty-five counties, including 11 in Pennsylvania and four in West Virginia, each reported the consumption of over 50,000,000 kilowatt-hours of *purchased* electric energy, and together accounted for approximately one-half of the total consumption of such energy. Similarly, nearly three-fourths of the total electric energy *generated* within the industries was reported from 21 counties.

MINES AND QUARRIES

TABLE I.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, FOR SELECTED INDUSTRIES: 1929 AND 1919

[The tables for 1929 are shown as compiled for all industries canvassed for that year, and also as revised (in *italics*) for comparative purposes by the omission of data for the sand and gravel, glass-sand, and molding-sand industries, which industries were not canvassed for 1919. Likewise, the totals for 1919 have been revised for comparative purposes by the omission of data for the petroleum and natural-gas industries, which were not canvassed for 1929.]

INDUSTRY AND YEAR	COAL		Coke (tons, 2,000 pounds)	Fuel oils, in- cluding crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas ¹ (M cu. ft.)	ELECTRIC ENERGY		Total cost of fuel	Cost of purchased electric energy
	Anthra- cite (tons, 2,240 pounds)	Bitumi- nous (tons, 2,000 pounds)					Purchased (kilowatt- hours)	Generated by the enterprises reporting (kilo- watt-hours)		
All industries:										
1929	5,223,195	8,825,007	130,896	169,985,047	16,565,785	25,530,328	5,382,178,325	2,080,612,116	\$40,145,531	\$71,769,087
1929	<i>5,219,391</i>	<i>8,124,449</i>	<i>136,563</i>	<i>161,798,301</i>	<i>10,363,281</i>	<i>25,396,090</i>	<i>5,123,332,915</i>	<i>2,072,610,288</i>	<i>44,693,267</i>	<i>66,416,363</i>
1919	8,697,365	16,205,535	53,795	152,830,980	4,113,438	2,817,454	(?)	(?)	74,081,877	27,220,977
Coal:										
Anthracite—										
1929	5,044,989	28,833		30,080	92,033		470,248,027	478,428,569	7,419,721	6,508,527
1919	<i>8,548,201</i>	<i>4,096</i>		<i>28,182</i>	<i>58,002</i>		(?)	(?)	11,406,117	1,890,835
Bituminous—										
1929		4,524,467	30,301	711,941	754,974	303,000	2,044,348,313	464,540,925	7,520,305	30,739,381
1919		<i>11,124,904</i>	<i>14,254</i>	<i>135,870</i>	<i>790,440</i>	<i>865,907</i>	(?)	(?)	25,896,660	11,280,509
Copper:										
1929	134	1,006,321	7,859	89,018,317	421,317		763,119,336	734,614,117	9,210,052	6,027,234
1919	<i>14,884</i>	<i>1,364,172</i>	<i>9,744</i>	<i>55,528,200</i>	<i>291,144</i>	<i>33,456</i>	(?)	(?)	11,310,485	3,555,580
Iron ore:										
1929	52,448	804,815	85,958	2,300,241	508,898	2,227	375,630,018	99,735,238	5,332,103	4,607,488
1919	<i>69,753</i>	<i>1,499,612</i>	<i>24,070</i>	<i>159,894</i>	<i>149,100</i>	<i>89,354</i>	(?)	(?)	8,700,358	1,594,231
Lead and zinc:										
1929	64,549	177,918	397	2,991,931	370,103	916,527	644,651,048	105,464,108	1,536,005	6,102,428
1919	<i>33,526</i>	<i>503,278</i>	<i>272</i>	<i>3,045,714</i>	<i>262,992</i>	<i>1,390,008</i>	(?)	(?)	2,783,249	2,591,606
Limestone:										
1929	44,066	805,238	4,574	6,178,983	3,616,524	117,742	294,630,770	37,056,618	3,605,670	4,795,034
1919	<i>5,409</i>	<i>673,989</i>	<i>937</i>	<i>1,395,282</i>	<i>478,674</i>	<i>5,887</i>	(?)	(?)	2,897,432	1,278,955
Phosphate rock:										
1929		71,979	2	24,158,459	102,294		109,902,672	50,792,426	891,358	1,092,064
1919	<i>28</i>	<i>121,273</i>	<i>146</i>	<i>27,005,028</i>	<i>456,582</i>		(?)	(?)	1,730,833	79,408
Sand and gravel:										
1929	3,804	601,583	133	10,911,461	5,811,573	134,773	237,670,291	7,594,828	3,980,503	4,921,308
Sulphur and pyrites:										
1929		328		5,108,863	19,894	23,072,773	2,735,292	15,453,523	4,433,427	40,586
1919		<i>31,969</i>	<i>20</i>	<i>45,684,912</i>	<i>47,376</i>		(?)	(?)	2,027,233	58,802
Other industries:										
1929	13,205	803,520	7,677	21,972,421	4,870,175	989,286	443,027,058	86,931,764	5,197,337	6,934,947
1929	<i>13,205</i>	<i>704,660</i>	<i>7,477</i>	<i>20,697,136</i>	<i>4,469,244</i>	<i>983,821</i>	<i>422,760,930</i>	<i>86,533,764</i>	<i>4,734,626</i>	<i>6,503,641</i>
1919	25,559	885,242	4,352	19,247,004	1,573,152	432,752	(?)	(?)	6,420,510	4,890,733

¹ Includes, for 1929, 111,314 M cubic feet of manufactured gas, and for 1919, 86,354 M cubic feet.

² Not reported.

MINES AND QUARRIES

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
UNITED STATES.....	5,223,185	8,825,007	136,899	169,985,047	16,566,785	125,536,328	5,382,178,325	2,080,612,116
ALABAMA.....		295,848	18,430	180,298	98,741		234,764,738	49,141,780
<i>Counties</i>								
Barbour.....				10,147	2,256		5,000	
Bibb.....		10,057					10,858,640	2,803,200
Blount.....		3,979			32,287		276,000	
Colbert.....		2,365			15,621		90,000	
Elmore.....		212		59,300	1,200			
Etowah.....					3,980		220,000	
Fayette.....		240					1,042,500	
Franklin.....		784	10,343		6,040		910,271	
Jefferson.....		176,590	8,087	47,615	13,660		155,610,607	30,153,910
Marion.....							1,799,200	
Montgomery.....		6,867					1,076,000	
St. Clair.....		38,127			5,200		7,401,200	16,000,000
Shelby.....		9,692			350		11,269,031	
Talladega.....		1,080		1,970			4,683,802	
Tuscaloosa.....		17,392					7,714,017	
Walker.....		13,123			2,560		30,158,872	
Washington.....				18,588	10,453			184,650
Other counties.....		6,390		13,678	3,134		1,680,598	
ARIZONA.....	77	4,124	357	87,523,804	334,583		132,243,548	451,924,097
<i>Counties</i>								
Cochise.....	77	1,451	27	10,286,599	48,143		42,940,350	25,209,215
Gila.....		1,064	322	49,477,698	117,793		17,080,152	283,318,075
Greenlee.....		229		59,500	10		27,082,764	
Maricopa.....				126,180	11,070		548,277	1,084,200
Mohave.....				69,421	3,082		1,108,785	265,600
Pima.....		641	8	10,622,019	52,592		68,645	86,129,566
Pinal.....				10,530,105	52,732		15,879,249	52,178,381
Santa Cruz.....		150		143,727			46,335	1,582,680
Yavapai.....		509		208,553	49,161		26,423,991	2,156,480
Other counties.....							165,000	
ARKANSAS.....	3,650	30,374	10	1,513,283	214,104	642,180	15,104,637	
<i>Counties</i>								
Benton.....		50		43,000	2,000		124,473	
Crawford.....						132	338,000	
Cross.....		200		80,000			187,500	
Desha.....				369,000	1,200		48,000	
Franklin.....		4,128			20,000		945,512	
Independence.....	1,200						9,000	304,631
Izard.....		1,100		59,000	1,250		200,000	
Jackson.....		4,410			15,370		1,781,985	
Johnson.....		1,086		206,200	49,700			
Lafayette.....								
Logan.....		2,200					2,160,437	
Ouachita.....	1,800				25,801		365,000	
Pike.....		60		125,033	8,000			
Pope.....		228					776,654	
Pulaski.....	150	3,472		595,196	26,560	59,100	1,288,796	
Saline.....		2,887	10	32,000	19,878	482,948	2,116,800	
Sebastian.....	500	6,184		5,344	5,455		3,742,156	
Yell.....					20,000		25,000	
Other counties.....		4,419		2,490	10,000		699,693	
CALIFORNIA.....	7	2,816		13,101,607	1,846,025	396,760	184,571,798	2,595,460
<i>Counties</i>								
Alameda.....				419,219	41,942		3,862,269	
Amador.....				135,838	52,398		9,925,415	
Butte.....				282,649	16,075		1,801,211	
Calaveras.....		170		7,937	30,133		4,085,142	
Contra Costa.....				101,808	8,924		1,033,823	
Del Norte.....				384,122	15,435		87,719	
Eldorado.....				68,412	15,733		856,740	
Fresno.....				205,198	2,000		799,628	138,000
Imperial.....				231,680	5,202		503,700	
Inyo.....		62		12,716	447,924		611,006	
Kern.....		168		301,909	66,729		3,982,974	
Lake.....				422,631	57,759		1,353,840	
Los Angeles.....				3,113,338	276,110	10,570	17,008,244	
Marin.....				159,000	4,710		1,485,261	
Mariposa.....		206		14,600	42,244		1,435,800	
Merced.....							1,600,000	
Mono.....		65		32,377	7,368		208,745	424,480
Monterey.....				113,030	400		360,878	
Napa.....				310,412	5,608		1,547,279	132,000
Nevada.....				6,600	9,969		12,752,689	

See footnotes at end of table.

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M. cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
CALIFORNIA—Continued.								
<i>Counties—Continued</i>								
Orange.....		236		79,810	61,606		570,850	
Plumas.....				369,923	17,586		23,707,890	685,750
Riverside.....				1,004,092	62,389	630	1,754,633	
Sacramento.....				192,260	380		34,057,033	
San Benito.....		219		944,813	48,125		3,399,833	
San Bernardino.....	2			354,425	55,249		2,205,232	
San Diego.....				55,882	90,503		2,648,518	60,230
San Joaquin.....							454,240	
San Mateo.....							688,814	
Santa Barbara.....		190		182,334	170,062	385,554	0,800,825	
Santa Clara.....				908,326	7,315		1,268,069	95,000
Santa Cruz.....				42,437			373,947	
Shasta.....							4,812,061	
Sierra.....	5			3,000	820		1,892,550	
Sonoma.....				92,489	12,142		670,020	
Stanislaus.....				69,552	64,800		2,560,000	
Trinity.....					4,765		5,338,194	
Tulare.....							963,096	
Tuolumne.....				2,294,818	2,200		377,654	1,060,000
Ventura.....				8,306	35,183		581,057	
Yuba.....							21,732,386	
Other counties.....		1,500		145,673	97,547		1,439,711	
COLORADO		289,954	63	132,867	100,801	4,014	93,206,728	18,587,400
<i>Counties</i>								
Boulder.....		23,696		4,000	7,320		1,125,678	
Clear Creek.....		132			2,052		1,060,559	90,000
Eagle.....		2,929		71,552			2,685,220	
El Paso.....		65,000	9	12,401			2,039,524	8,064,870
Fremont.....		5,080			2,284		3,340,654	
Garfield.....		11,946			6,296		1,112,919	
Gilpin.....		1,290		15,361	8,000		2,169,120	
Gunnison.....		23,434		2,000				993,423
Huerfano.....		10,390					13,233,780	1,234,110
Jackson.....		4,944						720,000
Jefferson.....		6,350			1,027		481,575	
Lake.....		4,637		450	1,500		17,682,608	
La Plata.....		471			1,168		1,322,843	
Las Animas.....		35,383					10,252,762	223,720
Routt.....		30,888					2,551,794	3,316,000
Saguache.....		3,152	12	20,483	1,873		4,971,780	
San Juan.....		2,776		60			14,881,285	420,960
Teller.....		7,041	2	5,555	30		4,969,926	
Weld.....		37,092					5,800,238	78,912
Other counties.....		13,094	40	1,015	69,201	4,014	5,077,422	585,400
CONNECTICUT	224	17,465	73	53,262	99,366		6,950,367	
<i>Counties</i>								
Hartford.....		5,216		0,679	32,878		2,944,555	
Litchfield.....	3	15	73	115	11,947		500,373	
New Haven.....		9,704		45,005	25,913		2,844,987	
Other counties.....	221	2,530		1,453	25,623		651,602	
DELAWARE	10	1,830			10,435		362,070	
<i>County</i>								
New Castle.....	10	1,830			10,435		362,070	
FLORIDA		36,386		26,361,007	412,343		108,917,257	52,209,428
<i>Counties</i>								
Citrus.....		1,719		31,416	5,732		1,570,440	
Dade.....		2,159		52,043	160,795		1,686,650	117,000
Gadsden.....		10,131		2,025,432	40,205		1,056,000	1,300,000
Hernando.....		1,335			23,781		924,600	
Hillsborough.....				2,062,538			6,537,890	2,567,550
Levy.....		1,500			40,300		51,282	
Polk.....		5,171		22,059,908	94,525		92,494,365	48,224,876
Putnam.....		4,883			9,000		955,060	
Other counties.....		9,497		129,670	32,005		1,640,970	

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coko (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
GEORGIA	1,317	97,018	1,815	3,906,965	154,737		20,564,808	5,380,429
<i>Counties</i>								
Bartow	1,300	9,797			19,582		7,505,011	1,440,000
Crawford		2,799			19,894			1,061,760
Deeatur		2,341		3,751,485	10,604			2,427,389
De Kalb	2	6,592		34,631	10,420		2,073,008	
Elbert		2,989		21,600	10,885		558,083	
Houston		1,922			20,338		289,558	461,200
Murray	5	3,029			17,616		39,900	
Pickens		8,667		8,000			1,301,400	
Polk		6,369					1,668,678	
Twiggs		11,630	1,815				2,585,667	
Wilkinson		29,906		40,614	5,700		3,082,851	
Other counties	10	10,977		50,635	39,698		1,307,650	
IDAHO		21,813	310	247,785	32,325		119,814,986	9,351,121
<i>Counties</i>								
Blaine		180					1,428,500	
Boise		1,164		1,800	500		1,536,684	
Bonner					5,520		1,028,500	
Butte		50		12,000			350,000	
Caribou		760	2	3,517	2,037		967,994	
Custer		9,662	160	90,000				2,070,000
Lemhi		300		79,507	1,560		680,000	
Shoshone		9,693	158	38,097	10,802		113,419,635	5,930,121
Valley		3		500				1,051,000
Other counties		1		21,764	11,816		403,673	300,000
ILLINOIS	1,398	1,180,205		725,071	771,807		184,285,217	41,556,584
<i>Counties</i>								
Christian		23,242					8,887,501	215,000
Clinton		23,150						671,000
Cook	1,356	53,467		219,021	104,613		6,722,470	
Du Page		1,129		451	16,749		1,569,077	
Franklin		180,021		14,630	1,120		41,961,437	3,492,656
Fulton		22,418			13,620		8,453,872	
Grundy		1,763			500		1,013,500	
Hardin		22,581			101,436		186,340	3,351,999
Jackson		13,895		11,180	20,360		7,104,187	
Kane		5,089		8,741	12,300		665,830	
Kankakee		3,250					1,169,000	
La Salle		65,010		2,835	56,720		14,584,196	
Logan		8,619		7,588			1,713,635	
McHenry		13,824			5,000		900,800	
Macoupin		125,344					1,305,419	12,110,159
Madison		51,832		1,000	10,100		4,163,247	1,769,536
Marion		51,292			2,835		883,080	1,000,000
Monroe		10,130			26,115			
Montgomery		34,216					883,080	
Ogle		179			2,075		368,516	7,519,600
Peoria		4,844		600			1,397,900	
Perry		63,007		600	19,005		6,647,083	
Pulaski		165		52,204	20,239		8,972,303	1,726,000
Randolph		13,042		248,637			753,680	
Rock Island		2,600			33,175		21,554	485,770
St. Clair		86,516		11,035	52,108		765,962	
Saline		68,719		82,485	4,945		8,472,168	702,036
Sangamon		44,001		3,200	545		7,759,797	928,125
Tazewell		2,169			15,000		7,323,286	593,000
Union		1,000			11,000		3,819,160	
Vermilion		39,495		20,000			711,837	
Will		7,573		500			10,769,941	
Williamson		105,216			163,828		10,133,740	
Winnebago		3,033			2,779		8,411,036	6,977,703
Other counties		44,609		40,964	60,640		677,134	9,000
INDIANA		458,842		102,373	310,836		103,569,585	3,628,506
<i>Counties</i>								
Cass		2,634			840		8,117,826	
Clark		2,008					101,333	377,021
Clay		40,114		550	16,890		3,337,972	
Gibson		19,030					2,729,019	
Greene		36,779			24,000		5,228,838	
Howard		2,100			12,600		607,233	
Huntington		2,222			6,000		1,248,613	
Knox		17,939		3,600	29,848		5,934,401	333,360
Kosciusko		800					1,223,259	
Lagrange		962					1,375,700	

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
INDIANA—Continued.								
<i>Counties—Continued</i>								
Lake.....		1,464		52,160	15,414		22,180	
Lawrence.....		19,326			805		9,080,502	633,124
Madison.....		1,674			10,000		714,475	
Marion.....		770					4,014,303	
Miami.....		507			80		686,630	
Monroe.....		7,816			7,840		8,082,665	235,700
Owen.....		3,381			6,800		592,395	408,000
Pike.....		46,800			18,191		10,408,400	
Putnam.....		13,406		1,679	5,003		833,910	
Randolph.....		1,053		31,310				150,000
St. Joseph.....		2,624		7,684	11,175		957,350	
Stouben.....							1,203,085	
Sullivan.....		46,018			475		9,579,403	
Vanderburg.....		24,318					372,665	
Vernillion.....		34,662			6,400		9,172,877	169,600
Vigo.....		102,810			19,065		10,943,780	1,125,025
Warrick.....		7,587			18,699		4,729,306	
Wayne.....		1,850					681,270	
Wells.....		1,350			19,750		852,370	
Other counties.....		15,043		5,390	80,361		4,688,259	194,676
IOWA.....	985	92,186	30	42,561	283,482		30,943,893	268,870
<i>Counties</i>								
Appanoose.....		568		500	2,000		1,704,000	
Black Hawk.....		3,000			17,000		614,584	
Boone.....		4,675					3,195,890	
Butler.....		77			26,600		612,000	
Cerro Gordo.....		4,729					750,000	236,870
Clinton.....		2,000					419,200	
Dallas.....		1,210			4,187		2,770,090	
Dubuque.....		1,615			20,000		323,000	
Johnson.....		850			25,000		940,040	
Linn.....		12		20,929	260		109,677	
Lucas.....		9,835					736,200	
Mahaska.....		10	5		13,271		1,227,623	
Marion.....		14,451		20,600	9,000		1,234,230	30,000
Marshall.....		1,808			23,227		1,008,000	
Monroe.....		2,766					703,310	
Muscataine.....		600					2,707,450	
Folk.....		10,801			4,283		5,386,358	
Sac.....		3,223			32,030		470,730	
Scott.....		6,286			20,145		659,191	
Sioux.....		1,292			10,200		1,778,630	
Wapello.....		513					700,000	
Warren.....		10,900	25		400		20,700	
Webster.....	605	230			1,594		1,164,030	
Other counties.....	380	10,747		532	72,075		1,674,670	
KANSAS.....	342	71,889		372,832	352,943	301,672	65,320,992	548,958
<i>Counties</i>								
Anderson.....		1,779			21,794		259,864	
Aitchison.....		40			5,000		554,227	
Barber.....				24,000	9,000			336,008
Cherokee.....	342	14,750		48,907	52,015	301,672	50,370,144	
Cowley.....		450		30,000	60,000		21,600	
Crawford.....		39,395			3,000		4,387,006	162,200
Elk.....		769					844,320	
Franklin.....				102,600	38,060		293,279	
Leavenworth.....		3,020			2,804		327,600	
Meade.....				153,000	22,500		40,000	
Neosho.....		310					1,141,943	
Sedgwick.....		603					555,710	
Shawnee.....				2,055	24,769		1,455,405	
Washington.....		40			41,750		188,000	
Wyandotte.....		1,413			5,864		1,632,573	
Other counties.....		9,320		12,270	64,047		2,940,261	50,750
KENTUCKY.....		541,146	750	223,821	325,335	102,345	175,731,000	55,829,180
<i>Counties</i>								
Anderson.....		536			7,000		470,177	
Bell.....		13,271			6,000		9,608,852	1,199,627
Carter.....		3,375		300	1,200		410,314	3,600
Crittenden.....		16,004		72,489	58,883		501,939	1,014,100
Edmonson.....		25,753		8,929	19,918		637,379	1,596,524
Fayette.....					25,000		60,250	
Floyd.....		28,847			2,650	88,133	16,073,320	2,710,130
Greenup.....		9,124			25,000			300,000
Hardin.....		5,780		32,500	8,200		141,030	
Harlan.....		30,287			2,250		41,266,237	14,109,390

MINES AND QUARRIES

TABLE 8.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
KENTUCKY—Continued.								
<i>Counties—Continued</i>								
Handerson.....		9,796		6,000			123,377	
Hopkins.....		15,958		2,080	6,230		12,039,085	480,000
Jefferson.....		12,313		73,290	60,000		509,025	
Johnson.....		13,040					3,809,381	538,200
Knott.....							1,361,236	
Knox.....		5,920					322,990	
Letcher.....		63,205					20,840,508	13,144,434
Livingston.....		7,345		4,200	5,800		1,600	
McCreary.....							3,499,202	
Martin.....						14,212	1,051,819	
Meade.....		2,459		12,000				74,500
Muhlenberg.....		96,434					7,446,084	335,711
Ohio.....		13,230			2,500		2,917,200	205,000
Perry.....		50					24,265,750	
Pike.....		41,369					17,554,511	15,661,119
Union.....		37,840					1,565,956	2,180,000
Webster.....		18,101					6,090,086	
Whitley.....		21,527	750				12,121	2,060,545
Other counties.....		46,582		12,033	94,704		2,490,951	219,300
LOUISIANA.....		8,455		1,692,281	47,432		10,819,063	
<i>Counties</i>								
Ouachita.....		3,057		200,000	25,000		631,490	
Rapides.....				656,983	7,887		2,743,850	
Tangipahoa.....		3,528		156,803			6,540,223	
Webster.....				207,000	8,135			
Winn.....		600		338,112	5,640			
Other counties.....		700		133,333	770		903,500	
MAINE.....	2,032	4,284	76	9,650	23,066		5,004,412	70,000
<i>Counties</i>								
Androscoggin.....	23	224			1,740		378,585	
Cumberland.....		129		510	1,611		213,300	
Hancock.....	2,007	1,200		9,051	3,536		116,610	70,000
Knox.....		1,047					2,340,402	
Oxford.....			76	89	4,258		208,221	
Piscataquis.....		6					829,187	
Sagadahoc.....	29				10,521		588,175	
Other counties.....	23	1,078			1,400		323,932	
MARYLAND.....		55,383	91	1,674,200	145,101	600	16,533,358	1,492,458
<i>Counties</i>								
Allegany.....		2,207		39,000	2,556		5,737,374	
Baltimore.....		1,018		28,760	9,498		1,199,971	
Baltimore City.....		5,015		1,090			2,070,729	
Cecil.....		7,158		604,800	7,530			
Frederick.....		1,056			3,000		1,135,672	
Garrett.....		10,264			18,000	600	2,817,861	1,492,456
Harford.....		3,762	30		2,250		1,712,410	
Prince Georges.....		18,680			85,500		1,045,910	
Washington.....		3,105	61		15,646		440,091	
Other counties.....		2,648		1,560	1,122		323,340	
MASSACHUSETTS.....	292	21,577	5	383,807	456,558	14,833	13,716,792	302,258
<i>Counties</i>								
Berkshire.....	20	1,351		209,207	26,009		1,593,393	
Essex.....	225	4,779		55,200	6,360		2,264,447	
Hampden.....		1,891		24,436	83,373	14,833	1,561,027	275,000
Middlesex.....		8,450		54,240	147,350		1,035,593	
Norfolk.....	31	2,418	5	1,333	11,128		1,597,319	
Plymouth.....	7	50		4,254	18,550		1,128,878	
Suffolk.....	9	671		26,805	82,570		1,848,610	87,258
Worcester.....		1,796		7,632	37,158		1,190,906	
Other counties.....		171		650	44,060		856,619	
MICHIGAN.....	845	1,002,107	2,904	1,040,380	779,500		174,003,915	222,403,092
<i>Counties</i>								
Alcona.....		22,692			600		3,981,800	3,761,700
Bay.....		5,532					692,470	
Branch.....		620			26,802			
Clinton.....					22,545			
Dickinson.....		10,140	27	11,803	26,427		11,051,842	35,678,832

See footnotes at end of table.

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

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TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
MICHIGAN—Continued.								
<i>Counties—Continued</i>								
Genesee.....		598		3,200	8,126		819,904	
Gogebic.....	210	99,487	13	40,049	43,803		33,282,514	23,582,061
Houghton.....		482,415	2,261	102,646	75,271		4,581,077	126,735,799
Huron.....		2,784			35,032		812,438	
Ingham.....		81			4,728		805,020	
Iosco.....		1,351			48,725		1,332,053	
Iron.....		23,326	34	13,950	16,848		39,500,491	390,000
Kent.....	635	7,705	391	9,508	64,062		1,996,918	
Keweenaw.....		77,368	105	8,400	472		6,760,177	5,539,038
Lenawee.....		455		66,283	2,200		500,700	
Livingston.....		9,130					2,627,960	
MacKinao.....		4,901			14,095			
Marquette.....		25,267	27		18,275		42,239,696	762,450
Monroe.....		4,757			1,680		1,482,000	
Oakland.....		10,825	21	2,318	124,229		11,938,150	
Osceola.....		2,021			19,120			38,000
Presque Isle.....		145,008		81,866	74,871			22,066,180
Saginaw.....		35,856		405	29,993		828,500	3,231,262
Washtenaw.....		1,369	25		15,500		813,310	
Wayne.....		16,345		601,202	55,378		4,966,830	
Other counties.....		20,024		53,343	69,828		2,900,037	646,800
MINNESOTA	115	469,807	28,280	484,956	435,108		107,436,531	4,420,538
<i>Counties</i>								
Crow Wing.....		45,375	27,616	370,808	98,141		13,426,599	2,343,200
Hennepin.....	9	2,642			35,537		2,304,217	
Itasca.....		117,024	119		46,039		23,095,597	502,820
Le Sueur.....		2,527			5,400		1,266,263	
Ramsey.....		1,241	8		11,000		851,226	
Renville.....		77		8,055	260		651,604	
St. Louis.....	100	293,377	542	58,575	249,008		69,027,103	1,519,518
Stearns.....	6	3,851			52		7,262,425	
Other counties.....		3,693		27,158	19,079		2,400,488	65,000
MISSISSIPPI		7,668		243,629	59,820		2,591,107	
<i>Counties</i>								
Carroll.....		2,361			24,000		828,000	
Forrest.....							1,188,667	
Hancock.....					30,000			
Lowndes.....		360		96,000	2,000		446,730	
Monroe.....		181		48,000	600			
Perry.....		1,000		70,000				
Wayne.....		1,430		29,629	3,220		110,000	
Other counties.....		2,326					17,710	
MISSOURI	7	245,036	98	1,063,431	415,002	10,844	205,834,623	71,992,038
<i>Counties</i>								
Barton.....		19,453			400		6,510,280	
Cape Girardeau.....		7,770		3,740	300		1,866,456	
Clay.....		1,478					1,589,004	
Cooper.....		1,626					755,000	
Franklin.....		1,500		1,650	20,600		540,342	
Gasconade.....				3,300	33,201		45,180	
Greene.....		4,448		12,474			793,393	
Henry.....		15,760			3,978		709,500	
Iron.....		11,002		20,810	3,780		214,406	3,180,000
Jackson.....		423		69,990	30,465		4,262,294	
Jasper.....		3,400		19,500	7,000	10,844	5,241,976	
Lafayette.....		8,169					389,826	1,076,400
Livingston.....		150		12,000	48,000			26,000,000
Macon.....		5,232					155,676	
Madison.....		1,229	80	8,240			6,562,060	
Newton.....		92		26,800			568,340	
Pike.....					27,950		815,225	
Ralls.....		6,116		4,000			1,060,940	18,000
Ray.....		2,860					1,679,293	
St. Charles.....		1,229		210,891	7,134		339,120	
St. Francois.....		79,574		409,951	4,123		161,661,756	41,648,318
St. Louis.....		18,909	10	67,153	54,180		5,346,450	8,000
St. Louis City.....	7	10,782		8,696			1,037,811	
Sta. Genevieve.....		495		86	44,300		1,143,681	
Washington.....		1,872		118,182	51,570		693,707	57,720
Other counties.....		43,968		57,468	73,021		2,359,311	3,600

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
MONTANA	110	138, 104	48	228, 783	114, 709		317, 674, 705	3, 515, 260
<i>Counties</i>								
Broadwater	90						1, 274, 988	
Carbon		27, 790			11, 881		4, 783, 180	2, 000, 140
Cascade		614		6, 504	29, 093		2, 020, 081	
Granite		2, 042		710	9, 028		3, 414, 113	
Judith Basin		12		188, 148	2, 005		5, 166, 720	
Lewis and Clark		60			1, 000		2, 485, 781	
Madison	20	130	35	9, 321	7, 039		810, 960	
Musselshell		9, 761					4, 829, 746	
Park		181			500		10, 200	575, 000
Rosebud		1, 971					2, 069, 900	
Silver Bow		98, 860	11		2, 048		287, 977, 917	931, 120
Yellowstone					40, 000		175, 471	
Other counties		1, 687		24, 040	12, 115		1, 655, 698	
NEBRASKA	15	2, 927		42, 000	122, 637		7, 667, 829	
<i>Counties</i>								
Buffalo					18, 598			
Cass		917		2, 000	41, 093		2, 566, 750	
Dodge		898			1, 906		731, 984	
Douglas		235			54, 358		327, 300	
Frontier	15			40, 000				
Jefferson							1, 297, 800	
Platte		11			1, 845		568, 373	
Sarpy		821			1, 830		1, 248, 672	
Other counties		76			3, 007		926, 950	
NEVADA	7	114, 981	847	2, 463, 842	197, 851		43, 231, 122	77, 689, 940
<i>Counties</i>								
Clark				178, 557	21, 430		295, 000	109, 500
Elko	7	390		183, 467	17, 115		3, 456, 000	872, 378
Esmeralda		231, 600		231, 600	18, 000		1, 583, 710	260, 000
Eureka		211		260, 168	10, 834			2, 512, 768
Lincoln		2, 996		186, 850				3, 035, 800
Nye		507		299, 120	56, 154		25, 373, 754	
Pershing		246		343, 960	4, 566		2, 674, 942	255, 000
Washoe				163, 761	10, 810		122, 000	534, 968
White Pine		110, 660	847	435, 145	18, 810		7, 287, 210	70, 109, 020
Other counties		15		181, 805	31, 123		2, 437, 906	
NEW HAMPSHIRE	30	6, 087	7	68, 474	45, 016		2, 694, 146	182, 000
<i>Counties</i>								
Cheshire		561	7	15, 912			287, 860	
Grafton	2	300		35, 000	10, 437		397, 526	
Hillsborough	4	2, 872			6, 828		517, 513	
Merrimack	24	711		15, 562	22, 000		1, 126, 406	162, 000
Strafford		105					367, 564	
Other counties		1, 518			5, 751		27, 777	
NEW JERSEY	60, 853	35, 518	30	1, 797, 860	847, 474		23, 167, 307	23, 675, 263
<i>Counties</i>								
Burlington		2, 045		601, 277	43, 952		14, 251	
Cumberland		2, 685		657, 553	157, 410		2, 881, 572	
Essex	5	725		5, 442	83, 017		964, 936	
Gloucester					63, 000		42, 000	
Hudson		44		1, 000	32, 608		986, 080	
Middlesex		4, 467		3, 121	78, 967		985, 012	
Monmouth		466			124, 000		1, 160, 870	
Morris	550	5, 485	30	8, 420	59, 474		8, 196, 974	
Ocean		888			10, 000		1, 239, 834	
Passaic		5, 100		28, 377	21, 100		2, 661, 958	572, 440
Somerset	1, 092	5, 454			6, 091		1, 127, 078	
Sussex	59, 201	1, 210		383, 670	43, 490		48, 950	23, 042, 823
Union		284			42, 232		814, 525	
Warren		821			4, 700		712, 273	
Other counties	4	5, 894		109, 000	77, 435		1, 341, 324	60, 000
NEW MEXICO		239, 643		1, 921, 418	68, 134		16, 823, 556	110, 852, 282
<i>Counties</i>								
Colfax							9, 299, 940	
Grant		180, 346		407, 217	38, 774		4, 345, 328	80, 766, 749
Hidalgo		100		1, 347, 234	300		555, 090	5, 684, 684
Luna				3, 500			1, 988, 800	
McKinley		28, 941					456, 740	9, 786, 210
San Miguel		12, 003						10, 648, 643
Santa Fe		9, 757						3, 124, 350
Other counties		8, 496		73, 487	29, 060		177, 658	841, 646

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
NEW YORK	12,485	128,517	982	1,242,029	1,260,119	597	98,349,049	7,683,980
<i>Counties</i>								
Albany		1,069		8,100	49,519		1,401,228	
Cayuga	7	1,571			22,935		941,500	
Clinton	11,705	1,293		100,622	33,055		8,107,450	
Columbia		3,700					531,039	1,813,000
Dutchess		3,921			63,230		2,843,240	
Erie		18,021	682	9,102	109,536	597	6,677,053	74,880
Essex	5	10,850	40	37,472			14,743,523	2,413,600
Genesee	43	15,295		4,076	54,309		9,743,572	
Greene		680			3,700		1,261,520	
Herkimer		986			20,000		1,773,487	
Jefferson							1,444,035	
Kings				117,000			182,000	
Madison		227					1,016,839	
Monroe		540		453	43,057		3,376,984	
Montgomery		2,000			75,000		837,500	
Nassau		25,841		27,818	133,456		5,721,740	
Oneida	12	1,035		924	18,909		1,841,054	
Onondaga		622		450	48,853		917,716	
Ontario	10	1,223		16,674	10,874		1,254,113	
Orange		2,815			23,345		953,473	
Rockland		11,173		7,155	79,842		3,375,100	1,452,500
St. Lawrence	240	2,346		7,200	79,199		4,138,282	900,000
Saratoga		150			21,954		1,242,400	
Schenectady		1,274			7,000		1,857,419	
Suffolk		8,710		781,348	19,600		3,327,420	900,000
Ulster	215	3,455	40		54,908		3,519,013	
Warren		510		112,559	15,603		506,082	130,000
Washington		875			61,300		2,262,904	
Westchester	4	726		650	64,788		4,420,156	
Other counties	110	7,609	220	27,100	140,287		5,831,524	
NORTH CAROLINA		50,462	235	82,798	327,735		13,127,292	773,200
<i>Counties</i>								
Alexander		1,800			8,400		960,000	
Buncombe		3,680			145,031		1,173,118	
Chatham		3,000					591,333	
Forsyth		200		3,300	60,275		894,595	
Macon		213						
Madison		4,863					208,400	100,000
Mitchell		15,831	235	4,481	18,785		1,024,557	
Rowan		2,319					659,562	
Surry		2,583		27,475	16,609		2,316,800	270,000
Vance		160			15,000		1,326,000	
Wake		150			16,000		589,600	
Wilson		120		34,551	8,356		450,000	403,200
Yancey		167			9,780		702,640	
Other counties		15,386		12,902	29,499		1,291,997	
NORTH DAKOTA		34,018	600	4,500	77,140	155,327	1,727,350	24,500
<i>Counties</i>								
Adams		1,825						21,300
Burke		12,274			13,252	123,166	243,000	
Burlingame		2,197					534,900	3,200
McLean		4,200			25,000		14,700	
Mercer		5,749			11,214		455,350	
Ward		221	600	4,500	22,674	132,161	382,000	
Other counties		7,550			5,000		112,400	
OHIO	389	380,098	465	927,533	850,871	20,163	125,155,527	8,172,100
<i>Counties</i>								
Allen	21	3,350		86,294	20,703		1,484,558	
Athens		13,523		166,200			7,554,560	595,416
Belmont		24,521					15,861,569	1,849,520
Butler	4	50		37,800	600		393,140	
Carrroll		757		1,200			1,298,566	
Champaign		300					2,070,000	
Clermont		2,200		67,779			313,907	
Clinton		1,100		32,000	17,200		460,769	
Columbiana		1,138		1,500			1,179,269	
Cuyahoga		2,724					1,611,094	
Delaware	64	2,800		3,300	8,985		1,632,340	
Erie		52,146		150	19,349		1,624,867	
Franklin		7,705		42,500	43,250		9,229,116	
Greene		18,809			3,000	12,300	228,894	
Guernsey		9,440		400	1,500		5,600,990	
Hamilton		8,539		23,200	3,964		2,133,811	180,000
Hancock		1,192		4,000	17,758		553,479	
Hardin		3,017		3,000	2,990		1,639,865	
Harrison		35,668		15,300	26,450		6,434,650	
Hooking							1,195,420	

See footnotes at end of table.

MINES AND QUARRIES

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
OHIO—Continued.								
<i>Counties—Continued</i>								
Jackson.....		9,889			17,265		135,122	910,000
Jefferson.....		28,437		49,846	25,160		11,386,326	168,100
Lawrence.....		320			2,000		2,193,440	
Lorain.....		6,569		15,325	16,701		360,090	113,220
Lucas.....		17,702			11,930		2,629,263	
Marion.....		1,090		100	16,900		982,705	
Meigs.....		4,139		72,000			1,620,643	
Mercer.....		110		27,280	35,481		138,333	
Miami.....		575	10		150,000		1,721,144	
Montgomery.....		1,495		500	32,400		1,609,742	
Muskingum.....		8,227		14,000	80,000		1,305,583	275,000
Ottawa.....		14,736	255	32,000	49,608		8,663,129	3,787,850
Perry.....		2,599		9,000	6,568		2,774,252	
Portage.....		4,640		10,000			2,433,300	
Putnam.....		1,742		17,770	16,567		229,238	110,000
Ross.....		300			29,091		855,260	
Sandusky.....		7,822		40,724			2,401,621	
Scioto.....		6,582		16,000	14,850		122,470	
Seneca.....		6,038			4,808		2,605,906	
Stark.....	300	5,141		10,000	13,000		5,170,877	128,000
Summit.....		1,621	200	15,760	1,602		1,235,829	
Tuscarawas.....		14,281		126,179	4,760		2,757,773	
Van Wert.....		2,062		8,000	5,300		737,674	
Washington.....		5,774		11,000	15,000	4,392	12,500	50,000
Wyandot.....		3,415			25,394		1,033,877	
Other counties.....		34,548		8,150	69,968	3,471	6,292,626	
OKLAHOMA.....		80,734		2,284,807	646,233	636,566	93,312,694	16,377,300
<i>Counties</i>								
Blaine.....		180		4,000	74,038			68,000
Cherokee.....				146,961	86,545		315,000	
Comanche.....		1,774		17,000	13,200		769,600	
Latimer.....		9,148					674,090	
LeFlore.....		6,770		187	100		1,677,831	
Murray.....		2,622		306,555			1,262,663	
Muskogee.....		441		111,842	102,620		533,800	30,000
Oklahoma.....					140,000		337,000	
Oklmulgee.....		9,404				12,375	1,178,361	
Ottawa.....		6,935		1,362,019	117,792	610,191	73,439,730	16,268,500
Pittsburg.....		26,068					7,623,954	10,800
Pontotoc.....		3,721		197,800	2,000		949,000	
Tulsa.....		3,815		10,800	28,600		2,707,368	
Other counties.....		10,901		137,643	31,388	14,000	1,844,297	
OREGON.....		999		1,963,810	138,683		7,034,560	916,000
<i>Counties</i>								
Clackamas.....				118,830	20,000		236,500	
Cook.....		507		302,004	1,344		442,220	
Douglas.....		264		319,502	21,158		150,000	
Jackson.....		46			3,000		2,017,504	
Josephine.....					1,000		226,000	210,000
Lane.....				386,925	43,281		1,137,487	
Malheur.....		76		226,087	4,400			700,000
Marion.....		3		158,000	16,020		357,750	
Multnomah.....				386,660	460		919,500	
Other counties.....		120		65,402	28,080		1,548,599	
PENNSYLVANIA.....	5,129,919	1,307,943	22,469	2,329,075	1,547,589	106,301	1,279,191,466	600,560,823
<i>Counties</i>								
Adams.....		5,040		90,000	9,667		2,653,166	
Allegheny.....		107,938		716,930	162,937	1,469	68,919,356	26,333,700
Armstrong.....		7,024		37,742	19,576	4,397	34,859,981	
Berks.....	6	11,700		69,234	84,202		3,708,457	
Blair.....		4,359		600	26,591		2,427,327	167,000
Bucks.....		8,919		106,109	104,447		9,018,474	
Butler.....		6,183	34	350	51,365	11,405	8,141,310	1,785,000
Cambria.....		123,414		380	6,771		100,985,018	31,173,490
Carbon.....	53,425				5,299		23,763,603	
Centre.....		4,612		21,032	2,125		5,881,996	40,000
Clarion.....		3,700		12,525	5,030	57,253	3,728,806	1,079,135
Clearfield.....	500	21,106		360	6,550		16,991,396	3,236,866
Columbia.....	53,155	80	15	3,700	10,012		3,972,202	
Cumberland.....		6,683	70		89,900		1,220,103	
Dauphin.....	103,743	6,434	27	24,305	37,266		3,442,075	40,548,901
Elk.....		12,786		12,500	1,750		3,859,800	
Fayette.....		305,724	20,911	20,453	27,636		114,200,883	14,021,634
Fulton.....		6,720					1,141,200	
Greene.....		44,236			11,285	287	27,788,290	10,000
Huntingdon.....		14,773		3,000	36,700		5,331,713	

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
PENNSYLVANIA—Continued.								
<i>Counties—Continued</i>								
Indiana.....		24,480			4,885	28,258	53,457,717	6,156,590
Jefferson.....		13,834			5,371		16,500,092	60,400
Lackawanna.....	932,108	3,180		20	13,121		72,640,384	185,862,856
LANCASTER.....	40,030	2,800		34,196	121,697		4,934,628	
Lawrence.....		51,594	31	4,100	13,992		8,748,820	702,511
Lebanon.....	39,852	15,469	54	1,099,323	107,874		48,064,016	
Lehigh.....	2,056	12,324		800	37,868		4,023,005	294,000
Luzerne.....	2,037,682	13,213		5,500	16,890		137,391,802	209,235,672
Mercer.....		10,818			3,012		860,124	600,000
Mifflin.....		4,345			8,893		3,168,727	
Montgomery.....	13	1,022		6,922	98,319		2,678,061	
Northampton.....	183	26,088	20	23,942	115,800		17,292,198	18,327
Northumberland.....	438,587	2,382		12,030	23,464		69,464,349	27,295,800
Schuylkill.....	1,365,172	4,022			4,175		173,240,315	56,580,980
Somerset.....		60,551		214	13,040		55,474,105	11,054,904
Susquehanna.....	25,339	95			1,864		1,392,984	3,412,000
Washington.....		87,612			200	1,038	97,120,170	3,765,120
Wayne.....	14,964	149			1,000			5,680,080
Westmoreland.....		221,714			25,400		69,641,752	20,753,108
York.....	21	4,682		1,337	87,132		5,392,599	
Other counties.....	22,183	44,888	1,307	21,981	207,354	1,594	6,274,463	1,157,800
RHODE ISLAND								
<i>Counties</i>								
Providence.....		2,392			54,500		161,002	
Washington.....	1,203	645					1,341,017	
Other counties.....		408		903			8,085	
SOUTH CAROLINA								
<i>Counties</i>								
Aiken.....	125	11,893	2,158		139,631		2,411,978	
Chesterfield.....		3,150		16,000	7,500		144,600	
Edgefield.....	1,500	2,000					852,000	
Fairfield.....				6,720	10,760		2,284,100	
Lexington.....		884	150	2,020	5,253		1,474,060	
Pickens.....		551					1,171,900	
Richland.....		1,703			34,920		2,075,700	
Other counties.....		879		5,462	53,900		689,503	
SOUTH DAKOTA								
<i>Counties</i>								
Fall River.....					19,150		98,171	
Grant.....		42			150	1 56	235,267	
Lawrence.....		42,930	133	67,500	37,970	6,279		45,822,900
Minnehaha.....		608					332,649	
Pennington.....				43,000	5,788		154,724	
Roberts.....					117,458			
Other counties.....				9,427	5,935		35,000	
TENNESSEE								
<i>Counties</i>								
Anderson.....		3,811					11,037,300	
Blount.....		5,378		2,457	1,034		1,538,600	
Campbell.....		10,039		3,402	9,739		3,887,014	600,000
Clatsborne.....		900					4,615,287	
Davidson.....		2,331		27,254	10,037		864,358	280,000
Fentress.....		7,250			1,750			1,170,000
Giles.....		6,320					1,605,780	
Grundy.....		3,551					1,200,320	
Hamilton.....		2,631					2,135,210	
Humphreys.....		580		53,457			76,700	
Knox.....		42,764	10	9,007	128,014		24,048,770	
Loudon.....		5,343					484,903	
Marion.....		4,042			7,200		1,636,517	
Maury.....		51,838					7,384,974	
Monroe.....		241			19,264		476,780	
Overton.....		4,450						5,472,000
Polk.....		4,250					16,499,255	
Roane.....		1,634		20,000			4,261,015	
Shelby.....		7,186		134,090	18,027		1,841,893	
Washington.....		500			1,564		554,356	
White.....		14,122					1,560,690	450,000
Other counties.....		23,503		1,690	18,721		2,249,883	

See footnotes at end of table.

MINES AND QUARRIES

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
TEXAS	905	54,082	50	12,342,913	802,347	123,257,794	17,008,974	10,402,348
<i>Counties</i>								
Bexar.....	602	4,152		32,873	8,706		430,176	
Bowie.....		3,000		111,250	25,292	134,887	533,600	
Brazoria.....				4,706,874		11,854,822		6,179,143
Brewster.....				357,307	10,151			650,000
Brooks.....				30,000	15,000			450,000
Colorado.....				1,016,000	55,000		1,892,800	
Comal.....		5,427		20,836	10,239		1,597,981	
Dallas.....		4,720		1,261,939	47,446	45,804	742,720	
Duval.....				45,796	36,000	790,000		65,000
Eastland.....				260,650		52,166	818,600	
El Paso.....		700			36,800		779,429	
Fayette.....					6,177		1,800,000	
Fisher.....				114,723		5,000	975,600	
Floyd.....		399		285,000	16,000			400,000
Harris.....		248		580,000			115,000	
Henderson.....		3,711					500,080	
Hidalgo.....					65,230		375,640	
Hudspeth.....		20		24,345	54,000			
McLennan.....		1,621		216,065	30,000		793,100	
Matagorda.....				175,056		5,386,313		4,394,680
Mitchell.....		50		100,000	4,000		150,000	
Navarro.....		3,100		5,000			876,942	
Nolan.....				19,151	40,990		309,880	
Presidio.....				270,798	10,516			1,082,325
Reaves.....		100		74,000	25,000			
Tarrant.....		3,379		477,049	41,775		403,782	
Uvalde.....		654		774,410	33,125		349,900	1,306,500
Victoria.....				255,000	35,000		1,525,000	
Webb.....		3,100		628	18,182		137,500	
Wharton.....				61,487		5,041,638		4,814,700
Wise.....		463		282,500	12,407		847,233	
Other counties.....	301	19,332	50	783,616	165,721	47,104	994,011	60,000
UTAH	38	100,744	4,942	366,752	132,565		468,394,024	661,404
<i>Counties</i>								
Carbon.....		14,789			10,200		29,647,857	661,404
Emery.....		411					3,013,930	
Iron.....		3,031		6,894	30,173		2,535,058	
Juab.....		2,958	10	2	2,825		14,214,319	
Salt Lake.....	27	62,538	4,253	281,147	54,363		322,141,304	
Summit.....	11	3,840		2,500	220		23,167,707	
Tooele.....		6,083	8		2,129		9,983,132	
Uintah.....		229		6,000	48,928			
Utah.....		2,555	6	51,900	17,622		55,493,911	
Wasatch.....		1,100		3,500			6,945,400	
Other counties.....		3,210	659	4,800	7,125		1,748,406	
VERMONT	431	15,513	395	115,278	31,624		22,571,970	13,405
<i>Counties</i>								
Bennington.....		602					124,200	13,405
Lamoille.....		499	127				2,330,900	
Orange.....	66	1,430		20,000			873,764	
Rutland.....	317	2,997	40	1,500	1,261		10,206,162	
Washington.....	38	9,874	223	80,634	24,003		6,035,335	
Windsor.....	10	6			5,460		1,674,108	
Other counties.....		105		4,144			727,601	
VIRGINIA	4,719	84,603	2,924	140,420	129,758		99,427,850	2,095,963
<i>Counties</i>								
Albemarle.....		654		56,004			595,652	
Alleghany.....		1,302		3,440			229,117	688,000
Augusta.....		3,753			37,516		3,049,464	209,350
Bland.....				6,500				
Botetourt.....		180			2,000		814,400	
Buckingham.....		3,085		28,300				672,043
Carroll.....		203			9,166		1,296,813	
Chesterfield.....		8,389			14,850		488,200	
Diokanson.....		783					3,826,545	
Giles.....		2,940					1,090,000	
Greensville.....		711		6,458	16,853		1,531,000	
Henrico.....		900			5,600		844,000	
Lee.....		3,322	2,924	6,338	10,700		8,391,402	201,600
Montgomery.....		2,432			4,240		2,814,745	
Pulaski.....		3,960					2,266,560	
Rockbridge.....		1,254		200	5,357		738,683	
Russell.....		4,940					9,018,347	
Scott.....		2,874		3,500			146,227	325,000
Smyth.....							1,796,860	
Tazewell.....		3,818					11,674,943	

See footnotes at end of table.

CONSUMPTION OF FUELS AND ELECTRIC ENERGY

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
VIRGINIA—Continued.								
<i>Counties—Continued</i>								
Warren.....							1,044,260	
Washington.....							1,137,500	
Wise.....		22,951					25,846,420	
Wythe.....	4,719	1,973		6,300			16,539,182	
Other counties.....		13,621		22,880	13,186		3,747,434	
WASHINGTON.....								
<i>Counties</i>								
Grays Harbor.....			1	985,439	188,818		42,725,968	527,056
King.....		1,129		378,140	13,427		20,623	
Kititas.....		16,659		46,000	34,303		11,444,002	
Lewis.....		1,878		136,148	16,000		9,629,424	
Pend Oreille.....		151			24,348		163,712	53,756
Pierce.....		1,264		141,700	1,650		2,348,808	
San Juan.....				27,300	1,923		10,217,416	
Snohomish.....			1	62,600	3,500		590,000	
Spokane.....		2		8,726	26,013		11,800	200,000
Stevens.....		27,012		16,850	27,463		4,971,258	33,300
Whatcom.....		6,295		79,386	8,421		1,814,400	240,000
Yakima.....				39,680	6,370			
Other counties.....		4,774			24,800		890,025	
WEST VIRGINIA.....								
<i>Counties</i>								
Barbour.....		2,618		600			5,145,440	200,000
Berkeley.....		4,267		4,632	16,074		9,074,632	
Boone.....		5,211					13,190,429	840,000
Brooke.....		500					9,174,325	
Clay.....		11,915				1,144	171,900	22,570,000
Fayette.....		36,482		545	6,000		64,411,693	10,241,100
Greenbrier.....		13,558			8,782		6,020,448	
Harrison.....		1,749		3,000	2,000	498	13,821,903	650,000
Jefferson.....		3,242		2,970	5,429		3,583,028	
Kanawha.....		20,544		25,875	3,443	24,640	27,994,486	820,150
Logan.....		42,927			1,366		70,022,654	1,767,000
McDowell.....		167,274					71,573,615	49,780,936
Marion.....		41,544			6,000		32,355,170	
Marshall.....		11,584			2,500	1,380	9,752,101	1,238,000
Mercer.....		14,385					19,695,992	1,008,000
Mineral.....		187		2,000	1,968		1,136,614	
Mingo.....		4,400				8,550	23,644,125	240,000
Monongalia.....		1,221			2,019		35,297,432	
Morgan.....		9,055					2,288,080	
Ohio.....		8,400		11,000			7,293,420	
Preston.....		24,089		565	1,665		6,455,285	3,836,653
Putnam.....							2,478,600	
Raleigh.....		72,367					72,103,287	14,967,900
Taylor.....							2,026,355	
Tucker.....		2,681					13,499,756	
Wetzel.....		5,297		15,500	5,500	5,183	70,000	
Wood.....		2,400		9,000	5,500	112,840	37,500	
Wyoming.....		12,083				24,000	7,142,368	2,400,000
Other counties.....		57,500		300	7,190	9,641	636,892	2,940,006
WISCONSIN.....								
<i>Counties</i>								
Brown.....		304			3,000		511,869	
Door.....		745		100	6,000		3,503,668	
Florence.....		170			678	1,227	449,376	
Grant.....		471		18,594	22,266		2,290,240	
Green.....					62,000			
Iowa.....		75					972,846	
Iron.....	20	14,273	47,112	11,752			13,352,451	
Lafayette.....		841			9,580		3,865,840	
Marathon.....		597		800	17,050		465,072	
Marinette.....	120	373					290,942	
Millwaukee.....		1,738	50	1,980	63,905		955,535	
Outagamie.....		260			20,200		252,592	
Ozaukee.....		10			25,200		1,061,992	
Portage.....		800			7,000			52,500
Racine.....		4,528					880,662	
Rock.....		895			4,200		1,870,682	
Sauk.....		142		15,770			117,256	
Sheboygan.....					5,000		612,120	
Waukesha.....		2,718		68,469	123,857		4,658,018	
Winnebago.....		511		25,750			240,208	
Other counties.....		4,273		7,310	56,301		3,725,740	

See footnotes at end of table.

MINES AND QUARRIES

TABLE 3.—CONSUMPTION OF FUELS AND ELECTRIC ENERGY, BY STATES AND COUNTIES: 1929—Continued

STATE AND COUNTY	COAL		Coke (tons, 2,000 pounds)	Fuel oils, including crude oil and gas oil (gallons)	Gasoline and kerosene (gallons)	Natural gas (M. cu. ft.)	ELECTRIC ENERGY	
	Anthracite (tons, 2,240 pounds)	Bituminous (tons, 2,000 pounds)					Purchased (kilowatt-hours)	Generated by the enterprises reporting (kilo- watt-hours)
WYOMING.....		180,857		80,448	71,923		13,185,701	50,414,145
<i>Counties</i>								
Carbon.....		17,520			8,580			2,870,800
Fremont.....		7,582						13,200,000
Hot Springs.....		37,495						6,436,050
Laramie.....		1,396		5,500	30,718			
Lincoln.....		51,842					2,597,893	6,080,379
Platte.....		2,751			1,200		2,946,963	
Sheridan.....		1,952					2,608,419	
Sweetwater.....		52,033					4,924,780	21,240,463
Weston.....				74,948	29,673			108,200
Other counties.....		8,277			1,755		107,646	478,463

¹ Includes 111,314 M cubic feet of manufactured gas, consumed in States and counties as follows: Mass., Hampden Co., 4,833 M; N. Dak., Burke Co., 23,166 M, Ward Co., 32,161 M; S. Dak., Grant Co., 56 M; Tex., Bowie Co., 34,887 M; W. Va., Clay Co., 1,144 M, Wood Co., 12,840 M; Wis., Florence Co., 2,227 M.

² Includes a small quantity reported by the District of Columbia.