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DEPARTMENT OF REGISTRATION AND EDUCATION  
FRANK G. THOMPSON, *Director*

DIVISION OF THE  
STATE GEOLOGICAL SURVEY  
M. M. LEIGHTON, *Chief*  
URBANA

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REPORT OF INVESTIGATIONS — NO. 74

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Part I.—ILLINOIS MINERAL INDUSTRY IN 1940

Part II.—HISTORICAL SUMMARY, 1919–1939

BY

WALTER H. VOSKUIL AND G. N. OLIVER



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URBANA, ILLINOIS

1941

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# Part I—ILLINOIS MINERAL INDUSTRY IN 1940

By

WALTER H. VOSKUIL AND G. N. OLIVER

## INTRODUCTION

**T**HE ILLINOIS INDUSTRIAL AREA.—The strategic location of Illinois with respect to population, coal and petroleum deposits, water resources, and rail and water transportation facilities, influenced the development of an industrial economy at an early date. Of equal importance in the location of this industrial area is the large contiguous area of fertile agricultural land. Within this area also are inexhaustible deposits of coal and ample supplies of petroleum, and iron ores are close at hand—the basic mineral raw materials of industry. Illinois is exceeded in industrial production only by New York and Pennsylvania, and it is significant that industrial production in Illinois declined less in proportion from the 1929 levels of industrial output than that of two leading industrial states. The wealthy agricultural hinterland to the Illinois industrial area, including all or portions of the states of Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, and Missouri, is a nearby market for a large industrial output.

Agriculturists, geologists, and industrialists agree that the agricultural interests of the area will be aided by the development of new industries and the expansion of old industries. The future of agriculture in many respects depends upon a better balance between industry and agriculture.

In achieving this balance, the mineral resources of the State play an important rôle far out of proportion to their annual value of output. Low-cost fuel and power from coal, oil and gas, and materials for industrial housing and construction, are available in large amounts in the State. The low cost of lake transportation provides a cheap means of assembling important raw materials not found within the boundaries of the State. Upon this natural resource base, a diversified array of industries can be built that are limited in extent and output only by the consuming power of the area.

The mineral industry in Illinois exceeded all previous years in value of output with a total of \$282,499,941 as compared with \$211,050,411 in 1939. In rank of output among the states, Illinois also rose from a previous position of seventh place in 1939 and several preceding years, to fifth place in 1940.

Petroleum production in 1940 reached the highest level in the history of the State, with an output of 146,788,000 barrels. The peak of production for the year was reached in the month of June, when daily average production was 506,500 barrels as compared with a daily average production of 401,000 for the year.

Coal production responded to the stimulus of increased industrial activity with an output again around 50 million tons.



FIG. 1.—County location map of Illinois.



VALUE OF ILLINOIS MINERALS

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TABLE 1.—SUMMARY OF PRODUCTION AND VALUE OF ILLINOIS MINERALS, 1939 AND 1940

Mineral	1939 <sup>a</sup>		1940 <sup>c</sup>	
	Amount <sup>b</sup>	Value	Amount <sup>b</sup>	Value
Petroleum (barrels).....	94,302,000	\$101,200,000	146,788,000	\$158,746,200
Coal (tons).....	46,450,000	74,200,000	49,495,000	79,172,000
Pig iron (gross tons).....	2,860,577	57,718,814	3,900,000	78,650,000
Coke.....	1,884,240	11,963,932	3,014,840	18,217,939
Clay products, including pottery.....		12,600,456		15,453,783
Cement, portland (barrels).....	4,648,834	5,481,851	4,937,000	7,209,431
Sand and gravel (total tons).....	9,764,050	5,101,965	10,753,448	5,838,125
Sand:				
Structural.....	1,405,244	585,234	1,702,712	790,558
Paving and road making.....	879,337	383,288	1,363,919	521,022
Glass.....	(d)	(d)	(d)	(d)
Molding.....	486,490	467,955	553,472	530,402
Railroad ballast.....	(d)	(d)	(d)	(d)
Grinding and polishing.....	(d)	(d)	(d)	(d)
Blast.....	(d)	(d)	(d)	(d)
Filter.....	(d)	(d)	(d)	(d)
Fire and furnace.....	(d)	(d)	68,104	100,652
Engine.....	66,518	33,145	50,638	30,505
Other <sup>e</sup> .....	1,194,098 <sup>e</sup>	1,202,612 <sup>e</sup>	1,158,157	1,282,775
Gravel:				
Structural.....	1,489,468	726,724	1,553,123	825,323
Paving and road making.....	1,739,703	748,526	2,061,883	849,165
Railroad ballast.....	1,369,190	492,037	1,506,732	608,034
Other.....	1,134,002	462,264	734,708	299,689
Limestone (total tons).....	8,156,980	7,489,164	9,476,851	7,729,779
Construction.....	164,400	191,979	2,530	14,957
Curbing, flagging and paving.....	21,650	12,234	16,700	4,129
Road metal and concrete.....	5,965,470	5,409,074	5,660,360	4,229,303
Flux.....	319,790	311,580	567,350	572,515
Railroad ballast.....	239,220	161,044	359,540	234,056
Riprap.....	149,800	151,510	366,210	354,600
Rubble.....	2,080	2,884	20,930	33,105
Agricultural.....	1,444,273	1,272,336	2,258,751	1,910,000
Other uses.....	109,410	223,934	224,480	377,114
Natural gasoline (gallons).....	4,011,701	228,882	21,432,000	1,122,000
Lime.....	147,729	1,064,154	161,358	1,150,113
Fuller's earth.....	28,248	218,553	24,974	205,494
Fluorspar (short tons).....	75,257	1,638,693	104,698	2,313,747
Quartz (silica).....	(#)	(#)	(#)	(#)
Clay shipments.....	126,611	271,730	169,938	419,740
Tripoli.....	(#)	(#)	(#)	(#)
Sandstone.....	236,560	301,435	285,388	326,038
Pyrites.....	(#)	(#)	(#)	(#)
Other minerals <sup>h</sup> .....	1,077,211	1,253,534	2,020,624	2,813,491
Total value, including pig iron and coke manufacture.....		\$280,733,163		\$379,367,880
Total value, exclusive of pig iron and coke manufacture.....		\$211,050,417		\$282,499,941

<sup>a</sup> Final figures.

<sup>c</sup> Preliminary figures.

<sup>e</sup> Includes figures for glass, grinding and polishing, blast, filter, and railroad ballast sand in 1940; in 1939, figures include fire and furnace sand in addition.

<sup>h</sup> Included in "Other minerals."

<sup>b</sup> In tons except as noted.  
<sup>d</sup> Included in "Other sands."  
<sup>i</sup> Includes figures for quartz, feldspar pyrites, amorphous silica (tripoli), crushed miscellaneous stone, and natural cement.

Among the building materials, structural sand, structural gravel, paving and road-making gravels and cement showed increases.

Clay products increased substantially in response to a substantial increase in building activity.

Agricultural limestone consumption exceeded all previous records, passed the 2-million ton mark, and was the greatest of any state in the Union.

The fluorspar industry has been stimulated to unusual activity because of the combined effects of unusually high production in the steel industry and the decline of foreign imports, during the present world war.

#### ACKNOWLEDGMENTS

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### PRODUCTION AND VALUE OF ILLINOIS MINERALS

Production and value of Illinois minerals in 1940 with comparative data for 1939 are presented in table 1.

### COAL IN 1940

#### PRODUCTION

An increase in coal production occurred in Illinois as well as in the nation as a whole. Coal production for the coal-producing states of the Union during the last four years is shown in table 2, and a comparative table of production during the last five years for the nation, for Illinois, and for adjacent states, is shown in table 3.

*Production by counties.*—The production of coal in Illinois by shipping mines, by counties, and by months, is shown in table 4. This does not represent the entire output of Illinois coal because approximately 12 per cent, not included in table 4, is produced by local mines and shipped by truck. This table is useful primarily in showing regional concentration of the coal industry in Illinois, and seasonal trends, by counties.

TABLE 2.—COAL PRODUCTION IN THE UNITED STATES, BY STATES, 1937-1940<sup>a</sup>  
(In net tons)

State	1937	1938	1939	1940
Alaska.....	131,657	154,682	146,000	150,000
Alabama.....	12,440,322	11,061,493	11,995,000	15,150,000
Arkansas.....	1,510,753	1,197,047	1,122,000	1,550,000
Colorado.....	7,187,211	5,663,144	5,890,000	6,516,000
Georgia and North Carolina.....	(b)	(b)	25,000	29,000
Illinois.....	51,601,638	41,912,085	46,450,000	49,495,000
Indiana.....	17,764,774	14,758,484	16,650,000	18,565,000
Iowa.....	3,637,054	3,103,187	3,050,000	2,908,000
Kansas.....	2,892,560	2,654,141	2,920,000	3,166,000
Kentucky:				
Eastern.....	38,523,554	31,177,472	34,730,000	39,732,000
Western.....	8,562,890	7,367,746	8,075,000	8,668,000
Maryland.....	1,548,980	1,281,413	1,468,000	1,478,000
Michigan.....	562,262	494,481	434,000	440,000
Missouri.....	4,091,394	3,436,118	3,275,000	3,570,000
Montana.....	2,965,193	2,732,050	2,810,000	2,974,000
New Mexico.....	1,714,955	1,239,037	1,206,000	1,081,000
North Dakota.....	2,250,837	2,050,099	2,089,000	} 2,256,000
South Dakota.....	46,979	48,058	50,000	
Ohio.....	25,177,867	18,590,618	19,362,000	22,092,000
Oklahoma.....	1,600,295	1,244,732	1,178,000	1,613,000
Pennsylvania bituminous.....	111,002,289	77,704,537	92,190,000	112,907,000
Tennessee.....	5,212,471	4,472,403	5,280,000	6,010,000
Texas.....	910,352	878,685	810,000	661,000
Utah.....	3,809,476	2,946,951	3,340,000	3,524,000
Virginia.....	13,795,239	12,283,036	13,230,000	14,950,000
Washington.....	2,001,449	1,566,973	1,690,000	1,688,000
West Virginia.....	118,646,343	93,288,172	107,938,000	126,302,000
Wyoming.....	5,918,359	5,203,877	5,383,000	5,748,000
Other states <sup>c</sup> .....	24,296 <sup>b</sup>	34,043 <sup>b</sup>	9,000	22,000
Total bituminous coal.....	445,531,449	348,544,764	393,065,000	453,245,000

<sup>a</sup> U. S. Bituminous Coal Division, Weekly Coal Report No. W. C. R. 1231, p. 12, Feb. 15, 1941.  
<sup>b</sup> Georgia and North Carolina included with "Other States."  
<sup>c</sup> Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon. The States reporting are not identical from year to year.

TABLE 3.—PRODUCTION OF BITUMINOUS COAL IN THE UNITED STATES, AND IN ILLINOIS AND ADJACENT STATES, 1936-1940<sup>a</sup>  
(In thousands of net tons)

Year	United States	Illinois	Per cent of total	Indiana and western Ky.	Per cent of total	Ark., Iowa, Mo., Kansas	Per cent of total
1936	439,088	50,927	11.60	24,725	5.97	12,513	2.85
1937	445,531	51,602	11.58	22,126	5.91	12,132	2.73
1938	348,545	41,912	12.03	26,328	6.34	10,390	2.98
1939	393,065	46,450	11.82	26,193	6.29	10,367	2.63
1940	453,245	49,495	10.92	27,233	6.01	11,194	2.46

<sup>a</sup> U. S. Bituminous Coal Division, Weekly Coal Report 1235, Mar. 15, 1941.

TABLE 4.—COAL PRODUCTION OF SHIPPING MINES  
(In net)

County	District	January	February	March	April	May	June
Bureau.....	1st	11,208	7,586	5,783	1,776	.....	.....
*LaSalle.....	1st	60,210	41,355	34,514	23,758	16,376	12,751
*Will.....	1st	130,313	122,840	117,876	87,125	83,480	73,603
Peoria.....	2d	129,478	74,514	26,758	24,822	27,428	18,214
Woodford.....	2d	8,102	6,126	5,711	.....	.....	.....
*Knox.....	3d	60,666	54,392	50,241	43,763	31,638	27,143
*Henry.....	3d	51,956	54,422	55,656	49,625	50,914	52,426
*Fulton.....	3d	374,216	345,728	314,715	281,278	228,969	217,989
Macon.....	4th	21,780	16,210	13,486	6,031	3,814	.....
Sangamon.....	4th	265,469	216,070	176,971	129,999	107,230	93,733
Christian.....	4th	536,235	404,826	422,152	321,192	360,892	330,335
*Vermilion.....	5th	222,055	179,049	160,477	140,856	135,991	115,711
*Edgar.....	5th	4,090	6,037	1,408	.....	.....	.....
Macoupin.....	6th	380,241	396,178	289,302	269,994	246,887	222,431
Bond.....	6th	17,440	10,357	8,610	6,358	6,611	5,255
Montgomery.....	6th	85,145	75,916	67,041	64,496	67,403	55,754
Madison.....	7th	211,437	190,315	141,789	102,145	75,087	53,678
*St. Clair.....	8th	186,636	154,297	124,785	82,760	70,026	58,566
Clinton.....	8th	28,828	15,672	10,489	6,394	6,253	4,625
*Perry.....	9th	279,848	347,121	313,557	228,157	219,986	209,557
*Randolph.....	9th	138,201	95,298	107,991	80,127	73,105	68,143
*Jackson.....	9th	192,482	167,028	141,261	146,992	147,584	133,865
Franklin.....	10th	1,313,484	1,045,142	784,308	448,845	446,409	423,040
Jefferson.....	10th	18,063	19,933	20,351	15,513	15,259	13,088
*Saline.....	11th	468,225	412,655	333,162	207,196	257,814	211,063
*Williamson.....	12th	272,319	239,544	189,357	145,725	136,854	125,181
Marion.....	13th	26,796	14,895	.....	4,948	10,612	9,171
Washington.....	13th	43,322	32,677	30,975	12,710	10,269	13,587
Total.....	.....	5,638,245	4,746,183	3,948,726	2,932,585	2,836,891	2,548,909
Strip mines.....	.....	100,521	1,090,149	1,060,411	854,214	722,427	721,912
Shaft mines.....	.....	5,537,724	3,656,034	2,888,315	2,078,371	2,114,464	1,826,997

<sup>a</sup> Illinois Dept. of Mines and Minerals, Mimeographed Report, Mar. 25, 1941.

NOTE: All figures are subject to revision in the Annual Coal Report of the Department.

\* Counties with strip mine operations.

IN ILLINOIS, BY COUNTIES AND BY MONTHS, 1940<sup>a</sup>  
 tons)

July	August	September	October	November	December	Total	Per cent of State total
.....	274	5,468	5,838	7,263	7,566	52,762	0.1
12,100	17,813	40,596	32,599	43,462	43,276	378,810	0.8
85,843	99,702	95,120	115,367	121,445	147,854	1,280,568	2.8
22,581	28,773	24,029	36,211	35,089	38,264	486,161	1.0
274	3,882	5,608	3,583	6,702	6,180	46,168	0.1
34,279	32,628	56,172	39,549	51,273	60,348	542,092	1.2
53,229	49,371	55,575	59,094	57,658	61,837	651,763	1.4
225,596	291,592	339,746	305,461	367,572	432,126	3,724,988	8.1
.....	1,998	9,388	15,195	17,784	105,686	0.3	
119,466	87,421	113,386	127,594	211,527	250,644	1,899,510	4.1
344,474	448,110	413,190	517,993	498,158	532,120	5,129,677	11.1
138,315	129,583	128,578	158,347	165,716	202,088	1,876,766	4.0
.....	11,535	0.1					
249,680	256,959	269,994	342,799	404,034	424,280	3,752,779	8.1
5,014	8,838	10,538	12,181	12,428	11,408	115,038	0.3
55,792	64,459	63,736	47,605	61,446	74,134	782,927	1.7
66,744	77,515	126,802	102,997	133,079	155,974	1,437,562	3.1
59,035	65,657	93,232	73,124	107,145	123,929	1,199,192	2.6
7,034	11,732	16,189	15,639	19,291	21,774	163,920	0.4
238,959	273,515	285,310	275,258	297,987	359,810	3,429,065	7.5
65,844	98,069	114,094	113,734	127,578	137,120	1,219,304	2.7
162,380	164,069	158,400	179,034	166,774	171,620	1,931,489	4.2
517,965	747,711	800,050	785,640	902,930	1,016,227	9,231,751	20.0
13,940	19,992	22,650	18,314	24,725	30,297	232,125	0.5
222,769	335,217	321,838	286,981	358,892	401,287	3,817,099	8.3
130,313	168,744	168,935	131,159	162,053	192,003	2,062,187	4.5
9,704	13,135	12,340	15,929	19,500	21,893	158,923	0.4
1,939	24,082	17,864	15,380	25,976	28,851	257,632	0.6
2,843,269	3,518,843	3,761,438	3,826,798	4,494,898	4,970,694	45,977,479	100.0
773,956	933,061	1,012,733	934,297	1,078,488	1,270,516	10,522,685	22.0
2,069,313	2,585,782	2,748,705	2,892,501	3,416,410	3,700,178	35,454,794	78.0

*Seasonality of production.*—Monthly production of coal in the United States and Illinois, together with the percentage that Illinois produced of the national total, is shown in table 5.

TABLE 5.—PRODUCTION OF COAL IN ILLINOIS BY MONTHS, 1940<sup>a</sup>  
(In thousands of tons)

Month	U. S. production	Illinois	Illinois per cent of U. S. total
January.....	44,976	5,980	13.3
February.....	39,277	5,090	12.8
March.....	35,244	4,350	12.3
April.....	32,790	3,173	9.7
May.....	34,896	3,007	8.6
June.....	32,400	2,842	8.8
July.....	35,890	3,077	8.5
August.....	39,010	3,856	9.9
September.....	38,650	3,995	10.3
October.....	38,012	4,077	10.7
November.....	40,012	4,637	11.5
December.....	41,400	5,411	13.1
Total.....	452,557	49,495	Av.: 10.9

<sup>a</sup> U. S. Bituminous Coal Division, Weekly Coal Reports.

The severe seasonal drop in coal production in Illinois as compared with the less drastic seasonal decline in the national output, is a problem which Illinois producers have not solved. Mining districts in Pennsylvania, West Virginia, and eastern Kentucky, are supported by the lake cargo trade in an otherwise normally quiet summer market. The mines in Illinois, Indiana, and western Kentucky have no similar outlet. Four possibilities for developing a summer market present themselves, all of which should be examined carefully.

(1) Development of traffic on the Illinois and Mississippi waterways for entering the markets of St. Paul and Minneapolis and other points along the waterway. In view of the fact that water-borne coal supplies destined for Upper Mississippi Valley points must be moved during the navigation season in the summer months, any traffic from Illinois to Minnesota markets, either by all-rail haul or in conjunction with river transportation, will increase mining activity in the summer months.

(2) Development of a market among Lake Michigan ports in eastern Wisconsin. Possibility of developing such a market depends upon the granting of freight rate reductions from Illinois mines to Chicago on coal destined for lake cargo movements and, subsequently, the ability of coal operators to enter this market in the face of competition of lake cargo coal.

(3) A study of storage problems of Illinois coals for the purpose of developing methods by which coal can be stored satisfactorily for several months.

(4) The development of a fuel, either through treatment of Illinois coal, or processing, or development of domestic fuel-burning, that will improve the position of Illinois coal for domestic use, in competition with lake cargo coal from the Appalachian field.

*Mechanization of coal mining in Illinois.*—Expansion in mechanization of coal mining in Illinois is shown both in the increase in coal recovery by strip mine methods and the increased quantities of coal loaded by machine. The history of this development in Illinois from 1928 to 1939 is shown in table 6.

#### DISTRIBUTION OF COAL IN THE ILLINOIS COAL MARKET AREA IN 1940

*Origin and distribution of all-rail coal.*—Coal consumed in the Illinois coal market area is received principally by rail. The principal producing districts contributing to the coal supply in this market are districts Nos. 7 and 8 (Bituminous Coal Division classification) in the Appalachian region and districts 9, 10, and 11 in the Interior coal basin.

A detailed distribution report of the origin and destination of all-rail coal for 1939 and 1940 is given in table 7.

*Distribution of lake cargo coal.*—A total of 46,548,000 tons of cargo coal and 1,563,000 tons of vessel fuel was loaded on vessels at Lake Erie ports, of which 11,427,000 tons arrived at commercial docks on Lake Michigan and Lake Superior. The origin of lake cargo coal for both cargo and vessel fuel is shown in table 8.

TABLE 6.—TREND OF MECHANIZATION IN ILLINOIS COAL MINES, 1928-1939<sup>a</sup>  
(In thousands of net tons)

Year	Strip mined	Per cent of total mined	MINED UNDERGROUND			Total	Grand total
			Hand loaded	Machine loaded	Per cent		
1928.....	4,339	7.8	44,638	6,971	13.5	51,609	55,948
1929.....	5,375	8.9	37,031	18,252	33.0	55,283	60,658
1930.....	6,116	11.4	24,768	22,847	48.0	47,615	53,731
1931.....	6,326	14.3	15,401	22,577	59.4	37,978	44,304
1932.....	6,551	19.6	11,564	15,360	57.0	26,923	33,475
1933.....	5,625	15.0	14,667	17,122	53.9	31,789	37,414
1934.....	6,160	14.9	16,630	18,482	52.6	35,112	41,272
1935.....	7,410	16.6	16,602	20,513	55.3	37,115	44,525
1936.....	9,113	17.9	15,704	26,110	62.4	41,814	50,927
1937.....	11,449	22.2	11,809	28,344	70.6	40,153	51,602
1938.....	10,570	25.2	7,978	23,363	74.5	31,342	41,911
1939.....	12,016	26.9	6,620	26,019	79.7	32,639	44,655

<sup>a</sup> U. S. Bituminous Coal Division, Weekly Coal Distribution Report No. W. C. R. 1235, March 15, 1941.

TABLE 7.—ORIGIN AND DESTINATION OF REVENUE RAILROAD SHIPMENTS OF COAL FROM ILLINOIS,  
(Exclusive of non-  
(In net

From	To:	Chicago District	Illinois, other <sup>b</sup>	Milwaukee, Wis.	Wisconsin, other	Council Bluffs, Iowa
1939						
Western Pennsylvania.....		1,068	430	31		
Central Pennsylvania, Somerset-Myersdale, and Cumberland-Piedmont.....		14,996	4,202	502	6,789	542
Fairmont, W. Va.....		54,022	5,039		608	
Northern and eastern Ohio.....		1,154			984	
Southern Ohio.....		445	34		37	
Kanawha, Logan and Kenova-Thacker.....		764,169	92,164	1,172	18,154	469
New River-Winding Gulf and Pocahontas-Tug River.....		5,996,928	350,402	71,365	504,773	
Northeast Kentucky and McRoberts Virginia.....		956,370	88,512	1,200	33,671	24
Hazard, Harlan and Southern Appalachians.....		278,183	38,708	3,319	69,742	
Ex-river coal.....		2,208,127	367,468	340	32,474	480
Northern Illinois.....		321				
Central and Southern Illinois.....		669,466	2,363,089	3,151	207,085	441
Indiana.....		4,417,242	8,231,018	54,291	1,119,251	20,830
Western Kentucky.....		2,502,353	1,111,287	103,650	401,995	117
		570,202	241,774	51	131,372	2,628
Grand Total.....		18,435,046	12,894,127	239,072	2,526,935	25,531
Per cent of change over 1938.....		+15.3	+21.7	+15.6	+ 8.0	- 8.0
1940						
Western Pennsylvania.....		2,034	40	40	277	
Central Pennsylvania, Somerset-Myersdale, and Cumberland-Piedmont.....		15,115	3,908	194	5,513	660
Fairmont, W. Va.....		72,784	4,929		408	
Northern and eastern Ohio.....		1,117	318	34	993	
Southern Ohio.....		500				
Kanawha, Logan and Kenova-Thacker.....		1,032,100	100,082	654	14,650	512
New River-Winding Gulf and Pocahontas-Tug River.....		7,188,931	405,153	69,068	587,122	41
Northeast Kentucky and McRoberts Virginia.....		1,180,704	103,595	4,279	26,753	41
Hazard, Harlan and Southern Appalachians.....		251,938	44,162	3,014	67,581	42
Ex-river coal.....		3,027,320	412,803	5,822	40,961	345
Northern Illinois.....		43	856			
Central and southern Illinois.....		585,943	2,803,745	45	199,034	
Indiana.....		4,770,944	9,230,374	60,452	1,200,737	19,478
Western Kentucky.....		2,847,860	1,273,004	113,233	610,717	102
		532,695	307,935	1,466	113,411	3,402
Grand total.....		21,510,028	14,690,904	258,301	2,868,157	24,623
Per cent of change over 1939.....		+16.7	+13.9	+ 8.0	+13.5	- 3.6

<sup>a</sup> Data from U. S. Bituminous Coal Division, Monthly Coal Distribution Report No. 113, May 3, 1941.

<sup>b</sup> Includes Davenport, Iowa for shipments from Ohio and the Crescent, and includes Davenport, Bettendorf, and Iowa, Iowa for shipments from Illinois, Indiana and Western Kentucky; excludes East St. Louis, Illinois.



INDIANA, WESTERN KENTUCKY, AND FROM THE APPALACHIAN FIELDS IN 1939 AND 1940<sup>a</sup>  
 revenue railroad fuel)  
 tons)

Iowa, other	St. Louis, Mo.	Kan- sas City, Mo.	St. Joseph, Mo.	Mis- souri, other	Kan- sas, other	Ne- braska, other	Minne- sota	South Da- kota	North Da- kota
1939									
36									
10,455	3,358	977	218	1,695	1,305	1,170	5,070	1,008	
1,442							55		
2,363							595	36	
341							100		
163,389	174,995			521		54	7,245	482	
67,163	125,683	122		190			89,531	6,883	
120,177	150			797		351	17,518	1,760	
10,492	1,881						10,976	1,411	
489,748	18,170			808		449	28,045	1,875	
1,181,515	50			571		42	64,055	554	35
1,202,208	3,453,746	620	5,364	855,379	9,815	74,591	334,716	93,997	885
411,482	62,067	168	35	7,309	48	1,482	81,507	2,323	
211,472	37,557			34,702		6,070	53,227	16,990	6,941
3,872,283	3,877,657	1,887	5,617	901,972	11,168	84,209	692,640	127,319	7,861
+7.8	+27.2	-2.2	+4.2	-12.9	-9.0	-6.8	-11.6	-9.0	+34.2
1940									
52									
10,589	4,736	767	376	1,617	1,199	1,115	4,992	1,037	
1,052	655						31		
1,307							173		
359							157		
172,902	181,281			747			7,151	441	
71,709	425,433			653	44	35	103,155	9,183	
132,308				811		435	18,277	2,291	
13,622	157,716			251			12,143	1,738	
534,351	18,076			663		1,020	25,676	1,390	
1,155,135				281		32	57,295	172	
1,498,372	3,748,905	6,405	6,543	1,107,557	12,950	84,904	325,466	103,351	792
459,927	42,290	155		4,002		1,723	89,509	1,855	
252,286	59,775			34,702		6,070	53,227	16,990	6,941
4,303,971	4,638,867	7,327	6,919	1,151,284	14,193	95,334	707,881	138,448	7,733
+11.1	+19.6	+288.3	+23.2	+27.6	+27.1	+13.1	+2.2	+8.7	-1.6

## MINERAL INDUSTRY IN 1940

TABLE 8.—ORIGIN OF LAKE CARGO COAL, 1939 AND 1940<sup>a</sup>  
(In thousands of net tons)

From	1939	1940
Ohio.....	2,356	2,646
Pennsylvania.....	9,259	11,578
Moundsville.....	266	308
Fairmont, Cumberland-Piedmont..	1,697	2,049
Southern W. Va.—Low volatile...	8,665	10,372
Southern W. Va.—High volatile...	10,883	12,025
Eastern Ky., Tenn., and Va.....	7,998	9,133
Total.....	41,124	48,111

<sup>a</sup> U. S. Bituminous Coal Division, Monthly Coal Distribution Report No. 111, p. 3, Feb. 27, 1941.

Receipts of coal on upper lake docks for the years 1934 to 1940 are shown in table 9.

TABLE 9.—LAKE CARGO SHIPMENTS AND RECEIPTS OF COAL AT UPPER  
LAKE DOCKS, 1934-1940<sup>a</sup>  
(In thousands of net tons)

Year	Bituminous coal loaded into vessels at Lake Erie ports	RECEIPTS AT		Total
		Lake Superior ports	Lake Michigan ports <sup>b</sup>	
1934.....	34,869	8,023	4,535	12,558
1935.....	34,730	6,829	4,043	10,872
1936.....	44,011	9,358	5,114	14,472
1937.....	43,645	9,115	4,822	13,937
1938.....	34,173	6,614	3,758	10,372
1939.....	39,837	6,515	4,229	10,744
1940.....	46,548	6,991	4,436	11,427

<sup>a</sup> U. S. Bituminous Coal Division, Monthly Coal Distribution Reports.

<sup>b</sup> Ports on Lake Michigan north of Waukegan.

*Coal shipments on inland waterways.*—Coal shipments on the Illinois and Mississippi waterways for the years 1937 to 1939 are shown in table 10.

TABLE 10.—COAL SHIPMENTS ON INLAND  
WATERWAYS, 1937-1939<sup>a</sup>  
(In net tons)

Year	Mississippi River	Illinois River
1937.....	89,554	490,862
1938.....	199,737	956,120
1939.....	409,624	1,700,000

<sup>a</sup> Letter from U. S. Engineer Office, Chicago.

*St. Louis coal supply.*—The enactment of an ordinance in the city of St. Louis for the elimination of smoke has had the effect of shifting the sources of coal supply.

A certain portion of Illinois coal has been displaced by coal received from Appalachian fields and from Arkansas. The principal fields in the Appalachian district that were drawn upon were New River field of West Virginia, which increased its shipments from 10,000 tons per month to approximately 60,000 tons per month, and the producing fields in Virginia which for the first time entered this market in a substantial way.

St. Louis receives coal in varying quantities from 10 producing districts, of which data for all but Arkansas-Oklahoma are available. Changes in sources of coal, so far as they can be ascertained, are shown in tables 11 and 12.

TABLE 11.—SOURCES OF COAL DESTINED FOR ST. LOUIS, MO., 1939 AND 1940<sup>a</sup>  
(In net tons)

From	1939	1940	Per cent change
Central Pennsylvania.....	3,358	4,736	+ 41.0
Fairmont (Pa.).....		655	+
Kanawha (W. Va.).....	174,995	181,281	+ 3.6
New River (W. Va.).....	125,683	425,433	+238.5
Virginia and Northeast Kentucky.....	2,031	157,716	+ 77.5
Hazard, Harlan.....	18,170	18,076	—
Illinois.....	3,453,796	3,748,905	+ 8.5
Indiana.....	62,067	42,290	— 31.8
Western Kentucky.....	37,557	59,775	+ 59.1
Total.....	3,877,657	4,638,867	+ 19.6

<sup>a</sup> U. S. Bur. Mines, Monthly Coal Distribution Reports Nos. 100 to 111.

The summary table shows that two Appalachian districts—New River (W. Va. low-volatile district) and Virginia—increased shipments into St. Louis in 1940 over shipments in 1939 by about 450,000 tons. This table also shows that Illinois supplied 89.0 per cent of the known shipments to St. Louis in 1939, and 81.0 per cent in 1940. Had the 1939 ratio been maintained in 1940, shipments to St. Louis from Illinois should have been 4,128,592 tons instead of the 3,748,905 tons actually shipped. This difference approximates the gains made by the two eastern fields.

*Arkansas coal.*—With regard to Arkansas coal, data of shipments from this field to St. Louis are not published but for the heating season of 1940-41 have been estimated at 200,000 tons.

#### COST OF PRODUCTION OF COAL IN 1940

A preliminary summary report of costs and production tonnage for the year 1940 has been issued by the Bituminous Coal Division. Portions of the report which are of particular interest in Illinois are reproduced (Table 13). Cost of production in summary form for all producing districts and price areas is given in the first part of the table followed by detailed breakdown of production costs for mines in Illinois, Indiana, and western Kentucky.

TABLE 12.—COAL SHIPMENTS INTO ST. LOUIS, MISSOURI, BY FIELDS OF ORIGIN AND BY MONTHS, IN 1939 AND 1940\*

(In net tons)

Year Month	Field of origin	Central Penn.	Fair- mont	Kanawha	New River	N. E. Ky.	Virginia	Hazard, Harlan	Northern Illinois	Central and Southern Illinois	Indiana	Western Kentucky	Total	Illinois per cent of total
1939														
January		267		19,025	10,670		304	1,866		331,672	4,262	2,782	370,848	89.5
February		270		15,010	11,406	100	231	1,680		340,763	4,660	2,560	376,680	90.4
March		259		14,692	13,001	50	192	1,595		250,504	2,780	1,856	284,929	87.9
April		51		1,793	3,197		80	787		307,895	424	1,433	315,660	97.5
May		619		8,172	5,994			457		150,651	123	1,284	167,300	90.0
June		416		15,890	12,373		317	1,491		173,202	3,373	345	207,407	83.5
July		245		15,046	12,306		56	1,194		233,386	5,646	640	268,519	86.9
August		330		13,721	10,081		107	1,020		278,472	11,030	1,555	316,316	88.0
September		323		12,540	11,051		140	1,488		318,944	11,230	4,866	360,582	88.4
October		280		18,751	14,036		53	1,754	50	379,824	12,301	7,403	434,452	87.4
November		232		19,915	12,376		157	2,755		316,862	3,306	5,239	360,842	87.6
December		66		20,440	9,192		244	2,083		371,571	2,932	7,594	414,122	89.7
Total, 1939		3,358		174,995	125,683	150	1,881	18,170	50	3,453,746	62,067	37,557	3,877,657	89.0
1940														
January		78		17,295	10,965		359	2,362		598,678	18,248	22,683	670,668	88.6
February		209		16,881	10,156		252	2,155		376,802	8,522	9,954	424,931	88.5
March		444		15,744	11,606		102	1,856		305,776	2,340	1,658	339,526	90.0
April		409		14,577	10,023		419	1,195		246,534	1,220	748	275,125	89.5
May		337	77	13,324	14,733			1,186		231,559	94	2,741	265,244	87.0
June		203		13,161	28,630		8,118	874		222,337	280	1,078	274,681	81.0
July		363		13,473	44,518		13,873	571		298,519	1,582	1,498	374,397	79.8
August		320	77	14,161	60,696		23,241	576		278,346	2,524	1,999	381,940	73.0
September		477	128	14,131	66,296		31,769	833		300,221	3,308	7,928	425,091	70.8
October		740	171	14,195	73,048		33,955	1,242		271,018	1,873	2,924	399,166	67.8
November		690	56	14,594	53,124		22,933	2,049		291,942	1,048	3,547	389,983	75.0
December		466	146	19,745	41,638		21,502	3,177		327,173	1,251	3,017	418,115	78.0
Total, 1940		4,736	655	181,281	425,433		157,716	18,076		3,748,905	42,290	59,775	4,638,887	81.0
1941														
January		1,330	274	15,674	54,648		32,711	2,264		336,113	2,168	4,712	449,894	74.5

\* U. S. Dept. Int., M. C. D. bulletins, "Distribution of Coal Shipments."

TABLE 13.—PRELIMINARY SUMMARY REPORT OF COSTS AND PRODUCTION TONNAGE OF COAL IN THE UNITED STATES, BY PRICE AREAS. (SUBJECT TO COMPLETION OF THE EDITING OF COST REPORTS) FOR CALENDAR YEAR 1940<sup>a</sup>

Weighted average costs by districts and price areas (using total tons produced as divisor for total amount of producing, administrative, and selling costs of all mines, including captive mines)

Minimum Price Area and Producing District	Total tons produced	Total producing, administrative, and selling costs	Cost per ton
<b>Price Area 1</b>			
Dist. 1—Eastern Penn.....	37,276,348	\$ 79,559,863	\$2.1343
Dist. 2—Western Penn.....	69,171,481	137,318,432	1.9852
Dist. 3—Northern W. Va.....	23,626,345	39,024,622	1.6517
Dist. 4—Ohio.....	17,716,471	30,349,198	1.7130
Dist. 5—Michigan.....	326,750	1,273,106	3.8963
Dist. 6—Panhandle.....	4,162,925	6,763,890	1.6248
Dist. 7—Southern numbered 1.....	56,568,082	115,077,449	2.0343
Dist. 8—Southern numbered 2.....	89,360,975	170,014,034	1.9026
Total, Price Area 1.....	298,209,377	579,380,594	1.9421
<b>Price Area 2</b>			
Dist. 9—Western Kentucky.....	6,396,720	8,968,507	1.4020
Dist. 10—Illinois.....	49,067,673	77,776,922	1.5851
Dist. 11—Indiana.....	16,559,314	23,562,365	1.4229
Dist. 12—Iowa.....	2,279,161	5,511,332	2.4181
Total, Price Area 2.....	74,302,868	115,819,126	1.5587
<b>Price Area 3</b>			
Dist. 13—Southeastern.....	15,731,368	36,374,564	2.3122
<b>Price Area 4</b>			
Dist. 14—Arkansas, Oklahoma.....	1,326,271	4,361,011	3.2882
<b>Price Area 5</b>			
Dist. 15—Southwestern.....	6,685,711	12,279,089	1.8366
<b>Price Area 6</b>			
Dist. 16—Northern Colorado.....	2,209,431	5,220,924	2.3630
Dist. 17—Southern Colorado.....	4,675,213	11,707,055	2.5041
Dist. 18—New Mexico.....	492,168	1,636,279	3.3246
Total, Price Area 6.....	7,376,812	18,564,258	2.5166
<b>Price Area 7</b>			
Dist. 19—Wyoming.....	5,780,029	10,540,896	1.8237
Dist. 20—Utah.....	3,431,145	6,890,338	2.0082
Total, Price Area 7.....	9,211,174	17,431,234	1.8924
<b>Price Area 9</b>			
Dist. 22—Montana.....	2,759,909	3,689,997	1.3370
<b>Price Area 10</b>			
Dist. 23—Washington and Alaska.....	1,532,860	4,734,219	3.0885
Total, United States.....	417,136,350	\$792,634,092	\$1.9002

<sup>a</sup> U. S. Dept. of Interior, Bituminous Coal Division, Preliminary Summary Report of Costs and Production Tonnage, Calendar Year 1940, published in National Coal Association Bulletin, April 29, 1941, p. 1.

TABLE 14.—PRELIMINARY SUMMARY OF PRODUCING, ADMINISTRATIVE, AND SELLING COSTS OF COAL MINED IN DISTRICTS 9 (WESTERN KENTUCKY), 10 (ILLINOIS), AND 11 (INDIANA), IN 1940

District No. 9 (Western Kentucky)—All Mines				
Mines over and under 50 tons daily capacity:	Tonnage Statement			
	Hand loaded	Machine loaded	Strip mining	Total
Tons produced.....	2,987,776	2,458,965	806,446	6,253,187
Tons sold in open market.....	2,694,905	2,251,378	807,566	5,753,849
Mines under 50 tons.....				143,533
Total production of mines over and under 50 tons.....				6,396,720
Mines over 50 tons daily capacity:	Costs per ton			
Day men (paid by hour, week, or month).....	\$0.2954	\$0.3380	\$0.1862	\$0.2981
Mining (piece and day workers).....	0.5586	0.3441	0.0395	0.4073
Yardage and dead work.....	0.0084	0.0308		0.0162
Mine supervisory and clerical employees.....	0.0521	0.0646	0.0337	0.0546
Total mine labor.....	\$0.9145	\$0.7775	\$0.2594	\$0.7762
All supplies except coal and power.....	0.1321	0.2003	0.3489	0.1869
Power purchased.....	0.0523	0.0682	0.0618	0.0598
Coal used to produce coal.....	0.0093	0.0074		0.0073
Total mine supplies.....	0.1937	0.2759	0.4107	0.2540
Total other operating charges.....	0.1696	0.2258	0.2505	0.2021
Total producing cost.....	1.2839	1.2807	0.9664	1.2417
Total administrative expenses.....	0.0481	0.0595	0.0317	0.0505
Total selling cost on coal sold in open market.....	0.0977	0.1238	0.1991	0.1221
Total producing and administrative cost.....	1.3320	1.3402	0.9981	1.2922
Total producing, administrative and selling cost, mines over 50 tons daily capacity.....	\$1.4297	\$1.4640	\$1.1972	\$1.4143
Total cost for mines under 50 tons daily capacity.....				\$1.2934
Weighted average of total cost for all mines over and under 50 tons daily capacity:				
Using tons sold in open market as divisor for selling cost.....				\$1.4143
Using total tons produced as divisor for selling cost.....				\$1.4020

District No. 10 (Illinois)—All Mines

Mines over and under 50 tons daily capacity:	Tonnage Statement			
	Hand loaded	Machine loaded	Strip mining	Total
Tons produced.....	6,414,662	29,076,631	12,955,338	48,446,631
Tons sold in open market.....	5,395,726	23,726,392	12,816,784	41,938,902
Mines under 50 tons.....				621,042
Total production, mines over and under 50 tons daily capacity.....				49,067,673

TABLE 14.—Continued

	Tonnage Statement			
	Hand loaded	Machine loaded	Strip mining	Total
<b>Mines over 50 tons daily capacity:</b>	Costs per ton			
Day men (paid by hour, week, or month).....	\$0.4448	\$0.5149	\$0.3716	\$0.4673
Mining (piece and day workers).....	0.7439	0.2322	0.0105	0.2407
Yardage and dead work.....	0.0520	0.0055	0.0028	0.0110
Mine supervisory and clerical employees.....	0.0733	0.0608	0.0446	0.0581
Total mine labor.....	1.3140	0.8134	0.4295	0.7771
All supplies except power and coal.....	0.1672	0.2776	0.2993	0.2688
Power purchased.....	0.0393	0.0544	0.0833	0.0601
Coal used to produce coal.....	0.0305	0.0198	0.0042	0.0170
Total mine supplies.....	0.2370	0.3518	0.3868	0.3459
Total other operating charges.....	0.3067	0.2571	0.3782	0.2961
Total producing cost.....	1.8739	1.4427	1.2108	1.4378
Total administrative expenses.....	0.0460	0.0530	0.0743	0.0578
Total selling cost on coal sold in open market.....	0.0740	0.1025	0.1100	0.1012
Total producing and administrative cost..	1.9199	1.4957	1.2851	1.4956
Total producing, administrative, and selling cost.....	\$1.9939	\$1.5982	\$1.3951	\$1.5968
Total cost for mines under 50 tons daily capacity.....				\$1.7373
Weighted average of total cost for all mines over and under 50 tons:				
Using tons sold in open market as divisor for selling cost.....				\$1.5998
Using tons produced as divisor for selling cost.....				\$1.5851

District No. 10 (Illinois)—Commercial Mines

	Tonnage Statement			
	Hand loaded	Machine loaded	Strip mining	Total
<b>Mines over 50 tons daily capacity:</b>	Costs per ton			
Tons produced.....	5,604,407	23,781,788	12,955,338	42,341,533
Tons sold in open market.....	5,395,726	23,262,403	12,816,784	41,474,913
<b>Mines over 50 tons daily capacity:</b>	Costs per ton			
Day men (paid by hour, week, or month).....	\$0.4468	\$0.5127	\$0.3716	\$0.4608
Mining (piece and day workers).....	0.7434	0.2325	0.0105	0.2322
Yardage and dead work.....	0.0445	0.0067	0.0028	0.0105
Mine supervisory and clerical employees..	0.0758	0.0607	0.0446	0.0578
Total mine labor.....	1.3105	0.8126	0.4295	0.7613
All supplies except power and coal.....	0.1685	0.2903	0.2993	0.2769
Power purchased.....	0.0337	0.0569	0.0833	0.0619
Coal used to produce coal.....	0.0340	0.0199	0.0042	0.0170
Total mine supplies.....	0.2362	0.3671	0.3868	0.3558
Total other operating charges.....	0.2972	0.2668	0.3782	0.3049
Total producing cost.....	1.8488	1.4631	1.2108	1.4369
Total administrative expenses.....	0.0361	0.0605	0.0743	0.0615
Total selling cost on coal sold in open market.....	0.0740	0.1029	0.1100	0.1013
Total producing, and administrative cost	1.8849	1.5236	1.2851	1.4984

TABLE 14.—Continued

	Tonnage Statement			
	Hand loaded	Machine loaded	Strip mining	Total
Total producing, administrative, and selling cost.....	\$1.9589	\$1.6265	\$1.3951	\$1.5997
Using total tons produced as divisor for selling cost.....				\$1.5977

## District No. 10 (Illinois)—Captive Mines

	Tonnage Statement			
	810,255	5,294,843		6,015,098
<b>Mines over 50 tons daily capacity:</b>				
Tons produced.....	810,255	5,294,843		6,015,098
Tons sold in open market.....		463,989		463,989
<b>Mines over 50 tons daily capacity:</b>	Costs per ton			
Day men (paid by hour, week, or month).....	\$0.4310	\$0.5246		\$0.5122
Mining (piece and day workers).....	0.7472	0.2313		0.2997
Yardage and dead work.....	0.1031			0.0137
Mine supervisory and clerical employees..	0.0568	0.0613		0.0607
Total mine labor.....	1.3381	0.8172		0.8863
All supplies except coal and power.....	0.1583	0.2202		0.2120
Power purchased.....	0.0779	0.0435		0.0481
Coal used to produce coal.....	0.0063	0.0190		0.0173
Total mine supplies.....	0.2425	0.2827		0.2774
Total other operating charges.....	0.3716	0.2137		0.2347
Total producing cost.....	2.0473	1.3512		1.4436
Total administrative expenses.....	0.1146	0.0196		0.0322
Total selling cost on coal sold in open market.....		0.0854		0.0854
Total producing and administrative cost..	2.1619	1.3708		1.4758
Total producing, administrative, and selling cost.....	\$2.1619	\$1.4562		\$1.5612
Using total tons produced as divisor for selling cost.....				\$1.4823

## District 11 (Indiana)—All Mines

	Tonnage Statement			
	596,042	7,032,871	8,541,402	16,170,315
<b>Mines over and under 50 tons daily capacity:</b>				
Tons produced.....	596,042	7,032,871	8,541,402	16,170,315
Tons sold in open market.....	571,298	6,500,117	8,477,160	15,548,575
Mines under 50 tons.....				388,999
Total production mines over and under 50 tons.....				16,559,314
<b>Mines over 50 tons daily capacity:</b>	Cost per ton			
Day men (paid by hour, week, or month).....	\$0.3167	\$0.4507	\$0.4262	\$0.4328
Mining (piece and day workers).....	0.6604	0.2413	0.0051	0.1320
Yardage and dead work.....	0.0142	0.0130	0.0005	0.0064
Mine supervisory and clerical employees..	0.0517	0.0754	0.0321	0.0517
Total mine labor.....	1.0430	0.7804	0.4639	0.6229



TABLE 14.—Continued

	Hand loaded	Machine loaded	Strip mining	Total
All supplies except power and coal.....	\$0.1594	\$0.2904	\$0.2930	\$0.2869
Power purchased.....	0.0614	0.0547	0.0725	0.0644
Coal used to produce coal.....	0.0136	0.0120	0.0070	0.0094
Total mine supplies.....	0.2344	0.3571	0.3725	0.3607
Total other operating charges.....	0.2848	0.2899	0.2666	0.2774
Total producing cost.....	1.5649	1.4351	1.1126	1.2695
Total administrative expenses.....	0.0073	0.0445	0.0658	0.0544
Total selling cost on coal sold in open market.....	0.0499	0.0932	0.1077	0.0995
Total producing and administrative cost..	1.5722	1.4796	1.1784	1.3239
Total producing, administrative, and selling cost, mines over 50 tons daily capacity.....	\$1.6221	\$1.5728	\$1.2861	\$1.4234
Total cost for mines under 50 tons daily capacity.....				\$1.5607
Weighted average of total cost for all mines over and under 50 tons daily capacity:..				\$1.4290
Using total tons produced as divisor for selling cost.....				\$1.4229

District 11—(Indiana)—Commercial Mines

Mines over 50 tons daily capacity:	Tonnage Statement			
	Tons produced.....	582,034	6,570,785	8,541,402
Tons sold in open market.....	571,298	6,500,117	8,477,160	15,548,575
Mines over 50 tons daily capacity:	Costs per ton			
Day men (paid by hour, week, or month).....	\$0.3174	\$0.4468	\$0.4262	\$0.4308
Mining (piece and day workers).....	0.6534	0.2360	0.0051	0.1258
Yardage and dead work.....	0.0120	0.0098	0.0005	0.0049
Mine supervisory and clerical employees..	0.0494	0.0719	0.0321	0.0494
Total mine labor.....	1.0322	0.7645	0.4639	0.6109
All supplies except coal and power.....	0.1626	0.2888	0.2930	0.2864
Power purchased.....	0.0605	0.0540	0.0726	0.0643
Coal used to produce coal.....	0.0139	0.0129	0.0069	0.0097
Total mine supplies.....	0.2370	0.3557	0.3725	0.3604
Total other operating charges.....	0.2891	0.2862	0.2666	0.2756
Total producing cost.....	1.5611	1.4144	1.1126	1.2556
Total administrative expenses.....	0.0075	0.0442	0.0658	0.0546
Total selling cost on coal sold in open market.....	0.0499	0.0932	0.1077	0.0995
Total producing and administrative cost..	1.5686	1.4586	1.1784	1.3102
Total producing, administrative, and selling cost, mines over 50 tons daily capacity.....	\$1.6185	\$1.5518	\$1.2861	\$1.4097
Using total tons produced as divisor for selling cost.....				\$1.4088

TABLE 14.—*Concluded*

District 11 (Indiana)—Captive Mines				
	Hand loaded	Machine loaded	Strip mining	Total
<b>Mines over 50 tons daily capacity:</b>				
Tonnage Statement				
Tons produced.....	14,008	462,086	.....	476,094
Tons sold in open market.....				
<b>Mines over 50 tons daily capacity:</b>				
Costs per ton				
Day men (paid by hour, week, or month).....	\$0.2858	\$0.5054	.....	\$0.4990
Mining (piece and day workers).....	0.9522	0.3173	.....	0.3360
Yardage and dead work.....	0.1047	0.0581	.....	0.0595
Mine supervisory and clerical employees.....	0.1473	0.1258	.....	0.1264
Total mine labor.....	1.4900	1.0066	.....	1.0209
All supplies except power and coal.....	0.0231	0.3130	.....	0.3045
Power purchased.....	0.1013	0.0646	.....	0.0657
Coal used to produce coal.....	0.0026		.....	
Total mine supplies.....	0.1270	0.3776	.....	0.3702
Total other operating charges.....	0.1041	0.3415	.....	0.3345
Total producing cost.....	1.7211	1.7289	.....	1.7287
Total administrative expenses.....		0.0489	.....	0.0474
Total selling cost on coal sold in open market.....			.....	
Total producing and administrative cost.....	1.7211	1.7778	.....	1.7761
Total producing, administrative, and selling cost, mines over 50 tons daily capacity.....	\$1.7211	\$1.7778	.....	\$1.7761
Using total tons produced as divisor for selling cost.....				\$1.7761

## THE FUEL BRIQUET INDUSTRY IN 1940

The Illinois coal market area uses about 60 per cent of the briquets made in the United States. This is mainly the result of an attempt to use the slack coal produced in the handling of eastern coal over lake docks, or, in the case of North Dakota, to utilize lignite.

Production of fuel briquets in 1940 amounted to 1,050,870 net tons, valued at \$6,438,952, according to reports submitted by operators of briquetting plants to the Bureau of Mines, U. S. Department of the Interior. The 1940 production represents an increase of 17.8 per cent in tonnage and 11 per cent in value over that of 1939. The sharp increase in 1940 is probably due to heavier demand occasioned by the unusually severe winter in the north-central States in 1940.

Briquets were produced in 17 states, and 13 of these showed increases over 1939 production. The bulk of the production continues to be concentrated in Wisconsin, but the greatest gain was shown in the eastern States, and Wisconsin and Pennsylvania also showed considerable increases. Other states that produced more than 20,000 tons, in relative order of importance, were Oregon, Missouri, North Dakota, Minnesota, and Washington. The distribution of briquets as

indicated by reports from the manufacturers is penetrating new markets; their use increased 17.3 per cent over that of 1939, in the country as a whole.

Shipments of fuel briquets of domestic manufacture, into states in the Illinois coal market area, are shown in table 15.

TABLE 15.—SHIPMENTS OF FUEL BRIQUETS OF DOMESTIC MANUFACTURE INTO THE ILLINOIS COAL MARKET AREA, 1939-1940  
(In net tons)

Shipped into	1939	1940
Illinois.....	28,139	31,895
Indiana.....	14,175	25,946
Iowa.....	22,580	25,509
Kansas.....	4,888	5,145
Kentucky.....	3,416	5,635
Minnesota.....	189,421	217,068
Missouri.....	9,341	16,738
Nebraska.....	24,476	25,371
North Dakota.....	60,475	66,114
South Dakota.....	56,961	60,723
Wisconsin.....	198,084	230,840
Total.....	611,956	710,984

Briquetting plants in Illinois and adjacent states in 1940 are listed in table 16.

#### DEGREE-DAYS FOR ILLINOIS AND THE ILLINOIS COAL MARKET AREA

Degree-day tables have been prepared for 81 cities and villages in the Illinois coal market area, for the convenience of coal dealers and others interested in the fluctuation of coal demand as affected by seasonal changes in temperature. These tables are computed from average temperatures reported for each of these Weather Bureau stations, the length of record varying from 10 years to 60 years, as shown in table 17.

TABLE 16.—DIRECTORY OF FUEL-BRIQUETTING OPERATIONS IN THE ILLINOIS COAL MARKET AREA, 1940<sup>a</sup>

Name and address of operator	Location of plant	Year opened	Raw fuel used, as reported by producer
<b>Illinois</b>			
South Chicago Coal & Dock Co., 222 W. Adams St., Chicago, Ill. ....	Chicago. ....	1937 <sup>b</sup>	Bituminous low-volatile
<b>Minnesota</b>			
Atlas Briquet Co., 2307 West 7th St., Duluth, Minn. ....	Duluth. ....	1933	Bituminous low-volatile and Pa. anthracite
Great Lakes Carbon Corp., 910 S. Michigan Ave., Chicago, Ill. ....	St. Paul. ....	1935	Petroleum coke
<b>Missouri</b>			
Binkley Coal Co., Lessee, 230 N. Michigan Ave., Chicago, Ill. ....	Kansas City. ....	1909	Arkansas hard coals
<b>North Dakota</b>			
Lehigh Briquetting Co., Dickinson, N. Dak. . .	Dickinson. ....	1929	Lignite char
<b>Wisconsin</b>			
Berwind Fuel Co., 310 S. Michigan Ave., Chicago, Ill. ....	Superior. ....	1912	Bituminous low-volatile
Coal Processing Corp., 230 S. Clark St., Chicago, Ill. ....	Superior. ....	1935	Bituminous low-volatile
The Dunnebacke Co., 1313 56th St., Kenosha, Wis. ....	Kenosha. ....	1937	Bituminous low-volatile
M. H. Pugh Coal Co., 559 State St., Racine, Wis. ....	Racine. ....	1936	Bituminous low-volatile
The C. Reiss Coal Co., Reiss Bldg., Sheboygan, Wis. ....	Ashland. ....	1940	Bituminous low-volatile
The C. Reiss Coal Co., Reiss Bldg., Sheboygan, Wis. ....	Sheboygan. ....	1933	Bituminous low-volatile and Pa. anthracite
The C. Reiss Coal Co., Reiss Bldg., Sheboygan, Wis. ....	Green Bay. ....	1936	Bituminous low-volatile and Pa. anthracite
Stott Briquet Co., 1204 E. 1st Nat. Bank Bldg., St. Paul, Minn. ....	Superior. ....	1909	Pa. anthracite and bituminous low-volatile
Urbink Fuel & Dock Co., Port Washington, Wis. ....	Port Washington	1936	Bituminous low-volatile
The United Coal & Dock Co., 700 W. Wisconsin Ave., Milwaukee, Wis. ....	Milwaukee. ....	1928	Bituminous low-volatile and Pa. anthracite

<sup>a</sup> U. S. Bureau of Mines, Statistical and Economic Surveys, Coal Economics Division, May 17, 1941.

<sup>b</sup> In addition to plants listed herein, all of whom reported production in 1940, there were several plants operating who did not report: one each in Illinois, Indiana, Missouri, and Wisconsin, and three in Minnesota.

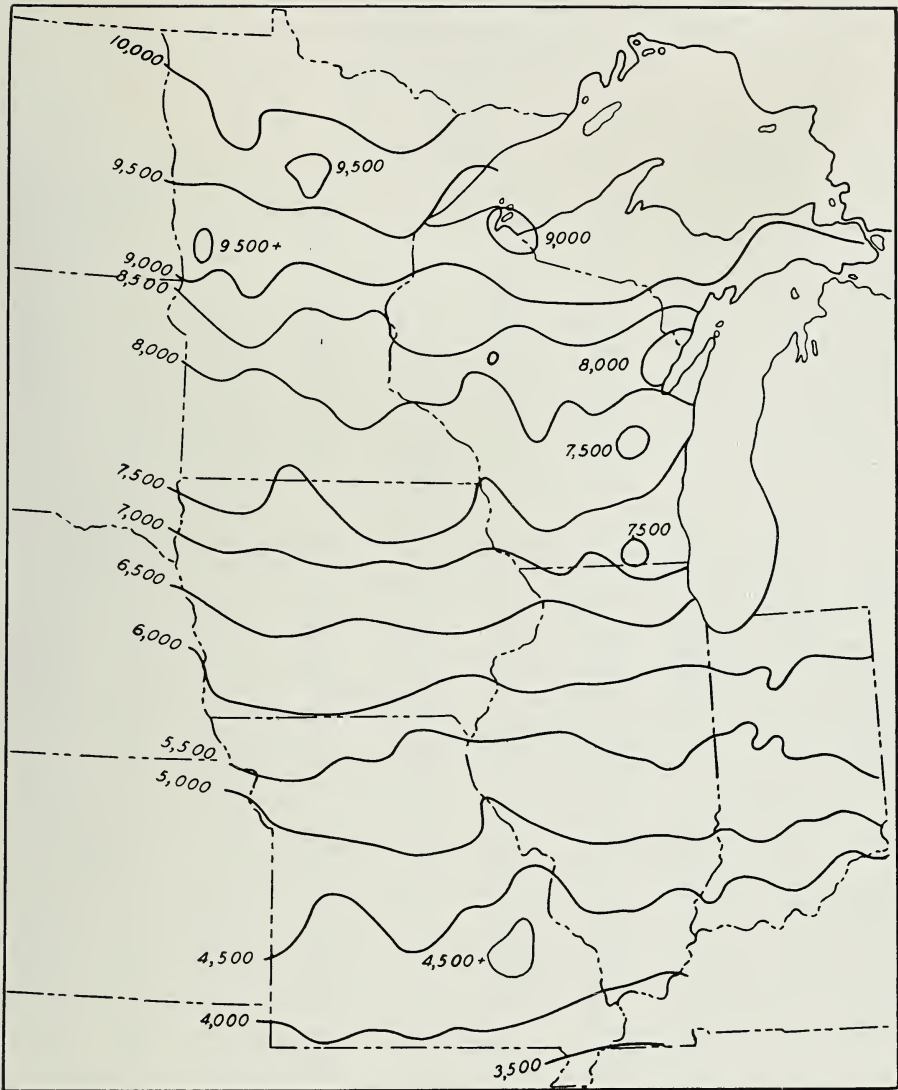


FIG. 2.—A degree-day map of the Illinois coal market area.  
(Illinois Geol. Survey Rept. Inv. 46, fig. 4, 1937.)

A degree-day is a day in which the average inside temperature is one degree higher than the average outside temperature. Heating requirements are almost directly proportional to number of degree-days and hence degree-days can be used in calculating fuel requirements. Degree-days are calculated with 65° Fahrenheit as the base. The table shows (M) average degree-days for each month and (C) average cumulative degree-days during the heating season.

In figure 2 is shown a degree-day map of the Illinois coal market area.

TABLE 17.—AVERAGE NUMBER OF DEGREE-DAYS FOR CITIES AND VILLAGES IN ILLINOIS AND IN PRINCIPAL CITIES IN THE ILLINOIS COAL MARKET AREA, COMPUTED FOR THE PERIOD OVER WHICH SUCH RECORDS HAVE BEEN KEPT IN EACH CITY UP TO AND INCLUDING 1930<sup>a</sup>

M=Monthly Average  
C=Cumulative Average

Illinois

Month	Aledo (30 yrs.)		Aurora (51 yrs.)		Anna (46 yrs.)		Bloomington (39 yrs.)	
	M	C	M	C	M	C	M	C
September.....	0	0	30	30	0	0	0	0
October.....	372	372	434	464	155	155	310	310
November.....	750	1,122	810	1,274	510	655	720	1,030
December.....	1,178	2,300	1,209	2,483	868	1,533	1,116	2,146
January.....	1,302	3,602	1,364	3,847	961	2,494	1,240	3,386
February.....	1,092	4,694	1,148	4,995	884	3,378	1,036	4,422
March.....	806	5,500	899	5,894	558	3,936	775	5,197
April.....	450	5,950	510	6,404	210	4,146	390	5,587
May.....	124	6,074	186	6,950	0	4,146	62	5,649
	Cairo (58 yrs.)		Carbondale (26 yrs.)		Carlinville (40 yrs.)		Charleston (45 yrs.)	
September.....	0	0	0	0	0	0	0	0
October.....	155	155	155	155	248	248	279	279
November.....	510	665	510	665	630	878	660	939
December.....	806	1,471	868	1,533	1,023	1,901	1,023	1,962
January.....	899	2,370	961	2,494	1,116	3,017	1,147	3,109
February.....	756	3,126	812	3,306	952	3,969	952	4,061
March.....	527	3,653	558	3,864	682	4,651	713	4,774
April.....	210	3,863	240	4,104	330	4,981	360	5,134
May.....	0	3,863	0	4,104	31	5,012	62	5,196
	Chicago (60 yrs.)		Danville (28 yrs.)		Decatur (39 yrs.)		Dixon (40 yrs.)	
September.....	0	0	0	0	0	0	30	30
October.....	341	341	279	279	279	279	403	433
November.....	750	1,091	690	969	690	969	810	1,243
December.....	1,116	2,207	1,054	2,023	1,054	2,023	1,209	2,452
January.....	1,271	3,478	1,178	3,201	1,178	3,201	1,395	3,847
February.....	1,092	4,570	980	4,181	1,008	4,209	1,176	5,023
March.....	899	5,469	744	4,925	744	4,953	899	3,922
April.....	540	6,009	390	5,315	390	5,343	420	6,342
May.....	248	6,257	62	5,377	62	5,405	155	6,497
	Duquoin (39 yrs.)		Effingham (30 yrs.)		Fairfield (36 yrs.)		Flora (43 yrs.)	
September.....	0	0	0	0	0	0	0	0
October.....	186	186	248	248	217	217	279	279
November.....	570	756	630	878	570	787	630	909
December.....	899	1,655	992	1,870	930	1,717	961	1,870
January.....	992	2,647	1,116	2,986	992	2,709	1,054	2,924
February.....	840	3,487	952	3,938	868	3,577	924	3,848
March.....	589	4,076	682	4,620	589	4,166	651	4,499
April.....	270	4,346	330	4,950	270	4,436	300	4,799
May.....	0	4,346	31	4,981	0	4,436	31	4,830

<sup>a</sup> Compiled from pertinent sections of U. S. Dept. of Agr., Weather Bureau, "Climatic Summary of the United States, 1934."

TABLE 17.—Continued  
Illinois (continued)

Month	Freeport (24 yrs.)		Galva (38 yrs.)		Greenville (52 yrs.)		Griggsville (44 yrs.)	
	M	C	M	C	M	C	M	C
September.....	90	90	0	0	0	0	0	0
October.....	465	555	372	372	248	248	279	275
November.....	840	1,395	780	1,152	660	908	660	939
December.....	1,271	2,666	1,209	2,361	992	1,900	1,023	1,962
January.....	1,457	4,123	1,333	3,694	1,116	3,016	1,178	3,140
February.....	1,176	5,299	1,148	4,842	924	3,940	980	4,120
March.....	961	6,260	837	5,679	602	4,542	713	4,833
April.....	510	6,770	450	6,129	300	4,842	330	5,163
May.....	186	6,956	124	6,253	31	4,873	31	5,194
	Harrisburg (31 yrs.)		Havana (38 yrs.)		Henry (42 yrs.)		Hillsboro (36 yrs.)	
September.....	0	0	0	0	0	0	0	0
October.....	155	155	279	279	341	341	248	248
November.....	510	665	690	969	750	1,091	630	878
December.....	868	1,533	1,085	2,054	1,147	2,238	1,023	1,901
January.....	930	2,483	1,209	3,263	1,271	3,509	1,085	2,986
February.....	884	3,347	1,008	4,271	1,092	4,601	924	3,910
March.....	527	3,874	713	4,984	837	5,438	682	4,592
April.....	210	4,084	360	5,344	420	5,858	330	4,922
May.....	0	4,084	31	5,375	124	5,982	31	4,953
	Hoopeston (27 yrs.)		Jacksonville (37 yrs.)		Joliet (39 yrs.)		Kankakee (14 yrs.)	
September.....	0	0	0	0	0	0	0	0
October.....	341	341	279	279	403	403	341	341
November.....	690	1,031	660	939	750	1,153	720	1,061
December.....	1,085	2,116	1,054	1,993	1,178	2,331	1,147	2,208
January.....	1,209	3,325	1,178	3,171	1,302	3,633	1,395	3,603
February.....	1,008	4,333	980	4,151	1,120	4,753	1,008	4,611
March.....	775	5,108	713	4,864	868	5,621	775	5,386
April.....	420	5,528	360	5,224	480	6,101	480	5,866
May.....	93	5,621	62	5,286	155	6,256	155	6,021
	La Harpe (35 yrs.)		Lincoln (42 yrs.)		Marengo (70 yrs.)		Mascoutah (40 yrs.)	
September.....	0	0	0	0	90	90	0	0
October.....	310	310	310	310	465	555	217	217
November.....	720	1,030	690	1,000	900	1,455	600	817
December.....	1,147	2,177	1,054	2,054	1,271	2,726	930	1,747
January.....	1,240	3,417	1,178	3,232	1,426	4,152	1,054	2,801
February.....	1,064	4,481	1,008	4,240	1,204	5,356	868	3,669
March.....	775	5,256	775	5,015	1,023	6,379	651	4,320
April.....	390	5,646	390	5,405	570	6,949	300	4,620
May.....	62	5,708	62	5,467	248	7,197	0	4,620

TABLE 17.—Continued

## Illinois (continued)

Month	McLeansboro (48 yrs.)		Minonk (36 yrs.)		Monmouth (38 yrs.)		Morrison (35 yrs.)	
	M	C	M	C	M	C	M	C
September . . . . .	0	0	0	0	0	0	0	0
October . . . . .	186	186	341	341	341	341	372	372
November . . . . .	570	756	750	1,091	750	1,091	780	1,152
December . . . . .	899	1,655	1,147	2,238	1,147	2,238	1,209	2,361
January . . . . .	1,147	2,802	1,271	3,509	1,302	3,540	1,364	3,725
February . . . . .	840	3,642	1,092	4,601	1,092	4,632	1,148	4,873
March . . . . .	620	4,262	837	5,438	806	5,438	868	5,741
April . . . . .	270	4,532	450	5,888	420	5,858	450	6,191
May . . . . .	0	4,532	93	5,981	93	5,951	124	6,315
	Mt. Carmel (28 yrs.)		Mt. Carroll (40 yrs.)		Mt. Vernon (35 yrs.)		New Burnside (19 yrs.)	
September . . . . .	0	0	60	60	0	0	0	0
October . . . . .	217	217	434	494	217	217	186	186
November . . . . .	600	817	840	1,334	570	787	540	726
December . . . . .	961	1,778	1,240	2,574	961	1,748	868	1,594
January . . . . .	1,023	2,801	1,395	3,969	1,023	2,771	961	2,555
February . . . . .	868	3,669	1,176	5,145	868	3,639	756	3,311
March . . . . .	589	4,258	930	6,075	620	4,259	589	3,900
April . . . . .	300	4,558	510	6,585	300	4,559	270	4,170
May . . . . .	0	4,558	186	6,771	0	4,559	0	4,170
	Olney (34 yrs.)		Ottawa (42 yrs.)		Palestine (48 yrs.)		Pana (41 yrs.)	
September . . . . .	0	0	0	0	0	0	0	0
October . . . . .	217	217	372	372	279	279	279	279
November . . . . .	600	817	750	1,122	630	909	660	939
December . . . . .	961	1,778	1,147	2,269	992	1,901	1,023	1,962
January . . . . .	1,054	2,832	1,271	3,540	1,085	2,986	1,147	3,109
February . . . . .	896	3,728	1,092	4,632	924	3,910	952	4,061
March . . . . .	651	4,379	837	5,469	682	4,592	713	4,774
April . . . . .	330	4,709	420	5,889	330	4,922	360	5,134
May . . . . .	0	4,709	186	6,075	31	4,953	62	5,196
	Paris (37 yrs.)		Peoria (75 yrs.)		Pontiac (32 yrs.)		Quincy (19 yrs.)	
September . . . . .	0	0	0	0	0	0	0	0
October . . . . .	310	310	372	372	341	341	217	217
November . . . . .	690	1,000	780	1,152	690	1,031	630	847
December . . . . .	1,085	2,085	1,147	2,299	1,085	2,116	1,023	1,870
January . . . . .	1,147	3,232	1,116	3,415	1,240	3,356	1,178	3,048
February . . . . .	1,008	4,240	1,036	4,451	1,036	4,392	924	3,972
March . . . . .	744	4,984	775	5,226	775	5,167	713	4,685
April . . . . .	390	5,374	420	5,646	420	5,587	300	4,985
May . . . . .	62	5,436	93	5,739	93	5,680	0	4,985



TABLE 17.—Continued

Illinois (concluded), and Missouri

Month	Rockford (43 yrs.)		Rushville (39 yrs.)		Sparta (44 yrs.)		Springfield (51 yrs.)	
	M	C	M	C	M	C	M	C
September . . . . .	30	30	0	0	0	0	0	0
October . . . . .	403	433	279	279	217	217	279	279
November . . . . .	840	1,273	690	969	570	787	690	969
December . . . . .	1,209	2,482	1,054	2,023	961	1,748	1,023	1,992
January . . . . .	1,395	3,877	1,209	3,232	1,023	2,771	1,178	3,170
February . . . . .	1,204	5,081	1,008	4,240	840	3,611	980	4,150
March . . . . .	930	6,011	744	4,984	589	4,200	744	4,894
April . . . . .	510	6,521	360	5,344	270	4,470	360	5,254
May . . . . .	186	<u>6,707</u>	62	<u>5,406</u>	0	<u>4,470</u>	62	<u>5,316</u>
	Sycamore (50 yrs.)		Urbana (28 yrs.)		Walnut (39 yrs.)		Waukegan (8 yrs.)	
September . . . . .	60	60	90	90	0	0	60	60
October . . . . .	434	494	341	431	341	341	465	525
November . . . . .	840	1,334	690	1,121	780	1,121	810	1,335
December . . . . .	1,209	2,543	1,116	2,237	1,178	2,299	1,209	2,544
January . . . . .	1,395	3,938	1,209	3,446	1,333	3,632	1,364	3,908
February . . . . .	1,176	5,114	1,008	4,454	1,120	4,752	1,064	4,972
March . . . . .	961	6,075	775	5,229	837	5,589	930	5,902
April . . . . .	540	6,615	450	5,679	420	6,009	600	6,502
May . . . . .	217	<u>6,832</u>	124	<u>5,803</u>	93	<u>6,102</u>	341	<u>6,843</u>
June . . . . .							30	<u>6,873</u>
	Whitehall, Ill. (40 yrs.)		Hannibal, Mo. (38 yrs.)		St. Louis, Mo. (57 yrs.)		Louisiana, Mo. (37 yrs.)	
September . . . . .	0	0	0	0	0	0	0	0
October . . . . .	279	279	279	279	186	186	279	279
November . . . . .	690	969	660	939	570	756	630	909
December . . . . .	1,023	1,992	1,054	1,993	899	1,655	1,023	1,932
January . . . . .	1,147	3,139	1,147	3,140	1,023	2,678	1,147	3,079
February . . . . .	952	4,091	980	4,120	840	3,518	952	4,031
March . . . . .	713	4,804	713	4,833	620	4,138	651	4,682
April . . . . .	330	5,134	360	5,193	270	4,408	330	5,012
May . . . . .	31	<u>5,165</u>	31	<u>5,224</u>	0	<u>4,408</u>	31	<u>5,043</u>
<b>Iowa</b>								
	Ames (37 yrs.)		Dubuque (56 yrs.)		Des Moines (52 yrs.)		Davenport (59 yrs.)	
September . . . . .	90	90	30	30	0	0	0	0
October . . . . .	403	493	403	433	341	341	341	341
November . . . . .	840	1,333	840	1,273	780	1,121	780	1,121
December . . . . .	1,271	2,604	1,240	2,513	1,209	2,330	1,178	2,299
January . . . . .	1,426	4,030	1,426	3,939	1,395	3,725	1,333	3,632
February . . . . .	1,204	5,234	1,204	5,143	1,198	4,923	1,240	4,872
March . . . . .	899	6,133	961	6,104	868	5,791	868	5,740
April . . . . .	480	6,613	480	6,584	450	6,241	450	6,190
May . . . . .	155	<u>6,768</u>	155	<u>6,739</u>	124	<u>6,365</u>	124	<u>6,314</u>

TABLE 17.—Continued  
Iowa (concluded), Nebraska, and Indiana

Month	Keokuk, Iowa (59 yrs.)		Omaha, Neb. (58 yrs.)		Terre Haute, Ind. (38 yrs.)		Vincennes, Ind. (37 yrs.)	
	M	C	M	C	M	C	M	C
September . . . . .	0	0	0	0	0	0	0	0
October . . . . .	310	310	341	341	248	248	217	217
November . . . . .	720	1,030	780	1,121	630	878	600	817
December . . . . .	1,085	2,115	1,178	2,299	992	1,870	961	1,778
January . . . . .	1,240	3,355	1,333	3,632	1,085	2,955	1,054	2,832
February . . . . .	1,036	4,391	1,092	4,724	952	3,907	896	3,728
March . . . . .	806	5,197	327	5,051	682	4,589	651	4,379
April . . . . .	390	5,587	390	5,441	330	4,919	300	4,679
May . . . . .	62	5,649	93	5,534	31	4,950		

## Minnesota

	Bemidji (12 yrs.)		Duluth (60 yrs.)		International Falls (22 yrs.)		Minneapolis (40 yrs.)	
August . . . . .	0	0	31	31	62	62	0	0
September . . . . .	270	270	279	310	300	362	90	90
October . . . . .	589	859	620	930	713	1,075	465	555
November . . . . .	1,080	1,939	1,080	2,010	1,230	2,305	960	1,515
December . . . . .	1,612	3,551	1,519	3,529	1,736	4,041	1,395	2,910
January . . . . .	1,891	5,442	1,736	5,265	1,922	5,963	1,612	4,522
February . . . . .	1,596	7,038	1,456	6,721	1,624	7,587	1,372	5,894
March . . . . .	1,302	8,340	1,271	7,992	1,395	8,982	1,085	6,979
April . . . . .	690	9,030	810	8,802	780	9,762	570	7,549
May . . . . .	341	9,371	510	9,312	434	10,196	217	7,766
June . . . . .	60	9,431	210	9,522	90	10,286		

## Minnesota (concluded), and South Dakota

	Rochester, Minn. (20 yrs.)		Virginia, Minn. (37 yrs.)		Huron, S. D. (49 yrs.)	
August . . . . .	0	0	62	62	0	0
September . . . . .	300	300	300	362	120	120
October . . . . .	527	827	682	1,044	510	630
November . . . . .	960	1,787	1,170	2,214	990	1,620
December . . . . .	1,426	3,213	1,674	3,888	1,426	3,046
January . . . . .	1,767	4,980	1,860	5,748	1,643	4,689
February . . . . .	1,400	6,380	1,568	7,316	1,400	6,089
March . . . . .	1,116	7,496	1,302	8,618	1,085	7,174
April . . . . .	600	8,096	750	9,368	570	7,744
May . . . . .	279	8,375	403	9,771	279	8,023
June . . . . .			120	9,891		

TABLE 17.—*Concluded*  
Wisconsin

Month	Eau Claire (40 yrs.)		Green Bay (44 yrs.)		La Crosse (58 yrs.)		Madison (62 yrs.)	
	M	C	M	C	M	C	M	C
September . . .	120	120	120	120	90	90	90	90
October . . . . .	496	616	496	616	465	555	465	555
November . . . .	960	1,576	930	1,546	900	1,455	900	1,455
December . . . .	1,426	3,002	1,333	2,879	1,333	2,788	1,302	2,757
January . . . . .	1,612	4,614	1,519	4,398	1,519	4,307	1,488	4,245
February . . . . .	1,372	5,986	1,344	5,742	1,288	5,595	1,260	5,505
March . . . . .	1,085	7,071	1,116	6,858	1,023	6,618	1,054	6,559
April . . . . .	570	7,641	660	7,518	540	7,158	570	7,129
May . . . . .	248	7,889	310	7,828	186	7,344	217	7,346
June . . . . .	0	7,889						
.....								
	Milwaukee (60 yrs.)		Stevens Point (38 yrs.)					
September . . . .	90	90	150	150				
October . . . . .	434	524	527	677				
November . . . .	840	1,364	930	1,607				
December . . . .	1,209	2,573	1,426	3,033				
January . . . . .	1,364	3,937	1,581	4,614				
February . . . . .	1,176	5,113	1,372	5,986				
March . . . . .	1,023	6,136	1,085	7,071				
April . . . . .	651	6,787	600	7,671				
May . . . . .	341	7,128	279	7,950				
June . . . . .	30	7,158						

## COKE INDUSTRY

Illinois supplied 106,667 tons of coal used for coke manufacture in 1938, and 124,491 tons of coal in 1939. Data for 1940 have not yet been made available.

Illinois coal is processed in the Curran-Knowles ovens located at West Frankfort and Millstadt. The output is sold primarily in the domestic market.

Details of production and value of coke produced in Illinois in 1940, are shown in table 18.

TABLE 18.—COKE INDUSTRY IN ILLINOIS, 1940<sup>a</sup>

		Value
Number of plants.....	9	
Number of ovens.....	916	
Coal used.....	4,272,553	
Yield of coke from coal (per cent).....	70.56	
Coke produced, tons.....	3,014,840	\$18,217,939
Value per ton.....	\$6.04	
Coke oven gas produced (M cubic feet).....	43,271,626	
Used in heating ovens.....	12,772,551	
Sold or used.....	28,612,945	5,393,474
Gas wasted (M cubic feet).....	1,886,130	
Disposition of surplus gas (M cubic feet)		
Under boilers.....	2,388,517	197,526
In steel or other affiliated plants.....	4,210,996	528,450
Distributed through city mains.....	20,189,646	4,499,480
Sold for industrial purposes.....	1,823,786	168,018
Coke oven tar produced (gallons).....	33,740,741	
Per ton of coal coked (gallons).....	7.90	
Sold for use as fuel (gallons).....	6,270,897	
Sold for refining into tar products (gallons).....	27,013,711	
Total gallons sold.....	33,284,608	1,477,899
Used by producer (gallons).....	776,538	
Ammonia produced as sulphate equivalent of all forms (pounds).....	84,075,316	
Per ton of coal coked (pounds).....	20.72	
Crude light oil produced (gallons).....	9,229,191	

<sup>a</sup> U. S. Bur. Mines, Monthly Coke Report No. 158, May 26, 1941.

PETROLEUM IN 1940

PRODUCTION

From a minor position in 1936, Illinois rose to fourth place among the states in the production of oil in 1940. The record of growth in the past six years is shown in table 19.

TABLE 19.—PRODUCTION OF OIL IN THE UNITED STATES AND IN ILLINOIS, 1935-1940<sup>a</sup>  
(In thousands of barrels)

Year	Production		Illinois per cent of total
	United States	Illinois	
1935.....	996,596	4,322	0.44
1936.....	1,099,687	4,475	0.41
1937.....	1,299,160	7,499	0.59
1938.....	1,214,355	24,075	1.98
1939.....	1,264,256	94,302	7.47
1940.....	1,351,847	146,788	10.86

<sup>a</sup> U. S. Bur. Mines, Monthly Petroleum Statements.

SUPPLY AND DEMAND

The annual supply of liquid fuels is obtained from domestic crude oil production, imports, gasoline recovered from natural gas, polymerized gasoline and benzol from coke-oven plants. The major source of supply is from domestic crude oil production.

The principal demand for oil products is first for motor fuel, then for heating oils, industrial fuel oil, railroad fuel, and bunker fuel.

The relation between supply and demand of oils each year is shown in the increase or decrease in stocks of crude oil and principal refined products.

The supply of oil from all sources in 1939 and 1940 is shown in table 20.

TABLE 20.—SUPPLY OF OILS FROM ALL SOURCES IN THE UNITED STATES, 1939 AND 1940  
(In thousands of barrels)

	1939	1940
Domestic production:		
Crude petroleum.....	1,264,962	1,351,847
Natural gasoline.....	51,650	55,249
Benzol.....	2,498	3,161
Imports:		
Crude petroleum for domestic use.....	28,447	41,525
Refined products for domestic use.....	7,298	27,498
Gross total, new supply.....	1,354,855	1,479,280
Less exports of:		
Crude petroleum.....	72,076	51,600
Refined products.....	116,883	78,989
Net new domestic supply.....	1,165,896	1,348,691

*Stocks of oil.*—Stocks of crude petroleum and refined products in the Central Refining district are shown in table 21.

TABLE 21.—STOCKS OF CRUDE PETROLEUM AND REFINED PRODUCTS IN THE UNITED STATES, IN ILLINOIS AND IN THE CENTRAL REFINING DISTRICT, BY MONTHS, 1940<sup>a</sup>  
(In thousands of barrels)

1940	Total crude stocks		Total stocks of refined products			
	U. S.	Illinois	Central refining district			U. S. Gasoline
			Gasoline	Gas oil and distillate fuel	Residual fuel oil	
January.....	239,794	13,473	15,352	2,620	2,736	90,975
February.....	244,417	13,630	18,042	2,888	3,074	99,295
March.....	251,120	13,699	19,979	2,179	3,373	103,710
April.....	258,066	14,032	19,346	2,229	3,385	103,563
May.....	261,839	14,187	18,421	2,629	3,350	100,859
June.....	261,971	13,568	16,705	3,406	3,378	93,569
July.....	263,498	14,067	16,276	4,083	3,366	89,065
August.....	264,252	14,292	15,134	4,446	3,444	83,701
September.....	263,124	13,869	14,743	4,633	3,299	81,907
October.....	263,856	13,716	14,575	4,457	3,474	79,185
November.....	263,163	14,175	14,849	4,200	3,116	79,517
December.....	264,079	13,944	15,883	3,345	2,845	84,409

<sup>a</sup> U. S. Bur. Mines, Monthly Petroleum Statements.

*Consumption of oil products in Illinois.*—Consumption of refined products in 1939, exclusive of lubricating oils, was 57,316,000 barrels. Detailed distribution of gas oil and residual fuel oils is shown in table 22, and fuel oil consumption in the Illinois coal market area is shown in table 23.

TABLE 22.—CONSUMPTION OF REFINED PRODUCTS IN ILLINOIS BY USES, 1939<sup>a</sup>  
(In thousands of barrels)

	Gas oil and distillate fuel	Diesel fuel	Residual fuel oil	Total
Railroads.....	114	134	274	522
Vessels.....		50	176	226
Gas and electric power plants.....	42	60	103	205
Smelters, mines, and manufacturing plants.....	401	72	2,733	3,206
Heating oils.....	11,519		3,951	15,470
U. S. Navy, Army, Coast Guard.....	4		103	107
Oil company fuel.....	51	35	1,755	1,841
Miscellaneous.....	315	124	110	549
Total.....	12,446	475	9,205	22,126

Consumption of gasoline.....	33,803
Consumption of kerosene.....	1,387
Total, all refined oils.....	57,316

<sup>a</sup> U. S. Bur. Mines, Mineral Market Reports, M. M. S., No. 892, Jan. 31, 1941.

TABLE 23.—FUEL OIL CONSUMPTION IN THE ILLINOIS COAL MARKET AREA, 1939<sup>a</sup>  
(In thousands of barrels)

State	Railroad	Vessels	Gas and electric power plants	Smelters, mines, and mfg. industries	Heating oils	U. S. Army, Navy, Coast Guard	Oil company fuel	Miscellaneous
Illinois . . . . .	522	226	205	3,205	15,470	107	1,841	549
Indiana . . . . .	61	254	162	3,284	1,900	.....	3,007	259
Wisconsin . . . . .	46	3	318	615	4,344	4	7	218
Minnesota . . . . .	173	23	145	370	4,620	1	9	372
Iowa . . . . .	154	.....	294	120	1,823	7	1	485
Missouri . . . . .	1,704	118	226	688	5,763	144	347	289
Total . . . . .	2,660	624	1,350	8,282	33,920	263	5,212	2,172

State	State totals		Navy grade	Residual fuel oil	Crude	Totals	
	Gas oil and distillate fuel	Diesel fuel				1939	1938
Illinois . . . . .	12,446	475	.....	9,558	82	22,561	19,930
Indiana . . . . .	1,670	341	.....	6,949	17	8,977	7,824
Wisconsin . . . . .	4,178	152	.....	1,462	1	5,793	4,748
Minnesota . . . . .	4,693	165	.....	1,050	.....	5,909	4,974
Iowa . . . . .	2,094	222	.....	653	.....	2,969	2,325
Missouri . . . . .	4,343	262	.....	4,641	93	9,339	8,502
Total . . . . .	29,424	1,617	.....	24,313	193	55,548	48,303

<sup>a</sup> Fuel oil and Kerosene Sales of Record Volume in 1939, U. S. Bur. Mines M. M. S. No. 892, Jan. 31, 1941.

PROVEN RESERVES OF PETROLEUM IN ILLINOIS

Proven reserves of petroleum in Illinois are estimated as of January 1, 1941, at 575,000,000 barrels. Since the opening of the new fields in the Illinois basin, discoveries have exceeded annual production. Estimated proven reserves on January 1 of each year since 1935 are as shown in table 24.

Frequently there is a misunderstanding of the term "petroleum reserves" or "proven reserves" as used in the industry. Estimated reserves as reported merely take into account the amount of oil that can be recovered from existing wells with current methods of production. Estimates do not include reserves in fields or pools that are indicated but not yet proven, neither do the estimates take into account improved production methods, or secondary recovery methods until such practices are actually employed. A reserve figure for a given area will, therefore, change each year as current discoveries are added, as further drilling in proven fields permits more accurate measurement of a pool, or as new wells are drilled.

TABLE 24.—ESTIMATE OF PROVEN RESERVES OF PETROLEUM IN ILLINOIS, AS OF  
JAN. 1, 1935-1941<sup>a</sup>  
(In bbls.)

Year	Estimated proven reserves <sup>a</sup> January 1	Production during year	Proven reserves <sup>b</sup> discovered during year
1935.....	35,000,000	4,322,000	0
1936.....	30,678,000	4,445,000	1,767,000
1937.....	28,000,000	7,426,000	20,310,000
1938.....	40,884,000	24,074,000	226,037,000
1939.....	242,847,000	94,912,000	233,701,000
1940.....	381,636,000	146,788,000	340,152,000
1941.....	575,000,000		
		281,967,000	821,967,000

<sup>a</sup> The figures for estimated reserves as of January 1 for the years 1935, 1937, 1938, 1939 and 1940 are from the American Petroleum Institute as reported by the Oil Weekly, Vol. 100, No. 8, p. 48, Jan. 27, 1941; the figure for 1936 is calculated. The figure for January 1, 1941, is estimated by the Oil Weekly.

<sup>b</sup> The figures for reserves discovered each year are calculated by adding production during the year to estimated reserves at the beginning of the ensuing year and subtracting estimated reserves at the beginning of the year. The actual reserves in the fields discovered during any one year may vary widely from the figures arrived at by the above method.

#### OIL MARKETS AND PRICES

The rise of Illinois to the rank of an important oil producer among the states and its strategic position near a large oil-refining center have raised the question of its effect upon the oil market and upon oil prices. Shifts in the sources of oil by refinery districts have occurred as a result of the new production in Illinois. The effect upon competing producing districts has been restricted mainly to a displacement of a portion of the oil hitherto obtained from Oklahoma and Kansas. The disturbing effect upon the market resulting from increased output in Illinois has been overrated. In order to obtain a better perspective of the position of Illinois oil in the national oil market, a series of tables and charts is presented herewith showing the principal movements of oil in the United States east of the Rocky Mountains.

The principal producing districts of the United States and their contribution to the national output in 1940 are shown in table 25.

TABLE 25.—CRUDE OIL PRODUCTION IN THE UNITED STATES,  
IN 1940, BY DISTRICTS<sup>a</sup>

	Barrels (Thousands)	Per cent
Mid Continent.....	682,081	50.5
California.....	223,881	16.5
Gulf Coast.....	206,192	15.3
Rocky Mountain.....	33,801	2.5
Central (Ill., Ind., Ky., Mich., Ohio).....	179,757	13.3
Eastern fields.....	25,796	1.9
Other.....	339	....
Total.....	1,351,847	100.0

<sup>a</sup> U. S. Bur. Mines Monthly Petroleum Statement No. 206, February 10, 1941.



The principal crude oil consuming districts and their capacities are shown in table 26.

TABLE 26.—OPERATING REFINING CAPACITY IN BARRELS DAILY  
AS OF JAN. 1, 1940<sup>a</sup>

Atlantic Seaboard.....	617,300
Appalachian.....	152,466
Central Refining District.....	636,650
Mid Continent.....	710,975
Gulf.....	1,169,100
Rocky Mountain.....	108,893
Pacific Basin.....	801,310
Total.....	4,196,694

<sup>a</sup> U. S. Bur. Mines, *Petroleum Refineries in the United States*, January 1, 1940, I. C. 7124, June, 1940.

#### DISTRIBUTION

Refineries in the Pacific and Rocky Mountain districts obtain practically all of their crude requirements locally. A portion of California production is exported in foreign markets.

The Mid Continent and Gulf refining districts refine about 70 per cent of the oil produced in these districts. The remainder of the crude production is shipped by tanker to the Atlantic Seaboard and by pipe line to the Central Refining district.

The Central Refining district receives 55 per cent of its crude locally (Illinois, Indiana, Ohio, Kentucky, and Michigan); the remainder is received by pipe line from the Mid Continent fields (fig. 3). Oklahoma, Kansas, and Texas are the principal contributors in order of importance. Before the revival of the Illinois producing industry, this refinery area was supplied mainly by Oklahoma and Kansas.

The Atlantic Seaboard is supplied almost exclusively by tankers from Gulf ports and from South America (fig. 4). During 1940, a small contribution was received by pipe line from Illinois. The Appalachian refining district, in addition to local supplies, receives a substantial portion of its requirements from Illinois (fig. 4). Contributions from other sources are minor. See table 27 for movements of crude oil to refining districts in 1940.

Within this production-consumption pattern of the nation there are two major areas of surplus production—the Mid Continent-Gulf area and California. The surpluses of the Mid Continent-Gulf area are disposed of by the tanker route from Gulf ports to the Atlantic Seaboard and through the pipe line route to the refineries in the Central Refining district. Disturbances in the crude oil market do occur as a result of changes in tanker rates, availability of tankers, local changes in quantity of supply, or local changes in price.

In order to present a perspective of principal movements of oil in the United States, a series of flow charts is presented showing sources of oil for refining districts and principal destinations of Illinois oil (figs. 3, 4 and 5).

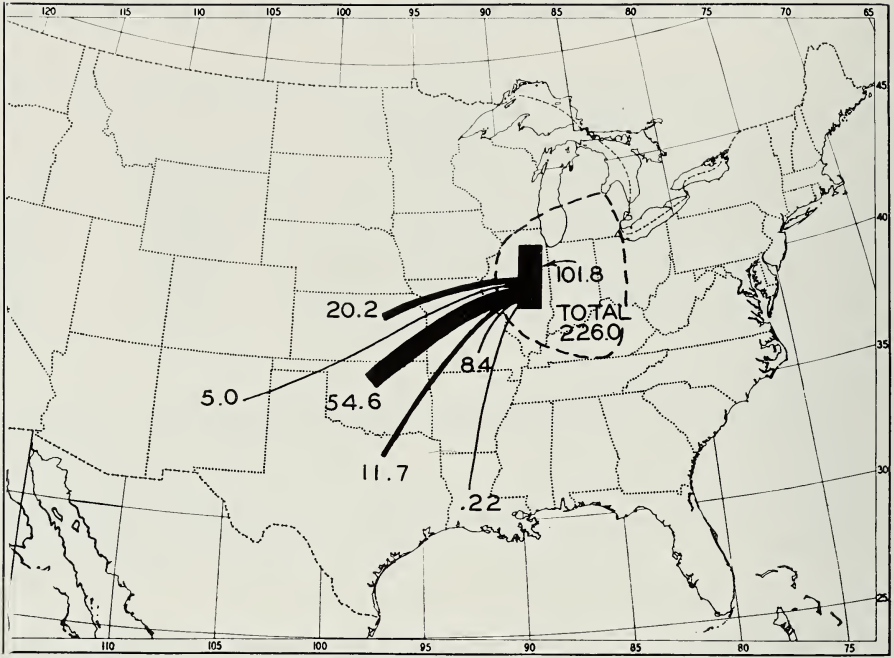


FIG. 3.—Sources of oil in the Central Refining district, 1940 (in millions of barrels). Refining district outlined by broken line. See table 27.

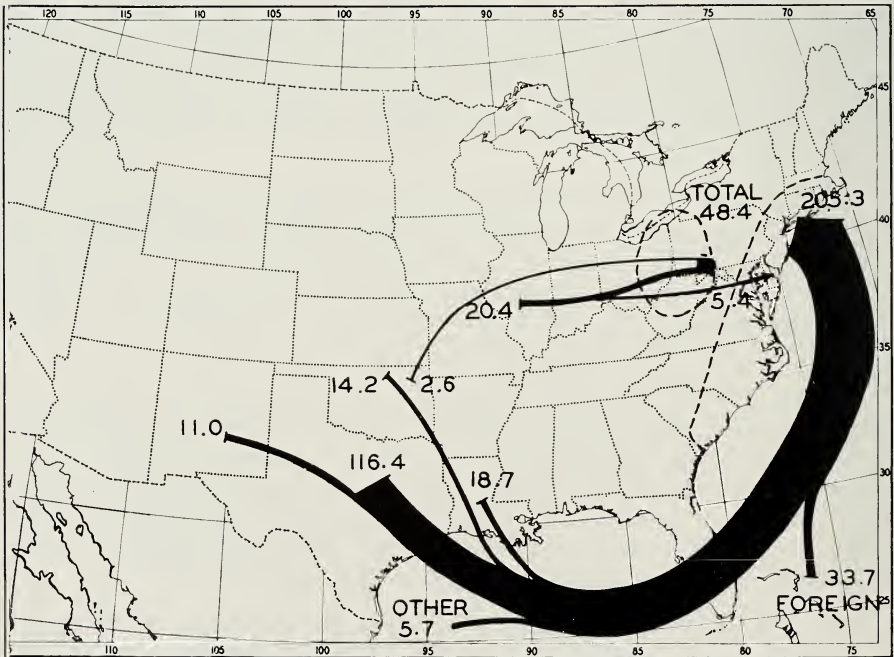


FIG. 4.—Sources of crude oil in Atlantic Seaboard and Appalachian Refining districts, 1940 (in millions of barrels). Refining districts are outlined by broken lines. See table 27.

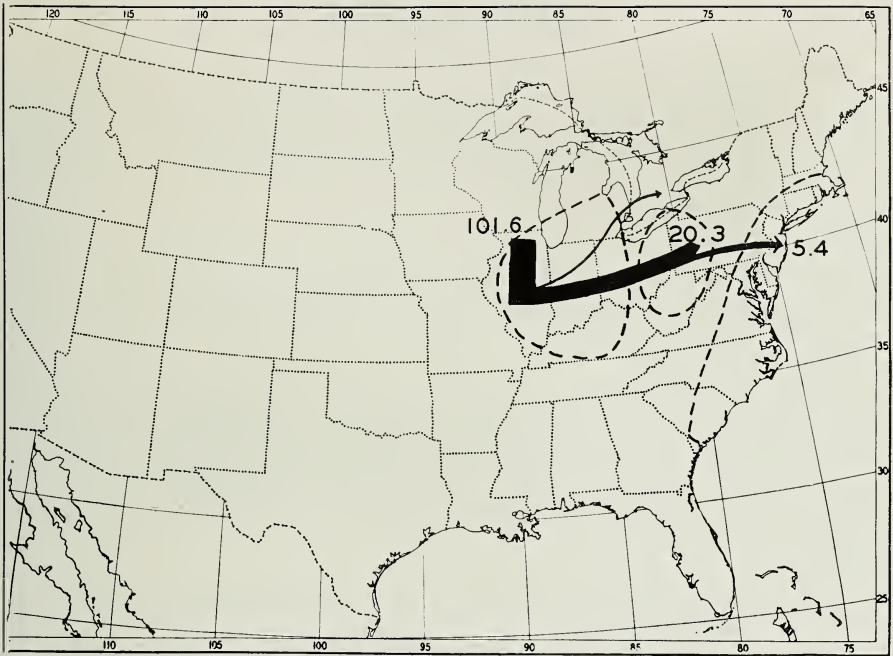


FIG. 5.—Distribution of Illinois petroleum, 1940 (in millions of barrels). Refining districts are outlined by broken lines. See table 28.

TABLE 27.—MOVEMENTS OF CRUDE OIL TO REFINING DISTRICTS, 1940<sup>a</sup>  
(In thousands of barrels)

To Atlantic Seaboard refining district		To Appalachian refining district	
From Illinois . . . . .	5,431	From New York . . . . .	3,611
Louisiana . . . . .	18,687	Ohio . . . . .	1,574
New Mexico . . . . .	11,070	Pennsylvania . . . . .	14,970
Oklahoma . . . . .	14,174	West Virginia . . . . .	2,066
Texas . . . . .	116,454	Illinois . . . . .	20,463
Other . . . . .	5,742	Oklahoma . . . . .	2,671
		Other . . . . .	3,043
Total domestic . . . . .	171,558	Total . . . . .	48,398
Foreign . . . . .	33,771		
Total consumption . . . . .	205,329		
To Mid Continent and Gulf		To Central refining district	
From Kansas . . . . .	44,755	From Illinois . . . . .	101,813
Louisiana . . . . .	73,141	Indiana . . . . .	585
New Mexico . . . . .	20,256	Western Ohio . . . . .	219
Oklahoma . . . . .	78,541	Michigan . . . . .	18,247
Texas . . . . .	330,370	Kentucky . . . . .	4,999
Arkansas . . . . .	11,163	Kansas . . . . .	20,204
Other . . . . .	20,491	Louisiana . . . . .	221
Total . . . . .	578,717	New Mexico . . . . .	5,028
		Oklahoma . . . . .	54,618
		Texas . . . . .	11,673
		Other . . . . .	8,419
		Total . . . . .	226,026

<sup>a</sup> Crude Petroleum Monthly Report by Refineries, 1940, Bureau of Mines.

## ANALYSIS OF FLOW CHARTS

*Interregional flow of oil.*—As noted, there are two areas of surplus oil production in the United States—California and the Mid Continent. Output in California above that needed for consumption in western states and Canada is exported mainly to the Orient although small quantities also move to the Atlantic Seaboard, and previous to the outbreak of the war there was also a movement to European ports.

East of the Rocky Mountains, the most important movement is the tanker shipments from Gulf ports to the Atlantic Seaboard (fig. 4). In addition to this, there is an important movement of oil from the Oklahoma and Kansas portions of the Mid Continent by pipe line to refineries in the Central refining district (fig. 3).

Between the Atlantic Seaboard group of refineries and those comprising the Central refining district is a small group of refineries comprising the Appalachian district. Refineries in this district previous to the recurrence of large production depended mainly upon local supplies of crude from Pennsylvania, New York, Ohio, and West Virginia, supplemented to some extent by crude from the Mid Continent.

## NATURE OF ILLINOIS COMPETITION IN THE PETROLEUM MARKET

Illinois production in 1940 was marketed mainly in three refining districts in the United States (table 28). In addition to domestic shipments, certain quantities were also shipped to Canada. The effect of increased Illinois production upon the oil markets of the east and central west is shown in tables 29, 30, and 31.

The movement of Illinois oil to Atlantic Seaboard refineries shows a close correlation to changes in tanker rates, so far as they are ascertainable. Monthly shipments and monthly average market freight rates for 1940, U. S. Gulf ports to New York, are shown in table 32.

Consumption of crude petroleum by refineries in the Appalachian district shows almost a complete displacement of Oklahoma oil by oil from Illinois.

The effect of increased production in Illinois upon conditions in the Central Refining district in 1940 was to increase refining capacity in this district to a greater extent than to curtail shipments from other districts. A comparison of receipts by refineries in 1937 and 1940, as shown in table 31, shows substantial losses in shipments from Oklahoma and Kansas. The addition of 100 million barrels of oil from Illinois more than offset decreased shipments from Mid Continent fields so that total runs-to-stills rose from 164 million in 1937 to 226 million in 1940.

TABLE 28.—DISTRIBUTION OF ILLINOIS OIL IN 1940<sup>a</sup>  
(In thousands of barrels)

To refineries in:	By state	By district
Atlantic Seaboard		
New Jersey.....	3,653	
Pennsylvania.....	1,778	
		5,431
Appalachian		
New York.....	6,547	
Ohio.....	12,997	
Pennsylvania.....	13	
West Virginia.....	906	
		20,463
Central		
Illinois.....	51,030	
Indiana.....	13,154	
Ohio.....	26,236	
Michigan.....	5,714	
Kentucky.....	5,679	
		101,813
Total accounted for.....		127,707

<sup>a</sup> U. S. Bur. Mines, Crude Petroleum Report by Refineries, Monthly, 1940.

TABLE 29.—CRUDE OIL SHIPMENTS TO ATLANTIC SEABOARD  
REFINERIES, 1937 AND 1940<sup>a</sup>  
(In thousands of barrels)

From	1937	1940
Texas.....	126,764	116,454
Oklahoma.....	12,543	14,174
Louisiana.....	18,123	18,687
New Mexico.....	9,072	1,070
Illinois.....	0	5,431
Foreign.....	24,343	33,771
Other.....	7,235	5,003
Total runs-to-stills.....	198,080	194,590

<sup>a</sup> U. S. Bur. Mines, Crude Petroleum Report by Refineries, Monthly, 1940.

## MINERAL INDUSTRY IN 1940

TABLE 30.—CRUDE OIL SHIPMENTS TO APPALACHIAN  
REFINERIES, 1937 AND 1940<sup>a</sup>  
(In thousands of barrels)

From	1937	1940
Texas.....	160	0
Oklahoma.....	13,034	2,671
Illinois.....	0	20,463
Local supplies.....	27,092	25,091
Total runs-to-stills.....	40,286	48,225

<sup>a</sup> U. S. Bur. Mines, Crude Petroleum Report by Refineries, Monthly, 1940.

TABLE 31.—CRUDE OIL SHIPMENTS TO THE CENTRAL REFINING  
DISTRICT, 1937 AND 1940<sup>a</sup>  
(In thousands of barrels)

From	1937	1940
Texas.....	12,474	11,673
Oklahoma.....	85,795	54,618
Kansas.....	26,727	20,204
Louisiana.....	0	221
New Mexico.....	10,260	5,028
Illinois.....	( <sup>b</sup> )	101,813
Other local.....	( <sup>b</sup> )	24,050
Other states.....	28,987	8,419
Total runs-to-stills.....	164,243	226,026

<sup>a</sup> U. S. Bur. Mines, Crude Petroleum Report by Refineries, Monthly, 1940.

<sup>b</sup> Included under "Other states."

TABLE 32.—MONTHLY SHIPMENTS OF PETROLEUM AND MONTHLY  
AVERAGE MARKET FREIGHT RATES FROM ILLINOIS TO SEABOARD  
REFINERIES, 1940<sup>a</sup>  
(In thousands of barrels)

Month	Shipments <sup>a</sup>	Rate <sup>b</sup>
January.....	387	\$0.560
February.....	512	0.560
March.....	672	0.608
April.....	734	0.555
May.....	736	0.648
June.....	783	0.395
July.....	628	0.213
August.....	268	0.192
September.....	328	0.205
October.....	101	0.282
November.....	1	0.483
December.....	273	0.480

<sup>a</sup> U. S. Bur. Mines, Crude Petroleum Report by Refineries, Monthly, 1940.

<sup>b</sup> Oil and Gas Journal, Oct. 17, and Dec. 12, 1940.

## ILLINOIS OIL IN THE ATLANTIC SEABOARD MARKET

The heavy demand upon the tanker fleet of the world occasioned both by the increased demand for tanker service by Great Britain, the replacement of losses in sea warfare, and the delays in shipping incident to transportation under war conditions, places before the American oil industry as a major problem that of supplying the large east coast market. This market is normally supplied by tanker from Gulf ports and only to a small degree by pipe line.

Tanker shipments of crude petroleum and refined oils to east coast refineries from Gulf ports have shown a decidedly upward trend in recent years as shown in table 33.

TABLE 33.—TANKER MOVEMENTS OF PETROLEUM PRODUCTS FROM GULF PORTS TO EAST COAST REFINERIES, 1935-1940<sup>a</sup>  
(In thousands of barrels)

Year	Crude petroleum	Refined oils	Total
1935.....	141,193	154,933	296,126
1936.....	153,026	189,888	342,914
1937.....	170,766	210,259	381,025
1938.....	150,716	216,070	366,786
1939.....	157,819	244,224	402,043
1940.....	161,987	266,334	428,321

Shipments of crude oil to the Atlantic Seaboard by pipe line during 1940 have been mainly from Illinois and totaled 5,431,000 barrels. Shipments were highest in May and June during the period of high tanker rates, and dropped when tanker tonnage again became available. With the tanker situation again becoming critical, the question of oil supply for the Atlantic Seaboard pipe line from Illinois and Mid Continent fields may become important. It is possible that by using all available lines, five to six times as much crude could be transported to the east coast by pipe line as is now being moved.

## NATURAL AND MANUFACTURED GAS

Gas is supplied by utilities in Illinois as natural, mixed, or manufactured gas. Natural gas is obtained mainly from Mid Continent gas fields although small quantities are also obtained from natural gas sources in Illinois and Indiana.

Manufactured gas may be one, or a mixture, of several kinds of such gas, such as coal-gas, coke-oven gas, and water gas. Most of the communities in the State are supplied with a combination of natural and manufactured gas. The heating value of the gas supplied to customers in Illinois ranges from 480 B. t. u. per cubic foot for manufactured gas to as high as 1030 B. t. u. for natural gas.

Gas is sold on a basis of fuel value, and this is stated in therms, a therm being equal to 100,000 B. t. u.'s. One ton of coal with an average heat value of 12,500 B. t. u.'s per pound is therefore equal to 250 therms of gas.

The sale of gas by years, by principal uses, is shown in table 34. The sale of gas by uses by months during 1940 is shown in table 35. This table shows particularly how the gas industry has been able to maintain a reasonably uniform load from month to month in spite of a large sale of gas for residential heating requirements with its accompanying seasonal fluctuations.

TABLE 34.—GAS SALES IN ILLINOIS, BY PRINCIPAL USES, 1936-1940,<sup>a b</sup>  
(In thousands of therms)

	1936	1937	1938	1939	1940
Total sales.....	786,373	833,600	758,763	838,650	<sup>c</sup>
Sales to ultimate customers.....	717,190	770,331	699,766	775,149	810,340
Residential sales, exclusive of space heating.....	170,043	171,128	170,550	172,516	176,254
Residential sales, space heating.....	85,348	84,529	79,098	88,901	107,326
Industrial interruptible sales.....	332,259	380,452	323,439	383,406	377,989
Commercial, industrial non-interruptible sales.....	129,540	134,222	126,679	130,326	148,431

<sup>a</sup> Illinois Commerce Commission, annual and monthly reports of the Rates and Research Section.

<sup>b</sup> As reported by the twelve largest companies whose business accounts for approximately 99 per cent of total gas sales to ultimate customers in Illinois.

<sup>c</sup> Not available.

TABLE 35.—GAS SALES IN ILLINOIS, BY USES AND BY MONTHS, IN 1940<sup>a</sup>  
(In thousands of therms)

Month	Residential sales exclusive of space heating	Residential space heating	Industrial interruptible sales	Commercial, industrial non-interruptible and other sales	Total sales
January.....	15,526	17,930	25,610	12,073	71,139
February....	14,373	17,850	28,598	11,919	72,740
March.....	14,053	15,163	28,728	11,647	69,591
April.....	14,042	11,778	28,910	15,174	69,904
May.....	15,126	7,910	31,141	14,448	68,625
June.....	15,514	3,772	34,517	11,950	65,753
July.....	14,709	1,729	37,265	11,457	65,160
August.....	12,990	1,249	36,582	11,494	62,315
September...	14,337	1,912	33,425	11,942	61,616
October.....	15,095	3,895	32,834	13,024	64,848
November...	15,445	8,578	30,446	10,983	65,452
December...	15,044	15,560	29,933	12,320	72,857
Total.....	176,254	107,326	377,989	148,431	810,000

<sup>a</sup> Illinois Commerce Commission, "Monthly Summary of Gas Sales in Illinois."

#### SOURCES AND CONSUMPTION OF NATURAL GAS IN ILLINOIS

Illinois receives natural gas from eight states, of which Texas contributes about two-thirds. Consumption of natural gas from 1931 to 1939, and the sources of natural gas from 1935 to 1939, are shown in table 36.



TABLE 36.—CONSUMPTION OF NATURAL GAS IN ILLINOIS, 1924-1939, WITH SOURCES FROM 1935-1939<sup>a</sup>

(In millions of cubic ft.)

Year	Illinois	Kansas	Indiana	Louisiana	Mis- souri	Oklahoma	Texas	Ken- tucky	Total
1924									4,072
1925									4,165
1926									3,808
1927									3,741
1928									3,051
1929									3,139
1930									9,602
1931									14,050
1932									29,432
1933									33,341
1934									45,084
1935	1,448	2,107	34	13,574	163	0	36,543	110	53,979
1936	865	2,385	95	17,214	53	18	51,800	89	72,519
1937	1,040	2,973	13	17,367	34	81	56,957	185	78,650
1938	1,169	2,176	42	15,168	140	89	47,682	135	66,603
1939	2,746	2,455	5	17,413	40	80	52,325	0	75,064

<sup>a</sup> U. S. Bur. Mines, Minerals Yearbooks, Natural Gas Chapters, 1937-1940.

## BUILDING CONSTRUCTION AND BUILDING MATERIALS

Building permits in 161 cities in Illinois showed an increase of 5.3 per cent in 1940 over 1939. The value of building permits by type of construction is shown in table 37.

TABLE 37.—SUMMARY OF TOTAL VALUE OF BUILDING PERMITS IN ILLINOIS CITIES, 1939 AND 1940<sup>a</sup>

Type	1939	1940	Change in per cent
Non-residential.....	\$ 36,960,665	\$ 44,545,776	+20.5
Residential.....	58,621,104	62,782,515	+7.1
Repairs.....	15,636,820	9,829,942	-43.5
Total.....	\$111,218,589	\$117,158,233	+5.3

<sup>a</sup> U. S. Dept. of Labor, Monthly Bulletins, "Building Construction."

The large increase in non-residential construction is due principally to heavy construction activities in Chicago and Evanston. This may also foreshadow the type of construction that may be anticipated in 1941. Due to a heavy rearmament program, building materials and skilled labor are being directed into construction for military and industrial use.

Residential construction, although it showed an average increase of only 7.1 per cent for the State, was nevertheless remarkable in that, with the exception of Chicago, Evanston, and Peoria, every city in the State showed an increase in residential construction, and the average increase in these three cities was 52.6 per cent. Notably active building centers were Bloomington, Danville, Elgin, Granite City, and Springfield. The record of building permits for 161 cities and villages for 1939 and 1940 is shown in table 38.

TABLE 38.—VALUE OF BUILDING PERMITS ISSUED IN ILLINOIS CITIES BY TYPE, IN 1939 AND 1940<sup>a</sup>

City	Residential		Non-residential		Repairs		Total	
	1939	1940	1939	1940	1939	1940	1939	1940
	\$ 180,893	\$ 341,471	\$ 169,042	\$ 312,579	\$145,768	\$153,359	\$ 495,703	\$ 807,409
317,539	339,257	53,182	157,297	244,780	298,842	615,501	795,396	
270,750	379,950	932,564	152,425	58,866	104,772	1,262,180	637,147	
728,150	807,450	93,568	120,726	76,597	146,755	898,315	1,074,931	
182,281	425,693	542,085	232,430	133,770	187,444	858,136	845,567	
24,616,956	17,822,083	20,376,521	26,852,103	7,118,830	8,443,566	52,112,307	53,117,752	
173,900	313,900	229,850	341,200	220,608	133,478	624,358	788,578	
838,889	219,821	218,821	239,738	158,511	97,779	415,382	1,176,406	
38,050	666,120	242,797	506,365	173,203	339,885	916,690	1,512,370	
500,690								
155,500	250,800	516,059	514,150	187,738	243,414	859,297	1,008,364	
272,969	676,450	34,981	199,105	245,417	285,685	553,367	1,161,240	
1,293,100	1,211,900	874,500	5,386,600	485,580	540,480	2,653,180	7,138,980	
59,300	726,300	24,060	59,620	6,250	89,610	89,610	786,512	
201,800	511,200	54,422	74,168	300,973	356,586	557,195	941,954	
104,680	163,500	35,470	76,735	70,445	96,054	210,595	336,289	
826,772	1,298,604	257,975	126,547	346,018	295,766	1,430,765	1,720,917	
471,350	373,600	137,795	173,750	174,365	242,185	783,510	789,535	
4,987,380	1,433,622	1,864,714	1,054,353	443,802	565,228	7,295,896	3,053,203	
131,825	233,150	43,050	46,370	35,587	28,516	210,462	308,036	
679,600	1,184,450	1,783,885	443,525	325,670	532,378	2,789,155	2,160,353	
538,703	1,721,165	722,534	507,210	367,127	432,524	1,628,364	2,660,899	
830,186	2,947,327	226,378	184,989	306,653	370,358	1,363,215	3,502,674	
240,200	514,250	47,215	73,379	214,656	218,026	502,071	805,655	
7,346,729	10,591,785	4,278,867	2,627,501	1,849,316	2,238,877	13,474,912	15,458,163	
6,616,721	7,748,613	1,950,060	3,068,388	1,012,846	1,266,492	9,579,627	12,083,493	
3,383,402	3,667,709	613,640	210,356	643,553	936,126	4,640,595	4,814,191	
3,471,678	5,593,277	636,630	745,130	289,891	330,890	4,398,199	6,669,297	
\$58,621,104	\$62,782,515	\$36,960,665	\$44,545,776	\$15,636,820	\$9,829,942	\$111,218,589	\$117,158,233	

<sup>a</sup> U. S. Dept. Labor, Monthly Bulletins, "Building Construction."

## CLAY PRODUCTS

The value of clay products in 1940 amounted to \$15,453,783 as compared with \$12,600,456 in 1939. Value of clay products manufactured in Illinois for the period 1936 to 1940 is shown in table 39.

TABLE 39.—VALUE OF CLAY PRODUCTS IN ILLINOIS, 1936-1940

Class	1936	1937	1938	1939	1940
Structural and refractory clay products.....	\$8,635,364	\$8,711,012	\$6,404,594	\$8,350,331	\$10,341,009
Pottery.....	2,880,047	3,042,084	3,046,190	4,250,125	5,112,774
Total.....	\$11,515,411	\$11,753,096	\$9,450,784	\$12,600,456	\$15,453,783

Production of clay products by classes, in 1939 and 1940, is shown in table 40. Because of large stocks on hand and a buyer's market, the price of hollow building tile failed to follow the upward trend in prices shown in common and face brick.

TABLE 40.—PRODUCTION OF CLAY PRODUCTS IN ILLINOIS, BY CLASSES, 1939 AND 1940

Product	1939			1940		
	Quantity	Av. price	Value	Quantity	Av. price	Value
Common brick (M).....	286,162	\$ 7.90	\$2,253,879	242,960	\$ 9.85	\$2,399,779
Face brick (M).....	115,818	13.38	1,545,696	106,489	14.45	1,542,547
Hollow building tile (tons).....	130,377	6.16	805,641	158,209	5.08	803,386
Drain tile (tons).....	92,251	6.55	606,696	62,506	6.70	418,307
Fireclay products.....			1,217,947			3,812,436
All other clay products.....			1,920,472			1,364,554
Pottery.....			4,250,125			5,112,774
Total.....			\$12,600,456			\$15,453,783

Shipments of clay products by months and classes, are shown in table 41.

TABLE 41.—SHIPMENTS OF CLAY PRODUCTS IN ILLINOIS, BY MONTHS AND BY CLASSES, 1940<sup>a</sup>

Month	No. of plants	Shipments		Stocks on hand at end of month
		Amount	Value	
<b>COMMON BRICK</b> (In thousands of brick)				
January.....	38	7,250	\$ 68,819	71,755
February.....	39	12,471	119,096	61,349
March.....	39	13,451	133,217	55,285
April.....	39	22,550	218,796	47,865
May.....	39	24,180	236,986	47,170
June.....	36	26,919	265,600	46,138
July.....	36	28,894	284,584	43,645
August.....	36	26,573	259,390	47,990
September.....	36	23,141	229,325	51,582
October.....	36	31,782	315,181	49,903
November.....	36	20,634	200,917	55,137
December.....	35	20,126	194,337	55,383
Total, 1940.....		257,971	2,526,248	
Total, 1939.....		211,281	2,126,278	
<b>FACE BRICK</b> (In thousands of brick)				
January.....	18	613	10,419	27,071
February.....	18	1,581	25,716	28,585
March.....	18	3,119	53,069	28,437
April.....	18	4,957	84,172	28,825
May.....	18	6,355	105,322	28,294
June.....	17	6,487	106,272	27,117
July.....	17	6,831	116,732	26,351
August.....	17	6,915	117,066	27,153
September.....	17	6,526	108,130	27,101
October.....	17	7,179	119,731	24,487
November.....	17	5,535	82,254	26,972
December.....	17	4,949	74,564	28,362
Total, 1940.....		61,047	1,003,447	
Total, 1939.....		77,308	1,331,838	
<b>HOLLOW BUILDING TILE</b> (In short tons)				
January.....	18	3,690	19,180	39,103
February.....	18	5,497	30,864	37,575
March.....	18	6,805	36,636	37,197
April.....	18	10,215	53,413	39,237
May.....	18	8,480	45,598	39,274
June.....	17	8,520	44,253	42,283
July.....	17	8,947	45,908	40,287
August.....	17	9,475	47,270	42,440
September.....	17	8,031	38,291	40,972
October.....	17	8,219	45,315	41,392
November.....	17	5,319	30,171	43,670
December.....	17	5,259	28,463	41,404
Total, 1940.....		88,457	465,362	
Total, 1939.....		92,977	510,420	

<sup>a</sup> U. S. Bur. Census, Structural Clay Products, Monthly Bulletins, 1939-1940.

## COMPETITION OF WOOD AND STRUCTURAL CLAY PRODUCTS

The most significant rival of brick in the building of moderate priced houses is lumber. On the farm, lumber is still the dominant building material. In these two markets, structural clay products have been far less important than lumber. Nevertheless, in evaluating the position of lumber as a building material competitive to structural clay products, it is not sufficient to consider only the present price structure, because there are certain conditions in the forest industries which may tend to raise costs of production that will be reflected in increased prices for lumber.

These conditions are (1) a practical absence of local supply of timber in Illinois, (2) an approaching exhaustion of timber supply in the Lake States region, (3) a substantial decrease in lumber supply available in the Gulf Coast forest belt, and (4) an increasing dependence upon the Pacific Coast for lumber requirements.

## LUMBER PRODUCTION AND CONSUMPTION IN ILLINOIS

Although Illinois is generally regarded as a prairie state, it has had and still has a lumber-producing industry, although from the point of view of meeting the annual requirements of the State, this production is negligible. The ratio of production to consumption for those years for which the data are available is shown in table 42. This includes both hardwoods and softwoods. According to this table, production in the State is about one per cent of consumption.

TABLE 42.—PRODUCTION AND CONSUMPTION OF LUMBER IN ILLINOIS, 1904-1936<sup>a</sup>  
(In thousands of ft. b. m.)

Year	Production	Consumption	Year	Production	Consumption
1904.....	212	.....	1920.....	44	.....
1905.....	119	.....	1921.....	43	.....
1906.....	141	.....	1922.....	24	2,822
1907.....	141	.....	1923.....	28	3,134
1908.....	123	.....	1924.....	33	2,825
1909.....	170	.....	1925.....	29	.....
1910.....	114	.....	1926.....	38	2,711
1911.....	97	.....	1927.....	29	.....
1912.....	123	.....	1928.....	30	2,447
1913.....	103	.....	1929.....	38	.....
1914.....	66	.....	1930.....	25	1,385
1915.....	50	.....	1931.....	18	.....
1916.....	44	.....	1932.....	8	563
1917.....	42	.....	1933.....	8	.....
1918.....	36	.....	1934.....	15	723
1919.....	65	.....	1935.....	19	.....
			1936.....	25	1,236

<sup>a</sup> Reynolds, R. V., and Pierson, A. H., Forest Products Statistics of Central and Prairie States, U. S. Dept. Agr., Statistical Bull. No. 73, January 1941, pp. 9, 52.

## CONSUMPTION OF LUMBER IN ILLINOIS

Consumption of lumber in Illinois by types of lumber is shown in table 43.

TABLE 43.—CONSUMPTION OF HARDWOOD AND SOFTWOOD LUMBER IN ILLINOIS, 1922-1936  
(In thousands of ft. b. m.)

Year	Softwood	Hardwood	Total	Per cent softwood
1922	2187	633	2822	77
1923	2413	720	3133	77
1924	2111	714	2825	75
1926	2007	704	2711	74
1928	1920	527	2447	78
1930	1091	294	1385	79
1932	437	126	563	78
1934	541	181	723	75
1936	957	179	1136	77

## SOURCES OF LUMBER USED IN ILLINOIS

A detailed examination of the sources of lumber used in Illinois shows that all sections of the country as far east as New England and as far west as the Pacific Coast contribute to the supply. Nevertheless, by far the major contributing lumber-producing districts are the lake states, the southern area, and the Pacific Coast. The proportion contributed by each of these three districts and the trend of supply from 1922 to 1936 is shown in table 44 for softwoods and in table 45 for hardwoods.

TABLE 44.—SOURCES OF SOFTWOOD LUMBER USED IN ILLINOIS, BY MAJOR PRODUCING DISTRICTS, 1922-1936<sup>a</sup>  
(In thousands of ft. b. m.)

Year	District								Total
	Lake and Central	Per cent	South	Per cent	Pacific and Mountain	Per cent	Other, incl. imports	Per cent	
1922	249,005	11.7	1,263,992	57.4	388,477	27.0	85,410	3.9	2,186,884
1923	248,801	10.3	1,372,493	56.9	644,278	26.7	147,718	6.1	2,413,295
1924	297,341	14.2	1,090,959	51.6	591,705	28.0	130,234	6.2	2,110,439
1926	218,038	10.9	963,830	48.2	687,809	34.3	135,384	6.6	2,007,061
1928	195,266	10.2	917,049	47.7	725,335	37.8	81,919	4.3	1,919,569
1930	81,496	7.5	506,072	46.4	435,944	40.0	66,879	6.1	1,090,491
1932	36,898	8.5	203,329	47.0	173,014	39.6	21,564	4.9	437,005
1934	47,660	8.5	251,086	46.5	212,881	39.5	30,037	5.6	541,664
1936	54,203	5.6	422,720	44.5	433,927	45.2	46,191	4.7	957,041

<sup>a</sup> From U. S. Dept. Agr. Statistical Bull. No. 73, pp. 52-3, 1941.

Significant changes are occurring in the source of softwood lumber used in Illinois. The period of softwood lumber consumption shown in table 44 covers both the active building years of the middle of the decade of the 20's and also the depression years following. By 1922, the important softwood region of the lake states had lost its importance as a lumber producer and had yielded its

TABLE 45.—SOURCES OF HARDWOOD LUMBER USED IN ILLINOIS, BY MAJOR PRODUCING DISTRICTS, 1922-1936<sup>a</sup>

Year	District						Total
	Lake and Central	Per cent	South	Per cent	Other, including imports	Per cent	
1922	392,101	61.7	235,444	37.0	7,445	1.3	634,990
1923	426,529	59.2	285,153	39.5	8,549	1.3	720,231
1924	419,766	48.8	270,451	37.9	23,965	3.3	714,216 <sup>b</sup>
1926	410,196	57.5	277,132	39.4	17,005	3.1	704,333
1928	288,949	54.9	228,935	43.4	9,166	1.7	527,050
1930	176,888	60.1	113,348	38.5	3,814	1.4	294,050
1932	87,465	69.2	35,385	28.0	3,450	2.8	126,300
1934	121,213	66.9	56,602	31.2	3,548	1.9	181,363
1936	159,057	57.0	118,218	41.4	1,953	0.6	279,228

<sup>a</sup> U. S. Dept. Agr. Statistical Bull. No. 73, pp. 52-3, 1941.

<sup>b</sup> Includes 34 M ft. b. m. from Pacific and Mountain regions.

position to the South and to the Pacific Coast. From 1922 to 1936, the lake states region continued to decline as a contributor to Illinois' lumber requirements until its percentage of the marketed supply in 1936 was only half that of 1922. Supplies of softwood lumber from the South, although exceeding all other districts, have declined continuously since 1922, and sharp decreases in available lumber supply from this district are anticipated in a few years. Shipments from the Pacific and Mountain districts, on the other hand, have taken a constantly increasing portion of the Illinois market, rising from 27 per cent to 45 per cent in the period from 1922 to 1936. This increase from the coast has occurred in spite of the fact that total softwood lumber consumption in Illinois had fallen from 2,413,295 thousand board feet in 1923 to a low of 437,005 thousand board feet in 1932. This increasing dependence upon the Pacific Coast for lumber supply, together with the downward cycle of construction, presages a difficult situation confronting the building industry in the future when the cycle of construction again turns upward. A depleted timber supply in the lake states and the South will force upon the Pacific source of supply a dependence that is more than proportional to the increase in demand. Prices for lumber will certainly be high because the minimum is determined by the cost of production plus transportation costs; but it may rise above this on account of the unusually heavy demand from all consuming areas that derive their supply from the Pacific region.

What the rate of building will be in the immediate future is difficult to forecast. During the period of rearmament, when the nation will be, for all practical purposes, on a war economy, there is likely to be a curtailment of residential and other construction for non-military purposes. After the period of rearmament and emergency has passed, there will be a housing shortage similar to that in 1921 following the World War. Rate of construction will increase and the demand for building materials will be heavy. An anticipation of these conditions and the opportunity to supply alternative materials for lumber should be given careful consideration by the manufacturers of structural clay products.

With respect to supply of hardwoods, the source of supply for Illinois is limited practically to the lake states and Central regions and the South. Supplies appear to be adequate for present annual requirements, and questions of supply and price do not appear to be as critical as in the case of softwood lumber.

TABLE 46.—PRODUCTION, SHIPMENTS, AND CONSUMPTION OF PORTLAND CEMENT IN ILLINOIS, 1939 AND 1940<sup>a</sup>

	1939	1940
Production (bbls.).....	4,648,834	4,974,917
Shipments (bbls.).....	4,801,292	4,937,127
Value.....	\$7,056,746	\$7,209,431
Average factory value (per bbl.)..	\$1.47	\$1.46
Stocks at mills (bbls.).....	680,559	718,349
Shipments from mills into Illinois (bbls.).....	7,664,172	8,584,009
Per capita, Illinois.....	1.03	1.09
Per capita, U. S.....	0.94	0.96

<sup>a</sup> U. S. Bur. Mines, M. M. S., No. 933, July 10, 1941.

Shipments of portland cement into the State and consumption per capita, as shown by producers reports, is an approximation since the figures do not make allowance for stocks of cement in transit, in warehouses at distributing points, and awaiting use at jobs.

Production, shipments, and consumption of portland cement in 1939 and 1940 are shown in table 46.

### FLUORSPAR<sup>a</sup>

Stimulated by defense activities and by a sharp curtailment in imports, the fluorspar industry in the United States increased production substantially in 1940 to meet the demand of American consumers (table 47). Greatly expanded operations at steel mills and aluminum plants in 1940 have so prompted the demand for fluorspar that total shipments of that mineral from domestic mines during the year were the second highest on record. Domestic mine production was 41 per cent higher and shipments 28 per cent greater in 1940 than in 1939.

Steel mills are the principal consumers of fluorspar, and large quantities also are used in glass and enamel manufacture, and in the production of hydrofluoric acid which is essential in the manufacture of artificial cryolite, an aluminum raw material.

It is interesting to note that the market for fluorspar in the chemical industry is absorbing an increasing percentage of the annual output. Of the domestic production, the chemical industries absorbed 11.9 per cent in 1939 and 14.4 per cent in 1940. This compares with an absorption of 9.3 per cent of the total domestic output for the ten-year period ending 1940. This recent increase is due to a number of factors such as an expanding use of fluorine compounds and the increasing demand for synthetic cryolite. It must also be borne in mind that the fluorspar for the chemical industry is the "acid grade" which represents one of the

<sup>a</sup> This section is based on U. S. Bur. Mines, Mineral Market Reports, M. M. S. 903, April 18, 1941.



purest grades of CaF<sub>2</sub> produced. In total value of fluorspar shipped from mines, the chemical industries' bill has almost 18 per cent of the entire value of fluorspar.

Tables 48 to 52 show, for 1939 and 1940, details of the shipments of fluorspar by states and uses, imports by countries and uses, and consumption by industries.

TABLE 47.—FLUORSPAR SHIPPED FROM MINES IN ILLINOIS, 1935-1940<sup>a</sup>

Year	Tons	Value	Average Value
1935.....	44,120	\$685,794	\$15.54
1936.....	82,056	1,525,606	18.59
1937.....	78,664	1,730,585	22.00
1938.....	35,368	751,227	21.24
1939.....	75,257	1,638,693	21.77
1940.....	104,698	2,313,747	22.10

TABLE 48.—FLUORSPAR SHIPPED FROM MINES IN THE UNITED STATES, BY STATES, 1939-1940

State	1939			1940		
	Short tons	Value		Short tons	Value	
		Total	Average		Total	Average
Colorado.....	7,569	\$ 107,459	\$14.20	11,032	\$ 163,285	\$14.80
Illinois.....	75,257	1,638,693	21.77	104,698	2,313,747	22.10
Kentucky.....	89,563	1,773,063	19.80	103,939	2,043,866	19.66
Arizona.....	6,477	132,408	20.44	7,986	139,675	17.49
New Mexico.....						
Nevada.....	3,520	53,336	13.66	5,803	84,235	14.17
Utah.....						
Total.....	182,771	3,704,959	20.27	233,600	4,744,808	20.31

TABLE 49.—FLUORSPAR SHIPPED FROM MINES IN THE UNITED STATES, BY USES, 1939-1940

Use	1939			1940		
	Short tons	Value		Short tons	Value	
		Total	Average		Total	Average
Steel.....	125,371	\$2,234,996	\$17.83	162,772	\$2,998,054	\$18.42
Foundry.....	2,391	42,428	17.74	2,829	50,758	17.94
Glass and enamel.	21,884	569,349	26.02	20,269	548,069	27.04
Hydrofluoric acid.	27,463	730,383	26.60	33,608	852,139	25.36
Miscellaneous.....	2,686	53,360	19.87	5,640	117,321	20.80
Total.....	179,795	3,630,516	20.19	225,118	4,566,341	20.28
Exported.....	2,976	74,443	25.01	8,482	178,467	21.04
Total.....	182,771	3,704,959	20.27	233,600	4,744,808	20.31

TABLE 50.—FLUORSPAR IMPORTED INTO THE UNITED STATES, BY COUNTRIES, 1939-1940

	1939		1940	
	Short tons	Value	Short tons	Value
France.....	13,094	\$100,769	5,735	\$47,345
Germany.....	19	603		
Mexico.....	465	7,418	1,555	21,466
Newfoundland.....	2,268	61,775	3,640	69,825
Norway.....	1	15		
Spain.....	168	2,542	112	841
Tunisia.....	231	2,919	829	3,454
United Kingdom.....	56	650		
Total.....	16,302	176,691	11,871	142,931

TABLE 51.—IMPORTED FLUORSPAR DELIVERED TO CONSUMERS IN THE UNITED STATES, 1939 AND 1940

Use	1939			1940		
	Short tons	Selling price at tidewater, including duty		Short tons	Selling price at tidewater, including duty	
		Total	Average		Total	Average
Steel.....	13,689	\$282,487	\$20.64	9,275	\$204,342	\$22.03
Glass and enamel.....	134	5,240	39.10	11	361	32.82
Hydrofluoric acid.....	4,503	134,014	29.76	1,634	44,845	27.44
Miscellaneous.....	77	1,597	20.74	4	160	40.00
Total.....	18,403	423,338	23.00	10,924	249,708	22.86

TABLE 52.—FLUORSPAR CONSUMED AND IN STOCK IN THE UNITED STATES, BY INDUSTRIES, IN SHORT TONS, 1939-1940

(Partly estimated by Bureau of Mines)

Industry	1939		1940	
	Consumption	Stocks at consumers' plants Dec. 31	Consumption	Stocks at consumers' plants Dec. 31
Basic open-hearth steel.....	116,200	69,900	143,800	79,800
Electric-furnace steel.....	7,600	1,400	11,700	1,700
Foundry.....	2,400	800	2,700	900
Ferro-alloys.....	1,100	400	1,900	900
Hydrofluoric acid.....	26,300	14,100	35,700	14,300
Glass and enamel.....	21,400	3,100	18,900	4,400
Miscellaneous.....	1,800	700	2,500	1,400
Total.....	176,800	90,400	217,200	103,400

AGRICULTURAL LIMESTONE DISTRIBUTION  
IN ILLINOIS IN 1940<sup>1, 2</sup>

Consumption of agricultural limestone rose above the two million ton mark in 1940. Not only are the old established areas of limestone consumption maintaining their position, but the use of agricultural limestone in substantial quantities is being extended into areas where, hitherto, the interest in stone was not pronounced. Figures of consumption in 1940 are not strictly comparable with the previous year because, through cooperation with the offices of the Agricultural Adjustment Administration, it has been possible to secure consumption and distribution data in counties where production is furnished entirely by small local producers and roadside quarries and from whom direct replies were not received in 1939.

The use of limestone on farms has been substantially stimulated through the agricultural conservation program administered under the Agricultural Adjustment Administration. The grant-in-aid program which permits a farmer to receive limestone in lieu of cash payments has also served a useful purpose in encouraging limestone consumption. Under this arrangement, the farmer is permitted to draw a supply of soil conservation materials—limestone, superphosphate, and other materials—before the cropping season begins, and payment for these materials is deducted from any cash payment due to the grantee for his part in adhering to the soil conservation program. By this sort of an arrangement, he receives part of his allotment at the beginning of the season and is also saved the payment of interest on limestone purchases if he had made such purchases direct from producers with arrangements to make payments when his allotment was received.

Participation in the 1940 agricultural conservation program included 158,239 out of a total of 281,170 participating farms in the State, an average of 56.3 per cent.

The grant-in-aid program has been particularly effective in promoting limestone utilization in the southern counties of the State where, hitherto, limestone has not been extensively used. The percentage of farms in the southernmost counties<sup>3</sup> participating in the agricultural conservation program varied from 60 to 80 per cent and, with two exceptions, all were above the state average of 56.3 per cent participation. This part of the State is also characterized by a high percentage of farms operated by owners. Owner-operators in this area average approximately 70 per cent as compared with an average of 51 per cent for the State.

An area of high percentage of farm participation also exists across the central part of the State, embracing the area on both sides of the Illinois Waterway from the mouth of the river as far north as Tazewell and Peoria counties. Unlike the southern group of counties where owner-operator percentage is high, operation of farms by tenants is above the average for the State, especially in Fulton, Tazewell, Mason, Logan, Sangamon, Menard, Cass, and Schuyler counties, in which counties the average tenancy is 57 per cent.

In view of the fact that the soil conservation program provides for a division of allotments among landlords, tenants, and sharecroppers in the proportion that

<sup>1</sup> In cooperation with the Illinois Limestone Institute.

<sup>2</sup> Figures for 1940 subject to revision.

<sup>3</sup> Alexander, Union, Pulaski, Massac, Johnson, Pope, Hardin, Saline, Gallatin, and White.

they are determined to be entitled, as of the time of harvest, to share in the crops in 1941, there is an incentive for each of the parties concerned to adopt a soil-building program. To this extent, the difficulty of promoting limestone use on tenant-operated farms is being overcome.

#### LIMESTONE IN THE SOIL CONSERVATION PROGRAM<sup>4</sup>

Among the fundamental purposes of the agricultural conservation program for 1941, the first is stated "to conserve and improve the soil resources of the nation." The program, according to the published instructions to which reference is made in the footnote, provides for payments to farmers to help them pay at least part of the cost of carrying out these purposes by diverting acreage from soil-depleting crops and by adopting soil-building practices.

"The program provides that a soil-building allowance for carrying out approved soil-building practices will be paid at the rate of

- (1) 50 cents per acre of cropland in the farm in excess of the total soil-depleting allotment for the farm.
- (2) \$1.80 per acre of commercial orchards on the farm.
- (3) A county flat rate per acre of noncrop open pasture land in the farm based upon 2 cents per acre of such pasture land in the county, plus 90 cents for each animal unit of grazing capacity.
- (4) 70 cents for each acre in the commercial vegetable allotment for the farm.
- (5) Non-general-allotment farms—\$1.10 per acre, adjusted for the productivity of the farm, for each acre in the total soil-depleting allotment for the farm in excess of the sum of (a) the special crop allotments for which payments are computed for the farm and (b) the acreage of sugar beets planted on the farm.
- (6) *Special tree-planting allowance.* In addition to soil-building allowance, a special allowance of \$15 will be computed for each farm for planting trees."

Application of limestone and other approved fertilizer materials with seedings of perennial or biennial legumes, perennial grasses, winter vetch, lespedeza, or permanent pasture, or the application of approved fertilizers to land on which these legumes or grasses are already growing, will qualify as soil-building practice.

"The ground limestone must contain calcium and magnesium carbonates equivalent to not less than 80 per cent of calcium carbonate. It must not be coarser than that obtained by grinding calcareous or dolomitic limestone, with all finer particles obtained in the grinding process included, so that (1) not less than 90 per cent will pass through an 8-mesh sieve; or (2) not less than 80 per cent will pass through an 8-mesh sieve and the multiplication of the percentage of calcium carbonate (equivalent) times the percentage of ground limestone that will pass through an 8-mesh sieve equals not less than .7200.

"The following quantities of other calcareous substances are equivalent to one ton of ground limestone: 1,400 pounds of hydrated lime; two cubic yards of marl, sugar-beet refuse lime, calcium-carbide refuse lime, or water-softening-process refuse lime; ½ ton of commercial burnt lime; four cubic yards of calcareous clay; one ton of burnt lime waste; one ton of agricultural limestone meal; 2750 pounds of limestone screenings; 2750 pounds of by-product of lead mines of which 90 per cent will pass through an 8-mesh sieve and which contains at least 80 per cent calcium carbonate equivalent; one ton of by-product of lead mines with the lead separated out by the water table method and the sludge ground so that the product applied contains at least 80 per cent calcium carbonate and 90 per cent will pass through an 8-mesh sieve; or 2750 pounds of blast furnace slag which will pass through an 8-mesh sieve."

<sup>4</sup> U. S. Dept. of Agriculture, 1941 Agricultural Conservation Program, Illinois, January 24 1941.

Up to the maximum payments allowed for following an approved soil-building program, the application of ground limestone will earn \$2.00 per ton in the following counties:

- Bond, Brown, Cass, Clay, Clinton, Edwards, Effingham, Fayette, Fulton, Hamilton, Franklin, Jefferson, Marion, Mason, Perry, Richland, Schuyler, Shelby, Wabash, Washington, Wayne, White, and Williamson.

The application of ground limestone in all other counties will earn \$1.50 per ton.

Table 53 contains figures for agricultural limestone consumed in Illinois in 1939 and 1940, and pounds used per acre in each county.

Table 54 contains figures for agricultural limestone produced in other states and marketed in Illinois, 1935-1940.

Table 55 contains figures for agricultural limestone produced in Illinois and marketed in other states, 1935-1940.

### METAL MINING IN ILLINOIS

The lead and zinc produced in Illinois in 1940 came from fluorspar-lead-zinc mining and milling operations near Rosiclare and Cave in Rock in southern Illinois. The concentrates shipped contained 1,410 tons of recoverable lead and 4,900 tons of zinc, compared with 308 and 334 tons, respectively, in 1939. The large increase was due to expanded operations by the Mahoning Mining Company, which in 1938 and 1939 developed a body of fluorspar-zinc-lead ore near Cave in Rock and constructed a 200-ton all-flotation plant which was run throughout 1940.

Zinc smelting in Illinois from 1937 to 1940 was as follows:<sup>a</sup>

	Tons
1937.....	73,151
1938.....	68,167
1939.....	79,480
1940.....	101,819

<sup>a</sup> U. S. Bur. Mines, Mineral Market Reports, M. M. S., No. 881, Jan. 10, 1941, p. 5.

## MINERAL INDUSTRY IN 1940

TABLE 53.—CONSUMPTION OF AGRICULTURAL LIMESTONE IN ILLINOIS, BY COUNTIES,  
1939 AND 1940  
(In tons)

County	Produced in Illinois	Produced in other states	Total used, 1940	Total used, 1939	Arable land (acres)	Average limestone consumption in pounds per acre of arable land	
						1939	1940
Adams	30,335		30,335	28,054	256,222	218	236
Alexander	2,160	185	2,345	1,600	48,999	66	96
Bond	20,123		20,123	9,569	132,099	144	304
Boone	12,268		12,268	8,106	115,787	140	210
Brown	11,065	188	11,253	4,677	78,104	120	288
Bureau	25,468	276	25,744	20,000	359,529	111	142
Calhoun	13,473		13,473	5,750	68,901	164	390
Carroll	33,588		33,588	15,000	153,278	196	438
Cass	10,000		10,000	5,538	144,961	76	140
Champaign	33,312		33,312	23,103	510,585	90	130
Christian	35,986		35,986	14,669	338,156	86	212
Clark	33,334	4,056	37,390	46,915	151,845	600	492
Clay	26,589	160	26,749	5,500	151,435	72	350
Clinton	28,048	93	28,141	16,585	192,686	177	290
Coles	21,256		21,256	15,000	214,023	140	198
Cook	9,650		9,650	9,826	178,385	110	112
Crawford	12,560	6,497	19,057	8,240	124,307	132	306
Cumberland	23,367	646	24,013	10,526	119,122	176	400
DeKalb	26,402		26,402	10,895	307,266	71	172
DeWitt	13,606		13,606	10,120	182,562	110	148
Douglas	11,865	1,072	12,937	7,950	207,392	76	124
DuPage	7,668		7,668	5,541	106,526	104	144
Edgar	14,945	2,908	17,853	11,729	273,073	86	130
Edwards	15,825	385	16,210	6,050	85,356	140	380
Effingham	29,726	5,122	34,848	13,052	163,598	160	426
Fayette	21,679		21,679	14,000	228,559	123	196
Ford	21,774		21,774	21,490	247,539	173	176
Franklin	14,201	346	14,547	7,367	113,057	131	254
Fulton	15,088	3,714	18,802	11,890	290,102	82	130
Gallatin	6,236		6,236	4,773	104,998	91	118
Greene	25,000		25,000	16,125	178,198	181	278
Grundy	14,161		14,161	7,329	200,769	73	140
Hamilton	12,467	26	12,493	6,500	134,746	97	180
Hancock	31,065	231	31,296	8,161	274,919	59	220
Hardin	10,618		10,618	4,800	29,189	328	726
Henderson	20,460		20,460	13,035	130,350	200	314
Henry	19,158	10,842	30,000	31,484	334,421	188	179
Iroquois	35,000	10,000	45,000	26,438	554,440	95	162
Jackson	19,170	3,331	22,501	13,300	172,337	154	282
Jasper	34,036	156	34,192	5,881	176,936	66	386
Jefferson	31,488	555	32,043	13,500	177,301	153	214
Jersey	20,520		20,520	9,953	115,901	171	354
JoDaviess	26,420		26,420	10,000	145,556	138	360
Johnson	20,046		20,046	7,010	72,686	193	550
Kane	17,248		17,248	14,224	223,860	127	154

TABLE 53.—Continued

County	Produced in Illinois	Produced in other states	Total used, 1940	Total used, 1939	Arable land (acres)	Average limestone consumption in pounds per acre of arable land	
						1939	1940
Kankakee.....	19,604		19,604	25,153	309,935	162	126
Kendall.....	15,000		15,000	13,500	155,459	180	192
Knox.....	11,217	15,303	26,520	20,700	254,902	162	208
Lake.....	8,400		8,400	8,071	115,301	140	144
LaSalle.....	55,226		55,226	44,719	519,354	172	212
Lawrence.....	4,111	6,189	10,300	3,700	117,274	63	174
Lee.....	39,779		39,779	20,000	320,207	125	248
Livingston.....	50,806		50,806	66,014	540,819	244	188
Logan.....	13,097		13,097	12,300	300,583	83	86
McDonough.....	29,441	3,390	32,831	8,012	227,081	70	280
McHenry.....	16,787		16,787	16,500	218,840	150	141
McLean.....	75,000		75,000	66,716	581,994	228	220
Macon.....	19,950	50	20,000	11,480	278,949	82	142
Macoupin.....	42,124		42,124	18,250	292,187	124	288
Madison.....	30,075		30,075	30,320	267,693	226	224
Marion.....	29,764	7,440	37,204	8,505	174,766	91	340
Marshall.....	12,669		12,669	15,061	162,866	184	154
Mason.....	20,000		20,000	8,431	228,957	74	174
Massac.....	19,440		19,440	2,050	63,831	64	600
Menard.....	8,515		8,515	5,528	134,833	83	126
Mercer.....	18,191	3,551	21,742	12,096	192,182	126	226
Monroe.....	14,164		14,164	9,375	149,508	123	190
Montgomery.....	38,000		38,000	10,290	269,517	74	280
Morgan.....	11,471	5,179	16,650	3,394	222,219	32	140
Moultrie.....	10,726	274	11,000	4,148	162,653	51	134
Ogle.....	50,000		50,000	20,000	319,048	135	312
Peoria.....	29,440	287	29,727	31,460	218,763	288	270
Perry.....	18,475	21	18,496	11,475	138,507	164	266
Piatt.....	15,809	191	16,000	10,662	220,133	97	144
Pike.....	35,000		35,000	20,000	237,252	169	302
Pope.....	9,593		9,593	4,800	66,401	143	288
Pulaski.....	5,007	95	5,102	1,600	66,790	48	150
Putnam.....	10,882		10,882	9,843	59,339	334	366
Randolph.....	35,000	2,619	37,619	11,952	204,931	117	340
Richland.....	19,433	17	19,450	6,558	133,173	99	292
Rock Island.....	12,962	2,288	15,250	11,150	133,212	168	228
St. Clair.....	44,794		44,794	31,501	267,433	232	334
Saline.....	14,000		14,000	9,514	120,108	158	232
Sangamon.....	29,852	148	30,000	8,310	377,487	44	158
Schuyler.....	8,938		8,938	6,000	130,779	91	136
Scott.....	4,702	410	5,112	8,560	90,704	188	113
Shelby.....	24,193	104	24,297	12,375	297,999	86	162
Stark.....	10,371	5,629	16,000	5,475	122,206	91	260
Stephenson.....	45,000		45,000	20,000	210,552	190	426
Tazewell.....	15,000		15,000	12,930	284,658	91	104

TABLE 53.—*Concluded*

County	Produced in Illinois	Produced in other states	Total used, 1940	Total used, 1939	Arable land (acres)	Average limestone consumption in pounds per acre of arable land	
						1939	1940
Union.....	15,910	175	16,085	7,345	108,386	136	296
Vermilion.....	36,570	3,430	40,000	18,000	399,851	90	200
Wabash.....	6,047	2,953	9,000	310	92,213	7	196
Warren.....	28,713	4,841	33,554	20,000	215,866	185	310
Washington.....	34,616	2,722	37,338	24,000	216,960	221	320
Wayne.....	22,197	.....	22,197	3,063	208,166	30	212
White.....	9,182	5,593	14,775	6,746	190,289	71	154
Whiteside.....	32,964	36	33,000	16,000	282,383	114	234
Will.....	20,000	.....	20,000	9,974	330,187	54	120
Williamson.....	14,775	225	15,000	2,854	98,094	54	306
Winnebago.....	37,000	.....	37,000	25,000	182,962	272	400
Woodford.....	18,471	.....	18,471	18,141	233,462	155	158
Trucked, county unknown.....	11,844	.....	11,844	89,292	.....	.....	.....
Total.....	2,258,751	106,912	2,365,663	1,497,458	.....	.....	.....

TABLE 54.—AGRICULTURAL LIMESTONE PRODUCED IN OTHER STATES AND SOLD IN ILLINOIS, 1935-1940  
(In tons)

Year	Amount sold in Illinois	Per cent of total Illinois consumption
1935.....	54,803	10.5
1936.....	77,264	7.5
1937.....	87,479	7.9
1938.....	118,740	10.2
1939.....	71,775	5.1
1940.....	106,912	5.9

TABLE 55.—AGRICULTURAL LIMESTONE PRODUCED IN ILLINOIS AND MARKETED IN OTHER STATES, 1935-1940  
(In tons)

Year	Indiana	Kentucky	Missouri	Michigan	Tennessee	Total
1935	10,102	32	130	4,135	1,095	15,562
1936	28,976	4,129	587	4,950	6,020	44,398
1937	53,375	12	845	7,522	2,703	64,746
1938	36,356	4	675	1,288	4,100	42,463
1939	3,527	4,735	441	500	18,950	28,169
1940	3,800	5,450	353	325	14,900	*25,778

\* Includes 950 tons to Wisconsin.



## Part II—HISTORICAL SUMMARY, 1919-1939

### MINERAL PRODUCTION IN ILLINOIS

Tables 56 to 75, inclusive, give production data for principal minerals produced or processed in Illinois from 1919 through 1939. In addition to mineral output, tables on value of building permits are given for representative cities and villages in Illinois.

#### COAL

Production of coal in Illinois, by counties, for shipping and local mines, since 1919, is shown in table 56. The freight rate district in which each county is located is indicated.

Production of coal in Illinois, by freight rate districts, for shipping and local mines, since 1900, is shown in table 57.

Total coal tonnage in Illinois since 1900, by shipping and local mines, is shown in table 58.

Tonnage of coal produced in Illinois by the stripping method for the years 1919-1939, and its percentage of all coal produced in the State, is shown in table 59.

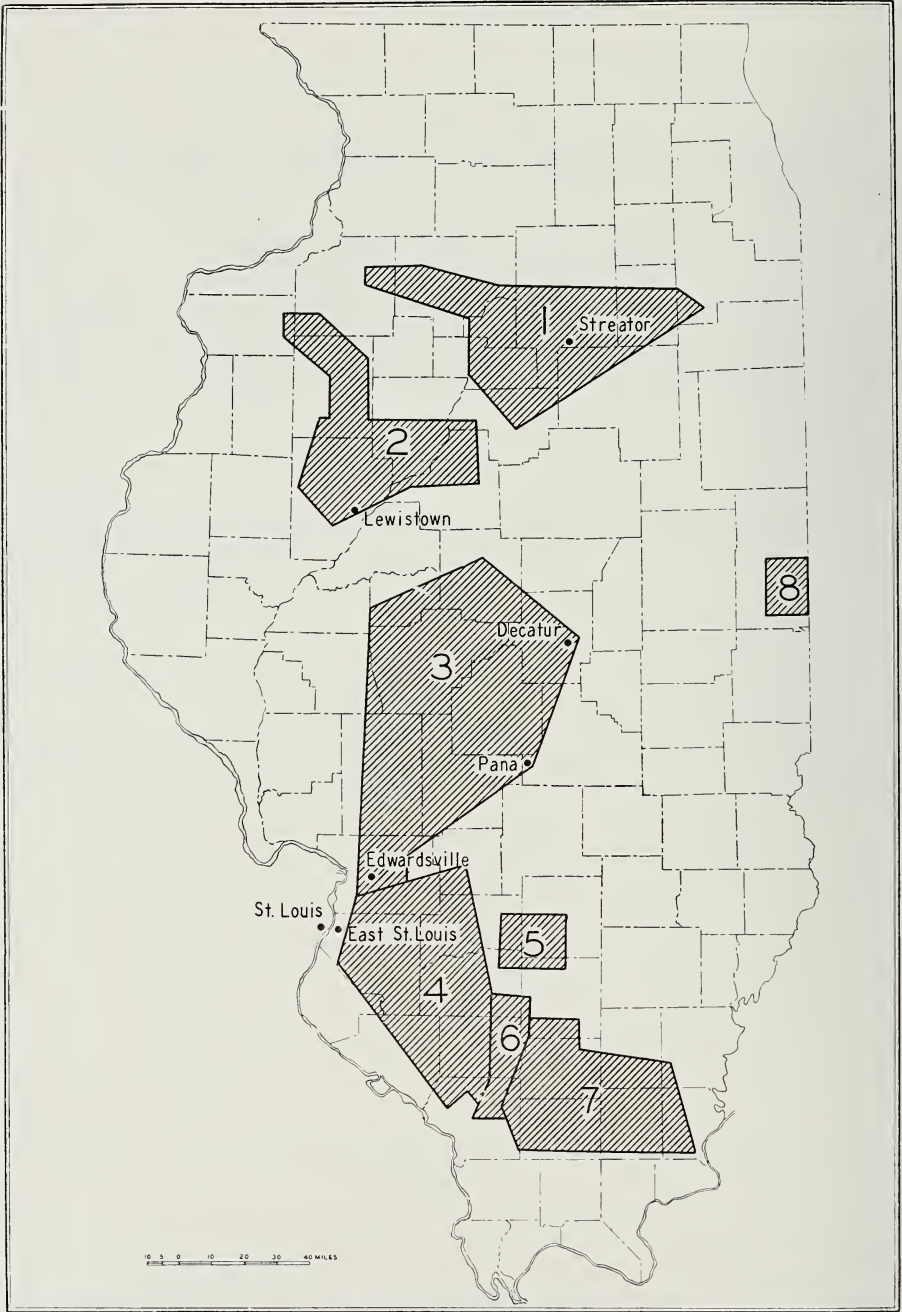


FIG. 6.—Freight rate districts in Illinois, as designated by the U. S. Bituminous Coal Division.

- |                  |              |
|------------------|--------------|
| 1. Northern      | 5. Centralia |
| 2. Fulton-Peoria | 6. Duquoin   |
| 3. Central       | 7. Southern  |
| 4. Belleville    | 8. Danville  |

TABLE 56.—COAL PRODUCED IN ILLINOIS, BY SHIPPING AND LOCAL MINES, AND BY COUNTIES, 1919-1939<sup>a</sup>  
(Net tons)

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Adams County—Central District</b>			<b>Bond County—Central District</b>			
1919		20	20	179,459		179,459
1920				188,697		188,697
1921				185,112		185,112
1922				189,497		189,497
1923				244,885		244,885
1924				265,019		265,019
1924 <sup>b</sup>		( <sup>c</sup> )		160,038		160,038
1925		390	390	296,383		296,383
1926		1,568	1,568	359,193		359,193
1927		240	240	208,081		208,081
1928		68	68	114,853		114,853
1929				205,688		205,688
1930				130,825		130,825
1931				52,018		52,018
1932				36,549		36,549
1933						
1934		64	64	28,612		28,612
1935		412	412	84,355		84,355
1936		112	112	112,492		112,492
1937		909	909	51,757		51,757
1938		21,024	21,024	71,725		71,725
1939		12,358	12,358	103,583		103,583
<b>Brown County—Central District</b>			<b>Bureau County—Northern District</b>			
1919		980	980	1,078,515	3,044	1,081,559
1920		3,068	3,068	914,520	11,687	926,207
1921		470	470	654,239	12,336	666,575
1922				467,848	21,998	489,845
1923		150	150	502,113	17,915	520,028
1924		60	60	458,044	14,439	472,483
1924 <sup>b</sup>				183,910		183,910
1925				386,236	10,306	396,542
1926				369,970	10,458	380,428
1927				111,208	7,844	119,052
1928					5,009	5,009
1929				3,019	5,156	8,175
1930				6,084	7,240	13,324
1931					10,973	10,973
1932					16,632	16,632
1933					18,268	18,268
1934		3,052	3,052		31,851	31,851
1935		1,650	1,650	42,129	17,559	59,688
1936		1,669	1,669	55,751	12,266	68,017
1937		20,231	20,231	57,207	13,320	70,527
1938		812	812	45,743	14,273	60,016
1939		367	367	45,767	12,004	57,771

<sup>a</sup> From Northern Illinois Coal Trade Association based on Illinois Dept. Mines and Minerals "Coal Reports."

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Cass County—Central District			Christian County—Central District			
1919		669	669	3,034,111		3,034,111
1920		4,233	4,233	2,608,052		2,608,052
1921		6,398	6,398	3,216,066		3,216,066
1922		6,912	6,912	2,791,110		2,791,110
1923		9,014	9,014	3,610,774		3,610,774
1924		4,210	4,210	3,825,663		3,825,663
1924 <sup>b</sup>				1,907,595		1,907,595
1925		3,844	3,844	3,823,214		3,823,214
1926		2,371	2,371	4,293,635	1,860	4,295,495
1927		1,528	1,528	2,707,681		2,707,681
1928		886	886	3,604,472		3,604,472
1929		500	500	3,655,022		3,655,022
1930		755	755	3,635,976		3,635,976
1931				2,981,000	6,378	2,987,378
1932		1,240	1,240	1,835,286	9,449	1,844,735
1933		812	812	3,836,292	4,500	3,840,792
1934		1,758	1,758	3,860,706	6,000	3,866,706
1935		2,259	2,259	3,910,364	4,544	3,914,908
1936		325	325	4,488,242	1,469	4,489,711
1937		915	915	4,743,598	15,700	4,759,298
1938		2,632	2,632	3,694,142	10,528	3,704,670
1939		2,269	2,269	4,160,900	11,048	4,171,948
Clinton County—Belleville District			Crawford County—Central District			
1919	1,435,909		1,435,909			
1920	1,092,882		1,092,882			
1921	1,165,050		1,165,050			
1922	747,788		747,788			
1923	680,931		680,931		1,086	1,086
1924	862,615		862,615			
1924 <sup>b</sup>	568,379		568,379			
1925	905,382		905,382			
1926	800,527		800,527			
1927	583,079		583,079			
1928	508,112		508,112			
1929	542,843		542,843			
1930	364,767		364,767		3,500	3,500
1931	183,507		183,507		3,500	3,500
1932	92,895		92,895			
1933	212,224		212,224			
1934	284,250		284,250		5,578	5,578
1935	243,418		243,418		5,078	5,078
1936	303,013		303,013		3,479	3,479
1937	264,413		264,413		1,436	1,436
1938	128,222		128,222		1,773	1,773
1939	100,771		100,771		2,386	2,386

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Edgar County—Danville District			Franklin County—Southern District			
1919				11,332,912		11,332,912
1920				11,299,280		11,299,280
1921				12,723,700		12,723,700
1922				9,999,917		9,999,917
1923				12,845,459		12,845,459
1924				12,240,925		12,240,925
1924 <sup>b</sup>				7,411,666		7,411,666
1925		4,420	4,420	13,082,622		13,082,622
1926		3,549	3,549	15,741,550		15,741,550
1927	16,881	2,916	19,797	10,360,881		10,360,881
1928	24,345	7,189	31,534	14,078,923		14,078,923
1929	3,100	7,143	10,243	14,819,448		14,819,448
1930		9,896	9,896	11,997,347		11,997,347
1931		9,428	9,428	9,531,560		9,531,560
1932		18,266	18,266	7,064,359		7,064,359
1933		19,299	19,299	6,703,883		6,703,883
1934		24,290	24,290	7,780,162		7,780,162
1935		36,905	36,905	7,985,155		7,985,155
1936		34,463	34,463	9,432,140		9,432,140
1937	27,087	36,488	63,575	10,108,267		10,108,267
1938	53,210	31,401	84,611	7,873,999		7,873,999
1939	71,084	32,615	103,699	8,653,916		8,653,916
Fulton County—Fulton-Peoria District			Gallatin County—Southern District			
1919	1,832,851	105,030	1,937,881	194,204	10,807	205,011
1920	2,181,655	150,320	2,331,975	197,099	10,821	207,920
1921	2,019,968	199,255	2,219,223	200,337	13,438	213,755
1922	1,211,503	256,074	1,467,577	62,261	4,635	66,896
1923	2,030,444	259,337	2,289,781	68,366	15,632	83,998
1924	1,883,313	177,338	2,060,651	4,495	18,508	23,003
1924 <sup>b</sup>	899,065		899,065			
1925	1,774,449	185,291	1,959,740	24,177	10,381	34,558
1926	1,661,225	190,797	1,852,022	15,044	28,100	43,144
1927	1,375,691	258,234	1,633,925	45,281	19,851	65,132
1928	1,532,373	176,032	1,708,405	9,181	17,677	26,858
1929	1,558,217	170,928	1,729,145	9,348	14,275	23,623
1930	1,474,002	160,770	1,634,772	2,350	19,314	21,664
1931	1,229,481	169,512	1,398,993		29,152	29,152
1932	1,116,524	269,089	1,385,613		25,239	25,239
1933	994,505	318,484	1,312,989		37,362	37,362
1934	1,526,408	166,841	1,693,249		33,656	33,656
1935	1,926,313	243,526	2,169,839		49,281	49,281
1936	2,414,701	316,696	2,731,397		49,665	49,665
1937	2,976,168	358,152	3,334,320		34,003	34,003
1938	2,660,032	315,272	2,975,304		57,719	57,719
1939	3,408,049	419,520	3,827,569		53,384	53,384

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Greene County—Central District			Grundy County—Northern District			
1919		848	848	242,122	4,834	246,956
1920		1,902	1,902	270,834	7,080	277,914
1921		9,569	9,569	197,841	6,525	204,366
1922		3,041	3,041	201,792	7,358	209,150
1923		8,811	8,811	176,366	13,131	189,497
1924		900	900	267,865	5,218	273,083
1924 <sup>b</sup>				257,167		257,167
1925		12,794	12,794	480,896	3,974	484,870
1926		5,538	5,538	441,750	2,495	444,245
1927		6,947	6,947	227,511	13,588	241,099
1928		6,382	6,382	433,266	26,610	459,876
1929		765	765	380,353	30,089	410,442
1930		7,933	7,933	73,046	28,730	101,776
1931		17,756	17,756		32,564	32,564
1932		24,442	24,442		68,791	68,791
1933		21,496	21,496		127,167	127,167
1934		15,522	15,522		138,455	138,455
1935		16,238	16,238		130,907	130,907
1936		16,705	16,705	19,603	142,785	162,388
1937		8,912	8,912	9,770	159,758	169,528
1938		9,186	9,186		127,620	127,620
1939		6,442	6,442		128,870	128,870
Hancock County—Central District			Henry County—Northern District			
1919		3,656	3,656		38,708	38,708
1920		5,961	5,961		30,654	30,654
1921		3,260	3,260		27,383	27,383
1922		4,825	4,825		35,606	35,606
1923		9,313	9,313	5,764	58,074	63,838
1924		2,148	2,148	38,603	41,921	80,524
1924 <sup>b</sup>				48,842		48,842
1925		1,973	1,973	104,517	57,861	162,378
1926		1,383	1,383	135,738	29,727	165,465
1927		2,225	2,225	46,616	39,009	85,625
1928		6,076	6,076		34,269	34,269
1929		5,941	5,941	48,600	37,663	86,263
1930		3,836	3,836	442,322	62,439	504,761
1931		3,135	3,135	696,554	79,402	775,956
1932		4,783	4,783	655,055	90,927	745,982
1933		3,928	3,928	642,262	102,051	744,313
1934		2,748	2,748	559,617	105,241	664,858
1935		5,279	5,279	559,346	123,156	682,502
1936		3,287	3,287	580,719	116,846	697,565
1937		2,516	2,516	622,255	106,683	728,938
1938		3,101	3,101	604,183	77,728	681,911
1939		2,325	2,325	655,946	87,401	743,347

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
	Jackson County—Duquoin District			Jasper County—Central District		
1919	1,114,961	31,215	1,146,176			
1920	914,960	12,261	927,221			
1921	1,164,154	40,795	1,204,949			
1922	941,002	52,238	993,240			
1923	885,859	71,533	957,392			
1924	1,488,768	50,906	1,539,674			
1924 <sup>b</sup>	780,105		780,105			
1925	1,451,516	45,747	1,497,263			
1926	1,748,354	46,477	1,794,831			
1927	962,868	44,431	1,007,299			
1928	838,797	65,397	904,194			
1929	1,528,044	48,708	1,576,752			
1930	2,003,806	51,030	2,054,836			
1931	1,892,008	46,133	1,938,141			
1932	1,336,968	54,435	1,393,403			
1933	1,179,090	55,099	1,234,189		125	125
1934	1,479,068	46,445	1,525,513		280	280
1935	1,271,128	65,430	1,336,558		525	525
1936	1,767,398	72,879	1,840,277		450	450
1937	1,599,078	121,016	1,720,094		555	555
1938	1,212,657	110,329	1,322,986		1,254	1,254
1939	1,635,173	112,744	1,747,917		624	624
	Jefferson County—Southern District			Jersey County—Central District		
1919					893	893
1920					640	640
1921					950	950
1922					1,500	1,500
1923						
1924	47,820		47,820		960	960
1924 <sup>b</sup>	90,107		90,107			
1925	271,234		271,234		1,000	1,000
1926	78,923		78,923		740	740
1927	45,160		45,160		600	600
1928						
1929						
1930					600	600
1931					2,086	2,086
1932					1,901	1,901
1933		125	125		1,747	1,747
1934		541	541		2,380	2,380
1935		957	957		1,124	1,124
1936		420	420		1,056	1,056
1937		380	380		1,001	1,001
1938		1,505	1,505		1,029	1,029
1939	120,077	508	120,585		714	714

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Johnson County—Southern District			Knox County—Fulton-Peoria District			
1919					20,855	20,855
1920		3,300	3,300		34,753	34,753
1921		9,670	9,670		40,123	40,123
1922		5,825	5,825		54,612	54,612
1923		5,050	5,050		53,636	53,636
1924		5,865	5,865		38,071	38,071
1924 <sup>b</sup>						
1925		2,500	2,500		47,296	47,296
1926		1,410	1,410	24,178	26,993	51,171
1927		1,910	1,910	104,197	29,470	133,667
1928		565	565	123,024	22,442	145,466
1929		58	58	191,821	26,065	217,886
1930		2,286	2,286	294,517	47,372	341,889
1931		1,690	1,690	290,581	50,216	340,797
1932		1,440	1,440	238,722	57,816	296,538
1933		1,388	1,388	295,536	122,071	417,607
1934		729	729	311,751	75,811	387,562
1935		180	180	289,580	94,689	384,269
1936		250	250	323,997	102,116	426,113
1937		135	135	722,261	140,914	863,175
1938		30	30	499,309	154,044	653,353
1939		20	20	602,912	176,497	779,409
LaSalle County—Northern District			Livingston County—Northern District			
1919	678,312	245,496	923,808	36,677	52,420	89,970
1920	621,867	243,490	865,357	58,900	63,143	122,043
1921	408,053	206,059	614,112	56,004	79,257	135,261
1922	290,849	147,018	437,867	38,642	51,561	90,203
1923	339,908	235,744	575,652	16,470	35,479	51,949
1924	261,355	297,103	558,458	25,077	26,812	51,889
1924 <sup>b</sup>	211,199		211,199			
1925	421,494	219,312	640,806		31,892	31,892
1926	401,546	251,180	652,726		28,185	28,185
1927	192,716	251,537	444,253		22,142	22,142
1928	206,557	211,741	418,298		27,804	27,804
1929	334,773	213,484	548,257		26,638	26,638
1930	155,795	170,546	326,341		24,351	24,351
1931	170,324	145,711	316,035		23,830	23,830
1932	132,155	224,724	356,879		31,970	31,970
1933	198,290	154,445	352,735		29,569	29,569
1934	189,807	134,658	324,465		25,724	25,724
1935	247,263	190,278	437,541		21,564	21,564
1936	317,371	266,288	583,659		17,133	17,133
1937	399,532	77,197	476,729		16,153	16,153
1938	300,492	62,359	362,851		15,381	15,381
1939	318,853	61,982	380,835		13,352	13,352

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.



TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Logan County—Central District</b>			<b>Macon County—Central District</b>			
1919 . . . . .	331,057		331,057	267,614		267,614
1920 . . . . .	395,100		395,100	218,820		218,820
1921 . . . . .	344,828		344,828	240,946		240,946
1922 . . . . .	332,444		332,444	20,326		201,326
1923 . . . . .	297,948		297,948	253,260		253,260
1924 . . . . .	308,364		308,364	183,310		183,310
1924 <sup>b</sup> . . . . .	186,573		186,573	81,741		81,741
1925 . . . . .	283,774		283,774	145,064		145,064
1926 . . . . .	222,351		222,351	154,133		154,133
1927 . . . . .	150,617		150,617	128,220		128,220
1928 . . . . .	146,473		146,473	127,208		127,208
1929 . . . . .	137,234		137,234	130,159		130,159
1930 . . . . .	130,350		130,350	99,671		99,671
1931 . . . . .	114,519		114,519	82,274		82,274
1932 . . . . .	94,504		94,504	77,938		77,938
1933 . . . . .	28,122		28,122	146,523		146,523
1934 . . . . .				164,401		164,401
1935 . . . . .				174,859		174,859
1936 . . . . .				162,283		162,283
1937 . . . . .		2,969	2,969	145,289		145,289
1938 . . . . .		15,674	15,674	122,328		122,328
1939 . . . . .		28,934	28,934	89,846		89,846
<b>Macoupin County—Central District</b>			<b>Madison County—Belleville District</b>			
1919 . . . . .	6,095,081	9,206	6,104,287	3,912,949	16,595	3,929,544
1920 . . . . .	6,879,722	7,825	6,887,547	3,858,809	23,811	3,882,620
1921 . . . . .	7,516,222	5,210	7,531,432	4,215,640	10,890	4,226,530
1922 . . . . .	5,438,324	6,183	5,444,507	3,084,848	33,571	3,118,419
1923 . . . . .	6,816,768	12,345	6,829,113	3,889,632	147,701	4,037,333
1924 . . . . .	6,045,788	11,079	6,056,867	3,315,980	129,913	3,445,893
1924 <sup>b</sup> . . . . .	3,262,265	( <sup>c</sup> )	3,262,265	1,527,379	( <sup>c</sup> )	1,527,379
1925 . . . . .	6,200,926	12,183	6,213,109	2,929,977	170,517	3,100,494
1926 . . . . .	6,265,070	26,827	6,291,897	3,408,817	122,943	3,531,760
1927 . . . . .	3,297,910	8,586	3,306,496	2,170,315	91,234	2,261,549
1928 . . . . .	4,633,435	5,793	4,639,228	2,203,612	71,175	2,274,787
1929 . . . . .	5,069,571	5,516	5,075,087	2,687,808	61,511	2,749,319
1930 . . . . .	4,639,721	6,806	4,646,527	2,163,121	66,471	2,229,592
1931 . . . . .	3,984,432	8,120	3,992,552	1,093,312	63,812	1,157,124
1932 . . . . .	1,930,406	8,116	1,938,522	909,595	80,655	990,250
1933 . . . . .	3,040,290	8,358	3,048,648	1,154,020	175,006	1,329,026
1934 . . . . .	3,361,771	10,830	3,372,601	1,342,513	274,152	1,616,665
1935 . . . . .	3,677,929	8,881	3,686,810	1,374,790	322,544	1,697,334
1936 . . . . .	4,249,803	7,163	4,256,966	1,472,041	365,675	1,837,716
1937 . . . . .	3,515,265	5,621	3,520,886	1,295,392	363,240	1,658,632
1938 . . . . .	3,292,323	8,690	3,301,013	1,036,735	334,974	1,371,709
1939 . . . . .	3,435,015	6,577	3,441,592	1,544,376	332,684	1,877,060

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Marion County—Centralia District			Marshall County—Northern District			
1919	906,871		906,871	242,490	5,663	248,153
1920	869,886		869,886	295,619	9,393	305,012
1921	841,989		841,989	240,758	18,482	259,240
1922	687,732		687,732	193,441	21,103	214,544
1923	736,346		736,346	320,058	37,654	357,712
1924	541,820		541,820	276,394	25,936	302,330
1924 <sup>b</sup>	162,519		162,519	10,208	( <sup>c</sup> )	10,208
1925	298,911		298,911	17,534	19,438	36,972
1926	560,512		560,512		7,678	7,678
1927	755,032		755,032		20,127	20,127
1928	550,177		550,177		19,693	19,693
1929	537,703		537,703		13,205	13,205
1930	376,799		376,799		7,796	7,796
1931	360,576		360,576		6,128	6,128
1932	373,945		373,945		11,640	11,640
1933	395,255		395,255		13,623	13,623
1934	292,762		292,762		12,722	12,722
1935	342,156		342,156		12,046	12,046
1936	398,701		398,701		10,391	10,391
1937	317,542		317,542		11,200	11,200
1938	186,223		186,223		5,979	5,979
1939	182,030		182,030		5,502	5,502
McDonough County—Fulton-Peoria District			McLean County—Central District			
1919		13,922	13,922	46,200		46,200
1920		18,632	18,632	43,357		43,357
1921		13,685	13,685		29,121	29,121
1922		20,030	20,030		29,505	29,505
1923		25,964	25,964		36,285	36,285
1924		21,366	21,366		25,440	25,440
1924 <sup>b</sup>						
1925		17,271	17,271		16,431	16,431
1926		18,372	18,372		22,480	22,480
1927		15,866	15,866		16,866	16,866
1928		11,185	11,185		8,951	8,951
1929		9,054	9,054			
1930		8,867	8,867			
1931		11,836	11,836			
1932		27,357	27,357			
1933		14,775	14,775			
1934		10,072	10,072			
1935		8,062	8,062			
1936		10,628	10,628			
1937		6,482	6,482			
1938		4,790	4,790			
1939		6,291	6,291			

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Menard County—Central District</b>			<b>Mercer County—Fulton-Peoria District</b>			
1919	122,657	43,276	165,933	205,389	30,279	235,668
1920	99,114	46,754	145,868	177,544	29,391	206,935
1921	104,415	54,979	159,394	202,459	27,294	229,753
1922	80,362	51,024	131,386	122,484	41,115	163,599
1923	53,754	74,468	128,222	83,956	39,275	123,231
1924		61,001	61,001	114,353	59,585	173,938
1924 <sup>b</sup>				52,099		52,099
1925		59,468	59,468	75,165	36,458	111,623
1926		56,387	56,387	68,376	25,296	93,672
1927		80,249	80,249	36,445	36,154	72,599
1928		80,547	80,547		30,159	30,159
1929		83,445	83,445		27,936	27,936
1930		99,573	99,573		23,744	23,744
1931		89,215	89,215		21,796	21,796
1932		96,007	96,007		32,403	32,403
1933		79,354	79,354		41,154	41,154
1934		105,972	105,972		40,354	40,354
1935		136,184	136,184		34,294	34,294
1936		134,759	134,759		36,946	36,946
1937		143,649	143,649		27,925	27,925
1938		116,605	116,605		21,938	21,938
1939		115,647	115,647		26,947	26,947
<b>Monroe County—Belleville District</b>			<b>Montgomery County—Central District</b>			
1919				2,971,796		2,971,796
1920				3,006,091	400	3,006,491
1921				3,226,218	13,500	3,239,718
1922				2,078,948		2,078,948
1923				2,674,617	3,400	2,678,017
1924				2,524,525	11,100	2,535,625
1924 <sup>b</sup>				1,098,547	( <sup>e</sup> )	1,098,547
1925				2,153,676	3,050	2,156,726
1926		541	541	1,865,294		1,865,294
1927		553	553	1,034,245		1,034,245
1928		77	77	1,411,345		1,411,345
1929				1,866,886		1,866,886
1930				1,599,246		1,599,246
1931				1,255,432		1,255,432
1932		4,232	4,232	626,674		626,674
1933		505	505	659,084		659,084
1934		444	444	549,671		549,671
1935		602	602	540,929		540,929
1936		400	400	600,496		600,496
1937		300	300	928,598		928,598
1938		206	206	634,963		634,963
1939		120	120	723,008		723,008

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
Morgan County—Central District			Moultrie County—Central District			
1919		2,604	2,604	174,050		174,050
1920		1,200	1,200	165,359		165,359
1921		350	350	149,436		149,436
1922		860	860	152,436		152,436
1923		400	400	142,568		142,568
1924		495	495	106,276		106,276
1925		1,900	1,900			
1926		240	240			
1927		598	598			
1928		1,729	1,729			
1929		720	720			
1930		300	300			
1931		1,066	1,066			
1932		2,253	2,253			
1933		2,175	2,175			
1934		765	765			
1935		517	517			
1936		500	500			
1937		1,092	1,092			
1938		1,350	1,350			
1939		1,269	1,269			
Peoria County—Fulton-Peoria District			Perry County—Belleville-Duquoin District			
1919	906,496	132,631	1,039,127	2,694,454	2,530	2,696,984
1920	1,060,324	183,689	1,244,013	2,397,750	11,150	2,408,900
1921	1,095,223	176,490	1,271,713	2,561,064	9,200	2,570,264
1922	951,338	214,585	1,165,923	2,057,813	13,634	2,071,447
1923	1,296,923	198,889	1,495,812	2,107,211	21,814	2,129,025
1924	1,030,992	190,675	1,221,667	2,020,190	20,486	1,748,670
1924 <sup>b</sup>	353,618	( <sup>c</sup> )	353,618	1,156,672	( <sup>c</sup> )	1,156,672
1925	702,931	212,425	915,356	2,046,942	15,403	2,062,345
1926	931,485	232,827	1,164,312	2,308,203	19,087	2,327,290
1927	743,853	210,642	945,495	1,626,041	15,650	1,641,691
1928	1,289,091	216,691	1,505,782	2,224,360	13,301	2,237,661
1929	1,294,065	342,632	1,636,697	2,923,936	16,577	2,940,513
1930	775,067	192,678	967,745	3,297,842	11,806	3,309,648
1931	1,030,832	183,735	1,214,567	2,973,148	17,292	2,990,440
1932	512,250	236,108	748,358	3,065,944	20,584	3,086,528
1933	1,158,579	284,682	1,443,261	2,580,392	22,006	2,602,398
1934	1,253,164	283,386	1,536,550	3,019,772	19,194	3,038,966
1935	1,222,500	310,148	1,532,648	3,307,806	22,444	3,330,250
1936	1,316,173	336,055	1,652,228	3,398,480	32,356	3,430,836
1937	1,112,036	373,681	1,485,717	3,847,463	25,892	3,873,355
1938	945,049	300,987	1,246,036	2,943,558	31,530	2,975,088
1939	886,496	294,157	1,180,653	3,134,252	38,047	3,172,299

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
	Pike County—Central District			Pope County—Southern District		
1919						
1920						
1921						
1922						
1923						
1924						
1924 <sup>b</sup>						
1925						
1926						
1927		140	140			
1928		943	943		100	100
1929		500	500		100	100
1930					150	150
1931		1,130	1,130		250	250
1932		2,160	2,160		50	50
1933					250	250
1934					200	200
1935					179	179
1936					117	117
1937					47	47
1938					119	119
1939		64	64			
	Putnam County—Northern District			Randolph County—Belleville District		
1919	523,326		523,326	1,359,404	24,540	1,383,944
1920	499,671		499,671	1,254,144	24,139	1,278,283
1921	423,104		423,104	1,893,944	33,531	1,927,475
1922	179,261		179,261	1,551,295	41,936	1,593,231
1923	394,960		394,960	1,607,449	33,025	1,640,474
1924	344,138		344,138	1,423,124	34,153	1,457,277
1924 <sup>b</sup>				524,242	( <sup>e</sup> )	524,242
1925				863,496	31,133	894,629
1926				976,560	37,127	1,013,687
1927				613,484	49,075	662,559
1928				596,036	42,548	638,584
1929				519,289	45,695	564,984
1930		2,873	2,873	399,775	43,420	443,195
1931	13,387		13,387	426,289	42,899	469,188
1932	104,555		104,555	195,599	41,910	237,509
1933	68,953		68,953	356,552	40,291	396,843
1934	80,913		80,913	435,196	42,134	477,330
1935	81,124		81,124	522,885	46,007	568,892
1936	64,198		64,198	558,437	48,478	606,915
1937	45,879		45,879	1,337,086	53,027	1,390,113
1938		25,600	25,600	1,076,240	39,422	1,115,662
1939				1,235,749	36,865	1,272,614

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Rock Island County—Fulton-Peoria District</b>			<b>St. Clair County—Belleville District</b>			
1919.....		39,110	39,110	5,881,661	107,526	5,989,187
1920.....	7,210	58,105	65,315	5,180,925	99,843	5,280,768
1921.....	5,208	87,999	93,207	6,280,668	164,254	6,444,922
1922.....		65,667	65,667	4,557,492	168,162	4,725,654
1923.....		63,035	63,035	4,950,854	171,664	5,122,518
1924.....		37,962	37,962	4,341,177	111,698	4,452,875
1924 <sup>b</sup> .....				1,466,797	( <sup>c</sup> )	1,466,797
1925.....		31,476	31,476	2,770,321	130,048	2,900,369
1926.....		20,046	20,046	3,219,962	207,460	3,427,422
1927.....		32,455	32,455	2,893,267	189,803	3,083,070
1928.....		21,732	21,732	2,754,277	200,989	2,955,266
1929.....		18,670	18,670	2,587,572	215,869	2,803,441
1930.....		17,345	17,345	2,142,740	305,044	2,447,784
1931.....		34,774	34,774	2,430,146	348,497	2,778,643
1932.....		47,775	47,775	1,812,940	353,369	2,166,309
1933.....		67,887	67,887	2,057,754	373,927	2,431,681
1934.....		78,298	78,298	2,043,764	464,455	2,508,219
1935.....		74,226	74,226	2,019,250	477,037	2,496,287
1936.....		62,137	62,137	2,280,493	662,056	2,942,549
1937.....		45,261	45,261	2,009,768	687,858	2,697,626
1938.....		30,380	30,380	1,605,811	668,935	2,274,746
1939.....		25,012	25,012	1,485,217	972,079	2,457,296
<b>Saline County—Southern District</b>			<b>Sangamon County—Central</b>			
1919.....	4,615,935	15,385	4,631,320	6,629,149	34,728	6,663,877
1920.....	4,496,894	42,959	4,539,853	6,808,599	35,450	6,844,049
1921.....	4,245,132	33,824	4,278,956	6,903,733	48,393	6,952,126
1922.....	3,993,857	16,047	4,009,904	5,792,067	41,427	5,833,494
1923.....	4,779,875	9,818	4,789,693	6,748,865	49,939	6,798,804
1924.....	5,031,264	21,244	5,052,508	6,888,402	80,718	6,969,120
1924 <sup>b</sup> .....	2,470,095	( <sup>c</sup> )	2,470,095	2,691,951	( <sup>c</sup> )	2,691,951
1925.....	4,331,720	6,657	4,338,377	5,384,188	87,638	5,471,826
1926.....	4,734,358	6,588	4,740,946	5,406,963	69,204	5,476,167
1927.....	3,156,096	17,105	3,173,201	3,036,773	82,744	3,119,517
1928.....	3,653,026	18,131	3,671,157	3,644,832	94,591	3,739,423
1929.....	4,120,143	11,900	4,132,043	4,160,197	115,478	4,275,675
1930.....	3,655,452	14,692	3,670,144	3,577,046	123,373	3,700,419
1931.....	2,957,019	16,446	2,973,465	3,218,458	133,753	3,352,211
1932.....	2,401,303	28,404	2,429,707	1,667,479	154,347	1,821,826
1933.....	2,479,670	23,018	2,502,688	1,942,248	138,963	2,081,211
1934.....	2,700,687	33,546	2,734,233	2,195,923	147,365	2,343,288
1935.....	3,146,340	33,590	3,179,930	2,335,381	183,227	2,518,608
1936.....	3,670,516	39,558	3,710,074	2,673,638	197,316	2,870,954
1937.....	3,460,130	37,427	3,497,557	2,338,696	255,408	2,594,104
1938.....	3,108,634	39,444	3,148,078	1,699,789	246,918	1,946,707
1939.....	3,622,334	50,290	3,672,624	1,759,959	307,347	2,067,306

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Schuyler County—Fulton-Peoria District</b>			<b>Scott County—Central District</b>			
1919		17,625	17,625		3,048	3,048
1920		17,737	17,737		2,324	2,324
1921		17,544	17,544		1,439	1,439
1922		30,977	30,977		6,073	6,073
1923		25,636	25,636		5,120	5,120
1924		29,051	29,051		4,765	4,765
1924 <sup>b</sup>						
1925		23,054	23,054		4,250	4,250
1926		17,510	17,510		3,053	3,053
1927		21,652	21,652		1,696	1,696
1928		23,871	23,871		2,113	2,113
1929		23,189	23,189		2,929	2,929
1930		25,864	25,864		1,408	1,408
1931		35,568	35,568		1,609	1,609
1932		34,037	34,037		4,492	4,492
1933		32,811	32,811		1,317	1,317
1934		50,897	50,897		4,955	4,955
1935		72,514	72,514		5,382	5,382
1936		84,731	84,731		3,345	3,345
1937		73,673	73,673		2,119	2,119
1938		55,232	55,232		1,745	1,745
1939		59,340	59,340		4,162	4,162
<b>Shelby County—Central District</b>			<b>Stark County—Fulton-Peoria District</b>			
1919	55,419	4,952	60,371		14,128	14,128
1920	72,376	10,869	83,245		11,932	11,932
1921	64,895	23,200	88,095		14,576	14,576
1922	58,147	9,593	67,740		13,514	13,514
1923	52,894	7,961	60,855		18,987	18,987
1924	43,482	360	43,842		11,658	11,658
1924 <sup>b</sup>	50,054	(c)	50,054			
1925	72,783	9,798	82,581		14,264	14,264
1926	55,836	9,696	65,532		6,976	6,976
1927	33,950	7,110	41,060		10,253	10,253
1928	27,909	4,755	32,664		8,512	8,512
1929	37,906	5,390	43,296		12,197	12,197
1930	36,513	13,587	50,100		14,051	14,051
1931	23,507	13,865	37,372		8,754	8,754
1932	37,333	16,324	53,657		12,082	12,082
1933		18,246	18,246		15,801	15,801
1934	10,362	19,851	30,213		20,842	20,842
1935	7,179	19,894	27,073		18,180	18,180
1936		19,324	19,324		19,235	19,235
1937		12,205	12,205		20,783	20,783
1938		11,300	11,300		18,437	18,437
1939		10,007	10,007		17,258	17,258

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Tazewell County—Fulton-Peoria District</b>			<b>Vermilion County—Danville District</b>			
1919.....	564,008	50,180	614,188	3,135,004	164,442	3,299,446
1920.....	648,325	72,963	721,288	3,102,795	146,151	3,248,946
1921.....	697,444	65,319	762,763	3,160,552	211,185	3,371,737
1922.....	608,100	61,621	669,721	2,766,409	244,755	3,011,164
1923.....	687,461	55,264	742,725	3,686,866	192,525	3,879,391
1924.....	709,227	66,121	775,348	3,496,573	264,923	3,761,496
1924 <sup>b</sup> .....	317,380	( <sup>c</sup> )	317,380	1,612,324	( <sup>c</sup> )	1,612,324
1925.....	563,340	81,348	644,688	3,263,064	284,120	2,026,566
1926.....	319,581	41,887	361,468	2,838,257	309,568	3,147,825
1927.....	384,975	50,479	435,454	2,450,472	291,210	2,741,682
1928.....	512,109	65,153	577,262	3,062,164	291,384	3,353,548
1929.....	422,647	86,833	509,480	2,758,074	295,113	3,053,187
1930.....	337,662	100,129	437,791	2,668,583	262,341	2,930,924
1931.....	251,344	91,877	343,221	2,316,847	223,176	2,540,023
1932.....	273,664	121,947	395,611	1,674,828	253,549	1,928,377
1933.....	219,069	106,599	325,668	1,785,515	278,813	2,064,328
1934.....	212,515	115,627	328,142	1,675,604	269,821	1,945,425
1935.....	140,819	146,003	286,822	1,675,250	325,623	2,000,873
1936.....	165,841	137,768	303,609	1,976,645	352,081	2,328,726
1937.....	126,007	156,614	282,621	1,883,472	330,931	2,214,403
1938.....	78,560	141,139	219,699	1,259,235	325,202	1,584,437
1939.....	10,462	197,171	207,633	1,611,587	329,609	1,941,196
<b>Wabash County—Southern District</b>			<b>Warren County—Fulton-Peoria District</b>			
1919.....		350	350		3,735	3,735
1920.....		200	200		3,886	3,886
1921.....		400	400		5,019	5,019
1922.....		500	500		6,135	6,135
1923.....		6,740	6,740		10,312	10,312
1924.....		1,700	1,700		11,319	11,319
1924 <sup>b</sup> .....						
1925.....		11,800	11,800		7,540	7,540
1926.....		5,485	5,458		4,372	4,372
1927.....		5,607	5,607		6,071	6,071
1928.....		4,552	4,552		9,359	9,359
1929.....		6,232	6,232		5,297	5,297
1930.....		6,602	6,602		5,482	5,482
1931.....		6,608	6,608		4,672	4,672
1932.....		10,117	10,117		6,977	6,977
1933.....		13,370	13,370		7,791	7,791
1934.....		14,212	14,212		8,677	8,677
1935.....		15,969	15,969		7,483	7,483
1936.....		12,440	12,440		8,792	8,792
1937.....		9,419	9,419		10,418	10,418
1938.....		10,636	10,636		8,491	8,491
1939.....		10,075	10,075		6,587	6,587

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

<sup>c</sup> Local production for the State may be found in table 58, but could not be distributed by counties in table 56 for this six-month period.



TABLE 56.—COAL PRODUCED IN ILLINOIS, *Continued*

Year	Production					
	Shipping mines	Local mines	Total	Shipping mines	Local mines	Total
<b>Washington County—Centralia and Belleville Districts</b>			<b>White County—Southern District</b>			
1919.....	695,477	365	695,842	125,139.....		125,139
1920.....	664,173	3,800	667,973	135,199.....		135,199
1921.....	846,758	3,712	859,470	199,863.....		199,863
1922.....	711,322	4,420	715,742	81,007.....		81,007
1923.....	557,482	8,887	566,369	111,319.....		111,319
1924.....	322,762	8,412	331,174	66,744.....		66,744
1924 <sup>b</sup> .....	20,771	( <sup>c</sup> )	20,771	8,989.....		8,989
1925.....	37,484	4,300	41,784	12,998.....		12,998
1926.....	164,733	4,500	169,233	15,392.....		15,392
1927.....	292,159	10,477	302,636	56,191.....		56,191
1928.....	494,920	7,012	501,932	57,558.....		57,558
1929.....	518,432	7,200	525,632	34,841.....		34,841
1930.....	522,324	8,980	531,304	25,423.....		25,423
1931.....	378,850	5,500	384,350	8,608.....		8,608
1932.....	333,827	6,500	340,327	27,747.....		27,747
1933.....	257,805	6,851	264,656	26,483.....		26,483
1934.....	315,909	5,033	320,942	31,006.....		31,006
1935.....	371,372	7,660	379,032	52,489.....		52,489
1936.....	320,525	27,875	348,400	23,040.....		23,040
1937.....	311,004	24,713	335,717	33,857.....		33,857
1938.....	238,068	18,658	256,726	6,243.....	480	6,273
1939.....	251,651	20,302	271,953	2,264.....		2,264
<b>Will County—Northern District</b>			<b>Williamson County—Southern District</b>			
1919.....	25,149	20,182	45,331	9,980,992	71,586	10,052,578
1920.....	8,461	27,032	35,493	9,593,291	38,095	9,631,386
1921.....		19,968	19,968	10,784,752	37,814	10,822,566
1922.....		18,144	18,144	8,679,014	56,950	8,735,964
1923.....		9,284	9,284	9,651,111	42,961	9,694,072
1924.....		5,046	5,046	9,420,655	53,637	9,474,292
1924 <sup>b</sup> .....				5,068,813	( <sup>c</sup> )	5,068,813
1925.....		8,016	8,016	8,900,462	40,704	8,941,166
1926.....		18,807	18,807	8,149,328	49,026	8,198,354
1927.....		17,672	17,672	5,001,872	39,721	5,041,593
1928.....	226,368	8,552	234,920	5,126,741	55,153	5,181,894
1929.....	701,280		701,280	5,223,641	51,163	5,274,804
1930.....	865,666		865,666	4,033,845	73,728	4,107,573
1931.....	988,500		988,500	2,090,098	75,721	2,165,819
1932.....	976,178		976,178	1,807,728	125,910	1,933,638
1933.....	982,016		982,016	1,892,183	144,064	2,036,247
1934.....	946,801	22,150	968,951	1,899,152	190,938	2,090,090
1935.....	1,000,811	67,770	1,068,581	2,760,767	234,857	2,995,624
1936.....	1,414,944	68,082	1,483,026	2,641,243	351,745	2,992,988
1937.....	1,318,001	75,076	1,393,077	2,382,214	436,775	2,818,989
1938.....	1,252,018	71,368	1,323,386	1,787,100	372,224	2,159,324
1939.....	1,142,903	83,923	1,226,826	1,958,256	497,240	2,455,496

## HISTORICAL SUMMARY

TABLE 56.—COAL PRODUCED IN ILLINOIS, *Concluded*

Year	Production		
	Shipping mines	Local mines	Total
<b>Woodford County—Northern District</b>			
1919.....	123,921		123,921
1920.....	121,306		121,306
1921.....	103,307		103,307
1922.....	104,717		104,717
1923.....	101,321		101,321
1924.....	99,261		99,261
1924 <sup>b</sup> .....	64,766		64,766
1925.....	103,538		103,538
1926.....	99,597		99,597
1927.....	76,665		76,665
1928.....	68,640		68,640
1929.....	64,335		64,335
1930.....	68,925		68,925
1931.....	48,447		48,447
1932.....	67,387		67,387
1933.....	98,082		98,082
1934.....	103,260		103,260
1935.....	96,727		96,727
1936.....	82,663		82,663
1937.....	72,984		72,984
1938.....	56,168		56,168
1939.....	41,671	12,411	54,082

<sup>b</sup> Represents 6-month period July-Dec. 1925 intervening between end of fiscal year 1924 and beginning of calendar year 1926. Data from 1925 on is for calendar years.

TABLE 57.—COAL TONNAGE IN ILLINOIS, BY FREIGHT RATE DISTRICTS, 1900-1939<sup>a</sup>

PRODUCTION						
Year <sup>b</sup>	Shipping Mines	Local Mines	Total	Shipping Mines	Local Mines	Total
<b>Northern</b>			<b>Atkinson-Alpha and Fulton-Peoria</b>			
1900.....			5,605,717			
1901.....			5,639,166			
1902.....	5,797,222	214,542	6,011,764	2,333,645	562,709	2,896,354
1903.....	5,884,747	226,964	6,111,711	2,614,818	589,457	3,204,272
1904.....	5,708,329	165,930	5,874,259	1,837,771	575,504	2,413,275
1905.....	5,639,764	181,529	5,821,293	3,003,629	548,086	3,551,715
1906.....	5,334,415	169,214	5,503,629	2,986,446	535,157	3,521,603
1907.....	5,969,783	281,155	6,250,938	3,601,970	479,896	4,081,866
1908.....	5,469,430	316,839	5,786,269	3,697,581	472,228	4,169,809
1909.....	6,018,690	122,760	6,141,450	3,494,253	426,898	3,921,151
1910.....	4,875,796	275,199	5,150,995	3,172,247	505,709	3,677,956
1911.....	4,225,932	277,979	4,503,911	3,109,279	505,054	3,614,333
1912.....	5,357,580	283,600	5,641,180	3,957,142	522,816	4,479,958
1913.....	5,065,849	297,046	5,362,895	4,225,666	475,731	4,701,397
1914.....	4,509,226	279,745	4,788,971	3,968,859	411,983	4,380,842
1915.....	3,965,032	304,225	4,269,257	3,559,125	442,370	4,001,495
1916.....	3,968,691	309,784	4,278,475	3,705,010	469,907	4,174,917
1917.....	4,246,145	374,522	4,620,667	4,576,227	645,129	5,221,356
1918.....	3,960,818	367,429	4,328,247	4,768,243	592,476	5,360,719
1919.....	2,950,515	331,639	3,282,154	3,508,744	466,653	3,975,397
1920.....	2,791,178	361,825	3,153,003	4,075,058	677,762	4,752,820
1921.....	2,083,307	342,567	2,425,874	4,023,362	674,678	4,698,040
1922.....	1,476,550	267,182	1,743,732	2,893,452	755,366	3,648,791
1923.....	1,851,196	349,207	2,200,403	4,037,062	804,614	4,841,675
1924.....	1,732,134	374,554	2,106,688	3,776,488	685,067	4,461,555
1925.....	1,409,698	292,938	1,702,636	3,220,402	714,284	3,934,686
1926.....	1,312,813	318,803	1,631,666	3,140,583	614,803	3,755,386
1927.....	608,100	332,921	941,010	2,690,777	701,188	3,391,965
1928.....	939,840	294,400	1,234,240	3,456,597	619,405	4,076,002
1929.....	1,483,760	289,572	1,773,332	3,515,350	760,464	4,275,814
1930.....	1,169,516	242,336	1,411,912	3,303,570	658,741	3,962,311
1931.....	1,220,658	219,206	1,439,864	3,498,792	692,142	4,190,934
1932.....	1,280,275	353,829	1,634,032	2,796,215	945,518	3,741,733
1933.....	1,347,341	343,072	1,690,413	3,309,951	1,114,106	4,424,057
1934.....	1,320,781	365,574	1,686,341	3,863,455	956,046	4,819,501
1935.....	1,425,925	440,124	1,908,178	4,138,558	1,132,281	5,270,839
1936.....	1,871,867	599,608	2,471,475	4,801,431	1,223,158	6,024,589
1937.....	1,903,373	352,674	2,256,047	5,558,725	1,320,586	6,879,311
1938.....	1,654,421	319,586	1,974,007	4,913,240	1,285,052	6,198,292
1939.....	1,549,194	318,044	1,867,238	4,960,953	1,133,097	6,094,050

<sup>a</sup> Data from Northern Illinois Coal Trade Association, Chicago, 1941, based on data from Illinois Department of Mines and Minerals, Springfield.

<sup>b</sup> Tonnage for 6-month period July-Dec. 1925 not distributed by districts. See county distribution, table 56.

TABLE 57.—COAL TONNAGE IN ILLINOIS, *Continued*

PRODUCTION						
Year <sup>b</sup>	Shipping Mines	Local Mines	Total	Shipping Mines	Local Mines	Total
	Central			Southern		
1900 . . . . .	214,555	59,573	6,527,746	1,330,405	11,543	1,355,756
1901 . . . . .			6,931,188	1,754,361	65,682	1,820,043
1902 . . . . .	7,801,383	139,023	7,940,406	2,264,023	38,052	2,302,075
1903 . . . . .	9,166,620	170,130	9,336,750	3,098,312	36,172	3,134,484
1904 . . . . .	9,560,906	185,770	9,746,676	3,387,429	28,478	3,415,907
1905 . . . . .	9,493,862	139,701	9,633,563	4,337,746	52,520	4,390,266
1906 . . . . .	10,338,979	113,678	10,452,657	5,003,555	40,492	5,044,047
1907 . . . . .	12,810,629	131,571	12,942,200	7,895,491	57,062	7,950,553
1908 . . . . .	13,377,513	137,955	13,515,468	9,531,186	119,569	9,650,755
1909 . . . . .	13,574,520	130,759	13,705,279	11,176,850	56,482	11,233,332
1910 . . . . .	13,517,882	174,257	13,692,139	11,085,901	65,957	11,151,858
1911 . . . . .	13,272,551	149,119	13,421,670	10,853,545	55,009	10,908,554
1912 . . . . .	15,069,842	174,987	15,244,829	15,265,051	54,196	15,319,247
1913 . . . . .	16,042,009	129,790	16,171,799	17,539,531	56,128	17,595,659
1914 . . . . .	15,749,552	216,961	15,966,513	18,247,829	64,691	18,312,520
1915 . . . . .	15,803,039	189,501	15,992,540	18,451,544	83,370	18,534,914
1916 . . . . .	16,575,691	162,817	16,738,508	21,405,832	69,534	21,475,366
1917 . . . . .	21,410,414	87,941	21,498,355	25,670,161	93,535	25,763,696
1918 . . . . .	24,347,198	134,764	24,481,962	29,627,627	84,612	29,712,239
1919 . . . . .	19,727,134	104,880	19,832,014	26,249,182	98,128	26,347,310
1920 . . . . .	20,296,590	120,626	20,417,216	25,721,763	95,375	25,817,138
1921 . . . . .	21,766,759	196,839	21,963,598	28,153,784	95,146	28,248,930
1922 . . . . .	16,925,164	160,943	17,086,107	22,816,056	83,957	22,900,013
1923 . . . . .	20,651,448	218,292	20,869,740	27,456,130	80,201	27,536,331
1924 . . . . .	19,925,810	203,236	20,129,046	26,812,903	100,951	26,913,854
1925 . . . . .	18,063,625	214,719	18,278,344	26,623,213	86,442	26,709,655
1926 . . . . .	18,263,282	201,347	18,464,629	28,734,595	90,609	28,825,204
1927 . . . . .	10,389,396	209,529	10,598,925	18,665,481	84,194	18,749,675
1928 . . . . .	13,595,674	212,834	13,808,508	22,925,429	96,178	23,021,607
1929 . . . . .	15,056,975	221,184	15,278,159	24,207,421	83,728	24,373,877
1930 . . . . .	13,718,523	261,671	13,980,194	19,714,417	116,772	19,831,189
1931 . . . . .	11,659,622	281,613	11,941,235	14,587,285	129,867	14,717,152
1932 . . . . .	6,191,682	403,452	6,595,134	11,301,137	191,160	11,492,297
1933 . . . . .	9,652,559	281,021	9,933,580	11,102,219	219,452	11,321,671
1934 . . . . .	10,142,834	327,120	10,469,954	12,411,367	273,857	12,684,864
1935 . . . . .	10,646,641	391,194	11,037,835	13,944,751	235,857	14,180,608
1936 . . . . .	12,174,462	390,959	12,565,421	15,779,379	425,078	16,221,134
1937 . . . . .	11,671,446	475,238	12,146,684	15,984,468	518,186	16,502,654
1938 . . . . .	9,413,545	453,641	9,867,186	12,775,976	482,187	13,258,613
1939 . . . . .	10,168,728	512,540	10,681,268	14,356,847	611,517	14,968,364

TABLE 57.—COAL TONNAGE IN ILLINOIS, *Concluded*

PRODUCTION						
Year <sup>b</sup>	Shipping Mines	Local Mines	Total	Shipping Mines	Local Mines	Total
	Danville			Belleville-Centralia-Duquoin		
1900			2,030,954			7,295,805
1901			2,003,780			7,851,496
1902	2,422,839	129,599	2,552,428	8,205,638	112,634	8,318,272
1903	2,761,059	132,174	2,893,233	10,150,981	123,966	10,274,947
1904	2,937,313	182,769	3,120,082	11,247,769	129,972	11,377,741
1905	2,464,872	159,053	2,623,925	11,016,668	145,942	11,162,610
1906	1,861,449	154,686	2,016,135	11,627,517	181,070	11,808,587
1907	2,800,504	220,220	3,020,724	13,360,462	191,878	13,552,340
1908	2,467,832	196,901	2,664,733	13,091,154	217,180	13,308,334
1909	2,016,153	205,761	2,221,914	11,678,016	252,488	11,930,504
1910	1,832,600	201,238	2,033,838	12,740,793	260,292	13,001,085
1911	3,067,880	202,500	3,270,380	14,229,460	215,750	14,445,210
1912	3,221,314	153,129	3,374,443	13,226,526	228,716	13,455,202
1913	2,344,623	166,038	3,510,661	14,209,121	208,100	14,417,221
1914	2,833,988	149,603	2,983,591	14,069,728	213,630	14,283,358
1915	1,929,540	131,975	2,061,535	12,741,913	277,637	13,019,550
1916	2,473,696	135,119	2,608,815	14,057,442	243,158	14,300,600
1917	3,137,051	162,368	3,299,419	18,426,811	214,807	18,641,618
1918	3,765,830	205,500	3,971,330	21,821,757	281,251	22,103,008
1919	3,135,004	164,442	3,299,446	18,181,145	182,771	18,363,916
1920	3,102,795	146,151	3,248,946	16,422,226	175,004	16,597,230
1921	3,160,552	211,185	3,371,737	19,154,379	262,382	19,416,761
1922	2,766,409	244,755	3,011,164	14,528,789	313,961	14,842,450
1923	3,686,866	192,525	3,879,391	15,660,649	454,624	16,115,273
1924	3,496,573	264,923	3,761,496	14,581,450	355,568	14,937,018
1925	3,263,064	288,540	3,551,604	11,600,412	397,148	11,997,560
1926	2,838,257	313,117	3,151,374	13,546,861	440,135	13,986,996
1927	2,467,353	294,126	2,761,479	10,104,326	401,223	10,505,549
1928	3,086,509	298,573	3,385,082	10,284,444	400,499	10,684,943
1929	2,761,174	302,256	3,063,430	12,051,315	395,560	12,446,875
1930	2,668,583	272,237	2,940,820	11,401,999	486,751	11,888,750
1931	2,316,847	232,604	2,549,451	9,789,254	524,133	10,313,987
1932	1,674,828	271,815	1,946,643	8,158,262	561,685	8,719,947
1933	1,785,515	298,112	2,083,627	8,193,092	673,685	8,866,777
1934	1,675,604	294,111	1,969,715	9,241,846	851,857	10,093,703
1935	1,675,250	362,528	2,037,778	9,567,160	941,724	10,748,884
1936	1,976,645	386,544	2,363,189	10,611,580	1,209,719	11,821,299
1937	1,910,559	367,419	2,277,978	11,033,503	1,276,046	12,309,549
1938	1,312,445	356,603	1,669,048	8,499,239	1,204,054	9,703,293
1939	1,682,671	362,224	2,044,895	9,672,802	1,512,841	11,185,643

## HISTORICAL SUMMARY

TABLE 58.—COAL PRODUCED IN ILLINOIS, BY SHIPPING  
AND LOCAL MINES, 1900-1939<sup>a</sup>  
(In net tons)

Year	Shipping Mines	Local Mines	Total
1900.....	24,056,996	1,096,933	25,153,929
1901.....	25,526,816	1,108,503	26,635,319
1902.....	28,824,750	1,196,550	30,021,300
1903.....	33,676,537	1,278,863	34,955,400
1904.....	35,779,517	1,298,380	37,077,897
1905.....	35,956,543	1,226,831	37,183,374
1906.....	37,122,811	1,194,770	38,317,581
1907.....	46,436,839	1,361,782	47,798,621
1908.....	47,809,730	1,462,722	49,272,452
1909.....	47,958,562	1,205,148	49,163,710
1910.....	47,225,201	1,492,652	48,717,853
1911.....	48,758,657	1,406,442	50,165,009
1912.....	56,096,695	1,417,545	57,514,240
1913.....	60,515,416	1,330,788	61,846,204
1914.....	59,379,182	1,336,613	60,715,795
1915.....	56,172,556	1,429,138	57,601,694
1916.....	62,283,236	1,390,294	63,673,530
1917.....	77,412,054	1,571,473	78,983,527
1918.....	88,306,228	1,673,241	89,979,469
1919.....	73,751,721	1,348,063	75,099,784
1920.....	72,409,610	1,511,043	73,920,653
1921.....	78,339,082	1,782,866	80,121,948
1922.....	61,406,093	1,870,734	63,276,827
1923.....	73,410,837	2,103,258	75,514,095
1924.....	70,324,363	1,984,302	72,308,665
1924 <sup>b</sup> .....	34,687,265	3,184,067	37,871,332
1925.....	64,180,414	1,994,071	66,174,485
1926.....	67,836,441	1,976,814	69,813,255
1927.....	44,926,433	2,023,267	46,949,700
1928.....	54,284,184	1,926,898	56,211,082
1929.....	59,075,721	2,051,764	61,127,759
1930.....	51,996,608	2,038,508	54,035,116
1931.....	43,073,058	2,079,565	45,152,623
1932.....	31,402,399	2,718,387	34,120,786
1933.....	35,390,677	2,929,448	38,320,125
1934.....	38,655,527	3,068,551	41,724,078
1935.....	41,410,414	3,602,864	45,013,278
1936.....	47,285,587	4,190,312	51,475,899
1937.....	48,062,076	4,370,179	52,432,255
1938.....	38,442,859	3,944,509	42,387,368
1939.....	42,994,107	4,633,347	47,627,454

<sup>a</sup> Data from Northern Illinois Coal Trade Association, Chicago, which was compiled from figures from Illinois Dept. Mines and Minerals, Springfield, "Coal Reports."

<sup>b</sup> Statistics of production for the years 1900 to the first six-month period of 1924, inclusive, are reported for the fiscal years ending June 30th; after 1924, for the calendar year. The six-month period of July 1 to Dec. 31, 1925 follow immediately after the data for the fiscal year 1924.

TABLE 59.—COAL MINED IN ILLINOIS BY STRIPPING METHOD, 1919-1939<sup>a</sup>  
(In thousands of tons)

Year	Quantity	Total mined in Illinois <sup>b</sup>	Per cent mined by strip method
1919...	414	60,863	0.7
1920...	610	88,725	0.7
1921...	586	69,603	0.8
1922...	612	58,468	1.1
1923...	1,283	79,310	1.6
1924...	2,296	68,323	3.4
1925...	3,398	66,909	5.1
1926...	3,466	69,367	5.0
1927...	2,814	46,848	6.0
1928...	4,339	55,948	7.8
1929...	5,375	60,658	8.9
1930...	6,116	53,731	11.4
1931...	6,325	44,303	14.3
1932...	6,551	33,475	19.5
1933...	5,624	37,413	15.0
1934...	6,160	41,272	14.9
1935...	7,410	44,525	16.6
1936...	9,113	50,927	17.9
1937...	11,449	51,602	22.2
1938...	10,570	41,912	25.2
1939...	10,804	46,450	23.2

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

<sup>b</sup> State totals in table 59 differ slightly from those of the preceding table since the former included all small local mines which are excluded from the Bureau of Mines reports.

TABLE 60.—MANUFACTURE OF BY-PRODUCT COKE IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Coal used (net tons)	Coke produced
1919.....	2,446,029	1,703,903
1920.....	3,090,862	2,136,792
1921.....	1,952,358	1,322,178
1922.....	2,876,987	1,982,906
1923.....	4,589,863	3,187,168
1924.....	3,927,248	2,355,474
1925.....	4,224,420	3,011,497
1926.....	4,712,342	3,336,962
1927.....	4,367,337	3,013,940
1928.....	4,712,289	3,240,964
1929.....	5,984,119	4,204,116
1930.....	5,114,535	3,576,577
1931.....	2,478,984	2,478,984
1932.....	2,162,661	1,428,334
1933.....	2,242,506	1,501,020
1934.....	2,445,816	1,649,907
1935.....	2,479,401	1,668,523
1936.....	3,034,695	2,082,516
1937.....	4,251,016	2,998,800
1938.....	2,587,012	1,734,511
1939.....	2,765,927	1,884,240

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

## HISTORICAL SUMMARY

TABLE 61.—MARKETED PRODUCTION OF PETROLEUM  
IN ILLINOIS, 1919-1940  
(In thousands of barrels)

Year	Quantity	Illinois percentage of United States pro- duction	Value (thousands of dollars)	Yearly average per bbl. (dollars)
Cumulative through 1919...	11,960	3.1	\$ 29,720	\$2.61
1920...	10,774	2.4	39,583	3.67
1921...	10,043	2.1	20,632	2.06
1922...	9,383	1.6	19,291	2.05
1923...	8,707	1.1	16,250	1.86
1924...	8,081	1.1	14,220	1.76
1925...	7,863	1.0	15,235	1.94
1926...	7,760	1.0	17,200	2.22
1927...	6,994	0.77	11,700	1.67
1928...	6,462	0.71	9,980	1.54
1929...	6,319	0.62	10,430	1.65
1930...	5,736	0.63	9,100	1.59
1931...	5,039	0.59	4,500	0.89
1932...	4,673	0.59	4,720	1.01
1933...	4,244	0.46	3,690	0.87
1934...	4,479	0.40	4,990	1.11
1935...	4,322	0.43	4,810	1.13
1936...	4,475	0.47	5,390	1.23
1937...	7,499	0.58	9,970	1.34
1938...	24,075	1.98	30,100	1.30
1939...	94,302	7.63	102,800	1.09
1940...	146,788	10.86	160,000	1.09
Total Cumulative prod..	697,883	2.93	\$837,215	\$1.21



TABLE 62.—NATURAL GAS PRODUCED AND CONSUMED, IN ILLINOIS, 1919-1939<sup>a</sup>  
(Millions of cubic feet)

TABLE 63.—NATURAL GASOLINE IN ILLINOIS, 1919-1940<sup>a</sup>  
(In thousands of gallons)

Year	Produced and delivered	Total consumed, including imports	Year	Quantity	Value (thousands of dollars)
1919.....	3,825	.....	1919.....	6,059	\$1,115
1920.....	3,013	.....	1920.....	6,055	1,308
1921.....	2,646	2,630	1921.....	7,536	1,101
1922.....	3,383	3,383	1922.....	7,760	1,182
1923.....	4,049	4,049	1923.....	7,356	851
1924.....	4,072	4,072	1924.....	9,091	795
1925.....	4,165	4,165	1925.....	9,874	1,102
1926.....	3,808	3,808	1926.....	9,987	967
1927.....	3,741	3,741	1927.....	8,853	532
1928.....	3,051	3,051	1928.....	7,817	585
1929.....	2,983	3,139	1929.....	7,080	617
1930.....	2,890	9,602	1930.....	6,867	420
1931.....	2,130	14,050	1931.....	5,024	204
1932.....	1,769	29,432	1932.....	4,558	139
1933.....	1,631	33,341	1933.....	3,673	194
1934.....	1,868	45,084	1934.....	3,810	183
1935.....	1,448	57,319	1935.....	2,642	141
1936.....	865	72,516	1936.....	2,337	134
1937.....	1,040	78,650	1937.....	2,567	153
1938.....	1,169	66,500	1938.....	2,436	124
1939.....	2,746	77,134	1939.....	4,012	229
			1940.....	21,432	1,122

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

TABLE 64.—VALUE OF BUILDING PERMITS IN SELECTED ILLINOIS CITIES AND IN ST. LOUIS, MO., 1919-1940<sup>a</sup>  
(In thousands of dollars)

Year	Aurora	Bloomington	Chicago	Cicero	Decatur	East St. Louis	Elgin	Evans-ton	Moline	Oak Park	Peoria	Quincy	Rock-ford	Rock Island	Spring-field	St. Louis, Mo.
1919	820	1,106	104,199	.....	2,976	1,435	.....	1,383	53	2,675	7,050	537	2,435	.....	2,925	20,539
1920	900	1,644	76,173	.....	1,800	1,894	.....	1,311	1,564	2,063	3,678	284	2,432	.....	2,194	17,694
1921	985	1,207	125,005	.....	2,024	1,446	.....	4,015	2,047	6,539	2,498	289	1,999	.....	2,339	16,631
1922	2,565	405	227,742	.....	2,819	2,648	.....	7,346	2,500	8,378	3,825	732	3,528	.....	4,180	25,211
1923	3,206	694	329,604	7,946	2,014	2,812	1,512	11,610	1,102	10,092	3,513	1,223	3,751	999	3,921	41,444
1924	2,850	675	296,894	7,595	4,382	3,104	1,600	10,220	1,132	9,755	4,766	1,504	4,103	1,036	5,466	39,832
1925	4,445	1,245	360,804	6,930	5,501	5,235	2,729	14,007	1,970	8,070	5,566	1,216	6,476	1,312	5,626	54,877
1926	5,011	1,193	364,584	5,320	5,266	4,450	2,700	15,826	1,359	6,470	5,685	1,328	5,538	1,221	4,272	39,842
1927	2,839	924	352,936	4,605	5,786	5,600	1,839	16,017	1,082	9,080	3,410	1,105	6,564	2,269	3,841	42,075
1928	3,363	1,336	315,800	3,665	4,169	2,733	2,291	13,178	1,657	9,290	3,951	1,277	5,588	1,124	3,786	42,814
1929	2,281	1,217	202,287	3,532	3,891	2,472	1,383	8,196	2,195	5,720	3,579	834	5,086	2,251	3,164	27,331
1930	1,415	444	79,613	1,098	2,005	1,423	746	3,153	1,350	1,862	3,547	776	2,863	760	3,267	17,348
1931	1,239	612	44,031	1,071	781	1,077	607	3,257	597	1,263	2,302	1,363	615	587	1,710	16,620
1932	133	198	3,825	65	187	302	153	789	161	245	563	63	776	178	568	4,332
1933	105	193	3,684	56	158	213	106	403	103	123	1,891	74	118	186	536	10,107
1934	282	238	7,727	163	578	266	170	742	171	182	911	58	227	323	326	4,999
1935	250	579	12,936	198	588	869	218	948	336	626	1,791	95	374	333	456	11,356
1936	558	301	18,989	325	873	392	499	2,108	619	1,492	4,216	225	1,191	1,461	2,891	13,775
1937	741	380	28,806	749	793	934	1,223	3,128	1,983	989	2,373	182	1,326	1,382	1,625	8,735
1938	670	346	21,258	482	1,577	528	554	2,703	1,333	716	2,428	204	1,189	959	1,946	9,319
1939	637	819	42,280	429	917	941	571	2,650	1,678	784	2,416	199	3,395	1,123	1,436	11,258
1940	795	846	53,118	789	1,512	1,008	1,161	7,139	1,721	789	3,053	308	2,160	2,661	3,503	13,639

<sup>a</sup> From Commercial and Financial Chronicle, *cir.* January 21 issue each year.

TABLE 65.—VALUE OF CLAY PRODUCTS IN ILLINOIS, 1919-1939<sup>a</sup>

1919.....	\$17,408,022
1920.....	26,138,419
1921.....	19,041,182
1922.....	26,784,263
1923.....	34,218,987
1924.....	33,591,368
1925.....	36,763,980
1926.....	37,030,004
1927.....	34,452,605
1928.....	32,026,885
1929.....	27,391,068
1930.....	17,520,430
1931.....	10,357,208
1932.....	4,571,807
1933.....	3,991,779
1934.....	4,930,454
1935.....	8,451,842
1936.....	12,498,091
1937.....	11,753,096
1938.....	9,450,784
1939.....	11,930,290

<sup>a</sup> U. S. Bur. Mines and U. S. Bur. Census.

TABLE 66.—PRODUCTION AND VALUE OF SAND AND GRAVEL IN ILLINOIS, 1919-1939<sup>a</sup>  
(In net tons)

Year	Amount	Value
1919.....	7,093,333	\$4,252,094
1920.....	7,669,500	6,139,169
1921.....	6,459,692	4,016,806
1922.....	8,840,293	5,411,821
1923.....	11,951,045	7,460,738
1924.....	12,313,979	7,281,766
1925.....	14,954,536	8,140,090
1926.....	17,777,169	8,714,350
1927.....	19,328,703	9,166,934
1928.....	20,969,331	10,243,555
1929.....	18,256,203	9,071,238
1930.....	17,398,693	8,382,025
1931.....	10,297,943	5,209,474
1932.....	6,751,324	3,184,407
1933.....	6,107,829	3,370,039
1934.....	6,174,202	3,373,690
1935.....	8,354,473	4,276,342
1936.....	12,418,495	6,017,468
1937.....	14,333,482	7,486,610
1938.....	12,538,469	5,648,601
1939.....	8,755,193	4,686,487

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

TABLE 67.—LIMESTONE PRODUCED IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Quantity (net tons)
1919.....	4,959,020
1920.....	5,036,500
1921.....	4,256,580
1922.....	6,690,010
1923.....	9,020,880
1924.....	8,577,220
1925.....	8,518,410
1926.....	9,145,180
1927.....	9,650,270
1928.....	9,645,370
1929.....	8,345,080
1930.....	7,538,810
1931.....	5,278,170
1932.....	2,965,300
1933.....	2,397,400
1934.....	3,901,550
1935.....	4,387,350
1936.....	9,234,510
1937.....	9,819,730
1938.....	8,489,850
1939.....	8,156,980

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

TABLE 68.—QUICK-LIME SOLD BY PRODUCERS IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Quantity (tons)	Value
1919.....	65,060	\$ 580,041
1920.....	87,903	982,743
1921.....	58,222	610,197
1922.....	85,425	860,945
1923.....	92,633	978,658
1924.....	89,132	934,199
1925.....	96,066	928,632
1926.....	103,180	1,013,740
1927.....	115,803	1,084,093
1928.....	115,523	1,017,001
1929.....	119,382	973,312
1930.....	89,709	721,143
1931.....	96,105	718,952
1932.....	62,436	450,033
1933.....	81,888	575,862
1934.....	86,679	655,359
1935.....	117,602	878,746
1936.....	144,675	1,057,765
1937.....	142,122	1,039,087
1938.....	135,256	965,836
1939.....	147,729	1,064,154

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TABLE 69.—HYDRATED LIME SOLD OR USED BY PRODUCERS  
IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Quantity (tons)	Value
1919.....	(b)	(b)
1920.....	(b)	(b)
1921.....	11,034	\$115,505
1922.....	(b)	(b)
1923.....	15,590	158,818
1924.....	(b)	(b)
1925.....	(b)	(b)
1926.....	26,549	254,304
1927.....	29,909	269,241
1928.....	31,214	262,869
1929.....	33,659	274,001
1930.....	32,322	257,925
1931.....	28,169	219,875
1932.....	20,030	152,232
1933.....	24,491	172,627
1934.....	24,282	184,526
1935.....	24,267	187,651
1936.....	25,755	199,038
1937.....	24,625	191,100
1938.....	24,598	189,937
1939.....	26,417	208,580

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.  
<sup>b</sup> Undistributed.

TABLE 70.—PRODUCTION OF GLASS SAND IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Quantity, Tons	Value	Per cent of U. S. tonnage	U. S. tonnage	Value
1919.....	521,286	\$ 886,707	31.4	1,827,409	\$3,593,371
1920.....	714,353	1,380,711	33.0	2,165,926	4,748,690
1921.....	259,889	406,632	20.2	1,280,359	2,314,314
1922.....	488,641	562,994	27.5	1,768,549	2,866,366
1923.....	481,328	754,190	23.6	2,034,958	3,751,778
1924.....	601,509	640,655	27.7	2,169,899	3,718,973
1925.....	709,029	636,355	30.3	2,334,921	3,836,085
1926.....	610,234	465,458	26.9	2,274,218	3,615,371
1927.....	629,268	356,333	28.9	2,171,693	3,257,790
1928.....	658,036	442,923	28.9	2,310,828	3,435,645
1929.....	552,539	502,434	24.9	2,219,677	3,788,471
1930.....	489,821	490,533	26.5	1,849,101	3,210,973
1931.....	415,766	415,766	24.7	1,677,882	2,799,245
1932.....	324,587	329,639	23.7	1,370,255	2,666,564
1933.....	402,240	403,578	22.6	1,781,423	3,011,023
1934.....	448,804	449,832	23.2	1,923,614	3,326,538
1935.....	470,546	554,322	22.0	2,125,761	3,734,343
1936.....	536,873	628,345	22.4	2,394,710	4,050,749
1937.....	(b)	(b)	(b)	2,799,230	4,746,629
1938.....	(b)	(b)	(b)	2,109,462	3,601,734
1939.....	(b)	(b)	(b)	2,468,290	4,280,936

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.  
<sup>b</sup> Figures cannot be revealed as they represent less than three producers.

TABLE 71.—PORTLAND CEMENT PRODUCTION AND SHIPMENTS  
IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Production	Shipments	
		Barrels	Value
1919.....	4,206,918	4,873,831	\$7,901,689
1920.....	5,538,558	5,148,040	10,012,158
1921.....	5,587,825	5,237,510	9,092,982
1922.....	6,407,129	6,554,945	10,584,171
1923.....	7,147,906	7,129,208	12,550,100
1924.....	6,994,323	6,955,455	12,026,310
1925.....	7,101,024	6,749,532	11,481,576
1926.....	6,747,241	6,977,598	11,388,800
1927.....	7,017,047	7,061,240	11,312,783
1928.....	7,334,833	7,405,667	11,602,848
1929.....	8,242,725	7,738,208	11,134,538
1930.....	7,934,563	7,951,680	10,519,162
1931.....	6,407,191	6,425,909	5,342,446
1932.....	5,480,813	5,829,687	3,446,482
1933.....	3,973,853	4,193,048	4,607,335
1934.....	4,124,805	3,908,107	5,498,568
1935.....	3,367,512	3,276,970	4,500,897
1936.....	4,807,434	4,949,318	7,056,344
1937.....	5,246,102	4,713,734	6,756,747
1938.....	3,959,932	4,357,119	5,993,644
1939.....	4,648,834	4,801,292	7,056,746

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

TABLE 72.—PRODUCTION OF DOMESTIC FLUORSPAR  
IN ILLINOIS, 1919-1940<sup>a</sup>

Year	Amount (net tons)	Value
1919.....	92,729	\$2,430,361
1920.....	120,299	3,096,767
1921.....	12,477	315,767
1922.....	83,855	1,493,188
1923.....	65,045	1,443,490
1924.....	62,067	1,288,310
1925.....	54,428	1,024,516
1926.....	53,734	1,012,879
1927.....	46,006	863,909
1928.....	65,884	1,154,983
1929.....	67,009	1,284,834
1930.....	44,134	836,473
1931.....	28,072	468,386
1932.....	9,615	156,279
1933.....	36,075	543,060
1934.....	33,234	567,396
1935.....	44,120	685,794
1936.....	82,056	1,525,606
1937.....	78,664	1,730,585
1938.....	35,368	751,227
1939.....	75,257	1,638,693
1940.....	104,698	2,313,747

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Minerals Yearbooks.

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TABLE 73.—PIG IRON PRODUCTION AND VALUE  
IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Amount (gross tons)	Value <sup>b</sup>
1919	2,532,341	\$61,829,286
1920	3,238,814	90,736,015
1921	1,490,638	36,513,263
1922	2,729,172	58,954,675
1923	3,741,002	94,878,917
1924	2,695,961	59,299,519
1925	3,600,484	74,937,781
1926	3,626,330	73,626,330
1927	3,466,203	66,442,068
1928	4,094,514	73,524,773
1929	4,316,096	79,672,295
1930	3,050,743	54,290,144
1931	1,727,834	29,178,510
1932	731,872	11,544,298
1933	1,269,940	20,063,481
1934	1,430,841	25,768,115
1935	2,224,132	39,092,488
1936	2,991,740	54,583,804
1937	3,357,959	70,893,278
1938	1,519,572	30,899,012
1939	2,860,577	57,718,814

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.

<sup>b</sup> Value of pig iron is not included in the total value of minerals for the State.

TABLE 74.—PRODUCTION AND VALUE OF ZINC, SILVER, AND LEAD IN ILLINOIS, 1919-1940<sup>a</sup>

Year	Lead		Silver		Zinc	
	Short tons	Value	Troy ounces	Value	Tons	Value
1919	2,105	\$233,130	6,000	\$6,725	.....	.....
1920	1,743	278,880	8,500	8,629	.....	.....
1921	672	60,480	1,345	1,345	2,426	\$242,600
1922	1,325	145,750	6,025	6,025	3,124	356,136
1923	1,381	193,340	8,170	6,699	1,266	172,176
1924	1,464	234,240	8,891	5,957	2,512	326,560
1925	1,001	174,174	3,000	2,082	2,724	414,048
1926	655	104,800	2,900	1,866	2,577	386,550
1927	277	34,902	1,518	861	521	66,688
1928	385	44,660	3,146	1,840	17	2,074
1929	443	55,818	3,700	1,972	31	4,092
1930	248	24,800	1,797	692	9	864
1931	205	15,170	1,300	377	.....	.....
1932	31	1,860	257	72	.....	.....
1933	240	1,760	1,422	498	.....	.....
1934	40	2,960	310	200	.....	.....
1935	436	34,880	3,147	2,262	.....	.....
1936	294	27,048	1,780	1,379	.....	.....
1937	186	21,948	887	686	.....	.....
1938	175	16,100	576	372	.....	.....
1939	308	30,184 <sup>b</sup>	154	104 <sup>b</sup>	334	3,420 <sup>b</sup>
1940	1,508	150,800	4,766	3,389	4,818	607,068

<sup>a</sup> From U. S. Geol. Survey, Mineral Resources, Preliminary Summary; and U. S. Bur. Mines, Minerals Yearbooks.

<sup>b</sup> Computed from average price of metal at St. Louis during 1939. U. S. Bur. Mines, Minerals Yearbook, 1940.

TABLE 75.—PRODUCTION AND VALUE OF TRIPOLI IN ILLINOIS, 1919-1939<sup>a</sup>

Year	Short tons	Value
1919 . . . . .	13,014	\$32,961
1920 . . . . .	24,458	66,509
1921 . . . . .	7,765	27,333
1922 . . . . .	18,747	54,741
1923 . . . . .	11,522	31,230
1924 . . . . .	13,466	23,566
1925 . . . . .	11,809	27,480
1926 . . . . .	11,948	29,870
1927 . . . . .	<sup>b</sup>	<sup>b</sup>
1928 . . . . .	<sup>b</sup>	<sup>b</sup>
1929 . . . . .	12,889	27,597
1930 . . . . .	9,954	22,813
1931 . . . . .	12,651	27,170
1932 . . . . .	6,097	10,895
1933 . . . . .	8,757	18,103
1934 . . . . .	7,417	17,241
1935 . . . . .	10,001	113,484
1936 . . . . .	10,981	138,063
1937 . . . . .	11,647	151,154
1938 . . . . .	8,141	117,107
1939 . . . . .	11,134	148,310

<sup>a</sup> U. S. Geol. Survey Mineral Resources; U. S. Bur. Mines Minerals Yearbooks.  
<sup>b</sup> Concealed.

