Mineral Production in Iowa in 1927

by

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MINERAL PRODUCTION IN 1927*

While the total valuation of the mineral output of 1927 was somewhat less than that of the preceding two years, yet in each branch but one there was an increase—in most cases a strongly marked one. The lone exception was the coal industry, in which the biennial strike caused a serious decline in output. It is evident that unless this industry can settle its differences in less mutually disastrous fashion it is doomed to eclipse by the eastern states, which have the edge on Iowa both in methods of mining and labor scales and in quality of output. The Geological Survey and the State University are making an effort to devise or adapt better methods of using Iowa coals in order to increase their output and use and to make such use more pleasant and economical. A start in this work has been made by the analysis of thirty-six typical coal samples from as many mines in the state. Further work will be done in the way of efforts to coke Iowa coal and to improve its quality by washing and in other ways.

The Iowa Railroad Commission furnishes the following data on shipments of mineral commodities originating in this state. Figures are for carloads.

Coal	26,083
Clay, gravel, sand and stone	71,584
Cement	28,764
Brick and artificial stone	14,561
Lime and plaster	6,987
Sewer pipe and drain tile	11,583

While some of these figures include reshipments of materials really produced outside the state, most of them represent materials actually extracted or made within the state's limits.

* Figures are compiled from data furnished by the U. S. Bureau of Mines and Bureau of the Census coöperating with the Iowa Geological Survey.

Mineral Production in Iowa, 1925 to 1927

Product	Unit	1925		1926		1927	
		quantity	*value*	*quantity*	*value*	*quantity*	*value*
Cement shipped	Bbl. of 376 lb.	4,856,849	$ 8,674,563	4,788,639	$ 8,167,341	5,661,234	$ 9,124,405
Clay wares			5,726,239		4,495,088		5,194,780
Coal	ton	4,714,843	14,807,000	4,625,487	14,214,000	2,949,622	9,304,000
Gypsum	ton	702,661	6,734,271	683,201	6,588,203	723,942	6,713,497
Limestone and lime	ton	808,288	904,669	944,371	952,141	1,278,056	1,267,033
Sand and gravel	ton	3,297,785	1,546,900	2,701,982	1,569,006	3,981,143	1,839,176
			$38,393,742		35,985,779		$33,442,891

CEMENT

Manufacture of Portland cement in Iowa was 10 per cent greater in 1927 than in 1926 and shipments increased 18 per cent in the later year. The Dewey Portland Cement Co. put its Davenport plant into operation in 1927. It has two 11 by 175 foot kilns and a daily clinker capacity of 3000 barrels or an annual finished cement capacity of 1,000,000 barrels. This increased the number of factories in the state to six, although the plant at Gilmore was not operated. The data regarding the industry in recent years are given herewith.

Production of Cement in Iowa and the United States

	1925	1926	1927
		Iowa	
Production, bbls.	4,648,145	4,925,811	5,415,144
Stock, Dec. 31, bbls.	1,479,670	1,616,842	1,370,752
Shipments, bbls.	4,856,849	4,788,639	5,661,234
Shipments, value	$8,674,563	8,167,341	9,124,405
Aver. fact. price per bbl.	$1.79	$1.71	$1.61
Consumption, bbls.	2,704,872	2,826,839	3,708,471
Consumption per capita, bbls.	1.08	1.17	1.53
Surplus production, bbls.	2,151,977	1,961,800	1,952,763
Annual capacity, bbls.	6,935,000	6,575,000	7,935,000
Coal used per bbl. cement, lb.			178
Coal used annually, tons			474,297
		United States	
Production, bbls.	161,685,901	164,530,170	173,206,513
Shipments, bbls.	157,295,212	162,187,090	171,864,728
Shipments, value	278,524,108	277,965,473	278,854,647
Average factory price, bbl.	$1.77	$1.71	$1.62
Consumption per capita, bbl.	1.38	1.37	1.44
Number plants active	138	140	153
Annual capacity, bbls.	193,558,000	215,300,000	227,080,000

CLAY WARES

The production of clay wares was somewhat in excess of that for 1926, although it was still below the output of the preceding years as far back as 1913. The manufacture of brick and sewer pipe was less in 1927 than in 1926, but other branches of the industry showed an increase. The tables show that 41 plants in 25 counties made brick of various kinds, that 28 plants in 19 counties made hollow building tile and that 40 plants in 24 counties made drain tile. Only four plants, in Keokuk, Polk and Webster counties, made sewer pipe, and other wares were produced in 13

Production of Clay Wares in Iowa in 1927

Counties	No. Producers	Brick(a)		Hollow ware(b)		Drain tile, sewer pipe, other products (c)		Total value
		Thous.	*Value*	*Tons*	*Value*	*Tons*	*Value*	
Appanoose (1), Henry (1), Jefferson (1), Lee (1), Van Buren (1)	5	1,960	$24,553	1,396	$ 7,205	3,743	$27,270	$59,028
Audubon (2), Pottawattamie (1), Union (1), Woodbury (2)	6	19,740	227,819	5,929	38,018	3,729	25,409	291,246
Benton (1), Grundy (1), Hardin (1), Tama (2)	5	1,398	23,792	(d)		1,195	13,112	36,904
Cerro Gordo	3	4,303	49,637	141,105	730,640	77,798	435,590	1,215,496
Dallas	3	3,384	42,142	35,460	211,411	16,249	104,081	357,633
Dubuque (1), Jackson (1), Johnson (1), Jones (1), Washington (1)	5	1,528	22,350	(e)		1,592	33,903	56,253
Fayette (1), Floyd (1), Franklin (1), Wright (1)	4	5,793	75,177	28,405	251,837	21,415	186,477	513,491
Jasper (1), Poweshiek (1), Story (2), Warren (1)	5	205	2,534	12,384	72,854	5,551	38,566	113,954
Keokuk	3	(d)				22,943	278,667	278,667
Mahaska (3), Wapello (1)	4	10,395	115,956	17,584	111,520	9,560	69,474	296,950
Polk	5	26,862	438,326	28,626	255,438	(f)		693,764
Webster	7	14,455	195,811	33,775	232,322	64,022	(g)763,684	1,262,570
Total for 1927	55	90,053	1,219,695	293,061	1,766,653	251,000	2,208,432	5,194,780
Total for 1926	53	95,942	1,314,244	260,194	1,539,257		1,641,587	4,495,088

(a) Includes: Common brick, 51,885,000, value $564,425; Face brick, 23,720,000, value $397,945; Hollow brick, 394,000, value $4,742; Paving and other vitrified brick, 14,054,000, value $252,583.
(b) Includes: Partition, load-bearing, etc., 232,575 tons, value $1,363,354; Floor, arch, silo, etc., 60,486 tons, value $403,299.
(c) Includes: Drain tile, 176,404 tons, value $1,167,542; Sewer pipe, 65,322 tons, value $913,676; Flue lining, 3,925 tons, value $46,778; Wall coping, 972 tons, value $17,924; Segment blocks, pottery, other products, value $25,996; Raw clay, value $16,516.
(d) Included in Drain tile.
(e) Included in Brick.
(f) Included in Hollow ware.
(g) Includes other products, value $70,753.

plants in eight counties. Jackson had the only plant making earthenware in 1927—the Bellevue pottery.

The following table shows the production of the various items of the clay industry. Most counties are grouped by geographic proximity, where it is needful to conceal output of individual plants.

COAL

The year 1927 was not a very prosperous one for the coal industry, because of the disastrous strike which kept most of the mines closed during many months of the year. For this reason the output was the smallest since 1881, when it was 1,960,000 tons.

The following figures are of interest to show the classification of the coal that was loaded at mines for shipment in 1927. The total shipments of 2,147,000 tons were divided into: run-of-mine, 839,000, or 42.5 per cent of the amounts specified; prepared sizes, 816,000, or 41.3 per cent; slack or screenings, 321,000, or 16.2 per cent; not specified, 171,000.

Tons of coal and percentages mined by different methods were as follows: hand, 247,751, 8.4 per cent; shot off solid, 1,752,197, 59.4 per cent; machine cut, 867,885, 29.4 per cent; not specified, 81,789, 2.8 per cent.

The total production in Iowa from the earliest recorded output is 271,861,000 tons. The total for the United States is 14,428,639,000 tons bituminous and 3,642,992,000 Pennsylvania anthracite.

The table given below includes the essential data concerning the coal mining industry in 1927 and the totals for 1926.

Bituminous coal production in the United States was the lowest for five years, with the exception of 1924. It amounted to 517,763,000 tons, valued at the mines at $1,029,657,000, an average of $1.99. The active commercial mines numbered 7,011. Average number of days worked was 191; average number of employees was 593,918; average output per man—daily 4.55 tons, annual 872 tons. Iowa ranked seventeenth in tonnage and fifteenth in value of output.

Production, Value, Men Employed, Days Worked, and Output Per Man Per Day at Coal Mines in Iowa, in 1927[a]
(Exclusive of product of wagon mines producing less than 1,000 tons)

County	No. Producers	Net tons				Value		Number of employees			Average number of days worked	Average tons per man per day
		Loaded at mine for shipment	Sold to local trade and used by employees	Used at mines for steam and heat	Total quantity	Total	Average per ton	Underground	Surface	Total		
Adams	3	.....	3,860	.....	3,860	$ 14,000	$3.63	16	2	18	206	1.04
Appanoose	49	259,716	55,830	1,067	316,613	1,008,000	3.18	1,920	143	2,063	69	2.21
Boone	8	216,413	62,752	4,426	283,591	1,247,000	4.40	849	58	907	135	2.31
Dallas	5	259,618	15,368	1,649	276,635	841,000	3.04	594	49	643	127	3.38
Davis, Jefferson, and Keokuk	3	.....	6,183	.....	6,183	23,000	3.72	17	2	19	138	2.36
Greene, Story, and Webster	3	.....	13,186	.....	13,186	45,000	3.41	32	5	37	184	1.94
Guthrie	4	.....	7,534	.....	7,534	31,000	4.11	22	4	26	192	1.51
Jasper	7	4,600	42,301	2,010	48,911	140,000	2.86	94	15	109	142	3.16
Mahaska	25	725	42,900	492	44,117	112,000	2.54	125	10	135	138	2.37
Marion	12	431,062	35,387	8,779	475,228	1,294,000	2.72	923	78	1,001	122	3.88
Monroe	11	411,291	23,108	10,574	444,973	1,327,000	2.98	1,285	93	1,378	102	3.18
Polk	15	257,040	326,906	10,609	594,555	1,851,000	3.11	1,105	94	1,199	158	3.14
Taylor	3	10,650	6,662	.....	17,312	75,000	4.33	51	4	55	198	1.59
Van Buren	3	7,458	3,445	120	11,023	25,000	2.27	20	2	22	214	2.34
Wapello	14	1,193	54,262	370	55,825	174,000	3.12	119	13	132	169	2.51
Warren	3	112,229	5,828	8,950	127,007	396,000	3.12	354	32	386	99	3.32
Wayne	4	800	19,985	225	21,010	72,000	3.43	74	8	82	131	1.96
Other counties (Lucas and Page)	4	173,993	21,258	6,808	202,059	629,000	3.11	485	44	529	112	3.41
	176	2,146,788	746,755	56,079	2,949,622	9,304,000	3.15	8,085	656	8,741	114	2.96
Totals for 1926	184	3,791,893	740,136	93,458	4,625,487	14,214,000	3.07	8,192	677	8,869	183	

[a] The figures relate only to active mines of commercial size that produced coal in 1927. The number of such mines in Iowa was 183 in 1927; 193 in 1926; and 207 in 1925.

Methods of mining in 1927: The tonnage by hand was 247,751; shot off the solid, 1,752,197; cut by machines, 867,885; not specified, 81,789.

Size classes of commercial mines in 1927: There were 5 mines in Class 2 (100,000 to 200,000 tons) producing 27.8 per cent of the tonnage; 12 in Class 3 (50,000 to 100,000 tons) with 29.8 per cent; 41 in Class 4 (10,000 to 50,000 tons) with 30.0 per cent; and 125 in Class 5 (less than 10,000 tons) producing 12.4 per cent.

GYPSUM

Less gypsum was mined in 1927 than in 1926 or 1925, but at the same time more was sold, both crude and calcined, than in 1926, and more was sold calcined than in 1925. The industry evidently recovered from the slight setback of 1926 and is continuing its upward progress. This is evidently attributable to the diversification of products in the industry and their application to an increasingly wider range of usefulness.

The figures herewith tell the tale of progress.

Gypsum production in 1926 and 1927

	Iowa			
	1926		1927	
	tons	*value*	*tons*	*value*
Crude gypsum mined	802,910		792,159	
Sold crude—cement mills	125,956	$ 268,507	138,375	$ 384,024
for agriculture, etc.	3,847	28,347	1,262	7,677
Total sold crude	129,803	296,854	139,637	391,701
Sold calcined—stucco	30,355	236,804	18,743	115,267
neat and sanded plaster	402,169	3,007,628	379,702	2,711,701
plaster of paris (a)	4,278	41,047	6,624	51,317
wall and plaster board	87,395	2,605,745	104,851	2,603,155
partition tile (b)	18,481	171,621	55,516	487,844
insulating, etc.,	10,820	228,504	18,869	352,512
Total sold calcined	553,498	6,291,349	584,305	6,321,796
Total sold	683,201	6,588,203	723,942	6,713,497
	United States			
Plants active	59		60	
Total mined	5,623,441		5,346,888	
Sold crude	961,363	$2,509,885	965,371	$2,388,663
Sold calcined	4,015,974	44,211,334	3,912,211	39,785,791
Total sales	4,977,337	46,721,219	4,877,582	42,174,454

(a) Includes dental plaster, sales to plate glass works.
(b) Includes roofing tile, special tile or block.

LIMESTONE AND LIME

In the discussion of mineral production in 1926 the statement was made that the increase in output of stone constituted one of the bright spots in the mineral industry. That being true the spot seems to be brightening and broadening, in a general way at least, if we may judge from the data shown in the tables given below. Increases were shown in 1927 in the major branches of the industry, although some branches showed declines. These

fluctuations may be seen by inspection of the appended summary.

Production of Stone and Lime, 1926 and 1927

Kind	1926		1927		Change	
	tons	*value*	*tons*	*value*	*tons*	*value*
Building	.....	.....	3,160	$ 4,869	—2,990	$ 2,292
Rubble	6,150	$ 7,161				
Riprap	91,150	87,756	124,400	123,321	+33,250	35,565
Concrete and road metal	627,290	599,490	866,590	839,463	+239,300	239,973
Ballast	75,190	69,670	105,140	93,773	+29,950	24,103
Flux	14,280	17,677	9,550	12,146	—4,730	5,531
Agriculture	114,700	101,620	163,680	156,069	+48,980	54,449
Sugar, lime, others	15,711	68,767	5,536	38,392	—10,175	30,375
	944,371	952,141	1,278,056	1,267,033	+333,685	315,892

Production of Limestone and Lime in 1927

Counties	No. Producers	Building stone, rubble, riprap*		Concrete, road metal		Other uses†		Total	
		tons	*value*	*tons*	*value*	*tons*	*value*	*tons*	*value*
Black Hawk (2), Cerro Gordo (1)	3			64,939	$ 74,231	11,046	$ 5,970	76,005	$ 80,251
Clayton (2), Jackson (1)	3	83,314	$ 80,967			(a)		83,314	80,967
Dubuque	4	78,787	89,775	(a)				78,787	89,775
Hardin (1), Mitchell (1), Winneshiek (2)	4			111,720	114,342	53,315	57,797	165,035	172,139
Johnson (1), Linn (2)	3			132,576	196,947	15,000	16,500	147,576	213,447
Jones	3	10,325	10,892	11,760	11,760	5,544	4,139	27,629	26,791
Lee (2), Louisa (2)	4	8,112	10,111	59,238	91,444	(b)		67,350	101,455
Marshall	3			209,150	113,849	100,050	90,015	309,200	204,864
Scott	3	18,978	25,282	257,082	210,300	68,046	61,812	344,106	297,394
Total for 1927	30	127,560	128,190	866,590	839,463	283,906	299,380	1,278,056	1,267,033
Totals for 1926	27	97,300	94,917	627,290	599,490	219,781	257,734	944,371	952,141

* Includes: Building stone and rubble, 4 operators, 3,160 tons, value $4,869; Riprap, 12 operators, 124,400 tons, value $123,321.
† Includes: Railroad ballast, 4 operators, 105,140 tons, value $93,773; Flux, 4 operators, 9,550 tons, value $12,146; Agriculture, 17 operators, 163,680 tons, value $156,069; Sugar factories, lime, other uses, 4 operators, 5,536 tons, value $38,392.
(a) Included in Building stone, etc.
(b) Included in Concrete, etc.

Scott was the leading county, as for several years past, in both quantity and value. Marshall followed in second place, with Hardin, Johnson, Dubuque and Black Hawk holding the succeeding positions. The high place that Johnson and Linn counties held in values of output was due to the relatively higher prices received for road metal. Hardin has attained a prominent position in recent years since the Iowa Limestone Co. began producing crushed stone in large amounts. The total amount of crushed stone sold or used by producers in 1927 was 971,730 tons, valued at $932,236. This included concrete, road metal and railroad ballast, but not fluxing or agricultural stone.

Production of crushed stone in the United States amounted to 94,948,770 tons, valued at $97,474,267. In addition 21,666,070 tons of flux, valued at $15,985,525, and 2,206,470 tons of agricultural limestone, valued at $3,360,704, were prepared and sold. Total production of stone amounted to 136,345,260 tons, valued at $198,661,622.

SAND AND GRAVEL

The amount of sand produced and sold in Iowa in 1927 was 147,175 tons greater than that sold in 1926, but the amount received was $41,701 less. In the case of gravel, however, both output and value increased, the former by 1,131,986 tons or 83 per cent, the latter by $311,871, or 35 per cent. This increase is accounted for almost entirely by the greatly enlarged use of gravel for paving and roadmaking, an increase that amounted to 1,131,638 tons, or 171 per cent. The total production also shows a gratifying increase—of 1,279,161 in tonnage and $270,170 in value—again owing very largely to road making activities. The summary table shows output and values of the various types of material, also the average prices received in 1927.

Summary of Sand and Gravel production, 1926 and 1927

Material	1926			1927			
	No. pits	*tons*	*value*	No. pits	*tons*	*value*	*Aver. price*
Sand							
Molding	5	27,843	$ 23,259	3	14,522	$ 11,231	$0.77
Structural	50	664,062	354,341	45	583,339	268,056	0.46
Paving	30	524,761	235,285	29	802,974	292,504	0.36
Cutting, grinding, blast	3	13,688	14,555				2.27
Engine	11	43,091	30,225	9	34,171	18,102	0.53
Filter	4	10,773	2,882	4	13,378	17,714	1.32
R. R. ballast	5	47,438	16,616	6	30,226	11,292	0.37
Other	7	17,551*a*	8,988	6	17,772*b*	25,551	
Total sand		1,349,207	686,151		1,496,382	644,450	
Gravel							
Structural	39	307,610	282,125	36	362,512	338,950	0.94
Paving	34	661,782	430,777	36	1,793,420	725,986	0.40
R. R. ballast	13	377,472	162,983	13	324,916	129,220	0.40
Other	4	5,911	6,970	3	3,913	570	0.15
Total gravel		1,352,775	882,855		2,484,761	1,194,726	
Total production		2,701,982	1,569,006		3,981,143	1,839,176	

a Includes fire or furnace sand and sand for miscellaneous uses.

b Includes cutting, grinding and blast sand, fire or furnace sand (Aver. price, $0.78 per ton), other sands (Aver. price, $0.30 per ton).

The detailed tables showing production in the different counties indicate that Polk county yielded to Muscatine county the leadership she held the previous year. This change again came about through the great increase in production of roadmaking sand and gravel in Muscatine county, for the output of structural material was much greater in Polk than in Muscatine. These statements do not include the noncommercial production of gravel by the State Highway Commission. Other leading counties were, in order of production, Sac, Cerro Gordo, Linn, Sioux, Cherokee, Johnson and Jackson. Each raised and sold over one hundred thousand tons.

Production the country over amounted to 197,454,269 tons, valued at $115,529,786, the largest for any year. The leading state was New York, with an output amounting to 19,896,766 tons. Iowa's rank was thirteenth. The distribution of the output was as follows:

Sand and Gravel sold or used by producers in the United States in 1927

	1927		
	Short tons	*Value*	*Average*
Sand:			
Glass	2,171,693	$ 3,257,790	$1.50
Molding	4,194,975	4,458,508	1.06
Building	40,737,377	22,198,767	.54
Paving	35,606,622	17,767,491	.50
Grinding and polishing	1,686,762	2,193,690	1.30
Fire or furnace	410,801	452,835	1.10
Engine	2,618,890	1,640,736	.63
Filter	74,674	155,137	2.08
Other	6,086,545	2,166,444	.36
	93,588,339	54,291,398	
Gravel:			
Building	30,432,031	21,947,666	.72
Paving	44,891,975	29,887,365	.67
Railroad ballast	28,541,924	9,403,357	.33
	103,865,930	61,238,388	
Grand total	197,454,269	115,529,786	.59
Grand total for 1926	183,100,818	111,338,701	.61

Production of Sand and Gravel in 1927—Sand

Counties	Producers	Structural sand		Paving and other sand *a*		Total sand	
		tons	*value*	*tons*	*value*	*tons*	*value*
Black Hawk (1), Butler (2), Fayette (1)	4	40,175	$ 24,040	*b*		40,175	$ 24,040
Boone (1), Marshall (2)	3	27,818	14,234	*b*		27,818	14,234
Buena Vista (0), Clay (2), Dickinson (0), Sac (1)	3	36,084	12,802	*b*		36,084	12,802
Cerro Gordo (2), Floyd (1), Franklin (1), Hardin (1)	5	38,504	18,873	88,565	$ 43,165	127,069	62,038
Cherokee (1), Plymouth (2)	3	*c*		65,833	22,496	65,833	22,496
Clayton (2), Dubuque (2), Jackson (1)	5	30,460	9,431	42,628	26,546	73,088	35,977
Clinton (1), Lee (2), Scott (2)	5	43,082	21,370	38,823	21,052	81,905	42,422
Dallas (0), Marion (0), Wapello (1)	1	*d*		*d*		*d*	
Emmet (1), Humboldt (1), Palo Alto (1)	3	26,748	9,911	.....	.....	26,748	9,911
Johnson (2), Linn (2)	4	66,954	44,392	207,370	129,410	274,324	153,802
Muscatine	6	46,490	25,142	270,138	73,046	316,628	98,188
Polk	8	172,892	61,305	82,136	24,881	255,028	86,186
Sioux	5	40,120	19,560	43,975	20,550	84,095	40,110
Story (0), Webster (1)	1	*d*		*d*		*d*	
Totals	56	583,339	268,056	913,043	376,394	1,496,382	644,450
Totals for 1926	70	664,062	354,341	685,145	331,810	1,349,207	686,151

a Includes: Molding, paving and roadmaking, cutting, grinding and blast, fire or furnace, engine, filter, railroad ballast, and other sands.

b Included with structural sand.

c Included with paving sand.

d Included with paving gravel.

Production of Sand and Gravel in 1927—Gravel

Counties	Producers	Structural gravel		Paving and other gravel *e*		Total sand and gravel		Total quantity washed	
		tons	*value*	*tons*	*value*	*tons*	*value*	*tons*	*value*
Black Hawk (1), Butler (1), Fayette (1)	3	11,161	$ 14,725	*f*		51,336	$ 38,765	47,961	$ 37,515
Boone (1), Marshall (2)	3	20,470	13,044	*f*		49,428	27,657	35,878	23,672
Buena Vista (1), Clay (1), Dickinson (1), Sac (2)	5	*d*		319,684	$134,344	355,768	147,166	132,417	82,245
Cerro Gordo (2), Floyd (0), Franklin (0), Hardin (1)	3	*d*		105,037	112,176	232,106	174,212	228,102	173,512
Cherokee (3), Plymouth (1)	4	*d*		121,298	67,413	187,131	90,309	94,331	57,423
Clayton (0), Dubuque (2), Jackson (1)	3	26,193	19,212	73,992	48,464	152,916	87,907	120,993	70,683
Clinton (2), Lee (1), Scott (2)	5	15,505	16,915	21,429	15,255	118,839	74,592	25,860	11,885
Dallas (1), Marion (1), Wapello (1)	3	*d*		123,774	71,890	123,774	71,890	123,774	71,890
Emmet (1), Humboldt (1), Palo Alto (2)	4	10,944	13,761	81,920	12,310	119,612	35,982	36,248	22,296
Johnson (2), Linn (0)	2	*b*		*c*		274,324	153,802	274,324	153,802
Muscatine	6	57,927	55,073	332,724	127,426	707,169	279,687	696,531	271,945
Polk	7	83,763	109,942	85,057	68,816	427,648	264,944	404,179	253,111
Sioux	3	33,600	20,525	35,250	19,500	152,935	80,135	139,950	76,335
Story (1), Webster (2)	3	*d*		62,800	12,900	62,800	12,900	8,000	6,725
Highway Comm.	1	.....	.....	945,000	283,500	945,000	283,500	.....	.....
Totals	55	362,512	338,950	2,122,249	855,776	3,981,143	1,839,176	2,419,280	1,340,037
Totals for 1926	63	307,610	282,125	1,045,165	600,730	2,701,982	1,569,006	2,294,289	1,444,995

b Included with structural sand.
c Included with paving sand.
d Included with paving gravel.
e Includes: Paving and roadmaking, railroad ballast, and other gravel.
f Included with structural gravel.