STONE.

INTRODUCTION.

Scope of the report.—This report presents the results of the census of mines and quarries for the year 1919 relating to the stone-quarrying industries. It includes statistics showing: The progress of the industry by comparison of results of the 1919 census with those of the three preceding censuses of mines and quarries; the geographic distribution of the industries by states; the character of organization and the size of operating enterprises; the persons engaged in the industry; the land controlled and form of tenure of mineral land; power equipment and fuel used; statistics in detail for the stone industries in the United States, as a whole, for each industry separately, and for each industry in the states that can be shown without the disclosure of individual operations.

The report on the stone industries does not include statistics relating to the operation of quarries by penal and other governmental institutions. Returns were received from 122 such enterprises operating 87 limestone quarries, 14 granite quarries, 7 sandstone quarries, and 63 basalt quarries from which products valued at $1,935,640 were obtained in 1919.

Only two operations for development of nonproducing properties were reported for the stone-quarrying industries for the year 1919 and statistics for these are omitted from this report as they would, if combined with data for producing enterprises, impair the value of these, and, if shown separately, would disclose individual operations. The data for the nonproducing enterprises will be combined with those for other nonproducing enterprises and presented in the detail tables for the United States.

Definition of the industries.—The statistics for the stone industries relate to the quarrying of stone of all kinds except operations, as noted in the following paragraphs, which are specifically omitted in order to avoid duplication of statistics for industries not classified as stone quarrying. The numerous varieties of stone have, for the purposes of the census, been assigned to six groups—limestone, granite, sandstone, basalt, slate, and marble—and the statistics on quarry operations are herein presented as for six industries correspondingly designated.

The limestone industry includes the quarrying of limestone, of the related rock dolomite, and of a small amount of other calcareous rock such as tufa, which is, in some places, called marl; but the digging of true calcareous marl is not included with the limestone quarrying. Statistics on the production of a small amount of chert in Arkansas and Florida are included with the statistics on limestone. Limestone is the rock most used for building stone and constituted approximately one-third of all stone used for that purpose in 1919, but the principal uses of limestone are, first, for fluxing and as refractory materials and otherwise as material in many manufacturing industries; second, as crushed stone, rubble, and riprap used chiefly in road work, concrete, and rough construction work; and third, in agriculture. The quarrying and consumption of limestone in the manufacture of lime and of cement by the producers are not considered in the statistics here presented, as those operations are within the scope of the census of manufactures.

The granite industry includes the quarrying of granite and related granular igneous rocks, and includes a negligible amount of miscellaneous stone reported from Arizona, California, New York, and South Dakota. Granite is the rock principally used for monumental stone and, next to limestone, is the most important building stone; it is also the rock most commonly used for making paving blocks, and, as curbing and flagging, is second in importance to sandstone; three-fourths of the granite output, however, is used as crushed stone and as rubble and riprap.

The sandstone industry includes the quarrying of sandstone and quartzite (which embraces ganister) and some miscellaneous stone, as argillite from Arkansas, New Jersey, and New York; considerable quantities of siliceous mica schist used as ganister and some so-called "greenstones" from Pennsylvania. The sandstone industry as here considered includes the production of crushed sandstone for use as sand, about two-fifths of the output of the industry being used for this purpose in 1919. Other uses of sandstone were as crushed stone, rubble and riprap in rough construction work, as ganister and other refractory materials, as building stone, paving blocks, curbing, and flagging.

The basalt industry includes the quarrying of basalt, commonly known as trap rock, and other related rocks which are for the most part dark, heavy volcanic, rocks, and which are used almost entirely as crushed stone. For convenience in tabulation and in order to avoid disclosure of individual operations, reports for the quarrying of small amounts of miscellaneous stone in California, Idaho, Massachusetts, New York, Oregon, and Rhode Island, have been included in the basalt industry.

The slate industry includes the quarrying of slate for use as roofing, in switchboards and other electrical apparatus, for structural purposes, sanitary ware, grave vaults and covers, blackboards, bulletin boards and school slates, billiard table tops, and as crushed

"granules" for coating roofing felts, etc., and for other minor purposes. Nearly half of the slate output as measured in tons is used as "granules;" aside from this, the principal uses are as structural material, roofing, and sanitary slate.

The marble industry includes the quarrying of marble, which is crystalline limestone. The pure white or handsome, variously colored varieties of marble are quarried chiefly for use as monumental and building stone. Other uses of marble are of minor importance. Data on the production of small amounts of serpentine or verde antique in Michigan are included with the statistics on marble.

In addition to excluding the quarrying of limestone for the manufacture of lime and cement, as noted above, the census of mines and quarries also excluded from the stone industries the following: The quarrying of shale for use either as clay or in the manufacture of cement; the quarrying of grits or millstones as this is presented separately as the millstones industry; the quarrying of soapstone which is presented in the talc and soapstone industry; the quarrying of stone of various kinds for use as hones, whetstones, scythestones, and rubbing stones which is part of the abrasive materials industry; the quarrying of tripoli, quartzite, and other siliceous rock for use as abrasive materials, or as silica or for other special uses as such operations are included either in the abrasive materials industry or in the silica industry.

Relatively little stone is used rough as obtained from the quarry but at most quarries the stone is broken, crushed, shaped, dressed, ground, or otherwise prepared. The breaking of stone into rubble and riprap, and the crushing of stone for road work, ballast, concrete, or for other construction purposes is quite general and is closely connected with the quarrying operation. Such processes have not been considered as beneficiation, and enterprises practicing them have not been counted as operating dressing mills or beneficiating plants. On the other hand, the cutting, sawing, finishing, and polishing of stone for monumental and building uses and for paving, curbing, and flagging and the fine grinding or pulverizing of stone for use in manufacturing industries and in agriculture are considered processes of beneficiation if carried on in connection with the quarrying. Such beneficiation was practiced by more than one-sixth of the stone-quarrying enterprises in 1919, and the statistics herein presented, relating primarily to stone quarrying, cover also the operation of beneficiating plants at the quarries.

Returns were received from stone producers who subjected their product to operations properly considered as manufacturing and when such operators made separate returns for the two phases of their business the returns were included, respectively, in the census of mines and quarries and the census of manufactures. But when operators of such enterprises made one report covering the entire business the reports were, so far as possible, revised and segregated in order to be separately tabulated. However, this was generally not practicable and the full reports covering both the quarrying and the manufacturing ends of the business have been included in the census of mines and quarries for the stone industries as well as in the census of manufactures.

Wage earners above and below ground.—Stone of all kinds is quarried almost without exception from open or surface workings, and most of the wage earners in the stone-quarrying industries are classed as employed above ground. There are, however, a few limestone and marble quarries and some of the slate quarries in the United States which are underground workings. In 1919 some limestone enterprises in Alabama and Pennsylvania and slate enterprises in all producing eastern states reported wage earners employed below ground. A number of the slate quarries which reported wage earners below ground are merely deep open pits, but because of the hazards of operating these deep pits the classification of wage earners as employed underground, made by the reporting operators, was accepted.

Method of reporting quantity and value of products.—The statistics on the production of stone were collected in cooperation with the United States Geological Survey. For that purpose a supplemental schedule requesting special information desired by the Survey was provided in addition to the general schedule of the census. The Geological Survey required the quantity only of stone produced in various forms such as rough, dressed, crushed, ground, etc., classified by uses, but the quantity and value of the stone sold or used during 1919 classified in the same detail as the stone produced. In the reports from most of the enterprises the quantity produced and the quantity sold or used were identical, but in many reports they were different. As the census required only the value of stone actually produced—that is, quarried and prepared during the year 1919—the value of products reported by the Census Bureau for enterprises whose sales differed from the quarry output is the value of the stone quarried and prepared during 1919 computed on the basis of the average selling value of stone of like character sold or used. The Geological Survey has tabulated only the quantity and value of stone sold or used in 1919, which quantity may include considerable stone drawn from stock previously quarried, or may exclude stone quarried during the census year 1919 but not used or sold. This accounts for much of the difference in value of

stone products reported by the Bureau of the Census and by the Geological Survey. Another source of discrepancy is in the differences in classification, which are principally of three kinds: First, the Geological Survey has not considered as stone production the output of enterprises classified in the stone industry by the Bureau of the Census. This difference is limited chiefly to the sandstone industry, of which approximately two-fifths of the output is classified as sand by the Geological Survey and not tabulated as stone. Second, miscellaneous varieties of stone separately tabulated by the Geological Survey were included with several of the principal varieties by the Census Bureau. Third, the Geological Survey includes in its tabulation the value of finished stone products, such as monumental and building stone, for some enterprises for which the Bureau of the Census reports only the value of rough stone, the finishing operations having been reported as manufacturing conducted separately. Furthermore, minor differences in value are due to inclusion in the census tabulations of the value of by-products and miscellaneous receipts from quarry operations.

In order to indicate the extent of the differences in the value of products as noted above, the following statement has been prepared to show the value of products for the stone industries as reported by the Bureau of the Census for 1919 and the value of various kinds of stone marketed in 1919 as reported by the Geological Survey.

INDUSTRY.	Bureau of the Census.	Geological Survey.
Total	$101,684,919	$102,739,791
Limestone	*52,913,924*	*53,171,701*
Granite	18,279,345	19,345,714
Sandstone	10,684,969	5,283,842
Basalt	9,657,977	8,944,686
Slate	5,720,792	6,030,648
Marble	4,397,912	3,042,297
Other stone	.....	*1,920,903*

Tables 1 and 2 are introduced to show in this report data on the quantity and uses of the stone produced in the United States in 1919. Table 1 shows the output of stone in 1919 in the United States, including Alaska, Hawaii, and Porto Rico and also the production by governmental (including penal) institutions as reported by the Geological Survey. The quantity of stone produced for each of the principal uses and classified by kinds is shown in thousands of tons.

TABLE 1.—STONE PRODUCED, BY USES: 1919.

(Based on statistics from United States Geological Survey, Mineral Resources, "Stone in 1919" and "Slate in 1919.")

VARIETY OF STONE.	All uses.	Monumental stone.	Building stone.	Paving blocks.	Curbing and flagging.	Crushed stone.	Rubble and riprap.	Metallurgical and refractory uses.[1]	Other manufacturing uses.	Agricultural uses.	All other uses.
	Expressed in thousand tons (2,000 pounds).										
Total	65,949	309	[2] 1,167	387	229	33,876	2,353	22,376	2,978	1,393	791
Basalt	7,411	.....	30	2	.....	7,053	311	.....	.....	.....	15
Granite	4,221	305	304	364	51	2,700	477	.....	.....	.....	20
Limestone	49,760	.....	394	.....	7	21,762	1,162	21,455	2,978	1,393	609
Marble	333	94	85	.....	.....	.....	.....	115	.....	.....	39
Sandstone[3]	2,623	.....	151	21	171	1,179	307	783	.....	.....	11
Slate	410	.....	[2] 170	.....	.....	[4] 203	.....	.....	.....	.....	37
Other stone	1,191	.....	33	.....	.....	979	96	23	.....	.....	60

[1] Includes limestone and marble for flux; and dolomite, sandstone (ganister), and mica schist as refractory materials.
[2] Includes roofing slates, other structural slate, and sanitary slate.
[3] In addition to the quantities here shown as reported by the Geological Survey, approximately 2,200 thousand tons of sandstone were produced for use as "sand."
[4] "Granules" for roofing.

In Table 2 the Geological Survey figures on quantity of stone produced have been recast in order to correlate them with the Census Bureau statistics on the quarrying industries. The Geological Survey data on production in Alaska, Hawaii, and Porto Rico, and by governmental institutions have been excluded, the data on sandstone used as sand have been added, and the data on miscellaneous varieties of stone classified by the Geological Survey as "other stone" have been distributed with the statistics for the principal kinds of stone.

TABLE 2.—QUANTITY OF STONE PRODUCED, BY STATES: 1919.[1]

(Quantities expressed in tons of 2,000 pounds are approximate equivalents of quantities reported in various other units by the quarry operators.)

STATE.	Total.	Limestone.[2]	Granite.[3]	Sandstone.[4]	Basalt.[5]	Marble.	Slate.
	(Tons, 2,000 pounds.)						
United States	67,844,000	49,715,000	4,420,000	5,224,000	7,745,000	331,000	409,000
Alabama	880,000	859,000		21,000		[6]	
Arizona	516,000	162,000	[7] 354,000	[6]			
Arkansas	409,000	[7] 100,000	7,000	[7] 299,000		3,000	
California	2,852,000	170,000	[7] 1,009,000	272,000	[7] 1,399,000	2,000	
Colorado	530,000	493,000	3,000	34,000			
Connecticut	1,281,000	[8]	53,000	24,000	1,204,000		
Delaware	89,000		89,000				
District of Columbia	6,000		6,000				
Florida	129,000	[7] 129,000					
Georgia	298,000	89,000	209,000			[6]	
Idaho	103,000	100,000		3,000	[6]		
Illinois	5,682,000	4,959,000		723,000			
Indiana	1,635,000	1,635,000		[6]			
Iowa	513,000	513,000					
Kansas	680,000	680,000					
Kentucky	1,216,000	1,201,000		15,000			
Louisiana	[6]	[6]					
Maine	177,000	23,000	150,000				4,000
Maryland	903,000	353,000	138,000	67,000	343,000	[6]	2,000
Massachusetts	1,372,000	54,000	384,000	58,000	[7] 868,000	8,000	
Michigan	7,206,000	7,187,000		19,000	[6]	[6]	
Minnesota	462,000	216,000	75,000	29,000	142,000		
Mississippi	[8]	[8]					
Missouri	1,138,000	1,116,000	[6]			22,000	
Montana	206,000	205,000	1,000	[6]			
Nebraska	204,000	204,000		[6]			
Nevada	[6]	[6]				[6]	
New Hampshire	105,000		105,000				
New Jersey	1,626,000	374,000	34,000	[7] 23,000	1,195,000		
New Mexico	[8]	[6]		[6]		[6]	
New York	4,167,000	3,393,000	[7] 58,000	[7] 70,000	[7] 548,000	24,000	74,000
North Carolina	616,000	69,000	547,000	[6]			
North Dakota							
Ohio	8,160,000	7,703,000		457,000			
Oklahoma	662,000	659,000	3,000	[6]			
Oregon	523,000	36,000	[6]		[7] 487,000	[6]	
Pennsylvania	14,446,000	10,666,000	216,000	[7] 2,296,000	1,134,000	[6]	134,000
Rhode Island	117,000	[8]	40,000		[7] 77,000		
South Carolina	404,000		404,000				
South Dakota	137,000	18,000	[6]	119,000			
Tennessee	676,000	630,000		[6]		46,000	
Texas	599,000	548,000	51,000		[6]	[6]	
Utah	315,000	315,000		[6]			[6]
Vermont	460,000	39,000	133,000			100,000	188,000
Virginia	1,620,000	1,447,000	101,000	65,000	[6]		7,000
Washington	243,000	24,000	8,000	[6]	211,000		
West Virginia	2,294,000	1,971,000		323,000			
Wisconsin	1,515,000	1,142,000	230,000	143,000	[6]		
Wyoming	118,000	104,000		14,000			
Undistributed	554,000	129,000	12,000	150,000	137,000	126,000	

[1] Based on statistics compiled by the United States Geological Survey and tabulated to conform with the Bureau of the Census classification of the stone-quarrying industries.

[2] Includes 21,790 tons of miscellaneous stone. [3] Includes 199,140 tons of miscellaneous stone. [4] Includes 412,370 tons of miscellaneous stone.

[5] Includes 517,540 tons of miscellaneous stone. [6] Included under "undistributed." [7] Includes miscellaneous unclassified stone. [8] Too small to be shown.

PRINCIPAL STATISTICS.

Summary for producing enterprises.—Operators in the stone-quarrying industries in 1919 reported 1,820 producing enterprises working 1,922 quarries in which an average of 42,986 wage earners were employed during the census year. The total value of all products of these enterprises was $101,684,919. On the bases of total value of products and average number of wage earners employed, the stone industries, as a unit, ranked fifth among the mining industries in the United States in 1919.

The principal statistics for 1919 for the stone industries, as a whole, and for each industry separately are presented in Table 3. This table shows a segregation of the total value of products into the value of the stone produced, which amounted to $100,423,476, and the value of other products or receipts from operation, which was $1,261,443; and also gives the approximate quantity of the stone quarried. In Table 4 the receipts from quarrying operations, other than the value of the principal stone product, are shown in detail for each stone industry.

The rank of the several stone-quarrying industries among the mining industries of the United States, according to value of products and number of wage earners, is shown in the following tabular statement:

INDUSTRY.	VALUE OF PRODUCTS.		WAGE EARNERS.	
	Amount.	Rank among the mining industries.	Average number.	Rank among the mining industries.
Limestone	$52,943,924	7	22,069	5
Granite	18,279,345	8	8,049	8
Sandstone	10,684,969	10	4,287	11
Basalt	9,657,977	13	3,336	13
Slate	5,720,792	16	3,513	12
Marble	4,397,912	17	1,732	15

TABLE 3.—PRINCIPAL STATISTICS, PRODUCING ENTERPRISES: 1919.

	Total.	Limestone.	Granite.	Sandstone.	Basalt.	Slate.	Marble.
Number of enterprises	1,820	895	358	255	163	101	48
Number of quarries	1,922	925	381	276	174	104	62
Number of enterprises operating mills and dressing plants in connection with quarries	354	44	152	66	6	61	25
Mineral land operated ..... acres	252,242	122,820	30,659	48,729	15,625	5,440	28,969
Persons engaged	48,087	24,705	8,951	4,897	3,791	3,852	1,891
Proprietors and firm members, total	1,288	633	328	179	77	64	7
Number performing manual labor	417	175	145	53	20	21	3
Salaried employees	3,313	2,003	574	431	378	275	152
Wage earners (average number)	42,986	22,069	8,049	4,287	3,336	3,513	1,732
Power used (aggregate horsepower)	376,808	213,717	55,674	33,869	37,307	20,613	15,628
Capital	$148,759,533	$82,124,367	$18,823,980	$18,955,321	$12,899,171	$6,923,172	$9,033,522
Principal expenses:							
Salaries	$7,168,303	$3,720,593	$1,196,456	$530,633	$751,247	$409,255	$254,119
Wages	$45,534,798	$23,926,332	$8,587,659	$4,448,811	$3,991,307	$3,128,249	$1,452,440
Contract work	$995,976	$665,557	$118,637	$54,161	$41,406	$95,633	$20,582
Supplies and materials	$18,441,459	$10,968,220	$2,593,040	$1,664,432	$2,030,869	$632,459	$552,439
Fuel	$5,267,846	$2,897,432	$833,636	$597,353	$562,827	$228,954	$147,644
Purchased power	$2,213,459	$1,278,958	$261,185	$250,909	$157,161	$188,505	$76,741
Royalties and rents	$1,381,290	$667,751	$139,202	$131,970	$250,199	$157,783	$34,380
Taxes	$2,088,170	$1,119,861	$377,646	$195,309	$198,613	$73,238	$123,503
Expenditures for development (included in the above items)	$1,241,343	$764,673	$156,870	$96,555	$131,800	$60,531	$30,914
Total value of all products	$101,684,919	$52,943,924	$18,279,345	$10,684,969	$9,657,977	$5,720,792	$4,397,912
Stone produced—value	$100,423,476	$51,967,290	$18,247,617	$10,672,134	$9,430,528	$5,720,054	$4,385,853
Approximate quantity ..... tons, 2,000 pounds	67,844,000	49,715,000	4,420,000	5,224,000	7,745,000	409,000	331,000
Other products—value	$1,261,443	$976,634	$31,728	$12,835	$227,449	$738	$12,059

TABLE 4.—OTHER PRODUCTS: 1919.

INDUSTRY.	Total.	Mineral products.	Lime.[1]	Unspecified products.	Power sold and work or miscellaneous services for others.
All industries	$1,261,443	$27,288	$574,688	$346,110	$313,357
Limestone	976,634	[2] 15,196	574,688	148,814	237,936
Granite	31,728	.....	.....	6,250	25,478
Sandstone	12,835	.....	.....	400	12,435
Basalt	227,449	[3] 33	.....	190,646	36,770
Slate	738	.....	.....	.....	738
Marble	12,059	[4] 12,059	.....	.....	.....

[1] Includes only the lime reported by enterprises of which the principal product was *stone* and which did *not report statistics for lime* separately.
[2] Includes coal, clay, marble, and silica. [3] Fuller's earth. [4] Limestone.

Geographic distribution.—The stone-quarrying industry is distributed generally throughout the United States, and forms an important part of the mineral industry in many states. The statistics for the stone industries are presented by states or by the usual geographic divisions without attempt to group or divide states into special regions or districts which are characteristic of the several industries.

Table 5 presents the statistics for the combined quarrying industries by geographic divisions, with per cent distribution for each item.

TABLE 5.—STATISTICS FOR THE COMBINED STONE INDUSTRIES, PRODUCING ENTERPRISES: 1919.

DIVISION.	Number of enterprises.	Number of quarries.	Mineral land operated (acres).	Wage earners (average number).	Power used (aggregate horsepower).	Capital.	Cost of supplies and materials.[1]	Wages.	Value of products.
United States	1,820	1,922	252,242	42,986	376,808	$148,759,533	$25,922,764	$45,534,798	$101,684,919
New England:									
Number or amount	268	292	28,584	6,679	57,150	21,003,113	3,313,580	7,478,865	17,363,413
Per cent of total	14.7	15.2	11.3	15.5	15.2	14.1	12.8	16.4	17.1
Middle Atlantic:									
Number or amount	542	578	77,375	13,402	97,917	43,545,385	8,482,049	15,058,849	30,691,987
Per cent of total	29.8	30.1	30.7	31.2	26.0	29.3	32.7	33.1	30.2
East North Central:									
Number or amount	311	320	51,441	8,720	120,115	47,857,804	7,047,694	9,623,642	25,911,756
Per cent of total	17.1	16.6	20.4	20.3	31.9	32.2	27.2	21.1	25.5
West North Central:									
Number or amount	192	201	6,877	2,995	24,149	6,502,359	1,422,627	3,142,820	6,138,502
Per cent of total	10.5	10.5	2.7	7.0	6.4	4.4	5.5	6.9	6.0
South Atlantic:									
Number or amount	179	186	30,315	5,531	33,427	11,625,076	2,585,110	4,981,539	10,300,475
Per cent of total	9.8	9.7	12.0	12.9	8.9	7.8	10.0	10.9	10.1
East South Central:									
Number or amount	107	114	8,453	2,684	18,307	5,205,912	1,271,993	2,037,917	4,556,567
Per cent of total	5.9	5.9	3.4	6.2	4.9	3.5	4.9	4.5	4.5
West South Central:									
Number or amount	59	60	20,850	944	8,277	3,571,152	546,083	847,493	1,936,922
Per cent of total	3.2	3.1	8.3	2.2	2.2	2.4	2.1	1.9	1.9
Mountain:									
Number or amount	78	82	14,082	943	4,679	4,093,684	411,699	1,053,682	2,084,407
Per cent of total	4.3	4.3	5.6	2.2	1.2	2.8	1.6	2.3	2.0
Pacific:									
Number or amount	84	89	14,265	1,088	12,787	5,354,448	841,929	1,309,991	2,700,839
Per cent of total	4.6	4.6	5.7	2.5	3.4	3.6	3.2	2.9	2.7

[1] Includes cost of fuel and purchased power.

The figures show that the Middle Atlantic and the East North Central divisions, which are the most populous and the most important industrially, are also the most important in the stone industries; the New England division is third in importance, and the South Atlantic is fourth.

Table 6 shows the number of enterprises, the average number of wage earners employed, and the value of products, for each of the stone industries, by states, ranked according to value of products, and it also shows for each industry the per cent distribution among the states of wage earners and of value of products. Pennsylvania was the leading state in four industries, limestone, sandstone, basalt, and slate. Vermont led in the granite and marble industries and was second in the slate industry. More than half of the limestone industry was concentrated in the leading states, Pennsylvania, Ohio, Indiana, and New York; of the granite industry, in Vermont, Massachusetts, North Carolina, Wisconsin, and New Hampshire; of the sandstone industry, in Pennsylvania and Ohio; of the basalt industry, in Pennsylvania, New Jersey, and Massachusetts. More than three-fourths of the slate industry was concentrated in Pennsylvania and Vermont and nearly three-fourths of the marble industry in Vermont and Tennessee.

TABLE 6.—STONE INDUSTRIES AND STATES, RANKED BY VALUE OF PRODUCTS, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND STATE.	Number of enterprises.	WAGE EARNERS. Average number.	WAGE EARNERS. Per cent distribution.	VALUE OF PRODUCTS. Amount.	VALUE OF PRODUCTS. Per cent distribution.
UNITED STATES—All industries.	1,820	42,986	.....	$101,684,919	.....
LIMESTONE	895	22,069	100.0	52,943,924	100.0
Pennsylvania	184	5,573	25.3	12,881,213	24.3
Ohio	90	2,262	10.2	6,742,496	12.7
Indiana	67	1,800	8.2	4,619,801	8.7
New York	55	1,739	7.9	4,597,942	8.7
Illinois	41	1,244	5.6	3,776,626	7.1
Missouri	70	1,171	5.3	2,355,736	4.4
West Virginia	17	1,003	4.5	1,927,490	3.6
Virginia	31	777	3.5	1,610,544	3.1
Alabama	15	835	3.8	1,340,961	2.5
Kentucky	47	676	3.1	1,126,109	2.1
Wisconsin	33	382	1.7	1,107,790	2.1
Kansas	35	494	2.2	835,147	1.6
Oklahoma	13	278	1.3	567,288	1.1
California	13	245	1.1	540,987	1.0
Tennessee	21	349	1.6	534,848	1.0
Colorado	14	228	1.0	526,738	1.0
Iowa	25	246	1.1	476,650	0.9
New Jersey	10	258	1.2	459,059	0.9
Minnesota	10	156	0.7	311,180	0.6
Utah	7	148	0.7	291,234	0.6
Maryland	11	149	0.7	241,638	0.5
Arkansas	6	114	0.5	220,070	0.4
Montana	7	87	0.4	191,887	0.4
Florida	4	111	0.5	177,201	0.3
Georgia	5	80	0.4	174,821	0.3
Arizona	4	45	0.2	153,211	0.3
Oregon	4	69	0.3	138,708	0.3
Vermont	4	40	0.2	76,152	0.1
All other states [1]	52	1,520	6.9	4,940,397	9.3
GRANITE	358	8,049	100.0	18,279,345	100.0
Vermont	27	1,062	13.2	3,563,734	19.5
Massachusetts	42	1,034	12.8	2,405,165	13.2
North Carolina	16	959	11.9	1,576,250	8.6
Wisconsin	14	753	9.4	1,484,979	8.1
New Hampshire	23	589	7.3	1,427,079	7.8
Maine	42	747	9.3	1,300,990	7.1
Minnesota	27	392	4.9	1,135,391	6.2
Georgia	20	580	7.2	885,663	4.9
South Carolina	10	322	4.0	747,970	4.1
Rhode Island	8	262	3.3	733,083	4.0
California	17	162	2.0	563,485	3.1
Maryland	9	236	2.9	495,651	2.7
Pennsylvania	29	197	2.4	435,654	2.4
Virginia	7	157	2.0	259,569	1.4
Connecticut	11	92	1.1	206,546	1.1
GRANITE—Continued.					
New York	7	101	1.3	$173,404	0.9
Arizona	3	58	0.7	128,777	0.7
New Jersey	4	48	0.6	81,193	0.4
Washington	5	42	0.5	74,958	0.4
Montana	3	4	(2)	12,944	0.1
All other states [3]	34	253	3.1	585,343	3.2
SANDSTONE	255	4,287	100.0	10,684,969	100.0
Pennsylvania	100	1,673	39.0	3,534,563	33.1
Ohio	21	875	20.4	2,759,352	25.8
Illinois	15	288	6.7	1,329,389	12.4
West Virginia	15	343	8.0	885,588	8.3
New York	22	146	3.4	301,315	2.8
Wisconsin	12	133	3.1	231,078	2.2
South Dakota	5	89	2.1	140,968	1.3
Kentucky	5	56	1.3	91,363	0.9
California	6	27	0.6	65,074	0.6
New Jersey	5	20	0.5	46,775	0.4
Colorado	7	14	0.3	45,723	0.4
All other states [4]	42	623	14.5	1,254,681	11.7
BASALT	163	3,336	100.0	9,657,977	100.0
Pennsylvania	29	721	21.6	2,298,791	23.8
New Jersey	36	637	19.1	1,928,025	20.0
Massachusetts	21	547	16.4	1,548,611	16.0
Connecticut	20	363	10.9	1,262,579	13.1
California	16	262	7.9	635,588	6.6
Maryland	10	183	5.5	369,075	3.8
Oregon	9	124	3.7	294,812	3.1
Washington	8	99	3.0	240,742	2.5
All other states [5]	14	400	12.0	1,079,754	11.2
SLATE	101	3,513	100.0	5,720,792	100.0
Pennsylvania	42	1,892	53.9	2,651,533	46.3
Vermont	33	1,039	29.6	2,057,388	36.0
New York	9	134	3.8	445,027	7.8
Virginia	4	210	6.0	203,068	3.5
Maryland	4	85	2.4	76,683	1.3
All other states [6]	4	153	4.4	287,093	5.0
MARBLE	48	1,732	100.0	4,397,912	100.0
Vermont	15	570	32.9	2,108,872	48.0
Tennessee	13	540	31.2	1,088,131	24.7
New York	6	100	5.8	249,286	5.7
All other states [7]	14	522	30.1	951,623	21.6

[1] Includes enterprises in states as follows: Connecticut, 1; Idaho, 3; Louisiana, 1; Maine, 1; Massachusetts, 1; Michigan, 11; Nebraska, 8; Nevada, 1; North Carolina, 2; South Dakota, 3; Texas, 12; Wyoming, 8.
[2] Less than one-tenth of 1 per cent.
[3] Includes enterprises in states as follows: Arkansas, 2; Colorado, 8; Delaware, 2; District of Columbia, 3; Missouri, 2; Oklahoma, 6; Oregon, 2; South Dakota, 1; Texas, 8.
[4] Includes enterprises in states as follows: Alabama, 2; Arizona, 2; Arkansas, 7; Connecticut, 3; Idaho, 2; Indiana, 1; Maryland, 2; Massachusetts, 1; Michigan, 2; Minnesota, 1; Missouri, 4; Montana, 2; North Carolina, 1; Oklahoma, 2; Tennessee, 2; Utah, 2; Virginia, 2; Washington, 1; Wyoming, 3.
[5] Includes enterprises in states as follows: Delaware, 1; Idaho, 1; Michigan, 1; New York, 4; Rhode Island, 4; Texas, 1; Wisconsin, 2.
[6] Includes enterprises in states as follows: Maine, 3; Utah, 1.
[7] Includes enterprises in states as follows: Alabama, 2; California, 3; Georgia, 1; Maryland, 2; Massachusetts, 3; Michigan, 1; Missouri, 1; Texas, 1.

PROGRESS OF THE INDUSTRY.

Comparative summary for producing quarries in the United States: 1889–1919.—Table 7 presents for producing enterprises, in the combined quarrying industries and in each stone industry separately, the principal statistics reported at the Fourteenth Census and the three preceding censuses of mines and quarries and gives the percentages of increase or decrease. Although in some industries and over some census periods notable increases are shown for certain items, never-

theless there has been a general decline which was very marked between 1909 and 1919, and is best shown by the decrease in the average number of wage earners employed. The increases shown in the principal expenses and in the value of products in 1902 as compared with 1889 and in 1919 as compared with 1909 are in large part due to general price increases and do not mark increase in volume of business.

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

	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919	1902–1909	1889–1902
	ALL STONE INDUSTRIES.						
Number of enterprises	1,820	3,988	5,470	(2)	−54.4	−27.1	
Number of quarries	1,922	4,603	5,764	4,163	−58.2	−20.1	38.5
Persons engaged	48,087	[3] 87,849			−45.3		
Proprietors and firm members, total	1,288	4,106	(2)	(2)	−68.6		
Number performing manual labor	417	1,827	(2)	(2)	−77.2		
Salaried employees	3,813	[3] 4,673	5,279	1,086	−18.4	−11.5	386.1
Wage earners (average number)	42,986	79,070	71,156	81,288	−45.6	11.1	−12.5
Power used (aggregate horsepower)	376,808	303,442	178,878	(4)	24.2	69.6	
Capital	$148,759,533	[5] $132,641,780	(2)	$90,212,433	12.2		
Principal expenses:							
Salaries	7,168,303	[6] 5,146,739	$4,488,339	30,555,877	39.3	14.7	37.5
Wages	45,534,798	39,661,871	37,515,907		14.8	5.7	
Contract work	995,976	463,590	36,981	(4)	114.8	(1)	
Supplies and materials	18,441,459	8,800,184	[7] 10,739,736	7,923,220	109.6		
Fuel and purchased power	7,481,305	3,482,054	(4)	(4)	114.9		
Royalties and rents	1,381,290	1,439,445	1,156,754	(4)	−4.0	24.4	
Taxes	2,088,170	[8] 496,235	(4)	(4)	320.8		
Value of products	101,684,919	75,992,908	70,462,438	53,035,620	33.8	7.8	32.9

	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919	1902–1909	1889–1902
	LIMESTONE.						
Number of enterprises	895	1,665	3,137	(2)	−46.2	−46.9	
Number of quarries	925	1,916	3,246	1,954	−51.7	−41.0	66.1
Persons engaged	24,705	33,623			−26.5		
Props. and firm members, total	633	1,634	(2)	(2)	−61.3		
Performing manual labor	175	640	(2)	(2)	−72.7		
Salaried employees	2,003	1,700	2,231	433	17.8	−23.8	415.2
Wage earners (av. number)	22,069	30,289	31,547	30,211	−27.1	−4.0	4.4
Power used (aggregate h. p.)	213,717	125,024	64,500	(4)	70.9	93.8	
Capital	$82,124,367	$44,089,476	(2)	$27,022,325	86.3		
Principal expenses:							
Salaries	3,726,593	1,717,996	$1,843,747	10,121,985	116.9	−6.8	63.9
Wages	23,926,332	14,082,185	14,750,638		69.9	−4.5	
Contract work	665,557	201,880	36,381	(4)	229.7	454.9	
Supplies and materials	10,968,220	3,754,125	[7] 5,403,912	4,227,246	192.2		
Fuel and purchased power	4,176,390	1,507,628	(4)	(4)	177.0		
Royalties and rents	667,751	488,919	422,603	4	36.6	15.7	
Taxes	1,119,861	161,117	(4)	(4)	595.1		
Value of products	52,943,824	29,812,492	30,441,801	19,005,179	77.5	−2.0	60.4
	GRANITE.						
Number of enterprises	358	707	853	814	−49.4	−17.1	4.8
Number of quarries	381	826	906	874	−53.9	−8.8	3.7
Persons engaged	8,951	20,394			−56.1		
Props. and firm members, total	328	730	(2)	(2)	−55.1		
Performing manual labor	145	318	(2)	(2)	−54.4		
Salaried employees	574	920	1,377	222	−37.6	−33.2	520.3
Wage earners (av. number)	8,049	18,744	18,836	22,091	−57.1	−0.5	−14.7
Power used (aggregate h. p.)	55,674	61,095	46,986	(4)	−8.9	30.0	
Capital	$18,823,980	$25,422,307	(2)	$10,115,449	−26.0		
Principal expenses:							
Salaries	1,196,456	1,069,532	$1,227,885	9,620,485	11.9	−12.9	27.9
Wages	8,587,659	11,112,195	11,072,996		−22.7	0.4	
Contract work	118,637	65,744		(4)	80.5		
Supplies and materials	2,503,040	1,921,912	[7] 2,493,065	1,446,485	34.9		
Fuel and purchased power	1,094,821	737,078	(4)	(4)	44.6		
Royalties and rents	139,202	194,349	194,892	(4)	−28.4	−0.3	
Taxes	377,646	113,097	(4)	(4)	233.9		
Value of products	18,279,345	18,097,976	18,257,944	14,464,095	−3.8	4.1	26.2
	BASALT.						
Number of enterprises	163	196	(2)	(2)	−16.8		
Number of quarries	174	220	(2)	(2)	−20.9		
Persons engaged	3,791	5,744			−34.0		
Props. and firm members, total	77	116	(2)	(2)	−33.6		
Performing manual labor	20	22	(2)	(2)			
Salaried employees	378	372	(2)	(2)	1.6		
Wage earners (av. number)	3,336	5,256	(2)	(2)	−36.5		
Power used (aggregate h. p.)	37,307	29,211	(2)	(2)	27.7		
Capital	$12,899,171	$8,745,553	(2)	(2)	47.5		
Principal expenses:							
Salaries	751,247	347,094	(2)	(2)	116.4		
Wages	3,991,307	2,538,964	(2)	(2)	57.2		
Contract work	41,406	60,204	(2)	(2)	−31.2		
Supplies and materials	2,030,869	1,018,990	(2)	(2)	99.5		
Fuel and purchased power	719,988	279,082	(2)	(2)	158.0		
Royalties and rents	250,199	282,501	(2)	(2)	−11.4		
Taxes	198,613	32,301	(2)	(2)	514.9		
Value of products	9,657,977	5,578,317	(2)	(2)	73.1		
	SLATE.						
Number of enterprises	101	185	174	(2)	−45.4	6.3	
Number of quarries	104	219	199	212	−52.5	10.1	−6.1
Persons engaged	3,852	9,486			−59.4		
Props. and firm members, total	64	221	(2)	(2)	−71.0		
Performing manual labor	21	70	(2)	(2)			
Salaried employees	276	462	437	75	−40.5	5.7	
Wage earners (av. number)	3,513	8,803	5,920	6,005	−60.1	48.7	−2.9
Power used (aggregate h. p.)	20,613	29,777	25,454	(4)	−30.8	17.0	
Capital	$6,923,172	$12,177,350	(2)	$10,569,593	−43.1		
Principal expenses:							
Salaries	409,255	405,479	$334,879	2,218,982	0.9	21.1	58.3
Wages	3,128,249	4,088,653	3,177,459		−23.5	28.7	
Contract work	95,633	28,962		(4)	230.2		
Supplies and materials	632,459	521,761	[7] 680,361	282,114	21.2		
Fuel and purchased power	417,459	327,397	(4)	(4)	27.5		
Royalties and rents	157,788	271,252	269,267	(4)	−41.8	0.7	
Taxes	73,238	33,192	(4)	(4)	120.6		
Value of products	5,720,792	6,054,174	5,696,051	3,482,513	−5.5	6.3	63.6

See footnotes at end of this table.

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

	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919	1902–1909	1889–1902	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919	1902–1909	1889–1902
	SANDSTONE.							MARBLE.						
Number of enterprises	255	1,158	1,231	(2)	−78.0	−5.9	.....	48	77	75	74	.....	.....	.....
Number of quarries	276	1,314	1,330	1,020	−79.0	−1.2	30.4	62	108	83	103	−42.6	.....	−19.4
Persons engaged	4,897	11,774	.....	.....	−58.4	.....	.....	1,891	6,502	.....	.....	−70.9	.....	.....
Props. and firm members, total.	179	1,356	(2)	(2)	−86.8	.....	.....	7	40	(2)	(2)	.....	.....	.....
Performing manual labor	53	771	(2)	(2)	−93.1	.....	.....	3	9	(2)	(2)	.....	.....	.....
Salaried employees	431	606	882	260	−28.9	−31.3	239.2	152	287	352	96	−47.0	−18.5	.....
Wage earners (av. number)	4,287	9,812	10,783	18,458	−56.3	−9.0	−41.6	1,732	6,166	4,070	4,433	−71.9	51.5	−8.2
Power used (aggregate h. p.)	33,869	36,556	27,652	(4)	−7.4	32.2	.....	15,628	21,779	14,286	(4)	−28.2	52.4	.....
Capital	$18,955,321	$17,058,244	(2)	$18,412,224	11.1	.....	.....	$9,033,522	$20,272,755	(2)	$15,092,842	−55.4	.....	.....
Principal expenses:														
Salaries	830,633	501,967	$740,807	6,785,214	40.3	−20.1	3.8	254,119	383,107	$341,021	1,809,211	−33.7	12.3	41.1
Wages	4,448,811	4,760,851	6,302,174		−6.6	−24.5		1,452,440	3,079,023	2,212,640		−52.8	39.2	
Contract work	54,161	79,456	600	(4)	−31.8	(1)	.....	20,582	27,344	.....	(4)	−24.7	.....	.....
Supplies and materials	1,664,432	1,039,969	[7]1,336,576	1,311,789	60.0	.....	.....	552,439	544,327	[7]825,822	655,586	1.5	.....	.....
Fuel and purchased power	848,262	349,180	(4)	(4)	142.9	.....	.....	224,385	261,689	(4)	(4)	−14.3	.....	.....
Royalties and rents	131,970	154,513	204,517	(4)	−14.6	−24.4	.....	34,380	47,911	65,385	(4)	−28.2	−26.7	.....
Taxes	195,309	58,145	(4)	(4)	235.9	.....	.....	123,503	70,616	(4)	(4)	74.9	.....	.....
Value of products	10,684,969	9,290,829	11,022,460	12,505,663	15.0	−15.7	−11.9	4,397,912	6,239,120	5,044,182	3,488,170	−29.5	23.7	44.6

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.
[2] Not reported.
[3] Includes 326 salaried officials and employees which can not be distributed among the several industries.
[4] Comparable figures not available.
[5] Includes $4,876,095 which can not be distributed among the several industries.
[6] Includes $631,564 which can not be distributed among the several industries.
[7] Includes cost of fuel.
[8] Includes $27,767 which can not be distributed among the several industries.

Comparison by geographic divisions: 1919 and 1909.—Table 8 shows for 1919 and 1909 the value of products for the stone industries as a whole and for each industry separately by geographic divisions with percentage of increase or decrease during the census period. Although the significance of the absolute increases or decreases is impaired by the price changes during the census interval, as mentioned above, the table serves to localize the changes within industries and geographic divisions. Thus it is apparent, considering all industries as a unit, that the general decline was less in the East South Central, South Atlantic, Middle Atlantic, and East North Central than in other divisions.

TABLE 8.—VALUE OF PRODUCTS: 1919 AND 1909.

DIVISION.	ALL INDUSTRIES. 1919	1909	Per cent of increase.[1]	LIMESTONE. 1919	1909	Per cent of increase.[1]	GRANITE. 1919	1909	Per cent of increase.[1]
United States	$101,684,919	$75,992,908	33.8	$52,943,924	$29,832,492	77.5	$18,279,345	$18,997,976	−3.8
New England	17,363,413	16,555,959	4.9	139,857	17,580	695.5	9,638,103	9,497,135	1.5
Middle Atlantic	30,691,987	19,188,911	59.9	17,038,214	7,570,565	136.9	699,256	1,107,698	−37.7
East North Central	25,911,756	16,712,774	55.0	19,886,076	12,594,606	57.7	1,484,979	1,433,105	3.6
West North Central	6,138,502	5,562,974	10.3	4,281,202	4,295,879	−0.3	1,293,059	851,309	51.9
South Atlantic	10,300,476	6,324,278	62.9	4,206,193	1,332,151	215.7	4,036,836	3,269,355	23.5
East South Central	4,556,567	2,793,868	63.1	3,001,918	1,868,734	60.6	.....	.....	.....
West South Central	1,936,922	1,426,989	35.7	1,280,325	939,076	36.3	179,893	197,771	−9.0
Mountain	2,084,407	2,373,519	−12.2	1,550,354	845,415	83.4	278,314	230,859	20.6
Pacific	2,700,889	5,053,636	−46.6	679,695	368,486	84.5	677,005	2,410,244	−71.9

DIVISION.	SANDSTONE. 1919	1909	Per cent of increase.[1]	BASALT. 1919	1909	Per cent of increase.[1]	SLATE. 1919	1909	Per cent of increase.[1]	MARBLE. 1919	1909	Per cent of increase.[1]
United States	$10,684,969	$9,290,829	15.0	$9,657,977	$5,578,317	73.1	$5,720,792	$6,054,174	−5.5	$4,397,912	$6,239,120	−29.5
New England	12,918	472,703	−97.3	2,995,604	949,933	215.3	2,344,081	2,088,400	12.2	2,232,850	3,530,208	−36.8
Middle Atlantic	3,882,653	3,813,418	1.8	4,835,018	2,561,227	88.8	3,096,560	3,604,985	−14.1	249,286	531,018	−53.1
East North Central	4,447,809	2,669,105	66.6	111,083	15,958	596.1	.....	.....	.....	1,809	.....	.....
West North Central	470,806	411,949	14.3	.....	3,337	.....	.....	.....	.....	92,445	.....	.....
South Atlantic	981,018	297,544	229.7	475,743	231,746	68.9	279,751	315,129	−11.2	320,935	828,353	−61.3
East South Central	124,702	159,936	−22.0	.....	.....	.....	.....	.....	.....	1,429,947	765,198	86.9
West South Central	402,391	210,224	91.4	61,343	79,918	−23.2	.....	.....	.....	12,970	.....	.....
Mountain	247,295	690,864	−64.2	8,044	118,225	−93.2	400	.....	.....	.....	488,156	.....
Pacific	115,377	565,036	−79.6	1,171,142	1,567,973	−25.3	.....	45,660	.....	57,670	96,187	−40.0

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

CHARACTER OF ORGANIZATION.

The character of organization of enterprises operating producing quarries is shown in Table 9 for the stone industries in the United States as a whole and for each industry for selected states. More than half of all the stone-quarrying enterprises in the United States were operated by corporations, and for the separate stone industries the proportion ranged from 42.5 per cent in the granite industry to 91.7 per cent in the marble industry. Corporations reported 83.2 per cent of all the wage earners in the country employed in quarrying operations and contributed 86 per cent of the total value of products of the stone industries. The table shows that in Pennsylvania, the leading state in the limestone industry, corporations, although predominant in average number of wage earners employed and value of products reported, were outnumbered by enterprises operated under different forms of organization; in two of the other states shown in the limestone industry this was also true. In the granite industry in all of the leading states, which could be shown, except Minnesota and North Carolina, the number of enterprises operated by corporations was exceeded by the number under the other forms of organization, but the corporations in each state reported more than half the wage earners and the value of products. Among the states shown for the sandstone industry, New York reported most of the enterprises unincorporated, although these were relatively the less important enterprises.

TABLE 9.—CHARACTER OF ORGANIZATION, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND SELECTED STATES.	ALL CLASSES.			CORPORATION.						
				Enterprises.		Wage earners.		Value of products.		
	Number of enterprises.	Average number of wage earners.	Value of products.	Number.	Per cent of total.	Average number.	Per cent of total.	Amount.	Per cent of total.	Per enterprise.
UNITED STATES—All industries	1,820	42,986	$101,684,919	975	53.6	35,778	83.2	$87,407,874	86.0	$89,711
Limestone	895	22,069	52,943,924	462	51.6	18,324	83.0	45,890,605	86.7	99,330
Granite	358	8,049	18,279,345	152	42.5	6,392	79.4	14,504,529	79.3	95,425
Sandstone	255	4,287	10,684,969	142	55.7	3,574	83.4	9,405,068	88.0	66,233
Basalt	163	3,336	9,657,977	104	63.8	2,809	84.2	8,327,873	86.2	80,076
Slate	101	3,513	5,720,792	71	70.3	3,007	85.6	5,021,002	87.8	70,719
Marble	48	1,732	4,397,912	44	91.7	1,672	96.5	4,318,737	98.2	98,153
LIMESTONE.										
Pennsylvania	184	5,573	12,831,213	69	37.5	4,352	78.1	10,611,380	82.4	153,788
Ohio	90	2,262	6,742,496	45	50.0	2,087	92.3	6,287,088	93.2	139,713
Indiana	67	1,800	4,619,801	35	52.2	1,644	91.3	4,347,674	94.1	124,219
New York	55	1,739	4,597,942	36	65.5	1,561	89.8	4,220,582	91.8	117,238
Illinois	41	1,244	3,776,626	31	75.6	1,187	95.4	3,678,329	97.4	118,656
Missouri	70	1,171	2,355,736	39	55.7	877	74.9	1,921,761	81.6	49,276
West Virginia	17	1,003	1,927,490	13	76.5	991	98.8	1,897,479	98.4	145,960
Virginia	31	777	1,610,544	19	61.3	483	62.2	954,563	59.3	50,240
Alabama	15	835	1,340,961	12	80.0	814	97.5	1,316,990	98.2	109,749
Kentucky	47	676	1,126,109	19	40.4	484	71.6	827,054	73.4	43,529
Wisconsin	33	382	1,107,790	15	45.5	295	77.2	912,657	82.4	60,844
GRANITE.										
Vermont	27	1,062	3,503,734	13	48.1	919	86.5	3,153,017	89.5	242,540
Massachusetts	42	1,034	2,405,165	15	35.7	798	77.2	1,744,981	72.6	116,332
North Carolina	16	959	1,576,250	10	62.5	935	97.5	1,517,350	96.3	151,735
New Hampshire	23	589	1,427,979	7	30.4	317	53.8	727,884	51.0	103,983
Maine	42	747	1,300,996	10	23.8	614	82.2	1,061,749	81.6	106,175
Minnesota	27	392	1,135,391	14	51.9	287	73.2	845,883	74.5	60,420
SANDSTONE.										
Pennsylvania	100	1,673	3,534,563	52	52.0	1,238	74.0	2,733,682	77.3	52,571
Illinois	15	288	1,329,389	11	73.3	278	96.5	1,313,757	98.8	119,432
West Virginia	15	343	885,588	10	66.7	331	96.5	870,360	98.3	87,036
New York	22	146	301,315	8	36.4	88	60.3	186,124	61.8	23,266
BASALT.										
Pennsylvania	29	721	2,298,791	16	55.2	660	91.5	2,108,543	91.7	131,784
New Jersey	36	637	1,928,025	23	63.9	540	84.8	1,665,957	86.4	72,433
Massachusetts	21	547	1,548,611	16	76.2	459	83.9	1,324,967	85.6	82,810
Connecticut	20	363	1,262,579	13	65.0	313	86.2	1,134,685	89.9	87,283
SLATE.										
Pennsylvania	42	1,802	2,651,533	34	81.0	1,706	90.2	2,451,407	92.5	72,102
Vermont	38	1,039	2,057,388	21	55.3	742	71.4	1,605,968	78.1	76,475
New York	9	134	445,027	5	55.6	111	82.8	397,183	89.2	79,437
Virginia	4	210	203,068	4	100.0	210	100.0	203,068	100.0	50,767
MARBLE.										
Vermont	15	570	2,108,872	15	100.0	570	100.0	2,108,872	100.0	140,591
Tennessee	13	540	1,088,131	13	100.0	540	100.0	1,088,131	100.0	83,702

TABLE 9.—CHARACTER OF ORGANIZATION, PRODUCING ENTERPRISES: 1919—Continued.

INDUSTRY AND SELECTED STATES.	INDIVIDUAL.							FIRM.						
	Enterprises.		Wage earners.		Value of products.			Enterprises.		Wage earners.		Value of products.		
	Number.	Per cent of total.	Average number.	Per cent of total.	Amount.	Per cent of total.	Per enterprise.	Number.	Per cent of total.	Average number.	Per cent of total.	Amount.	Per cent of total.	Per enterprise.
UNITED STATES—All industries	[1] 528	29.0	[1] 3,775	8.8	[1] $7,555,579	7.4	$14,310	[2] 317	17.4	[2] 3,433	8.0	[2] $6,661,466	6.6	$21,014
Limestone	289	32.3	2,011	9.1	3,705,252	7.0	12,821	144	16.1	1,734	7.9	3,348,067	6.3	23,250
Granite	126	35.2	938	11.7	2,109,442	11.5	16,742	80	22.3	719	8.9	1,665,374	9.1	20,817
Sandstone	61	23.9	279	6.5	500,761	4.7	8,209	52	20.4	434	10.1	779,140	7.3	14,983
Basalt	40	24.5	356	10.7	973,250	10.1	24,331	19	11.7	171	5.1	356,854	3.7	18,782
Slate	8	7.9	131	3.7	187,699	3.3	23,462	22	21.8	375	10.7	512,031	9.0	23,274
Marble	[3] 4	8.3	[3] 60	3.5	[3] 79,175	1.8	19,794	.....	.....	.....	.....	.....	.....	.....
LIMESTONE.														
Pennsylvania	76	41.3	682	12.2	1,263,417	9.8	16,624	[4] 39	21.2	[4] 539	9.7	[4] 1,006,416	7.8	25,806
Ohio	30	33.3	81	3.6	245,901	3.6	8,197	[5] 15	16.7	[5] 94	4.2	[5] 209,507	3.1	13,967
Indiana	21	31.3	83	4.6	142,106	3.1	6,767	11	16.4	73	4.1	130,021	2.8	11,820
New York	10	18.2	36	2.1	81,279	1.8	8,128	9	16.4	142	8.2	296,081	6.4	32,898
Illinois	[6] 10	24.4	[6] 57	4.6	[6] 98,297	2.6	9,830	.....	.....	.....	.....	.....	.....	.....
Missouri	23	32.9	205	17.5	307,543	13.1	13,371	8	11.4	89	7.6	126,432	5.4	15,804
West Virginia	.....	.....	.....	.....	.....	.....	.....	[7] 4	23.5	[7] 12	1.2	[7] 30,011	1.6	7,503
Virginia	4	12.9	10	1.3	12,500	0.8	3,125	8	25.8	284	36.6	643,481	40.0	80,435
Alabama	3	20.0	21	2.5	23,971	1.8	7,990	.....	.....	.....	.....	.....	.....	.....
Kentucky	20	42.6	113	16.7	152,009	13.5	7,600	8	17.0	79	11.7	147,046	13.1	18,381
Wisconsin	13	39.4	66	17.3	137,545	12.4	10,580	[5] 5	15.2	[5] 21	5.5	[5] 57,588	5.2	11,518
GRANITE.														
Vermont	[8] 14	51.9	[8] 143	13.5	[8] 410,717	11.5	29,337	.....	.....	.....	.....	.....	.....	.....
Massachusetts	16	38.1	185	17.9	501,836	20.9	31,365	11	26.2	51	4.9	158,348	6.6	14,395
North Carolina	3	18.8	20	2.1	48,400	3.1	16,133	3	18.8	4	0.4	10,000	0.6	3,333
New Hampshire	9	39.1	69	11.7	131,887	9.2	14,654	7	30.4	203	34.5	568,208	39.8	81,173
Maine	18	42.9	93	12.4	153,843	11.8	8,547	[5] 14	33.3	[5] 40	5.4	[5] 85,404	6.6	6,100
Minnesota	6	22.2	53	13.5	148,458	13.1	24,743	7	25.9	52	13.3	141,050	12.4	20,150
SANDSTONE.														
Pennsylvania	25	25.0	156	9.3	281,979	8.0	11,279	23	23.0	279	16.7	518,902	14.7	22,561
Illinois	.....	.....	.....	.....	.....	.....	.....	4	26.7	10	3.5	15,632	1.2	3,908
West Virginia	.....	.....	.....	.....	.....	.....	.....	[7] 5	33.3	[7] 12	3.5	[7] 15,228	1.7	3,046
New York	7	31.8	29	19.9	66,140	22.0	9,449	7	31.8	29	19.9	49,051	16.3	7,007
BASALT.														
Pennsylvania	10	34.5	48	6.7	164,690	7.2	16,469	[5] 3	10.3	[5] 13	1.8	[5] 25,558	1.1	8,519
New Jersey	[6] 13	36.1	[6] 97	15.2	[6] 202,068	13.6	20,159	.....	.....	.....	.....	.....	.....	.....
Massachusetts	[8] 5	23.8	[8] 88	16.1	[8] 223,644	14.4	44,729	.....	.....	.....	.....	.....	.....	.....
Connecticut	3	15.0	12	3.3	29,666	2.3	9,889	4	20.0	38	10.5	98,228	7.8	24,557
SLATE.														
Pennsylvania	3	7.1	68	3.6	74,715	2.8	24,905	5	11.9	118	6.2	125,351	4.7	25,070
Vermont	3	7.9	52	5.0	89,790	4.4	29,930	[5] 14	36.8	[8] 245	23.6	[5] 361,630	17.6	25,831
New York	.....	.....	.....	.....	.....	.....	.....	[9] 4	44.4	[9] 23	17.2	[9] 47,844	10.8	11,961
Virginia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MARBLE.														
Vermont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Includes 2 firms in the marble industry to avoid disclosure of individual operations.
[2] The total for the United States includes 11 enterprises, employing 205 wage earners and reporting products to the value of $365,735, which were operated under other forms of organization. These enterprises were reported in the stone industries as follows: Limestone, 4; granite, 2; sandstone, 1; basalt, 3; slate, 1. The statistics for 2 firms in the marble industry are excluded to avoid disclosure of individual operations.
[3] Includes 2 firms.
[4] Includes 2 other forms of organization.
[5] Includes 1 other form of organization.
[6] Includes 1 firm.
[7] Includes 2 individuals.
[8] Includes 1 firm and 2 other forms of organization.
[9] Includes 1 individual.

SCALE OF OPERATION.

Size of enterprises according to value of products.—Table 10 shows, for the stone industries, as a whole, and for each industry separately, the number of producing enterprises and the value of products, for enterprises classified according to the value of their products, and gives the percentage distribution for each class. The larger enterprises, which were those producing more than $100,000 worth of product, constituted only 13.6 per cent of the total number of enterprises, but they produced 63.8 per cent of the total value of products. This relation, a majority of the value of products from a few of the enterprises, holds good for each of the stone industries except slate, in which the class of enterprises producing over $100,000 worth of product contributed only 46.2 per cent of the total value of products. In the marble industry one-fourth of the enterprises were relatively small, with products valued at not more than $20,000 worth each. In the basalt and slate industries the small enterprises of this class constituted approximately one-third of the total number, and in the limestone, granite, and sandstone industries they were more than one-half of the total number but contributed less than 10 per cent of the total value of products. Table 11 shows, for selected states in each industry, the same data as given in Table 10 for the industries.

TABLE 10.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS: 1919.

INDUSTRY AND VALUE OF PRODUCT PER ENTERPRISE.	ENTERPRISES.		VALUE OF PRODUCTS.	
	Number.	Per cent distribution.	Amount.	Per cent distribution.
ALL INDUSTRIES	1,820	100.0	$101,684,919	100.0
Less than $5,000	414	22.7	1,035,173	1.0
$5,000 to $20,000	510	28.0	5,632,561	5.5
$20,000 to $100,000	649	35.7	30,121,363	29.6
$100,000 to $500,000	223	12.3	43,547,229	42.8
$500,000 to $1,000,000	16	0.9	10,405,310	10.2
$1,000,000 to $5,000,000	8	0.4	10,943,283	10.8
LIMESTONE	895	100.0	52,943,924	100.0
Less than $5,000	208	23.2	507,076	1.0
$5,000 to $20,000	259	28.9	2,915,675	5.5
$20,000 to $100,000	310	34.6	14,429,913	27.3
$100,000 to $500,000	103	11.5	20,834,355	39.4
$500,000 to $1,000,000	10	1.1	6,904,529	13.0
$1,000,000 to $5,000,000	5	0.6	7,352,376	13.9
GRANITE	358	100.0	18,279,345	100.0
Less than $5,000	90	25.1	241,093	1.3
$5,000 to $20,000	104	29.1	1,027,383	5.6
$20,000 to $100,000	110	30.7	4,786,424	26.2
$100,000 to $500,000	50	14.0	9,344,547	51.1
$500,000 and over [1]	4	1.1	2,879,898	15.8
SANDSTONE	255	100.0	$10,684,969	100.0
Less than $5,000	79	31.0	191,820	1.8
$5,000 to $20,000	78	30.6	841,052	7.9
$20,000 to $100,000	72	28.2	3,035,162	28.4
$100,000 and over [2]	26	10.2	6,616,935	61.9
BASALT	163	100.0	9,657,977	100.0
Less than $5,000	20	12.3	48,034	0.5
$5,000 to $20,000	40	24.5	490,470	5.1
$20,000 to $100,000	77	47.2	3,850,020	39.9
$100,000 and over [3]	26	16.0	5,269,453	54.6
SLATE	101	100.0	5,720,792	100.0
Less than $5,000	13	12.9	36,448	0.6
$5,000 to $20,000	21	20.8	276,824	4.8
$20,000 to $100,000	55	54.5	2,764,500	48.3
$100,000 and over [3]	12	11.9	2,643,020	46.2
MARBLE	48	100.0	4,397,912	100.0
Less than $5,000	4	8.3	10,702	0.2
$5,000 to $20,000	8	16.7	81,157	1.8
$20,000 to $100,000	25	52.1	1,255,344	28.5
$100,000 and over [1]	11	22.9	3,050,709	69.4

[1] Includes the group "$1,000,000 to $5,000,000."
[2] Includes the groups "$500,000 to $1,000,000," and "$1,000,000 to $5,000,000."
[3] Includes the group "$500,000 to $1,000,000."

TABLE 11.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS, FOR SELECTED STATES: 1919.

INDUSTRY, STATE, AND VALUE OF PRODUCT PER ENTERPRISE.	ENTERPRISES.		VALUE OF PRODUCTS.	
	Number.	Per cent distribution.	Amount.	Per cent distribution.
LIMESTONE.				
PENNSYLVANIA	184	100.0	$12,881,213	100.0
Less than $5,000	45	24.5	110,846	0.9
$5,000 to $20,000	59	32.1	655,766	5.1
$20,000 to $100,000	55	29.9	2,391,038	18.6
$100,000 to $500,000	19	10.3	4,104,544	31.9
$500,000 and over [1]	6	3.3	5,619,019	43.6
OHIO	90	100.0	6,742,496	100.0
Less than $5,000	21	23.3	56,573	0.8
$5,000 to $20,000	28	31.1	315,973	4.7
$20,000 to $100,000	28	31.1	1,458,040	21.6
$100,000 and over [1]	13	14.4	4,911,910	72.9
INDIANA	67	100.0	4,619,801	100.0
Less than $5,000	21	31.3	52,674	1.1
$5,000 to $20,000	20	29.9	209,293	4.5
$20,000 to $100,000	16	23.9	851,761	18.4
$100,000 and over [2]	10	14.9	3,506,073	75.9
NEW YORK	55	100.0	4,597,942	100.0
Less than $5,000	7	12.7	17,141	0.4
$5,000 to $20,000	11	20.0	114,573	2.5
$20,000 to $100,000	24	43.6	1,080,617	23.5
$100,000 and over [2]	13	23.6	3,385,611	73.6
ILLINOIS	41	100.0	3,776,626	100.0
Less than $5,000	6	14.6	11,126	0.3
$5,000 to $20,000	11	26.8	141,562	3.7
$20,000 to $100,000	11	26.8	508,266	13.5
$100,000 and over [2]	13	31.7	3,115,672	82.5
MISSOURI	70	100.0	2,355,736	100.0
Less than $5,000	15	21.4	35,789	1.5
$5,000 to $20,000	24	34.3	265,194	11.3
$20,000 to $100,000	26	37.1	1,147,412	48.7
$100,000 to $500,000	5	7.1	907,341	38.5
WEST VIRGINIA	17	100.0	1,927,490	100.0
Less than $20,000 [3]	5	29.4	31,611	1.6
$20,000 to $100,000	7	41.2	500,872	26.0
$100,000 and over [2]	5	29.4	1,395,007	72.4
LIMESTONE—continued.				
VIRGINIA	31	100.0	$1,610,544	100.0
Less than $5,000	9	29.0	21,315	1.3
$5,000 to $20,000	4	12.9	37,783	2.3
$20,000 to $100,000	13	41.9	623,535	38.7
$100,000 to $500,000	5	16.1	927,911	57.6
ALABAMA	15	100.0	1,340,961	100.0
Less than $20,000 [3]	4	26.7	40,323	3.0
$20,000 to $100,000	7	46.7	377,460	28.1
$100,000 to $500,000	4	26.7	923,178	68.8
KENTUCKY	47	100.0	1,126,109	100.0
Less than $5,000	12	25.5	29,217	2.6
$5,000 to $20,000	20	42.6	212,535	18.9
$20,000 to $100,000	12	25.5	532,194	47.3
$100,000 to $500,000	3	6.4	352,113	31.3
WISCONSIN	33	100.0	1,107,790	100.0
Less than $5,000	10	30.3	27,513	2.5
$5,000 to $20,000	8	24.2	67,691	6.1
$20,000 to $100,000	11	33.3	438,504	39.6
$100,000 to $500,000	4	12.1	574,082	51.8
GRANITE.				
VERMONT	27	100.0	3,563,734	100.0
Less than $20,000 [4]	12	44.4	43,340	1.2
$20,000 to $100,000	7	25.9	366,503	10.3
$100,000 and over [5]	8	29.6	3,153,891	88.5
MASSACHUSETTS	42	100.0	2,405,165	100.0
Less than $5,000	6	14.3	19,875	0.8
$5,000 to $20,000	10	23.8	88,409	3.7
$20,000 to $100,000	19	45.2	820,374	34.1
$100,000 and over [2]	7	16.7	1,476,507	61.4
NORTH CAROLINA	16	100.0	1,576,250	100.0
Less than $20,000 [4]	5	31.2	16,500	1.0
$20,000 to $100,000	6	37.5	252,964	16.0
$100,000 and over [2]	5	31.2	1,306,786	82.9

[1] Includes the group "$1,000,000 to $5,000,000."
[2] Includes the group "$500,000 to $1,000,000."
[3] Includes the group "Less than $5,000."
[4] Includes the group "$5,000 to $20,000."
[5] Includes the groups "$500,000 to $1,000,000" and "$1,000,000 to $5,000,000."

TABLE 11.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS, FOR SELECTED STATES: 1919—Contd.

INDUSTRY, STATE, AND VALUE OF PRODUCT PER ENTERPRISE.	ENTERPRISES.		VALUE OF PRODUCTS.	
	Number.	Per cent distribution.	Amount.	Per cent distribution.
GRANITE—continued.				
WISCONSIN	14	100.0	$1,484,979	100.0
Less than $20,000 [1]	5	35.7	29,706	2.0
$20,000 to $100,000	3	21.4	116,947	7.9
$100,000 to $500,000	6	42.9	1,338,236	90.1
NEW HAMPSHIRE	23	100.0	1,427,979	100.0
Less than $5,000	8	34.8	20,808	1.5
$5,000 to $20,000	4	17.4	40,068	2.8
$20,000 to $100,000	6	26.1	250,020	17.5
$100,000 to $500,000	5	21.7	1,117,083	78.2
MAINE	42	100.0	1,300,996	100.0
Less than $5,000	17	40.5	47,413	3.6
$5,000 to $20,000	16	38.1	163,614	12.6
$20,000 to $100,000	4	9.5	192,942	14.8
$100,000 to $500,000	5	11.9	897,027	68.9
MINNESOTA	27	100.0	1,135,391	100.0
Less than $5,000	3	11.1	6,994	0.6
$5,000 to $20,000	10	37.0	126,196	11.1
$20,000 to $100,000	11	40.7	484,477	42.7
$100,000 to $500,000	3	11.1	517,724	45.6
SANDSTONE.				
PENNSYLVANIA	100	100.0	3,534,563	100.0
Less than $5,000	26	26.0	73,633	2.1
$5,000 to $20,000	35	35.0	403,942	11.4
$20,000 to $100,000	29	29.0	1,245,790	35.2
$100,000 to $500,000	10	10.0	1,811,198	51.2
OHIO	21	100.0	2,759,352	100.0
Less than $5,000	4	19.0	13,333	0.5
$5,000 to $20,000	3	14.3	31,057	1.1
$20,000 to $100,000	8	38.1	372,718	13.5
$100,000 and over [2]	6	28.6	2,342,244	84.9
ILLINOIS	15	100.0	1,329,389	100.0
Less than $5,000	4	26.7	12,015	0.9
$5,000 to $20,000	6	40.0	61,323	4.7
$20,000 and over [2]	5	33.3	1,255,551	94.4
WEST VIRGINIA	15	100.0	885,588	100.0
Less than $5,000	5	33.3	15,228	1.7
$5,000 to $20,000	4	26.7	45,473	5.1
$20,000 to $100,000	3	20.0	132,015	14.9
$100,000 to $500,000	3	20.0	692,872	78.2
BASALT.				
PENNSYLVANIA	29	100.0	$2,298,791	100.0
Less than $5,000	5	17.2	14,300	0.6
$5,000 to $20,000	10	34.5	102,425	4.5
$20,000 to $100,000	9	31.0	374,520	16.3
$100,000 to $500,000	5	17.2	1,807,546	78.6
NEW JERSEY	36	100.0	1,928,025	100.0
Less than $20,000 [1]	14	38.9	168,630	8.7
$20,000 to $100,000	15	41.7	768,977	39.9
$100,000 to $500,000	7	19.4	990,418	51.4
MASSACHUSETTS	21	100.0	1,548,611	100.0
Less than $20,000 [1]	4	19.0	23,806	1.5
$20,000 to $100,000	10	47.6	508,432	32.8
$100,000 to $500,000	7	33.3	1,016,373	65.6
CONNECTICUT	20	100.0	1,262,579	100.0
Less than $5,000	3	15.0	2,601	0.2
$5,000 to $20,000	3	15.0	32,952	2.6
$20,000 to $100,000	11	55.0	586,522	46.5
$100,000 to $500,000	3	15.0	640,504	50.7
CALIFORNIA	16	100.0	635,588	100.0
Less than $5,000	4	25.0	10,468	1.6
$5,000 to $20,000	3	18.8	32,376	5.1
$20,000 and over [3]	9	56.2	592,744	93.3
SLATE.				
PENNSYLVANIA	42	100.0	2,651,533	100.0
Less than $5,000	5	11.9	17,013	0.6
$5,000 to $20,000	5	11.9	54,872	2.1
$20,000 to $100,000	25	59.5	1,278,380	48.2
$100,000 to $500,000	7	16.7	1,301,268	49.1
VERMONT	38	100.0	2,057,388	100.0
Less than $5,000	3	7.9	7,627	0.4
$5,000 to $20,000	12	31.6	164,777	8.0
$20,000 and over [3]	23	60.5	1,884,984	91.6
MARBLE.				
VERMONT	15	100.0	2,108,872	100.0
Less than $20,000 [1]	4	26.7	36,531	1.7
$20,000 to $100,000	7	46.7	352,875	16.7
$100,000 and over [2]	4	26.7	1,719,466	81.5
TENNESSEE	13	100.0	1,088,131	100.0
Less than $100,000 [4]	8	61.5	275,415	25.3
$100,000 to $500,000	5	38.5	812,716	74.7

[1] Includes the group "Less than $5,000."
[2] Includes the group "$1,000,000 to $5,000,000."
[3] Includes the groups "$100,000 to $500,000," and "$500,000 to $1,000,000."
[4] Includes the group "$5,000 to $20,000."

Size of enterprises according to average number of wage earners.—Table 12 presents a classification of the producing enterprises, for all quarry industries combined and for each industry separately by states, according to the average number of wage earners per enterprise and shows the distribution of enterprises and wage earners for each class. For all stone industries in the United States combined, 3.2 per cent of the enterprises employed no wage earners; 92.4 per cent of the enterprises had fewer than 101 wage earners each but employed 67.4 per cent of the total average number of wage earners; only 79 enterprises, or 4.3 per cent of the total number, had more than 100 wage earners each and employed 32.6 per cent of the total average number of wage earners. A similar preponderance of small enterprises—those having less than 101 wage earners each—was characteristic of each of the stone industries. In the limestone, basalt, and marble industries the largest number of enterprises was in the class having 6 to 20 wage earners; in the granite and sandstone industries the greatest number was in the class having 1 to 5 wage earners; and in the slate industry the greatest number was in the class having 21 to 50 wage earners. The larger enterprises, those employing more than 100 wage earners each, were mostly in the limestone and granite industries, although each of the other industries reported a few enterprises of this size. In the limestone industry Pennsylvania, Ohio, Indiana, West Virginia, Michigan, and Alabama reported the largest enterprises; in the granite industry, Vermont, Massachusetts, North Carolina, and Wisconsin; in the sandstone industry, Pennsylvania and Ohio; in the slate industry, Pennsylvania and Vermont; in the basalt industry, Pennsylvania, Connecticut, and New York; and in the marble industry, Vermont.

TABLE 12.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919.

INDUSTRY AND STATE.	TOTAL.		ENTERPRISES EMPLOYING—										PER CENT DISTRIBUTION.									
			No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 500 wage earners.		No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 500 wage earners.	
	Enterprises.	Wage earners (average number).		Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.		Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
ALL INDUSTRIES.	1,820	42,986	58	561	1,405	626	7,037	370	11,584	126	8,935	79	14,025	3.2	30.8	3.3	34.4	16.4	20.3	26.9	6.9	20.8	4.3	32.6
Limestone	895	22,069	25	288	713	301	3,445	179	5,456	59	4,109	43	8,346	2.8	32.2	3.2	33.6	15.6	20.0	24.7	6.6	18.6	4.8	37.8
Granite	358	8,049	20	119	288	117	1,173	60	1,862	28	2,035	14	2,691	5.6	33.2	3.6	32.7	14.6	16.8	23.1	7.8	25.3	3.9	33.4
Sandstone	255	4,287	9	105	245	89	1,032	29	942	17	1,249	6	819	3.5	41.2	5.7	34.9	24.1	11.4	22.0	6.7	29.1	2.4	19.1
Slate	101	3,513	1	9	32	32	355	39	1,291	14	1,005	6	830	1.0	8.9	0.9	31.7	10.1	38.6	36.7	13.9	28.6	5.9	23.6
Basalt	163	3,336	2	36	115	67	782	47	1,502	6	390	5	547	1.2	22.1	3.4	41.1	23.4	28.8	45.0	3.7	11.7	3.1	16.4
Marble	48	1,732	1	4	12	20	250	16	531	2	147	5	792	2.1	8.3	0.7	41.7	14.4	33.3	30.7	4.2	8.5	10.4	45.7
LIMESTONE.																								
Pennsylvania	184	5,573	2	64	144	59	635	28	790	19	1,415	12	2,589	1.1	34.8	2.6	32.1	11.4	15.2	14.2	10.3	25.4	6.5	46.5
Ohio	90	2,262	2	39	87	24	257	18	551	3	228	4	1,139	2.2	43.3	3.8	26.7	11.4	20.0	24.4	3.3	10.1	4.4	50.4
Indiana	67	1,800	1	24	56	24	240	9	260	4	252	5	992	1.5	35.8	3.1	35.8	13.3	13.4	14.4	6.0	14.0	7.5	55.1
New York	55	1,739	2	10	25	24	276	8	287	8	560	3	591	3.6	18.2	1.4	43.6	15.9	14.5	16.5	14.5	32.2	5.5	34.0
Illinois	41	1,244	3	10	30	10	120	11	400	4	298	3	396	7.3	24.4	2.4	24.4	9.6	26.8	32.2	9.8	24.0	7.3	31.8
Missouri	70	1,171	1	20	60	29	353	17	491	2	124	1	143	1.4	28.6	5.1	41.4	30.1	24.3	41.9	2.9	10.6	1.4	12.2
West Virginia	17	1,003	1	3	8	2	15	4	118	3	223	4	639	5.9	17.6	0.8	11.8	1.5	23.5	11.8	17.6	22.2	23.5	63.7
Alabama	15	835	....	3	8	2	36	6	207	1	52	3	532	.....	20.0	1.0	13.3	4.3	40.0	24.8	6.7	6.2	20.0	63.7
Virginia	31	777	....	10	27	8	114	8	239	3	192	2	205	.....	32.3	3.5	25.8	14.7	25.8	30.8	9.7	24.7	6.5	26.4
Kentucky	47	676	....	18	53	18	222	9	275	2	126	....	.....	.....	38.3	7.8	38.3	32.8	19.1	40.7	4.3	18.6	.....	.....
Kansas	35	484	....	17	31	11	110	6	190	....	.....	1	153	.....	48.6	6.4	31.4	22.7	17.1	39.3	.....	.....	2.9	31.6
Wisconsin	33	382	....	15	29	11	120	6	168	1	65	....	.....	.....	45.5	7.6	33.3	31.4	18.2	44.0	3.0	17.0	.....	.....
Tennessee	21	349	....	3	2	11	163	7	184	....	.....	....	.....	.....	14.3	0.6	52.4	46.7	33.3	52.7	.....	.....	.....	.....
Oklahoma	13	278	1	2	5	5	67	4	115	....	.....	1	101	7.7	15.4	1.8	38.5	20.5	30.8	41.4	.....	.....	7.7	36.3
New Jersey	10	258	....	1	5	5	62	3	113	1	78	....	.....	.....	10.0	1.9	50.0	24.0	30.0	43.8	10.0	30.2	.....	.....
Iowa	25	246	1	9	20	13	137	1	31	1	58	....	.....	4.0	36.0	8.1	52.0	55.7	4.0	12.6	4.0	23.6	.....	.....
California	13	245	1	3	9	7	75	1	28	....	.....	1	133	7.7	23.1	3.7	53.8	30.6	7.7	11.4	.....	.....	7.7	54.3
Colorado	14	228	3	4	15	4	36	1	34	2	143	....	.....	21.4	28.6	6.6	28.6	15.8	7.1	14.9	14.3	62.7	.....	.....
Minnesota	10	156	....	4	10	3	30	2	48	1	62	....	.....	.....	40.0	6.4	30.0	23.1	20.0	30.8	10.0	39.7	.....	.....
Maryland	11	149	....	8	31	1	16	1	49	1	53	....	.....	.....	72.7	20.8	9.1	10.7	9.1	32.9	9.1	35.6	.....	.....
Utah	7	148	....	2	6	1	20	4	122	....	.....	....	.....	.....	28.6	4.1	14.3	13.5	57.1	82.4	.....	.....	.....	.....
Arkansas	6	114	....	1	5	3	46	2	63	....	.....	....	.....	.....	16.7	4.4	50.0	40.4	33.3	55.3	.....	.....	.....	.....
Florida	4	111	....	1	2	1	17	1	40	1	52	....	.....	.....	25.0	1.8	25.0	15.3	25.0	36.0	25.0	46.8	.....	.....
Montana	7	87	....	2	2	3	30	2	55	....	.....	....	.....	.....	28.6	2.3	42.9	34.5	28.6	63.2	.....	.....	.....	.....
Georgia	5	80	....	1	1	3	44	1	35	....	.....	....	.....	.....	20.0	1.2	60.0	55.0	20.0	43.8	.....	.....	.....	.....
Oregon	4	69	....	1	4	1	7	2	58	....	.....	....	.....	.....	25.0	5.8	25.0	10.1	50.0	84.1	.....	.....	.....	.....
Arizona	4	45	2	....	.....	1	14	1	31	....	.....	....	.....	50.0	.....	.....	25.0	31.1	25.0	68.9	.....	.....	.....	.....
Vermont	4	40	....	1	5	2	12	1	23	....	.....	....	.....	.....	25.0	12.5	50.0	30.0	25.0	57.5	.....	.....	.....	.....
All other states [1]	52	1,520	5	12	33	15	175	15	451	2	128	3	733	9.6	23.1	2.2	28.8	11.5	28.8	29.7	3.8	8.4	5.8	48.2
GRANITE.																								
Vermont	27	1,062	1	11	25	4	51	6	211	2	145	3	630	3.7	40.7	2.4	14.8	4.8	22.2	19.9	7.4	13.7	11.1	59.3
Massachusetts	42	1,034	....	14	27	14	160	11	355	2	149	1	343	.....	33.3	2.6	33.3	16.5	26.2	34.3	4.8	14.4	2.4	33.2
North Carolina	16	959	1	4	8	2	36	5	154	2	132	2	629	6.2	25.0	0.8	12.5	3.8	31.2	16.1	12.5	13.8	12.5	65.6
Wisconsin	14	753	....	4	13	3	32	1	22	3	243	3	443	.....	28.6	1.7	21.4	4.2	7.1	2.9	21.4	32.3	21.4	58.8
Maine	42	747	5	21	53	9	96	2	80	2	146	3	372	11.9	50.0	7.1	21.4	12.9	4.8	10.7	4.8	19.5	7.1	49.8
New Hampshire	23	589	3	8	14	4	55	3	68	4	285	1	167	13.0	34.8	2.4	17.4	9.3	13.0	11.5	17.4	48.4	4.3	28.4
Georgia	20	580	....	3	10	8	89	5	176	4	305	....	.....	.....	15.0	1.7	40.0	15.3	25.0	30.3	20.0	52.6	.....	.....
Minnesota	27	392	1	9	24	9	77	6	157	2	134	....	.....	3.7	33.3	6.1	33.3	19.6	22.2	40.1	7.4	34.2	.....	.....
South Carolina	10	322	....	4	11	2	24	1	41	3	246	....	.....	.....	40.0	3.4	20.0	7.5	10.0	12.7	30.0	76.4	.....	.....
Rhode Island	8	262	....	3	15	2	20	1	46	1	74	1	107	.....	37.5	5.7	25.0	7.6	12.5	17.6	12.5	28.2	12.5	40.8
Maryland	9	235	....	1	4	4	62	3	102	1	67	....	.....	.....	11.1	1.7	44.4	26.4	33.3	43.4	11.1	28.5	.....	.....
Pennsylvania	29	197	....	7	20	20	122	2	55	....	.....	....	.....	.....	24.1	10.2	69.0	61.9	6.9	27.9	.....	.....	.....	.....
California	17	162	3	5	7	6	64	3	91	....	.....	....	.....	17.6	29.4	4.3	35.3	39.5	17.6	56.2	.....	.....	.....	.....
Virginia	7	157	....	....	.....	3	32	3	67	1	58	....	.....	.....	.....	.....	42.9	20.4	42.9	42.7	14.3	36.9	.....	.....
New York	7	101	....	3	8	2	24	2	69	....	.....	....	.....	.....	42.9	7.9	28.6	23.8	28.6	68.3	.....	.....	.....	.....
Connecticut	11	92	....	3	6	7	62	1	24	....	.....	....	.....	.....	27.3	6.5	63.6	67.4	9.1	26.1	.....	.....	.....	.....
Arizona	3	58	....	1	4	....	.....	2	54	....	.....	....	.....	.....	33.3	6.9	.....	.....	66.7	93.1	.....	.....	.....	.....
New Jersey	4	48	....	1	3	2	21	1	24	....	.....	....	.....	.....	25.0	6.2	50.0	43.7	25.0	50.0	.....	.....	.....	.....
Washington	5	42	....	....	.....	5	42	....	.....	....	.....	....	.....	.....	.....	.....	100.0	100.0	.....	.....	.....	.....	.....	.....
Montana	3	4	....	3	4	....	.....	....	.....	....	.....	....	.....	.....	100.0	100.0	.....	.....	.....	.....	.....	.....	.....	.....
All other states [2]	34	253	6	14	32	11	104	2	66	1	51	....	.....	17.6	41.2	12.6	32.4	41.1	5.9	26.1	2.9	20.2	.....	.....
SANDSTONE.																								
Pennsylvania	100	1,673	2	40	106	36	394	14	455	5	342	3	376	2.0	40.0	6.3	36.0	23.6	14.0	27.2	5.0	20.4	3.0	22.5
Ohio	21	875	....	4	6	7	81	4	117	3	228	3	443	.....	19.0	0.7	33.3	9.3	19.0	13.4	14.3	26.1	14.3	50.6
West Virginia	15	343	....	6	17	5	60	1	22	3	244	....	.....	.....	40.0	5.0	33.3	17.5	6.7	6.4	20.0	71.1	.....	.....
Illinois	15	288	....	8	23	3	35	2	86	2	144	....	.....	.....	53.3	8.0	20.0	12.2	13.3	29.9	13.3	50.0	.....	.....
New York	22	146	2	10	16	9	109	1	21	....	.....	....	.....	9.1	45.5	11.0	40.9	74.7	4.5	14.4	.....	.....	.....	.....
Wisconsin	12	133	....	4	7	7	91	1	35	....	.....	....	.....	.....	33.3	5.3	58.3	68.4	8.3	26.3	.....	.....	.....	.....
South Dakota	5	89	....	2	6	1	18	2	65	....	.....	....	.....	.....	40.0	6.7	20.0	20.2	40.0	73.0	.....	.....	.....	.....
Kentucky	5	56	....	2	7	3	49	....	.....	....	.....	....	.....	.....	40.0	12.5	60.0	87.5	.....	.....	.....	.....	.....	.....
California	6	27	1	3	5	2	22	....	.....	....	.....	....	.....	16.7	50.0	18.5	33.3	81.5	.....	.....	.....	.....	.....	.....
New Jersey	5	20	....	3	7	2	13	....	.....	....	.....	....	.....	.....	60.0	35.0	40.0	65.0	.....	.....	.....	.....	.....	.....
Colorado	7	14	2	4	8	1	6	....	.....	....	.....	....	.....	28.6	57.1	57.1	14.3	42.9	.....	.....	.....	.....	.....	.....
All other states [3]	42	623	2	19	37	13	154	4	141	4	291	....	.....	4.8	45.2	5.9	31.0	24.7	9.5	22.6	9.5	46.7	.....	.....

[1] Includes enterprises in states as follows: Connecticut, 1; Idaho, 3; Louisiana, 1; Maine, 1; Massachusetts, 1; Michigan, 11; Nebraska, 8; Nevada, 1; North Carolina, 2; South Dakota, 3; Texas, 12; Wyoming, 8.

[2] Includes enterprises in states as follows: Arkansas, 2; Colorado, 8; Delaware, 2; District of Columbia, 3; Missouri, 2; Oklahoma, 6; Oregon, 2; South Dakota, 1; Texas, 8.

[3] Includes enterprises in states as follows: Alabama, 2; Arizona, 2; Arkansas, 7; Connecticut, 3; Idaho, 2; Indiana, 1; Maryland, 2; Massachusetts, 1; Michigan, 2; Minnesota, 1; Missouri, 4; Montana, 2; North Carolina, 1; Oklahoma, 2; Tennessee, 2; Utah, 2; Virginia, 2; Washington, 1; Wyoming, 3.

TABLE 12.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919—Continued.

INDUSTRY AND STATE.	TOTAL.		ENTERPRISES EMPLOYING—										PER CENT DISTRIBUTION.									
	Enterprises.	Wage earners (average number).	No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 500 wage earners.		No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 500 wage earners.	
				Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.		Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
SLATE.																								
Pennsylvania	42	1,892	....	....	.....	11	117	20	669	7	521	4	585	.....	.....	.....	26.2	6.2	47.6	35.4	16.7	27.5	9.5	30.9
Vermont	33	1,039	....	6	23	15	176	12	378	3	217	2	245	.....	15.8	2.2	39.5	16.9	31.6	36.4	7.9	20.9	5.3	23.6
Virginia	4	210	....	....	.....	....	.....	2	82	2	128	....	.....	.....	.....	.....	.....	.....	50.0	39.0	50.0	61.0	.....	.....
New York	9	134	....	3	9	3	26	3	99	....	.....	....	.....	.....	33.3	6.7	33.3	19.4	33.3	73.9	.....	.....	.....	.....
Maryland	4	85	....	....	.....	2	22	2	63	....	.....	....	.....	.....	.....	.....	50.0	25.9	50.0	74.1	.....	.....	.....	.....
All other states [1]	4	153	1	....	.....	1	14	....	.....	2	139	....	.....	25.0	.....	.....	25.0	9.2	.....	.....	50.0	90.8	.....	.....
BASALT.																								
Pennsylvania	29	721	....	7	13	11	93	7	230	1	55	3	330	.....	24.1	1.8	37.9	12.9	24.1	31.9	3.5	7.6	10.3	45.8
New Jersey	36	637	....	10	41	16	185	8	288	2	123	....	.....	.....	27.8	6.4	44.4	29.0	22.2	45.2	5.6	19.3	.....	.....
Massachusetts	21	547	....	2	6	9	126	8	260	2	155	....	.....	.....	9.5	1.1	42.9	23.0	38.1	47.5	9.5	28.3	.....	.....
Connecticut	20	363	1	3	7	10	119	5	133	....	.....	1	104	5.0	15.0	1.9	50.0	32.8	25.0	36.6	.....	.....	5.0	28.7
California	16	262	....	5	13	5	60	6	189	....	.....	....	.....	.....	31.2	5.0	31.2	22.9	37.5	72.1	.....	.....	.....	.....
Maryland	10	183	....	2	8	5	76	3	99	....	.....	....	.....	.....	20.0	4.4	50.0	41.5	30.0	54.1	.....	.....	.....	.....
Oregon	9	124	....	2	9	5	56	2	59	....	.....	....	.....	.....	22.2	7.3	55.6	45.2	22.2	47.6	.....	.....	.....	.....
Washington	8	99	1	3	10	3	32	....	.....	1	57	....	.....	12.5	37.5	10.1	37.5	32.3	.....	.....	12.5	57.6	.....	.....
All other states [2]	14	400	....	2	8	3	35	8	244	....	.....	1	113	.....	14.3	2.0	21.4	8.8	57.1	61.0	.....	.....	7.1	28.2
MARBLE.																								
Vermont	15	570	....	2	3	6	71	5	153	....	.....	2	343	.....	13.3	0.5	40.0	12.5	33.3	26.8	.....	.....	13.3	60.2
Tennessee	13	540	....	..	.....	5	66	5	179	2	147	1	148	.....	.....	.....	38.5	12.2	38.5	33.1	15.4	27.2	7.7	27.4
New York	6	100	....	....	.....	5	65	1	35	....	.....	....	.....	.....	.....	.....	83.3	65.0	16.7	35.0	.....	.....	.....	.....
All other states [3]	14	522	1	.. 2	9	4	48	5	164	....	.....	2	301	7.1	14.3	1.7	28.6	9.2	35.7	31.4	.....	.....	14.3	57.7

[1] Includes enterprises in states as follows: Maine, 3; Utah, 1.
[2] Includes enterprises in states as follows: Delaware, 1; Idaho, 1; Michigan, 1; New York, 4; Rhode Island, 4; Texas, 1; Wisconsin, 2.
[3] Includes enterprises in states as follows: Alabama, 2; California, 3; Georgia, 1; Maryland, 2; Massachusetts, 3; Michigan, 1; Missouri, 1; Texas, 1.

Size of enterprises according to acreage of mineral land.—Table 13 shows producing enterprises, in the combined quarry industries and in each industry separately, classified according to the number of acres of quarry land operated, and gives the number of acres of land and the number of quarries operated in each class, together with the per cent distribution for enterprises and mineral land. The largest number of enterprises for the quarry industries as a whole was in the class operating from 1 to 50 acres. Large holdings of quarry lands are exceptional in the stone industries, but the very few enterprises which had extensive holdings—500 acres or more—reported more than half of the total acreage of all quarry land.

TABLE 13.—SIZE OF PRODUCING ENTERPRISES, BY NUMBER OF ACRES OF MINERAL LAND OPERATED: 1919.

INDUSTRY AND ACRES PER ENTERPRISE.	ENTERPRISES.		Number of quarries.	MINERAL LAND OPERATED.	
	Number.	Per cent distribution.		Acres.	Per cent distribution.
ALL INDUSTRIES	1,820	100.0	1,922	252,242	100.0
1 to 50	1,297	71.3	1,332	18,271	7.2
50 to 100	182	10.0	194	13,824	5.5
100 to 200	163	9.0	180	24,381	9.7
200 to 500	102	5.6	124	32,299	12.8
500 to 1,000	37	2.0	39	27,074	10.7
Over 1,000	39	2.1	53	136,393	54.1
LIMESTONE	895	100.0	925	122,820	100.0
1 to 50	627	70.1	636	8,858	7.2
50 to 100	85	9.5	88	6,491	5.3
100 to 200	87	9.7	92	13,242	10.8
200 to 500	57	6.4	66	18,381	15.0
500 to 1,000	22	2.5	23	16,277	13.3
Over 1,000	17	1.9	20	59,568	48.5
GRANITE	358	100.0	381	30,659	100.0
1 to 50	271	75.7	278	3,714	12.1
50 to 100	41	11.5	44	3,184	10.4
100 to 200	22	6.1	25	3,133	10.2
200 to 500	17	4.7	27	5,145	16.8
500 to 1,000	2	0.6	2	1,478	4.8
Over 1,000	5	1.4	5	14,000	45.7
SANDSTONE	255	100.0	276	48,729	100.0
1 to 50	170	66.7	184	2,165	4.4
50 to 100	30	11.8	34	2,259	4.6
100 to 200	25	9.8	27	3,655	7.5
200 to 500	15	5.9	15	4,653	9.5
500 to 1,000	7	2.7	7	5,076	10.4
Over 1,000	8	3.1	9	30,921	63.5
BASALT	163	100.0	174	15,625	100.0
1 to 50	119	73.0	123	1,680	10.8
50 to 100	19	11.7	21	1,386	8.9
100 to 200	13	8.0	15	1,947	12.5
200 to 500	9	5.5	12	2,912	18.6
Over 1,000	3	1.8	3	7,700	49.3
SLATE	101	100.0	104	5,440	100.0
1 to 50	83	82.2	84	1,334	24.5
50 to 100	4	4.0	4	310	5.7
100 to 200	9	8.9	10	1,408	25.9
200 to 500	2	2.0	2	475	8.7
500 to 1,000	3	3.0	4	1,913	35.2
MARBLE	48	100.0	62	28,969	100.0
1 to 50	27	56.2	27	520	1.8
50 to 100	3	6.2	3	194	0.7
100 to 200	7	14.6	11	991	3.4
200 to 500	2	4.2	2	730	2.5
500 to 1,000	3	6.2	3	2,330	8.0
Over 1,000	6	12.5	16	24,204	83.6

PERSONS ENGAGED IN THE INDUSTRIES.

Persons according to class and sex.—Table 14 shows the persons engaged in the stone-quarrying industries by classes, gives the number of males and females in each class, and also the per cent distribution of the three principal classes. Females constituted only 1.1 per cent of the total of all classes of persons engaged, and were employed principally as clerks and other subordinate salaried employees. They numbered more than one-fourth of all the employees in this grade in the stone industries as a whole. The number of proprietors and officials, including the salaried employees of the higher grades, was 7.3 per cent of the total number of persons for all stone industries, and the proportion for the separate industries ranged from 5.1 per cent to 8.9 per cent. The number of clerks and other subordinate salaried employees was 3.3 per cent of the total number of persons engaged in all the stone industries and the proportion for the separate industries ranged from 1.8 to 3.8 per cent. Wage earners constituted 89.4 per cent of the total number of persons in all stone industries and the proportion ranged from 87.5 per cent in the sandstone industry to 91.6 per cent in the marble industry.

TABLE 14.—PERSONS ENGAGED, PRODUCING ENTERPRISES: 1919.

	All industries.	Limestone.	Granite.	Sandstone.	Basalt.	Slate.	Marble.
All classes	48,087	24,705	8,951	4,897	3,701	3,852	1,891
Male	47,566	24,452	8,866	4,818	3,742	3,823	1,865
Female	521	253	85	79	49	29	26
Proprietors and officials	3,532	1,727	696	434	310	269	96
Per cent of all classes	7.3	7.0	7.8	8.9	8.2	7.0	5.1
Male	3,459	1,691	685	418	305	265	95
Female	73	36	11	16	5	4	1
Proprietors and firm members	1,288	633	328	179	77	64	7
Male	1,249	612	321	172	75	62	7
Female	39	21	7	7	2	2	.....
Salaried officers of corporation	833	375	137	106	85	84	46
Male	804	360	133	102	82	82	45
Female	29	15	4	4	3	2	1
Superintendents and managers	1,307	672	197	143	138	117	40
Male	1,302	672	197	138	138	117	40
Female	5	.....	.....	5	.....	.....	.....
Technical employees	104	47	34	6	10	4	3
Male	104	47	34	6	10	4	3
Female	.....	.....	.....	.....	.....	.....	.....
Clerks and other subordinate salaried employees	1,569	909	206	176	145	70	63
Per cent of all classes	3.3	3.7	2.3	3.6	3.8	1.8	3.3
Male	1,135	701	133	115	103	45	38
Female	434	208	73	61	42	25	25
Wage earners (average number)	42,986	22,069	8,049	4,287	3,336	3,513	1,732
Per cent of all classes	89.4	89.3	89.9	87.5	88.0	91.2	91.6
Male [1]	42,972	22,060	8,048	4,285	3,334	3,513	1,732
Female [1]	14	9	1	2	2	.....	.....

[1] Segregation based on the ratio between male and female wage earners reported for the representative day.

Proprietors performing manual labor.—Table 15 gives for all the stone industries in the United States, as a whole, and for each industry separately the total number of proprietors and firm members and the number and percentages of these performing manual labor. Enterprises of the size and type operated without the assistance of hired help or with little help appear from the facts brought out by this table to be fairly numerous and especially so in the granite industry. Out of a total of 1,288 proprietors and firm members, 417, or nearly one-third, were personally performing manual labor in or about their quarries.

TABLE 15.—PROPRIETORS AND FIRM MEMBERS, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	Total.	PERFORMING MANUAL LABOR.	
		Number.	Per cent of total.
All industries	1,288	417	32.4
Limestone	633	175	27.6
Granite	328	145	44.2
Sandstone	179	53	29.6
Basalt	77	20	26.0
Slate	64	21	32.8
Marble	7	3	42.9

The number of proprietors and firm members working in all stone industries was equivalent to less than 1 per cent of the total average number of wage earners.

Wage earners, by occupations.—Table 16 presents for the combined quarrying industries, and for each industry separately, the number of wage earners employed on a representative day, classified according to occupation, gives the number in each class employed above and below ground, and shows the per cent of the total in each occupational class. The table distinguishes between men engaged in the more peculiarly quarrying occupations; men engaged in other skilled trades such as enginemen, hoistmen, firemen, machinists, electricians, carpenters, and other mechanics; and less skilled and unclassified laborers. Wage earners in open-pit quarries were classed as employed above ground except as noted in the "Introduction" to this report. Wage earners classified as employed below ground numbered 1,511, or only 3.1 per cent of the total number of wage earners of all classes and in all the stone industries on a representative day. These were in the limestone industry, constituting 3.1 per cent of all the wage earners in that industry, and in the slate industry where they consti-

tuted 18.4 per cent of the wage earners. Of the total number of wage earners reported for all industries combined, 89.3 per cent were employed in actual quarrying operations, and 10.7 per cent in mills and dressing plants. In the limestone and basalt industries the proportion in mills and dressing plants was small, being 3.8 per cent and 1.1 per cent, respectively. In the sandstone industry the proportion was larger, 15.1 per cent, and in the granite, slate, and marble industries the percentages in mills and dressing plants were, respectively, 22.1, 23.5, and 28.5. These ratios are in accord with the data in Table 1, which indicates that for granite, marble, and slate a considerable part of the output was for uses requiring cutting, dressing, or other preparation.

TABLE 16.—WAGE EARNERS, BY OCCUPATIONS, DECEMBER 15 OR NEAREST REPRESENTATIVE DAY, PRODUCING ENTERPRISES: 1919.

CLASS OF WAGE EARNER.	ALL INDUSTRIES.		LIMESTONE.		GRANITE.		SANDSTONE.		SLATE.		BASALT.		MARBLE.	
	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.	Number of wage earners.	Per cent distribution.
All classes	48,707	100.0	25,052	100.0	9,166	100.0	4,861	100.0	3,973	100.0	3,799	100.0	1,856	100.0
Above ground, total	47,196	96.9	24,272	96.9	9,166	100.0	4,861	100.0	3,242	81.6	3,799	100.0	1,856	100.0
Foremen, bosses, etc.	1,876	3.9	957	3.8	379	4.1	197	4.1	133	3.4	144	3.8	66	3.6
Enginemen, hoistmen, firemen, mechanics, etc.	5,535	11.4	3,278	13.1	858	9.4	405	8.3	371	9.3	473	12.5	150	8.1
Quarrymen, drillmen, and their helpers	16,462	33.8	8,433	33.7	3,736	40.8	1,599	32.9	811	20.4	1,120	29.5	763	41.1
Trackmen and men engaged in hauling, tramming, etc.	3,211	6.6	1,930	7.7	544	5.9	304	6.3	200	5.0	192	5.1	41	2.2
Muckers, loaders, laborers, and others not classified	14,885	30.6	8,716	34.8	1,621	17.7	1,621	33.3	792	19.9	1,828	48.1	307	16.5
Wage earners employed in mills and dressing plants	5,227	10.7	958	3.8	2,028	22.1	735	15.1	935	23.5	42	1.1	529	28.5
Below ground, total	1,511	3.1	780	3.1	.....	.....	.....	.....	731	18.4	.....	.....	.....	.....
Foremen, bosses, etc.	46	0.1	10	.....	.....	.....	.....	.....	36	0.9	.....	.....	.....	.....
Enginemen, firemen, mechanics, etc.	56	0.1	53	0.2	.....	.....	.....	.....	3	0.1	.....	.....	.....	.....
Quarrymen, drillmen, and their helpers	692	1.4	204	0.8	.....	.....	.....	.....	488	12.3	.....	.....	.....	.....
Trackmen and men engaged in hauling, tramming, etc.	158	0.3	104	0.4	.....	.....	.....	.....	54	1.4	.....	.....	.....	.....
Muckers, loaders, laborers, and others not classified	559	1.1	409	1.6	.....	.....	.....	.....	150	3.8	.....	.....	.....	.....

Wage earners, by months.—Table 17 shows for each of the stone industries, by states, the number of wage earners employed on the 15th day of each month or the nearest representative day, the average number employed during the year, the months of maximum and minimum employment, and the ratio of the minimum to the maximum number. The changes in the number employed from month to month reflect conditions prevailing in the stone-quarrying industries during the census year. The month of maximum employment for the combined stone industries was August, and the month of minimum employment was February, the minimum number employed being two-thirds of the maximum number. The industries are very largely seasonal, not only because of winter's direct interference with quarry operation but also because of lessened demand in winter for structural and paving materials. Except in the slate industry, the figures apparently indicate normal conditions. In the slate industry the numbers employed in the last three months were larger than the average for the summer months because of recovery from the very subnormal conditions which prevailed earlier in the year 1919.

TABLE 17.—WAGE EARNERS, BY MONTHS, PRODUCING ENTERPRISES: 1919.

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

INDUSTRY AND STATE.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
UNITED STATES—All industries	42,086	33,573	*32,990*	36,189	41,735	45,061	46,563	48,013	**49,378**	48,553	47,240	45,242	41,295	66.8
Limestone	22,069	18,085	*17,398*	18,847	21,476	22,992	23,667	24,599	**25,655**	25,303	23,901	22,538	20,367	67.8
Granite	8,049	*5,669*	5,844	6,504	7,771	8,620	8,945	9,071	**9,228**	9,024	9,101	8,741	8,070	61.4
Sandstone	4,287	3,471	*3,305*	3,681	4,128	4,411	4,533	4,667	**4,961**	4,916	4,726	4,598	4,047	66.6
Basalt	3,336	*2,057*	*2,057*	2,455	3,257	3,680	3,828	3,985	**4,097**	3,906	3,908	3,710	3,131	49.7
Slate	3,513	*2,552*	2,909	3,060	3,415	3,580	3,764	3,858	3,572	3,594	3,729	3,896	**3,927**	72.6
Marble	1,732	*1,469*	1,497	1,641	1,688	1,778	1,826	1,833	1,865	1,810	1,875	1,759	1,753	77.8
LIMESTONE.														
Alabama	835	808	893	832	853	798	744	*730*	845	904	861	874	878	80.8
Arizona	45	78	54	51	32	42	36	41	42	47	44	45	*28*	35.9
Arkansas	114	*73*	80	92	96	122	128	131	138	140	131	116	121	52.1
California	245	**283**	240	236	250	253	242	228	237	*225*	228	261	257	79.5
Colorado	228	**327**	303	274	276	257	208	273	277	243	87	*73*	78	22.3

TABLE 17.—WAGE EARNERS, BY MONTHS, PRODUCING ENTERPRISES: 1919—Continued.

INDUSTRY AND STATE.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
LIMESTONE—continued.														
Florida	111	110	108	122	119	122	113	108	106	*102*	105	115	*108*	83.6
Georgia	80	94	95	90	93	65	93	86	71	63	*61*	67	82	64.2
Illinois	1,244	834	*810*	1,054	1,279	1,488	1,380	1,461	1,438	1,452	1,401	1,334	988	54.4
Indiana	1,800	940	*915*	1,107	1,583	1,817	2,046	2,249	2,419	2,363	2,170	1,989	2,002	37.8
Iowa	246	*100*	132	166	230	287	283	300	336	343	333	264	169	31.8
Kansas	484	416	415	451	532	607	637	506	471	509	530	447	*281*	44.1
Kentucky	676	*345*	351	468	687	734	773	885	903	879	788	716	583	38.2
Maryland	149	130	122	*105*	144	167	166	173	192	170	153	151	115	54.7
Minnesota	156	*68*	53	105	159	190	217	198	203	201	185	166	143	24.0
Missouri	1,171	912	*826*	926	1,071	1,182	1,211	1,305	1,404	1,414	1,377	1,287	1,137	58.4
Montana	87	81	70	83	89	95	115	100	94	83	82	83	*69*	60.0
New Jersey	258	299	288	276	237	*223*	236	242	258	255	266	253	264	74.2
New York	1,739	1,356	*1,184*	1,409	1,764	2,032	1,955	2,085	2,111	1,989	1,901	1,659	1,423	56.1
Ohio	2,262	2,173	*1,878*	1,902	1,986	2,106	2,415	2,564	2,659	2,569	2,458	2,314	2,060	70.6
Oklahoma	278	252	283	269	230	239	228	*217*	391	387	281	277	282	55.5
Oregon	69	40	36	21	*19*	43	55	75	86	77	119	115	142	13.4
Pennsylvania	5,573	5,135	*5,051*	5,254	5,336	5,237	5,701	5,873	6,181	6,111	5,910	5,691	5,396	81.7
Tennessee	349	311	319	380	347	356	334	354	378	376	372	*321*	360	70.2
Utah	148	158	142	164	156	146	144	158	152	166	*112*	149	129	67.5
Vermont	40	40	34	39	36	61	48	41	38	41	35	39	*28*	45.9
Virginia	777	650	*611*	637	818	892	809	885	862	878	837	762	683	68.5
West Virginia	1,003	*907*	912	1,014	1,039	1,054	994	1,022	1,095	1,063	960	992	984	82.8
Wisconsin	382	*178*	187	232	409	487	509	517	501	477	444	377	266	34.4
All other states	1,520	*994*	1,006	1,088	1,606	1,831	1,778	1,792	1,767	1,776	1,664	1,621	1,317	54.3
GRANITE.														
Arizona	58	98	96	112	112	80	28	*26*	*26*	*26*	28	28	36	23.2
California	162	146	140	136	141	140	*134*	142	136	171	201	210	247	54.3
Connecticut	92	79	*67*	68	89	108	111	108	97	94	94	95	94	60.4
Georgia	580	*441*	478	534	547	597	608	651	710	657	604	560	573	62.1
Maine	747	251	*244*	500	763	1,008	1,044	933	951	884	870	833	683	23.4
Maryland	235	125	*122*	154	224	292	280	304	314	303	285	235	182	38.9
Massachusetts	1,034	643	*636*	743	1,056	1,161	1,198	1,212	1,201	1,117	1,201	1,174	1,067	52.4
Minnesota	392	*333*	353	351	351	378	387	413	413	422	437	444	422	75.0
Montana	4	.....	.....	.....	4	6	7	7	8	6	6	*2*	*2*	25.0
New Hampshire	589	*260*	271	302	479	624	739	747	779	763	780	726	598	33.3
New Jersey	48	*27*	28	51	48	48	35	35	35	37	81	79	72	33.3
New York	101	29	*26*	31	65	126	146	149	158	155	148	104	75	16.5
North Carolina	959	*843*	890	964	935	932	946	963	979	1,026	1,026	1,016	988	82.2
Pennsylvania	197	130	*129*	141	181	214	235	261	251	213	203	208	198	49.4
Rhode Island	262	*198*	202	209	235	272	275	304	302	316	278	287	272	60.8
South Carolina	322	307	301	302	311	315	*294*	320	346	343	324	351	350	83.8
Vermont	1,062	*855*	907	892	1,003	1,060	1,171	1,171	1,185	1,132	1,170	1,098	1,100	72.2
Virginia	157	*84*	90	139	173	183	186	179	188	178	175	162	147	44.7
Washington	42	39	49	40	48	43	37	41	51	42	41	39	*34*	66.7
Wisconsin	753	*583*	608	622	767	778	833	849	821	860	854	809	652	67.8
All other states	253	*204*	208	213	239	255	251	256	277	279	295	281	278	69.2
SANDSTONE.														
California	27	*14*	16	28	20	24	22	30	53	27	28	26	27	26.4
Colorado	14	5	5	8	15	15	15	15	18	31	22	15	*4*	12.9
Illinois	288	307	284	269	*247*	269	276	283	284	297	327	328	285	75.3
Kentucky	56	*5*	23	51	64	70	67	74	69	82	67	57	43	6.1
New Jersey	20	*7*	*7*	*7*	30	29	29	29	29	29	22	11	11	23.3
New York	146	*40*	55	82	127	174	185	191	205	211	206	188	88	19.0
Ohio	875	701	*687*	760	900	1,008	971	965	970	977	903	863	789	68.2
Pennsylvania	1,673	1,413	*1,268*	1,404	1,551	1,650	1,780	1,859	1,942	1,877	1,871	1,815	1,646	65.3
South Dakota	89	*40*	43	42	65	76	89	122	141	121	111	127	91	28.4
West Virginia	343	325	*291*	304	294	343	351	330	395	389	357	379	358	73.7
Wisconsin	133	*60*	72	121	131	144	168	168	181	168	151	131	111	33.1
All other states	623	*554*	*554*	599	684	609	590	592	674	707	661	658	594	78.4
BASALT.														
California	262	189	*155*	220	268	270	249	271	294	283	308	327	301	47.4
Connecticut	363	281	*277*	338	350	380	386	406	405	377	393	395	368	68.2
Maryland	183	*69*	94	96	225	228	249	243	239	216	212	206	119	27.7
Massachusetts	547	305	*287*	366	578	599	613	640	688	708	677	607	496	40.5
New Jersey	637	359	*352*	385	578	750	796	808	779	779	764	715	579	43.6
Oregon	124	*58*	69	70	88	101	108	147	207	214	190	137	99	27.1
Pennsylvania	721	*499*	501	616	755	862	860	833	812	781	763	728	642	57.9
Washington	99	55	*53*	38	36	50	98	134	167	108	168	166	135	19.6
All other states	400	*222*	269	318	379	440	469	503	506	440	433	429	392	43.9
SLATE.														
Maryland	85	92	98	98	80	*69*	79	91	89	84	82	81	77	70.4
New York	134	86	78	*65*	101	122	127	137	160	164	177	191	200	32.5
Pennsylvania	1,892	*1,373*	1,455	1,592	1,865	1,949	2,013	2,070	2,058	2,064	2,106	2,083	2,076	65.2
Vermont	1,039	983	976	981	1,039	1,099	1,162	1,180	*871*	885	976	1,149	1,167	73.8
Virginia	210	*162*	166	189	195	202	234	226	237	234	223	226	226	68.4
All other states	153	156	136	*136*	*136*	139	149	154	157	163	165	166	181	74.6
MARBLE.														
New York	100	*51*	68	73	76	77	123	128	128	125	125	118	108	39.8
Tennessee	540	467	*462*	502	520	553	568	586	563	564	581	546	568	78.8
Vermont	570	*506*	530	566	585	614	601	572	579	588	600	561	538	82.4
All other states	522	*435*	437	500	507	534	534	547	595	533	569	534	539	73.1

It will be noted that the number of wage earners reported for all enterprises on a representative day, which is presented in several tables, aggregated 48,707, and differs considerably from the number shown for any month in Table 17. The representative day and month selected for reporting wage earners in detail varied with the individual enterprise. Therefore, the aggregate for the representative day differs from the total of the numbers reported by the several enterprises in any month.

Prevailing hours of labor.—Table 18 shows, for all stone industries and for each separately for selected states, the number of enterprises and number of wage earners classified according to the prevailing hours of labor per week reported by each enterprise. For the combined quarrying industries and for limestone, sandstone, slate, basalt, and marble the hours prevailing for a majority of the enterprises were 54 to 62 per week. These hours were those for 69.8 per cent of all the wage earners in the quarrying industries. For the five industries separately considered the proportion of wage earners working 54 to 62 hours were as follows: Limestone, 81.3 per cent; sandstone, 86 per cent; slate, 61.8; basalt, 77.5; marble, 96.2. The hours per day in these industries were most commonly 10 and the 6-day week was the rule. In the granite industry a majority of the enterprises and 60 per cent of the wage earners were in the class reporting working hours as 44 to 53 per week. The 8-hour day and 6-day week prevailed in the granite industry.

TABLE 18.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR: 1919.

INDUSTRY AND STATE.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—									
			35 and under.		36 to 43.		44 to 53.		54 to 62.		63 and over.	
	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
UNITED STATES—All industries	[1] 1,762	42,986	8	120	55	1,535	511	10,827	1,171	29,902	17	482
Limestone	870	22,069	3	57	8	24	187	3,774	663	17,934	9	280
Granite	338	8,049	4	43	32	1,195	209	4,829	91	1,948	2	34
Sandstone	246	4,287	.....	.....	3	8	49	433	191	3,688	3	108
Slate	100	3,513	.....	.....	11	335	14	963	73	2,170	2	45
Basalt	161	3,336	1	20	1	3	49	728	110	2,585	.....	.....
Marble	47	1,732	.....	.....	.....	.....	3	50	43	1,667	1	15
LIMESTONE.												
Pennsylvania	182	5,573	.....	.....	2	3	22	308	157	5,257	1	5
Ohio	88	2,262	.....	.....	2	3	6	467	80	1,792	.....	.....
Indiana	66	1,930	.....	.....	.....	.....	14	682	52	1,118	.....	.....
New York	53	1,739	1	6	.....	.....	11	238	41	1,495	.....	.....
Illinois	38	1,244	.....	.....	.....	.....	7	75	31	1,169	.....	.....
Missouri	69	1,171	.....	.....	.....	.....	22	330	46	698	1	143
West Virginia	16	1,003	.....	.....	.....	.....	.....	.....	16	1,003	.....	.....
Alabama	15	835	.....	.....	.....	.....	7	367	8	468	.....	.....
Virginia	31	777	.....	.....	.....	.....	4	62	27	715	.....	.....
Kentucky	47	676	1	43	1	4	4	75	41	554	.....	.....
Kansas	35	484	.....	.....	1	1	22	133	12	350	.....	.....
Wisconsin	33	382	.....	.....	.....	.....	5	40	28	342	.....	.....
Tennessee	21	349	1	8	1	8	7	124	11	176	1	33
Oklahoma	12	278	.....	.....	.....	.....	4	51	8	227	.....	.....
New Jersey	10	258	.....	.....	.....	.....	5	114	5	144	.....	.....
Iowa	24	246	.....	.....	.....	.....	5	36	19	210	.....	.....
California	12	245	.....	.....	.....	.....	2	9	9	231	1	5
Colorado	11	228	.....	.....	.....	.....	8	183	3	45	.....	.....
All other states	107	2,519	.....	.....	1	5	32	480	69	1,940	5	94
GRANITE.												
Vermont	26	1,062	.....	.....	26	1,062	.....	.....	.....	.....	.....	.....
Massachusetts	42	1,034	1	12	.....	.....	34	926	7	96	.....	.....
North Carolina	15	659	.....	.....	3	43	4	423	8	493	.....	.....
Wisconsin	14	753	.....	.....	.....	.....	8	317	6	436	.....	.....
Maine	37	747	1	3	1	11	33	729	2	4	.....	.....
New Hampshire	20	589	1	23	.....	.....	17	564	2	2	.....	.....
Georgia	20	580	.....	.....	.....	.....	14	454	6	126	.....	.....
Minnesota	26	392	.....	.....	.....	.....	23	346	2	16	1	30
South Carolina	10	322	.....	.....	1	77	3	174	6	71	.....	.....
Rhode Island	8	262	1	5	.....	.....	6	247	1	10	.....	.....
Maryland	9	235	.....	.....	.....	.....	3	55	6	180	.....	.....
Pennsylvania	29	197	.....	.....	1	2	8	80	19	111	1	4
California	14	162	.....	.....	.....	.....	12	141	2	21	.....	.....
Virginia	7	157	.....	.....	.....	.....	1	11	6	146	.....	.....
New York	7	101	.....	.....	.....	.....	4	32	3	69	.....	.....
Connecticut	11	92	.....	.....	.....	.....	10	86	1	6	.....	.....
Arizona	3	58	.....	.....	.....	.....	3	58	.....	.....	.....	.....
All other states	40	347	.....	.....	.....	.....	26	186	14	161	.....	.....
SANDSTONE.												
Pennsylvania	98	1,673	.....	.....	.....	.....	13	209	84	1,448	1	16
Ohio	21	875	.....	.....	.....	.....	4	11	16	791	1	73
West Virginia	15	343	.....	.....	1	1	2	25	12	317	.....	.....
Illinois	15	288	.....	.....	.....	.....	5	41	10	247	.....	.....
New York	20	146	.....	.....	.....	.....	5	15	14	112	1	19
Wisconsin	12	133	.....	.....	.....	.....	2	24	10	109	.....	.....
South Dakota	5	89	.....	.....	.....	.....	1	3	4	86	.....	.....
Kentucky	5	56	.....	.....	.....	.....	.....	.....	5	56	.....	.....

TABLE 18.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR: 1919—Continued.

INDUSTRY AND STATE.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—									
			35 and under.		36 to 43.		44 to 53.		54 to 62.		63 and over.	
	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
SANDSTONE—continued.												
California	5	27					3	10	2	17		
New Jersey	5	20							5	20		
Colorado	5	14					4	8	1	6		
All other states	40	623			2	7	10	137	28	479		
SLATE.												
Pennsylvania	42	1,892					12	949	28	898	2	45
Vermont	38	1,039			11	335			27	704		
Virginia	4	210							4	210		
New York	9	134					2	14	7	120		
Maryland	4	85							4	85		
All other states	3	153							3	153		
BASALT.												
Pennsylvania	29	721					4	78	25	643		
New Jersey	36	637					10	133	26	504		
Massachusetts	21	547					6	75	15	472		
Connecticut	19	363							19	363		
California	16	262					9	143	7	119		
Maryland	10	183	1	20	1	3	3	58	5	102		
Oregon	9	124					7	107	2	17		
Washington	7	99					7	99				
All other states	14	400					3	35	11	365		
MARBLE.												
Vermont	15	570							15	570		
Tennessee	13	540							13	540		
New York	6	100					1	11	5	89		
All other states	13	522					2	39	10	468	1	15

[1] Exclusive of 58 enterprises employing no wage earners in industries as follows: Limestone, 25; granite, 20; sandstone, 9; basalt, 2; slate, 1; marble, 1.

LAND TENURE.

In the tables relating to acreage the number of acres of mineral land controlled by the mining enterprises is greater than the number of acres reported operated by the amount of acreage leased to other operators and by the idle acreage. "Acres operated" is exclusive of the duplication in "Acres controlled" of acreage reported by both owners and lessees.

Table 19 shows, for the stone-quarrying industries, the number of acres of land controlled by producing enterprises. The table distinguishes mineral land, that is, quarry land or land held for its supply of stone, from timber and other lands, shows the mineral land classified according to the form of tenure, and gives the number of acres operated. The table shows that 65.3 per cent of all the quarry or mineral land controlled was owned by the operating enterprises. In the limestone, granite, sandstone, and slate industries more than two-thirds of the quarry lands were owned by the operators, but in the basalt and marble industry less than one-half was so owned.

TABLE 19.—LAND OPERATED AND CONTROLLED, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	Mineral land operated (acres).	LAND CONTROLLED (ACRES).					
		Aggregate.	Mineral land.				Timber and other lands.
			Total.	Owned.	Held under lease.	Per cent owned.	
All industries	252,242	331,544	253,975	165,872	88,103	65.3	77,569
Limestone	122,820	175,986	123,023	84,717	38,306	68.9	52,963
Granite	30,659	37,747	30,749	23,799	6,950	77.4	6,998
Sandstone	48,729	56,802	50,161	34,726	15,435	69.2	6,641
Basalt	15,625	17,514	15,625	7,139	8,486	45.7	1,889
Slate	5,440	8,245	5,440	3,673	1,767	67.5	2,805
Marble	28,969	35,250	28,977	11,818	17,159	40.8	6,273

Table 20 presents for the United States as a whole and by geographic divisions the enterprises in each stone industry, classified according to tenure of quarry (mineral) land—whether held by ownership, under lease, or held partly by ownership and partly under lease. The table also shows the per cent the total owned acreage is of the aggregate acreage of mineral land and also the per cent which the land under each class of tenure is of the aggregate.

TABLE 20.—NUMBER OF PRODUCING ENTERPRISES AND ACRES OF MINERAL LAND CONTROLLED, CLASSIFIED ACCORDING TO FORM OF TENURE: 1919.

INDUSTRY AND DIVISION.	ALL CLASSES.					ENTERPRISES OPERATING ONLY OWNED LAND.			ENTERPRISES OPERATING ONLY LAND HELD UNDER LEASE.			ENTERPRISES OPERATING LAND PARTLY OWNED AND PARTLY HELD UNDER LEASE.				
		Acres controlled.					Acres controlled.			Acres controlled.			Acres controlled.			
	Number of enterprises.	Aggregate.	By ownership.	By lease.	Per cent owned is of aggregate.	Number of enterprises.	By ownership.	Per cent of aggregate.	Number of enterprises.	By lease.	Per cent of aggregate.	Number of enterprises.	Total.	By ownership.	By lease.	Per cent of aggregate.
UNITED STATES—All industries	1,820	253,975	165,872	88,103	65.3	1,099	155,063	61.0	639	70,190	27.6	82	28,722	10,809	17,913	11.3
LIMESTONE	895	123,023	84,717	38,306	68.9	563	78,826	64.1	297	25,916	21.1	35	18,281	5,891	12,390	14.9
New England	7	99	87	12	87.9	6	87	87.9	1	12	12.1					
Middle Atlantic	249	36,942	11,536	25,406	31.2	132	10,615	28.7	109	14,791	40.0	8	11,536	921	10,615	31.2
East North Central	242	45,445	43,350	2,095	95.4	176	39,270	86.4	57	1,753	3.9	9	4,422	4,080	342	9.7
West North Central	151	4,839	3,325	1,514	68.7	92	3,069	63.4	52	1,202	24.8	7	568	256	312	11.7
South Atlantic	70	6,778	4,147	2,631	61.2	38	4,133	61.0	30	2,389	35.0	2	276	14	262	4.1
East South Central	83	6,749	6,184	565	91.6	64	5,853	86.7	15	884	5.7	4	512	331	181	7.6
West South Central	32	6,023	4,441	1,582	73.7	15	4,431	73.6	16	1,422	23.6	1	170	10	160	2.8
Mountain	44	11,124	9,541	1,583	85.8	29	9,321	83.8	12	1,285	11.6	3	518	220	298	4.7
Pacific	17	5,024	2,106	2,918	41.9	11	2,047	40.7	5	2,698	53.7	1	279	59	220	5.6
GRANITE	358	30,749	23,799	6,950	77.4	233	23,015	74.8	110	6,398	20.8	15	1,336	784	552	4.3
New England	153	12,998	12,269	729	94.4	109	11,772	90.6	37	466	3.6	7	760	497	263	5.8
Middle Atlantic	40	1,031	894	137	86.7	23	892	86.5	16	125	12.1	1	14	2	12	1.4
East North Central	14	712	565	147	79.4	10	445	62.5	3	107	15.0	1	160	120	40	22.5
West North Central	30	1,678	1,627	51	97.0	18	1,606	95.7	10	44	2.6	2	28	21	7	1.7
South Atlantic	67	8,802	3,878	4,924	43.8	37	3,778	42.6	29	4,978	56.2	1	106	100	6	1.2
West South Central	16	738	369	369	50.0	8	335	45.4	6	149	20.2	2	254	34	220	34.4
Mountain	14	1,315	896	419	68.1	9	896	68.1	5	419	31.9					
Pacific	24	3,415	3,301	114	96.7	19	3,291	96.4	4	110	3.2	1	14	10	4	0.4
SANDSTONE	255	50,161	34,726	15,435	69.2	148	33,823	67.4	96	14,461	28.8	11	1,877	903	974	3.7
New England	4	9	3	6	33.3	2	3	33.3	2	6	66.7					
Middle Atlantic	127	31,792	26,489	5,303	83.3	73	26,044	81.9	52	5,028	15.8	2	720	445	275	2.3
East North Central	51	4,859	3,591	1,268	73.9	31	3,359	69.1	16	683	14.1	4	817	232	585	16.8
West North Central	10	340	268	72	78.8	6	239	70.3	3	25	7.4	1	76	29	47	22.4
South Atlantic	20	9,325	985	8,340	10.6	12	955	10.2	7	8,320	89.2	1	50	30	20	0.5
East South Central	9	454	439	15	96.7	5	439	96.7	4	15	3.3					
West South Central	9	196	82	114	41.8	5	82	41.8	4	114	58.2					
Mountain	18	3,000	2,791	209	93.0	12	2,631	87.7	5	169	5.6	1	200	160	40	6.7
Pacific	7	186	78	108	41.9	2	71	38.2	3	101	54.3	2	14	7	7	7.5
BASALT	163	15,025	7,139	8,486	45.7	89	6,798	43.5	67	8,247	52.8	7	580	341	239	3.7
New England	45	3,117	2,854	263	91.6	31	2,773	89.0	11	182	5.8	3	162	81	81	5.2
Middle Atlantic	69	6,046	1,964	4,082	32.5	30	1,764	29.2	36	3,927	65.0	3	355	200	155	5.9
East North Central	3	553	490	63	88.6	2	490	88.6	1	63	11.4					
South Atlantic	11	254	205	49	80.7	6	205	80.7	5	49	19.3					
West South Central	1	160		160					1	160	100.0					
Mountain	1	5	5		100.0	1	5	100.0								
Pacific	33	5,490	1,621	3,869	29.5	19	1,561	28.4	13	3,866	70.4	1	63	60	3	1.1
SLATE	101	5,440	3,673	1,767	67.5	34	3,158	58.1	58	1,092	20.1	9	1,190	515	675	21.9
New England	41	2,841	1,761	1,080	62.0	7	1,275	44.9	26	415	14.6	8	1,151	486	665	40.5
Middle Atlantic	51	1,502	895	607	59.6	21	895	59.6	30	607	40.4					
South Atlantic	8	1,037	957	80	92.3	5	928	89.5	2	70	6.8	1	39	29	10	3.8
Mountain	1	60	60		100.0	1	60	100.0								
MARBLE	48	28,977	11,818	17,159	40.8	32	9,443	32.6	11	14,076	48.6	5	5,458	2,375	3,083	18.8
New England	18	9,600	8,530	1,070	88.9	13	8,402	87.5	3	47	0.5	2	1,151	128	1,023	12.0
Middle Atlantic	6	107	97	10	90.7	5	97	90.7	1	10	9.3					
East North Central	1	40		40					1	40	100.0					
West North Central	1	20	20		100.0	1	20	100.0								
South Atlantic	3	4,069	2,023	2,046	49.7	1	23	0.6	1	46	1.1	1	4,000	2,000	2,000	98.3
East South Central	15	1,258	1,003	255	79.7	10	756	60.1	3	195	15.5	2	307	247	60	24.4
West South Central	1	13,733		13,733					1	13,733	100.0					
Pacific	3	150	145	5	96.7	2	145	96.7	1	5	3.3					

POWER.

The number and horsepower of the several types of prime movers and of electric motors used by the stone-quarrying industries in 1919 are presented in detail for these industries by states in the table of detailed statistics at the end of this report.

Table 21 shows for the stone-quarrying industries the power equipment used by producing enterprises in 1919 and 1909, and the per cent of increase or decrease in horsepower for each class of equipment used. For all industries combined a considerable increase is shown in the aggregate horsepower used, and this increase was brought about by the large increase in the horsepower of electric motors operated by purchased current which more than offset a considerable decrease in the horsepower of prime movers used. In 1909, 90 per cent of the aggregate horsepower used was developed by prime movers and only 10 per cent by electric motors operated by purchased current. On the other hand, in 1919, the horsepower of prime movers was only 58.4 per cent, while the horsepower of electric motors operated by purchased current constituted 41.6 per cent of the aggregate horsepower. There was also an appreciable increase in horsepower of electric motors run by current generated by the enterprises reporting them.

TABLE 21.—COMPARATIVE STATISTICS, POWER USED, PRODUCING ENTERPRISES: 1919.

INDUSTRY.	Aggregate horsepower.	PRIME MOVERS. Total horsepower.	Steam engines. Number.	Steam engines. Horsepower.	Internal-combustion engines. Number.	Internal-combustion engines. Horsepower.	Water wheels and turbines. Number.	Water wheels and turbines. Horsepower.	ELECTRIC MOTORS OPERATED BY PURCHASED POWER. Number.	ELECTRIC MOTORS OPERATED BY PURCHASED POWER. Horsepower.[1]	ELECTRIC MOTORS RUN BY CURRENT GENERATED BY THE ENTERPRISE REPORTING. Number.	ELECTRIC MOTORS RUN BY CURRENT GENERATED BY THE ENTERPRISE REPORTING. Horsepower.
All industries 1919	376,808	219,938	3,420	208,763	440	9,045	18	2,130	3,071	[1] 156,870	490	19,210
1909	303,442	273,090	5,533	257,396	278	6,721	65	8,973	681	30,352	599	17,405
Per cent of increase [2]	24.2	−19.5	−38.2	−18.9	58.3	34.6	−72.3	−76.3	483.1	416.8	−18.2	10.4
Limestone 1919	213,717	126,387	1,793	120,479	252	5,043	9	865	2,046	87,330	267	11,421
1909	125,024	115,573	2,166	112,390	119	2,911	9	272	206	9,451	170	5,291
Per cent of increase [2]	70.9	9.4	−17.2	7.2	111.8	73.2	.....	218.0	893.2	824.0	57.1	115.9
Granite 1919	55,674	34,711	747	32,591	84	1,343	4	777	450	[1] 20,963	34	1,520
1909	61,095	54,213	1,346	52,549	65	1,142	6	522	159	6,882	57	1,346
Per cent of increase [2]	−8.9	−36.0	−44.5	−38.0	.....	17.6	.....	48.9	183.0	204.6	.....	12.9
Sandstone 1919	33,869	21,197	340	19,081	71	2,116	.....	.....	386	12,672	155	4,696
1909	30,556	32,674	821	31,306	61	1,190	2	178	71	3,882	86	2,162
Per cent of increase [2]	−7.4	−35.1	−58.6	−39.1	.....	77.8	.....	.....	.....	226.4	.....	117.2
Basalt 1919	37,307	22,844	262	22,324	30	520	.....	.....	255	14,463	11	1,049
1909	29,211	21,917	255	20,922	19	995	.....	.....	173	7,294	18	521
Per cent of increase [2]	27.7	4.2	2.7	6.7	.....	−47.7	.....	.....	47.4	98.3	.....	101.3
Slate 1919	20,613	8,778	193	8,669	1	8	2	101	426	11,835	4	44
1909	29,777	27,769	707	27,255	3	46	14	468	63	2,008	2	50
Per cent of increase [2]	−30.8	−68.4	−72.7	−68.2	.....	.....	.....	−78.4	.....	489.4	.....	.....
Marble 1919	15,628	6,021	85	5,619	2	15	3	387	408	9,607	19	480
1909	21,779	20,944	238	12,974	11	437	34	7,533	9	835	266	8,035
Per cent of increase [2]	−28.2	−71.3	−64.3	−56.7	.....	−96.6	.....	−94.9	.....	1,050.5	−92.9	−94.0

[1] Includes 60 horsepower reported for equipment operated by purchased compressed air.
[2] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.

Table 22 shows, for the stone industries and for selected states in each industry, the average number of wage earners employed, the total horsepower used, and the horsepower used per wage earner. The table shows considerable differences with respect to this item between the industries and between states in the various industries, but the larger figures on horse power per wage earner are shown in the industries and states producing crushed stone, stone for manufacturing uses, and dressed monumental and building stone in large quantities.[1]

[1] See U. S. Geological Survey, Mineral Resources of the United States, Stone in 1919.

TABLE 22.—HORSEPOWER PER WAGE EARNER, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND STATE.	Wage earners (average number).	Power used (aggregate horsepower).	Horsepower per wage earner.
ALL INDUSTRIES	42,986	376,808	8.8
Limestone	22,069	213,717	9.7
Granite	8,049	55,674	6.9
Sandstone	4,287	33,869	7.9
Basalt	3,336	37,307	11.2
Slate	3,513	20,613	5.9
Marble	1,732	15,628	9.0
LIMESTONE.			
Pennsylvania	5,573	30,155	5.4
Ohio	2,262	39,881	17.6
Indiana	1,800	21,642	12.0
New York	1,739	22,370	12.9
Illinois	1,244	22,325	17.9
Missouri	1,171	8,305	7.1
West Virginia	1,003	6,373	6.4
Virginia	777	5,723	7.4
Alabama	835	5,457	6.5
Kentucky	676	4,485	6.6
Wisconsin	382	5,772	15.1
GRANITE.			
Vermont	1,062	10,789	10.2
Massachusetts	1,034	6,580	6.4
North Carolina	959	2,025	2.1
Wisconsin	753	2,850	3.8
New Hampshire	589	4,121	7.0
Maine	747	4,050	5.4
Minnesota	392	3,675	9.4
SANDSTONE.			
Pennsylvania	1,673	10,844	6.5
Ohio	875	5,431	6.2
Illinois	288	3,806	13.2
West Virginia	343	3,486	10.2
BASALT.			
Pennsylvania	721	6,058	8.4
New Jersey	637	6,340	10.0
Massachusetts	547	4,721	8.6
Connecticut	363	6,254	17.2
California	262	4,792	18.3
SLATE.			
Pennsylvania	1,892	9,678	5.1
Vermont	1,039	6,447	6.2
MARBLE.			
Vermont	570	7,354	12.9
Tennessee	540	3,885	7.2

METHOD OF OPERATION.

Table 23 presents the principal statistics, for the stone industry as a whole and for each industry separately, for enterprises using quarrying machinery and for those without quarrying machinery. Quarry enterprises were classified, in accordance with the reports of the operators, on the basis of quarrying machinery and power equipment used, into those using quarrying machinery and those operating without quarrying machinery. Small enterprises using a few power drills were not grouped with those using more elaborate quarrying machinery but were tabulated in the class without quarrying machinery. For this reason, and also because hoisting machinery and the power equipment in crushing plants was reported by enterprises which did not use quarrying machinery, enterprises in the class without quarrying machinery reported considerable power used and expense for fuel and purchase of power. Three-fourths of all enterprises in the stone industries, as shown in Table 23, used quarrying machines. In the sandstone industry the proportion was less but in the slate and marble industries much greater. For all stone industries combined more than 90 per cent of the wage earners and value of products were reported by enterprises using quarrying machinery.

TABLE 23.—STATISTICS FOR PRODUCING ENTERPRISES, CLASSIFIED ACCORDING TO USE OF QUARRYING MACHINERY: 1919.

	ALL INDUSTRIES.		LIMESTONE.		GRANITE.		SANDSTONE.		BASALT.		SLATE.		MARBLE.
	Using quarrying machinery.[1]	Without quarrying machinery.	Using quarrying machinery.	Without quarrying machinery.	Using quarrying machinery.	Without quarrying machinery.	Using quarrying machinery.	Without quarrying machinery.	Using quarrying machinery.	Without quarrying machinery.	Using quarrying machinery.	Without quarrying machinery.	Using quarrying machinery.[1]
Number of enterprises	1,367	453	677	218	266	92	148	107	134	29	94	7	48
Number of quarries	1,460	462	703	222	287	94	167	109	144	30	97	7	62
Proprietors and firm members, total	838	450	437	196	207	121	75	104	57	20	55	9	7
Number performing manual labor	237	180	114	61	76	69	13	40	14	6	17	4	3
Wage earners (av. number)	39,259	3,727	19,902	2,167	7,626	423	3,550	737	3,047	289	3,402	111	1,732
Power used (aggregate h. p.)	350,131	26,677	196,754	16,963	53,474	2,200	30,678	3,191	33,689	3,618	19,908	705	15,628
Capital	$137,453,131	$11,306,402	$76,070,711	$6,053,656	$17,798,872	$1,025,108	$16,403,861	$2,551,460	$11,423,057	$1,476,114	$6,723,108	$200,064	$9,033,522
Wages	41,084,178	3,850,620	21,654,621	2,271,711	8,173,445	414,214	3,732,904	715,907	3,036,044	355,263	3,034,724	93,525	1,452,440
Cost of supplies and materials	17,115,618	1,325,841	10,101,192	867,028	2,505,616	87,424	1,461,531	202,901	1,874,713	156,156	620,127	12,332	552,439
Fuel and purchased power	7,028,332	452,973	3,879,134	297,256	1,054,137	40,684	801,167	47,095	663,870	56,118	405,639	11,820	224,385
Contract work	805,627	190,349	510,444	155,113	113,397	5,240	29,065	25,096	40,806	600	91,333	4,300	20,582
Value of products	94,202,202	7,482,717	48,482,984	4,460,940	17,468,346	810,999	9,351,090	1,333,879	8,917,856	740,121	5,584,014	136,778	4,397,912

[1] Includes 2 establishments, without quarrying machinery, to avoid disclosure of individual operations.

FUEL USED.

Table 24 shows for producing quarry enterprises in the United States as a whole and for each of the stone industries by states the quantity of the various kinds of fuel used in quarrying operations. Bituminous coal was the fuel chiefly used in the stone industries. Although small quantities of anthracite and some wood and fuel oils or gasoline were reported by each of the industries, the quantities reported were relatively insignificant.

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

INDUSTRY AND STATE.	COAL.		Coke (tons, 2,000 lbs.).	Wood (cords)	Fuel oils (bbls.).	Gasoline and other volatile oils (bbls.)	Natural gas (1,000 cu. ft.).
	Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).					
ALL INDUSTRIES	20,621	1,067,848	2,522	11,888	70,432	16,022	151,830
Limestone	5,409	673,989	937	4,765	33,221	11,397	5,887
Granite	1,723	115,250	55	4,297	13,164	2,411	.....
Sandstone	2,418	128,832	1,530	160	8,621	1,423	145,943
Basalt	2,099	84,566	.....	2,129	15,390	620	.....
Slate	8,762	34,053	.....	214	36	1	.....
Marble	210	31,158	.....	823	.....	170	.....
LIMESTONE.							
Alabama	.....	28,640	397	30	.....	.....	.....
Arizona	.....	.....	.....	.....	236	17	.....
Arkansas	.....	3,301	.....	550	.....	10	.....
California	.....	.....	.....	.....	6,781	368	.....
Colorado	.....	2,353	.....	.....	.....	257	.....
Florida	.....	390	.....	2,052	.....	.....	.....
Georgia	.....	1,710	.....	.....	.....	.....	.....
Illinois	.....	67,618	.....	.....	53	507	.....
Indiana	1,366	64,798	10	.....	.....	342	.....
Iowa	.....	8,374	.....	115	.....	495	.....
Kansas	.....	5,126	.....	.....	3,275	320	.....
Kentucky	.....	14,960	.....	70	9	322	.....
Maryland	.....	2,603	.....	60	.....	19	.....
Minnesota	.....	1,578	.....	30	.....	7	.....
Missouri	.....	22,484	.....	194	1,517	366	.....
Montana	.....	1,065	.....	42	.....	36	.....
New Jersey	160	7,579	139	21	66	102	.....
New York	270	34,764	25	.....	261	484	.....
Ohio	100	137,879	187	139	120	2,075	1,476
Oklahoma	.....	3,615	.....	.....	13,518	275	331
Oregon	.....	.....	.....	272	.....	321	.....
Pennsylvania	702	130,886	179	237	201	3,408	4,080
Tennessee	.....	8,354	.....	28	.....	206	.....
Utah	.....	760	.....	.....	736	34	.....
Vermont	.....	887	.....	2	.....	2	.....
Virginia	61	27,994	.....	518	590	212	.....
West Virginia	.....	13,997	.....	50	.....	9	.....
Wisconsin	.....	12,066	.....	202	100	468	.....
All other states	2,750	70,208	.....	153	5,758	735	.....
GRANITE.							
Arizona	.....	.....	.....	36	6,096	251	.....
California	5	1	.....	.....	6,890	92	.....
Connecticut	22	2,345	.....	100	.....	100	.....
Georgia	.....	11,766	.....	30	.....	178	.....
Maine	.....	9,097	.....	75	.....	193	.....
Maryland	.....	10,157	.....	5	.....	127	.....
Massachusetts	37	14,602	50	190	5	56	.....
Minnesota	.....	6,315	.....	125	.....	266	.....
Montana	.....	5	.....	.....	85	2	.....
New Hampshire	50	4,853	.....	124	88	142	.....
New Jersey	.....	826	.....	.....	.....	.....	.....

INDUSTRY AND STATE.	COAL.		Coke (tons, 2,000 lbs.).	Wood (cords)	Fuel oils (bbls.).	Gasoline and other volatile oils (bbls.)	Natural gas (1,000 cu. ft.).
	Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).					
GRANITE—continued.							
New York	15	1,225	.....	.....	.....	5	.....
North Carolina	.....	15,157	5	.....	.....	.....	.....
Pennsylvania	.....	3,662	.....	.....	.....	149	.....
Rhode Island	18	5,098	.....	.....	.....	125	.....
South Carolina	.....	5,288	.....	432	.....	12	.....
Vermont	1,561	14,537	.....	140	.....	15	.....
Virginia	.....	2,246	.....	.....	.....	.....	.....
Washington	.....	673	.....	291	.....	100	.....
Wisconsin	15	5,334	.....	1,534	.....	1	.....
All other states	.....	2,063	.....	1,215	.....	597	.....
SANDSTONE.							
California	.....	.....	.....	.....	48	.....	.....
Colorado	.....	75	.....	.....	.....	.....	.....
Illinois	.....	32,829	400	.....	240	114	.....
Kentucky	.....	2,040	.....	35	.....	.....	.....
New Jersey	.....	519	.....	.....	.....	10	.....
New York	30	2,255	.....	.....	20	144	.....
Ohio	.....	23,954	130	.....	40	110	.....
Pennsylvania	2,388	41,648	.....	87	3	285	145,627
South Dakota	.....	603	.....	.....	.....	1	.....
West Virginia	.....	10,383	.....	.....	.....	.....	316
Wisconsin	.....	1,196	.....	.....	160	72	.....
All other states	.....	13,330	1,000	38	8,110	687	.....
BASALT.							
California	.....	.....	.....	.....	5,309	14	.....
Connecticut	26	7,455	.....	35	.....	4	.....
Maryland	.....	5,104	.....	.....	.....	4	.....
Massachusetts	32	6,710	.....	.....	24	.....	.....
New Jersey	2,041	22,058	.....	.....	4	228	.....
Oregon	.....	250	.....	1,752	4,220	6	.....
Pennsylvania	.....	30,847	.....	.....	303	83	.....
Washington	.....	534	.....	336	3,180	104	.....
All other states	.....	11,608	.....	6	2,350	177	.....
SLATE.							
Maryland	2	965	.....	.....	.....	.....	.....
New York	100	1,419	.....	.....	.....	.....	.....
Pennsylvania	8,504	24,106	.....	.....	36	1	.....
Vermont	156	3,578	.....	39	.....	.....	.....
Virginia	.....	3,637	.....	.....	.....	.....	.....
All other states	.....	348	.....	175	.....	.....	.....
MARBLE.							
New York	4	1,928	.....	.....	.....	18	.....
Tennessee	.....	20,704	.....	.....	.....	1	.....
Vermont	206	2,035	.....	23	.....	.....	.....
All other states	.....	6,491	.....	300	.....	151	.....

GENERAL TABLE.

Table 25 presents in detail for 1919 the statistics for producing quarry enterprises in the United States as a whole, for each stone industry separately, and for each state which can be shown in each industry without disclosure of individual operations. As but two quarrying enterprises reported operations for development only, statistics on nonproducing operations can not be shown.

The table gives the number of enterprises and quarries, the number of those operating mills and dressing plants; the acreage of land controlled according to kind, and the tenure of mineral land; the capital invested; the principal expenses of operation and development; the value of products; the persons engaged in the industries by classes and occupations; and the number and horsepower of power equipment.

TABLE 25.—DETAILED STATISTICS FOR THE STONE-QUARRYING

		Number of enterprises.	Number of quarries.	Enterprises operating mills and dressing plants.	LAND CONTROLLED (ACRES).				PERSONS ENGAGED IN INDUSTRY.								
					Mineral land.			Timber and other lands.	Aggregate.	Proprietors and officials.					Clerks and other subordinate salaried employees.		
					Total. operated.	Owned.	Held under lease.			Total.	Proprietors and firm members.		Salaried officers.	Superintendents and managers.	Technical employees.	Male.	Female.
											Total.	Performing manual labor.					
1	**United States—All industries.**	**1,820**	**1,922**	**354**	**252,242**	**165,872**	**88,103**	**77,569**	**48,087**	**3,532**	**1,288**	**417**	**833**	**1,307**	**104**	**1,135**	**434**
2	**Limestone**	**895**	**925**	**44**	**122,820**	**84,717**	**38,306**	**52,963**	**24,705**	**1,727**	**633**	**175**	**375**	**672**	**47**	**701**	**208**
3	**Granite**	**358**	**381**	**152**	**30,669**	**23,799**	**6,950**	**6,998**	**8,951**	**696**	**328**	**145**	**137**	**197**	**34**	**133**	**73**
4	**Sandstone**	**255**	**276**	**66**	**48,720**	**34,726**	**[1]15,435**	**6,641**	**4,697**	**434**	**179**	**53**	**106**	**143**	**6**	**115**	**61**
5	**Basalt**	**163**	**174**	**6**	**15,625**	**7,139**	**8,486**	**1,889**	**3,791**	**310**	**77**	**20**	**85**	**138**	**10**	**103**	**42**
6	**Slate**	**101**	**104**	**61**	**5,440**	**3,673**	**1,767**	**2,805**	**3,852**	**269**	**64**	**21**	**84**	**117**	**4**	**45**	**25**
7	**Marble**	**48**	**62**	**25**	**28,969**	**11,818**	**17,159**	**6,273**	**1,891**	**96**	**7**	**3**	**46**	**40**	**3**	**38**	**25**
	LIMESTONE.																
8	Alabama	15	15	1	4,171	3,991	180	497	901	37	3	.....	6	27	1	27	2
9	Arizona	4	4	.....	688	688	.....	.....	48	2	1	.....	.....	1	.....	1	.....
10	Arkansas	6	6	1	2,622	2,295	327	1,600	139	23	10	.....	7	6	.....	2	.....
11	California	13	13	.....	3,515	887	2,628	1,000	275	19	8	2	6	4	1	9	2
12	Colorado	14	14	.....	3,004	2,121	883	.....	246	15	8	5	.....	7	.....	3	.....
13	Florida	4	6	.....	236	106	130	.....	124	11	3	2	3	5	.....	1	1
14	Georgia	5	5	.....	242	120	122	.....	90	14	1	.....	7	6	.....	5	.....
15	Illinois	41	41	1	14,922	14,348	574	37,978	1,448	110	14	3	42	49	5	73	21
16	Indiana	67	71	13	4,825	4,128	697	6	2,106	163	44	22	44	65	10	114	29
17	Iowa	25	25	.....	836	704	132	190	307	40	21	7	5	13	1	17	4
18	Kansas	35	35	.....	1,208	672	536	20	563	59	45	12	4	9	1	18	2
19	Kentucky	47	50	1	1,984	1,731	253	175	754	67	39	10	13	15	.....	8	3
20	Maryland	11	11	.....	232	51	181	205	169	11	9	.....	.....	2	.....	6	3
21	Minnesota	10	10	3	371	359	12	.....	176	15	8	1	2	5	.....	5	.....
22	Missouri	70	71	6	1,303	889	414	732	1,327	121	43	13	33	30	6	28	7
23	Montana	7	7	2	1,823	1,680	143	.....	99	10	6	2	.....	4	.....	2	.....
24	New Jersey	10	10	.....	428	325	103	69	273	10	2	.....	2	6	.....	2	3
25	New York	55	56	2	5,304	5,046	258	825	1,932	127	31	4	47	49	.....	51	15
26	Ohio	90	91	1	9,437	8,849	756	1,154	2,599	196	65	20	36	92	3	102	39
27	Oklahoma	13	13	.....	1,099	394	705	.....	351	37	9	1	5	21	2	33	3
28	Oregon	4	4	.....	1,509	1,219	290	.....	72	3	1	.....	.....	2	.....	.....	.....
29	Pennsylvania	184	200	3	31,175	6,165	25,045	2,221	6,036	334	165	44	49	113	7	91	38
30	Tennessee	21	21	1	594	462	132	.....	385	34	12	5	13	8	1	2	.....
31	Utah	7	8	.....	1,931	1,809	122	.....	159	9	.....	.....	.....	9	.....	1	1
32	Vermont	4	4	1	80	80	.....	3	52	8	3	.....	.....	4	1	1	3
33	Virginia	31	32	2	3,275	2,793	482	1,776	848	49	21	8	8	20	.....	17	5
34	West Virginia	17	17	.....	2,585	869	1,716	1,943	1,063	36	8	2	6	21	1	17	7
35	Wisconsin	33	33	3	1,348	1,322	26	232	462	57	23	5	15	18	1	19	4
36	All other [2]	52	52	3	22,073	20,614	1,459	2,337	1,692	110	30	7	22	52	6	46	16
	GRANITE.																
37	Arizona	3	5	1	232	83	149	50	61	3	.....	.....	3	.....	.....	.....	.....
38	California	17	18	7	2,944	2,830	114	160	199	27	15	8	8	4	.....	8	2
39	Connecticut	11	11	7	410	434	21	85	116	19	9	3	2	7	1	2	3
40	Georgia	20	20	8	5,072	385	4,697	8	631	40	15	3	13	9	3	10	1
41	Maine	42	42	33	2,016	1,609	442	2,075	839	78	50	35	5	19	4	7	7
42	Maryland	9	9	2	306	216	180	442	259	16	3	2	6	7	.....	7	1
43	Massachusetts	42	43	23	3,384	3,262	122	576	1,167	91	42	10	23	22	4	28	14
44	Minnesota	27	34	8	1,074	1,027	47	78	445	41	25	13	7	4	5	7	5
45	Montana	3	3	2	425	405	20	.....	7	3	3	2	.....	.....	.....	.....	.....
46	New Hampshire	23	24	21	4,688	4,655	33	491	657	59	29	17	6	22	2	4	5
47	New Jersey	4	6	.....	250	225	25	55	52	4	2	1	1	1	.....	.....	.....
48	New York	7	7	3	301	267	34	10	115	11	3	1	1	6	1	2	1
49	North Carolina	16	18	5	688	654	34	148	1,025	48	10	6	14	20	4	17	1
50	Pennsylvania	29	30	4	480	402	78	9	252	49	37	5	5	7	.....	4	2
51	Rhode Island	8	8	2	433	377	56	764	296	24	4	.....	3	11	6	4	6
52	South Carolina	10	10	3	2,364	2,310	54	10	356	26	9	2	10	6	1	6	2
53	Vermont	27	31	3	1,987	1,932	55	761	1,138	53	16	7	14	21	2	11	12
54	Virginia	7	7	.....	315	300	15	5	176	16	5	.....	4	7	.....	2	1
55	Washington	5	5	3	157	157	.....	32	53	10	5	1	1	4	.....	1	.....
56	Wisconsin	14	16	9	712	565	147	548	798	26	1	1	10	14	1	11	8
57	All other [3]	34	34	8	2,331	1,704	627	691	309	52	45	23	1	6	.....	2	2
	SANDSTONE.																
58	California	6	7	.....	176	73	103	21	34	7	6	.....	.....	1	.....	.....	.....
59	Colorado	7	8	.....	504	461	43	.....	19	5	5	4	.....	.....	.....	.....	.....
60	Illinois	15	15	4	1,327	622	705	114	353	45	13	3	22	10	.....	9	11
61	Kentucky	5	5	2	440	437	3	210	66	9	1	.....	4	2	2	.....	1
62	New Jersey	5	6	1	67	37	30	41	26	6	5	1	.....	1	.....	.....	.....
63	New York	22	26	17	246	199	47	403	192	37	22	15	5	9	1	8	1
64	Ohio	21	23	10	2,978	2,689	289	116	968	41	2	.....	19	19	1	31	21
65	Pennsylvania	100	107	18	31,469	26,253	5,226	5,424	1,898	168	73	20	34	56	.....	40	17
66	South Dakota	5	6	1	128	113	15	.....	96	5	.....	.....	2	3	.....	2	.....
67	West Virginia	15	16	6	8,878	738	8,140	100	385	33	9	2	8	15	.....	7	2
68	Wisconsin	12	12	3	493	220	273	75	154	15	6	.....	2	7	.....	5	1
69	All other [4]	42	45	4	2,023	2,884	561	137	706	63	32	8	10	19	2	13	7

[1] Same number reported for one or more other months.

[2] Includes enterprises in states as follows: Connecticut, 1; Idaho, 3; Louisiana, 1; Maine, 1; Massachusetts, 1; Michigan, 11; Nebraska, 8; Nevada, 1; North Carolina, 2; South Dakota, 3; Texas, 12; Wyoming 8.

INDUSTRIES, BY STATES, PRODUCING ENTERPRISES: 1919.

PERSONS ENGAGED IN INDUSTRY—continued.																				
Wage earners.			Wage earners, Dec. 15, or nearest representative day.																Capital.	
Average number.	Number 15th day of—		Total.		Foremen, bosses, etc.		Enginemen, hoistmen, etc.		Quarrymen, drillmen, etc.		Trackmen, men engaged in hauling, etc.		Muckers, laborers, and others not classified.		In mills and dressing plants (above ground).	Under 16 years of age (above ground).	Females (above ground).		
	Maximum month.	Minimum month.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.	Above ground.	Below ground.					
42,986	Au 49,378	Fe 32,990	47,196	1,511	1,876	46	5,535	56	16,462	692	3,211	158	14,885	559	5,227	16	15	$148,759,533	1
22,069	Au 25,655	Fe 17,398	24,272	780	957	10	3,278	53	8,433	204	1,930	104	8,716	409	958	9	10	82,124,367	2
8,049	Au 9,223	Ja 5,669	9,166	.....	379	.....	858	.....	3,736	.....	544	.....	1,621	.....	2,028	2	1	18,823,980	3
4,287	Au 4,961	Fe 3,305	4,861	.....	197	.....	405	.....	1,599	.....	304	.....	1,621	.....	735	1	2	18,955,321	4
3,336	Au 4,097	Ja [1] 2,037	3,799	.....	144	.....	473	.....	1,120	.....	192	.....	1,828	.....	42	.....	2	12,899,171	5
3,513	De 3,927	Ja 2,852	3,242	731	133	36	371	3	811	488	200	54	792	150	935	4	.....	6,923,172	6
1,732	Oc 1,875	Ja 1,459	1,856	.....	66	.....	150	.....	763	.....	41	.....	307	.....	529	.....	.....	9,033,522	7
835	Se 904	Jy 730	793	117	24	2	136	33	166	33	171	26	291	23	5	.....	.....	1,039,505	8
45	Ja 78	De 28	28	.....	2	.....	2	.....	16	.....	.....	.....	8	.....	.....	.....	.....	108,810	9
114	Se 140	Ja 73	126	.....	9	.....	19	.....	35	.....	2	.....	57	.....	4	.....	.....	737,167	10
245	Ja 283	Se 225	333	.....	11	.....	47	.....	112	.....	14	.....	149	.....	.....	.....	.....	1,323,063	11
228	Ja 327	No 73	285	.....	9	.....	16	.....	92	.....	53	.....	115	.....	.....	.....	.....	736,551	12
111	Mh [1] 122	Se [1] 102	102	.....	5	.....	12	.....	47	.....	6	.....	32	.....	.....	.....	.....	116,374	13
80	Fe 95	Oc 61	102	.....	3	.....	8	.....	.....	.....	11	.....	80	.....	.....	.....	.....	303,980	14
1,244	My 1,488	Fe 810	1,342	.....	62	.....	249	.....	337	.....	118	.....	523	.....	3	.....	.....	8,810,097	15
1,800	Au 2,419	Fe 915	2,431	.....	83	.....	340	.....	703	.....	52	.....	681	.....	622	.....	1	7,156,502	16
246	Se 343	Ja 109	321	.....	17	.....	44	.....	143	.....	10	.....	102	.....	.....	.....	.....	945,783	17
434	Je 637	De 281	597	.....	10	.....	44	.....	235	.....	35	.....	133	.....	.....	.....	.....	768,585	18
676	Au 903	Ja 345	886	.....	31	.....	40	.....	415	.....	195	.....	187	.....	18	.....	.....	975,318	19
149	Au 192	Mh 105	177	.....	3	.....	8	.....	63	.....	13	.....	90	.....	.....	.....	.....	219,873	20
156	Je 217	Ja 52	201	.....	7	.....	21	.....	112	.....	.....	.....	37	.....	24	.....	.....	407,618	21
1,171	Se 1,414	Fe 826	1,341	.....	57	.....	139	.....	543	.....	153	.....	399	.....	50	.....	.....	2,447,811	22
87	Je 115	De 69	86	.....	7	.....	7	.....	32	.....	1	.....	24	.....	15	.....	.....	445,931	23
258	Ja 299	My 222	272	.....	11	.....	40	.....	84	.....	10	.....	127	.....	.....	.....	.....	1,586,492	24
1,739	Au 2,111	Fe 1,184	1,801	.....	95	.....	282	.....	440	.....	166	.....	801	.....	17	.....	.....	11,185,460	25
2,202	Au 2,659	Fe 1,878	2,482	.....	94	.....	419	.....	917	.....	100	.....	862	.....	90	.....	.....	10,087,803	26
278	Au 391	Jy 217	397	.....	11	.....	44	.....	72	.....	33	.....	237	.....	.....	.....	.....	699,356	27
69	De 142	Ap 19	158	.....	3	.....	8	.....	57	.....	20	.....	70	.....	.....	.....	1	372,501	28
5,573	Au 6,181	Fe 5,051	5,217	663	194	8	720	20	,072	171	400	78	1,769	386	62	5	.....	12,941,066	29
349	Mh 380	No 301	414	.....	21	.....	15	.....	179	.....	49	.....	141	.....	9	.....	.....	350,106	30
148	Se 166	Oc 112	159	.....	7	.....	10	.....	53	.....	7	.....	82	.....	.....	.....	.....	194,530	31
40	My 61	De 28	51	.....	2	.....	4	.....	4	.....	11	.....	28	.....	2	.....	.....	151,061	32
777	My 892	Fe 611	848	.....	42	.....	119	.....	279	.....	62	.....	332	.....	14	1	3	1,825,288	33
1,003	Au 1,095	Ja 907	1,037	.....	38	.....	72	.....	448	.....	35	.....	444	.....	.....	.....	.....	1,275,947	34
382	Jy 517	Ja 178	477	.....	19	.....	42	.....	174	.....	12	.....	219	.....	11	1	.....	2,280,160	35
1,520	.....	.....	1,848	.....	80	.....	371	.....	548	.....	191	.....	646	.....	12	2	5	12,561,539	36
58	Mh [1] 112	Jy [1] 26	82	.....	4	.....	10	.....	18	.....	10	.....	40	.....	.....	.....	.....	62,400	37
162	De 247	Je 134	236	.....	9	.....	33	.....	63	.....	2	.....	57	.....	72	.....	.....	1,027,730	38
92	Je 111	Fe 67	117	.....	9	.....	18	.....	39	.....	23	.....	7	.....	21	.....	.....	367,209	39
580	Au 710	Ja 441	651	.....	24	.....	45	.....	296	.....	25	.....	124	.....	137	.....	.....	882,638	40
747	Je 1,044	Fe 244	964	.....	42	.....	100	.....	318	.....	113	.....	72	.....	319	.....	.....	1,044,000	41
235	Au 314	Fe 122	279	.....	10	.....	36	.....	117	.....	16	.....	91	.....	9	.....	.....	627,625	42
1,034	Jy 1,212	Fe 635	1,181	.....	52	.....	133	.....	387	.....	100	.....	193	.....	316	1	.....	3,146,126	43
392	No 444	Ja 333	436	.....	19	.....	25	.....	313	.....	5	.....	16	.....	58	.....	.....	771,686	44
4	Au 8	No [1] 2	9	.....	1	.....	.....	.....	4	.....	2	.....	.....	.....	2	.....	.....	33,025	45
589	Oc 780	Ja 260	690	.....	18	.....	72	.....	221	.....	13	.....	48	.....	318	1	.....	1,455,786	46
48	Oc 81	Ja 27	72	.....	2	.....	5	.....	29	.....	3	.....	33	.....	.....	.....	.....	26,900	47
101	Au 158	Fe 26	120	.....	5	.....	7	.....	69	.....	.....	.....	13	.....	26	.....	.....	439,047	48
959	Se [1] 1,026	Ja 843	1,015	.....	35	.....	50	.....	206	.....	120	.....	309	.....	295	.....	.....	702,994	49
197	Jy 261	Fe 129	237	.....	12	.....	12	.....	131	.....	18	.....	54	.....	10	.....	.....	475,238	50
262	Se 316	Ja 192	307	.....	17	.....	38	.....	114	.....	5	.....	63	.....	70	.....	.....	553,866	51
322	No 351	Je 294	363	.....	17	.....	34	.....	194	.....	.....	.....	110	.....	8	.....	.....	994,240	52
1,062	Au 1,185	Ja 855	1,112	.....	62	.....	141	.....	608	.....	23	.....	135	.....	83	.....	.....	3,202,754	53
157	Au 188	Ja 84	177	.....	7	.....	17	.....	61	.....	24	.....	68	.....	.....	.....	.....	368,500	54
42	Au 51	De 34	61	.....	5	.....	6	.....	23	.....	.....	.....	16	.....	11	.....	.....	208,492	55
753	Se 860	Ja 583	772	.....	21	.....	53	.....	304	.....	39	.....	130	.....	220	.....	.....	1,790,740	56
253	.....	.....	285	.....	8	.....	18	.....	101	.....	3	.....	42	.....	53	.....	1	583,084	57
27	Au 53	Ja 14	61	.....	5	.....	3	.....	15	.....	.....	.....	38	.....	.....	.....	.....	113,602	58
14	Se 31	De 4	21	.....	2	.....	.....	.....	17	.....	.....	.....	2	.....	.....	.....	.....	64,450	59
288	No 328	Ap 247	298	.....	19	.....	59	.....	41	.....	33	.....	62	.....	84	.....	2	3,788,564	60
56	Se 82	Ja 5	83	.....	3	.....	8	.....	50	.....	.....	.....	5	.....	17	.....	.....	189,242	61
20	Ap 30	Ja [1] 7	36	.....	4	.....	1	.....	5	.....	.....	.....	23	.....	3	.....	.....	25,000	62
146	Se 211	Ja 40	204	.....	11	.....	11	.....	72	.....	11	.....	46	.....	53	.....	.....	534,031	63
875	My 1,008	Fe 687	818	.....	29	.....	45	.....	338	.....	21	.....	156	.....	239	.....	.....	4,026,782	64
1,673	Au 1,942	Fe 1,268	1,872	.....	77	.....	164	.....	596	.....	168	.....	640	.....	227	.....	.....	6,775,667	65
89	Au 141	Ja 40	101	.....	3	.....	10	.....	16	.....	1	.....	67	.....	4	.....	.....	194,507	66
343	Au 395	Fe 291	427	.....	16	.....	31	.....	145	.....	30	.....	137	.....	68	.....	.....	1,226,569	67
133	Au 181	Ja 60	169	.....	4	.....	9	.....	94	.....	.....	.....	46	.....	16	.....	.....	341,560	68
623	.....	.....	771	.....	24	.....	64	.....	220	.....	40	.....	399	.....	24	1	.....	1,675,347	69

[3] Includes enterprises in states as follows: Arkansas, 2; Colorado, 8; Delaware, 2; District of Columbia, 3; Missouri, 2; Oklahoma, 6; Oregon, 2; South Dakota, 1; Texas, 8.
[4] Includes enterprises in states as follows: Alabama, 2; Arizona, 2; Arkansas, 7; Connecticut, 3; Idaho, 2; Indiana, 1; Maryland, 2; Massachusetts, 1; Michigan, 2; Minnesota, 1; Missouri, 4; Montana, 2; North Carolina, 1; Oklahoma, 2; Tennessee, 2; Utah, 2; Virginia, 2; Washington, 1; Wyoming, 3.

TABLE 25.—DETAILED STATISTICS FOR THE STONE-QUARRYING

		Number of enterprises.	Number of quarries.	Enterprises operating mills and dressing plants.	LAND CONTROLLED (ACRES). Mineral land. Total operated.	Owned.	Held under lease.	Timber and other lands.	PERSONS ENGAGED IN INDUSTRY. Aggregate.	Proprietors and officials. Total.	Proprietors and firm members. Total.	Performing manual labor.	Salaried officers.	Superintendents and managers.	Technical employees.	Clerks and other subordinate salaried employees. Male.	Female.
	BASALT.																
70	California	16	17	.....	1,407	1,171	236	.....	294	25	7	2	5	13	.....	4	3
71	Connecticut	20	22	1	2,317	2,221	96	35	425	43	11	1	15	14	3	13	6
72	Maryland	10	10	.....	244	205	39	760	210	23	14	2	.....	9	.....	3	1
73	Massachusetts	21	23	.....	690	525	165	.....	601	36	4	.....	16	13	3	14	4
74	New Jersey	36	36	2	1,445	981	464	244	727	62	14	7	20	26	2	21	7
75	Oregon	9	9	.....	3,871	262	3,609	.....	142	13	3	2	3	7	.....	5	.....
76	Pennsylvania	29	32	3	4,258	733	3,525	500	823	63	14	4	18	30	1	26	13
77	Washington	8	10	.....	212	188	24	.....	115	11	5	2	1	4	1	5	.....
78	All other [1]	14	15	.....	1,181	853	328	350	454	34	5	.....	7	22	.....	12	8
	SLATE.																
79	Maryland	4	4	1	401	401	.....	.....	93	6	.....	.....	1	5	.....	1	1
80	New York	9	10	4	448	266	182	.....	148	13	8	.....	.....	5	.....	1	.....
81	Pennsylvania	42	42	38	1,054	629	425	337	2,051	128	17	9	47	63	1	24	7
82	Vermont	38	39	16	1,355	825	530	968	1,171	103	38	11	25	37	3	16	13
83	Virginia	4	5	.....	636	556	80	.....	224	10	.....	.....	6	4	.....	3	1
84	All other [3]	4	4	2	1,546	996	550	1,500	165	9	1	1	5	3	.....	.....	3
	MARBLE.																
85	New York	6	6	1	107	97	10	246	115	9	1	.....	6	2	.....	5	1
86	Tennessee	13	17	8	1,244	997	255	60	590	37	.....	.....	19	18	.....	7	6
87	Vermont	15	25	11	9,448	8,408	1,040	222	610	10	.....	.....	3	6	1	16	14
88	All other [4]	14	14	5	18,170	2,316	15,854	5,745	576	40	6	3	18	14	2	10	4

		PRINCIPAL EXPENSES. Salaries and wages. Total.	Salaried officials, superintendents, managers, and technical employees.	Clerks and other subordinate salaried employees.	Wage earners.	Supplies and materials.	Cost of fuel.	Cost of purchased power.	Royalties and rents.	Taxes—Federal, state, county, and local.	Contract work.
1	**United States—All industries.**	**$83,091,301**	**$5,358,186**	**$1,810,117**	**$45,534,798**	**$18,441,459**	**$5,267,846**	**$2,213,459**	**$1,381,290**	**$2,088,170**	**$995,976**
2	**Limestone**	**45,250,704**	**2,614,748**	**1,111,845**	**23,926,332**	**10,968,220**	**2,897,432**	**1,278,958**	**667,751**	**1,119,361**	**665,557**
3	**Granite**	**14,107,461**	**982,092**	**214,364**	**8,587,659**	**2,593,040**	**833,636**	**261,185**	**139,202**	**377,646**	**118,637**
4	**Sandstone**	**8,173,578**	**630,306**	**200,327**	**4,443,811**	**1,664,432**	**597,353**	**250,909**	**131,970**	**195,309**	**54,161**
5	**Basalt**	**7,083,629**	**598,157**	**153,090**	**3,991,307**	**2,030,869**	**562,827**	**157,161**	**250,199**	**198,613**	**41,406**
6	**Slate**	**4,914,081**	**341,487**	**67,768**	**3,128,249**	**632,459**	**228,954**	**188,505**	**157,788**	**73,238**	**95,633**
7	**Marble**	**2,661,848**	**191,396**	**62,723**	**1,452,440**	**552,439**	**147,644**	**76,741**	**34,380**	**123,503**	**20,582**
	LIMESTONE.										
8	Alabama	1,216,632	83,140	34,797	663,914	306,537	94,479	17,532	5,058	8,334	2,841
9	Arizona	145,172	6,000	2,200	41,941	10,990	1,162	7,310	.....	122	70,357
10	Arkansas	208,553	32,749	1,920	92,009	52,498	15,272	600	10,540	2,965	.....
11	California	499,021	27,019	16,520	289,693	122,176	16,861	18,746	1,000	6,106	1,500
12	Colorado	502,734	14,109	5,206	279,758	78,558	14,108	3,428	4,350	500	102,717
13	Florida	151,730	13,366	1,071	81,651	34,399	9,902	4,438	5,563	720	.....
14	Georgia	143,787	22,316	1,055	59,337	23,056	3,204	9,364	5,059	381	14,325
15	Illinois	3,152,121	283,175	115,634	1,447,647	835,598	231,915	158,053	34,501	45,598	.....
16	Indiana	3,417,832	374,746	142,052	1,767,636	700,460	214,987	112,222	31,974	66,274	7,472
17	Iowa	509,801	29,454	25,910	282,561	108,008	37,009	8,872	15,315	2,672	.....
18	Kansas	786,509	33,529	31,263	500,783	128,655	38,822	8,284	29,034	6,009	19,130
19	Kentucky	885,915	44,314	8,405	526,099	215,319	65,073	9,249	7,557	8,233	1,666
20	Maryland	205,626	5,284	7,580	128,148	42,480	14,085	1,738	2,995	3,316	.....
21	Minnesota	267,963	13,978	5,397	158,665	27,642	11,747	9,267	9,966	8,069	23,292
22	Missouri	1,983,730	145,401	40,540	1,181,826	364,251	126,078	68,527	20,717	16,826	19,564
23	Montana	194,213	7,734	3,624	110,806	55,678	7,114	6,820	.....	2,437	.....
24	New Jersey	449,648	19,923	3,956	255,293	109,198	37,580	480	14,053	8,835	330
25	New York	4,034,313	245,388	78,895	2,109,671	1,119,461	177,672	159,800	47,125	87,343	8,958
26	Ohio	5,414,548	316,871	193,330	2,327,159	1,330,758	494,038	200,673	64,009	358,289	120,421
27	Oklahoma	497,419	56,361	48,172	210,489	117,656	40,167	2,625	16,920	5,020	.....
28	Oregon	140,429	4,350	.....	60,868	63,083	7,109	269	3,926	824	.....
29	Pennsylvania	11,595,884	371,936	148,866	6,824,164	2,758,379	559,646	255,957	234,488	247,700	194,748
30	Tennessee	443,352	49,179	3,823	243,393	95,398	29,658	7,354	9,735	3,430	1,382
31	Utah	260,619	15,347	1,031	187,171	41,189	5,488	7,227	2,000	1,216	.....
32	Vermont	75,021	4,815	2,478	35,793	24,460	5,690	990	.....	795	.....
33	Virginia	1,395,645	49,834	24,213	682,902	437,142	117,151	15,496	28,808	27,653	12,446
34	West Virginia	1,682,967	62,786	30,243	979,624	419,472	69,033	58,213	11,384	51,312	.....
35	Wisconsin	951,980	77,314	25,863	538,189	158,011	70,439	48,920	10,897	21,094	6,253
36	All other [5]	4,036,940	204,330	106,601	1,864,142	1,173,649	375,963	76,504	49,817	127,779	58,155

[1] Includes enterprises in states as follows: Delaware, 1; Idaho, 1; Michigan, 1; New York, 4; Rhode Island, 4; Texas, 1; Wisconsin, 2.
[2] Same number reported for one or more other months.
[3] Includes enterprises in states as follows: Maine, 3; Utah, 1.
[4] Includes enterprises in states as follows: Alabama, 2; California, 3; Georgia, 1; Maryland, 2; Massachusetts, 3; Michigan, 1; Missouri, 1; Texas, 1.

INDUSTRIES, BY STATES, PRODUCING ENTERPRISES: 1919—Continued.

PERSONS ENGAGED IN INDUSTRY—continued.

Wage earners: Average number.	Wage earners, number 15th day of—: Maximum month.	Wage earners, number 15th day of—: Minimum month.	Wage earners, Dec. 15, or nearest representative day: Total: Above ground.	Total: Below ground.	Foremen, bosses, etc.: Above ground.	Foremen, bosses, etc.: Below ground.	Enginemen, hoistmen, etc.: Above ground.	Enginemen, hoistmen, etc.: Below ground.	Quarrymen, drillmen, etc.: Above ground.	Quarrymen, drillmen, etc.: Below ground.	Trackmen, men engaged in hauling, etc.: Above ground.	Trackmen, men engaged in hauling, etc.: Below ground.	Muckers, laborers, and others not classified: Above ground.	Muckers, laborers, and others not classified: Below ground.	In mills and dressing plants (above ground).	Under 16 years of age (above ground).	Females (above ground).	Capital.	
262	No 327	Fe 155	337	...	14	...	38	...	75	...	36	...	174	...	...	...	...	$1,367,033	70
363	Jy 406	Fe 277	408	...	17	...	55	...	124	...	20	...	190	...	2	...	...	2,976,339	71
183	Je 249	Ja 69	218	...	9	...	13	...	71	...	...	...	125	...	...	...	...	336,217	72
547	Se 708	Fe 287	586	...	17	...	57	...	148	...	24	...	340	...	...	...	...	1,026,570	73
637	Jy 808	Fe 352	721	...	26	...	91	...	221	...	1	...	374	...	8	...	...	1,373,890	74
124	Se 214	Ja 58	173	...	9	...	24	...	33	...	35	...	72	...	...	...	2	477,054	75
721	My 862	Ja 499	710	...	28	...	121	...	212	...	49	...	268	...	32	...	...	3,552,049	76
99	Oc 168	Fe 33	153	...	6	...	7	...	100	...	...	...	40	...	...	...	...	183,113	77
400	...	...	493	...	18	...	67	...	136	...	27	...	245	...	...	...	...	1,606,006	78
85	Fe [2] 98	My 69	84	21	1	2	13	1	36	11	4	...	19	7	11	...	...	652,142	79
134	De 200	Mh 65	159	40	11	2	23	...	18	18	6	...	45	20	56	...	...	461,660	80
1,892	Oc 2,106	Ja 1,373	1,724	340	48	16	168	...	321	270	127	33	500	21	560	4	...	2,829,629	81
1,039	Jy 1,180	Au 871	994	208	65	8	128	2	404	148	7	...	160	50	230	...	...	2,212,813	72
210	Au 237	Ja 162	155	71	3	3	19	...	20	14	49	21	64	33	...	...	...	289,024	83
153	...	...	126	51	5	5	20	...	12	27	7	...	4	19	78	...	...	477,904	84
100	Au [2] 128	Ja 51	128	...	7	...	15	...	48	...	20	...	25	...	13	...	...	416,076	85
540	Jy 586	Fe 462	589	...	19	...	22	...	169	...	12	...	157	...	210	...	...	1,604,393	86
570	My 614	Ja 506	599	...	20	...	33	...	341	...	9	...	18	...	178	...	...	3,627,551	87
522	...	...	540	...	20	...	80	...	205	...	...	...	107	...	128	...	...	3,385,502	88

POWER USED.

Expenditures for development (included in principal expenses).	Value of product.	Aggregate horsepower.	Prime movers: Total horsepower.	Steam engines (not turbines): Number.	Steam engines (not turbines): Horsepower.	Steam turbines: Number.	Steam turbines: Horsepower.	Internal-combustion engines: Number.	Internal-combustion engines: Horsepower.	Water wheels and turbines: Number.	Water wheels and turbines: Horsepower.	Equipment operated by purchased power: Electric motors: Number.	Electric motors: Horsepower.	Electric motors run by current generated by the enterprise reporting: Number.	Electric motors run by current generated by the enterprise reporting: Horsepower.	
$1,241,343	$101,684,919	376,808	219,038	3,397	194,477	23	14,286	440	9,045	18	2,130	3,971	[5] 156,870	490	19,210	1
764,673	52,943,924	213,717	126,387	1,776	109,773	17	10,701	252	5,043	9	865	2,046	87,330	267	11,421	2
156,870	18,279,345	55,674	34,711	744	30,231	3	2,360	84	1,343	4	777	450	[5] 20,963	34	1,520	3
96,555	10,684,969	33,869	21,197	340	19,081	...	...	71	2,116	...	...	386	12,672	155	4,696	4
131,800	9,657,977	37,307	22,844	259	21,099	3	1,225	30	520	...	...	255	14,463	11	1,049	5
60,531	5,720,792	20,613	8,778	193	8,669	...	...	1	8	2	101	426	11,835	4	44	6
30,914	4,397,912	15,628	6,021	85	5,619	...	...	2	15	3	387	408	9,607	19	480	7
26,230	1,340,961	5,457	3,930	48	3,630	2	300	...	...	...	...	26	1,527	4	160	8
47,580	153,211	255	55	...	...	...	...	2	55	...	...	3	200	...	...	9
...	220,070	1,158	1,133	12	1,130	...	...	1	2	...	...	3	25	4	7	10
13,488	540,987	1,778	156	2	80	...	...	4	76	...	...	40	1,622	...	...	11
45,763	526,738	521	273	4	160	...	...	5	113	...	...	6	248	...	...	12
...	177,201	490	325	7	325	...	...	...	...	...	...	11	165	...	...	13
...	174,821	1,135	435	4	435	...	...	...	...	...	...	4	700	...	...	14
13,483	3,776,626	22,325	11,260	161	9,125	5	1,053	18	282	...	...	222	10,965	...	...	15
127,979	4,619,801	21,642	11,161	142	10,836	1	150	11	175	...	...	359	10,481	58	1,212	16
19,001	476,650	3,991	2,485	38	2,433	...	...	9	52	...	...	30	1,506	...	...	17
3,250	835,147	2,252	1,686	20	1,046	...	...	11	640	...	...	12	566	15	360	18
1,500	1,126,109	4,485	3,569	55	3,329	...	...	12	240	...	...	25	916	4	240	19
500	241,638	542	390	14	390	...	...	...	...	...	...	6	152	...	...	20
3,324	311,180	1,594	605	14	599	...	...	1	6	...	...	33	989	...	...	21
31,018	2,355,736	8,305	4,052	69	3,491	...	...	16	561	...	...	145	4,253	8	218	22
11,250	191,887	1,290	235	2	125	...	...	1	40	2	70	15	1,055	...	...	23
8,390	450,059	1,372	1,337	9	537	1	800	...	...	...	...	1	35	18	634	24
19,577	4,597,942	22,370	10,243	147	9,968	...	...	12	275	...	...	237	12,127	18	1,195	25
14,550	6,742,496	39,881	29,480	357	28,746	...	...	43	706	1	28	221	10,401	6	36	26
...	567,288	2,076	1,876	23	1,545	...	...	8	331	...	...	3	200	...	...	27
...	138,708	35	10	...	...	...	...	2	10	...	...	1	25	...	...	28
199,199	12,881,213	30,155	15,041	378	14,516	1	275	55	800	2	50	358	14,514	9	225	29
3,000	534,848	1,996	1,231	22	1,150	1	80	1	1	...	...	11	765	...	...	30
3,000	291,234	360	75	3	60	...	...	1	15	...	...	3	285	...	...	31
...	76,152	483	408	6	408	...	...	...	...	...	...	3	75	5	195	32
16,021	1,610,544	5,723	4,706	55	3,395	3	810	13	109	1	392	18	1,017	17	827	33
2,530	1,927,490	6,373	2,833	56	2,821	...	...	1	12	...	...	35	3,540	4	120	34
23,614	1,107,790	5,772	2,472	34	2,149	...	...	8	173	2	150	73	3,300	4	145	35
129,508	4,940,397	19,901	14,225	94	7,349	3	6,333	17	368	1	175	142	5,676	93	5,847	36

[5] Includes 60 horsepower for equipment operated by purchased compressed air, distributed as follows: Colorado, 5; Georgia, 30; Massachusetts, 5; Vermont, 20.
[6] Includes enterprises in states as follows: Connecticut, 1; Idaho, 3; Louisiana, 1; Maine, 1; Massachusetts, 1; Michigan, 11; Nebraska, 8; Nevada, 1; North Carolina, 2; South Dakota, 3; Texas, 12; Wyoming, 8.

TABLE 25.—DETAILED STATISTICS FOR THE STONE-QUARRYING

		PRINCIPAL EXPENSES.									
		Total.	Salaries and wages.			Supplies and materials.	Cost of fuel.	Cost of purchased power.	Royalties and rents.	Taxes—Federal, state, county, and local.	Contract work.
			Salaried officials, superintendents, managers, and technical employees.	Clerks and other subordinate salaried employees.	Wage earners.						
	GRANITE.										
37	Arizona	$107,359	$3,000	.....	$75,894	$14,624	$9,284	$1,900	$2,480	$177	.....
38	California	411,523	41,050	$11,977	167,902	148,179	14,898	18,743	785	7,654	$250
39	Connecticut	185,811	33,384	5,115	102,821	18,819	14,153	.....	3,313	5,206	3,000
40	Georgia	803,334	47,209	8,883	536,599	84,311	65,909	21,216	34,390	5,317	.....
41	Maine	1,110,409	65,385	8,812	805,865	116,060	71,353	17,067	5,242	17,825	2,800
42	Maryland	448,659	25,861	6,441	269,741	76,836	49,807	1,232	12,509	3,607	2,535
43	Massachusetts	1,852,338	126,987	48,557	1,237,888	237,807	110,504	26,215	12,450	48,204	4,136
44	Minnesota	729,331	30,870	10,050	477,028	98,962	55,475	33,074	4,371	17,865	2,136
45	Montana	8,861	.....	.....	5,006	2,548	635	.....	600	72	.....
46	New Hampshire	1,061,338	76,871	9,541	744,023	110,782	37,956	23,413	1,060	23,672	24,520
47	New Jersey	60,708	3,400	.....	42,531	6,480	5,560	.....	2,242	495	.....
48	New York	147,045	13,333	2,403	87,561	28,408	6,388	5,861	1,449	1,642	.....
49	North Carolina	1,224,809	102,711	15,593	808,657	185,227	90,181	3,119	8,518	10,803	.....
50	Pennsylvania	343,621	19,055	4,624	237,481	43,396	20,585	1,730	12,336	3,774	640
51	Rhode Island	511,993	46,729	10,846	280,227	122,500	30,999	7,293	5,645	7,754	.....
52	South Carolina	634,433	74,137	13,293	278,102	109,372	33,742	24,687	3,762	7,278	.....
53	Vermont	2,579,823	127,743	21,109	1,225,256	778,489	135,472	39,379	7,609	182,786	61,980
54	Virginia	195,045	18,040	2,200	135,435	18,248	12,252	525	2,434	5,911	.....
55	Washington	71,194	4,942	351	50,303	6,110	6,668	1,783	190	847	.....
56	Wisconsin	1,194,482	106,245	30,759	759,599	208,146	37,817	23,748	5,067	23,101	.....
57	All other [1]	423,340	15,140	3,810	259,590	87,046	23,008	10,200	12,750	3,656	6,640
	SANDSTONE.										
58	California	65,533	37	.....	39,041	20,202	669	1,631	2,300	1,653	.....
59	Colorado	38,840	.....	.....	14,903	3,791	400	48	304	320	19,065
60	Illinois	912,157	142,938	20,260	335,756	182,443	127,258	48,089	9,853	42,029	3,531
61	Kentucky	69,176	12,955	600	35,687	11,710	7,383	.....	71	770	.....
62	New Jersey	35,661	1,300	.....	27,209	1,218	3,500	.....	2,000	434	.....
63	New York	239,078	23,460	7,640	149,051	40,566	9,320	2,124	4,065	2,735	117
64	Ohio	1,675,129	136,938	80,042	965,151	288,557	92,720	22,927	15,869	47,991	24,934
65	Pennsylvania	3,034,748	161,984	54,583	1,688,674	695,265	215,423	82,522	58,206	75,607	2,484
66	South Dakota	158,961	8,710	3,294	98,303	35,850	3,689	6,005	1,175	1,335	.....
67	West Virginia	596,157	56,833	8,987	338,156	94,192	30,203	45,357	4,354	8,985	.....
68	Wisconsin	231,306	18,715	3,629	133,602	51,923	9,599	1,010	8,003	3,775	1,050
69	All other [2]	1,116,832	66,436	21,292	623,278	238,715	88,099	40,596	25,770	9,666	2,980
	BASALT.										
70	California	601,924	46,737	9,206	334,460	128,748	10,520	39,206	16,938	16,051	.....
71	Connecticut	923,263	76,724	15,788	450,990	231,885	45,778	41,565	2,817	38,409	19,337
72	Maryland	344,278	15,613	5,542	186,210	92,260	28,492	1,200	3,416	8,545	.....
73	Massachusetts	1,265,216	115,160	20,245	719,596	229,244	65,117	40,849	44,188	30,822	.....
74	New Jersey	1,601,440	99,084	31,441	759,006	427,846	142,358	10,420	90,954	20,819	19,562
75	Oregon	347,152	20,577	4,840	189,123	102,114	21,591	3,121	2,238	3,548	.....
76	Pennsylvania	1,853,633	125,504	39,466	792,637	618,769	152,702	10,277	50,635	61,046	2,507
77	Washington	136,900	14,539	4,200	102,382	42,408	18,519	940	2,244	1,608	.....
78	All other [3]	859,823	81,269	22,362	456,933	157,537	77,660	9,523	36,774	17,765	.....
	SLATE.										
79	Maryland	79,185	6,235	795	54,533	4,701	7,334	2,821	.....	2,766	.....
80	New York	254,843	8,867	1,630	135,826	60,436	10,239	25,765	2,206	6,391	3,483
81	Pennsylvania	2,564,734	176,295	32,580	1,655,082	297,941	164,461	42,234	110,931	33,168	52,033
82	Vermont	1,538,557	118,074	26,129	976,143	226,644	25,838	97,221	34,103	23,768	10,637
83	Virginia	206,304	16,790	2,719	152,491	7,453	16,497	.....	7,831	2,523	.....
84	All other [4]	270,458	15,226	3,906	154,174	35,284	4,585	20,464	2,717	4,622	29,480
	MARBLE.										
85	New York	200,556	9,217	6,614	102,097	34,313	17,340	4,952	1,282	5,478	19,263
86	Tennessee	855,866	72,565	16,832	407,912	249,623	31,834	6,244	5,201	15,655	.....
87	Vermont	950,807	44,413	25,554	553,075	180,320	13,349	37,211	10,700	86,185	.....
88	All other [5]	654,619	65,201	13,723	389,356	88,183	35,121	28,334	17,197	16,185	1,319

[1] Includes enterprises in states as follows: Arkansas, 2; Colorado, 8; Delaware, 2; District of Columbia, 3; Missouri, 2; Oklahoma, 6; Oregon, 2; South Dakota, 1; Texas, 8.

[2] Includes enterprises in states as follows: Alabama, 2; Arizona, 2; Arkansas, 7; Connecticut, 3; Idaho, 2; Indiana, 1; Maryland, 2; Massachusetts, 1; Michigan, 2; Minnesota, 1; Missouri, 4; Montana, 2; North Carolina, 1; Oklahoma, 2; Tennessee, 2; Utah, 2; Virginia, 2; Washington, 1; Wyoming, 3.

INDUSTRIES, BY STATES, PRODUCING ENTERPRISES: 1919—Continued.

Expenditures for development (included in principal expenses).	Value of product.	POWER USED.												
		Aggregate horsepower.	Prime movers.								Equipment operated by purchased power.		Electric motors run by current generated by the enterprise reporting.	
			Total horsepower.	Steam engines (not turbines).		Steam turbines.		Internal-combustion engines.		Water wheels and turbines.		Electric motors.		
				Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	
.....	$128,777	417	252	3	40	.....	.....	6	212	.....	.....	3	165	.....	.....	37
$8,250	503,485	2,479	257	12	201	.....	.....	3	31	1	25	60	2,222	.....	.....	38
.....	206,546	1,165	1,165	30	1,150	.....	.....	1	15	.....	.....	.....	.....	5	40	39
9,383	885,663	3,863	2,534	25	2,507	.....	.....	4	27	.....	.....	18	[3] 1,329	.....	.....	40
5,695	1,300,996	4,050	3,313	72	3,187	.....	.....	11	126	.....	.....	15	737	.....	.....	41
.....	495,651	2,393	2,258	34	1,450	1	750	3	58	.....	.....	4	135	13	775	42
6,441	2,405,165	6,580	4,737	149	4,707	.....	.....	2	30	.....	.....	49	[3] 1,843	.....	.....	43
15,735	1,135,391	3,675	1,770	48	1,620	.....	.....	5	150	.....	.....	42	1,905	.....	.....	44
1,000	12,944	75	75	.....	.....	.....	.....	3	75	.....	.....	.....	.....	.....	.....	45
14,814	1,427,979	4,121	2,458	64	2,415	.....	.....	4	43	.....	.....	49	1,663	.....	.....	46
.....	81,198	195	195	3	195	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
.....	173,404	2,208	803	16	803	.....	.....	1	5	.....	.....	18	1,400	.....	.....	48
5,000	1,576,250	2,025	1,890	35	1,890	.....	.....	.....	.....	.....	.....	4	135	12	155	49
18,700	435,654	1,232	852	30	768	.....	.....	9	84	.....	.....	5	380	.....	.....	50
11,200	733,083	2,460	1,520	49	1,520	.....	.....	.....	.....	.....	.....	21	940	.....	.....	51
.....	747,976	2,392	1,057	21	1,020	.....	.....	3	37	.....	.....	18	1,335	.....	.....	52
25,444	3,563,734	10,789	6,112	88	3,837	1	1,500	2	25	2	750	86	[3] 4,677	.....	.....	53
.....	259,569	650	600	9	600	.....	.....	.....	.....	.....	.....	1	50	.....	.....	54
3,000	74,958	246	176	4	136	.....	.....	2	40	.....	.....	6	70	.....	.....	55
6,892	1,484,979	2,850	1,175	26	1,175	.....	.....	.....	.....	.....	.....	33	1,675	4	650	56
25,316	585,343	1,809	1,507	26	1,010	1	110	25	385	1	2	18	[4] 302	.....	.....	57
.....	65,074	585	20	.....	.....	.....	.....	1	20	.....	.....	15	565	.....	.....	58
.....	45,723	87	83	2	83	.....	.....	.....	.....	.....	.....	1	4	.....	.....	59
16,450	1,329,389	3,806	1,916	31	1,774	.....	.....	14	142	.....	.....	70	1,890	8	341	60
.....	91,363	640	640	14	640	.....	.....	.....	.....	.....	.....	.....	.....	2	25	61
.....	46,775	89	89	4	74	.....	.....	1	15	.....	.....	.....	.....	.....	.....	62
5,625	301,315	1,234	981	16	842	.....	.....	10	139	.....	.....	6	253	8	233	63
19,499	2,759,352	5,431	3,529	36	3,419	.....	.....	5	110	.....	.....	47	1,902	96	2,222	64
39,411	3,534,563	10,844	8,268	149	7,057	.....	.....	28	1,211	.....	.....	100	2,576	20	1,165	65
.....	140,068	497	90	3	90	.....	.....	.....	.....	.....	.....	13	407	.....	.....	66
7,877	885,588	3,486	1,260	27	1,220	.....	.....	2	40	.....	.....	81	2,226	.....	.....	67
6,070	231,078	1,009	909	10	692	.....	.....	4	217	.....	.....	1	100	.....	.....	68
1,623	1,254,681	6,161	3,412	48	3,190	.....	.....	6	222	.....	.....	52	2,749	21	710	69
125	635,588	4,792	460	17	425	.....	.....	1	35	.....	.....	88	4,332	.....	.....	70
6,256	1,262,579	6,254	2,720	26	2,705	.....	.....	2	15	.....	.....	41	3,534	3	4	71
.....	369,075	1,285	1,210	14	1,210	.....	.....	.....	.....	.....	.....	1	75	.....	.....	72
10,750	1,548,611	4,721	2,165	31	2,165	.....	.....	.....	.....	.....	.....	39	2,556	1	10	73
25,995	1,928,025	6,340	5,298	51	5,011	1	125	14	162	.....	.....	20	1,042	.....	.....	74
420	294,812	1,285	692	18	686	.....	.....	1	6	.....	.....	10	593	.....	.....	75
85,254	2,298,791	6,058	5,147	53	5,000	.....	.....	6	147	.....	.....	28	911	.....	.....	76
.....	240,742	1,020	980	10	845	.....	.....	3	135	.....	.....	2	40	.....	.....	77
3,000	1,079,754	5,552	4,172	39	3,052	2	1,100	3	20	.....	.....	26	1,380	7	1,035	78
2,847	76,683	403	270	7	270	.....	.....	.....	.....	.....	.....	12	133	.....	.....	79
1,500	445,027	2,022	212	5	212	.....	.....	.....	.....	.....	.....	44	1,810	.....	.....	80
36,717	2,651,533	9,678	7,393	155	7,385	.....	.....	1	8	.....	.....	95	2,285	.....	.....	81
10,555	2,057,388	6,447	458	12	357	.....	.....	.....	.....	2	101	237	5,989	4	44	82
2,000	203,068	445	445	14	445	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	83
6,912	287,093	1,618	.....	.....	.....	.....	.....	.....	.....	.....	.....	38	1,618	.....	.....	84
.....	249,286	495	275	9	275	.....	.....	.....	.....	.....	.....	8	220	.....	.....	85
2,500	1,088,131	3,885	3,135	32	3,115	.....	.....	1	3	1	17	15	750	7	200	86
500	2,108,872	7,354	910	7	690	.....	.....	.....	.....	1	220	310	6,444	9	245	87
27,914	951,623	3,894	1,701	37	1,539	.....	.....	1	12	1	150	75	2,193	3	35	88

[3] Includes enterprises in states as follows: Delaware, 1; Idaho, 1; Michigan, 1; New York, 4; Rhode Island, 4; Texas, 1; Wisconsin, 2.
[4] Includes enterprises in states as follows: Maine, 3; Utah, 1.
[5] Includes enterprises in states as follows: Alabama, 2; California, 3; Georgia, 1; Maryland, 2; Massachusetts, 3; Michigan, 1; Missouri, 1; Texas, 1.

PHOSPHATE ROCK.

INTRODUCTION.

This report presents the results of the census of mines and quarries for the year 1919 relating to the phosphate-rock mining industry. It includes statistics showing the progress of the industry by comparison of results of the 1919 census with those of the preceding censuses of mines and quarries; also, for 1919, statistics showing character of organization of operating enterprises, scale of operation, persons engaged in the industry, acreage of mineral and other lands controlled, power equipment used, and a general table presenting statistics in detail for the United States and for such states as can be shown without disclosure of individual operations.

Definitions and explanations.—Phosphate rock is a natural phosphate of lime which occurs in several forms known in Florida and South Carolina as "hard rock," or "land pebble," and by other names; in Kentucky and Tennessee as "brown rock" and "blue rock;" and also simply as rock phosphate. Phosphate rock is mined principally for use as fertilizer and as an ingredient of manufactured fertilizers. Other uses in metallurgical and chemical industries are relatively unimportant. It is disposed of by the producers, either as crude rock as it is mined, or as washed or otherwise cleaned and selected material, or ground. Some enterprises producing phosphate rock are engaged simply in mining or digging the rock, others operate beneficiating plants also. The statistics herein presented cover both the mining proper and the cleaning or other beneficiation practiced by the operators.

Phosphate rock is obtained by hand digging, by steam-shovel operation, by open-cut quarrying, by dredging, by hydraulic mining, and by underground mining. Underground mining and quarrying are practiced chiefly in the Central and Western states; and the other methods of operation, only in the South Atlantic states.

The phosphate-rock resources of the United States include deposits in the coastal region of South Carolina; the central counties of Florida; western Kentucky and Tennessee; and very extensive bedded deposits in Montana, Idaho, Utah, and Wyoming. The principal sources of production of phosphate rock in the United States have been Florida, South Carolina, and Tennessee. Much of the production has been for export trade, which prior to the war amounted to nearly half of the total annual domestic output. On account of the war and the discovery or development of foreign phosphate-rock resources, the export trade and the production in the United States have decreased very largely since the preceding census. European demand for phosphate rock was renewed in 1919 and the phosphate-rock mining industry recovered somewhat from the depression of the years 1914 to 1918. In Florida, the leading producing state, long-continued labor troubles during 1919 resulted in decreased production as compared with the preceding year. For the reasons herein set forth the statistics covering the phosphate-rock mining industry during the year 1919 are not fairly representative of that industry.

Method of reporting quantity and value of products.—The statistics on production of phosphate rock were collected in cooperation with the United States Geological Survey, and there was provided, in addition to the general schedule of the Bureau of the Census, a supplemental schedule requesting special information for the Geological Survey. The latter desired the quantity of phosphate rock mined and the quantity and selling value f. o. b. mines of the phosphate rock shipped, that is, sold or used. The Bureau of the Census required only the value of the products mined during the year, and the value of products reported by this bureau is estimated on the basis of the average selling value of the rock shipped. The Geological Survey has tabulated as the value of phosphate rock produced in 1919 the value of the material shipped, that is, the marketed production, which includes considerable phosphate rock from stock previously mined. This largely accounts for the difference in value of products as reported by the Bureau of the Census and the Geological Survey. The difference in quantity mined as reported by the two bureaus is due to different methods in tabulating reports from certain operators who included with mined output the sales of phosphate rock from stock and gave as the value of mined product the combined value of all materials shipped. The Geological Survey has excluded such quantities from its report of rock mined.

Table 1 shows, by states and kinds of rock, the quantity mined and the quantity and value of phosphate rock sold in 1919, as reported by the Geological Survey, and Table 2 presents both the Bureau of the Census and the Geological Survey figures on quantity and value of phosphate rock produced in 1919.

TABLE 1.—PHOSPHATE ROCK MINED AND SOLD IN THE UNITED STATES, BY STATES: 1919.[1]

STATE.	MINED.	MINED AND SOLD.		
	Quantity (tons, 2,240 pounds).	Quantity (tons, 2,240 pounds).	Value.	Average value per ton.
UNITED STATES	1,851,549	2,271,983	$11,591,268	$5.10
FLORIDA	1,254,609	1,660,200	7,797,929	4.70
Hard rock		285,467	2,452,563	8.59
Soft rock		14,498	196,318	13.54
Land pebble		1,360,235	5,149,048	3.79
SOUTH CAROLINA	49,032	60,823	308,968	5.08
Land rock		60,823	308,968	5.08
TENNESSEE AND KENTUCKY	530,973	534,025	3,414,516	6.39
Brown rock		475,475	3,123,565	6.57
Blue rock		58,550	290,951	4.97
WESTERN STATES[2]	16,935	16,935	69,855	4.12

[1] U. S. Geological Survey, Mineral Resources of the United States: 1919.
[2] Includes Idaho, Utah, and Wyoming.

TABLE 2.—COMPARISON OF REPORTS ON PRODUCTION, BUREAU OF THE CENSUS AND UNITED STATES GEOLOGICAL SURVEY: 1919.

STATE.	BUREAU OF THE CENSUS.			GEOLOGICAL SURVEY.	
	Total value of all products.	Phosphate rock mined.		Phosphate rock mined and sold.	
		Quantity (tons, 2,240 pounds).	Value.	Quantity (tons, 2,240 pounds).	Value.
United States	$10,300,198	1,988,975	$10,292,990	2,271,983	$11,591,268
Florida	6,678,888	1,404,299	6,673,888	1,660,200	7,797,929
South Carolina, Tennessee, and Kentucky	3,551,755	567,665	3,549,547	594,848	3,723,484
Western states[1]	69,555	17,011	69,555	16,935	69,855

[1] Includes Idaho and Utah, and in the Geological Survey statistics also Wyoming.

PRINCIPAL STATISTICS.

The phosphate-rock mining industry ranked eleventh among the mining industries of the United States in 1919 on the basis of total value of all products—$10,300,198; and on the basis of average number of wage earners employed—4,373—the industry ranked tenth. There were 39 operators of producing phosphate-rock mines during the year who reported for 48 enterprises embracing 69 mines. These operators produced 1,988,975 long tons of phosphate rock valued at $10,292,990 and reported other receipts from mining operations amounting to $7,208.

Table 3 presents for the United States as a whole, and separately for such states as can be shown, the principal statistics for producing phosphate-rock enterprises in 1919. Only one operation for development without production was reported during the census year, and statistics for this enterprise are not here shown because to combine them with those for the producing enterprises would impair the value of these and to show them separately would disclose the individual operation. Therefore, the data are not included in this report but will be combined with other nonproducing enterprises in the general tables for the United States.

TABLE 3.—PRINCIPAL STATISTICS, PRODUCING ENTERPRISES: 1919.

	United States.	Florida.	Tennessee.	South Carolina and Kentucky.	Idaho and Utah.
Number of enterprises	48	23	19	3	3
Number of mines	69	40	23	3	3
Mineral land operated (acres)	160,447	108,925	23,452	26,785	1,285
Persons engaged	4,761	2,585	1,674	459	43
Proprietors and firm members	14	5	5	2	2
Salaried employees	374	250	101	19	4
Wage earners (average number)	4,373	2,330	1,568	438	37
Power used (aggregate horsepower)	49,639	40,996	7,166	1,275	200
Capital	$72,733,956	$55,740,488	$14,657,494	$1,665,961	$670,013
Principal expenses:					
Salaries	$761,423	$549,971	$174,803	$28,729	$7,920
Wages	$3,900,966	$2,372,141	$1,174,759	$300,033	$54,033
Contract work	$163,696	$115,262	$35,421	.....	$13,013
Supplies and materials	$2,161,501	$1,455,370	$638,533	$59,800	$7,798
Fuel and purchased power	$1,819,301	$1,347,785	$380,932	$89,061	$1,523
Royalties and rents	$209,687	$128,834	$70,553	$10,300	.....
Taxes	$347,580	$275,354	$63,423	$8,475	$328
Total value of all products	$10,300,198	$6,678,888	$3,139,671	$412,084	$69,555
Phosphate rock—					
Quantity (tons, 2,240 pounds)	1,988,975	1,404,299	489,639	78,026	17,011
Value	$10,292,990	$6,673,888	$3,137,463	$412,084	$69,555

GEOGRAPHIC DISTRIBUTION.

Statistics relating to the phosphate-rock mining industry can be shown separately for only the two leading states, Florida and Tennessee. Statistics for South Carolina and Kentucky and for Idaho and Utah are combined in order to avoid disclosure of individual operations. Table 3 shows the principal statistics, and Table 4 the rank, by the per cent distribution of the average number of wage earners and value of products, for these states and groups of states. The South Atlantic region leads in this industry with products valued at more than two-thirds and wage earners numbering more than half of the totals for the United States. Nearly one-third of the industry, as measured by the value of products or number of wage earners, was located in the East South Central region, and a very small remainder in the Western Mountain region.

TABLE 4.—STATES, RANKED BY VALUE OF PRODUCTS, PRODUCING ENTERPRISES: 1919.

STATE.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.
United States	48	4,373	100.0	$10,300,198	100.0
Florida	23	2,330	53.3	6,678,888	64.8
Tennessee	19	1,568	35.9	3,139,671	30.5
South Carolina and Kentucky	3	438	10.0	412,084	4.0
Idaho and Utah	3	37	0.8	69,555	0.7

PROGRESS OF THE INDUSTRY.

Comparative statistics for producing mines in the United States: 1889–1919.—Table 5 presents for producing phosphate-rock mining enterprises in the United States the principal statistics reported at the Fourteenth Census and the three preceding censuses of mines and quarries. This table indicates large increase in the phosphate-rock mining industry during the two decades 1889–1909. In contrast, the statistics for 1919 and 1909 show decreases in the number of enterprises, mines, persons engaged, and in the value of products; the increase in the principal expenses is merely nominal on account of the general price increases during the decade.

TABLE 5.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919, 1909, 1902, AND 1889.

	1919	1909	1902	1889	PER CENT OF INCREASE.[1] 1909–1919.	1902–1909.	1889–1902.
Number of enterprises	48	71	87	(2)			
Number of mines	69	153	115	(2)	−54.9	33.0	
Persons engaged	4,761	8,260			−42.4		
Proprietors and firm members	14	17	(2)	(2)			
Salaried employees	374	370	391	(3)	1.1	−5.4	
Wage earners (average number)	4,373	7,873	5,971	5,011	−44.5	31.9	19.2
Power used (aggregate horsepower)	49,639	50,526	14,229	(3)	−1.8	255.1	
Capital	$72,733,956	$30,642,656	(2)	$6,131,718	137.4		
Principal expenses:							
Salaries	761,423	590,990	$355,204	1,209,151	28.8	66.4	
Wages	3,900,966	3,215,661	1,930,093		21.3	66.6	
Contract work	163,696	251,849	157,402	115,930	−35.0	60.0	35.8
Supplies and materials	2,161,501	898,657	[4] 799,414	317,159	140.5		
Fuel and purchased power	1,819,301	1,360,308	(3)	(3)	33.7		
Royalties and rents	209,687	345,568	212,350	(3)	−39.3	62.7	
Taxes	347,580	86,859	(3)	(3)	300.2		
Value of products	10,300,198	10,781,192	4,922,943	2,937,776	−4.5	119.0	67.6

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.
[2] Not reported.
[3] Comparable figures not available.
[4] Includes cost of fuel.

Table 6 shows the production of phosphate rock marketed annually from 1889 to 1920 as reported by the United States Geological Survey. These statistics show great progress in the industry until 1913 but a decline during the war period. The depression in the year 1919, as indicated by these statistics, was due to a diminished foreign market and labor difficulties.

TABLE 6.—MARKETED PRODUCTION OF PHOSPHATE ROCK: 1889 TO 1920.[1]

YEAR.	Quantity (tons, 2,240 pounds).	Value.	YEAR.	Quantity (tons, 2,240 pounds).	Value.
1889	550,245	$2,937,776	1905	1,947,190	$6,763,403
1890	510,499	3,213,795	1906	2,080,957	8,579,437
1891	587,988	3,651,150	1907	2,265,343	10,653,558
1892	681,571	3,296,227	1908	2,386,138	11,399,124
1893	941,368	4,136,070	1909	2,338,264	10,796,456
1894	996,949	3,479,547	1910	2,654,988	10,917,000
1895	1,038,551	3,606,094	1911	3,053,279	11,900,693
1896	930,779	2,803,372	1912	2,973,332	11,675,774
1897	1,039,345	2,673,202	1913	3,111,221	11,796,231
1898	1,303,885	3,453,460	1914	2,734,043	9,608,041
1899	1,515,702	5,084,076	1915	1,835,667	5,413,449
1900	1,491,216	5,359,248	1916	1,982,385	5,890,993
1901	1,483,723	5,316,403	1917	2,584,287	7,771,084
1902	1,490,314	4,693,444	1918	2,490,760	8,214,463
1903	1,581,576	5,319,294	1919	2,271,983	11,591,268
1904	1,874,428	6,580,875	1920	4,103,932	25,079,572

[1] U. S. Geological Survey, "Mineral Resources of the United States."

Power per enterprise and per wage earner: 1919 and 1909.—Table 7 presents comparative statistics for 1919 and 1909 regarding the power used and shows that while there was a slight decrease in the aggregate horsepower used, this was due to decrease in the number of enterprises, as the horsepower per enterprise shows increase. The horsepower per wage earner in the enterprises operated during 1919 was nearly double the horsepower per wage earner in 1909. There is thus indicated some progress in the industry through relatively larger use of mechanical equipment.

TABLE 7.—POWER USED PER ENTERPRISE AND PER WAGE EARNER: 1919 AND 1909.

	1919	1909	Per cent of increase.[1]
Number of enterprises	48	71	
Wage earners (average number)	4,373	7,873	−44.5
Power used (aggregate horsepower)	49,639	50,526	−1.8
Horsepower per enterprise	1,034	712	45.2
Horsepower per wage earner	11	6	

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.

CHARACTER OF ORGANIZATION.

The character of organization of operating enterprises in the phosphate-rock mining industry in the United States as a whole is shown in Table 8. More than four-fifths of the enterprises were corporations, which employed 92.8 per cent of the average number of wage earners and reported 92.7 per cent of the total value of products. Other enterprises conducted by individuals and firms were relatively small.

TABLE 8.—CHARACTER OF ORGANIZATION, PRODUCING ENTERPRISES: 1919.

CHARACTER OF ORGANIZATION.	Number of enterprises.	Wage earners (average number).	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Amount.	Per enterprise.	Enterprise.	Wage earners (average number).	Value of products.
All classes	48	4,373	$10,300,198	$214,587	100.0	100.0	100.0
Corporation	39	4,058	9,546,209	244,775	81.2	92.8	92.7
Individual	4	95	187,858	46,964	8.3	2.2	1.8
Firm	5	220	566,131	113,226	10.4	5.0	5.5

SCALE OF OPERATION.

Size of enterprises according to value of products.—Table 9 gives, for the United States as a whole and for Florida and Tennessee separately, the number of enterprises and value of products, with per cent distribution, for enterprises grouped according to the value of their products. The largest enterprises, those producing products valued at more than $500,000, numbered only 7, or one-seventh of the total number, but produced more than half the total value of products.

TABLE 9.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS: 1919.

STATE AND VALUE OF PRODUCTS PER ENTERPRISE.	ENTERPRISES.		VALUE OF PRODUCTS.	
	Number.	Per cent distribution.	Amount.	Per cent distribution.
UNITED STATES	48	100.0	$10,300,198	100.0
Less than $20,000 [1]	8	16.7	66,217	0.6
$20,000 to $100,000	16	33.3	897,741	8.7
$100,000 to $500,000	17	35.4	4,052,511	39.3
$500,000 and over [2]	7	14.6	5,283,729	51.3
FLORIDA	23	100.0	6,678,888	100.0
Less than $100,000 [3]	7	30.4	429,171	6.4
$100,000 to $500,000	11	47.8	2,417,068	36.2
$500,000 and over [2]	5	21.7	3,832,649	57.4
TENNESSEE	19	100.0	3,139,671	100.0
Less than $20,000 [1]	6	31.6	47,544	1.5
$20,000 to $100,000	6	31.6	294,783	9.4
$100,000 and over [4]	7	36.8	2,797,344	89.1

[1] Includes the group "Less than $5,000."
[2] Includes the group "$1,000,000 to $5,000,000."
[3] Includes the group "$5,000 to $20,000."
[4] Includes the group "$500,000 to $1,000,000."

Size of enterprises according to average number of wage earners employed.—Table 10 shows, for the United States as a whole, and for states and groups of states, the enterprises classified according to the average number of wage earners employed. In the United States as a whole, 1 enterprise employed no wage earners, and 33 had fewer than 101 wage earners each and employed only 26.7 per cent of the wage earners. The larger enterprises, that is, those employing more than 100 wage earners each, numbered 14 and employed 73.2 per cent of the wage earners. These enterprises were in Florida, South Carolina, and Tennessee.

TABLE 10.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919.

STATE AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS (AVERAGE NUMBER).	
	Number.	Per cent distribution.	Number.	Per cent distribution.
UNITED STATES	48	100.0	4,373	100.0
No wage earners	1	2.1		
1 to 5	2	4.2	9	0.2
6 to 20	10	20.8	122	2.8
21 to 50	11	22.9	360	8.2
51 to 100	10	20.8	679	15.5
101 to 500	14	29.2	3,203	73.2
FLORIDA	23	100.0	2,330	100.0
6 to 20	3	13.0	41	1.8
21 to 50	7	30.4	247	10.6
51 to 100	6	26.1	366	15.7
101 to 500	7	30.4	1,676	71.9
TENNESSEE	19	100.0	1,568	100.0
No wage earners	1	5.3		
1 to 5	2	10.5	9	0.6
6 to 20	4	21.1	44	2.8
21 to 50	4	21.1	113	7.2
51 to 100	3	15.8	246	15.7
101 to 500	5	26.3	1,156	73.7
SOUTH CAROLINA AND KENTUCKY	3	100.0	438	100.0
51 to 100	1	33.3	67	15.3
101 to 500	2	66.7	371	84.7
IDAHO AND UTAH	3	100.0	37	100.0
6 to 20	3	100.0	37	100.0

Size of enterprises according to acreage of mineral land.—In Table 11 the enterprises are classified according to the number of acres of mineral land operated, and for each group the number of mines and the number of acres operated are shown. The largest number of enterprises was in the class operating the largest holdings of mineral land—1,000 acres and over—and the next largest number was in the class operating from 200 to 500 acres each. Practically 80 per cent of the enterprises were in classes operating more than 200 acres each and together they reported 99.5 per cent of the total acreage.

TABLE 11.—SIZE OF PRODUCING ENTERPRISES, BY NUMBER OF ACRES OF MINERAL LAND: 1919.

ACRES PER ENTERPRISE.	ENTERPRISES.		Number of mines.	MINERAL LAND.	
	Number.	Per cent distribution.		Acres.	Per cent distribution.
All classes	48	100.0	69	160,447	100.0
1 to 50	5	10.4	7	106	0.1
50 to 100	2	4.2	2	185	0.1
100 to 200	3	6.2	11	459	0.3
200 to 500	10	20.8	12	3,430	2.1
500 to 1,000	6	12.5	6	4,849	3.0
1,000 and over	22	45.8	31	151,418	94.4

PERSONS ENGAGED IN THE INDUSTRY.

Persons according to class and sex.—Table 12 shows the persons engaged in the phosphate-rock

mining industry by classes, showing the number of males and females and the per cent distribution. The salaried employees, numbering 374, constituted only 7.8 per cent of the total number of persons engaged in the industry. Only 31 females, representing seven-tenths of 1 per cent of the total number of persons employed, were reported among the salaried employees. Twenty-three female wage earners, or four-tenths of 1 per cent of all wage earners, were reported working on the representative day.

TABLE 12.—PERSONS ENGAGED IN THE INDUSTRY, PRODUCING ENTERPRISES: 1919.

	Number.	Per cent of total.
Persons engaged	4,761	100.0
Proprietors and firm members.....male..	14	0.3
Salaried officers.....male..	43	0.9
Superintendents and managers.....male..	106	2.2
Technical employees.....male..	60	1.3
Clerks—		
Male	134	2.8
Female	31	0.7
Wage earners (average number)	4,373	91.9
Wage earners, December 15, or nearest representative day..	5,913	100.0
Male	5,890	99.6
Female	23	0.4
Wage earners under 16 (included above)	1	.....

Wage earners, by occupations.—Table 13 shows the number of wage earners, employed on December 15 or the nearest representative day, classified according to occupation, gives the per cent distribution for each occupational class, and also the number in each class employed above ground and below ground. The table distinguishes between men engaged in the more peculiarly mining occupations, such as miners, quarrymen, drillmen, timbermen, trackmen, trammers, and their helpers; men in other skilled trades such as enginemen, hoistmen, firemen, machinists, electricians, carpenters, and other mechanics; and less skilled and unclassified laborers. The table shows that 94.4 per cent of the total number of wage earners were engaged in mining operations proper, and that 5.6 per cent were employed in beneficiating plants. Only 2.5 per cent of the total number were employed below ground.

TABLE 13.—WAGE EARNERS, BY OCCUPATIONS, PRODUCING ENTERPRISES: 1919.

CLASS OF WAGE EARNERS.	NUMBER OF WAGE EARNERS DEC. 15 OR NEAREST REPRESENTATIVE DAY.			
	Total.	Per cent distribution.	Above-ground.	Below ground.
All classes	5,913	100.0	5,764	149
Foremen, shift bosses, etc	294	5.0	291	3
Enginemen, hoistmen, electricians, mechanics, etc	1,154	19.5	1,154	.....
Miners, quarrymen, and drillmen, including their helpers	1,084	18.3	968	116
Timbermen, trackmen, and men engaged in hauling, tramming, etc	450	7.6	443	7
Muckers, loaders, laborers, and others not classified	2,600	44.0	2,577	23
Wage earners employed in mills and beneficiating plants	331	5.6	331	.....

Wage earners, by months.—Table 14 shows, for the United States as a whole and for states and groups of states, the number of wage earners employed on the 15th day, or the nearest representative day, of each month and the average number of wage earners, and also indicates the months of minimum and maximum employment, and shows the ratio of the minimum to the maximum number. The changes in the number employed from month to month reflect conditions prevailing in the phosphate-rock industry during the census year. The numbers for Florida, which largely affect the totals for the United States, were unusual for the months from May to September and were due to strikes. These statistics for 1919 are therefore not representative of the industry.

It will be noted that the number of wage earners reported for all enterprises on the representative day, which is presented in several other tables, aggregated 5,913, or somewhat more than the number shown in Table 14 for December 15, which was the largest number reported for the 15th day of any month. While for most mines the representative day selected for reporting wage earners in detail was December 15, for other mines for which December was not a representative month, reports were made for some other date. Therefore, the aggregate for the representative day differs from the total of the numbers reported by each enterprise for the month of December.

TABLE 14.—WAGE EARNERS, BY MONTHS, PRODUCING ENTERPRISES: 1919.

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

STATE.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	4,373	4,583	4,865	4,741	4,972	3,259	*2,902*	3,419	3,873	4,094	4,639	5,358	5,771	50.3
Florida	2,330	2,867	2,937	2,852	2,955	1,179	*814*	1,277	1,649	1,870	2,553	3,190	**3,817**	21.3
Tennessee	1,568	*1,501*	1,493	1,458	1,577	1,049	1,624	1,657	1,733	1,695	1,577	1,633	1,419	75.1
South Carolina and Kentucky	438	*396*	414	413	421	401	428	448	444	470	463	483	475	82.0
Idaho and Utah	37	19	21	*18*	19	30	36	37	47	59	46	52	**60**	30.0

Prevailing hours of labor.—Table 15 shows the producing enterprises classified according to the prevailing hours of labor per week and gives the average number of wage earners employed in each class. In the United States as a whole, for a majority of the enterprises and for 84.2 per cent of the wage earners employed, the hours of labor were 54 to 62 per week and the 10-hour day and 6-day week prevailed. The same hours ruled in all states except Idaho and Utah where the hours of labor were 8 per day and 48 per week.

TABLE 15.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR: 1919.

STATE.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—									
			35 and under.		36 to 43.		44 to 53.		54 to 62.		72 to 84.	
	Enterprises.	Wage earners (average number).	Enterprises.	Wage earners (average number).	Enterprises.	Wage earners (average number).	Enterprises.	Wage earners (average number).	Enterprises.	Wage earners (average number).	Enterprises.	Wage earners (average number).
United States	[1] 47	4,373	1	5	1	30	6	309	36	3,683	3	346
Florida	23	2,330	.....	.....	.....	.....	2	247	18	1,737	3	346
Tennessee	[1] 18	1,568	1	5	1	30	1	25	15	1,508	.....	.....
South Carolina and Kentucky	3	438	.....	.....	.....	.....	.....	.....	3	438	.....	.....
Idaho and Utah	3	37	.....	.....	.....	.....	3	37	.....	.....	.....	.....

[1] Exclusive of 1 enterprise employing no wage earners.

LAND TENURE AND ROYALTIES.

Land tenure.—Table 16 shows for 1919, the number of acres of land controlled by producing phosphate-rock mining enterprises. The table distinguishes mineral land (that is, land held for its content of phosphate rock) from timber and other lands, and shows the mineral land according to form of tenure. In Table 17 enterprises in the industry are grouped according to form of tenure of mineral land; that is, whether held by ownership, under lease, or partly by ownership and partly under lease. This table shows that 97.5 per cent of the phosphate-rock land controlled by the producing enterprises was owned by the operators and that, in the East South Central and South Atlantic regions only a relatively small number of acres were operated under lease.

TABLE 16.—LAND CONTROLLED, PRODUCING ENTERPRISES: 1919.

STATE.	Aggregate (acres).	MINERAL LAND (ACRES).			Timber and other lands (acres).
		Total.	Owned.	Held under lease.	
United States	241,810	160,447	156,418	4,029	81,363
Florida	188,002	108,925	106,685	2,240	79,077
Tennessee	25,733	23,452	22,073	1,379	2,286
South Carolina and Kentucky	26,785	26,785	26,375	410	.....
Idaho and Utah	1,285	1,285	1,285	.....	.....

TABLE 17.—NUMBER OF PRODUCING ENTERPRISES AND ACRES OF MINERAL LAND CONTROLLED, CLASSIFIED ACCORDING TO FORM OF TENURE: 1919.

STATE.	ALL CLASSES.					ENTERPRISES OPERATING ONLY OWNED LAND.			ENTERPRISES OPERATING ONLY LAND HELD UNDER LEASE.			ENTERPRISES OPERATING LAND PARTLY OWNED AND PARTLY HELD UNDER LEASE.				
	Number of enterprises.	Acres controlled.				Number of enterprises.	Acres controlled.		Number of enterprises.	Acres controlled.		Number of enterprises.	Acres controlled.			
		Aggregate.	By ownership.	By lease.	Per cent owned is of aggregate.		By ownership.	Per cent of aggregate.		By lease.	Per cent of aggregate.		Total.	By ownership.	By lease.	Per cent of aggregate.
United States	48	160,447	156,418	4,029	97.5	35	148,129	92.3	9	2,769	1.7	4	9,549	8,289	1,260	6.0
Florida	23	108,925	106,685	2,240	97.9	18	100,285	92.1	4	2,090	1.9	1	6,550	6,400	150	6.0
Tennessee	19	23,452	22,073	1,379	94.1	12	20,245	86.3	5	679	2.9	2	2,528	1,828	700	10.8
South Carolina and Kentucky	3	26,785	26,375	410	98.5	2	26,314	98.2	.....	.....	.....	1	471	61	410	1.8
Idaho and Utah	3	1,285	1,285	.....	100.0	3	1,285	100.0	.....	.....	.....	.....	.....	.....	.....	.....

Table 18 presents comparative statistics for 1919 and 1909 pertaining to the acreage of mineral land and other lands controlled. There was notable decrease in both mineral and other lands reported, but a particularly large decrease in the acres of mineral land operated under lease. These decreases are in accord with the decrease in the number of mines operated as explained in the discussion of Table 5.

TABLE 18.—COMPARATIVE STATISTICS, LAND CONTROLLED, PRODUCING ENTERPRISES: 1919 AND 1909.

CHARACTER AND TENURE OF LAND.	ACRES.		
	1919	1909	Per cent of increase.[1]
Total land	241,810	340,697	−29.0
Mineral land	160,447	243,221	−34.0
Owned	156,418	230,405	−32.1
Leased	4,029	12,816	−68.6
Timber and other lands	81,363	97,476	−16.5

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

Royalties.—The census of 1919 did not distinguish between royalties or rents paid for mineral land, and rents of other kinds, but, as these other rents are generally insignificant, statistics presented on royalties and rents may, where mineral lands are leased, be taken to cover only royalties or rents of mineral land. Royalty, which is a compensation for the privilege of mining leased lands, is either a fixed share of the product or a percentage of the value of product.

Table 19, in which the enterprises are classified according to form of land tenure, shows for each class the number of enterprises, the value of products, and the royalties and rents paid. Approximately three-fourths of the enterprises operated only owned land and reported only a small amount of rents, probably for buildings, equipment, easements, or privileges. The enterprises operating on leased land and on land partly owned and partly leased reported royalties amounting to 7.6 per cent of the value of their products.

TABLE 19.—VALUE OF PRODUCTS AND ROYALTIES AND RENTS, FOR PRODUCING ENTERPRISES, CLASSIFIED ACCORDING TO TENURE OF MINERAL LAND: 1919.

CLASSES OF ENTERPRISES.	Number of enterprises.	Value of products.	Royalties and rents.
All classes	48	$10,300,198	$209,687
Enterprises operating:			
Only owned land	35	8,197,622	50,917
Only land held under lease	9	869,094	139,271
Land partly owned and partly held under lease	4	1,233,482	19,499

POWER.

Power equipment used.—The number and horsepower of the several types of prime movers and of electric motors used by the phosphate-rock producing enterprises in 1919 are presented for the United States as a whole and separately for states, in so far as they can be shown without disclosure, in the table of detailed statistics. Comparative statistics for 1919 and 1909 are presented for the United States as a whole in Table 20 which shows the number and horsepower of the power equipment used by producing enterprises and the per cent of increase or decrease. The table shows a slight decrease in the aggregate horsepower used, which, as indicated in the section on progress of the industry, is due to the decrease in the number of enterprises reporting. This decrease in aggregate horsepower was brought about by a decrease in horsepower of prime movers used, which was nearly offset by the increase in horsepower of electric motors operated by purchased current. A notable increase in the use of electrically driven equipment is shown by the increases in horsepower of electric motors operated by both current purchased and current generated by the enterprise reporting.

TABLE 20.—COMPARATIVE STATISTICS, POWER USED, PRODUCING ENTERPRISES: 1919 AND 1909.

	1919	1909	Per cent of increase.[1]
Power used: Aggregate horsepower	49,639	50,526	−1.8
Prime movers (total horsepower)	46,976	50,426	−6.8
Steam engines—			
Number	117	549	−78.7
Horsepower	34,891	46,817	−25.5
Internal-combustion engines—			
Number	44	32	.....
Horsepower	12,085	3,609	234.9
Equipment operated by purchased power (total horsepower)	2,663	100	2,563.0
Electric motors—			
Number	38	1	.....
Horsepower	2,663	100	2,563.0
Electric motors run by current generated by the enterprise reporting:			
Number	320	339	−5.6
Horsepower	33,107	21,388	54.8

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.

GENERAL TABLE.

Table 21 is a detailed presentation for 1919 of the statistics for phosphate-rock producing enterprises in the United States as a whole and separately by states in so far as they can be shown without disclosure of individual operations. As but one phosphate-rock mining enterprise reported operations for development only, statistics for nonproducing operations can not be shown in this table. The table gives the number of enterprises, and mines, and the number of enterprises operating beneficiating plants; acreage of land controlled according to character and the tenure of mineral land; the capital invested; the principal expenses of operation and development; the persons engaged in the industry by classes and the wage earners according to occupation; and statistics with regard to number and horsepower of power equipment, and with regard to fuel used.

TABLE 21.—DETAILED STATISTICS FOR THE PHOSPHATE-ROCK MINING INDUSTRY, BY STATES: 1919.

	PRODUCING ENTERPRISES.				
	Total.	Florida.	Tennessee.	South Carolina and Kentucky.	Idaho and Utah.
Number of enterprises	48	23	19	3	3
Number of mines	69	40	23	3	3
Number of enterprises operating beneficiating plants	20	8	10	2	
Mineral land operated—acres	160,447	108,925	23,452	26,785	1,285
Land controlled, total—acres	241,810	188,002	25,738	26,785	1,285
Mineral land owned—acres	156,418	106,685	22,073	26,375	1,285
Mineral land held under lease—acres	4,029	2,240	1,379	410	
Timber and other lands—acres	81,363	79,077	2,286		
Capital	$72,733,956	$55,740,488	$14,657,494	$1,665,961	$670,013
Principal expenses	$9,364,154	$6,244,717	$2,538,424	$496,398	$84,615
Salaries and wages—					
Officers, superintendents, managers, and technical employees	$536,477	$419,376	$120,111	$19,820	$7,170
Clerks, etc.	$194,946	$130,595	$54,092	$8,909	$750
Wage earners	$3,900,966	$2,372,141	$1,174,759	$300,033	$54,033
Supplies and materials	$2,161,501	$1,455,370	$338,533	$59,800	$7,798
Fuel	$1,736,833	$1,277,999	$379,182	$81,817	$835
Purchased power	$79,468	$69,786	$1,750	$7,244	$688
Royalties and rents	$209,687	$128,834	$70,553	$10,300	
Taxes—Federal, state, county, and local	$347,580	$275,354	$63,423	$8,475	$328
Contract work	$163,696	$115,262	$35,421		$13,013
Expenditures for development (included in principal expenses)	$353,237	$301,881	$32,065	$16,211	$3,080
Value of products	$10,300,198	$6,678,888	$3,139,671	$412,084	$69,555
Persons engaged in industry	4,761	2,585	1,674	459	43
Proprietors and officials	223	149	59	10	5
Proprietors and firm members	14	5	5	2	2
Salaried officers	43	27	16		
Superintendents and managers	106	65	31	7	3
Technical employees	60	52	7	1	
Clerks, etc.—					
Male	134	87	38	8	1
Female	31	19	9	3	
Wage earners (average number)	4,373	2,330	1,563	438	37
Wage earners, number 15th day of—					
Maximum month	Dec. 5,771	Dec. 3,817	Aug. 1,733	Nov. 483	Dec. 60
Minimum month	June 2,902	June 814	Jan. 1,301	Jan. 396	Mar 18
Wage earners by occupations, Dec. 15, or nearest representative day—					
Above ground (total)	5,764	3,803	1,456	478	27
Below ground (total)	149		115		34
Foremen, shift bosses, etc.—					
Above ground	291	227	48	16	
Below ground	3		2		1
Enginemen, hoistment, electricians, mechanics, etc.—					
Above ground	1,154	918	189	47	
Miners, quarrymen, and drillmen, including their helpers—					
Above ground	968	603	294	71	
Below ground	116		90		26
Timbermen, trackmen, and men engaged in hauling, tramming, etc.—					
Above ground	443	203	162	78	
Below ground	7		7		
Muckers, loaders, laborers, and others not classified—					
Above ground	2,577	1,686	639	225	27
Below ground	23		16		7
Wage earners employed in mills and beneficiating plants—					
Above ground	331	166	124	41	
Number of wage earners under 16 years of age included in those reported above:					
Above ground	1		1		
Number of females included in wage earners reported above:					
Above ground	23	23			
Power used: Aggregate horsepower	49,039	40,996	7,168	1,275	200
Prime movers (horsepower, total)	46,976	38,881	7,070	1,025	
Steam engines, not turbines—					
Number	100	27	55	18	
Horsepower	17,140	9,095	7,020	1,025	
Steam turbines—					
Number	17	17			
Horsepower	17,751	17,751			
Internal-combustion engines—					
Number	44	43	1		
Horsepower	12,085	12,035	50		
Equipment operated by purchased power (horsepower, total)	2,663	2,115	98	250	200
Electric motors—					
Number	38	23	5	6	4
Horsepower	2,663	2,115	98	250	200
Electric motors run by current generated by the enterprise reporting:					
Number	320	253	63	4	
Horsepower	33,107	31,115	1,792	200	
Fuel used:					
Coal, anthracite—tons, 2,240 pounds	28				28
Coal, bituminous—tons, 2,000 pounds	121,273	19,621	88,029	13,623	
Coke—tons, 2,000 pounds	146	146			
Wood—cords	39,961	32,022	5,679	2,260	
Fuel oils—barrels	657,284	657,039	245		
Gasoline and other volatile oils—barrels	10,871	10,786	42		43

GYPSUM.

INTRODUCTION.

This report presents the results of the census of mines and quarries for the year 1919 relating to the production of gypsum. It includes statistics showing the progress of the industry by comparison of results of the 1919 census with those of the preceding censuses of mines and quarries; also statistics for 1919 showing the character of organization of operating enterprises, scale of operation, persons engaged in the industry, acreage of mineral and other lands controlled, power equipment used, and a general table presenting statistics in detail for the United States, and separately for such states as can be shown without disclosure of individual operations.

Definitions and explanations.—Gypsum, either in the form of massive or rock gypsum, or the earthy material gypsite, is the raw material mined for use in the manufacture of plaster of Paris; wall plaster; stucco; plaster board and wall board; partition, roof, and other tiles; Portland cement; and as agricultural gypsum. Gypsum is sometimes sold crude; more often sold calcined as plaster; for the most part, however, it is not sold crude, or simply calcined, but is used by the producer in the manufacture of gypsum products and enters the market only in manufactured form. The principal producers of gypsum operate mills or manufacturing plants at the gypsum mines and quarries. The statistics herein presented relate primarily to the gypsum-mining industry with which is included the calcining of gypsum and its preparation for further manufacture. Returns were received from some producers reporting separately the mining activities of the business, and from other producers making combined reports on mining and manufacturing activities. The latter were, so far as possible, segregated so that mining and manufacturing statistics could be separately tabulated. For some establishments insufficient information was available for such segregation, and in these cases the full reports covering both mining and manufacturing activities have been included in the statistics of the gypsum-mining industry.

Gypsum is obtained both by quarrying or mining in open pits and by mining under ground. Either method may be practiced in any region as the thickness of the overburden chiefly determines the method of operation.

The gypsum resources of the United States include deposits in the east in New York, Virginia, Ohio, and Michigan; in the western Mississippi Valley in Iowa, South Dakota, Kansas, Oklahoma, and Texas; and in the western region in Arizona, California, Colorado, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming.

Method of reporting quantity and value of products.—The statistics relating to the production of gypsum were collected in cooperation with the United States Geological Survey, for which purpose there was provided, in addition to the general schedule for the census, a supplemental schedule requesting special information desired by the Geological Survey. These schedules called for the quantity and value at the mine of gypsum produced and also for the quantity and value at the mill of gypsum in gypsum products manufactured and in gypsum products used or sold. The Census Bureau required the value of products at the mine or plant; the Geological Survey, the total quantity mined and the quantity and value of gypsum sold or used by the producer. The value of products as reported by the two bureaus for 1919 are compared in the following statement:

	Bureau of the Census.	Geological Survey.
United States	$6,805,940	$15,727,907
New York	1,110,463	3,530,743
Iowa	1,092,920	2,634,444
All other states[1]	4,602,557	9,562,720

[1] Includes Arizona, California, Colorado, Kansas, Michigan, Nevada, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Texas, Utah, Virginia, and Wyoming for both bureaus' figures; the Geological Survey figures include also the production of Alaska and Montana and a small quantity of gypsum sold by warehouses.

Practically all of the differences here shown are accounted for by the fact that the Geological Survey reports as value of products the value of gypsum sold as such and gypsum in manufactured products sold or used by the producer, while the Bureau of the Census reports the value to the producer of his output, whether raw or calcined gypsum or gypsum products.

As the Bureau of the Census did not tabulate the quantity of gypsum produced in 1919, available information is limited to that contained in the United States Geological Survey's publication "Mineral Resources of the United States: 1919," from which Table 1 is quoted.

TABLE 1.—GYPSUM PRODUCED AND SOLD IN THE UNITED STATES, BY STATES: 1919.[1]

STATE.	Number of plants reporting.	Total quantity mined (tons, 2,000 pounds).	SOLD WITHOUT CALCINING.				SOLD AS CALCINED PLASTER.		Total value.
			Agricultural gypsum.		For Portland cement, paint, and other purposes.		Quantity (tons, 2,000 pounds).	Value.	
			Quantity (tons, 2,000 pounds).	Value.	Quantity (tons, 2,000 pounds).	Value.			
United States	57	2,420,163	39,978	$185,566	470,267	$1,332,637	1,596,020	$14,209,704	$15,727,907
Iowa	6	421,279	2,405	8,760	66,619	222,672	264,656	2,403,012	2,634,444
Kansas	3	78,479	(2)	(2)	(2)	(2)	[2] 66,008	[2] 520,673	520,673
Michigan	6	339,125	1,597	10,422	57,157	163,688	250,687	2,216,257	2,390,367
Nevada	3	91,756	(2)	(2)	(2)	(2)	[2] 79,181	[2] 497,561	497,561
New York	8	501,153	5,458	23,984	210,959	596,355	316,767	2,910,404	3,530,743
Ohio	3	251,259	1,435	6,363	6,390	20,373	219,900	2,022,987	2,049,723
Oklahoma	5	114,313	(2)	(2)	24,761	63,920	[2] 72,013	[2] 644,740	708,660
Texas	5	176,607	(2)	(2)	10,637	16,442	[2] 130,656	[2] 1,064,312	1,080,754
Wyoming	3	51,079					37,314	282,587	282,587
All other states[3]	15	305,113	24,902	128,840	69,662	193,794	187,101	1,709,761	2,032,395

[1] U. S. Geological Survey, Mineral Resources of the United States: 1919.
[2] Crude gypsum is included with calcined plaster.
[3] Includes Alaska, Arizona, California, Colorado, Montana, New Mexico, Oregon, South Dakota, Utah, and Virginia; and also a small quantity sold by warehouses and not accounted for elsewhere.

PRINCIPAL STATISTICS.

Table 2 presents by states and groups of states the principal statistics for producing gypsum mines in 1919. No activities on unproductive properties were reported for that year. On the basis of total value of products—$6,805,940—this industry ranked fifteenth, and on the basis of average number of wage earners employed—2,191—it ranked fourteenth among the mining industries in the United States in 1919.

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

	United States.	New York.	Other eastern states.[1]	Iowa.	Western states.[2]
Number of enterprises	47	6	8	5	28
Number of mines	48	6	8	5	29
Mineral land operated..acres.	41,703	2,471	5,783	1,519	31,930
Persons engaged	2,477	446	694	487	850
Proprietors and firm members, total	4	1			3
Number performing manual labor	3	1			2
Salaried employees	282	45	73	43	121
Wage earners (average number)	2,191	400	621	444	726
Power used (aggregate horsepower)	15,032	1,706	5,179	2,057	6,090
Capital	$13,541,548	$1,559,514	$4,816,157	$2,124,006	$5,041,871
Principal expenses:					
Salaries	555,450	78,923	152,756	85,467	238,304
Wages	2,478,391	515,650	709,035	495,747	757,959
Contract work	3,747				3,747
Supplies and materials	1,530,338	263,914	421,754	206,180	638,490
Fuel and purchased power	660,420	84,486	171,786	132,600	271,548
Royalties and rents	69,403	31,946	14,032	21,021	2,404
Taxes	81,983	9,576	23,976	7,546	40,885
Value of all products	6,805,940	1,110,463	1,857,633	1,092,920	2,744,924

[1] Includes enterprises in states listed in order of value of products as follows: Michigan, 4; Virginia, 2; Ohio, 2.
[2] Includes enterprises in states listed in order of value of products as follows: Nevada, 3; Texas, 3; Wyoming, 4; Oklahoma, 5; Kansas, 3; Utah, 2; New Mexico, 1; Oregon, 1; Arizona, 1; South Dakota, 2; Colorado, 2; California, 1.

There were 25 operators during the census year who reported for 47 enterprises and 48 mines. Three operators reported a majority of the enterprises, and each of these three operated in various parts of the United States. As the industry is so largely controlled by a few operators, analysis of the statistics can not be presented in detail without disclosure of individual operations.

GEOGRAPHIC DISTRIBUTION.

Statistics can be shown separately for only the two leading states, New York and Iowa; other producing states are grouped as "Other eastern states" and as "Western states." Table 2 shows the principal statistics for these states and groups of states, and Table 3 shows the rank by the per cent distribution of the value of products and average number of wage earners for these states and groups. On the basis of value of products New York and Iowa, with six and five enterprises, respectively, each accounted for approximately one-sixth of the production. Measured either by value of products or by average number of wage earners, the region west of the Mississippi River was the most important in the industry, reporting 56.4 per cent of the total value of products and 53.4 per cent of the total average number of wage earners.

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

STATE.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.
United States	47	2,191	100.0	$6,805,940	100.0
New York	6	400	18.3	1,110,463	16.3
Iowa	5	444	20.3	1,092,920	16.1
Other eastern states[1]	8	621	28.3	1,857,633	27.3
Western states[2]	28	726	33.1	2,744,924	40.3

[1] Includes states listed in order of value of products as follows: Michigan, Virginia, Ohio.
[2] Includes states listed in order of value of products as follows: Nevada, Texas, Wyoming, Oklahoma, Kansas, Utah, New Mexico, Oregon, Arizona, South Dakota, Colorado, California.

PROGRESS OF THE INDUSTRY.

Comparative statistics for producing enterprises in the United States: 1889–1919.—Table 4 presents, for producing gypsum enterprises in the United States as a whole, the principal statistics reported at the Fourteenth Census and the three preceding censuses of mines and quarries. This table indicates large increase in the gypsum-mining industry during the two decades 1889 to 1909. The average number of wage earners in 1909 was more than four times the number in 1889 and the value of products increased nearly 700 per cent. In contrast to this progress, the statistics show decreases, during the decade 1909 to 1919, in the number of enterprises, mines, persons engaged, and power used; the increases shown for wages, cost of supplies and materials and fuel and power, and value of products are in accord with these decreases because they are less than sufficient to offset the general price increases during the decade. These figures should be interpreted, not as indicating an actual decline in the industry, but rather as a measure of the effect on the gypsum industry of business depression during the census year. The Geological Survey's annual figures on the production of gypsum, as presented in Table 5, show a large growth in the industry from 1889 up to 1917, when it was checked by the war's effect on construction work in which gypsum products are largely used.

TABLE 4.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919, 1909, 1902, AND 1889.

	1919	1909	1902	1889	PER CENT OF INCREASE.[1]		
					1909–1919	1902–1909	1889–1902
Number of enterprises	47	78	45	(2)			
Number of mines	48	222	62	(2)	−78.4		
Persons engaged	2,477	3,899			−36.5		
Proprietors and firm members, total	4	6	(2)	(2)			
Number performing manual labor	3	4	(2)	(2)			
Salaried employees	282	431	249	(3)	−34.6	73.1	
Wage earners (average number)	2,191	3,462	1,472	761	−36.7	135.2	93.4
Power used (aggregate horsepower)	15,032	17,685	7,319	(3)	−15.0	141.6	
Capital	$13,541,548	$10,213,284	(2)	$2,473,175	32.6		
Principal expenses:							
Salaries	555,450	551,889	$300,420	249,200	0.6	83.7	
Wages	2,478,391	1,820,877	759,258		36.1	139.8	
Contract work	3,747	16,558	406	10,031	−77.4		
Supplies and materials	1,530,338	986,658	[4] 341,760	128,354	55.1		
Fuel and purchased power	660,420	573,459	(3)	(3)	15.2		
Royalties and rents	69,403	74,916	49,912	(3)	−7.4	50.1	
Taxes	81,983	39,062	(3)	(3)	109.9		
Value of products	6,805,940	5,812,810	2,089,341	764,118	17.1	178.2	173.4

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.
[2] Not reported.
[3] Comparable figures not available.
[4] Includes cost of fuel.

TABLE 5.—CRUDE GYPSUM MINED IN THE UNITED STATES: 1889 TO 1919.[1]

YEAR.	Quantity (tons, 2,000 pounds).	YEAR.	Quantity (tons, 2,000 pounds).	YEAR.	Quantity (tons, 2,000 pounds).	YEAR.	Quantity (tons, 2,000 pounds).	YEAR.	Quantity (tons, 2,000 pounds).	YEAR.	Quantity (tons, 2,000 pounds).
1889	267,709	1895	265,503	1900	594,462	1905	1,043,202	1910	2,379,057	1915	2,447,611
1890	182,095	1896	224,254	1901	633,791	1906	1,540,585	1911	2,323,970	1916	2,767,730
1891	208,126	1897	288,932	1902	816,478	1907	1,751,748	1912	2,500,757	1917	2,996,226
1892	256,259	1898	291,638	1903	1,041,704	1908	1,721,829	1913	2,599,508	1918	2,057,015
1893	253,015	1899	486,235	1904	940,917	1909	2,252,785	1914	2,476,465	1919	2,420,163
1894	230,312										

[1] U. S. Geological Survey, Mineral Resources of the United States.

Power per enterprise and per wage earner: 1919 and 1909.—Table 6 presents comparative statistics for 1919 and 1909 in regard to power used. Although there was a decrease in the average number of wage earners and in the aggregate horsepower used in the gypsum industry in 1919 as compared with 1909, the horsepower per enterprise and the horsepower per wage earner increased 41 and 40 per cent, respectively, during that decade. Progress or development in the industry is indicated by increased use of mechanical equipment.

TABLE 6.—POWER USED PER ENTERPRISE AND PER WAGE EARNER, PRODUCING ENTERPRISES: 1919 AND 1909.

	1919	1909	Per cent of increase.[1]
Number of enterprises	47	78	
Wage earners (average number)	2,191	3,462	−36.7
Power used (aggregate horsepower)	15,032	17,685	−15.0
Horsepower per enterprise	320	227	41.0
Horsepower per wage earner	7	5	

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.

constituted only 11.4 per cent of the total number of persons engaged in the industry. Only 60 females were reported in all grades and they constituted less than 3 per cent of the total number of persons employed.

TABLE 11.—PERSONS ENGAGED IN THE INDUSTRY, PRODUCING ENTERPRISES: 1919.

	Number.	Per cent distribution.
Persons engaged	2,477	100.0
Proprietors and firm members, total (male)	4	0.2
Number performing manual labor	3	0.1
Salaried officers (male)	28	1.1
Superintendents and managers—		
Male	65	2.6
Female	1	(1)
Technical employees (male)	5	0.2
Clerks—		
Male	135	5.4
Female	48	1.9
Wage earners (average number)	2,191	88.5
Wage earners, Dec. 15, or nearest representative day—		
Male	2,545	.....
Female	11	.....

1 Less than one-tenth of 1 per cent.

Wage earners, by occupations.—Table 12 shows the number of wage earners employed in the gypsum industry on December 15, 1919, or the nearest representative day, classified according to occupation, gives the per cent distribution by occupational classes, and the number in each class employed above and below ground. Wage earners in quarries or open-pit mines were classed as employed above ground. The table distinguishes between men engaged in the more peculiarly mining occupations, such as miners, quarrymen, drillmen, timbermen, trackmen, trammers, and their helpers; men in other skilled trades such as enginemen, hoistmen, firemen, machinists, electricians, carpenters and other mechanics; and less skilled and unclassified laborers. Forty-six per cent of the total number of wage earners were employed below ground; exclusive of those in beneficiating plants, 67.5 per cent of the number in all classes were employed below ground. Of the total number of wage earners reported, 68 per cent were engaged in actual mining operations; 32 per cent being employed in mills or beneficiating plants in which the gypsum was calcined or further prepared for manufacture.

TABLE 12.—WAGE EARNERS, BY OCCUPATIONS, PRODUCING ENTERPRISES: 1919.

CLASS OF WAGE EARNERS.	NUMBER OF WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.			
	Total.	Per cent distribution.	Above ground.	Below ground.
All classes	2,556	100.0	1,381	1,175
Foremen, shift bosses, etc.	77	3.0	37	40
Enginemen, hoistmen, electricians, mechanics, etc.	145	5.7	105	40
Miners, quarrymen, and drillmen, including their helpers	604	23.6	159	445
Timbermen, trackmen, and men engaged in hauling, tramming, etc.	233	9.1	25	208
Muckers, loaders, laborers, and others not classified	681	26.6	239	442
Wage earners employed in mills and beneficiating plants	816	31.9	816	.....

Wage earners, by months.—Table 13 shows for the United States as a whole, and for the principal states and groups of states, the number of wage earners employed on the 15th day or nearest representative day of each month, the average number, the months of minimum and maximum employment, and the ratio of the minimum to the maximum number. The changes in the number employed from month to month reflect conditions prevailing in the gypsum industry during the census year. The month of maximum employment for the industry was November, and the month of minimum employment January, and the minimum number employed was 58 per cent of the maximum number.

It will be noted that the number of wage earners reported for all enterprises on a representative day, which is presented in several other tables, aggregated 2,556, or somewhat more than the number shown for December 15 in Table 13. While for most mines the representative day selected for reporting wage earners in detail was December 15, for other mines December was not a representative month and reports were made for some other date. Therefore, the aggregate for the representative day differs from the total of the numbers reported by each enterprise for the month of December.

TABLE 13.—WAGE EARNERS BY MONTHS, PRODUCING ENTERPRISES: 1919.

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

STATE.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	2,191	*1,674*	1,649	1,782	1,918	2,078	2,092	2,350	2,327	2,582	2,713	**2,715**	2,512	58.0
New York	400	350	359	378	372	383	366	368	*340*	435	475	**504**	470	67.5
Iowa	444	*293*	240	272	330	389	453	540	545	611	**619**	613	483	37.6
Other Eastern states	621	*484*	498	522	562	613	604	666	666	674	**754**	725	684	64.2
Western states	726	*607*	552	610	654	693	669	776	776	862	865	873	**875**	57.9

CHARACTER OF ORGANIZATION.

The character of organization of operating enterprises in the gypsum-mining industry in the United States as a whole is shown in Table 7. Forty-three of the 47 enterprises were operated by corporations which employed 99.3 per cent of the average number of wage earners and reported 99.7 per cent of the total value of products; the other enterprises were conducted by individuals and were small.

TABLE 7.—CHARACTER OF ORGANIZATION, PRODUCING ENTERPRISES: 1919.

CHARACTER OF ORGANIZATION.	Number of enterprises.	Wage earners (average number).	VALUE OF PRODUCTS. Total.	VALUE OF PRODUCTS. Per enterprise.	PER CENT DISTRIBUTION. Enterprises.	PER CENT DISTRIBUTION. Wage earners (average number).	PER CENT DISTRIBUTION. Value of products.
All classes	47	2,191	$6,805,940	$144,807	100.0	100.0	100.0
Corporation	43	2,176	6,782,826	157,740	91.5	99.3	99.7
Individual	4	15	23,114	5,779	8.5	0.7	0.3

SCALE OF OPERATION.

Size of enterprises according to value of products.—In Table 8 the gypsum-producing enterprises in the United States in 1919 are grouped according to the value of their products, and the value of products and the per cent distribution is given for each group. The largest enterprises, although less than one-half the total number of enterprises, produced 85.1 per cent of the total value of products.

TABLE 8.—SIZE OF PRODUCING ENTERPRISES, BY VALUE OF PRODUCTS: 1919.

VALUE OF PRODUCTS PER ENTERPRISE.	ENTERPRISES. Number.	ENTERPRISES. Per cent distribution.	VALUE OF PRODUCTS. Amount.	VALUE OF PRODUCTS. Per cent distribution.
All classes	47	100.0	$6,805,940	100.0
Less than $5,000	3	6.4	5,042	0.1
$5,000 to $20,000	5	10.6	69,164	1.0
$20,000 to $100,000	18	38.3	941,620	13.8
$100,000 and over [1]	21	44.7	5,970,114	85.1

[1] Includes the group "$500,000 to $1,000,000."

Size of enterprises according to the average number of wage earners employed.—Table 9 shows, for the United States as a whole, and separately for the leading states and groups of states, the enterprises classified according to the average number of wage earners employed. In the United States as a whole, 41 of the total of 47 enterprises had fewer than 101 wage earners each and employed 55.9 per cent of the total average number of wage earners. Six enterprises had more than 100 wage earners each and employed 44.1 per cent of the total average number of wage earners. The larger enterprises—that is, those employing an average of more than 100 wage earners each—were in Iowa, New York, and other eastern states.

TABLE 9.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS: 1919.

STATE AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES. Number.	ENTERPRISES. Per cent distribution.	WAGE EARNERS. Average number.	WAGE EARNERS. Per cent distribution.
UNITED STATES	47	100.0	2,191	100.0
1 to 5	4	8.5	11	0.5
6 to 20	14	29.8	190	8.7
21 to 50	15	31.9	506	23.1
51 to 100	8	17.0	518	23.6
101 to 500	6	12.8	966	44.1
NEW YORK	6	100.0	400	100.0
1 to 5	1	16.7	1	0.2
6 to 20	1	16.7	15	3.8
21 to 50	1	16.7	40	10.0
51 to 100	1	16.7	59	14.8
101 to 500	2	33.3	285	71.2
IOWA	5	100.0	444	100.0
6 to 20	1	20.0	9	2.0
21 to 50	2	40.0	78	17.6
101 to 500	2	40.0	357	80.4
OTHER EASTERN STATES	8	100.0	621	100.0
6 to 20	1	12.5	19	3.1
21 to 50	2	25.0	86	13.8
51 to 100	3	37.5	192	30.9
101 to 500	2	25.0	324	52.2
WESTERN STATES	28	100.0	726	100.0
1 to 5	3	10.7	10	1.4
6 to 20	11	39.3	147	20.2
21 to 50	10	35.7	302	41.6
51 to 100	4	14.3	267	36.8

Size of enterprises according to acreage of mineral land.—Table 10 shows, for the United States as a whole, the enterprises classified according to the number of acres of mineral land controlled and shows for each class the number of mines and the number of acres controlled. The largest number of enterprises was in the group operating from 100 to 200 acres, and this group, constituting 29.8 per cent of the total number of enterprises, operated only 5.3 per cent of the total acreage. The group controlling more than 1,000 acres per enterprise was the next largest, embracing 25.5 per cent of the total number of enterprises and controlling 76.6 per cent of the total number of acres of mineral land reported.

TABLE 10.—SIZE OF PRODUCING ENTERPRISES, BY NUMBER OF ACRES OF MINERAL LAND: 1919.

ACRES PER ENTERPRISE.	ENTERPRISES. Number.	ENTERPRISES. Per cent distribution.	Number of mines.	MINERAL LAND. Acres.	MINERAL LAND. Per cent distribution.
All classes	47	100.0	48	41,703	100.0
1 to 50	2	4.3	2	26	0.1
50 to 100	4	8.5	4	314	0.8
100 to 200	14	29.8	14	2,202	5.3
200 to 500	8	17.0	8	2,556	6.1
500 to 1,000	7	14.9	7	4,665	11.2
1,000 and over	12	25.5	13	31,940	76.6

PERSONS ENGAGED IN THE INDUSTRY.

Persons according to class and sex.—Table 11 gives the persons engaged in the gypsum industry by classes, showing the number of males and females and the per cent distribution for each class of employees. The number of salaried employees—282—

Prevailing hours of labor.—Table 14 shows the enterprises classified according to the prevailing hours of labor per week and gives the average number of wage earners employed in each class. In the industry as a whole, for a majority of the enterprises and for 60 per cent of the wage earners employed, the hours of labor were 54 to 62 per week, that is, the 10-hour day and 6-day week prevailed. In Iowa, however, the prevailing hours of labor were 44 to 53 per week, and the 8-hour day and 6-day week was the rule.

TABLE 14.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR: 1919.

STATE.	TOTAL.		NUMBER WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—							
			36 to 43.		44 to 53.		54 to 62.		63 to 71.	
	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.	Enterprises.	Wage earners.
United States	47	2,191	1	1	12	830	32	1,317	2	43
New York	6	400	....	....	1	143	5	257	....	....
Iowa	5	444	....	....	5	444	....	....	....	....
Other eastern states	8	621	....	....	1	161	7	460	....	....
Western states	28	726	1	1	5	82	20	600	2	43

LAND TENURE AND ROYALTIES.

Land tenure.—Table 15 shows for 1919 the number of acres of land controlled by producing enterprises. The table distinguishes mineral land (that is, land held for its content of gypsum) from timber and other lands, and shows the mineral land according to form of tenure. Approximately 90 per cent of the gypsum land controlled in the United States was held by ownership, but in New York, on the contrary, the larger part of the operated land was held under lease.

TABLE 15.—LAND CONTROLLED, PRODUCING ENTERPRISES: 1919.

STATE.	Aggregate (acres).	MINERAL LAND (ACRES).			Timber and other lands (acres).
		Total.	Owned.	Held under lease.	
United States	42,193	41,703	36,581	5,122	490
New York	2,471	2,471	759	1,712	.....
Iowa	1,519	1,519	1,160	359	.....
Other eastern states	6,273	5,783	4,022	1,761	490
Western states	31,930	31,930	30,640	1,290	.....

In Table 16 the enterprises are classified according to form of tenure of mineral land—whether held by ownership, under lease, or partly held by ownership and partly under lease. The table also shows the per cent the total owned acreage is of the aggregate of mineral land, and also the per cent which the total under each class of tenure is of the aggregate acreage of mineral land. In New York and in Iowa, most of the land was held under mixed form of tenure, whereas in other states the control of mineral land was chiefly by ownership.

TABLE 16.—NUMBER OF PRODUCING ENTERPRISES AND ACRES OF MINERAL LAND CONTROLLED, CLASSIFIED ACCORDING TO FORM OF TENURE: 1919.

STATE.	TOTAL.					ENTERPRISES OPERATING ONLY OWNED LAND.			ENTERPRISES OPERATING ONLY LAND HELD UNDER LEASE.			ENTERPRISES OPERATING LAND PARTLY OWNED AND PARTLY HELD UNDER LEASE.				
	Number of enterprises.	Acres controlled—				Number of enterprises.	Acres controlled—		Number of enterprises.	Acres controlled—		Number of enterprises.	Acres controlled—			
		Aggregate.	By ownership.	By lease.	Per cent owned is of aggregate.		By ownership.	Per cent of aggregate.		By lease.	Per cent of aggregate.		Total.	Per cent of aggregate.	By ownership.	By lease.
United States	47	41,703	36,581	5,122	87.7	31	34,198	82.0	7	2,277	5.5	9	5,228	12.5	2,383	2,845
New York	6	2,471	759	1,712	30.7	2	135	5.5	1	422	17.1	3	1,914	77.5	624	1,290
Iowa	5	1,519	1,160	359	76.4	1	160	10.5	3	334	22.0	1	1,025	67.5	1,000	25
Other eastern states	8	5,783	4,022	1,761	69.5	5	3,822	66.1	2	1,361	23.5	1	600	10.4	200	400
Western states	28	31,930	30,640	1,290	96.0	23	30,081	94.2	1	160	0.5	4	1,689	5.3	559	1,130

Table 17 presents comparative statistics for 1919 and 1909, showing the acreage of mineral land and timber and other lands controlled. There was a slight increase in the number of acres of owned mineral land operated, but large decrease in the other classes of land shown. These changes are in accord with the decrease in the number of mines operated, as shown in Table 4.

TABLE 17.—COMPARATIVE STATISTICS, LAND CONTROLLED, PRODUCING ENTERPRISES: 1919 AND 1909.

CHARACTER AND TENURE OF LAND.	ACRES.		
	1919	1909	Per cent of increase.[1]
Total land	42,193	54,215	−22.2
Mineral land	41,703	52,900	−21.2
Owned	36,581	35,592	2.8
Leased	5,122	17,308	−70.4
Timber and other lands	490	1,315	−62.7

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

Royalties.—The census of mines and quarries, 1919, did not distinguish between royalties or rent paid for mineral land and rents of other kinds, but as these other rents are known to be insignificant in amount the statistics presented for royalties and rents may be taken to represent only royalties or rent of mineral land. Royalty, which is a compensation for the privilege of mining leased lands, is either a fixed share of the product or a percentage of the value of product.

Table 18 shows the enterprises classified according to form of land tenure, and gives the value of products and the royalties and rents paid. Thirty-one enterprises operated only owned land, produced approximately 60 per cent of the total value of products, and reported a negligible amount of rent; 7 enterprises operated leased lands only, reported products amounting to 17 per cent of the total and royalties amounting to 3 per cent of the value of their products; and 9 enterprises operated land partly owned and partly held under lease, but which, as shown in Table 16, was more than half leased land, and reported royalties amounting to 2.5 per cent of the value of their products.

TABLE 18.—VALUE OF PRODUCTS AND ROYALTIES AND RENTS, FOR PRODUCING ENTERPRISES CLASSIFIED ACCORDING TO TENURE OF MINERAL LAND: 1919.

CLASSES OF ENTERPRISES.	Number of enterprises.	Value of products.	Royalties and rents.
All classes	47	$6,805,940	$69,403
Enterprises operating:			
Only owned land	31	4,290,600	480
Only land held under lease	7	1,144,989	35,021
Land partly owned and partly held under lease	9	1,370,351	33,902

POWER.

Power equipment used.—The number and horsepower of the several types of prime movers and of electric motors used by the gypsum-mining enterprises in 1919 are presented for the United States as a whole and separately for states, in so far as they can be shown without disclosure, in the table of detailed statistics. Comparative statistics for 1919 and 1909 are presented for the United States in Table 19, which shows the number and horsepower of power equipment used by producing enterprises and the per cent of increase or decrease in horsepower for each class of equipment used. A decrease is shown in the aggregate horsepower used which, as indicated in the section on progress of the industry, is largely due to a decrease in the number of operating enterprises because of depressed business conditions. In contrast to the general decrease, an increase of 200 per cent is shown in horsepower of electric motors operated by purchased power. In 1909, 85 per cent of the aggregate horsepower used was generated by prime movers and only 15 per cent furnished by electric motors operated by purchased current. On the other hand, in 1919, the horsepower of prime movers was only 46.8 per cent, while the horsepower of electric motors operated by purchased current constituted 53.2 per cent of the aggregate horsepower. An increase is also shown in the number of electric motors operated by current generated by the enterprises reporting them.

TABLE 19.—COMPARATIVE STATISTICS, POWER USED, PRODUCING ENTERPRISES: 1919 AND 1909.

	1919	1909	Per cent of increase.[1]
Power used: Aggregate horsepower	15,032	17,685	−15.0
Prime movers (total horsepower)	7,038	15,025	−53.2
Steam engines—			
Number	47	90	.....
Horsepower	6,132	13,399	−54.2
Internal-combustion engines—			
Number	9	18	.....
Horsepower	572	681	−16.0
Water wheels and turbines—			
Number	3	10	.....
Horsepower	334	945	−64.7
Equipment operated by purchased power (total horsepower)	7,994	2,660	200.5
Electric motors—			
Number	290	81	.....
Horsepower	7,994	2,660	200.5
Electric motors run by current generated by the enterprise reporting:			
Number	103	49	.....
Horsepower	1,447	1,333	8.6

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100.

GENERAL TABLE.

Table 20 presents in detail for 1919 the statistics of gypsum mines in the United States as a whole, in the two leading states, and in all other producing states grouped as "Other eastern states" and "Western states." The table gives the number of enterprises and mines, and the number of enterprises operating beneficiating plants; acreage of land controlled according to kind and the tenure of mineral land; the capital invested; the principal expenses of operation and development; the persons engaged in the industry, by classes and the wage earners according to occupation; and detailed statistics with regard to number and horsepower of power equipment, and with regard to fuel used. As all the gypsum-mining activities reported in 1919 were confined to productive operations, there are no statistics for nonproducing enterprises.

TABLE 20.—DETAILED STATISTICS FOR THE GYPSUM-MINING INDUSTRY, BY STATES: 1919.

	PRODUCING ENTERPRISES.				
	Total.	New York.	Iowa.	Other eastern states.[1]	Western states.[2]
Number of enterprises	47	6	5	8	28
Number of mines	48	6	5	8	29
Number of enterprises operating beneficiating plants	27	2	3	4	18
Mineral land operated.....acres	41,703	2,471	1,519	5,783	31,930
Land controlled.....acres	42,193	2,471	1,519	6,273	31,930
Mineral land owned.....acres	36,581	759	1,160	4,022	30,640
Mineral land held under lease.....acres	5,122	1,712	359	1,761	1,290
Timber and other lands.....acres	490	.....	.....	490	.....
Capital	$13,541,548	$1,559,514	$2,124,006	$4,816,157	$5,041,871
Principal expenses	$5,379,732	$934,495	$948,561	$1,493,339	$1,953,337
Salaries and wages—					
Officers, superintendents, managers, and technical employees	$275,145	$43,455	$33,687	$63,504	$134,499
Clerks, etc.	$280,305	$35,468	$51,780	$89,252	$103,805
Wage earners	$2,478,391	$515,650	$495,747	$709,035	$757,959
Supplies and materials	$1,530,338	$263,914	$206,180	$421,754	$638,490
Fuel	$516,148	$36,719	$119,579	$139,660	$220,190
Purchased power	$144,272	$47,767	$13,021	$32,126	$51,358
Royalties and rents	$69,403	$31,946	$21,021	$14,032	$2,404
Taxes—Federal, state, county, and local	$81,983	$9,576	$7,546	$23,976	$40,885
Contract work	$3,747	.....	.....	.....	$3,747
Expenditures for development (included in principal expenses)	$12,050	.....	$8,000	$3,250	$800
Value of products	$6,805,940	$1,110,463	$1,092,920	$1,857,633	$2,744,924
Persons engaged in industry	2,477	446	487	694	850
Proprietors and officials (total)	103	20	10	17	56
Proprietors and firm members (total)	4	1	.....	.....	3
Number performing manual labor	3	1	.....	.....	2
Salaried officers	28	5	1	5	17
Superintendents and managers	66	10	9	12	35
Technical employees	5	4	.....	.....	1
Clerks, etc.—					
Male	135	19	25	42	49
Female	48	7	8	14	19
Wage earners (average number)	2,191	400	444	621	726
Wage earners 15th day of—					
Maximum month	Nov. 2,715	Nov. 504	Oct. 619	Oct. 754	Dec. 875
Minimum month	Jan. 1,574	Aug. 340	Jan. 233	Jan. 484	Jan. 507
Wage earners by occupation, Dec. 15, or nearest representative day—					
Above ground (total)	1,381	167	171	331	712
Below ground (total)	1,175	304	355	353	163
Foremen, shift bosses, etc.—					
Above ground	37	2	2	10	23
Below ground	40	8	12	15	5
Enginemen, hoistmen, electricians, mechanics, etc.—					
Above ground	105	11	17	37	40
Below ground	40	18	1	18	3
Miners, quarrymen, and drillmen, including their helpers—					
Above ground	159	.....	.....	2	157
Below ground	445	97	109	124	115
Timbermen, trackmen, and men engaged in hauling, tramming, etc.—					
Above ground	25	1	5	2	17
Below ground	208	48	86	58	16
Muckers, loaders, laborers, and others not classified—					
Above ground	239	50	21	41	127
Below ground	442	133	147	138	24
Wage earners employed in mills and beneficiating plants—					
Above ground	816	103	126	239	348
Number of females included in wage earners reported above—					
Above ground	11	.....	.....	9	2
Power used: Aggregate horsepower	15,032	1,706	2,057	5,179	6,090
Prime movers (horsepower, total)	7,038	725	1,256	2,190	2,867
Steam engines—					
Number	47	3	4	13	27
Horsepower	6,132	707	1,256	2,065	2,104
Internal-combustion engines—					
Number	9	1	.....	1	7
Horsepower	572	18	.....	125	429
Water wheels and turbines—					
Number	3	.....	.....	.....	3
Horsepower	334	.....	.....	.....	334
Equipment operated by purchased power (horsepower, total)	7,994	981	801	2,989	3,223
Electric motors—					
Number	200	25	40	116	109
Horsepower	7,994	981	801	2,989	3,223
Electric motors run by current generated by the enterprise reporting:					
Number	103	41	21	21	20
Horsepower	1,447	392	551	318	186
Fuel used:					
Coal, bituminous.....tons, 2,000 pounds	76,086	10,835	18,360	29,734	17,157
Coke.....tons, 2,000 pounds	1,534	428	465	641	.....
Wood.....cords	43	.....	.....	.....	43
Fuel oils.....barrels	62,893	.....	.....	.....	62,893
Gasoline and other volatile oils.....barrels	1,752	3	.....	93	1,656

[1] Includes enterprises in states as follows: Michigan, 4; Ohio, 2; Virginia, 2.
[2] Includes enterprises in states as follows: Arizona, 1; California, 1; Colorado, 2; Kansas, 3; Nevada, 3; New Mexico, 1; Oklahoma, 5; Oregon, 1; South Dakota, 2; Texas, 3; Utah, 2; Wyoming, 4.