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ETHELBERT STEWART, Commissioner

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WAGES AND HOURS OF LABOR SERIES

**HOURS AND EARNINGS IN
BITUMINOUS COAL MINING
1929**



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HOURS AND EARNINGS IN BITUMINOUS COAL MINING, 1929

INTRODUCTION AND SUMMARY

The 1929 wage figures in this report are the results of a study in that year by the Bureau of Labor Statistics of wage rates, hours of labor, and earnings of employees in bituminous coal mining in Alabama, Colorado, Illinois, Indiana, Kansas, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. Based on the reports of the United States Bureau of Mines, the number of wage earners in bituminous coal mining in these States in 1928 was 90.8 per cent of the total number in the industry in the United States in that year.

Summaries for 1929 and also for the other years (1922, 1924, and 1926) in which studies of bituminous coal mining were made by the bureau are shown in Table 1 for *miners* and *loaders*. Miners as here used include gang miners, hand or pick miners, machine miners (cutters), and machine miners' (cutters) helpers. Loaders as here used include contract loaders, hand loaders, and machine loaders. They work underground or *inside* the mine and are generally paid tonnage rates and are called "tonnage men."

Average hours and earnings for each of the seven occupations in the table are based on (1) time at the face or place of work in the mine, including time for lunch, and also on (2) total time in mine, including time for lunch and travel time in the mine from its opening to the face or working place and return.

The figures in Table 2 are also summaries for 1922, 1924, 1926, and 1929 for the employees in each of nine occupations and for a group of "other employees" who work *inside* mines, and for employees in four occupations and a group of "other employees" who work on the surface or *outside* mines. The employees in this table are generally paid time or day rates; that is, rates per hour, day, or week.

The total figures at the end of Table 1 show that the starts or days on which the 99,405 miners and loaders did any work averaged 9.1 days in one half-monthly pay period in 1929, as compared with 9.5 in 1926, 8.3 in 1924, and 8.9 in 1922. Based on time at the face, including time for lunch, they worked an average of 72.6 hours in 1929, 75.4 in 1926, 64.6 in 1924, and 68.1 in 1922. Their average hourly earnings based on time at the face, including time for lunch, were

68.7 cents in 1929, 81.7 cents in 1926, 84.3 cents in 1924, and 91.5 cents in 1922. The decrease between 1926 and 1929 was 13 cents per hour or 15.9 per cent. They earned an average of \$5.50 per start or day in 1929, \$6.46 in 1926, \$6.60 in 1924, and \$7.03 in 1922. In the half month they earned \$49.85 in 1929, \$61.61 in 1926, \$54.44 in 1924, and \$62.30 in 1922.

In the half-month pay period in 1929 hand loaders, the second occupation in Table 1 and the most important occupation in number of employees in bituminous coal mining, worked an average of 8.9 starts or days, as compared with 9.4 in 1926, 8.1 in 1924, and 8.7 in 1922. Based on time at the face, including time for lunch, they worked an average of 70.6 hours in 1929, 73.7 hours in 1926, 63.3 hours in 1924, and 66.2 hours in 1922, and on the same basis earned an average of 64.8 cents per hour in 1929, 77.9 cents in 1926, 81.1 cents in 1924, and 90.2 cents in 1922. The decrease between 1926 and 1929 was 13.1 cents per hour or 16.8 per cent. Their average earnings per start or day were \$5.15 in 1929, \$6.12 in 1926, \$6.32 in 1924, \$6.90 in 1922, and in the half month they earned an average of \$45.78 in 1929, \$57.48 in 1926, \$51.29 in 1924, and \$59.75 in 1922.

TABLE 1.—Average number of starts (days) and average hours and earnings of miners and loaders, inside mine, 1922, 1924, 1926, and 1929, by occupation

Occupation and year	Number of—		Average number of starts (days) in half month	Average hours				Average earnings			
	Mines	Em- ployees		In half month based on—		Per start based on—		Per hour based on—		Per start (day)	In half month
				Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine		
Loaders, contract:											
1924	24	170	9.5	79.9	84.3	8.4	8.9	\$0.929	\$0.881	\$7.82	\$74.26
1926	61	694	10.1	85.3	92.4	8.4	9.1	.849	.784	7.16	72.43
1929	65	584	9.7	82.9	90.8	8.6	9.4	.869	.793	7.45	72.07
Loaders, hand:											
1922	176	22,560	8.7	66.2	71.5	7.7	8.3	.902	.836	6.90	59.75
1924	514	61,936	8.1	63.3	68.6	7.8	8.5	.811	.748	6.32	51.29
1926	488	66,414	9.4	73.7	80.3	7.8	8.6	.779	.715	6.12	57.48
1929	475	70,853	8.9	70.6	77.3	7.9	8.7	.648	.592	5.15	45.78
Loaders, machine:											
1924	10	102	9.4	84.3	90.4	9.0	9.6	.690	.644	6.20	58.20
1926	23	306	9.9	87.3	93.7	8.8	9.5	.788	.735	6.96	68.80
1929	28	423	9.8	84.5	91.6	8.6	9.4	.810	.747	7.00	68.39
Miners, gang:											
1924	40	1,036	8.1	65.6	71.1	8.1	8.8	1.187	1.094	9.66	77.79
1926	32	1,065	9.5	78.7	86.0	8.2	9.0	1.377	1.260	11.36	108.33
1929	33	1,177	9.5	79.7	86.3	8.4	9.1	1.010	.932	8.45	80.50
Miners, hand or pick:											
1922	127	8,429	9.2	71.0	77.5	7.7	8.4	.840	.769	6.47	59.62
1924	291	21,424	8.5	65.6	71.2	7.7	8.4	.808	.744	6.26	53.02
1926	254	20,594	9.8	77.0	84.3	7.9	8.6	.783	.715	6.18	60.31
1929	230	19,666	9.4	74.7	82.5	7.9	8.8	.673	.609	5.33	50.29
Miners, machine (cutters):											
1922	161	2,371	9.5	75.4	81.5	7.9	8.6	1.274	1.180	10.10	96.14
1924	485	6,499	8.8	72.9	78.6	8.3	8.9	1.163	1.079	9.65	84.79
1926	464	6,055	10.3	86.0	93.3	8.3	9.0	1.195	1.101	9.93	102.68
1929	456	5,937	10.0	85.0	92.4	8.5	9.3	1.018	.936	8.68	86.52
Miners, machine (cutters) helpers:											
1926	151	882	8.8	79.0	84.5	9.0	9.6	.681	.637	6.14	53.77
1929	138	765	9.0	81.5	88.1	9.0	9.8	.703	.650	6.34	57.25
Total:											
1922	200	33,360	8.9	68.1	73.7	7.7	8.3	.915	.845	7.03	62.30
1924	599	91,167	8.3	64.6	70.0	7.8	8.5	.843	.777	6.60	54.44
1926	556	96,010	9.5	75.4	82.2	7.9	8.6	.817	.749	6.46	61.61
1929	535	99,405	9.1	72.6	79.6	8.0	8.8	.687	.626	5.50	49.85

As already stated, the figures in Table 2 are for employees who are usually time workers and are paid rates per hour or per day. A few are paid rates per week or month. The averages in the table for each occupation and also for the total of all time-work occupations at the end of the table are based on the number of hours actually worked in one-half monthly-pay period.

The table shows that in 1929 the total of 52,806 time-workers worked an average of 10.2 starts or days, 87 hours, and an average of 8.6 hours per start or day in the half-monthly pay period in that year and that they earned an average of \$52.57 in the half month, \$5.17 per start or day, and 60.5 cents per hour. Average days and hours worked in the half month were greater for engineers and pumpers than for any of the other occupations. Employees in these two occupations frequently work on Sunday and holidays and may also work overtime on week days. Average earnings per hour in 1929 for inside occupations, exclusive of trappers (boys) and a miscellaneous group tabulated as "other employees," ranged from 54.4 cents for laborers to 68.5 cents for cagers, and for outside occupations the range was from 49.3 cents for laborers to 71.1 cents per hour for engineers. The average for trappers (boys) was 35.4 cents and for "other employees," inside, was 72.1 cents per hour. The average for "other employees," outside, was 58.3 cents per hour. The average earnings per hour, all occupations, inside and outside, were 60.5 cents in 1929, as compared with 66.4 in 1926, 69.6 cents in 1924, and 75.3 cents in 1922. The decrease between 1926 and 1929 was 5.9 cents per hour, or 8.9 per cent.

TABLE 2.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929 by place of work and occupation

Place of work and occupation	Year	Number of—		Average number of starts (days) in half month	Average hours worked—		Average earnings—		
		Mines	Wage earners		In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE									
Brakemen.....	1922	181	1,333	¹ 9.4	77.3	¹ 8.2	\$60.18	¹ \$8.41	\$2.779
	1924	547	4,259	8.9	75.0	8.4	53.25	5.96	.710
	1926	518	4,368	9.9	83.8	8.5	57.61	5.82	.687
	1929	505	4,854	9.5	81.0	8.5	48.31	5.08	.596
Bratticemen and timbermen.....	1922	181	996	² 10.4	85.7	² 8.1	70.26	² 6.81	.820
	1924	484	2,521	9.8	81.1	8.3	63.04	6.44	.778
	1926	484	2,800	10.8	89.2	8.3	66.20	6.16	.742
	1929	456	2,901	10.6	88.3	8.3	57.19	5.39	.648
Cagers.....	1922	83	185	³ 10.3	89.4	³ 8.6	77.82	³ 7.53	.871
	1924	198	410	9.6	83.2	8.7	71.53	7.46	.860
	1926	188	414	11.1	99.5	9.0	80.73	7.29	.811
	1929	192	392	10.9	96.1	8.8	65.79	6.03	.685
Drivers.....	1922	125	2,080	⁴ 9.5	78.7	⁴ 8.2	64.84	⁴ 6.82	.824
	1924	377	4,603	8.8	72.3	8.2	54.08	6.12	.748
	1926	320	4,530	10.2	84.4	8.3	59.80	5.88	.708
	1929	282	3,811	9.5	77.8	8.2	49.52	5.24	.637
Laborers.....	1922	181	2,967	⁵ 9.9	80.8	⁵ 8.0	56.30	⁵ 5.73	.697
	1924	502	7,228	8.9	74.2	8.3	48.74	5.47	.657
	1926	500	8,823	9.4	78.7	8.4	48.82	5.18	.620
	1929	456	7,842	9.0	75.2	8.3	40.90	4.53	.544

¹ Not including data for 8 employees whose starts were not reported.

² Not including data for 79 employees whose starts were not reported.

³ Not including data for 2 employees whose starts were not reported.

⁴ Not including data for 89 employees whose starts were not reported.

⁵ Not including data for 237 employees whose starts were not reported.

TABLE 2.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929 by place of work and occupation—Continued

Place of work and occupation	Year	Number of—		Average number of starts (days) in half month	Average hours worked—		Average earnings—		
		Mines	Wage earners		In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Motormen.....	1922	183	1,296	* 10.1	84.2	* 8.4	\$68.62	* \$6.82	\$0.815
	1924	548	3,751	9.7	83.6	8.6	62.89	6.46	.752
	1926	520	4,239	10.8	94.7	8.7	67.97	6.27	.718
	1929	504	4,860	10.3	89.6	8.7	58.21	5.64	.649
Pumpmen.....	1922	157	452	13.0	110.2	8.5	80.90	6.24	.734
	1924	402	1,015	11.7	103.4	8.8	70.38	6.02	.681
	1926	402	1,081	12.7	118.3	9.3	74.04	5.84	.626
	1929	390	1,148	12.3	113.5	9.2	62.45	5.06	.550
Trackmen.....	1922	198	1,393	* 10.7	87.3	* 8.2	72.05	* 6.77	.826
	1924	587	4,026	9.7	81.2	8.3	59.83	6.14	.737
	1926	554	4,246	10.8	91.0	8.4	64.15	5.92	.705
	1929	532	4,653	10.4	85.8	8.3	54.47	5.26	.635
Trappers (boys).....	1922	103	393	9.1	72.3	7.9	34.09	3.75	.472
	1924	273	925	8.3	66.7	8.0	27.24	3.27	.408
	1926	207	693	9.9	79.7	8.0	30.17	3.04	.379
	1929	200	633	9.4	75.6	8.1	26.79	2.86	.354
Other employees.....	1922	188	2,294	* 10.9	91.4	* 8.3	75.49	* 6.97	.826
	1924	538	4,786	10.5	89.7	8.5	73.32	6.97	.817
	1926	522	5,745	11.3	98.0	8.7	75.96	6.71	.775
	1929	518	6,814	10.7	92.1	8.6	66.38	6.18	.721
OUTSIDE MINE									
Blacksmiths.....	1922	191	339	* 11.7	102.0	* 8.6	87.42	* 7.47	.857
	1924	581	969	10.7	92.0	8.6	71.75	6.72	.780
	1926	540	909	11.9	104.8	8.8	77.94	6.56	.743
	1929	516	811	11.3	99.5	8.8	67.47	5.96	.678
Carpenters and car-repair men..	1922	157	427	* 11.1	94.7	* 8.4	71.23	* 6.42	.752
	1924	474	1,354	10.4	89.6	8.6	61.96	5.93	.691
	1926	484	1,545	11.4	98.3	8.6	64.28	5.64	.654
	1929	471	1,458	10.8	92.9	8.6	56.84	5.24	.612
Engineers.....	1922	129	267	* 13.9	121.3	* 8.7	99.50	* 7.21	.820
	1924	333	732	12.9	114.4	8.9	91.56	7.09	.801
	1926	320	674	13.3	119.6	9.0	91.17	6.83	.762
	1929	313	652	12.8	111.9	8.7	79.56	6.21	.711
Laborers.....	1922	195	2,407	* 10.1	84.8	* 8.4	55.06	* 5.49	.649
	1924	591	7,514	9.5	81.2	8.6	46.73	4.93	.575
	1926	550	7,877	10.7	92.6	8.7	50.53	4.74	.546
	1929	527	7,834	10.0	86.8	8.7	42.78	4.30	.493
Other employees.....	1922	193	2,242	* 11.8	101.3	* 8.5	70.02	* 5.96	.691
	1924	578	4,823	11.1	99.1	8.9	62.73	5.64	.633
	1926	540	4,201	12.1	108.1	8.9	65.31	5.41	.604
	1929	506	4,143	11.1	98.7	8.9	57.53	5.18	.583
Total.....	1922	200	19,388	10.1	87.8	8.7	66.17	6.55	.753
	1924	599	49,552	9.8	83.1	8.5	57.81	5.92	.696
	1926	556	52,145	10.7	91.7	8.6	60.87	5.70	.664
	1929	535	52,806	10.2	87.0	8.6	52.57	5.17	.605

* Not including data for 8 employees whose starts were not reported.

* Not including data for 6 employees whose starts were not reported.

* Not including data for 30 employees whose starts were not reported.

* Not including data for 137 employees whose starts were not reported.

* Not including data for 9 employees whose starts were not reported.

* Not including data for 22 employees whose starts were not reported.

* Not including data for 51 employees whose starts were not reported.

* Not including data for 75 employees whose starts were not reported.

* Including data for 327 employees not shown in the details of this table.

* Including data for 636 employees not shown in the details of this table.

In making the study in each year data were collected for each employee in each occupation in the industry, showing the number of starts or calendar days on which he worked, the number of hours worked, and the amount earned in a representative half-monthly pay period in 1929. The great mass of the data, or 96 per cent of the 535 mines covered in 1929, was for a half-month in the first quarter in that year, and 66 per cent of the total was for a period in February. The averages are therefore representative of hours and earnings in bituminous coal mining in the first three months in 1929. The 1929

wage data used in compiling this report, except for a few companies which made transcripts of their records for the bureau, were taken directly from the pay rolls, clock cards, and other records of the companies by agents of the bureau for 22 representative mines in Alabama, 16 in Colorado, 37 in Illinois, 29 in Indiana, 8 in Kansas, 64 in Kentucky, 41 in Ohio, 136 in Pennsylvania, 15 in Tennessee, 22 in Virginia, and 145 in West Virginia.

The 1929 figures are for a total of 152,211 employees, or 29.2 per cent of the 522,150 mine workers reported by the United States Bureau of Mines as engaged in the mining of bituminous coal in 1928, and represent 32.1 per cent of the 474,011 reported by the Bureau of Mines in the States covered by the study. Of the 152,211 included in the report, 137,313, or 90 per cent, were underground or "inside" wage earners. The remaining 14,898 are known as surface or "outside" employees, though a comparatively few of them may at times work underground.

Data for which averages and classified figures are presented in the tables of this bulletin were taken from the records of 200 mines in 1922, 599 in 1924, 556 in 1926, and 535 in 1929.

The three basic occupations in bituminous coal mining are those of hand or pick miners, machine miners, and hand loaders. They represent approximately 63 per cent of all wage earners in the industry and are usually paid a rate per ton of 2,000 pounds run of mine, that is, of coal as mined, including "slack."

Hand or pick miners undercut coal with a pick, cutting some distance back from the "face," separate it from the seam with pick or explosives, and shovel the coal from the floor of the mine into mine cars. Machine miners undercut the seam of coal with electric or compressed-air coal-mining machines. After the seam of coal has been undercut hand loaders usually blast the coal from the seam or bed and with hand shovels load it into mine cars or conveyors which empty into the mine cars. Shot-firers do the blasting of machine cut coal in some mines. Contract loaders, machine loaders, gang miners, and machine miners' helpers are of much less importance in numbers, the four occupations combined comprising only 3 per cent of the 99,405 tonnage workers covered by this study.

As the miners and loaders are usually paid tonnage instead of time rates, very few companies keep a daily time record for such employees. It was necessary, therefore, in order to ascertain the hours worked by miners and loaders, to arrange with mine officials to have kept a special day-by-day record of the hours of each employee for a half-monthly pay period. Employees in all occupations inside and outside the mines, except miners and loaders, are usually paid time rates—that is, rates per hour or day, and in a few instances per week or month. The hours worked by time workers and the earnings of both time workers and tonnage workers are of regular record.

The term "face" in this report means the perpendicular surface of the seam of coal on which miners work and at or near which loaders shovel the coal from the floor of the mine into mine cars or into a conveyor which carries the coal to such cars.

Time for lunch, as reported, was usually about 30 minutes, and the *travel time* in the different mines ranged from 10 minutes per day for the mine with the shortest time of travel to 2 hours for the one with

the longest time of travel. The average time of travel was about 48 minutes per day, or 24 minutes each way.

Average earnings per hour for each of the 70,853 hand loaders, 19,666 hand or pick miners, and the 5,937 machine miners included in the 1929 study have been computed by dividing his net earnings in the half-month pay period for which data were taken (1) by his total hours at the *face* in the half month, including time for lunch, and also (2) by his total hours in the mine, including time for lunch and time of travel in the mine. The first method gives average earnings per hour for each man based on time in mine exclusive of travel time, and the second gives his average earnings per hour based on time in mine including time of travel. Average earnings per hour by the first method are greater than by the second because the time used in the former does *not* include the unproductive time of travel in mine which *is* included in the latter.

The term "net earnings in half-month" as used above means the remainder after deductions from total or gross earnings of the costs or charges for powder, dynamite, or other explosives, fuses, and caps used by miners and loaders in blasting coal from the seams, and for tool sharpening or blacksmithing. There are very few companies which do not charge employees for explosives and for tool sharpening.

CLASSIFIED AVERAGE EARNINGS PER HOUR, 1929

Tonnage workers.—Table 3 shows the number and the per cent (actual and cumulative) of hand loaders, hand or pick miners, and machine miners (cutters) whose average earnings per hour, based on time at the face including time for lunch, and based on total time in the mine, were within each classified amount in 1929. The 96,456 employees in these three occupations represent 97 per cent of the *tonnage workers* covered in the 1929 study. Reading part of the cumulative percentages based on time at the face in explanation of the figures in the table, it is seen that 4 per cent of the 70,853 hand loaders earned under 30 cents per hour, 14 per cent earned under 40 cents, 29 per cent earned under 50 cents, 47 per cent earned under 60 cents, 75 per cent earned under 80 cents, and 93 per cent earned under \$1 per hour. The average for hand or pick miners is shown to be slightly higher than for hand loaders, since only 91 per cent earned less than \$1 per hour. The average for machine miners was very much higher. Based on time at the face, only 49 per cent earned under \$1 per hour and 91 per cent earned under \$1.50 per hour. For classification of employees in these three occupations in *each State* according to earnings per hour see Table C, page 42.

As a rule, mines employing hand loaders to shovel the coal from the floor of the mine into mine cars after it has been blasted from the seam also have machine miners (cutters) to operate the machines for undercutting the coal. In this and in other tables in this report figures are shown for loaders in 475 mines and for machine miners (cutters) in 456 mines. In a number of mines in which machine miners work at night, time was not kept for them, as the mine employee designated to keep the time was on duty during the day only, while in a few others the time was not kept for other reasons.

TABLE 3.—Number and per cent of hand loaders, hand or pick miners, and machine miners, whose hourly earnings were within each classified amount, 1929

Classified earnings per hour	Loaders, hand (475 mines)						Miners, hand or pick (230 mines)						Miners, machine (cutters) (456 mines)					
	Number based on—		Per cent based on—				Number based on—		Per cent based on—				Number based on—		Per cent based on—			
	Time at face, including lunch	Time in mine, including lunch and travel	Actual		Cumulative		Time at face, including lunch	Time in mine, including lunch and travel	Actual		Cumulative		Time at face, including lunch	Time in mine, including lunch and travel	Actual		Cumulative	
			Time at face, including lunch	Time in mine, including lunch and travel	Time at face, including lunch	Time in mine, including lunch and travel			Time at face, including lunch	Time in mine, including lunch and travel	Time at face, including lunch	Time in mine, including lunch and travel			Time at face, including lunch	Time in mine, including lunch and travel	Time at face, including lunch	Time in mine, including lunch and travel
Under 30 cents.....	3,151	4,736	4	7	4	7	515	803	3	4	3	4	23	34	(1)	1	(1)	1
30 and under 40 cents....	6,778	9,022	10	13	14	19	1,347	2,035	7	10	9	14	44	72	1	1	1	2
40 and under 50 cents....	10,846	13,138	15	19	29	38	2,624	3,361	13	17	23	32	121	192	2	3	3	5
50 and under 60 cents....	12,318	12,989	17	18	47	56	3,502	3,999	18	20	41	52	321	446	5	8	9	13
60 and under 70 cents....	10,999	10,875	16	15	62	71	3,399	3,387	17	17	58	69	457	547	8	9	16	22
70 and under 80 cents....	8,972	7,694	13	11	75	82	2,915	2,571	15	13	73	82	589	762	10	13	26	35
80 and under 90 cents....	6,588	6,888	9	10	84	92	2,170	1,620	11	8	84	90	679	733	11	12	38	47
90 cents and under \$1....	6,341	2,919	9	4	93	96	1,425	923	7	5	91	95	676	645	11	11	49	68
\$1 and under \$1.10.....	2,205	1,509	3	2	96	98	817	471	4	2	95	97	614	714	10	12	59	70
\$1.10 and under \$1.20....	1,330	728	2	1	98	99	448	253	2	1	97	99	832	668	14	11	73	81
\$1.20 and under \$1.30....	644	317	1	(1)	99	100	236	97	1	(1)	99	99	439	340	7	6	81	87
\$1.30 and under \$1.40....	303	121	(1)	(1)	99	100	118	61	1	(1)	99	100	314	202	5	5	86	92
\$1.40 and under \$1.50....	127	64	(1)	(1)	100	100	55	36	(1)	(1)	100	100	202	175	5	3	91	95
\$1.50 and under \$1.60....	75	56	(1)	(1)	100	100	42	16	(1)	(1)	100	100	179	102	3	2	94	96
\$1.60 and under \$1.70....	51	23	(1)	(1)	100	100	16	9	(1)	(1)	100	100	123	50	2	1	96	97
\$1.70 and under \$1.80....	28	20	(1)	(1)	100	100	13	6	(1)	(1)	100	100	48	36	1	1	97	98
\$1.80 and under \$1.90....	26	17	(1)	(1)	100	100	6	5	(1)	(1)	100	100	37	37	1	1	97	98
\$1.90 and under \$2.....	18	10	(1)	(1)	100	100	5	5	(1)	(1)	100	100	36	34	1	1	98	99
\$2 and under \$2.50.....	37	20	(1)	(1)	100	100	13	7	(1)	(1)	100	100	93	60	2	1	100	100
\$2.50 and under \$3.....	9	3	(1)	(1)	100	100	2	2	(1)	(1)	100	100	14	6	(1)	(1)	100	100
\$3 and over.....	7	4	(1)	(1)	100	100	1	1	(1)	(1)	100	100	6	4	(1)	(1)	100	100
Total.....	70,853	70,853					19,666	19,666					5,937	5,937				
Average earnings per hour.....	\$0.648	\$0.592					\$0.673	\$0.609					\$1.018	\$0.936				

¹ Less than 1 per cent.² This percentage, entered as 100, is between 99 and 100.

Time workers.—Table 4 shows for each of 6 specified occupations inside the mine and of 2 outside the mine the percentage (actual and cumulative) of employees whose average earnings per hour were within each classified amount. The employees in these occupations are considered next in importance to hand loaders, pick or hand miners, and machine miners. The data for the 6 inside occupations cover 28,921 employees and for the 2 outside occupations cover 9,292 employees, a total of 38,213, or approximately 72 per cent of the total number of *time workers* included in the 1929 study.

In reading the table it is seen that 5 per cent of the brakemen, 2 per cent of the bratticemen and timbermen, 7 per cent of the drivers, 11 per cent of the inside laborers, 2 per cent of the motormen, 2 per cent of the trackmen, 3 per cent of the carpenters and car-repair men, and 20 per cent of the outside laborers, earned an average of less than 40 cents per hour. Also that the average earnings per hour of 3 per cent of the brakemen, 5 per cent of the bratticemen and timbermen, 7 per cent of the drivers, 2 per cent of the inside laborers, 16 per cent of the motormen, 3 per cent of the trackmen, 3 per cent of the carpenters and repair men, and less than 1 per cent of the outside laborers were within the classified group of 80 and under 90 cents. The wide range in earnings as shown in the table was due largely, as can be seen in Table D, page 44, to differences in the averages in different States.

TABLE 4.—Number and per cent of employees in each specified occupation whose hourly earnings were within each classified amount, 1922

Classified earnings per hour	Brakemen, inside mine			Bratticemen and timbermen, inside mine			Drivers, inside mine			Laborers, inside mine			Motormen, inside mine			Trackmen, inside mine			Carpenters and car-repair men, outside mine			Laborers, outside mine		
	Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent	
		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative
Under 30 cents.....	16	(1)	(1)	1	(1)	(1)	11	(1)	(1)	174	2	2	3	(2)	(1)	3	(1)	(2)	—	—	—	383	5	5
30 and under 40 cents..	214	4	5	61	2	2	263	7	7	707	9	11	90	2	2	69	1	2	44	3	3	1,193	15	20
40 and under 50 cents..	807	17	21	150	5	7	223	6	13	2,163	28	39	277	6	8	299	6	8	241	10	13	2,444	31	31
50 and under 60 cents..	1,740	36	57	862	30	37	754	20	33	2,485	32	71	1,872	39	46	1,812	38	47	537	37	50	2,078	27	78
60 and under 70 cents..	774	16	73	679	23	60	1,209	32	65	924	12	82	1,120	23	68	917	20	67	329	22	72	569	7	85
70 and under 80 cents..	1,112	23	96	975	34	94	1,075	28	93	1,214	15	98	606	12	82	1,348	29	90	341	23	95	1,145	15	* 100
80 and under 90 cents..	188	3	* 100	135	5	99	258	7	* 100	166	2	* 100	780	16	95	128	3	98	41	3	98	18	(1)	* 100
90 cents and under \$1..	14	(1)	* 100	32	1	* 100	16	(1)	* 100	4	(2)	* 100	194	2	* 100	74	2	* 100	18	1	99	1	(1)	* 100
\$1 and under \$1.10....	6	(1)	* 100	3	(1)	* 100	1	(1)	* 100	8	(1)	* 100	5	(1)	* 100	2	(2)	* 100	6	(2)	* 100	3	(2)	* 100
\$1.10 and under \$1.20..	1	(1)	* 100	3	(1)	100	1	(1)	100	1	(1)	* 100	3	(1)	* 100	1	(2)	* 100	1	(2)	* 100	—	—	—
\$1.20 and under \$1.30..	—	—	* 100	—	—	—	—	—	—	2	(1)	* 100	—	—	—	—	—	—	—	—	—	—	—	—
\$1.30 and under \$1.40..	2	(1)	100	—	—	—	—	—	—	3	(1)	* 100	—	—	—	—	—	—	1	(1)	* 100	—	—	—
\$1.40 and under \$1.50..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
\$1.50 and under \$1.60..	—	—	—	—	—	—	—	—	—	1	(1)	* 100	—	—	—	—	—	—	—	—	—	—	—	—
Total.....	4,854	—	—	2,901	—	—	3,811	—	—	7,822	—	—	4,860	—	—	4,653	—	—	1,458	—	—	7,834	—	—

* Less than 1 per cent.

* This percentage, entered as 100, is between 99.5 and 100.

AVERAGES FOR MINERS AND LOADERS, 1929, BY STATES

Average starts, or calendar days, in the half month, average hours in the half month and per start, average earnings per hour, per start, and in the half month, 1929, and also average days of operation in 1928, are presented in Table 5 for miners and loaders of each of the 11 States included in the 1929 study and for all of the 11 States combined.

Miners and loaders, as here used, include 70,853 hand loaders, 19,666 hand or pick miners, 5,937 machine miners (cutters), 1,177 gang miners, 765 machine miners' (cutters') helpers, 584 contract loaders, and 423 machine loaders, a total of 99,405.

Average starts, or calendar days, in the half month in 1929 for each State were obtained by dividing the total number of starts made by all miners and loaders in the half month by the number of such miners and loaders. All States combined averaged 9.1 starts or days in the half month, and the averages by States ranged from 6.8 for the State with the lowest to 9.8 for the State with the highest average number of starts in the half month.

Average hours in the half month for each State were obtained by dividing the total number of *hours at face* or place of work in the mines, including time for lunch, or the total number of *hours in mine*, including time for lunch and time of travel, of all miners and loaders by the total number of such miners and loaders. All States combined, based on time at the face including time for lunch, averaged 72.6 hours, and the averages by States ranged from 49.7 for the State with the lowest to 77.9 for the State with the highest average number of hours in the half month.

Average hours per start or day for each State were obtained by dividing the total number of *hours at face*, including time for lunch, or the total number of *hours in mine*, including time for lunch and time of travel of all miners and loaders by the total number of starts made by them in the half month. All States combined, based on time at the face including time for lunch, averaged 8 hours per start, and the averages by States ranged from 7.1 for the State with the lowest to 8.9 for the State with the highest average number of hours per start.

Average earnings per hour for each State were obtained by dividing the total earnings of all miners and loaders in the half month by the total number of *hours at face*, including time for lunch, or by the total *hours in mine*, including time for lunch and time of travel in the half month. All States combined, based on time at face including time for lunch, averaged 68.7 cents per hour, and the averages by States ranged from 45.3 cents per hour for the State with the lowest to 92.6 cents per hour for the State with the highest average.

Average earnings in the half month for each State were obtained by dividing the total earnings of all miners and loaders by the number of such miners and loaders. All States combined averaged \$49.85, and the averages by States ranged from \$26.91 for the State with the lowest to \$67.55 for the State with the highest average earnings for the half month.

Average earnings per start for each State were obtained by dividing the total earnings of all miners and loaders in the half month by the total number of starts made by them in the half month. All States

combined averaged \$5.50 per start or day, and the averages by States ranged from \$3.86 for the State with the lowest to \$7.04 for the State with the highest average earnings per start or day.

The days of operation in the calendar year 1928 for *all mines in each State* are the days as reported by the United States Bureau of Mines for that year, weighted by the total number of employees in all occupations at each mine. The average days of operation for the 11 States combined, based on the number of miners and loaders shown in the table, was 202. The averages by States ranged from 128 days for the State with the lowest average to 226 for the States with the highest average. The average for all employees of all bituminous mines in the United States, as reported for the Bureau of Mines for the calendar year 1928, was 203 days.

TABLE 5.—Number of miners and loaders, average starts, hours, and earnings in 1929, and days of operation in 1928, by States

State	Number of—		Average starts in half month covered	Average hours				Average earnings				Average days of operation in year, all mines in State
	Mines covered by bureau	Miners and loaders		In half month, based on—		Per start, based on—		Per hour, based on—		In half-month-pay period	Per start	
				Time at face includ- ing lunch	Time in mine	Time at face includ- ing lunch	Time in mine	Time at face includ- ing lunch	Time in mine			
Alabama.....	22	4,740	8.3	74.2	81.6	8.9	9.8	\$0.453	\$0.411	\$33.58	\$4.03	1 222
Colorado.....	16	1,989	6.8	51.8	56.3	7.6	8.2	.815	.750	42.22	6.18	1 193
Illinois.....	37	14,104	9.6	77.9	84.5	8.1	8.8	.867	.799	67.55	7.04	1 156
Indiana.....	29	4,691	8.6	63.5	67.6	7.4	7.8	.926	.870	58.85	6.83	1 150
Kansas.....	8	1,349	7.0	49.7	54.5	7.1	7.7	.712	.650	35.39	5.03	1 128
Kentucky.....	64	11,037	8.4	68.2	74.1	8.1	8.8	.634	.584	43.24	5.15	1 212
Ohio.....	41	7,625	9.0	70.5	76.5	7.8	8.5	.622	.573	43.83	4.87	1 171
Pennsylvania.....	136	29,665	9.5	77.7	86.4	8.2	9.1	.645	.580	50.13	5.27	1 218
Tennessee.....	15	1,183	7.0	53.8	57.1	7.7	8.2	.500	.471	26.91	3.86	1 226
Virginia.....	22	2,601	9.8	74.3	79.4	7.6	8.1	.568	.532	42.23	4.30	1 222
West Virginia.....	145	20,421	9.1	70.8	77.9	7.8	8.5	.689	.626	48.77	5.35	1 223
Total.....	535	99,405	9.1	72.6	79.6	8.0	8.8	.687	.626	49.85	5.50	1 202

¹ As reported by the U. S. Bureau of Mines for 1928.

² This average is for the States included in this table, and is based upon the number of miners and loaders and days of operation shown for each State.

REGULAR AND BASIC HOURS PER DAY AND PER WEEK

The number of hours of work per day and per week of time workers at the 535 bituminous mines included in this report are fixed by a specified time for beginning work on each working day of the week, for the midday lunch or dinner, and for quitting work in the afternoon. The vast majority of the *time worker* at these mines begin work at 6.30, 7, or 7.30 a. m., work 4½ or 5 hours in the morning, take 30 minutes for lunch, work 3 or 3½ hours in the afternoon, and quit work at or near 3.30 p. m. The regular or basic hours of work of these employees are therefore 8 per day and 48 per week, exclusive of lunch time. Some of the pump men, engineers, motormen, drivers, and cagers, and a few employees in some of the other occupations work at times, or whenever necessary, more than 8 hours per day, and in several occupations some work on Sunday. The Sunday work and the time in excess of 8 hours per day is paid for at the regular rate.

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The hours of *tonnage* or *piece workers* are presumed or expected to be approximately the same as those of the time workers, but in actual practice their hours are usually more or less irregular. Some *tonnage* workers enter the mines as early as 6 or 6.30 a. m., begin work immediately upon arrival at the face, and work throughout the day, eating their lunch while waiting for mine cars or material; some quit for the day at or near noon; while other enter the mines around or after 7 a. m., take as much time for lunch as they desire, and often quit work before the mine as a whole ceases operation.

The United States Bureau of Mines¹ reports a total of 593,918 bituminous coal-mine employees of 7,011 mines in 1927, and of these employees, 547,152, at 5,587 mines, as having the regular or basic 8-hour day. The 8-hour day in bituminous mining has been in effect in a very large per cent of the mines in the United States for approximately 29 years. Section 5 of the Chicago (Jan. 28, 1898) agreement between the miners and operators of the central competitive field states: "That on and after April 1, 1898, the 8-hour workday, with 8 hours' pay, consisting of 6 days per week, shall be in effect in all the districts represented, and that uniform wages for day labor shall be paid the different prices of labor in the fields named."

The data in Table 6 on basic or regular hours per day for each of the years from 1903 to 1927 are as reported by the Bureau of Mines.¹ From these figures it is seen that the general trend has been to the 8-hour day. The 8-hour-day mines employed 56.4 per cent of the total number of wage earners in bituminous coal mining in 1903. This percentage increased to 64.0 in 1907, decreased to 58.6 in 1916, increased to 79.0 in 1917, to 90.6 in 1918, to 95.5 in 1919, to 97.1 in 1920, the highest percentage during the period; decreased from year to year to 93.5 per cent in 1925, increased to 93.7 in 1926, and decreased to 93.4 per cent in 1927.

The percentage of employees in 9-hour-day mines decreased from 17.1 in 1903 to 2.0 in 1920, and increased to 5.6 in 1927.

The percentage of employees in 10-hour-day mines decreased from 26.5 in 1903 to 0.9 in 1920 and to 0.5 in 1921, and increased to 1.2 in 1924, decreased to 1.1 in 1925 and to 0.8 in 1926, and increased to 1 per cent in 1927.

Weighted average hours per day for all bituminous employees decreased from 8.7 in 1903 to 8.04 in 1920 and 1921; increased to 8.08 in 1924 and 1925, decreased to 8.07 in 1926, and increased to 8.08 per day in 1927.

¹ U. S. Bureau of Mines. Coal in 1927. Washington, 1929, p. 368.

TABLE 6.—Percentage of men employed in bituminous coal mines that had an established working day of 8, 9, or 10 hours, 1903 to 1927¹

Year	Per cent of total employees in—			Weighted average working day (hours)	Year	Per cent of total employees in—			Weighted average working day (hours)
	8-hour mines	9-hour mines	10-hour mines			8-hour mines	9-hour mines	10-hour mines	
1903	56.4	17.1	26.5	8.7	1916	58.6	17.4	24.0	8.60
1904	62.1	13.8	24.1	8.6	1917	79.0	12.6	8.4	8.30
1905	61.1	13.6	25.3	8.6	1918	90.6	6.7	2.7	8.12
1906	63.0	13.5	23.5	8.6	1919	95.5	3.5	1.0	8.06
1907	64.0	11.6	24.4	8.6	1920	97.1	2.0	.9	8.04
1908	63.5	11.1	25.4	8.6	1921	96.6	2.9	.5	8.04
1910	62.1	11.3	26.6	8.6	1922	95.1	4.0	.9	8.06
1911	62.9	10.9	26.2	8.6	1923	94.7	4.2	1.1	8.06
1912	61.6	11.5	26.9	8.6	1924	93.7	5.1	1.2	8.08
1913	61.9	15.2	22.9	8.6	1925	93.5	5.4	1.1	8.08
1914	60.7	15.4	23.9	8.6	1926	93.7	5.5	.8	8.07
1915	59.6	17.0	23.4	8.6	1927	93.4	5.6	1.0	8.08

¹ Percentages are calculated on base of total number of men in mines definitely reported as having an 8-hour, 9-hour, or 10-hour day. A small number of mines that work more than 10 hours or less than 8 hours have been excluded, as have also all mines for which the reports were defective or which changed their working day during the year.

CLASSIFIED HOURS IN HALF MONTH, 1929

Table 7 shows the number of hand loaders, hand or pick miners, and machine miners (cutters) and the actual and cumulative percentages of the employees in each of these occupations whose hours in a half-monthly pay period in 1929 were within each classified group of hours. These employees are generally paid rates per ton for mining and loading coal. For classifications in these occupations in each State see Table E, page 46.

In reading the figures in the table it will be observed that in the half month the hours of 422 or 1 per cent of the 70,853 hand loaders were less than 8; that the hours of 7,357, or 10 per cent, were within the group 80 and under 88; that the hours of 7,757, or 11 per cent, were 88 and under 96; that there were less than 10 per cent in any of the other classified groups; and that in the half month the hours of 266 (206 + 47 + 8 + 3 + 1 + 1) or less than 1 per cent of the 70,853 were 136 and over. The cumulative percentages show that in the half month the hours of 1826 (422 + 1,404) or 3 per cent were under 16; 3,598 (422 + 1,404 + 1,772) or 5 per cent were under 24; of 49 per cent were under 80; and that in the half month the hours of 99 per cent were under 128.

Based on an 8-hour day full-time hours in a half month of 11, 12, 13, or 14 days, exclusive of Sunday, would be 88, 96, 104, or 112. Hours of less than 88 or perhaps 80 in the half month indicate short time or lost time due to the operation of some mines part time, such mines being closed on one or more days in the half month, or to lost time by employees on account of sickness of other disability, voluntary absence, or to labor turnover. Practically every mine included in the study reported a few employees in each occupation as having worked on less days and hours than the number of days the mine was in operation in the half month for which wage figures were collected from the pay rolls. A number of employees in service of a mine at the beginning of the half month left the service before the end of that period and a number entered the service after the beginning of

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the period, and, consequently, their hours ranged from 8 hours or less to nearly full time.

TABLE 7.—Number and per cent of hand loaders, hand or pick miners, and machine miners whose hours in half month were within each classified number of hours, 1929

[The hours in this table represent total time in mine, which includes hours actually worked, travel time in mine, and lunch time]

Classified hours in half month	Loaders, hand (475 mines)			Miners, hand or pick (230 mines)			Miners, machine (cutters) (456 mines)		
	Number	Per cent		Number	Per cent		Number	Per cent	
		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative
Under 8 hours.....	422	1	1	57	(1)	(1)	9	(1)	(1)
8 and under 16 hours.....	1,404	2	3	264	1	2	64	1	1
16 and under 24 hours.....	1,772	3	5	367	2	3	61	1	2
24 and under 32 hours.....	2,248	3	8	467	2	6	90	2	4
32 and under 40 hours.....	3,152	4	13	772	4	10	195	3	7
40 and under 48 hours.....	3,428	5	18	897	5	14	137	2	9
48 and under 56 hours.....	4,351	6	24	941	5	19	203	3	13
56 and under 64 hours.....	5,546	8	32	1,446	7	26	341	6	19
64 and under 72 hours.....	5,686	8	40	1,443	7	34	360	6	25
72 and under 80 hours.....	6,723	9	49	1,849	9	43	477	8	33
80 and under 88 hours.....	7,357	10	59	1,838	9	53	529	9	42
88 and under 96 hours.....	7,757	11	70	2,133	11	63	535	9	51
96 and under 104 hours.....	6,418	9	79	1,782	9	72	602	10	61
104 and under 112 hours.....	6,147	9	88	1,982	10	83	616	10	71
112 and under 120 hours.....	4,537	6	94	1,367	7	90	537	9	80
120 and under 128 hours.....	3,022	4	99	1,438	7	97	593	10	90
128 and under 136 hours.....	617	1	100	556	3	100	279	5	95
136 and under 144 hours.....	206	(1)	100	54	(1)	100	114	2	97
144 and under 152 hours.....	47	(1)	100	11	(1)	100	87	1	98
152 and under 160 hours.....	8	(1)	100	—	—	100	34	1	99
160 and under 168 hours.....	3	(1)	100	2	(1)	100	24	(1)	99
168 and under 176 hours.....	—	—	100	—	—	—	26	(1)	100
176 and under 184 hours.....	1	(1)	100	—	—	—	11	(1)	100
184 and under 192 hours.....	—	—	100	—	—	—	6	(1)	100
192 hours and over.....	1	(1)	100	—	—	—	7	(1)	100
Total.....	70,853	—	—	19,666	—	—	5,937	—	—
Average hours, half month.....	77.3	—	—	82.5	—	—	92.4	—	—

¹ Less than 1 per cent.

² This percentage, entered as 100, is between 99.5 and 100.

Table 8 shows the number and the actual and cumulative group percentages of employees, as classified by hours worked in the half month, in each of six of the most important underground or inside occupations and of two of the most important surface or outside occupations in bituminous coal mining. The employees in these occupations are time workers, and the hours represent the actual time at work exclusive of time for lunch and time of travel in mines. The explanation of Table 7 applies to the figures in this table. For similar classifications of employees in these occupations in each State see Table E, page 46.

TABLE 8.—Number and per cent of employees in each specified occupation whose hours in half month were within each classified number of hours, 1929

[The hours in this table represent time actually worked or time at face, exclusive of travel time and lunch time]

Classified hours in half month	Inside mine															Outside mine								
	Brakemen			Bratticemen and timbermen			Drivers			Laborers			Motormen			Trackmen			Carpenters and car-repairmen			Laborers		
	Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent	
		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative
Under 8 hours.....	14	(1)	(1)	10	(1)	(1)	13	(1)	(1)	119	2	2	5	(1)	(1)	12	(1)	(1)	3	(1)	(1)	51	1	1
8 and under 16 hours.....	173	4	4	50	2	2	96	3	3	430	5	7	106	2	2	86	2	2	20	1	2	158	2	2
16 and under 24 hours.....	107	2	6	36	1	3	79	2	5	261	3	10	60	1	4	76	2	4	15	1	3	166	2	5
24 and under 32 hours.....	115	2	8	25	1	4	64	2	7	233	3	13	66	1	5	73	2	5	13	1	3	161	2	7
32 and under 40 hours.....	126	3	11	37	1	5	164	4	11	238	3	16	79	2	7	101	2	7	26	2	5	249	3	10
40 and under 48 hours.....	146	3	14	60	2	8	187	5	16	260	3	20	118	2	9	115	2	10	46	3	8	282	4	14
48 and under 56 hours.....	213	4	18	67	2	10	172	5	20	306	4	24	154	3	12	152	3	13	31	2	11	299	4	17
56 and under 64 hours.....	273	6	24	115	4	14	235	6	27	421	5	29	222	5	17	178	4	17	45	3	14	359	5	22
64 and under 72 hours.....	317	7	31	168	6	20	329	9	35	509	6	35	239	5	22	250	5	22	58	4	18	380	5	27
72 and under 80 hours.....	426	9	39	197	7	26	341	9	44	623	8	43	330	7	28	318	7	29	74	5	23	527	7	34
80 and under 88 hours.....	542	11	51	311	11	37	441	12	56	882	11	55	458	9	38	529	11	41	120	8	31	717	9	43
88 and under 96 hours.....	590	12	63	419	14	52	473	12	68	892	11	66	609	13	50	610	13	54	183	13	43	917	12	54
96 and under 104 hours.....	636	13	76	433	15	66	401	11	79	913	12	78	715	15	65	649	14	68	192	13	57	888	11	66
104 and under 112 hours.....	555	11	87	482	17	83	403	11	89	970	12	90	722	15	80	753	16	84	291	20	77	988	13	78
112 and under 120 hours.....	267	6	93	244	8	91	216	6	95	417	5	95	399	8	88	365	8	92	149	10	87	688	9	87
120 and under 128 hours.....	175	4	98	131	5	96	100	3	97	190	2	98	244	5	93	198	4	96	82	6	92	390	5	92
128 and under 136 hours.....	90	2	98	59	2	98	64	2	99	95	1	99	164	3	97	101	2	98	54	4	96	237	3	95
136 and under 144 hours.....	47	1	99	26	1	99	14	(1)	99	34	(1)	99	78	2	98	38	1	99	26	2	98	153	2	97
144 and under 152 hours.....	26	1	100	15	1	99	9	(1)	100	25	(1)	100	42	1	99	30	1	100	13	1	99	101	1	98
152 and under 160 hours.....	8	(1)	100	8	(1)	100	8	(1)	100	11	(1)	100	23	(1)	99	10	(1)	100	10	1	100	47	1	99
160 and under 168 hours.....	1	(1)	100	6	(1)	100	1	(1)	100	10	(1)	100	12	(1)	100	4	(1)	100	5	(1)	100	48	1	100
168 and under 176 hours.....	4	(1)	100	2	(1)	100	1	(1)	100	1	(1)	100	7	(1)	100	2	(1)	100	1	(1)	100	17	(1)	100
176 and under 184 hours.....	2	(1)	100	1	(1)	100	1	(1)	100	2	(1)	100	5	(1)	100	3	(1)	100	1	(1)	100	8	(1)	100
184 and under 192 hours.....	1	(1)	100	1	(1)	100	1	(1)	100	1	(1)	100	3	(1)	100	1	(1)	100	1	(1)	100	3	(1)	100
Total.....	4,854			2,901			3,811			7,842			4,860			4,653			1,458			7,834		
Average hours, half month.....	81.0			88.3			77.8			75.2			89.6			85.8			92.9			86.8		

¹ Less than 1 per cent.

¹ This percentage, entered as 100, is between 99.5 and 100.

16 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

CLASSIFIED EARNINGS IN HALF MONTH, 1929

The number and the actual and cumulative percentages of employees whose earnings in the half month were within each classified amount are presented in Tables 9 and 10 for the same occupations for which classified hours are shown in Tables 7 and 8. For similar classification of employees in these occupations in each State see Table F, page 51.

Tables 7 and 8 show the number of hours in the half month and Tables 9 and 10 show the amount of money earned in those hours. Employees who lost time or worked short time in the half month for any cause and whose hours in the half month were consequently few in number, of course, earned a small amount of money in the half month and are, therefore, in the lower groups of classified earnings in the half month.

TABLE 9.—Number and per cent of hand loaders, hand or pick miners, and machine miners, whose earnings in half month were within each classified amount, 1929

Classified earnings in half month	Loaders, hand (475 mines)			Miners, hand or pick (230 mines)			Miners, machine (cutters) (456 mines)		
	Number	Per cent		Number	Per cent		Number	Per cent	
		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative
Under \$5.....	1,406	2	2	202	1	1	10	(¹)	(¹)
\$5 and under \$10.....	2,184	3	5	393	2	3	38	1	1
\$10 and under \$15.....	2,649	4	9	557	3	6	62	1	2
\$15 and under \$20.....	3,529	5	14	782	4	10	71	1	3
\$20 and under \$25.....	4,665	7	20	947	5	15	58	1	4
\$25 and under \$30.....	5,260	7	28	1,225	6	21	84	1	5
\$30 and under \$35.....	5,818	8	36	1,259	6	27	112	2	7
\$35 and under \$40.....	5,870	8	44	1,448	7	35	134	2	10
\$40 and under \$45.....	5,594	8	52	1,486	8	42	179	3	13
\$45 and under \$50.....	5,608	8	60	1,716	9	51	196	3	16
\$50 and under \$55.....	4,918	7	67	1,609	8	59	216	4	20
\$55 and under \$60.....	4,711	7	74	1,597	8	67	221	4	23
\$60 and under \$65.....	3,962	6	79	1,412	7	74	314	5	29
\$65 and under \$70.....	3,209	5	84	1,202	6	81	281	5	33
\$70 and under \$75.....	2,800	4	88	979	5	85	365	6	39
\$75 and under \$80.....	2,235	3	91	793	4	90	344	6	45
\$80 and under \$90.....	3,221	5	95	1,039	5	95	691	12	57
\$90 and under \$100.....	1,877	3	98	565	3	98	602	10	67
\$100 and under \$110.....	870	1	99	259	1	99	550	9	76
\$110 and under \$120.....	285	(¹)	100	121	(¹)	100	436	7	84
\$120 and under \$140.....	142	(¹)	100	66	(¹)	100	509	9	92
\$140 and under \$160.....	29	(¹)	100	8	(¹)	100	232	4	96
\$160 and under \$180.....	6	(¹)	100	1	(¹)	100	118	2	98
\$180 and under \$200.....	2	(¹)	100	1	(¹)	100	56	1	99
\$200 and under \$220.....	2	(¹)	100	1	(¹)	100	32	1	100
\$220 and under \$240.....	—	—	—	—	—	—	13	(¹)	100
\$240 and under \$260.....	—	—	—	—	—	—	10	(¹)	100
\$260 and under \$280.....	—	—	—	—	—	—	2	(¹)	100
\$280 and under \$300.....	—	—	—	—	—	—	1	(¹)	100
Total.....	70,853	—	—	19,666	—	—	5,937	—	—
Average earnings, half month.....	\$45.78	—	—	\$50.29	—	—	\$86.52	—	—

¹ Less than 1 per cent.

² This percentage, entered as 100, is between 99.5 and 100.

TABLE 10.—Number and per cent of employees in each specified occupation whose earnings in half month were within each classified amount, 1929

Classified earnings in half month	Inside mine																		Outside mine					
	Brakemen			Bratticemen and timbermen			Drivers			Laborers			Motormen			Trackmen			Carpenters and car-repair men			Laborers		
	Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent		Number	Per cent	
		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative		Actual	Cumulative
Under \$5.....	135	3	3	37	1	1	46	1	1	455	6	6	64	1	1	72	2	2	8	1	1	156	2	2
\$5 and under \$10.....	126	3	6	34	1	2	91	2	4	352	4	10	79	2	3	74	2	3	20	1	2	230	3	5
\$10 and under \$15.....	138	3	8	39	1	4	83	2	6	293	4	14	69	1	4	81	2	5	13	1	3	300	4	9
\$15 and under \$20.....	143	3	11	35	1	5	147	4	10	333	4	18	72	1	6	107	2	7	27	2	5	336	4	13
\$20 and under \$25.....	180	4	15	53	2	7	177	5	14	447	6	24	118	2	8	92	2	9	38	3	7	462	6	19
\$25 and under \$30.....	258	5	20	75	3	9	282	7	22	512	7	31	130	3	11	125	3	12	45	3	10	543	7	26
\$30 and under \$35.....	313	6	27	108	4	13	229	6	28	628	8	39	164	3	14	182	4	16	62	4	15	794	10	36
\$35 and under \$40.....	381	8	34	150	5	18	263	7	35	774	10	48	256	5	20	288	6	22	70	5	19	832	11	47
\$40 and under \$45.....	444	9	44	232	8	26	346	9	44	743	9	58	322	7	26	349	8	29	108	7	27	866	11	58
\$45 and under \$50.....	476	10	53	238	8	35	228	6	50	642	8	66	412	8	35	444	10	39	121	8	35	645	8	66
\$50 and under \$55.....	450	9	63	317	11	45	302	8	58	662	8	74	484	10	45	440	9	48	148	10	45	631	8	74
\$55 and under \$60.....	336	7	70	244	8	54	278	7	65	502	6	81	485	10	55	447	10	58	151	10	56	482	6	80
\$60 and under \$65.....	341	7	77	247	9	62	298	8	73	553	5	85	417	9	63	455	10	68	127	9	64	363	5	85
\$65 and under \$70.....	275	6	82	233	8	70	267	7	80	317	4	89	339	7	70	372	8	76	136	9	74	409	5	90
\$70 and under \$75.....	314	6	89	259	9	79	261	7	87	315	4	93	328	7	77	370	8	84	114	8	81	285	4	94
\$75 and under \$80.....	205	4	93	274	9	89	178	5	91	241	3	97	286	6	83	336	7	91	86	6	87	204	3	96
\$80 and under \$90.....	253	5	98	216	7	96	223	6	97	196	2	99	407	8	91	288	6	97	102	7	94	176	2	98
\$90 and under \$100.....	54	1	99	85	3	99	88	2	99	54	1	100	295	6	97	68	2	99	50	3	98	71	1	99
\$100 and under \$110.....	20	(1)	100	19	1	100	16	(1)	100	12	(1)	100	87	2	99	25	1	100	23	2	99	31	(1)	100
\$110 and under \$120.....	8	(1)	100	5	(1)	100	8	(1)	100	7	(1)	100	37	1	100	8	(1)	100	3	(1)	100	13	(1)	100
\$120 and under \$140.....	2	(1)	100	1	(1)	100				3	(1)	100	9	(1)	100				6	(1)	100	5	(1)	100
\$140 and under \$160.....	2	(1)	100							1	(1)	100												
Total.....	4,854			2,901			3,811			7,842			4,850			4,653			1,458			7,834		
Average earnings, half month.....	48.31			57.19			40.52			40.90			58.21			54.47			50.84			42.78		

¹ Less than 1 per cent.² This percentage, entered as 100, is between 99.5 and 100.

CLASSIFIED STARTS (DAYS) IN HALF MONTH, 1929

The number of starts, or calendar days, on which employees were on duty or did any work in the half month was obtained for each of the 152,211 bituminous mine workers covered by the 1929 study and the number is presented in percentage form in Table 11. If a man was on duty any part of a day, he was reported as having made a start or worked on that day. The table shows for each occupation the average number of starts, or days, per man and the per cent of employees who were reported as having worked each specified number of starts or days in the half month. For similar classification of employees in each occupation and in each State see Table G, page 56.

The records from nearly every mine showed some employees as having worked on fewer than the number of days the mine was in operation in the half month in 1929 for which data were reported and as having lost one or more days of work on account of sickness or other disability, voluntary absence, leaving the service, or of mine disability, slack business, or other causes. The starts, or days, so lost account in part for the per cent of employees who are shown as having worked less than 11, 12, 13, or 14 days and also for the resultant average of only 9.5 starts in the half month for all employees, both inside and outside the mines, covered by this study.

A record of hours per day or in the half month of tonnage workers is kept by only a very small per cent of the companies in the coal industry. For this reason it was not possible to obtain data as to days and hours from all companies for an identical half month. It should therefore be borne in mind in studying the figures that the week days in the different half-monthly pay-roll periods taken were 11, 12, 13, or 14, while in nearly all occupations some employees are shown as having made more. This is because they worked on Sunday as well as week days.

TABLE 11.—Per cent of employees making each specified number of starts (days) in half month, 1929, by occupation

Occupation	Number of mines	Number of employees	Average number of starts (days)	Per cent of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSIDE WORK																			
Brakemen.....	505	4,854	9.5	4	2	2	3	3	4	6	8	9	13	14	13	16	2	1	(1)
Bratticemen and timbermen.....	456	2,901	10.6	2	1	1	1	2	3	4	6	7	13	14	14	22	6	2	1
Cagers.....	192	392	10.9	1	1	1	1	4	5	2	5	7	11	11	10	23	6	11	1
Drivers.....	282	3,811	9.5	2	2	2	4	4	6	10	9	13	11	12	15	4	1	(1)	(1)
Laborers.....	456	7,842	9.0	6	4	3	3	4	4	5	8	8	12	13	11	15	3	1	(1)
Loaders, contract.....	65	584	9.7	1	(1)	1	2	6	4	4	7	16	16	18	9	16	---	---	---
Loaders, hand.....	475	70,853	8.9	2	2	3	5	4	6	9	11	11	13	12	10	11	1	(1)	(1)
Loaders, machine.....	28	423	9.8	1	2	1	4	1	1	4	19	10	10	13	15	14	4	1	---
Miners, gang.....	33	1,177	9.5	1	1	1	3	4	4	8	12	9	13	15	13	16	---	---	---
Miners, hand or pick.....	230	19,666	9.4	1	2	2	4	4	5	7	8	11	16	12	12	13	3	(1)	---
Miners, machine (cutters).....	456	5,937	10.0	1	1	1	3	2	4	6	9	9	13	14	11	22	3	(1)	(1)
Miners, machine (cutters) helpers.....	136	765	9.0	5	2	2	6	3	4	6	8	8	14	14	9	18	1	(1)	---
Motormen.....	604	4,860	10.3	2	1	1	2	2	3	4	7	8	11	16	14	22	4	2	1
Pumpmen.....	390	1,148	12.3	2	1	2	1	1	1	1	2	3	5	9	9	22	7	28	6
Trackmen.....	532	4,653	10.4	2	2	2	2	2	3	4	5	8	11	15	15	21	5	2	1
Trappers (boys).....	200	633	9.4	2	2	3	6	4	5	5	9	6	12	13	12	17	5	---	---
Other employees.....	518	6,814	10.7	2	1	1	2	2	2	4	6	6	11	12	11	28	7	4	1
Total.....	535	137,313	9.3	2	2	2	4	4	5	7	9	10	13	13	11	15	2	1	(1)

¹ Less than 1 per cent.

TABLE 11.—Per cent of employees making each specified number of starts (days) in half month, 1929, by occupation—Continued

Occupation	Number of mines	Number of employees	Average number of starts (days)	Per cent of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OUTSIDE WORK																			
Blacksmith.....	516	811	11.3	1	1	1	1	2	2	2	5	5	9	16	11	27	7	9	2
Carpenters and car-repair men.....	471	1,458	10.8	1	1	1	2	3	2	4	5	5	10	14	11	28	7	4	1
Engineers.....	313	652	12.8	1	(1)	(1)	1	1	2	1	2	2	4	6	9	31	5	30	6
Laborers.....	527	7,834	10.0	2	2	2	3	3	3	5	7	8	11	14	11	21	4	3	1
Other employees.....	506	4,143	11.1	2	1	2	2	2	2	3	5	5	8	11	9	32	6	8	3
Total.....	535	14,898	10.6	2	2	2	3	3	3	4	6	7	9	13	10	26	5	6	2
Grand total.....	535	152,211	9.5	2	2	2	4	4	5	7	9	10	13	13	11	16	3	1	(1)

¹ Less than 1 per cent.

CHANGES IN WAGE RATES

Between January 1, 1927, and the period of the 1929 study of bituminous coal mining, 303 of the 535 mines covered in the study made 1, and some of them made more than 1, *general change in wage rates of the employees in the various occupations in the industry.* A total of 343 changes were made in the 303 mines, more than 1 change, as shown in Table 12, having been made in some of the mines in Alabama, Colorado, Pennsylvania, Virginia, and West Virginia.

In Alabama 4 of the 22 mines covered in the study made general changes in rates. The 4 mines made a total of 6 changes—2 changes each in 2 mines and 1 change in each of the other 2 mines. There were 2 increases in 1927 and 3 decreases and 1 increase in rates in 1928 in the State.

In 1927 there was a total of 107 decreases and 13 increases in rates. The changes were limited to 2 mines in Alabama, 10 in Colorado, 15 in Kentucky, 8 in Ohio, 72 in Pennsylvania, 3 in Virginia, and 10 in West Virginia.

TABLE 12.—General changes in wage rates in bituminous coal mines, 1927, 1928, and first four months in 1929, by States

State	Number of mines		Number of changes in rates	Number of changes in which wage rates in—					
	Included in 1929 study	Making changes in wage rates, 1927-1929		1927 were—		1928 were—		First 4 months of 1929 were—	
				De-creased	In-creased	De-creased	In-creased	De-creased	In-creased
Alabama.....	22	4	6		2	3	1		
Colorado.....	16	16	26		10		16		
Illinois.....	37	37	37			37			
Indiana.....	29	26	26			26			
Kansas.....	8	7	7			7			
Kentucky.....	64	23	23	15		6	1	1	
Ohio.....	41	40	40	8		30		2	
Pennsylvania.....	136	104	127	71	1	50		5	
Tennessee.....	15								
Virginia.....	22	5	6	3		2			1
West Virginia.....	145	41	45	10		33		2	
Total.....	535	303	343	107	13	194	18	10	1

Rates before and after the changes were obtained for the employees in each occupation at each mine. From these rates average rates before and average rates after the changes and the per cent decrease or increase have been computed for hand loaders, inside laborers, brakemen, hand or pick miners, machine miners (cutters), motormen, and outside laborers in each State and for all States combined and are presented in Table 13. The employees in these occupations represent 73 per cent of the 152,211 employees covered in the 1929 study.

For hand loaders, the third occupation in the table, the average for all States combined before the changes was 63.9 cents per ton and 55.1 cents per ton after the changes or a decrease of 13.8 per cent. The average rates by States before the changes ranged from 43.8 cents per ton for the State with the lowest to 90 cents per ton for the State with the highest average and after the changes ranged from 43.6 cents to 72.9 cents per ton. Average rates were decreased in 9 States, increased in 1 (Colorado), and there was no change in 1 State (Tennessee). The decreases ranged by States from 0.5 per cent to 26.4 per cent.

TABLE 13.—Average rates before and after changes in wage rates and per cent decrease or increase in each of seven specified occupations in each State between January 1, 1927, and the period of the 1929 study

Occupation and State	Number of employees covered in 1929	Average rate		Per cent	
		Before changes	After changes	Decrease	Increase
Brakemen:		<i>Per hour</i>	<i>Per hour</i>		
Alabama.....	253	\$0.391	\$0.391		
Colorado.....	37	.646	.764		18.3
Illinois.....	561	.938	.761	18.9	
Indiana.....	177	.926	.776	16.2	
Kansas.....	12	.938	.625	33.4	
Kentucky.....	742	.596	.533	10.6	
Ohio.....	186	.924	.620	32.9	
Pennsylvania.....	926	.837	.679	18.9	
Tennessee.....	70	.378	.378		
Virginia.....	246	.458	.451	1.5	
West Virginia.....	1,600	.560	.549	2.0	
Total.....	4,810	.675	.593	12.1	
Laborers (inside):					
Alabama.....	700	.370	.370		
Colorado.....	39	.704	.807		14.6
Illinois.....	751	.905	.742	18.0	
Indiana.....	158	.929	.760	18.2	
Kansas.....	27	.938	.625	33.4	
Kentucky.....	1,210	.498	.442	11.2	
Ohio.....	293	.893	.599	32.9	
Pennsylvania.....	1,803	.735	.594	19.2	
Tennessee.....	122	.365	.365		
Virginia.....	427	.427	.426	.2	
West Virginia.....	2,212	.518	.498	3.9	
Total.....	7,742	.607	.529	12.9	
Loaders, hand:		<i>Per ton</i>	<i>Per ton</i>		
Alabama.....	1,863	.462	.456	1.3	
Colorado.....	765	.629	.692		10.0
Illinois.....	7,710	.872	.729	16.4	
Indiana.....	2,457	.812	.670	17.5	
Kansas.....	80	.900	.710	21.1	
Kentucky.....	8,749	.492	.453	7.9	
Ohio.....	6,642	.785	.580	26.4	
Pennsylvania.....	17,961	.711	.588	17.3	
Tennessee.....	479	.492	.492		
Virginia.....	2,304	.438	.436	.5	
West Virginia.....	14,492	.477	.462	3.1	
Total.....	63,502	.639	.551	13.8	

TABLE 13.—Average rates before and after changes in wage rates and per cent decrease or increase in each of seven specified occupations in each State between January 1, 1927, and the period of the 1929 study—Continued

Occupation and State	Number of employees covered in 1929	Average rate		Per cent	
		Before changes	After changes	Decrease	Increase
Miners, hand or pick:		<i>Per ton</i>	<i>Per ton</i>		
Alabama.....	576	\$0.683	\$0.682	0.14	
Colorado.....	1,150	.854	.947		10.9
Illinois.....	2,488	1.090	.920	15.6	
Indiana.....	1,537	1.069	.909	15.0	
Kansas.....	1,156	1.250	1.010	19.2	
Kentucky.....	442	.664	.658	.9	
Ohio.....	3	1.116	.876	21.5	
Pennsylvania.....	8,004	.998	.842	15.6	
Tennessee.....	549	.632	.632		
West Virginia.....	1,583	.553	.535	3.3	
Total.....	17,488	.954	.833	12.7	
Miners, machine (cutters):					
Alabama.....	48	.078	.081		3.8
Colorado.....	27	.076	.082		7.9
Illinois.....	762	.134	.100	25.4	
Indiana.....	277	.143	.120	18.9	
Kansas.....	13	.250	.200	20.0	
Kentucky.....	555	.114	.103	9.6	
Ohio.....	613	.145	.098	32.9	
Pennsylvania.....	1,406	.144	.112	22.2	
Tennessee.....	4	.085	.085		
Virginia.....	21	.080	.080		.1
West Virginia.....	955	.102	.097	4.9	
Total.....	4,681	.130	.104	20.0	
Motormen:		<i>Per hour</i>	<i>Per hour</i>		
Alabama.....	215	.463	.460	.6	
Colorado.....	33	.744	.828		11.3
Illinois.....	555	1.013	.874	13.7	
Indiana.....	203	1.005	.851	15.3	
Kansas.....	14	1.003	.689	31.3	
Kentucky.....	715	.644	.583	9.5	
Ohio.....	196	.931	.633	32.0	
Pennsylvania.....	1,077	.851	.704	17.3	
Tennessee.....	63	.455	.455		
Virginia.....	220	.505	.500	1.0	
West Virginia.....	1,525	.610	.588	3.6	
Total.....	4,816	.734	.650	11.4	
Laborers, outside:					
Alabama.....	433	.273	.272	.4	
Colorado.....	146	.564	.662		17.4
Illinois.....	789	.859	.700	18.5	
Indiana.....	255	.834	.694	16.8	
Kansas.....	22	.858	.545	36.5	
Kentucky.....	1,024	.460	.440	4.3	
Ohio.....	413	.846	.532	37.1	
Pennsylvania.....	1,726	.589	.496	15.8	
Tennessee.....	161	.337	.337		
Virginia.....	286	.356	.354	.6	
West Virginia.....	2,517	.470	.457	2.8	
Total.....	7,772	.552	.488	11.6	

INDEX NUMBERS OF TONNAGE RATES OF HAND LOADERS AND HAND OR PICK MINERS IN HOCKING VALLEY DISTRICT

In number of employees and in work performed, hand loaders and hand or pick miners are the basic occupations in bituminous coal mining. The 70,853 hand loaders and 19,666 hand or pick miners together represent 59.5 per cent of the total of 152,211 employees of the mines covered in the 1929 study.

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Hand loaders and hand or pick miners are paid on the tonnage basis, and practically no data are available either as to hours per day or as to earnings per hour. The employees in these two occupations as a rule pay for the explosives used by them in blasting the coal from the seams and for the sharpening of their tools. Index numbers based on average *net* earnings per hour for a period of years could *not* therefore be computed for these occupations. Loading rates per ton of 2,000 pounds in rooms with hand drilling and hand or pick mining rates per ton of 2,000 pounds of run of mine for each of the years 1902 to 1930, as given in the agreements between the miners and operators of the Hocking Valley district of Ohio, have been used in computing index numbers for these two occupations, with the 1902 rate as the base or 100. "Run of mine" is coal as it comes from the mines, including the various sizes of "lump" and "slack." The Hocking Valley district is subdistrict No. 1 of district No. 6 of the United Mine Workers of America. The rates entered in Table 14 for hand loading and for hand or pick mining are, as stated in the "New York, N. Y., March 31, 1920, interstate agreement between the miners and the operators of western Pennsylvania, Ohio, Indiana, and Illinois, for the thin-vein district of western Pennsylvania, eastern Ohio, Hocking, Cambridge, and Amsterdam-Bergholz district of Ohio," and in the agreement of district No. 6 of the United Mine Workers with the Central Ohio Coal Operators' Association, effective September 1, 1928 to March 31, 1930. It will be observed that the change of September 1, 1928, resulted in a reduction from 80 to 60 cents per ton, or 25 per cent in the rates of hand loaders and in a decrease from \$1.1164 to 87.64 cents per ton or 21 per cent in the rates of hand or pick miners. Between 1926 and 1929 as shown in Table 1, page 2, the decrease in average earnings per hour, based on time at face including time for lunch, of hand loaders in the 475 mines covered in the 11 States was 16.8 per cent of pick or hand miners was 14 per cent. Thus it is seen that between 1926 and 1929 there was a greater decrease in the Hocking Valley district of the central competitive field than in the country as a whole.

Inasmuch as loaders and hand or pick miners have usually paid for explosives and tool sharpening from the amounts earned by them at their tonnage rates, and as the cost of such explosives may not have changed in the same proportion as the tonnage rates have changed, the index numbers in Table 14 do not represent exact net average earnings per hour. They do, however, show the exact trend of tonnage rates in the Hocking Valley district, and it is believed that they also represent very nearly the trend in average earnings per hour.

HOURS AND EARNINGS IN BITUMINOUS COAL MINING 23

TABLE 14.—*Periods of wage agreements, tonnage rates, and index numbers thereof for hand loaders and hand or pick miners, 1902 to 1930*

[1902 rate = 100.00.]

Period of wage agreement	Hand loaders' tonnage rate in rooms with hand drilling		Hand or pick miners' tonnage rate for run of mine	
	Amount	Index number	Amount	Index number
Apr. 1, 1902, to Mar. 31, 1903.....	\$0. 4400	100.00	\$0. 5714	100.00
Apr. 1, 1903, to Mar. 31, 1904.....	. 5100	115. 91	. 6429	112. 51
Apr. 1, 1904, to Mar. 31, 1905.....	. 4800	109. 09	. 6071	106. 25
Apr. 1, 1905, to Mar. 31, 1906.....	. 4800	109. 09	. 6071	106. 25
Apr. 1, 1906, to Mar. 31, 1907.....	. 5135	116. 70	. 6429	112. 51
Apr. 1, 1907, to Mar. 31, 1908.....	. 5135	116. 70	. 6429	112. 51
Apr. 1, 1908, to Mar. 31, 1909.....	. 5135	116. 70	. 6429	112. 51
Apr. 1, 1909, to Mar. 31, 1910.....	. 5135	116. 70	. 6429	112. 51
Apr. 1, 1910, to Mar. 31, 1911.....	. 5470	124. 32	. 6785	118. 74
Apr. 1, 1911, to Mar. 31, 1912.....	. 5470	124. 32	. 6785	118. 74
Apr. 1, 1912, to Mar. 31, 1913.....	. 5850	132. 95	. 7143	125. 01
Apr. 1, 1913, to July 15, 1914.....	. 5850	132. 95	. 7143	125. 01
July 16, 1914, to Mar. 31, 1915.....	. 4000	90. 91	. 6760	118. 31
Apr. 1, 1915, to Mar. 31, 1916.....	. 4000	90. 91	. 6760	118. 31
Apr. 1, 1916, to Apr. 15, 1917.....	. 4260	96. 82	. 6764	118. 38
Apr. 16, 1917, to Oct. 29, 1917.....	. 5110	116. 14	. 7764	135. 88
Oct. 29, 1917, to Mar. 31, 1918.....	. 5960	135. 45	. 8764	153. 38
Apr. 1, 1918, to Mar. 31, 1919.....	. 5960	135. 45	. 8764	153. 38
Apr. 1, 1919, to Dec. 1, 1919.....	. 5960	135. 45	. 8764	153. 38
Dec. 1, 1919, to Mar. 31, 1920.....	. 8000	181. 82	. 9864	172. 63
Apr. 1, 1920, to Mar. 31, 1921.....	. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1921, to Mar. 31, 1922.....	. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1922, to Mar. 31, 1923.....	. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1923, to Mar. 31, 1924.....	. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1924, to Mar. 31, 1925.....	1. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1925, to Mar. 31, 1926.....	1. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1926, to Mar. 31, 1927.....	1. 8000	181. 82	1. 1164	195. 38
Apr. 1, 1927, to Aug. 31, 1928.....	1. 8000	181. 82	1. 1164	195. 38
Sept. 1, 1928, to Mar. 31, 1930.....	. 6060	136. 36	. 8764	153. 38

¹ Renewed by Jacksonville agreement.

NUMBER OF MINES, PRODUCTION, AND WAGE EARNERS, 1928

In 1928 bituminous or soft coal was mined in 33 States and Alaska. Table 15 shows for each of the 11 States covered in this study, for the 11 States combined, and for the United States, the number of mines, the number of net tons of coal produced, and the number of wage earners in the bituminous industry in 1928, and the number of wage earners for which 1929 data are presented in this report. Approximately 92 per cent of the total production and 91 per cent of the total number of wage earners were in the 11 States. The 133,414 wage earners in the 1,557 mines in Pennsylvania produced 131,202,163 net tons of coal in 1928, and the data for 1929 presented in this report are for 42,600 Pennsylvania wage earners.

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TABLE 15.—*Number of bituminous mines (exclusive of wagon mines), production, number of employees, and number of employees covered in 1928, by States*

State	Number of mines ¹	Total production (tons) ¹	Number of wage earners	
			Total ¹	For which data are presented in this report
West Virginia.....	980	132,952,159	111,733	35,096
Pennsylvania.....	1,557	131,202,163	133,414	42,600
Kentucky.....	537	61,860,379	62,195	17,961
Illinois.....	547	55,948,199	64,266	20,330
Alabama.....	212	17,621,362	25,708	7,759
Indiana.....	169	16,378,580	16,806	6,773
Ohio.....	620	15,641,225	21,371	10,408
Virginia.....	86	11,900,933	12,312	4,699
Colorado.....	215	9,847,707	12,356	3,001
Tennessee.....	90	5,610,959	7,849	1,946
Kansas.....	232	2,809,724	5,991	1,638
Total 11 States.....	5,245	461,773,390	474,011	152,211
Total, all States.....	6,450	500,744,970	522,150	

¹ U. S. Bureau of Mines figures, 1928.

IMPORTANCE OF BITUMINOUS COAL MINING, 1914 TO 1928

Table 16, compiled from Coal in 1927 ¹ and from the 1928 preliminary reports as published by the United States Bureau of Mines, indicates the importance of bituminous mining and changes in the industry in point of number of employees, net tons (2,000 pounds) of coal produced, value of total production, and value per net ton at mines in each of the years 1914 to 1928. Index numbers based on these figures with the 1914 figures taken as the base, or 100 per cent, are also shown in the table.

The number of employees decreased from 583,506, or an index of 100 in 1914 to 557,456, or an index of 95.5 in 1915; increased each year to the peak of 704,793, or an index of 120.8 in 1923; decreased to an index of 106.2 in 1924 and 100.9 in 1925; increased to an index of 101.7 in 1926 and 101.8 in 1927, after which the number of employees dropped to 522,150, or an index of 89.5 showing a decrease of 10.5 per cent between 1914 and 1928.

The average number of days mines were in operation during the period of years ranged from 142 days in 1922 to 249 in 1918. The very low average in 1922 was due to the strike of 603,031 men who, because of the strikes, were idle an average of 122 days. The low average of 149 days in 1921 was caused by the depression of the coal industry in that year when the production was 415,921,950 tons, the lowest figure for any year from 1914 to 1928.

The value of coal at the mines increased from \$1.17 per net ton, or an index of 100, in 1914 to \$3.75 per ton, or an index of 320.5 in 1920; decreased to \$2.89 in 1921; increased to \$3.02 in 1922; decreased to \$2.68 in 1923, to \$2.20 in 1924, and to \$2.04 in 1925; increase to \$2.06 in 1926, then decreased to \$1.99 in 1927, and to \$1.86, or an index of 159.0, in 1928, showing an increase of 59 per cent between 1914 and 1928.

¹ U. S. Bureau of Mines. Coal, 1924, Washington, 1927.

TABLE 16.—Number of employees, average number of days in operation, net tons mined, and value of total production and per ton at mines, and index numbers thereof, 1914 to 1928, by year

[1914 average=100]

Year	Number of employees	Average number of days mines were in operation	Net tons produced	Value at mine		Index numbers of—				
				Total production	Per ton	Number of employees	Average number of days mines were in operation	Net tons produced	Value at mine	
									Total production	Per ton
1914.....	583,506	195	422,703,970	\$493,309,244	\$1.17	100.0	100.0	100.0	100.0	100.0
1915.....	557,456	208	442,624,426	502,037,688	1.13	95.5	104.1	104.7	101.8	96.6
1916.....	561,102	230	502,519,682	665,116,077	1.32	96.2	117.9	118.9	134.8	112.8
1917.....	603,143	243	551,790,563	1,249,272,837	2.26	103.4	124.6	130.5	253.2	193.2
1918.....	615,305	249	579,385,820	1,491,809,940	2.58	105.4	127.7	137.1	302.4	219.7
1919.....	621,998	195	465,860,058	1,160,616,013	2.49	106.6	100.0	110.2	235.3	212.8
1920.....	639,547	220	568,666,683	2,129,933,000	3.75	109.6	112.8	134.5	431.8	320.5
1921.....	663,754	149	415,921,950	1,199,983,600	2.89	113.8	76.4	98.4	243.3	247.0
1922 ¹	687,958	142	422,268,099	1,274,820,000	3.02	117.9	72.8	99.9	258.4	258.1
1923 ¹	704,793	179	564,564,662	1,514,621,000	2.68	120.8	91.8	133.6	307.0	229.1
1924 ²	619,604	171	483,686,538	1,062,626,000	2.20	106.2	87.7	114.4	215.4	188.0
1925 ²	588,493	195	520,052,741	1,060,402,000	2.04	100.9	100.0	123.0	215.0	174.4
1926 ²	593,647	215	573,386,985	1,183,412,000	2.06	101.7	110.3	135.6	239.9	176.1
1927 ²	593,918	191	517,763,352	1,029,657,000	1.99	101.8	97.9	122.5	208.7	170.1
1928 ²	522,150	203	500,744,970	933,774,000	1.86	89.5	104.1	118.5	189.3	159.0

¹ Including wagon mines.² Excluding wagon mines.

OCCUPATIONS IN THE INDUSTRY

The occupations for which data are presented in this bulletin are listed below. For definitions see Bulletin No. 416, pages 90 to 92.

Inside work:

Brakemen.
Brattice men and timber men.
Cagers.
Drivers.
Laborers.
Loaders, contract.
Loaders, hand.
Loaders, machine.
Miners, gang.
Miners, hand or pick.
Miners, machine (cutters).
Miners, machine (cutters), helpers.

Inside work—Continued.

Motormen.
Pumpmen.
Trackmen.
Trappers (boys).
Other employees.

Outside work:

Blacksmiths.
Carpenters and car-repair men.
Engineers.
Laborers.
Other employees.

GENERAL TABLES

In addition to the text tables already shown, seven general tables are presented, as follows:

TABLE A.—Average number of starts (days) and average hours and earnings of miners and loaders, 1922, 1924, 1926, and 1929, by occupation and State.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State.

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TABLE C.—Number of miners and loaders in each State whose average earnings per hour were within each classified amount, 1929, by occupation.

TABLE D.—Number of employees other than miners and loaders in each State whose average earnings per hour were within each classified amount, 1929, by occupation.

TABLE E.—Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929.

TABLE F.—Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929.

TABLE G.—Number of employees making each specified number of starts (days) in half month, 1929, by place of work, occupation, and State.

TABLE A.—Average number of starts (days) and average hours and earnings of miners and loaders 1922, 1924, 1926, and 1928, by occupation and State

[The data in this table are for employees who are usually paid rates per ton or per mine car based upon contents]

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half month	Average hours				Average earnings			
					In half month based on—		Per start based on—		Per hour based on—		In half month	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
LOADERS, CONTRACT												
Alabama.....	1924	10	72	8.3	70.3	73.8	8.4	8.8	\$0.954	\$0.909	\$67.06	\$8.03
	1926	17	291	9.4	83.5	91.8	8.8	9.7	.717	.652	59.89	6.35
	1929	12	208	9.0	79.0	87.9	8.8	9.8	.720	.647	56.86	6.34
Colorado.....	1926	1	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	1924	8	85	10.2	85.4	90.5	8.4	8.9	.878	.828	74.94	7.36
	1926	26	244	10.8	88.5	94.3	8.2	8.8	.883	.828	78.11	7.25
	1929	22	221	10.2	85.8	93.3	8.4	9.1	.875	.805	75.05	7.36
Pennsylvania.....	1929	2	8	12.1	103.3	115.1	8.5	9.5	1.337	1.199	138.05	11.39
Tennessee.....	1926	1	7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia.....	1924	2	4	10.5	90.3	93.8	8.6	8.9	1.129	1.087	101.88	9.70
	1926	9	103	10.5*	86.2	92.9	8.2	8.9	.988	.917	85.17	8.11
	1929	7	18	11.1	82.0	87.3	7.4	7.9	1.077	1.012	88.34	7.95
West Virginia.....	1924	4	9	11.8	100.4	106.5	8.5	9.0	1.127	1.063	113.14	9.61
	1926	7	48	9.9	75.0	82.1	7.6	8.3	1.210	1.106	90.83	9.20
	1929	21	104	10.7	93.2	101.5	8.7	9.4	1.085	.997	101.14	9.42
Total.....	1924	24	170	9.5	79.9	84.3	8.4	8.9	.929	.881	74.26	7.82
	1926	61	694	10.1	85.3	92.4	8.4	9.1	.849	.784	72.43	7.16
	1929	65	584	9.7	82.9	90.8	8.6	9.4	.869	.793	72.07	7.45
LOADERS, HAND												
Alabama.....	1922	8	1,535	8.4	69.8	74.9	8.3	8.9	.497	.464	34.73	4.12
	1924	32	3,060	7.6	64.8	70.4	8.5	9.3	.492	.454	31.93	4.20
	1926	29	3,070	8.5	74.2	81.4	8.7	9.6	.478	.436	35.47	4.16
	1929	19	3,137	8.2	72.4	79.5	8.8	9.7	.388	.353	28.08	3.43
Colorado.....	1922	7	445	9.1	69.9	77.5	7.7	8.5	.927	.837	64.84	7.13
	1924	15	1,178	8.0	62.3	66.8	7.8	7.9	.858	.799	53.41	6.65
	1926	15	1,099	10.0	81.2	88.3	8.1	8.8	.789	.726	64.07	6.39
	1929	13	769	6.8	53.8	57.6	7.9	8.4	.736	.688	39.62	5.78
Illinois.....	1922	17	4,257	8.9	70.7	75.1	8.0	8.5	1.197	1.127	84.58	9.53
	1924	35	10,079	7.6	60.8	66.2	8.0	8.7	1.092	1.003	66.40	8.76
	1926	33	11,511	9.4	77.0	85.1	8.2	9.0	1.078	.976	83.07	8.80
	1929	30	9,671	9.1	74.8	81.0	8.2	8.9	.857	.791	64.12	7.03
Indiana.....	1922	8	1,436	8.3	61.7	64.6	7.5	7.8	1.146	1.094	70.65	8.54
	1924	15	2,470	6.0	45.3	47.4	7.5	7.9	1.083	1.034	49.05	8.17
	1926	9	1,602	10.3	72.8	78.1	7.1	7.6	1.116	1.040	81.25	7.90
	1929	21	2,634	8.2	62.4	66.5	7.6	8.1	.922	.865	57.52	7.02
Kansas.....	1929	2	80	4.0	33.6	35.8	8.4	9.0	.719	.676	24.19	6.07
Kentucky.....	1922	20	2,540	8.6	63.4	67.7	7.3	7.8	.722	.704	47.64	5.51
	1924	78	7,266	8.1	63.2	67.8	7.8	8.4	.693	.646	43.78	5.40
	1926	86	9,904	9.0	69.7	74.2	7.8	8.3	.617	.579	42.98	4.78
	1929	64	9,080	8.2	65.5	71.2	8.0	8.7	.595	.547	38.98	4.77
Ohio.....	1922	25	3,119	8.7	65.0	70.9	7.5	8.2	.973	.893	63.32	7.29
	1924	55	6,832	7.7	59.1	64.3	7.7	8.4	.860	.791	50.87	6.63
	1926	45	6,747	9.2	71.6	77.8	7.8	8.4	.817	.752	58.48	6.35
	1929	41	6,948	8.9	69.2	75.1	7.8	8.5	.592	.545	40.93	4.61
Pennsylvania.....	1922	41	5,650	8.8	68.5	75.4	7.8	8.6	.739	.672	50.64	5.79
	1924	128	19,046	8.9	72.3	78.7	8.1	8.9	.743	.682	53.68	6.05
	1926	130	19,065	9.7	78.7	85.9	8.1	8.8	.711	.651	55.94	5.75
	1929	120	18,439	9.3	75.1	83.2	8.1	9.0	.601	.542	45.14	4.88
Tennessee.....	1924	17	860	7.5	56.5	60.1	7.6	8.1	.508	.478	28.73	3.85
	1926	10	625	8.3	63.5	68.2	7.7	8.3	.436	.406	27.68	3.35
	1929	9	488	5.9	45.1	48.1	7.6	8.1	.464	.436	20.96	3.54
Virginia.....	1924	12	1,006	8.2	61.6	65.4	7.5	8.0	.604	.569	37.24	4.53
	1926	21	1,894	9.0	70.9	76.1	7.8	8.4	.597	.556	42.33	4.68
	1929	22	2,391	9.7	72.1	77.2	7.4	8.0	.549	.513	39.62	4.09

¹ Data included in total.

28 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE A.—Average number of starts (days) and average hours and earnings of miners and loaders 1922, 1924, 1926, and 1929, by occupation and State—Continued

[The data in this table are for employees who are usually paid rates per ton or per mine car based upon contents]

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half month	Average hours				Average earnings			
					In half month based on—		Per start based on—		Per hour based on—		In half month	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
LOADERS, HAND—continued												
West Virginia.....	1922	42	2,979	8.6	60.2	64.7	7.0	7.5	\$0.904	\$0.841	\$54.40	\$6.33
	1924	127	10,139	8.2	56.4	61.4	6.8	7.4	.831	.764	46.91	5.69
	1926	110	10,897	9.4	67.1	73.3	7.1	7.8	.776	.710	52.05	5.51
	1929	134	17,216	9.0	69.1	76.2	7.7	8.4	.653	.591	45.06	4.99
Total.....	1922	176	22,560	8.7	66.2	71.5	7.7	8.3	.902	.836	59.75	6.90
	1924	514	61,936	8.1	63.3	68.6	7.8	8.5	.811	.748	51.29	6.32
	1926	488	66,414	9.4	73.7	80.3	7.8	8.6	.779	.715	57.48	6.12
	1929	475	70,853	8.9	70.6	77.3	7.9	8.7	.648	.592	45.78	5.15
LOADERS, MACHINE												
Alabama.....	1924	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	28	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois.....	1926	3	34	9.9	84.9	92.6	8.6	9.4	1.043	.957	88.57	8.96
	1929	3	85	8.8	73.0	79.9	8.3	9.1	1.065	.974	77.79	8.86
Indiana.....	1926	1	27	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	3	85	10.0	78.7	83.4	7.8	8.3	1.093	1.032	86.04	8.56
Kentucky.....	1926	4	23	8.8	88.6	93.9	10.1	10.7	.686	.647	60.81	6.92
	1929	4	26	9.2	85.1	92.8	9.3	10.1	.632	.579	53.76	5.87
Ohio.....	1924	2	15	11.6	98.1	102.4	8.5	8.8	1.179	1.130	115.75	9.98
	1926	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1929	1	2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	6	39	10.5	88.5	97.7	8.5	9.3	.704	.638	62.32	5.96
Tennessee.....	1929	8	72	9.5	84.8	95.1	9.0	10.0	.712	.635	60.37	6.37
	1924	1	19	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia.....	1926	1	18	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	18	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
West Virginia.....	1924	1	5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	2	36	8.2	82.9	87.9	10.1	10.7	.551	.519	45.68	5.57
Total.....	1929	3	32	11.8	112.5	117.6	9.5	10.0	.565	.541	63.56	5.39
	1924	5	46	10.8	99.1	107.7	9.2	9.9	.681	.633	67.48	6.23
	1926	5	112	10.2	89.8	95.8	8.7	9.3	.717	.671	64.32	6.26
	1929	4	75	11.2	98.2	108.4	8.8	9.7	.743	.673	72.94	6.52
Total.....	1924	10	102	9.4	84.3	90.4	9.0	9.6	.690	.644	58.20	6.20
	1926	23	306	9.9	87.3	93.7	8.8	9.5	.788	.735	68.80	6.96
	1929	28	423	9.8	84.5	91.6	8.6	9.4	.810	.747	68.39	7.00
MINERS, GANG												
Alabama.....	1926	1	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1929	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Colorado.....	1924	1	5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1924	18	573	7.7	63.4	68.8	8.3	9.0	1.361	1.254	86.23	11.25
Illinois.....	1926	21	919	9.6	79.6	87.1	8.3	9.1	1.411	1.289	112.28	11.73
	1929	15	738	9.8	81.9	88.2	8.4	9.0	1.108	1.029	90.75	9.28
Indiana.....	1924	6	98	7.0	53.7	55.8	7.7	8.0	1.318	1.269	70.82	10.15
	1926	5	71	9.4	71.2	75.8	7.6	8.1	1.335	1.254	95.11	10.14
Kentucky.....	1929	3	73	11.5	91.4	97.1	7.9	8.4	1.319	1.242	120.63	10.45
	1926	2	15	9.1	75.0	82.9	8.3	9.1	.685	.619	51.34	5.66
Ohio.....	1929	3	41	5.5	43.6	47.3	8.0	8.7	.616	.567	26.84	4.91
	1924	1	35	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1926	3	47	11.2	88.8	97.9	7.9	8.8	1.084	.982	96.22	8.61
	1929	2	9	10.4	60.1	67.6	5.8	6.5	1.096	.973	65.80	6.30
Tennessee.....	1924	8	282	9.2	76.2	83.5	8.3	9.1	.865	.789	65.90	7.16
	1929	7	272	8.9	76.9	85.1	8.6	9.5	.721	.651	55.42	6.21
Total.....	1929	2	27	9.2	76.0	79.0	8.2	8.6	.848	.816	64.48	6.99

¹ Data included in total.

² Includes data for Utah, Washington, and Wyoming.

HOURS AND EARNINGS IN BITUMINOUS COAL MINING

29

TABLE A.—Average number of starts (days) and average hours and earnings of miners and loaders 1922, 1924, 1926, and 1929, by occupation and State—Continued

[The data in this table are for employees who are usually paid rates per ton or per mine car based upon contents]

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half month	Average hours				Average earnings			
					In half month based on—		Per start based on—		Per hour based on—		In half month	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
MINERS, GANG—CON.												
West Virginia.....	1924	6	43	10.1	70.9	76.6	7.0	7.6	\$1.031	\$1.000	\$79.00	\$7.81
Total.....	1924	40	1,036	8.1	65.6	71.1	8.1	8.8	1.187	1.094	77.79	9.66
	1926	32	1,065	9.5	78.7	86.0	8.2	9.0	1.377	1.260	108.33	11.36
	1929	33	1,177	9.5	79.7	86.3	8.4	9.1	1.010	.932	80.50	8.45
MINERS, HAND OR PICK												
Alabama.....	1922	8	785	8.8	66.2	74.8	7.5	8.5	.548	.485	36.28	4.11
	1924	18	1,477	8.3	69.5	75.7	8.4	9.2	.577	.529	40.07	4.84
	1926	17	1,537	9.7	81.8	90.8	8.4	9.3	.540	.486	44.12	4.53
	1929	8	1,120	8.5	76.4	84.6	9.0	9.9	.531	.480	40.58	4.76
Colorado.....	1922	6	564	10.2	81.3	90.1	8.0	8.8	.993	.896	80.69	7.90
	1924	11	1,146	7.9	57.4	62.9	7.3	8.0	.929	.847	53.31	6.76
	1926	13	1,103	10.2	77.4	86.4	7.6	8.4	.787	.705	60.95	5.95
	1929	15	1,150	6.8	50.5	55.6	7.4	8.1	.853	.775	43.08	6.30
Illinois.....	1922	11	1,864	10.3	80.3	86.2	7.8	8.4	.865	.806	69.45	6.77
	1924	28	3,921	8.1	62.9	67.6	7.8	8.4	.912	.849	57.38	7.12
	1926	13	3,155	9.8	77.4	84.1	7.9	8.6	.923	.850	71.47	7.32
	1929	14	2,488	11.3	88.5	96.7	7.9	8.6	.716	.656	63.40	5.63
Indiana.....	1922	7	542	8.0	55.8	59.3	7.0	7.4	.827	.779	46.19	5.75
	1924	12	799	7.1	49.9	53.5	7.0	7.5	1.087	1.014	54.28	7.60
	1926	8	1,146	8.9	65.4	70.7	7.3	7.9	1.047	.969	68.50	7.68
	1929	12	1,543	9.0	61.5	65.4	6.9	7.3	.796	.749	48.95	5.47
Kansas.....	1924	9	1,474	9.8	64.0	69.6	6.5	7.1	.901	.829	57.70	5.90
	1926	11	1,749	9.4	67.4	71.7	7.2	7.7	.809	.761	54.63	5.83
	1929	7	1,252	7.3	50.9	55.9	7.0	7.7	.711	.647	36.16	4.97
Kentucky.....	1922	5	223	8.7	64.5	69.3	7.4	8.0	.825	.768	53.21	6.12
	1924	14	654	8.5	70.9	77.8	8.3	9.1	.776	.707	55.00	6.45
	1926	10	418	10.2	85.0	91.5	8.5	9.1	.647	.601	54.99	5.47
	1929	19	731	9.8	82.8	89.6	8.4	9.1	.623	.575	51.57	5.26
Ohio.....	1922	3	47	9.8	79.9	86.7	8.1	8.8	.916	.844	73.18	7.46
	1924	2	15	5.5	38.9	44.6	7.1	8.2	1.041	.910	40.54	7.42
	1926	5	89	9.9	73.5	79.6	7.4	8.0	.879	.813	64.67	6.54
	1929	1	3	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1922	42	2,898	9.1	72.2	79.7	8.0	8.8	.767	.695	55.38	6.10
	1924	105	8,010	8.7	70.7	76.9	8.1	8.8	.777	.714	54.91	6.31
	1926	110	8,766	9.9	81.2	89.6	8.2	9.0	.768	.696	62.39	6.27
	1929	107	9,123	9.9	80.6	90.3	8.1	9.1	.657	.586	52.91	5.35
Tennessee.....	1924	14	869	8.0	62.1	67.0	7.7	8.3	.541	.502	33.60	4.18
	1926	7	544	8.7	69.6	75.6	8.0	8.7	.436	.402	30.37	3.49
	1929	10	559	8.0	61.5	65.3	7.7	8.1	.500	.471	30.79	3.84
Virginia.....	1924	1	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
West Virginia.....	1922	34	972	8.1	55.4	59.4	6.8	7.3	1.019	.950	56.45	6.95
	1924	77	3,046	8.5	61.6	67.4	7.2	7.9	.831	.760	51.18	5.99
	1926	59	2,062	9.8	69.5	75.7	7.1	7.7	.794	.730	55.21	5.65
	1929	37	1,697	9.0	68.6	74.9	7.6	8.3	.669	.612	45.83	5.10
Total.....	1922	127	8,429	9.2	71.0	77.5	7.7	8.4	.840	.769	59.62	6.47
	1924	291	21,424	8.5	65.6	71.2	7.7	8.4	.809	.745	53.06	6.27
	1926	254	20,594	9.8	77.0	84.3	7.9	8.6	.783	.715	60.31	6.18
	1929	230	19,666	9.4	74.7	82.5	7.9	8.8	.673	.609	50.29	5.33

¹ Data included in total.

² Includes data for Utah, Washington, and Wyoming.

30 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE A.—Average number of starts (days) and average hours and earnings of miners and loaders 1922, 1924, 1926, and 1928, by occupation and State—Continued

[The data in this table are for employees who are usually paid rates per ton or per mine car based upon contents]

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in month half	Average hours				Average earnings			
					In half month based on		Per start based on		Per hour based on		In half month	Per start
					Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
MINERS, MACHINE (CUTTERS)												
Alabama.....	1922	6	146	9.5	79.6	83.8	8.4	8.8	\$0.611	\$0.580	\$48.64	\$5.13
	1924	27	342	8.4	75.8	81.6	9.0	9.7	.836	.775	63.29	7.56
	1926	28	149	10.2	91.8	100.5	9.0	9.8	.911	.832	63.61	8.17
	1929	15	129	9.3	87.1	95.1	9.3	10.2	.742	.680	64.65	6.92
Colorado.....	1922	6	85	9.3	71.4	79.3	7.7	8.5	1.493	1.344	106.59	11.48
	1924	15	119	8.8	72.3	77.5	8.2	8.8	1.336	1.246	96.56	11.01
	1926	13	109	10.5	88.8	95.4	8.4	9.1	1.071	.997	95.12	9.03
	1929	10	52	6.1	48.8	52.0	8.0	8.5	1.172	1.099	57.17	9.32
Illinois.....	1922	15	369	10.0	76.4	81.5	7.6	8.1	1.500	1.407	114.68	11.46
	1924	35	1,196	7.8	60.0	65.5	7.7	8.4	1.500	1.376	90.10	11.57
	1926	33	1,326	9.7	74.5	82.4	7.7	8.5	1.501	1.358	111.89	11.57
	1929	32	1,122	9.9	79.2	85.8	8.0	8.6	1.139	1.052	90.29	9.10
Indiana.....	1922	8	136	8.8	66.1	69.3	7.5	7.9	1.832	1.748	121.06	13.73
	1924	15	260	6.5	49.4	51.7	7.7	8.0	1.684	1.609	83.15	12.88
	1926	10	206	9.6	74.8	79.7	7.8	8.3	1.614	1.514	120.68	12.53
	1929	22	356	9.4	71.4	75.9	7.6	8.1	1.295	1.217	92.40	9.76
Kansas.....	1929	2	8	4.5	39.6	42.1	8.8	9.4	.823	.773	32.56	7.24
Kentucky.....	1922	19	268	9.7	73.6	78.7	7.6	8.1	1.166	1.091	85.83	8.88
	1924	75	797	8.8	78.5	83.3	8.9	9.4	.927	.874	72.79	8.25
	1926	86	805	9.7	84.6	89.3	8.7	9.2	.956	.905	80.83	8.34
	1929	60	669	9.2	80.5	86.9	8.8	9.5	.963	.892	77.48	8.43
Ohio.....	1922	25	354	9.9	78.2	85.1	7.9	8.6	1.395	1.282	109.12	10.99
	1924	57	740	8.8	71.1	77.1	8.1	8.7	1.274	1.175	90.62	10.27
	1926	44	700	10.5	83.6	90.7	7.9	8.6	1.202	1.108	100.49	9.55
	1929	41	663	10.2	84.2	91.1	8.2	8.9	.876	.810	73.78	7.21
Pennsylvania.....	1922	41	703	9.3	76.7	84.3	8.2	9.0	1.090	.991	83.55	8.94
	1924	126	1,852	9.7	81.4	88.3	8.4	9.1	1.142	1.053	92.95	9.61
	1926	128	1,800	10.9	94.2	102.5	8.6	9.4	1.133	1.041	106.70	9.75
	1929	117	1,568	10.3	89.6	98.8	8.7	9.6	.978	.887	87.67	8.50
Tennessee.....	1924	16	125	8.2	68.5	73.1	8.3	8.9	.549	.514	37.56	4.58
	1926	10	38	9.8	85.3	91.8	8.7	9.3	.518	.482	44.20	4.49
	1929	9	28	6.6	54.8	57.6	8.3	8.8	.651	.619	35.65	5.42
Virginia.....	1924	12	93	9.9	92.2	96.7	9.4	9.8	.657	.626	60.83	6.14
	1926	20	97	10.9	99.4	105.3	9.1	9.7	.821	.775	81.60	7.49
	1929	21	128	11.1	99.3	104.7	8.9	9.4	.787	.746	78.14	7.02
West Virginia.....	1922	35	271	9.3	74.7	80.1	8.1	8.6	1.379	1.287	103.06	11.13
	1924	107	975	9.0	73.3	78.7	8.1	8.7	1.134	1.055	83.09	9.20
	1926	92	825	10.7	89.5	96.9	8.4	9.1	1.200	1.108	107.39	10.05
	1929	127	1,214	10.2	92.1	100.1	9.0	9.8	1.062	.976	97.77	9.54
Total.....	1922	161	2,371	9.5	75.4	81.5	7.9	8.6	1.274	1.180	96.14	10.10
	1924	485	6,499	8.8	72.9	78.6	8.3	8.9	1.163	1.079	84.79	9.65
	1926	464	6,055	10.3	86.0	93.3	8.3	9.0	1.195	1.101	102.68	9.93
	1929	456	5,937	10.0	85.0	92.4	8.5	9.3	1.018	.936	86.52	8.68
MINERS, MACHINE (CUTTERS), HELPERS												
Alabama.....	1926	24	170	8.1	72.0	79.4	8.8	9.7	.597	.541	42.96	5.28
	1929	13	101	8.1	75.4	83.1	9.3	10.2	.528	.480	39.84	4.90
Colorado.....	1926	3	6	10.7	89.2	99.3	8.4	9.3	.939	.843	83.70	7.85
	1929	7	18	7.4	56.6	60.6	7.7	8.2	.981	.916	55.54	7.52
Kansas.....	1929	2	9	4.3	38.1	40.4	8.8	9.3	.810	.762	30.81	7.11
Kentucky.....	1926	53	353	8.4	74.7	79.0	8.9	9.4	.718	.679	53.64	6.41
	1929	36	269	8.6	76.0	81.8	8.9	9.6	.715	.665	54.35	6.35
Pennsylvania.....	1926	22	151	10.6	94.8	102.2	8.9	9.6	.839	.778	79.54	7.47
	1929	29	183	10.4	93.8	102.2	9.0	9.8	.822	.754	77.05	7.39
Tennessee.....	1926	9	39	6.4	60.8	64.2	9.4	10.0	.371	.351	22.55	3.50
	1929	8	38	4.5	38.4	40.6	8.5	9.0	.410	.388	15.76	3.48
Virginia.....	1926	16	72	8.6	83.6	87.8	9.8	10.2	.489	.465	40.87	4.77
	1929	12	32	10.7	95.5	100.5	9.0	9.4	.492	.468	46.98	4.41
West Virginia.....	1926	24	91	9.3	86.0	90.9	9.3	9.8	.620	.586	53.30	5.73
	1929	29	115	10.3	97.7	104.8	9.5	10.2	.683	.637	66.75	6.47
Total.....	1926	151	882	8.8	79.0	84.5	9.0	9.6	.681	.637	53.77	6.14
	1929	136	785	9.0	81.5	88.1	9.0	9.8	.703	.650	57.25	6.34

¹ Includes data for Utah and Wyoming.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State.

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE									
Brakemen:									
Alabama.....	1922	8	139	7.8	61.8	8.0	\$22.89	\$2.95	\$0.370
	1924	24	220	8.6	78.1	9.0	29.99	3.47	.384
	1926	23	200	9.4	75.3	8.0	32.55	3.45	.432
	1929	17	256	8.8	80.6	9.1	31.83	3.60	.395
Colorado.....	1922	6	29	10.9	87.6	8.0	83.32	7.65	.952
	1924	16	79	8.8	70.9	8.0	64.70	7.33	.912
	1926	14	58	11.8	96.1	8.1	64.38	5.44	.670
	1929	12	37	9.1	75.8	8.4	59.16	6.53	.781
Illinois.....	1922	20	216	10.4	85.8	8.3	80.04	7.76	.937
	1924	43	764	8.1	66.6	8.2	62.14	7.70	.935
	1926	39	669	10.0	84.1	8.4	78.92	7.93	.939
	1929	37	568	10.6	86.8	8.2	65.93	6.24	.759
Indiana.....	1922	10	88	9.6	76.9	8.0	72.24	7.52	.839
	1924	19	135	6.6	51.7	8.0	49.72	7.51	.944
	1926	14	108	10.4	83.8	8.1	78.04	7.51	.931
	1929	26	192	9.9	78.9	8.0	60.58	6.11	.767
Kansas.....	1924	9	26	10.7	85.2	7.9	73.65	6.86	.865
	1926	5	16	10.4	83.6	8.1	78.49	7.57	.939
	1929	5	12	7.6	61.7	8.1	38.54	5.08	.625
Kentucky.....	1922	19	143	9.2	75.0	8.2	49.04	5.34	.654
	1924	75	539	8.9	75.5	8.5	43.01	4.85	.570
	1926	84	791	8.9	73.5	8.3	40.70	4.59	.554
	1929	63	749	9.2	79.5	8.6	41.92	4.54	.527
Ohio.....	1922	22	65	8.9	71.3	8.0	66.79	7.51	.936
	1924	48	161	8.8	71.1	8.1	64.77	7.35	.911
	1926	45	188	10.0	81.1	8.1	73.91	7.38	.912
	1929	38	188	9.7	81.1	8.4	49.97	5.16	.616
Pennsylvania.....	1922	44	319	19.5	81.0	18.4	65.24	16.84	.806
	1924	147	979	9.9	84.1	8.5	69.24	6.99	.823
	1926	147	981	10.5	92.3	8.8	70.64	6.72	.765
	1929	128	930	10.2	89.6	8.8	60.20	5.89	.672
Tennessee.....	1924	20	85	9.1	72.5	7.9	30.58	3.35	.422
	1926	12	71	8.8	70.1	8.0	26.71	3.05	.381
	1929	13	70	7.6	60.4	8.0	22.80	3.01	.378
Virginia.....	1924	12	82	8.4	71.3	8.5	31.27	3.73	.439
	1926	21	193	9.7	83.8	8.7	38.19	3.95	.456
	1929	22	246	9.9	85.6	8.6	38.63	3.90	.451
West Virginia.....	1922	45	306	9.3	76.0	8.2	54.71	5.91	.720
	1924	134	1,189	9.0	75.7	8.4	44.10	4.88	.583
	1926	114	1,093	10.1	85.9	8.5	49.65	4.93	.578
	1929	144	1,606	8.9	75.4	8.5	41.55	4.66	.551
Total.....	1922	181	1,333	9.4	77.3	18.2	60.18	16.41	.779
	1924	547	4,259	8.9	75.0	8.4	53.25	5.96	.710
	1926	518	4,368	9.9	83.8	8.5	57.61	5.82	.687
	1929	505	4,854	9.5	81.0	8.5	48.31	5.08	.596
Bratticemen and timbermen:									
Alabama.....	1922	9	19	9.9	80.5	8.1	34.16	3.43	.424
	1924	24	89	9.2	79.8	8.7	34.74	3.78	.436
	1926	32	148	10.2	88.9	8.7	39.99	3.93	.450
	1929	19	106	9.9	92.1	9.3	39.01	3.95	.424
Colorado.....	1922	7	33	11.6	92.7	8.0	91.09	7.87	.983
	1924	17	100	9.8	79.2	8.1	73.88	7.53	.934
	1926	15	84	13.0	108.8	8.3	76.68	5.88	.705
	1929	15	79	10.0	80.7	8.1	60.79	6.07	.827
Illinois.....	1922	21	197	10.9	87.7	8.0	82.23	7.54	.938
	1924	43	542	9.1	73.0	8.0	68.44	7.50	.937
	1926	37	520	10.7	86.7	8.1	81.36	7.60	.938
	1929	35	493	11.1	88.9	8.0	67.95	6.13	.765
Indiana.....	1922	11	53	9.3	71.4	7.7	67.61	7.25	.942
	1924	18	80	8.2	65.3	7.9	61.19	7.45	.937
	1926	16	90	11.5	93.9	8.1	85.84	7.45	.915
	1929	26	136	11.1	88.6	8.0	68.18	6.14	.769

¹ Not including data for 8 employees whose starts were not reported.

² Includes data for Utah, Washington, and Wyoming.

32 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Bratticemen and timbermen—Continued.									
Kansas.....	1924	6	14	11.9	99.1	8.3	\$93.13	\$7.81	\$0.940
	1926	11	42	11.2	91.2	8.1	85.75	7.65	.941
	1929	6	14	10.2	82.8	8.1	52.31	5.12	.632
Kentucky.....	1922	17	58	9.8	79.9	8.2	55.33	5.65	.693
	1924	63	245	9.5	81.3	8.5	50.36	5.30	.619
	1926	77	393	10.2	84.9	8.4	50.95	5.02	.600
	1929	56	395	9.8	82.6	8.4	46.96	4.80	.569
Ohio.....	1922	24	139	10.3	82.1	8.0	76.87	7.50	.937
	1924	44	237	9.8	80.3	8.2	74.89	7.63	.932
	1926	44	267	10.3	78.0	7.6	76.66	7.47	.983
	1929	35	234	11.2	93.3	8.4	58.34	5.23	.625
Pennsylvania.....	1922	40	268	10.6	91.3	8.4	64.05	6.13	.701
	1924	131	703	10.7	89.7	8.4	71.69	6.69	.799
	1926	129	719	10.9	92.1	8.5	68.73	6.33	.746
	1929	114	700	10.9	92.9	8.5	64.66	5.91	.696
Tennessee.....	1924	18	36	9.0	75.3	8.3	34.42	3.81	.457
	1926	9	29	10.7	87.8	8.2	37.87	3.54	.431
	1929	12	29	8.8	71.4	8.1	31.00	3.54	.434
Virginia.....	1924	10	21	9.3	79.1	8.5	38.61	4.16	.488
	1926	16	66	10.0	83.2	8.3	41.88	4.20	.503
	1929	20	124	11.0	91.4	8.3	45.73	4.15	.500
West Virginia.....	1922	41	155	9.8	80.5	8.2	61.12	6.25	.759
	1924	110	454	9.6	81.1	8.4	49.76	5.16	.613
	1926	98	442	11.1	94.2	8.5	57.90	5.20	.614
	1929	118	591	10.2	84.6	8.3	49.03	4.79	.579
Total.....	1922	181	986	10.4	85.7	8.1	70.26	6.81	.820
	1924	484	2,521	9.8	81.1	8.3	63.04	6.44	.778
	1926	484	2,800	10.8	89.2	8.3	66.20	6.16	.742
	1929	456	2,901	10.6	88.3	8.3	57.19	5.39	.648
Cagers:									
Alabama.....	1922	1	6	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Colorado.....	1922	5	13	11.8	91.4	7.7	90.97	7.68	.965
	1924	9	20	9.4	75.1	8.0	72.28	7.69	.962
	1926	9	22	11.0	95.5	8.6	72.42	6.56	.759
	1929	8	13	9.5	82.0	8.6	68.81	7.21	.839
Illinois.....	1922	22	62	10.6	94.7	8.9	88.71	8.35	.937
	1924	46	109	9.7	85.4	8.8	80.22	8.30	.940
	1926	39	103	11.6	106.1	9.2	99.85	8.64	.941
	1929	37	95	12.7	110.9	8.7	83.56	6.56	.754
Indiana.....	1922	12	22	10.5	88.9	8.4	82.81	7.85	.931
	1924	22	47	8.4	69.4	8.2	65.03	7.70	.937
	1926	17	32	10.2	90.3	7.9	83.06	8.13	.920
	1929	29	64	10.5	86.3	8.2	65.31	6.22	.756
Kansas.....	1924	9	20	11.1	104.9	9.5	98.36	8.90	.937
	1926	11	17	10.9	99.7	9.2	93.11	8.56	.934
	1929	8	14	10.5	95.9	9.1	59.95	5.71	.625
Kentucky.....	1922	2	4	8.5	72.9	8.6	61.14	7.19	.839
	1924	12	42	8.3	69.0	8.3	41.16	4.94	.597
	1926	16	45	10.4	89.6	8.6	45.29	4.36	.506
	1929	11	25	7.2	63.5	8.8	31.63	4.39	.498
Ohio.....	1922	10	27	8.8	71.9	8.2	67.11	7.61	.933
	1924	26	45	9.7	80.9	8.4	74.23	7.68	.917
	1926	22	46	10.1	85.2	8.5	78.41	7.77	.920
	1929	22	42	10.3	88.0	8.6	55.52	5.40	.631
Pennsylvania.....	1922	21	35	10.3	92.4	8.9	70.29	6.82	.761
	1924	56	96	10.6	93.9	8.8	77.91	7.32	.829
	1926	57	115	11.2	103.3	9.3	82.04	7.35	.794
	1929	52	86	11.0	102.1	9.3	70.52	6.40	.690
Tennessee.....	1929	1	2	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Virginia.....	1926	1	4	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
	1929	2	6	11.5	124.8	10.9	59.79	5.20	.479

¹ Includes data for Utah, Washington, and Wyoming.

² Not including data for 79 employees whose starts were not reported.

³ Data included in total.

⁴ Not including data for 2 employees whose starts were not reported.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued.

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Cagers—Continued.									
West Virginia.....	1922	8	12	9.7	80.9	8.4	\$65.54	\$6.78	\$0.810
	1924	18	31	8.5	76.8	9.1	50.48	5.95	.657
	1926	16	30	13.1	113.5	8.7	68.63	5.25	.605
	1929	22	45	10.7	94.4	8.8	51.84	4.86	.649
Total.....	1922	83	185	10.3	89.4	8.6	77.82	7.53	.871
	1924	198	410	9.6	83.2	8.7	71.53	7.46	.860
	1926	188	414	11.1	99.5	9.0	80.73	7.29	.811
	1929	192	392	10.9	96.1	8.8	65.79	6.03	.685
Drivers:									
Alabama.....	1922	7	125	9.1	75.7	8.4	29.15	3.22	.385
	1924	34	486	7.5	63.1	8.4	22.09	2.94	.350
	1926	29	413	8.8	76.0	8.6	27.11	3.07	.356
	1929	17	244	8.6	75.4	8.7	25.85	2.99	.343
Colorado.....	1922	8	131	10.5	83.0	7.9	79.37	7.56	.956
	1924	17	259	8.7	69.8	8.0	65.59	7.52	.939
	1926	17	255	11.3	91.7	8.1	64.70	6.72	.708
	1929	15	213	6.6	52.8	8.0	43.28	6.53	.820
Illinois.....	1922	19	403	10.4	86.7	8.3	83.17	8.00	.960
	1924	35	599	8.8	74.1	8.4	69.53	7.90	.938
	1926	26	493	10.2	83.4	8.7	82.79	8.13	.936
	1929	22	426	11.1	91.8	8.3	70.00	6.32	.763
Indiana.....	1922	9	139	8.3	65.2	7.8	61.40	7.37	.942
	1924	20	214	7.0	55.1	7.8	51.99	7.40	.944
	1926	12	175	9.7	77.7	8.0	70.90	7.32	.912
	1929	18	271	9.7	75.9	7.8	58.29	6.00	.768
Kansas.....	1924	8	112	11.1	89.0	8.0	83.66	7.56	.940
	1926	10	104	11.9	94.0	7.9	88.63	7.48	.943
	1929	5	60	9.3	73.6	7.9	46.70	5.04	.634
Kentucky.....	1922	8	174	9.6	80.1	8.3	57.48	6.99	.718
	1924	40	469	8.5	70.0	8.2	44.56	5.23	.637
	1926	35	492	10.0	84.2	8.4	47.02	4.71	.558
	1929	29	331	8.2	67.8	8.3	35.39	4.33	.522
Ohio.....	1922	20	281	9.6	75.6	7.9	70.86	7.40	.938
	1924	47	467	8.8	70.5	8.0	65.77	7.49	.932
	1926	35	439	9.7	77.7	8.0	72.72	7.51	.936
	1929	31	401	9.7	78.1	8.1	48.47	5.02	.621
Pennsylvania.....	1922	23	472	9.5	82.5	7.3	58.10	6.04	.704
	1924	78	1,115	9.7	80.5	8.3	62.72	6.45	.779
	1926	79	1,273	10.7	89.5	8.3	67.96	6.33	.760
	1929	69	1,108	10.1	84.8	8.4	57.89	5.71	.683
Tennessee.....	1924	13	127	8.2	64.1	7.9	26.50	3.25	.414
	1926	6	65	9.1	73.8	8.1	29.18	3.21	.396
	1929	6	45	9.0	72.9	8.1	31.57	3.51	.433
Virginia.....	1924	5	34	9.8	77.3	7.9	35.76	3.64	.463
	1926	8	58	10.8	86.7	8.0	36.03	3.32	.416
	1929	5	36	9.5	75.3	7.9	30.69	3.24	.408
West Virginia.....	1922	22	257	9.1	73.4	8.1	58.83	6.49	.801
	1924	80	721	8.9	71.8	8.1	45.66	5.14	.636
	1926	63	763	9.9	80.6	8.1	46.15	4.66	.673
	1929	65	676	8.9	72.4	8.1	39.85	4.45	.550
Total.....	1922	125	2,080	9.5	78.7	8.2	64.84	6.82	.824
	1924	377	4,603	8.8	72.3	8.2	54.08	6.12	.748
	1926	320	4,530	10.2	84.4	8.3	59.80	5.88	.708
	1929	282	3,811	9.5	77.8	8.2	49.52	5.24	.637
Laborers:									
Alabama.....	1922	9	354	9.7	78.5	8.1	28.49	2.94	.363
	1924	35	736	8.5	75.0	8.8	28.73	3.38	.383
	1926	33	965	8.5	74.3	8.7	29.55	3.46	.398
	1929	18	703	8.9	79.6	8.9	30.40	3.40	.382
Colorado.....	1922	7	57	12.1	96.3	8.0	90.98	7.53	.945
	1924	7	69	8.9	71.1	8.0	65.46	7.36	.921
	1926	8	61	12.5	100.5	8.1	66.73	5.36	.664
	1929	7	39	8.9	71.3	8.0	55.76	6.27	.782

¹ Includes data for Utah, Washington, and Wyoming.

² Not including data for two employees whose starts were not reported.

³ Includes data for Washington and Wyoming.

⁴ Not including data for 89 employees whose starts were not reported.

34 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

(The data in this table are for employees who are usually paid rates per hour, day, or week)

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Laborers—Continued.									
Illinois.....	1922	20	444	10.4	85.1	8.2	\$77.33	\$7.45	\$0.909
	1924	39	1,097	8.6	69.0	8.0	63.08	7.32	.915
	1926	39	1,122	9.9	79.7	8.1	72.64	7.36	.911
	1929	35	751	10.3	82.5	8.0	61.79	5.99	.749
Indiana.....	1922	11	145	9.7	78.7	8.1	73.72	7.59	.937
	1924	18	167	7.5	60.5	8.1	56.89	7.59	.940
	1926	15	151	9.2	73.7	8.0	68.76	7.47	.934
	1929	17	158	9.8	79.4	8.1	60.80	6.22	.766
Kansas.....	1924	7	21	10.7	85.4	8.0	80.37	7.53	.941
	1926	7	21	8.9	71.4	8.1	61.22	6.91	.857
	1929	6	27	9.7	77.4	8.0	48.41	5.01	.626
Kentucky.....	1922	20	326	9.4	66.4	7.1	48.59	5.18	.731
	1924	69	1,017	8.4	71.5	8.5	38.02	4.54	.532
	1926	80	1,661	8.3	70.5	8.5	35.77	4.32	.507
	1929	60	1,229	8.5	70.8	8.3	32.73	3.86	.462
Ohio.....	1922	21	152	8.6	68.3	8.0	62.81	7.33	.919
	1924	36	213	8.9	73.3	8.3	63.48	7.17	.866
	1926	33	505	8.2	63.2	7.7	54.27	6.58	.859
	1929	33	302	9.8	79.3	8.1	48.01	4.88	.605
Pennsylvania.....	1922	42	923	10.3	87.5	8.2	56.18	5.63	.642
	1924	131	2,012	9.8	81.5	8.3	60.58	6.16	.744
	1926	144	2,081	10.7	89.1	8.4	60.18	5.65	.676
	1929	114	1,862	10.1	85.1	8.4	51.56	5.08	.606
Tennessee.....	1924	18	126	7.8	62.8	8.1	24.90	3.20	.396
	1926	11	111	7.6	59.5	7.9	22.15	2.93	.372
	1929	13	122	6.5	52.6	8.1	18.91	2.93	.360
Virginia.....	1924	12	98	7.6	61.5	8.1	23.84	3.12	.388
	1926	18	345	8.4	70.4	8.4	29.97	3.58	.426
	1929	20	427	9.5	78.5	8.3	32.98	3.49	.420
West Virginia.....	1922	40	461	9.4	76.8	8.1	47.91	5.08	.624
	1924	130	1,672	8.8	73.5	8.4	39.89	4.54	.543
	1926	112	1,800	9.8	83.1	8.5	44.51	4.54	.536
	1929	133	2,222	7.9	65.2	8.3	32.74	4.15	.502
Total.....	1922	181	2,967	9.9	80.8	8.0	56.30	5.73	.697
	1924	502	7,228	8.9	74.2	8.3	48.74	5.47	.657
	1926	500	8,823	9.4	78.7	8.4	48.82	5.18	.620
	1929	456	7,842	9.0	75.2	8.3	40.90	4.53	.544
Motormen:									
Alabama.....	1922	7	110	9.7	77.6	8.0	33.31	3.42	.429
	1924	21	158	10.1	91.9	9.1	43.00	4.27	.468
	1926	22	177	10.9	98.3	9.0	44.57	4.09	.453
	1929	16	219	9.4	83.6	8.9	39.27	4.17	.470
Colorado.....	1922	6	17	10.2	81.9	8.0	79.73	7.79	.973
	1924	11	57	8.9	73.6	8.3	71.61	8.05	.974
	1926	11	41	12.4	103.0	8.3	73.65	5.96	.715
	1929	8	33	9.6	78.6	8.2	66.76	6.93	.849
Illinois.....	1922	19	169	10.5	89.5	8.5	90.20	8.59	1.008
	1924	43	532	8.7	73.4	8.4	74.38	8.54	1.013
	1926	39	557	10.5	90.6	8.6	91.76	8.70	1.012
	1929	37	555	11.4	96.4	8.5	82.69	7.26	.857
Indiana.....	1922	10	72	10.8	86.7	8.0	87.67	8.09	1.012
	1924	20	108	6.5	51.2	7.9	52.00	8.03	1.016
	1926	16	135	11.1	90.3	8.1	91.58	8.24	1.014
	1929	28	217	10.7	87.1	8.1	72.33	6.73	.830
Kansas.....	1924	7	18	10.9	88.4	8.1	88.32	8.07	.999
	1926	7	20	10.5	84.2	8.1	84.25	8.06	1.001
	1929	5	14	8.9	72.1	8.1	49.46	5.54	.686
Kentucky.....	1922	20	177	9.7	81.2	8.4	56.04	5.77	.690
	1924	76	486	9.9	86.1	8.7	53.46	5.39	.621
	1926	85	697	10.4	91.0	8.8	55.02	5.29	.604
	1929	63	724	10.2	90.5	8.8	52.37	5.12	.579
Ohio.....	1922	25	90	10.1	84.2	8.3	79.11	7.80	.940
	1924	57	221	9.6	79.4	8.2	73.19	7.59	.922
	1926	45	229	10.7	87.8	8.2	79.93	7.49	.811
	1929	41	200	10.2	85.8	8.4	54.00	5.28	.629

¹Includes data for Utah, Washington, and Wyoming.

²Not including data for 237 employees whose starts were not reported.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Motormen—Continued.									
Pennsylvania.....	1922	42	314	10.0	86.3	8.4	\$71.48	\$7.03	\$0.928
	1924	148	965	10.3	88.6	8.6	75.70	7.38	.854
	1926	143	1,028	11.1	99.0	8.9	75.88	6.85	.767
	1929	128	1,083	10.6	94.4	8.9	65.79	6.21	.697
Tennessee.....	1924	19	79	9.6	76.6	8.0	37.82	3.95	.494
	1926	13	71	10.6	90.4	8.5	41.02	3.86	.454
	1929	13	63	8.4	71.3	8.5	32.70	3.90	.459
Virginia.....	1924	12	77	10.4	89.8	8.6	45.65	4.37	.608
	1926	21	173	10.9	100.1	8.9	50.27	4.47	.602
	1929	22	220	11.2	97.5	8.7	48.93	4.37	.602
West Virginia.....	1922	46	307	9.8	82.8	8.5	64.68	6.62	.781
	1924	134	1,050	10.0	86.4	8.6	53.83	5.38	.628
	1926	118	1,111	10.9	95.6	8.8	59.21	5.42	.619
	1929	143	1,532	9.8	85.1	8.7	50.27	5.11	.590
Total.....	1922	183	1,296	10.1	84.2	8.4	68.62	6.82	.815
	1924	548	3,751	9.7	83.6	8.6	62.89	6.46	.762
	1926	520	4,239	10.8	94.7	8.7	67.97	6.27	.718
	1929	504	4,860	10.3	89.6	8.7	58.21	5.64	.649
Pumpmen:									
Alabama.....	1922	9	62	10.9	92.5	8.5	32.70	3.01	.355
	1924	32	105	10.2	100.1	9.9	36.67	3.61	.366
	1926	32	127	11.0	111.0	10.1	40.19	3.66	.362
	1929	20	115	11.8	120.5	10.2	45.40	3.94	.377
Colorado.....	1922	7	10	14.4	114.6	8.0	111.66	7.75	.974
	1924	15	27	12.3	103.9	8.4	96.54	7.83	.936
	1926	11	27	14.2	115.8	8.2	82.28	5.80	.711
	1929	9	17	14.2	115.1	8.1	92.45	6.49	.803
Illinois.....	1922	13	23	13.0	109.0	8.4	101.46	7.80	.931
	1924	17	40	13.1	108.8	8.3	100.91	7.73	.928
	1926	18	45	13.2	115.3	8.8	105.60	8.04	.918
	1929	13	31	12.8	106.7	8.3	80.49	6.27	.754
Indiana.....	1922	9	28	12.7	107.8	8.5	102.07	8.05	.947
	1924	17	33	12.2	99.2	8.1	93.65	7.69	.944
	1926	12	31	13.5	115.1	8.6	106.85	7.94	.929
	1929	19	44	12.7	108.3	8.5	82.75	6.52	.764
Kentucky.....	1922	15	39	12.6	110.9	8.8	73.59	5.86	.665
	1924	47	89	11.6	102.7	8.9	54.36	4.70	.529
	1926	65	154	11.9	116.2	9.8	60.56	5.09	.521
	1929	56	180	12.2	114.9	9.4	55.91	4.60	.487
Ohio.....	1922	21	43	14.0	115.7	8.3	106.27	7.62	.919
	1924	41	87	12.3	101.0	8.2	92.04	7.50	.911
	1926	34	69	14.1	116.4	8.2	105.17	7.45	.904
	1929	35	75	13.0	113.3	8.7	68.80	5.29	.607
Pennsylvania.....	1922	41	152	13.9	117.1	8.4	86.70	6.23	.746
	1924	127	352	12.2	105.5	8.7	83.82	6.88	.795
	1926	127	341	13.8	124.6	9.0	89.26	6.45	.717
	1929	109	303	13.3	118.4	8.9	74.67	5.63	.631
Tennessee.....	1924	10	16	9.8	91.6	9.4	39.86	4.09	.435
	1926	8	19	9.6	86.4	9.0	34.66	3.60	.401
	1929	10	24	9.3	77.7	8.4	33.19	3.59	.427
Virginia.....	1924	6	26	10.6	98.0	9.3	34.15	3.23	.348
	1926	11	30	8.0	73.4	9.1	29.60	3.68	.403
	1929	11	32	12.6	121.6	9.7	47.64	3.79	.392
West Virginia.....	1922	32	79	11.9	105.3	8.8	73.92	6.21	.702
	1924	90	240	11.4	103.7	9.1	59.73	5.25	.576
	1926	84	238	12.5	124.6	9.9	67.55	5.39	.542
	1929	108	327	11.6	108.9	9.4	56.87	4.96	.522
Total.....	1922	157	452	13.0	110.2	8.5	80.90	6.24	.734
	1924	402	1,015	11.7	103.4	8.8	70.38	6.02	.681
	1926	402	1,081	12.7	118.3	9.3	74.04	5.84	.626
	1929	390	1,148	12.3	113.5	9.2	62.45	5.06	.550

¹ Includes data for Utah, Washington, and Wyoming.² Not including data for 6 employees whose starts were not reported.

36 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued.

(The data in this table are for employees who are usually paid rates per day, hour, or week)

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Trackmen:									
Alabama.....	1922	10	58	10.4	84.5	8.1	\$39.55	\$3.80	\$0.468
	1924	37	131	9.6	84.1	8.8	38.84	4.05	.462
	1926	36	141	10.5	93.7	9.0	42.15	4.03	.450
	1929	22	115	10.0	90.4	9.1	41.99	4.21	.465
Colorado.....	1922	8	38	12.2	97.2	8.0	94.51	7.76	.972
	1924	17	90	10.6	85.2	8.0	81.66	7.70	.968
	1926	17	101	13.0	108.7	8.3	77.90	5.97	.716
	1929	15	58	10.4	85.1	8.2	70.47	6.78	.828
Illinois.....	1922	22	301	10.8	87.8	8.1	82.36	7.62	.938
	1924	46	670	9.0	71.8	8.0	67.47	7.49	.940
	1926	39	674	10.7	86.8	8.1	81.36	7.60	.937
	1929	37	691	10.9	87.2	8.0	66.66	6.10	.764
Indiana.....	1922	11	108	10.3	82.9	8.1	77.89	7.58	.939
	1924	22	153	7.1	57.1	8.0	53.58	7.53	.938
	1926	17	125	11.1	91.4	8.3	85.12	7.69	.931
	1929	28	252	10.4	83.0	8.0	63.49	6.09	.765
Kansas.....	1924	9	30	11.6	91.1	7.9	85.38	7.38	.938
	1926	10	31	11.8	94.8	8.0	88.85	7.53	.927
	1929	8	19	11.1	89.1	8.1	55.76	5.05	.626
Kentucky.....	1922	19	159	10.5	87.7	8.4	62.30	5.94	.710
	1924	77	579	9.6	81.8	8.5	50.11	5.22	.612
	1926	86	736	10.5	88.4	8.4	50.76	4.84	.574
	1929	64	693	9.7	82.9	8.5	47.34	4.87	.571
Ohio.....	1922	25	111	10.7	86.8	8.1	81.20	7.57	.935
	1924	54	213	10.3	84.1	8.1	78.26	7.57	.931
	1926	45	228	10.1	82.1	8.2	75.19	7.48	.916
	1929	41	204	11.1	91.8	8.3	67.33	5.16	.624
Pennsylvania.....	1922	44	287	10.0	81.2	8.2	68.34	6.29	.749
	1924	151	895	10.6	89.1	8.4	71.95	6.77	.807
	1926	151	996	11.4	97.0	8.6	72.14	6.35	.744
	1929	136	898	10.9	92.4	8.6	62.92	5.77	.681
Tennessee.....	1924	20	63	9.0	73.6	8.2	34.79	3.86	.473
	1926	14	42	10.5	84.4	8.1	37.01	3.54	.439
	1929	15	61	8.4	65.8	7.8	29.34	3.50	.446
Virginia.....	1924	12	83	9.8	78.9	8.1	39.44	4.03	.500
	1926	22	161	10.5	89.2	8.5	43.67	4.15	.489
	1929	22	227	10.8	89.0	8.3	43.35	4.03	.487
West Virginia.....	1922	47	274	10.0	81.2	8.2	63.31	6.38	.780
	1924	142	1,119	9.7	82.7	8.5	50.89	5.23	.616
	1926	117	1,011	10.7	90.0	8.4	54.81	5.12	.609
	1929	144	1,435	9.9	82.1	8.3	47.94	4.82	.584
Total.....	1922	198	1,393	10.7	87.3	8.2	72.05	6.77	.826
	1924	587	4,026	9.7	81.2	8.3	59.83	6.14	.737
	1926	554	4,246	10.8	91.0	8.4	64.15	5.92	.706
	1929	532	4,653	10.4	85.8	8.3	54.47	5.26	.635
Trappers (boys):									
Alabama.....	1922	5	29	8.3	66.9	8.1	15.44	1.87	.231
	1924	18	60	7.5	64.4	8.6	14.05	1.86	.218
	1926	12	39	9.5	77.3	8.2	19.70	2.08	.255
	1929	11	32	7.6	65.0	8.6	14.64	1.94	.225
Colorado.....	1922	4	12	11.2	89.3	8.0	50.65	4.54	.567
	1924	9	31	8.1	64.8	8.0	32.66	4.03	.504
	1926	9	21	11.1	89.1	8.0	35.98	3.24	.404
	1929	4	12	5.6	44.7	8.0	22.02	3.94	.493
Illinois.....	1922	16	72	8.6	68.3	8.0	34.45	4.02	.504
	1924	25	132	7.4	54.2	7.3	30.04	4.04	.554
	1926	21	109	9.2	72.7	7.9	37.29	4.04	.513
	1929	20	88	10.4	82.5	7.9	36.32	3.49	.440
Indiana.....	1922	9	41	6.6	52.4	7.9	26.34	3.98	.503
	1924	16	65	6.0	47.6	7.9	23.65	3.93	.497
	1926	8	35	10.2	80.8	7.9	41.83	4.10	.518
	1929	15	38	8.2	63.1	7.7	27.76	3.39	.440
Kansas.....	1929	1	1	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Includes data for Utah, Washington, and Wyoming.

² Data included in total.

³ Not including data for 30 employees whose starts were not reported.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

(The data in this table are for employees who are usually paid rates per hour, day, or week)

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Trappers (boys)—Continued. Kentucky.....	1922	6	15	10.5	79.6	7.6	\$37.75	\$3.58	\$0.474
	1924	34	126	8.4	67.6	8.0	20.29	2.40	.300
	1926	34	107	10.1	81.1	8.0	22.88	2.27	.282
	1929	25	72	9.0	73.0	8.1	20.62	2.30	.283
Ohio.....	1922	22	84	9.2	72.1	7.8	36.96	4.02	.512
	1924	36	125	8.3	64.7	7.8	32.58	3.94	.504
	1926	28	77	10.0	77.7	7.8	34.26	3.42	.441
	1929	27	114	9.4	75.2	8.0	28.14	2.99	.374
Pennsylvania.....	1922	12	36	10.5	85.5	8.2	34.44	3.29	.403
	1924	37	77	10.2	84.3	8.3	42.95	4.22	.509
	1926	22	51	10.3	86.3	8.4	37.19	3.61	.431
	1929	20	34	9.7	81.2	8.3	32.13	3.30	.396
Tennessee.....	1924	15	49	7.4	58.4	7.9	14.92	2.02	.255
	1926	6	25	8.9	71.5	8.1	19.51	2.20	.273
	1929	5	33	8.4	66.6	7.9	18.82	2.24	.283
Virginia.....	1924	8	30	9.0	72.4	8.0	18.43	2.04	.254
	1926	12	50	9.9	81.1	8.2	20.45	2.07	.252
	1929	12	33	10.1	80.4	7.9	22.90	2.26	.285
West Virginia.....	1922	29	104	9.7	76.8	7.9	37.24	3.84	.485
	1924	75	230	9.2	75.7	8.2	28.76	3.11	.380
	1926	57	179	10.2	81.9	8.1	29.96	2.95	.366
	1929	60	176	9.8	80.0	8.2	27.18	2.78	.340
Total.....	1922	103	393	9.1	72.3	7.9	34.09	3.75	.472
	1924	273	925	8.3	66.7	8.0	27.24	3.27	.406
	1926	207	693	9.9	79.7	8.0	30.17	3.04	.379
	1929	200	633	9.4	75.6	8.1	26.79	2.86	.354
Other employees:									
Alabama.....	1922	8	144	10.7	87.8	8.2	38.81	3.61	.442
	1924	33	414	9.6	84.9	8.8	46.75	4.86	.551
	1926	35	440	11.0	98.1	8.9	53.27	4.84	.543
	1929	22	410	9.9	89.9	9.0	44.57	4.46	.496
Colorado.....	1922	8	54	12.3	98.6	8.0	95.22	7.77	.946
	1924	17	74	10.7	87.0	8.1	84.06	7.84	.966
	1926	16	115	13.1	110.5	8.4	81.57	6.22	.738
	1929	15	120	9.1	75.3	8.3	67.45	7.44	.895
Illinois.....	1922	22	376	11.5	94.7	8.2	95.93	8.33	1.013
	1924	46	689	10.4	85.8	8.3	85.93	8.27	1.002
	1926	39	820	11.5	97.6	8.5	97.52	8.49	.999
	1929	37	1,041	11.1	90.0	8.1	81.46	7.33	.905
Indiana.....	1922	12	105	10.8	86.5	8.0	88.42	8.21	1.022
	1924	22	129	9.3	74.7	8.0	78.58	8.45	1.052
	1926	17	185	11.9	100.7	8.5	104.09	8.75	1.033
	1929	29	267	11.0	88.9	8.1	77.73	7.10	.874
Kansas.....	1924	9	60	10.8	88.9	8.3	103.08	9.57	1.159
	1926	11	57	11.2	96.3	8.6	114.93	10.25	1.193
	1929	8	49	9.5	77.8	8.2	58.80	6.17	.756
Kentucky.....	1922	20	283	10.1	87.1	8.6	61.86	6.14	.710
	1924	76	701	10.1	88.5	8.8	65.39	6.50	.739
	1926	85	967	10.5	93.0	8.9	62.44	5.97	.671
	1929	64	874	10.2	89.8	8.8	57.67	5.64	.642
Ohio.....	1922	21	169	9.6	77.1	8.0	71.00	7.39	.921
	1924	47	254	10.7	87.8	8.2	78.62	7.36	.896
	1926	39	305	10.9	90.8	8.3	80.00	7.33	.881
	1929	39	220	11.9	98.3	8.3	66.88	5.63	.680
Pennsylvania.....	1922	44	791	11.1	95.3	11 8.4	72.36	11 6.64	.759
	1924	137	1,593	11.2	94.6	8.5	82.00	7.35	.867
	1926	143	1,835	11.7	100.9	8.6	80.46	6.86	.797
	1929	135	1,882	11.2	96.8	8.6	71.04	6.35	.734
Tennessee.....	1924	18	97	9.9	81.5	8.2	48.94	4.93	.601
	1926	11	82	9.9	81.5	8.3	43.02	4.37	.528
	1929	10	53	7.8	62.3	8.0	30.52	3.92	.490
Virginia.....	1924	11	55	9.2	76.6	8.3	50.53	5.48	.660
	1926	20	170	10.9	97.6	9.0	54.98	5.04	.563
	1929	20	239	11.2	97.6	8.8	56.94	5.12	.584

^a Not including data for 137 employees whose starts were not reported.

38 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1919, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
INSIDE MINE—continued									
Other employees—Continued.									
West Virginia.....	1922	41	219	10.6	88.3	8.4	\$72.18	\$6.83	\$0.818
	1924	122	720	10.5	92.6	8.8	63.70	6.08	.688
	1926	106	769	11.5	100.4	8.7	68.26	5.95	.680
	1929	139	1,659	10.4	91.2	8.7	62.34	5.97	.684
Total.....	1922	188	2,294	10.9	91.4	8.3	75.49	6.97	.826
	1924	538	4,786	10.5	89.7	8.5	73.32	6.97	.817
	1926	522	5,745	11.3	98.0	8.7	75.96	6.71	.775
	1929	518	6,814	10.7	92.1	8.6	66.38	6.18	.721
OUTSIDE MINE									
Blacksmiths.									
Alabama.....	1922	10	18	11.7	95.1	8.2	51.90	4.45	.546
	1924	36	49	9.7	86.0	8.9	43.77	4.51	.509
	1926	35	45	12.1	107.9	8.9	55.71	4.60	.516
	1929	22	39	10.7	95.3	8.9	48.41	4.51	.508
Colorado.....	1922	8	14	12.5	114.8	9.2	104.66	8.37	.912
	1924	17	20	11.3	98.3	8.7	89.21	7.89	.908
	1926	17	21	13.4	120.8	9.0	83.75	6.24	.693
	1929	15	20	10.9	95.1	8.8	74.77	6.89	.786
Illinois.....	1922	22	56	13.1	116.2	8.9	112.38	8.57	.967
	1924	45	119	10.5	86.8	8.3	84.06	8.00	.968
	1926	39	109	12.9	111.2	8.6	107.61	8.37	.963
	1929	37	87	12.9	110.3	8.6	89.74	6.97	.814
Indiana.....	1922	12	18	12.6	113.4	9.0	99.93	7.96	.881
	1924	22	41	8.4	74.1	8.8	65.20	7.77	.880
	1926	17	32	11.6	104.2	9.0	91.62	7.92	.879
	1929	29	41	11.3	100.7	8.9	74.56	6.59	.740
Kansas.....	1924	9	11	11.7	109.3	9.3	107.98	9.21	.983
	1926	11	12	12.9	109.8	8.5	108.50	8.40	.989
	1929	8	9	12.6	111.4	8.9	73.31	5.84	.658
Kentucky.....	1922	18	29	11.2	94.4	8.4	72.18	6.44	.765
	1924	75	113	10.9	92.2	8.5	57.32	5.26	.622
	1926	83	123	12.1	103.6	8.6	61.02	5.05	.589
	1929	63	90	10.9	93.9	8.6	58.02	5.34	.618
Ohio.....	1922	25	43	12.0	100.0	8.3	96.00	8.02	.960
	1924	56	88	12.2	85.3	8.4	81.79	8.03	.959
	1926	44	76	10.2	84.5	8.3	79.23	7.79	.938
	1929	40	58	11.3	93.3	8.3	63.53	5.63	.681
Pennsylvania.....	1922	41	84	11.0	100.2	8.8	78.73	7.16	.786
	1924	151	285	11.2	98.1	8.9	80.85	7.32	.824
	1926	147	267	11.7	106.8	9.1	80.95	6.91	.758
	1929	128	223	11.4	105.0	9.2	72.33	6.32	.689
Tennessee.....	1924	20	24	10.7	86.7	8.1	43.19	4.05	.498
	1926	14	20	9.8	80.5	8.2	36.91	3.77	.459
	1929	14	17	9.4	76.4	8.1	37.88	4.02	.496
Virginia.....	1924	12	14	10.9	90.4	8.3	54.13	4.99	.599
	1926	22	30	11.9	102.1	8.6	56.90	4.77	.557
	1929	21	28	12.6	110.9	8.8	61.68	4.91	.556
West Virginia.....	1922	43	61	10.6	90.0	8.5	76.12	7.17	.846
	1924	138	205	10.9	93.6	8.6	64.50	5.92	.689
	1926	111	174	12.1	107.9	8.9	74.91	6.20	.694
	1929	139	199	10.8	93.9	8.7	62.35	5.76	.664
Total.....	1922	191	339	11.7	102.0	8.6	87.42	7.47	.857
	1924	581	969	10.7	92.0	8.6	71.75	6.72	.780
	1926	540	909	11.9	104.8	8.8	77.94	6.56	.743
	1929	516	811	11.3	99.5	8.8	67.47	5.96	.678
Carpenters and car-repair men:									
Alabama.....	1922	8	33	9.7	81.7	8.5	33.98	3.52	.416
	1924	32	83	9.7	87.4	9.0	34.88	2.58	.399
	1926	30	122	10.6	92.0	8.7	37.61	3.55	.409
	1929	20	81	10.3	91.6	9.0	37.17	3.66	.406
Colorado.....	1922	3	6	12.1	108.0	8.9	99.07	8.14	.917
	1924	12	34	9.9	87.6	8.8	74.42	7.51	.850
	1926	13	39	12.2	110.6	9.1	73.95	6.06	.669
	1929	9	18	9.6	85.9	8.9	64.64	6.73	.752

¹ Includes data for Utah, Washington and Wyoming.

¹¹ Not including data for 137 employees whose starts were not reported.

¹² Not including data for 9 employees whose starts were not reported.

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
OUTSIDE MINE—continued									
Carpenters and car repair men—Continued.									
Illinois.....	1922	20	40	12.3	104.1	\$8.5	\$98.14	\$7.99	\$0.943
	1924	38	143	10.2	84.4	8.2	77.80	7.59	.922
	1926	37	162	12.0	101.9	8.5	93.24	7.80	.915
	1929	35	130	12.3	101.6	8.2	77.24	6.26	.760
Indiana.....	1922	6	12	10.3	85.2	8.2	75.72	7.23	.889
	1924	8	13	7.8	68.0	8.8	59.57	7.67	.876
	1926	14	29	11.8	100.6	8.6	85.50	7.27	.850
	1929	21	40	12.1	98.4	8.2	71.74	5.95	.729
Kansas.....	1924	3	4	13.0	110.5	8.5	102.94	7.92	.932
	1926	1	2	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
	1929	2	5	7.2	59.0	8.2	51.44	7.15	.872
Kentucky.....	1922	18	40	11.5	93.3	8.1	64.67	5.64	.693
	1924	61	178	10.1	84.5	8.4	49.71	4.94	.588
	1926	78	214	11.3	94.7	8.4	53.24	4.72	.562
	1929	58	158	10.7	90.9	8.5	53.38	5.01	.587
Ohio.....	1922	17	28	11.2	91.3	8.2	83.75	7.49	.917
	1924	37	59	9.7	79.1	8.2	71.80	7.43	.908
	1926	35	69	11.0	88.0	8.0	80.09	7.27	.910
	1929	36	81	10.9	99.9	8.2	54.96	5.04	.611
Pennsylvania.....	1922	37	166	10.9	96.7	18.5	67.15	13.6.18	.694
	1924	138	431	10.9	95.8	8.8	70.90	6.51	.740
	1926	138	501	11.5	101.6	8.9	67.94	5.93	.668
	1929	120	412	10.8	96.0	8.9	59.10	5.45	.616
Tennessee.....	1924	15	30	10.2	83.6	8.2	41.61	4.07	.498
	1926	11	35	10.8	89.1	8.3	38.52	3.58	.432
	1929	12	29	10.4	83.3	8.0	37.77	3.62	.454
Virginia.....	1924	11	24	9.4	74.7	8.0	40.91	4.36	.548
	1926	20	57	11.1	95.2	8.6	48.39	4.37	.508
	1929	19	56	12.1	101.9	8.4	50.94	4.21	.500
West Virginia.....	1922	38	74	10.9	90.7	8.3	69.77	6.41	.769
	1924	119	355	10.7	91.4	8.6	57.12	5.35	.625
	1926	107	315	11.4	98.2	8.6	60.37	5.27	.615
	1929	139	448	10.5	88.6	8.5	54.35	5.20	.614
Total.....	1922	157	427	11.1	94.7	18.4	71.23	13.6.42	.752
	1924	474	1,354	10.4	89.6	8.6	61.96	5.93	.691
	1926	484	1,545	11.4	98.3	8.6	64.28	5.64	.654
	1929	471	1,458	10.8	92.9	8.6	56.84	5.24	.612
Engineers:									
Alabama.....	1922	7	11	11.5	96.8	8.4	47.87	4.15	.495
	1924	24	38	10.2	81.5	8.0	43.71	4.29	.537
	1926	26	66	21.1	110.1	9.1	49.41	4.09	.449
	1929	19	39	10.4	95.3	9.1	47.01	4.50	.493
Colorado.....	1922	8	20	13.6	117.5	8.6	107.02	7.90	.914
	1924	17	60	11.4	99.8	8.7	87.01	7.61	.872
	1926	17	57	12.9	110.8	8.6	76.82	5.94	.693
	1929	16	43	9.7	80.1	8.3	67.76	7.02	.846
Illinois.....	1922	22	68	15.0	122.1	8.1	116.63	7.75	.955
	1924	45	147	14.6	120.6	8.3	116.87	8.02	.969
	1926	39	137	14.7	123.1	8.3	118.49	8.04	.963
	1929	37	123	14.9	121.8	8.2	97.79	6.57	.803
Indiana.....	1922	8	16	15.4	135.5	8.8	121.34	7.86	.895
	1924	22	41	13.9	126.9	9.1	110.71	7.98	.872
	1926	16	31	14.5	135.1	9.4	113.31	7.84	.839
	1929	27	55	13.2	109.5	8.3	94.25	7.12	.861
Kansas.....	1924	9	13	12.1	116.6	9.7	104.70	8.67	.898
	1926	11	15	12.3	119.9	9.8	106.35	8.67	.887
	1929	8	11	12.7	121.3	9.5	73.22	5.75	.604
Kentucky.....	1922	7	8	12.8	108.2	8.5	84.24	6.61	.779
	1924	38	64	13.1	123.7	9.5	69.99	5.36	.566
	1926	30	42	13.0	126.2	9.7	71.35	5.47	.565
	1929	28	47	12.3	117.3	9.6	66.79	5.44	.569
Ohio.....	1922	18	23	12.5	111.3	8.9	95.29	7.61	.856
	1924	28	38	12.6	111.4	8.9	103.91	8.26	.933
	1926	21	30	13.2	117.4	8.9	107.60	8.13	.917
	1929	25	36	14.3	119.6	8.3	94.79	5.91	.709

¹ Includes data for Utah, Washington, and Wyoming.⁴ Data included in total.¹² Not including data for 22 employees whose starts were not reported.

40 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
OUTSIDE MINE—continued									
Engineers—Continued.									
Pennsylvania.....	1922	32	71	12.4	106.6	18.5	\$80.35	\$6.50	\$0.754
	1924	103	246	12.6	112.8	8.9	91.96	7.27	.816
	1926	95	204	13.3	120.8	9.1	97.24	7.30	.805
	1929	84	190	13.0	116.7	9.0	83.18	6.40	.731
Tennessee.....	1924	5	7	11.3	99.3	8.8	49.48	4.38	.498
	1926	7	9	10.4	92.9	8.9	42.15	4.04	.454
	1929	5	6	7.0	56.0	8.0	28.65	4.09	.512
Virginia.....	1926	6	9	11.8	109.2	9.3	53.90	4.58	.493
	1929	5	6	12.3	126.7	10.3	75.80	6.15	.598
West Virginia.....	1922	16	28	15.0	165.1	11.0	100.88	6.71	.611
	1924	42	78	12.8	123.0	9.6	72.60	5.66	.590
	1926	52	74	12.7	120.2	9.4	74.91	5.88	.623
	1929	59	97	12.0	107.9	9.0	67.77	5.63	.628
Total.....	1922	129	267	13.9	121.3	18.7	99.60	7.21	.820
	1924	333	732	12.9	114.4	8.9	91.56	7.09	.801
	1926	320	674	13.3	119.6	9.0	91.17	7.83	.762
	1929	313	652	12.8	111.9	8.7	79.56	5.21	.711
Laborers:									
Alabama.....	1922	10	203	9.1	73.9	8.1	24.21	2.66	.328
	1924	39	580	8.1	71.9	8.9	20.39	2.53	.284
	1926	36	620	9.5	83.5	8.8	24.09	2.54	.288
	1929	21	438	9.2	84.0	9.1	23.57	2.66	.281
Colorado.....	1922	8	97	11.6	101.0	8.7	77.40	6.64	.766
	1924	17	210	8.9	77.6	8.8	55.53	3.27	.716
	1926	17	234	12.0	108.6	9.1	56.41	4.71	.519
	1929	16	146	7.1	62.5	8.8	37.95	5.36	.607
Illinois.....	1922	21	337	10.3	85.8	8.3	73.69	7.13	.859
	1924	45	765	9.2	75.7	8.2	65.36	7.07	.863
	1926	39	778	11.0	94.1	8.5	80.77	7.31	.858
	1929	37	789	11.1	91.9	8.3	63.34	6.69	.689
Indiana.....	1922	12	115	9.4	77.6	8.2	65.88	8.98	.849
	1924	21	192	7.1	67.2	8.0	48.64	6.81	.850
	1926	17	162	10.7	88.0	8.2	72.90	8.82	.829
	1929	29	262	10.3	83.0	8.0	56.80	5.60	.685
Kansas.....	1924	9	37	10.1	88.8	8.8	76.77	7.62	.865
	1926	11	53	11.2	91.8	8.2	76.29	8.82	.831
	1929	8	22	9.1	75.1	8.2	40.96	4.48	.546
Kentucky.....	1922	20	108	10.2	83.5	8.2	43.82	4.29	.525
	1924	78	999	9.1	78.3	8.6	36.55	4.00	.467
	1926	83	1,190	10.4	90.3	8.6	39.44	3.77	.437
	1929	63	1,040	9.6	85.4	8.9	38.54	4.03	.451
Ohio.....	1922	24	227	9.3	74.1	8.0	63.24	6.80	.853
	1924	56	441	9.1	73.6	8.1	63.24	6.92	.859
	1926	45	474	10.0	80.2	8.0	67.97	6.77	.847
	1929	41	423	9.5	76.4	8.0	41.15	4.33	.539
Pennsylvania.....	1922	42	573	10.8	95.5	18.8	54.03	5.17	.666
	1924	152	2,017	10.2	89.8	8.8	56.20	5.51	.626
	1926	149	2,098	11.0	97.9	8.9	55.11	4.99	.563
	1929	133	1,726	10.2	92.5	9.1	48.95	4.61	.507
Tennessee.....	1924	20	157	8.8	70.2	8.0	26.64	3.03	.379
	1926	15	146	8.8	69.7	8.0	25.64	2.70	.359
	1929	15	161	7.1	56.4	7.9	19.35	2.72	.343
Virginia.....	1924	12	136	8.4	68.9	8.2	25.33	3.02	.367
	1926	22	292	9.6	84.4	8.8	30.49	3.16	.361
	1929	22	286	11.0	95.8	8.7	34.90	3.16	.364
West Virginia.....	1922	46	498	9.6	80.0	8.4	46.16	4.82	.577
	1924	142	1,980	9.9	84.8	8.6	40.44	4.08	.477
	1926	118	1,530	10.9	95.2	8.8	45.93	4.23	.482
	1929	142	2,541	10.0	87.0	8.7	40.09	4.01	.461
Total.....	1922	195	2,407	10.1	84.8	18.4	55.06	5.49	.649
	1924	591	7,614	9.5	81.2	8.6	46.73	4.93	.575
	1926	550	7,877	10.7	92.6	8.7	50.53	4.74	.546
	1929	527	7,834	10.0	86.8	8.7	42.78	4.80	.493

¹ Not including data for 8 employees whose starts were not reported.

² Includes data for Utah, Washington, and Wyoming.

³ Not including data for 51 employees whose starts were not reported.

HOURS AND EARNINGS IN BITUMINOUS COAL MINING 41

TABLE B.—Average number of starts (days) and average hours and earnings of employees other than miners and loaders, 1922, 1924, 1926, and 1929, by place of work, occupation, and State—Continued

[The data in this table are for employees who are usually paid rates per hour, day, or week]

Place of work, occupation, and State	Year	Number of mines	Number of em- ployees	Average number of starts (days) made in half month	Average hours worked		Average earnings		
					In half month	Per start (day)	In half month	Per start (day)	Per hour
OUTSIDE MINE--continued									
Other employees:									
Alabama.....	1922	10	185	11.1	93.7	8.5	\$36.85	\$3.32	\$0.393
	1924	38	348	10.2	93.5	9.2	38.13	3.74	.408
	1926	33	345	11.6	108.1	9.3	44.79	3.85	.414
	1929	22	222	10.4	98.9	9.4	41.40	3.95	.419
Colorado.....	1922	7	68	12.9	115.2	8.9	97.53	7.56	.847
	1924	17	189	11.0	101.2	9.2	71.93	6.55	.711
	1926	17	162	12.8	118.6	9.3	71.41	5.58	.602
	1929	16	164	9.8	87.2	8.9	62.37	6.37	.716
Illinois.....	1922	21	247	12.5	104.5	8.4	90.15	7.24	.863
	1924	44	502	10.4	87.8	8.4	69.64	6.68	.793
	1926	38	312	12.7	108.8	8.6	88.94	7.01	.817
	1929	37	358	12.3	103.6	8.4	75.78	6.17	.731
Indiana.....	1922	12	87	12.7	106.7	8.4	93.16	7.32	.873
	1924	23	91	9.6	83.2	8.6	60.19	6.24	.724
	1926	17	96	12.0	101.2	8.4	73.40	6.12	.726
	1929	16	45	12.6	105.8	8.4	85.21	6.79	.806
Kansas.....	1924	7	18	12.0	107.5	9.0	95.51	7.96	.888
	1926	11	34	12.4	105.2	8.5	83.28	6.69	.792
	1929	8	32	10.0	84.1	8.4	53.59	5.38	.637
Kentucky.....	1922	20	258	11.1	93.7	8.5	59.46	5.38	.635
	1924	73	501	10.9	97.3	8.9	54.28	4.98	.558
	1926	83	650	11.5	104.9	9.1	57.58	4.99	.549
	1929	61	317	10.7	101.0	9.4	53.10	4.95	.526
Ohio.....	1922	25	160	11.6	95.1	8.2	73.94	6.36	.777
	1924	54	228	11.3	93.9	8.3	72.81	6.44	.775
	1926	41	215	11.4	92.6	8.1	71.65	6.27	.774
	1929	40	206	12.5	102.2	8.2	68.53	5.50	.671
Pennsylvania.....	1922	42	713	11.9	104.9	8.8	66.26	5.65	.631
	1924	151	1,596	11.9	106.7	9.0	72.06	6.08	.676
	1926	150	1,382	12.5	112.5	9.0	70.61	5.67	.628
	1929	131	1,498	11.2	102.2	9.1	57.34	5.10	.561
Tennessee.....	1924	20	125	9.2	76.5	8.3	34.33	3.72	.449
	1926	14	96	11.0	90.7	8.3	41.27	3.77	.455
	1929	13	48	10.2	83.5	8.2	36.84	3.62	.441
Virginia.....	1924	12	107	10.1	87.3	8.7	41.42	4.12	.475
	1926	22	169	11.2	102.4	9.2	49.66	4.45	.485
	1929	22	132	12.3	110.3	9.0	57.09	4.65	.517
West Virginia.....	1922	44	371	11.5	100.5	8.7	70.70	6.14	.703
	1924	139	1,118	11.2	101.4	9.1	59.02	5.29	.582
	1926	114	740	12.2	109.3	9.0	63.45	5.20	.580
	1929	140	1,121	10.6	92.2	8.7	53.61	5.04	.581
Total.....	1922	193	2,242	11.8	101.3	8.5	70.02	5.96	.691
	1924	578	4,823	11.1	99.1	8.9	62.73	5.64	.633
	1926	540	4,201	12.1	108.1	8.9	65.31	5.41	.604
	1929	506	4,143	11.1	98.7	8.9	57.53	5.18	.583

¹ Includes data for Utah, Washington, and Wyoming.

¹⁵ Not including data for 75 employees whose starts were not reported.

TABLE C.—Number of miners and loaders in each State whose average earnings per hour were within each classified amount, 1929, by occupation

	Number of employees whose average hourly earnings, based on time at face and time in mine, were within each classified amount																							
Occupation and classified earnings per hour	Alabama		Colorado		Illinois		Indiana		Kansas		Kentucky		Ohio		Pennsylvania		Tennessee		Virginia		West Virginia		Total	
	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine	At face	In mine
LOADERS, HAND																								
Under 30 cents.....	78	1,081	13	22	44	58	3	6	---	---	351	547	141	272	935	1,491	74	94	168	225	639	940	3,151	4,736
30 and under 40 cents.....	1,163	1,233	45	57	77	101	8	7	1	1	1,008	1,411	634	904	2,071	2,851	162	171	367	471	1,242	1,815	6,778	9,022
40 and under 50 cents.....	739	557	82	95	160	239	38	65	7	12	2,136	2,431	1,292	1,722	3,292	4,032	166	107	538	616	2,456	3,262	10,846	13,138
50 and under 60 cents.....	282	166	113	121	343	709	110	145	11	14	1,906	1,804	1,884	1,893	3,741	3,856	64	50	542	448	3,322	3,783	12,318	12,989
60 and under 70 cents.....	109	65	115	122	902	1,467	228	311	18	16	1,448	1,344	1,434	1,166	3,168	2,787	45	40	323	310	3,209	2,947	10,999	10,575
70 and under 80 cents.....	37	17	108	118	1,643	1,847	375	408	16	16	1,061	806	818	523	2,302	1,770	18	14	213	163	2,381	1,952	8,972	7,694
80 and under 90 cents.....	7	8	94	82	1,811	3,208	546	630	16	17	585	400	363	242	1,435	928	13	9	126	86	1,592	1,278	6,588	6,888
90 cents and under \$1.....	10	6	58	38	3,306	1,157	484	379	7	---	317	202	190	110	766	405	4	3	51	35	1,118	584	6,341	2,919
\$1 and under \$1.10.....	3	2	35	40	678	508	320	348	2	2	156	79	72	37	353	168	2	---	30	13	556	312	2,205	1,509
\$1.10 and under \$1.20.....	2	2	29	26	416	262	289	157	2	1	59	32	38	27	171	72	---	---	11	9	313	140	1,330	728
\$1.20 and under \$1.30.....	2	---	28	18	195	73	120	73	2	1	24	12	25	23	87	34	---	---	8	8	153	76	644	317
\$1.30 and under \$1.40.....	---	---	11	8	56	19	63	21	2	---	18	5	21	8	37	12	---	---	9	4	88	44	303	121
\$1.40 and under \$1.50.....	---	---	15	2	15	8	25	9	---	---	3	2	12	7	11	11	---	---	2	---	44	25	127	64
\$1.50 and under \$1.60.....	---	---	5	13	10	4	10	4	---	---	3	2	7	2	13	13	---	---	1	---	27	17	75	56
\$1.60 and under \$1.70.....	---	---	9	1	3	2	2	2	---	---	2	1	4	3	13	2	---	---	1	---	17	12	51	23
\$1.70 and under \$1.80.....	---	---	1	3	2	3	3	1	---	---	1	---	1	2	5	2	---	---	1	---	15	8	23	20
\$1.80 and under \$1.90.....	---	---	3	1	4	1	3	3	---	---	---	---	4	3	3	1	---	---	1	1	8	7	26	17
\$1.90 and under \$2.....	---	---	2	1	1	---	2	2	---	---	---	1	1	1	1	---	---	1	---	10	5	18	10	10
\$2 and under \$2.50.....	---	---	3	1	3	4	5	3	---	---	1	---	4	3	3	4	---	---	---	---	18	5	37	20
\$2.50 and under \$3.....	---	---	---	---	2	1	---	---	---	---	---	---	3	---	1	---	---	---	---	---	3	2	9	3
\$3 and over.....	---	---	---	---	---	---	---	---	---	---	1	1	---	---	1	---	---	---	---	---	5	3	7	4
Total.....	3,167	3,137	769	769	9,671	9,671	2,634	2,634	80	80	9,680	9,680	6,948	6,948	18,439	18,439	488	488	2,391	2,391	17,216	17,216	70,853	70,853
Average earnings, in cents, per hour.....	38.8	35.3	73.6	68.8	85.7	79.1	92.2	86.5	71.9	67.6	50.5	54.7	59.2	54.5	60.1	54.2	46.4	43.6	54.9	51.3	65.3	59.1	64.8	59.2
MINERS, HAND OR PICK																								
Under 30 cents.....	45	74	10	19	62	87	8	9	25	31	7	20	---	---	255	433	64	76	---	---	39	54	515	803
30 and under 40 cents.....	187	367	41	70	100	143	27	41	57	97	61	103	---	---	666	995	113	136	---	---	95	143	1,347	2,035
40 and under 50 cents.....	311	339	71	97	191	273	90	114	165	195	159	182	---	---	1,308	1,722	122	150	---	---	207	289	2,624	3,361
50 and under 60 cents.....	286	212	105	129	352	475	169	225	222	267	193	172	1	1	1,706	2,040	121	85	---	---	347	393	3,502	3,999
60 and under 70 cents.....	141	109	136	181	473	467	266	278	205	223	113	112	2	2	1,690	1,647	58	66	---	---	315	322	3,399	3,387
70 and under 80 cents.....	88	44	176	168	457	469	241	278	192	194	86	59	---	---	1,350	1,083	26	28	---	---	299	248	2,915	2,571
80 and under 90 cents.....	32	16	164	166	384	294	238	218	161	120	51	44	---	---	915	622	27	20	---	---	198	120	2,170	1,620

90 cents and under \$1.	10	9	158	124	227	158	192	178	98	68	85	21			602	304	15	10			88	51	1,425	923
\$1 and under \$1.10.	11	5	101	77	129	73	146	102	61	23	10	8			309	149	6	4			45	30	817	471
\$1.10 and under \$1.20.	2	4	72	48	64	34	82	56	29	17	10	7			165	70	3	2			21	15	448	253
\$1.20 and under \$1.30.	6	1	43	21	32	8	44	21	13	6	3				79	26	2	2			14	12	236	97
\$1.30 and under \$1.40.	1		24	17	9	5	21	12	11	3					38	17	2				10	7	116	61
\$1.40 and under \$1.50.			15	18	6	1	9	2	5	4					17	7					4	4	65	36
\$1.50 and under \$1.60.			19	5	1	1	2	5	2	2					13	2					5	1	42	16
\$1.60 and under \$1.70.			4	4	1		5	2	3						1	1					2	2	10	9
\$1.70 and under \$1.80.			4	1	1		2		1						3	3					2		13	6
\$1.80 and under \$1.90.			2							1	1	1			2							2	5	5
\$1.90 and under \$2.				3				1	1	1	1				1						2		5	5
\$2 and under \$2.50.			5	1			2	1	1		1				2	2					2	3	13	7
\$2.50 and under \$3.															1						1		2	
\$3 and over.																					1	1	1	1
Total.	1,120	1,120	1,150	1,150	2,488	2,488	1,543	1,543	1,252	1,252	731	731	3	3	9,123	9,123	559	559			1,697	1,697	19,666	19,666
Average earnings in cents per hour.	53.1	48.0	85.3	77.5	71.6	65.6	79.6	74.9	71.1	64.7	62.3	57.5	64.7	57.8	65.7	58.6	50.0	47.1			66.9	61.2	67.3	60.9
MINERS, MACHINE (CUTTERS)																								
Under 30 cents.	6	9									2	2	7	7	6	13					2	3	23	34
30 and under 40 cents.	10	10									4	11	2	4	17	31	2	4			9	12	44	72
40 and under 50 cents.	9	13									20	25	11	21	50	59	7	12	4		20	43	121	192
50 and under 60 cents.	18	21			8	2			1	1	56	67	38	64	75	147	12	5	38	33	75	96	321	446
60 and under 70 cents.	23	25	1		36	53	2	6			51	52	88	116	149	192		16	11	89	89	457	547	
70 and under 80 cents.	19	15		3	39	65	21	23	1	1	62	97	97	120	228	276	2	3	18	19	102	140	589	762
80 and under 90 cents.	9	10	5	14	70	95	16	18			82	87	136	124	223	211	1		11	17	126	155	679	733
90 cents and under \$1.	9	5	13	6	109	131	28	34	2	1	77	72	88	72	199	176			7	11	144	137	676	845
\$1 and under \$1.10.	5	7	5	3	134	232	21	79	1		72	62	78	56	151	128			17	12	130	137	614	714
\$1.10 and under \$1.20.	7	5	7	5	366	296	83	34			103	104	35	28	104	80			10	1	117	113	832	866
\$1.20 and under \$1.30.	5	4	4	5	115	66	37	37	1	1	49	43	33	22	91	73	4	4			100	85	439	340
\$1.30 and under \$1.40.	4	1	1	4	77	84	26	38			39	15	30	15	72	60					4	65	71	292
\$1.40 and under \$1.50.		1	5	2	82	33	44	21			17	13	7	12	55	45					80	48	292	175
\$1.50 and under \$1.60.	1	1			29	25	10	19			14	9	6		54	23			2	2	61	23	179	102
\$1.60 and under \$1.70.		1			24	4	21	7			10	4	4	2	37	9			2	1	24	22	123	50
\$1.70 and under \$1.80.				4	7	4	5	4			5	2			6	7			1		19	15	48	36
\$1.80 and under \$1.90.			1		7	4	4				1		3		7	13					18	6	37	37
\$1.90 and under \$2.	2	1			8	2	8	7							13	16					7	8	36	34
\$2 and under \$2.50.				1	10	28	15				5	4			28	10					24	10	93	50
\$2.50 and under \$3.			3	2	6	2									1						2	1	14	6
\$3 and over.			2	2	3	2																		4
Total.	129	129	52	52	1,122	1,122	356	356	8	8	669	669	663	663	1,568	1,568	28	28			1,214	1,214	5,937	5,937
Average earnings in cents per hour.	74.2	68.0	117.2	109.9	113.9	105.2	129.5	121.7	82.3	77.3	98.3	89.2	87.6	81.0	97.8	88.7	65.1	61.9			78.7	74.6	106.2	97.6

44 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE D.—*Number of employees other than miners and loaders in each State whose average earnings per hour were within each classified amount, 1929, by occupation*

[Earnings per hour in this table are based on time actually worked, exclusive of travel time and lunch time]

	Number of employees in each occupation whose average hourly earnings were within each classified amount											
Place of work, occupation, and classified earnings per hour	Ala-bama	Colo-rado	Illi-nois	Indi-ana	Kan-sas	Ken-tucky	Ohio	Penn-syl-va-nia	Ten-nes-see	Vir-ginia	West Vir-ginia	Total
INSIDE MINE												
Brakemen:												
Under 30 cents	16											16
30 and under 40 cents	145					12			35	20	2	214
40 and under 50 cents	91					293	2	11	34	131	245	807
50 and under 60 cents	4	2	2	15		351	79	106	1	94	1,086	1,740
60 and under 70 cents		1	7	8	12	9	96	440			200	774
70 and under 80 cents		7	539	144		2	8	370		1	42	1,112
80 and under 90 cents		26	19	18		78	2	1			24	168
90 cents and under \$1		1	1	4		4	1	1			2	14
\$1 and under \$1.10				2							3	6
\$1.10 and under \$1.20				1								1
\$1.20 and under \$1.40											2	2
Total	256	37	568	192	12	749	188	930	70	246	1,606	4,854
Average earnings, in cents, per hour	39.5	78.1	75.9	76.7	62.5	52.7	61.6	67.2	37.8	45.1	55.1	59.6
Brattice men and Timbermen:												
Under 30 cents	1					1			9	2		1
30 and under 40 cents	49											61
40 and under 50 cents	99					41			15	13	42	150
50 and under 60 cents	10					284	21	72	5	106	364	862
60 and under 70 cents	7		7	2	13	25	205	279		2	139	679
70 and under 80 cents		4	455	122	1	2	8	347		1	35	975
80 and under 90 cents		72	27	9		19		2			6	135
90 cents and under \$1		1	1	3		23					4	32
\$1 and under \$1.10		1	1								1	3
\$1.10 and under \$1.20		1	2									3
Total	106	79	493	136	14	395	234	700	29	124	591	2,901
Average earnings, in cents, per hour	42.4	82.7	76.5	76.9	63.2	56.9	62.5	69.6	43.4	50.0	57.9	64.8
Drivers:												
Under 30 cents	6					4					1	11
30 and under 40 cents	230		1			3			1	15	13	263
40 and under 50 cents	8					89	1	6	44	18	57	223
50 and under 60 cents						188	29	58		3	476	754
60 and under 70 cents		4	22	2	59	45	371	587			119	1,209
70 and under 80 cents		20	354	246	1			452			2	1,075
80 and under 90 cents		182	45	21				3			7	258
90 cents and under \$1		6	4	2		2		2				16
\$1 and under \$1.10											1	1
\$1.10 and under \$1.20		1										1
Total	244	213	426	271	60	331	401	1,108	45	36	676	3,811
Average earnings, in cents, per hour	34.3	82.0	76.3	76.8	63.4	52.2	62.1	68.3	43.3	40.8	55.0	63.7
Laborers:												
Under 30 cents	166					2				4	2	174
30 and under 40 cents	276					204	2	13	85	55	72	707
40 and under 50 cents	223					676	3	176	35	304	746	2,163
50 and under 60 cents	32		1			263	207	660	2	64	1,256	2,485
60 and under 70 cents	1	3	9	6	27	10	65	695			108	924
70 and under 80 cents	1	13	702	144		14	20	313			7	1,214
80 and under 90 cents		23	36	5		60	1	3			28	156
90 cents and under \$1			1					1			2	4
\$1 and under \$1.10		3		2			1				1	8
\$1.10 and under \$1.20			1									1
\$1.20 and under \$1.30				1				1				2
\$1.30 and under \$1.40							3					3
\$1.40 and under \$1.50												
\$1.50 and under \$1.60	1											1
Total	703	39	751	158	27	1,229	302	1,862	122	427	2,222	7,842
Average earnings, in cents, per hour	38.2	78.2	74.9	76.6	62.6	46.2	60.5	60.6	36.0	42.0	50.2	54.4

TABLE D.—*Number of employees other than miners and loaders in each State whose average earnings per hour were within each classified amount, 1929, by occupation—Continued*

[Earnings per hour in this table are based on time actually worked, exclusive of travel time and lunch time]

Place of work, occupation, and classified earnings per hour	Number of employees in each occupation whose average hourly earnings were within each classified amount											Total
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia	
INSIDE MINE—continued												
Motormen:												
Under 30 cents	2					1						3
30 and under 40 cents	72					9			8		1	90
40 and under 50 cents	69					38			24	45	101	277
50 and under 60 cents	70					500	22	83	31	165	991	1,872
60 and under 70 cents		1	3	14	14	90	159	485		7	348	1,120
70 and under 80 cents			8	11		4	17	510			55	606
80 and under 90 cents		28	530	184		16	2	5			15	780
90 cents and under \$1			12	7		65					20	104
\$1 and under \$1.10		1	2			1					1	5
\$1.10 and under \$1.20		3										3
Total	219	33	555	217	14	724	200	1,083	63	220	1,532	4,860
Average earnings, in cents, per hour	47.0	84.9	85.7	83.0	68.6	57.9	62.9	69.7	45.9	50.2	59.0	64.9
Trackmen:												
Under 30 cents								1	1		1	3
30 and under 40 cents	36					8		17	8			69
40 and under 50 cents	43					96	1	35	48		76	299
50 and under 60 cents	33			1		476	17	100	8	169	1,008	1,812
60 and under 70 cents	1		4	6	19	32	183	402		2	268	917
70 and under 80 cents	1	2	663	229		1	3	394			55	1,348
80 and under 90 cents	1	55	20	15		30		1			6	128
90 cents and under \$1		1	2	1		50					20	74
\$1 and under \$1.10			2									2
\$1.10 and under \$1.20											1	1
Total	115	58	691	252	19	693	204	898	61	227	1,435	4,653
Average earnings, in cents, per hour	46.5	82.8	76.4	76.5	62.6	57.1	62.4	68.1	44.6	48.7	58.4	63.5
OUTSIDE MINE												
Carpenters and car-repair men:												
Under 30 cents	35								7	1	1	44
30 and under 40 cents	42					32		19	16	18	14	141
40 and under 50 cents	2			3	1	80	51	164	6	29	201	537
50 and under 60 cents	2	5	2	1		10	26	140		7	135	323
60 and under 70 cents		10	114	33		13	3	80		1	87	341
70 and under 80 cents		2	12			13		6			8	41
80 and under 90 cents			2	1		10	1	3			1	18
90 cents and under \$1		1			4						1	6
\$1 and under \$1.10				1								1
\$1.10 and under \$1.20				1								1
\$1.30 and under \$1.40				1								1
Total	81	18	130	40	5	188	81	412	29	56	448	1,458
Average earnings, in cents, per hour	40.6	75.2	76.0	72.9	87.2	58.7	61.1	61.6	45.4	50.0	61.4	61.2
Laborers:												
Under 30 cents	328			1		13		5	15	14	7	383
30 and under 40 cents	106	1	1			309	27	182	108	175	284	1,193
40 and under 50 cents	4	18	47	6		546	23	521	37	88	1,155	2,444
50 and under 60 cents		46	23	6	22	38	327	583	1	9	1,023	2,078
60 and under 70 cents		54	14	21		127	45	395			40	569
70 and under 80 cents		23	699	226		7		39			31	1,145
80 and under 90 cents		4	3	2		1		1			1	18
90 cents and under \$1												1
\$1 and under \$1.10			2				1					3
Total	438	146	789	262	22	1,040	423	1,726	161	286	2,541	7,834
Average earnings, in cents, per hour	28.1	60.7	68.9	68.5	54.6	45.1	53.9	60.7	34.3	36.4	46.1	49.3

46 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE E.—Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929

	Number of employees in each occupation whose hours were within each classified group											
Place of work, occupation, and classified hours in half month	Ala-bama	Colo-rado	Illi-nois	Indi-ana	Kan-sas	Ken-tucky	Ohio	Penn-syl-va-nia	Ten-nes-see	Vir-ginia	West Vir-ginia	Total
INSIDE MINE												
Brakemen: ¹												
Under 8 hours.....			1			1		1	1		10	14
8 and under 16 hours.....	3	1	5	5		14	6	11	3	9	116	173
16 and under 24 hours.....	4		8	3		11	2	9	5	4	61	107
24 and under 32 hours.....	5	2	11	5		19	2	13	5	11	42	115
32 and under 40 hours.....	8	5	8	7	1	27	8	11	6	3	42	126
40 and under 48 hours.....	13	2	7	8	3	28	2	21	4	9	49	146
48 and under 56 hours.....	15		14	8	2	35	19	28	12	10	70	213
56 and under 64 hours.....	15		34	9	1	47	18	47	4	6	92	273
64 and under 72 hours.....	11	6	40	16	1	60	18	59	4	17	85	317
72 and under 80 hours.....	31	2	41	19	1	76	10	77	6	14	149	426
80 and under 88 hours.....	23		72	36		107	14	105	2	13	170	542
88 and under 96 hours.....	37	4	62	25	1	105	20	105	3	30	198	590
96 and under 104 hours.....	51	4	115	19	2	66	10	143	6	31	187	636
104 and under 112 hours.....	22	4	90	11		69	19	135	4	42	159	555
112 and under 120 hours.....	12	5	32	8		34	10	66	4	16	80	267
120 and under 128 hours.....	6		16	5		23	20	43		14	48	175
128 and under 136 hours.....			7	4		17	6	21		9	26	90
136 and under 144 hours.....			2	3		5	4	14	1	6	12	47
144 and under 152 hours.....			2	1		4	4	11		2	6	26
152 and under 160 hours.....			1			1		4			2	8
160 and under 168 hours.....								1				1
168 and under 176 hours.....								2			2	4
176 and under 184 hours.....								2				2
184 and under 192 hours.....								1				1
Total.....	256	37	568	192	12	749	188	930	70	246	1,006	4,854
Average hours worked in half month.....	80.6	75.8	86.8	78.9	61.7	79.5	81.1	89.6	60.4	85.6	75.4	81.0
Bratticemen and timbermen: ¹												
Under 8 hours.....			1	1		1					7	10
8 and under 16 hours.....		2	4	3		7	4	4	3	3	20	50
16 and under 24 hours.....			7	1		3	3	5	2	2	13	36
24 and under 32 hours.....			4	1		4	4	3	1	1	7	25
32 and under 40 hours.....	1	3	7	1		5	5	7		2	6	37
40 and under 48 hours.....	3	3	6	6		11	2	15	2	4	8	60
48 and under 56 hours.....	6	7	10	3	2	9	5	11	1	2	11	67
56 and under 64 hours.....	4	4	19	2	1	31	11	17		3	23	115
64 and under 72 hours.....	8	6	46	10		19	11	35	3	2	28	168
72 and under 80 hours.....	13	6	29	5	3	42	8	49	1	5	36	197
80 and under 88 hours.....	4	8	44	12	1	64	25	86	3	5	59	311
88 and under 96 hours.....	14	10	54	21	1	71	32	74	2	21	119	419
96 and under 104 hours.....	11	9	95	29	3	46	24	97	5	26	88	433
104 and under 112 hours.....	16	7	82	21	1	46	34	150	2	31	92	482
112 and under 120 hours.....	15	11	52	10	2	15	15	80	3	5	36	244
120 and under 128 hours.....	7	1	19	7		11	17	39	1	6	23	131
128 and under 136 hours.....	1	2	9	1		5	19	8		3	11	59
136 and under 144 hours.....	1		1	2		2	6	13			1	26
144 and under 152 hours.....	1		2			1	3	4		2	2	15
152 and under 160 hours.....	1		1			2	2	1			1	8
160 and under 168 hours.....			1				2	2		1		6
168 and under 176 hours.....							2					2
Total.....	106	79	493	136	14	395	234	700	29	124	591	2,901
Average hours worked in half month.....	92.1	80.7	88.9	88.6	82.8	82.6	93.3	92.9	71.4	91.4	84.6	88.3
Drivers: ¹												
Under 8 hours.....	3		2	1	1		1	2	1		2	13
8 and under 16 hours.....	3	18	6	5		7	12	11	2	2	30	96
16 and under 24 hours.....	4	16	7	6		6	15	9		2	14	79
24 and under 32 hours.....	3	12	3	1	2	5	13	11	2		12	64
32 and under 40 hours.....	4	25	6	11	2	28	12	25	5	1	45	164
40 and under 48 hours.....	7	23	4	26	3	40	20	41	3	2	18	187
48 and under 56 hours.....	12	6	8	16		50	6	40		2	32	172
56 and under 64 hours.....	21	11	16	19	8	35	18	49	1	2	54	235
64 and under 72 hours.....	20	39	12	21	10	25	53	77	2		70	329
72 and under 80 hours.....	41	26	49	23	4	23	33	78		3	61	341

¹ The hours for this occupation are hours actually worked.

TABLE E.—Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929—Continued

Place of work, occupation, and classified hours in half month	Number of employees in each occupation whose hours were within each classified group											Total
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia	
INSIDE MINE—continued												
Drivers—Continued.												
80 and under 88 hours..	41	16	32	43	11	23	29	157	9	2	81	441
88 and under 96 hours..	49	5	45	35	9	15	64	141	11	5	94	473
96 and under 104 hours..	20	5	78	18	5	11	27	149	5	10	73	401
104 and under 112 hours..	7	7	61	13	3	20	32	207	3	4	41	403
112 and under 120 hours..	6	1	50	15	1	28	34	55		1	25	216
120 and under 128 hours..	2	1	24	11	1	10	22	20			9	100
128 and under 136 hours..	1	1	18	5		3	4	26			6	64
136 and under 144 hours..				1		1	3	7			2	14
144 and under 152 hours..		1	2	1			3	1	1		1	9
152 and under 160 hours..			3	1			2	1	1		1	8
160 and under 168 hours..							1					1
168 and under 176 hours..								1				1
Total.....	244	213	426	271	60	331	401	1,108	45	36	676	3,811
Average hours worked in half month.....	75.4	52.8	91.8	75.9	73.6	67.8	78.1	84.8	72.9	75.3	72.4	77.8
Laborers: ¹												
Under 8 hours.....			2		1	2		3	6		105	119
8 and under 16 hours..	17		18	16		55	3	23	17	15	266	430
16 and under 24 hours..	12	2	16	8	1	59	16	16	11	21	99	261
24 and under 32 hours..	17	1	13	2		50	11	27	7	17	88	233
32 and under 40 hours..	25		13	2	2	44	14	38	9	16	75	238
40 and under 48 hours..	26	2	15	6	2	59	10	44	11	13	72	260
48 and under 56 hours..	23	1	32	4		60	21	64	7	18	76	306
56 and under 64 hours..	49	1	51	4		87	18	80	8	15	108	421
64 and under 72 hours..	56	8	51	9	2	79	22	133	8	20	121	509
72 and under 80 hours..	56	12	50	4	1	120	16	181	10	23	140	623
80 and under 88 hours..	102	2	88	20	6	151	18	247	2	34	212	882
88 and under 96 hours..	87	2	56	17	1	146	30	237	7	54	255	892
96 and under 104 hours..	104	3	139	20	2	97	30	217	9	80	212	913
104 and under 112 hours..	72	5	117	16	8	122	35	315	1	61	218	970
112 and under 120 hours..	43		62	9	1	39	23	120	1	19	100	417
120 and under 128 hours..	7		22	11		24	19	58		13	36	190
128 and under 136 hours..	3		4	7		16	10	31	1	6	17	95
136 and under 144 hours..			1	1		2	3	13	3		11	34
144 and under 152 hours..	2					4	1	6	4		8	25
152 and under 160 hours..	1		1	1		1		4		1	2	11
160 and under 168 hours..	1			1		1	2	3		1	1	10
168 and under 176 hours..								1		1		1
176 and under 184 hours..						1		1				2
Total.....	703	39	751	158	27	1,229	302	1,862	122	427	2,222	7,842
Average hours worked in half month.....	79.6	71.3	82.5	79.4	77.4	70.8	79.3	85.1	52.6	78.5	65.2	75.2
Loaders, hand: ²												
Under 8 hours.....	6	5	24	16		93	32	73	6	21	146	422
8 and under 16 hours..	61	82	106	44	2	252	117	259	24	65	392	1,404
16 and under 24 hours..	121	65	137	58	4	315	171	355	37	68	441	1,772
24 and under 32 hours..	75	45	312	81	6	482	233	429	41	68	476	2,248
32 and under 40 hours..	68	54	229	350	58	637	262	572	107	77	738	3,152
40 and under 48 hours..	132	75	291	171	5	410	418	871	96	100	859	3,428
48 and under 56 hours..	171	72	720	136	3	501	703	771	29	132	1,113	4,351
56 and under 64 hours..	234	47	911	287		820	464	1,126	40	138	1,479	5,546
64 and under 72 hours..	259	53	702	203	2	659	702	1,399	24	177	1,506	5,686
72 and under 80 hours..	251	56	815	283		918	864	1,631	16	232	1,657	6,723
80 and under 88 hours..	358	41	961	511		1,166	510	1,822	14	251	1,723	7,357
88 and under 96 hours..	450	48	1,385	179		930	624	2,072	13	331	1,725	7,757
96 and under 104 hours..	300	52	793	185		594	605	1,880	24	311	1,674	6,418
104 and under 112 hours..	344	30	929	129		474	345	2,129	17	294	1,456	6,437
112 and under 120 hours..	126	40	878	1		403	346	1,561		94	1,088	4,537
120 and under 128 hours..	109	4	466			231	499	1,145		25	543	3,022
128 and under 136 hours..	23		5			151	49	239		5	145	617
136 and under 144 hours..	47		7			30	1	84		1	36	206
144 and under 152 hours..	2					11	3	18			13	47
152 and under 160 hours..						2		2		1	3	8

¹ The hours for this occupation are hours actually worked.² The hours for this occupation are total hours in mine, including hours actually worked, travel time in mine, and lunch time.

48 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE E.—Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929—Continued

Place of work, occupation, and classified hours in half month	Number of employees in each occupation whose hours were within each classified group										
	Ala-bama	Colo-rado	Illi-nois	Indi-ana	Kan-sas	Ken-tucky	Ohio	Penn-syl-va-nia	Ten-nes-see	Vir-ginia	West Vir-ginia
INSIDE MINE—continued											
Loaders, hand—Continued.											
160 and under 168 hours.						1					2
176 and under 184 hours.								1			1
192 hours and over.											1
Total.	3,137	769	9,671	2,634	80	9,080	6,948	18,439	488	2,391	17,216
Average hours worked in half month.	79.5	57.6	81.0	66.5	35.8	71.2	75.1	83.2	48.1	77.2	76.2
Miners, hand or pick: ¹											
Under 8 hours.		10	6	4	4	2		24			7
8 and under 16 hours.	19	39	19	19	19	12		100	10		27
16 and under 24 hours.	16	63	16	31	42	7		125	28		39
24 and under 32 hours.	17	77	29	50	44	14		157	35		44
32 and under 40 hours.	24	129	25	110	162	15		218	33		56
40 and under 48 hours.	48	69	38	204	69	16		282	45		126
48 and under 56 hours.	59	104	56	128	116	18		255	71		134
56 and under 64 hours.	105	106	100	181	371	29	1	338	47		168
64 and under 72 hours.	73	302	175	101	117	38		472	31		134
72 and under 80 hours.	89	135	248	168	306	62		633	40		168
80 and under 88 hours.	133	41	171	299	2	73		862	68		189
88 and under 96 hours.	159	36	157	191		121	1,188	75			206
96 and under 104 hours.	43	35	188	29		108	1,199	40			139
104 and under 112 hours.	124	4	465	28		78	1,148	35			100
112 and under 120 hours.	72		175			24	982	1			113
120 and under 128 hours.	72					65	1,003				43
128 and under 136 hours.	34		366			48	107				2
136 and under 144 hours.	33					1	20				54
144 and under 152 hours.							9				11
160 and under 168 hours.							2				2
Total.	1,120	1,150	2,488	1,543	1,252	731	3	9,123	559		1,697
Average hours worked in half month.	84.6	55.6	96.7	65.4	55.9	89.6	93.3	90.3	65.3		74.9
Miners, machine: ¹											
Under 8 hours.							4		1		3
8 and under 16 hours.	1	8	8			8	14	11		1	13
16 and under 24 hours.	3	7	7	2		12	7	11	3		9
24 and under 32 hours.	1	3	12	2		19	13	19			17
32 and under 40 hours.		3	14	33	6	52	5	32	3		44
40 and under 48 hours.	5	1	17	16		16	12	38	1		28
48 and under 56 hours.	6	7	67	11	1	12	11	40		5	43
56 and under 64 hours.	7	3	104	35		55	57	48	4	4	24
64 and under 72 hours.	6	8	108	42	1	14	26	107	2	1	45
72 and under 80 hours.	3	3	122	44		34	94	83	7	1	86
80 and under 88 hours.	12	3	107	76		94	31	131	1	7	67
88 and under 96 hours.	8		145	16		65	63	139		7	92
96 and under 104 hours.	14	2	85	37		79	92	142	1	23	127
104 and under 112 hours.	22		136	37		59	35	178	2	12	135
112 and under 120 hours.	16	2	127	1		48	39	179		16	109
120 and under 128 hours.	16	1	60	3		34	112	205		14	148
128 and under 136 hours.	5	1	3	1		30	32	100		8	99
136 and under 144 hours.	4					9	7	47		10	37
144 and under 152 hours.						21	4	18		7	37
152 and under 160 hours.						4	3	11		2	14
160 and under 168 hours.						2	2	5		2	13
168 and under 176 hours.						2		9			15
176 and under 184 hours.								6			5
184 and under 192 hours.								4			2
192 hours and over.								5			7
Total.	129	52	1,122	356	8	669	663	1,568	28	128	1,214
Average hours worked in half month.	95.1	52.0	85.8	75.9	42.1	86.9	91.1	98.8	57.6	104.7	100.1

¹ The hours for this occupation are total hours in mine, including hours actually worked, travel time in mine, and lunch time.

HOURS AND EARNINGS IN BITUMINOUS COAL MINING 49

TABLE E.—*Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929—Continued*

Place of work, occupation, and classified hours in half month	Number of employees in each occupation whose hours were within each classified group											Total
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Tenn- see	Vir- ginia	West Vir- ginia	
INSIDE MINE—continued												
Motormen: 1												
Under 8 hours.....									2		3	5
8 and under 16 hours.....	3		5	1		9	3	4	3	4	74	106
16 and under 24 hours.....	1		2			4	3	6	2	3	39	60
24 and under 32 hours.....	3	2	2	6		4	3	5	2	4	35	66
32 and under 40 hours.....	6	2	3	5	1	10	6	7	6	1	32	79
40 and under 48 hours.....	6	2	5	8	3	17	6	20	5	2	44	118
48 and under 56 hours.....	12		13	6	1	27	11	29	10	4	41	154
56 and under 64 hours.....	8	1	21	8		25	21	61	5	5	67	222
64 and under 72 hours.....	8	8	28	13		38	18	64		4	58	239
72 and under 80 hours.....	22	1	33	20	2	59	9	83	2	5	94	330
80 and under 88 hours.....	19	1	39	30	1	86	17	112	1	8	144	458
88 and under 96 hours.....	29	7	58	38	2	109	17	106	2	36	205	609
96 and under 104 hours.....	59		104	24	3	97	21	149	3	39	216	715
104 and under 112 hours.....	20	4	127	21	1	92	17	186	6	42	206	722
112 and under 120 hours.....	16	1	66	20		64	13	96	6	24	93	399
120 and under 128 hours.....	4	3	25	9		39	10	62	4	21	67	244
128 and under 136 hours.....	1	1	14	6		28	9	39	2	9	55	164
136 and under 144 hours.....	2		7	1		6	8	21		6	27	78
144 and under 152 hours.....			1			4	5	13		2	17	42
152 and under 160 hours.....			2	1		3	3	8			6	23
160 and under 168 hours.....						1		4		1	6	12
168 and under 176 hours.....						1		3	1		2	7
176 and under 184 hours.....						1		4				5
184 and under 192 hours.....								1	1		1	3
Total.....	219	33	555	217	14	724	200	1,033	63	220	1,532	4,860
Average hours worked in half month.....	83.6	78.6	96.4	87.1	72.1	90.5	85.8	94.4	71.3	97.5	85.1	89.6
Trackmen: 1												
Under 8 hours.....						2				1	9	12
8 and under 16 hours.....	1		8	5		14		4	3	2	49	86
16 and under 24 hours.....	2	1	9	3		10	2	6	1	5	37	76
24 and under 32 hours.....	2	1	8	2		9	3	4	4	6	34	73
32 and under 40 hours.....		4	13	3		29		8	1	6	37	101
40 and under 48 hours.....	3	2	11	13		22	5	22	5	2	30	115
48 and under 56 hours.....	6	2	14	21	2	18	17	20	5	5	42	152
56 and under 64 hours.....	7	2	28	6	1	25	13	24	8	9	55	178
64 and under 72 hours.....	3	1	53	13	2	42	11	41	6	9	69	250
72 and under 80 hours.....	6	3	41	14		72	10	64	4	7	97	318
80 and under 88 hours.....	11	6	79	29	2	87	16	122	10	17	150	529
88 and under 96 hours.....	13	12	84	44	1	103	28	102	4	31	188	610
96 and under 104 hours.....	23	2	110	48	3	83	18	126	7	39	190	649
104 and under 112 hours.....	13	12	135	21	5	86	21	177	1	54	228	753
112 and under 120 hours.....	15	4	68	14	2	37	12	86	1	19	107	365
120 and under 128 hours.....	7	5	22	10	1	25	22	48		9	49	198
128 and under 136 hours.....	1	1	6	3		15	16	23		4	32	101
136 and under 144 hours.....						6	2	8		1	20	38
144 and under 152 hours.....	1			3		6	4	7	1		6	30
152 and under 160 hours.....			2			2		2			6	10
160 and under 168 hours.....							2	2				4
168 and under 176 hours.....								2				2
176 and under 184 hours.....							2			1		3
Total.....	115	58	691	252	19	693	204	898	61	227	1,435	4,653
Average hours worked in half month.....	90.4	85.1	87.2	83.0	89.1	82.9	91.8	92.4	65.8	89.0	82.1	85.8

The hours for this occupation are hours actually worked.

50 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE E.—Number of employees in each specified occupation in each State who worked each classified number of hours in half month, 1929—Continued

	Number of employees in each occupation whose hours were within each classified group												
Place of work, occupation, and classified hours in half month	Ala-bama	Colo-rado	Illino-is	Indi-ana	Kan-sas	Ken-tucky	Ohio	Penn-sylv-ania	Ten-nessee	Vir-ginia	West Vir-ginia	Total	
OUTSIDE MINE													
Carpenters and car-repair men: ¹													
Under 8 hours.....											3	3	
8 and under 16 hours.....			1		1			3			15	20	
16 and under 24 hours.....					1			3			11	15	
24 and under 32 hours.....	1					1	2	2			7	13	
32 and under 40 hours.....	1	1		1		3	3	10	1		6	26	
40 and under 48 hours.....	4				1	8	4	22	1		6	46	
48 and under 56 hours.....	2	3	2	1		2	4	6	3	2	6	31	
56 and under 64 hours.....	2		3	1		3	7	10	2	1	16	45	
64 and under 72 hours.....	3		3	1		13	1	13	1	2	21	58	
72 and under 80 hours.....	5	1	7	2		8	5	23	3		20	74	
80 and under 88 hours.....	15	1	11	3		18	3	33	2	2	32	120	
88 and under 96 hours.....	12	6	11	6	1	20	11	37	1	6	72	183	
96 and under 104 hours.....	10	2	24	8		21	4	55	7	7	54	192	
104 and under 112 hours.....	9	2	26	9		36	11	60	8	24	106	291	
112 and under 120 hours.....	8	2	17			12	12	62		6	30	149	
120 and under 128 hours.....	4		13	2		3	9	31		2	18	82	
128 and under 136 hours.....	4		5	3	1	7	1	20		1	12	54	
136 and under 144 hours.....			4	1		2	3	10		1	5	26	
144 and under 152 hours.....			1	2				7			3	13	
152 and under 160 hours.....	1		2				1	3		1	2	10	
160 and under 168 hours.....								1		1	3	5	
168 and under 176 hours.....						1						1	
176 and under 184 hours.....								1				1	
Total.....	81	18	130	40	5	158	81	412	29	56	448	1,458	
Average hours worked in half month.....	91.6	85.9	101.6	98.4	59.0	90.9	89.9	96.0	83.3	101.9	88.6	92.9	
Laborers: ¹													
Under 8 hours.....		1	1	1	1	2	1	2	5		37	51	
8 and under 16 hours.....	9	7	13	4		18	7	20	11	6	63	158	
16 and under 24 hours.....	8	3	10	4	1	17	18	27	10	4	64	166	
24 and under 32 hours.....	6	13	10	3		15	15	34	13	2	50	161	
32 and under 40 hours.....	6	30	12	12	2	60	9	43	18	3	54	249	
40 and under 48 hours.....	38	8	12	12	4	36	25	50	16	9	72	282	
48 and under 56 hours.....	17	5	25	17	1	38	28	77	20	2	69	299	
56 and under 64 hours.....	22	9	31	12	1	47	33	71	3	10	120	359	
64 and under 72 hours.....	18	1	55	21		54	47	74		9	101	380	
72 and under 80 hours.....	39	13	39	24	1	90	25	119	10	8	159	527	
80 and under 88 hours.....	47	20	91	14	1	71	36	149	15	7	266	717	
88 and under 96 hours.....	52	9	73	26		149	50	165	17	39	337	917	
96 and under 104 hours.....	64	7	115	29	3	100	26	193	10	60	281	888	
104 and under 112 hours.....	27	11	111	40	2	156	35	200	8	53	345	988	
112 and under 120 hours.....	40	5	60	19	1	85	35	210	3	18	212	688	
120 and under 128 hours.....	28	3	53	12	2	34	13	94	2	39	110	390	
128 and under 136 hours.....	11		28	7	2	26	14	67		8	74	237	
136 and under 144 hours.....	4	1	18	3		20	3	52		7	45	153	
144 and under 152 hours.....	1		13	1		6	2	36		1	41	101	
152 and under 160 hours.....			8	1		9		16			13	47	
160 and under 168 hours.....			8			4	1	12		1	22	48	
168 and under 176 hours.....	1		1			3		7			5	17	
176 and under 184 hours.....								7			1	8	
184 and under 192 hours.....			2					1				3	
Total.....	438	146	789	262	22	1,040	423	1,726	161	286	2,541	7,834	
Average hours worked in half month.....	84.0	62.5	91.9	83.0	75.1	85.4	76.4	92.5	56.4	95.8	87.0	86.8	

¹ The hours for this occupation are hours actually worked.

HOURS AND EARNINGS IN BITUMINOUS COAL MINING 51

TABLE F.—*Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929*

Place of work, occupation, and classified earnings in half month.	Number of employees in each occupation whose earnings in half month were within each classified group											Total
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Tenn- see	Vir- ginia	West Vir- ginia	
INSIDE MINE												
Brakemen:												
Under \$5.....	3		1			13	1	2	4	7	104	135
\$5 and under \$10.....	7	1	5	3		10	6	11	6	6	71	126
\$10 and under \$15.....	19		5	5		22	3	10	10	14	50	138
\$15 and under \$20.....	17	2	12	3		34	2	10	9	7	47	143
\$20 and under \$25.....	32		4	5	1	35	6	15	12	17	53	180
\$25 and under \$30.....	34	5	7	4	3	69	9	17	10	16	84	258
\$30 and under \$35.....	43	1	6	8	2	79	14	21	6	18	115	313
\$35 and under \$40.....	38	1	7	9	1	92	29	34	7	33	130	381
\$40 and under \$45.....	22		20	1	1	95	10	59	4	35	197	444
\$45 and under \$50.....	20	4	46	10	1	82	11	52	1	36	213	476
\$50 and under \$55.....	15	2	37	14		61	17	105		22	177	450
\$55 and under \$60.....	3	1	23	9	1	32	14	104	1	14	134	336
\$60 and under \$65.....	3	2	55	33	2	30	13	101		12	90	341
\$65 and under \$70.....		2	50	21		29	10	97		7	59	275
\$70 and under \$75.....		3	86	24		45	16	108		2	30	314
\$75 and under \$80.....		2	80	15		4	17	71			16	205
\$80 and under \$90.....		7	94	16		17	9	79			31	253
\$90 and under \$100.....		4	21	8			1	15			5	54
\$100 and under \$110.....			5	3				12				20
\$110 and under \$120.....			4	1				3				8
\$120 and under \$140.....								2				2
\$140 and under \$160.....								2				2
Total.....	256	37	568	192	12	749	188	930	70	246	1,606	4,854
Average earnings in half month.....	31.83	59.16	65.93	60.56	38.54	41.92	49.97	60.20	22.80	38.63	41.55	48.31
Bratticemen and timber- men:												
Under \$5.....			1	1		5		1	3	1	25	37
\$5 and under \$10.....		2	4	3		5	4	3	2	2	9	34
\$10 and under \$15.....	1		6			6	3	5	1	3	14	39
\$15 and under \$20.....	6		3	2		5	6	3	2	3	5	35
\$20 and under \$25.....	5		7	1		16	3	7	2	3	9	53
\$25 and under \$30.....	22	3	2			26	2	7	1	3	9	75
\$30 and under \$35.....	11	3	6	4	1	23	6	17	5	7	25	108
\$35 and under \$40.....	10	4	10	2	2	48	9	12	1	4	48	150
\$40 and under \$45.....	19	2	15	4		50	15	41	5	23	58	232
\$45 and under \$50.....	10	3	31	5	3	58	10	32	3	23	60	238
\$50 and under \$55.....	6	4	37	6	1	46	19	54	3	34	107	317
\$55 and under \$60.....	8	8	12	5	1	26	34	64	1	5	80	244
\$60 and under \$65.....	3	5	35	10	3	15	23	90		5	58	247
\$65 and under \$70.....	5	3	51	11	1	15	33	77		3	34	233
\$70 and under \$75.....		10	60	24	2	25	16	101		2	19	259
\$75 and under \$80.....		6	103	27		14	16	94		2	12	274
\$80 and under \$90.....		12	75	20		8	27	58			16	216
\$90 and under \$100.....		12	30	8		4	4	23		1	3	85
\$100 and under \$110.....		2	1	3			4	9				19
\$110 and under \$120.....			3					2				5
\$120 and under \$140.....			1									1
Total.....	106	79	493	136	14	395	234	700	29	124	591	2,901
Average earnings in half month.....	39.01	66.79	67.95	68.18	52.31	46.96	58.34	64.66	31.00	45.73	49.03	57.19
Drivers:												
Under \$5.....	7		2	1	1	7	1	2	3	2	20	46
\$5 and under \$10.....	5	18	6	4		6	13	12		2	25	91
\$10 and under \$15.....	8	13	7	5		8	14	8	5	3	12	83
\$15 and under \$20.....	16	13	3	3	2	29	13	11	5	4	48	147
\$20 and under \$25.....	61	3	4	2	2	43	12	22	1		27	177
\$25 and under \$30.....	86	24	3	6	3	74	20	28	2	3	33	282
\$30 and under \$35.....	36	20	3	17		49	7	32	5	4	56	229
\$35 and under \$40.....	22	6	6	23	8	24	24	56	8	4	82	263
\$40 and under \$45.....	3	7	10	16	10	20	53	88	10	11	118	346
\$45 and under \$50.....		6	16	16	4	9	29	55	5	2	86	228
\$50 and under \$55.....		36	39	19	9	7	28	110		1	53	302
\$55 and under \$60.....		26	17	15	9	6	62	93			50	278
\$60 and under \$65.....		5	21	40	7	5	27	162			31	298
\$65 and under \$70.....		8	34	25	3	9	29	144	1		14	267
\$70 and under \$75.....		8	48	20	1	23	37	115			9	261

TABLE F.—Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929—Continued

	Number of employees in each occupation whose earnings in half month were within each classified group											
Place of work, occupation, and classified earnings in half month.	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia	Total
INSIDE MINE—continued												
Drivers—Continued.												
\$75 and under \$80		9	52	18	1	6	19	70			3	178
\$80 and under \$90		7	109	21		4	7	66			9	223
\$90 and under \$100		2	39	13		2	5	27				88
\$100 and under \$110		1	3	5			1	6				16
\$110 and under \$120		1	4	2				1				8
Total	244	213	426	271	60	331	401	1,108	45	36	676	3,811
Average earnings in half month	25.85	43.28	70.00	58.29	46.70	35.39	48.47	57.89	31.57	30.69	39.85	49.52
Laborers:												
Under \$5	15		1		1	54		16	22	10	336	455
\$5 and under \$10	29		19	13		76	8	21	18	35	133	352
\$10 and under \$15	42	2	12	8	1	56	17	27	10	17	101	293
\$15 and under \$20	66	1	13	5		80	9	25	19	27	88	333
\$20 and under \$25	105		9	2	2	114	17	54	17	22	105	447
\$25 and under \$30	114		13	2	2	140	17	57	11	44	112	512
\$30 and under \$35	168	2	7	4		182	17	86	11	42	169	628
\$35 and under \$40	55		28	4		170	24	122	5	85	281	774
\$40 and under \$45	78	2	34	1	2	125	20	161	2	76	262	743
\$45 and under \$50	48	1	59	7	1	76	19	197	6	29	199	642
\$50 and under \$55	38	10	43	6	6	40	27	303		19	170	662
\$55 and under \$60	9	9	88	1	1	15	25	225	1	13	115	502
\$60 and under \$65	8	2	21	17	2	28	32	165		5	73	353
\$65 and under \$70	4	1	54	17	8	18	19	173		2	21	317
\$70 and under \$75		1	125	19	1	34	29	84		1	21	315
\$75 and under \$80		5	112	15		13	11	73			12	241
\$80 and under \$90	2	3	88	15		7	6	54			21	196
\$90 and under \$100	1		21	15		1	4	10			2	54
\$100 and under \$110	1		2	5				3			1	12
\$110 and under \$120			2	1				4				7
\$120 and under \$140				1				2				3
\$140 and under \$160							1					1
Total	703	39	751	158	27	1,229	302	1,862	122	427	2,222	7,842
Average earnings in half month	30.40	55.76	61.79	60.80	48.41	32.73	48.01	51.56	18.91	32.98	32.74	40.90
Loaders, hand:												
Under \$5	110	22	38	19		288	100	316	30	67	416	1,406
\$5 and under \$10	221	80	91	41	3	398	166	459	89	109	527	2,184
\$10 and under \$15	251	53	106	42	6	550	245	623	108	98	567	2,649
\$15 and under \$20	332	49	139	64	13	725	401	879	60	138	729	3,529
\$20 and under \$25	463	46	328	110	22	805	636	1,063	45	163	984	4,665
\$25 and under \$30	439	52	163	221	21	755	702	1,366	43	222	1,276	5,260
\$30 and under \$35	423	63	268	138	9	778	712	1,624	38	258	1,507	6,818
\$35 and under \$40	315	65	284	100	3	772	704	1,755	21	234	1,617	6,870
\$40 and under \$45	215	43	370	121	2	720	646	1,682	16	203	1,576	5,694
\$45 and under \$50	161	49	661	179	1	654	557	1,655	10	216	1,465	5,608
\$50 and under \$55	71	44	631	217		592	492	1,385	6	179	1,301	4,918
\$55 and under \$60	61	45	1,011	187		489	393	1,209	7	137	1,172	4,711
\$60 and under \$65	25	44	951	188		386	336	1,017	9	103	903	3,962
\$65 and under \$70	19	21	700	154		290	261	843	3	97	821	3,209
\$70 and under \$75	14	18	753	164		221	219	729	1	66	615	2,800
\$75 and under \$80	4	19	623	154		220	135	570	1	25	484	2,235
\$80 and under \$90	5	27	1,207	226		255	136	688	1	37	639	3,221
\$90 and under \$100	5	17	844	137		103	67	362		17	325	1,877
\$100 and under \$110	1	9	359	114		59	23	149		12	144	870
\$110 and under \$120	1	2	94	45		12	5	41		2	83	285
\$120 and under \$140	1		46	10		6	6	20		6	48	143
\$140 and under \$160			4	1			3	4			17	29
\$160 and under \$180				1		1	3			1		6
\$180 and under \$200		1		1								2
\$200 and under \$220						1				1		2
Total	3,137	769	9,671	2,634	80	9,080	6,948	18,439	488	2,391	17,216	70,853
Average earnings in half month	28.08	39.62	64.12	57.52	24.19	38.98	40.93	45.14	20.96	39.62	45.06	45.78

TABLE F.—Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929—Continued

Place of work, occupation, and classified earnings in half month.	Number of employees in each occupation whose earnings in half month were within each classified group										
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia
INSIDE MINE—continued											
Miners, hand or pick:											
Under \$5.....	22	14	15	9	15	10	-----	90	7	-----	20
\$5 and under \$10.....	20	50	20	19	30	10	-----	172	35	-----	37
\$10 and under \$15.....	34	56	39	34	60	21	-----	204	55	-----	54
\$15 and under \$20.....	64	87	43	48	118	31	-----	261	59	-----	71
\$20 and under \$25.....	99	87	55	80	125	31	-----	295	76	-----	99
\$25 and under \$30.....	121	103	57	112	167	36	-----	446	65	-----	118
\$30 and under \$35.....	125	89	62	98	136	48	-----	507	65	-----	129
\$35 and under \$40.....	110	80	118	115	135	53	1	627	52	-----	157
\$40 and under \$45.....	99	76	107	145	101	52	-----	690	50	-----	166
\$45 and under \$50.....	102	67	161	172	113	60	-----	808	31	-----	182
\$50 and under \$55.....	68	79	186	158	74	58	1	801	13	-----	156
\$55 and under \$60.....	68	85	235	132	57	56	-----	823	10	-----	122
\$60 and under \$65.....	51	56	197	123	41	57	-----	778	7	-----	102
\$65 and under \$70.....	37	40	216	80	36	48	-----	647	8	-----	90
\$70 and under \$75.....	26	43	242	57	21	45	-----	493	7	-----	45
\$75 and under \$80.....	26	33	194	41	9	29	1	415	4	-----	41
\$80 and under \$90.....	22	40	239	64	10	47	-----	562	4	-----	51
\$90 and under \$100.....	3	31	130	31	3	20	-----	315	1	-----	31
\$100 and under \$110.....	6	9	81	12	-----	12	-----	129	-----	-----	10
\$110 and under \$120.....	2	1	52	4	1	7	-----	44	-----	-----	10
\$120 and under \$140.....	-----	2	36	8	-----	-----	-----	13	1	-----	6
\$140 and under \$160.....	-----	2	2	1	-----	-----	-----	3	-----	-----	8
\$160 and under \$180.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$180 and under \$200.....	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	1
Total.....	1,120	1,150	2,488	1,543	1,252	731	3	9,123	559	-----	1,697
Average earnings in half month.....	40.58	43.08	63.40	48.95	36.16	51.57	53.95	52.91	30.79	-----	45.83
Miners, machine (cutters):											
Under \$5.....	-----	-----	-----	-----	-----	1	3	1	1	2	2
\$5 and under \$10.....	1	-----	-----	-----	-----	8	5	11	2	-----	11
\$10 and under \$15.....	2	2	9	-----	-----	6	12	18	4	-----	10
\$15 and under \$20.....	4	4	-----	-----	-----	8	11	22	2	2	18
\$20 and under \$25.....	4	3	6	1	1	9	7	15	1	4	7
\$25 and under \$30.....	6	4	5	8	1	13	6	23	1	1	16
\$30 and under \$35.....	4	1	4	3	4	24	14	28	6	2	22
\$35 and under \$40.....	6	5	7	15	-----	31	27	23	5	2	13
\$40 and under \$45.....	17	3	9	11	2	25	34	39	-----	4	35
\$45 and under \$50.....	6	4	12	12	-----	35	22	52	-----	14	39
\$50 and under \$55.....	7	5	33	11	-----	39	36	44	-----	4	37
\$55 and under \$60.....	14	2	28	9	-----	35	36	60	2	1	34
\$60 and under \$65.....	-----	3	50	22	-----	47	52	93	-----	9	38
\$65 and under \$70.....	12	2	47	5	-----	26	40	79	-----	9	61
\$70 and under \$75.....	5	-----	96	17	-----	30	46	103	-----	6	62
\$75 and under \$80.....	5	5	79	19	-----	26	39	106	-----	14	61
\$80 and under \$90.....	9	3	196	21	-----	78	71	179	4	11	119
\$90 and under \$100.....	6	1	145	59	-----	47	71	162	-----	12	99
\$100 and under \$110.....	6	1	148	44	-----	52	56	134	-----	12	97
\$110 and under \$120.....	4	2	119	27	-----	45	40	103	-----	7	89
\$120 and under \$140.....	9	-----	118	43	-----	56	24	135	-----	4	120
\$140 and under \$160.....	2	-----	17	18	-----	17	9	55	-----	3	111
\$160 and under \$180.....	-----	-----	4	4	-----	6	-----	50	-----	4	50
\$180 and under \$200.....	-----	-----	4	4	-----	3	2	12	-----	-----	35
\$200 and under \$220.....	-----	2	-----	3	-----	2	-----	11	-----	1	13
\$220 and under \$240.....	-----	-----	-----	-----	-----	1	-----	3	-----	-----	9
\$240 and under \$260.....	-----	-----	-----	-----	-----	-----	-----	6	-----	-----	4
\$260 and under \$280.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
\$280 and under \$300.....	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1
Total.....	129	52	1,122	356	8	669	663	1,568	28	128	1,214
Average earnings in half month.....	64.65	57.17	90.29	92.40	32.56	77.48	73.78	87.67	35.65	78.14	97.77
Motormen:											
Under \$5.....	2	-----	-----	-----	-----	5	-----	1	5	3	48
\$5 and under \$10.....	3	-----	5	1	-----	6	3	3	2	4	52
\$10 and under \$15.....	5	-----	-----	-----	-----	5	3	5	6	4	41
\$15 and under \$20.....	11	1	3	3	-----	12	3	4	7	1	27
\$20 and under \$25.....	14	1	1	3	1	17	6	12	6	5	52
\$25 and under \$30.....	17	2	2	3	-----	30	6	15	8	5	39
\$30 and under \$35.....	25	-----	1	6	1	28	11	26	3	9	54

54 HOURS AND EARNINGS IN BITUMINOUS COAL MINING

TABLE F.—Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929—Continued

Place of work, occupation, and classified earnings in half month	Number of employees in each occupation whose earnings in half month were within each classified group											Total
	Ala- bama	Colo- rado	Illi- nois	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia	
INSIDE MINE—continued												
Motormen—Continued.												
\$35 and under \$40.....	38	2	5	5	-----	63	22	25	2	10	84	256
\$40 and under \$45.....	23	1	4	5	-----	80	18	67	3	28	93	322
\$45 and under \$50.....	30	-----	12	7	1	86	9	57	5	42	163	412
\$50 and under \$55.....	25	3	18	11	1	88	14	82	8	36	198	484
\$55 and under \$60.....	12	1	27	9	3	85	17	85	3	30	212	485
\$60 and under \$65.....	11	2	24	12	-----	42	21	118	4	17	166	417
\$65 and under \$70.....	1	-----	19	22	3	37	18	113	-----	16	111	339
\$70 and under \$75.....	2	8	28	24	1	50	14	118	-----	4	79	328
\$75 and under \$80.....	-----	3	40	21	-----	47	12	121	-----	4	38	286
\$80 and under \$90.....	-----	4	125	49	-----	32	16	138	1	1	41	407
\$90 and under \$100.....	-----	2	166	17	-----	11	7	62	-----	1	29	295
\$100 and under \$110.....	-----	3	48	13	-----	-----	-----	16	-----	-----	5	87
\$110 and under \$120.....	-----	-----	22	5	-----	-----	-----	12	-----	-----	-----	37
\$120 and under \$140.....	-----	-----	5	1	-----	-----	-----	3	-----	-----	-----	9
Total.....	219	33	555	217	14	724	200	1,083	63	220	1,532	4,860
Average earnings in half month.....	39.27	66.76	82.69	72.33	49.46	52.37	54.00	65.79	32.70	48.93	50.27	58.21
Trackmen:												
Under \$5.....	1	-----	-----	-----	-----	14	-----	1	2	3	51	72
\$5 and under \$10.....	2	-----	7	5	-----	10	-----	3	3	5	39	74
\$10 and under \$15.....	2	1	7	3	-----	14	2	5	3	8	36	81
\$15 and under \$20.....	5	1	9	2	-----	30	3	8	7	5	37	107
\$20 and under \$25.....	5	-----	9	3	-----	28	1	9	5	6	26	92
\$25 and under \$30.....	5	4	4	1	-----	22	7	17	11	13	41	125
\$30 and under \$35.....	13	1	12	12	2	40	14	16	7	9	56	182
\$35 and under \$40.....	23	2	12	19	1	76	14	20	10	13	98	288
\$40 and under \$45.....	12	1	24	4	2	77	9	49	5	36	130	349
\$45 and under \$50.....	15	1	38	15	-----	73	12	50	6	49	185	444
\$50 and under \$55.....	8	2	46	10	2	74	16	69	1	51	161	440
\$55 and under \$60.....	7	3	10	4	1	75	25	92	-----	15	215	447
\$60 and under \$65.....	5	3	84	23	3	37	18	116	1	7	158	455
\$65 and under \$70.....	12	1	64	41	5	31	23	116	-----	2	77	372
\$70 and under \$75.....	-----	13	98	43	2	38	16	98	-----	2	60	370
\$75 and under \$80.....	-----	-----	137	24	1	32	21	96	-----	2	23	336
\$80 and under \$90.....	-----	14	96	27	-----	17	16	92	-----	1	25	288
\$90 and under \$100.....	-----	6	31	11	-----	3	3	27	-----	-----	17	98
\$100 and under \$110.....	-----	5	2	2	-----	1	2	13	-----	-----	-----	25
\$110 and under \$120.....	-----	-----	1	3	-----	1	2	1	-----	-----	-----	8
Total.....	115	58	691	252	19	693	204	893	61	227	1,435	4,653
Average earnings in half month.....	41.99	70.47	66.66	63.49	55.76	47.34	57.33	62.92	29.34	43.35	47.94	54.47
OUTSIDE WORK												
Carpenters and car-repair men:												
Under \$5.....	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	7	8
\$5 and under \$10.....	1	-----	1	-----	-----	-----	-----	3	-----	-----	15	20
\$10 and under \$15.....	1	-----	-----	-----	1	1	1	2	1	-----	6	13
\$15 and under \$20.....	5	-----	-----	-----	1	4	2	1	3	1	10	27
\$20 and under \$25.....	1	-----	-----	-----	-----	6	5	14	4	-----	8	38
\$25 and under \$30.....	10	1	-----	2	-----	5	5	10	1	2	9	45
\$30 and under \$35.....	19	3	-----	1	-----	11	5	12	2	1	9	62
\$35 and under \$40.....	14	-----	1	-----	-----	8	3	18	3	2	21	70
\$40 and under \$45.....	15	-----	3	1	1	27	3	23	4	11	20	108
\$45 and under \$50.....	9	1	4	-----	-----	17	6	32	5	15	32	121
\$50 and under \$55.....	3	-----	2	2	-----	14	5	37	4	8	73	148
\$55 and under \$60.....	-----	2	5	2	1	12	9	49	1	8	62	151
\$60 and under \$65.....	-----	1	10	7	-----	8	8	46	1	1	45	127
\$65 and under \$70.....	3	3	10	6	-----	7	5	55	-----	3	44	136
\$70 and under \$75.....	-----	2	19	7	-----	14	12	32	-----	1	27	114
\$75 and under \$80.....	1	1	22	1	-----	8	4	21	-----	-----	28	86
\$80 and under \$90.....	-----	3	26	3	-----	6	6	35	-----	1	22	102
\$90 and under \$100.....	-----	-----	17	2	-----	9	1	13	-----	1	7	50
\$100 and under \$110.....	-----	-----	6	5	-----	1	1	7	-----	1	2	23
\$110 and under \$120.....	-----	-----	2	-----	-----	-----	-----	1	-----	-----	-----	3
\$120 and under \$140.....	-----	1	2	1	1	-----	-----	-----	-----	-----	1	6
Total.....	81	18	130	40	5	158	81	412	29	56	448	1,458
Average earnings in half month.....	37.17	64.64	77.24	71.74	51.44	53.38	54.96	59.10	37.77	50.94	54.35	56.84

HOURS AND EARNINGS IN BITUMINOUS COAL MINING 55

TABLE F.—Number of employees in each specified occupation in each State whose earnings in half month were within each classified amount, 1929—Continued

Place of work, occupation, and classified earnings in half month	Number of employees in each occupation whose earnings in half month were within each classified group											
	Ala- bama	Colo- rado	Illino- is	Indi- ana	Kan- sas	Ken- tucky	Ohio	Penn- syl- vania	Ten- nes- see	Vir- ginia	West Vir- ginia	Total
OUTSIDE WORK—continued												
Laborers:												
Under \$5.....	14	4	3	1	1	21	5	12	17	6	72	156
\$5 and under \$10.....	13	6	12	3	1	18	19	39	26	5	88	230
\$10 and under \$15.....	57	1	11	7	—	57	15	45	28	7	72	300
\$15 and under \$20.....	37	31	15	3	2	71	14	42	15	13	93	336
\$20 and under \$25.....	133	14	13	9	4	60	36	60	16	15	102	462
\$25 and under \$30.....	78	9	8	8	1	90	34	98	25	24	168	543
\$30 and under \$35.....	68	8	23	16	1	130	45	144	20	76	263	794
\$35 and under \$40.....	29	9	31	14	—	144	32	184	9	49	331	832
\$40 and under \$45.....	6	6	54	15	2	117	32	186	4	34	410	866
\$45 and under \$50.....	3	5	34	16	—	92	39	178	—	25	253	645
\$50 and under \$55.....	—	17	41	29	2	46	44	191	1	24	236	631
\$55 and under \$60.....	—	7	71	13	3	37	43	131	—	6	171	482
\$60 and under \$65.....	—	12	57	19	1	37	22	105	—	2	108	363
\$65 and under \$70.....	—	8	95	26	3	78	11	99	—	—	89	409
\$70 and under \$75.....	—	4	102	33	1	14	19	81	—	—	31	285
\$75 and under \$80.....	—	1	64	17	—	22	7	59	—	—	34	204
\$80 and under \$90.....	—	2	77	22	—	5	4	50	—	—	16	176
\$90 and under \$100.....	—	2	39	9	—	1	2	14	—	—	4	71
\$100 and under \$110.....	—	—	21	2	—	—	—	8	—	—	—	31
\$110 and under \$120.....	—	—	13	—	—	—	—	—	—	—	—	13
\$120 and under \$140.....	—	—	5	—	—	—	—	—	—	—	—	5
Total.....	438	146	789	262	22	1,040	423	1,726	161	286	2,541	7,834
Average earnings in half month.....	23.57	37.95	63.34	56.80	40.96	38.54	41.15	46.95	19.35	34.90	40.09	42.78

TABLE G.—Number of employees making each specified number of starts (days) in half month, 1929, by place of work, occupation, and State

Place of work, occupation, and State	Number of mines	Number of employees	Average number of starts (days) in half month	Number of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSIDE MINE																			
Brakemen:																			
Alabama.....	17	256	8.8	3	4	5	8	18	11	19	33	25	53	39	27	10	1		
Colorado.....	12	37	9.1	1		2	5	2			5	2	2	4	6	8			
Illinois.....	37	568	10.6	6	6	13	7	8	14	22	47	39	73	58	98	141	24	12	1
Indiana.....	26	192	9.9	3	3	4	9	6	7	2	15	15	33	31	30	13	9	12	
Kansas.....	5	12	7.6			1	3	2			3				3				
Kentucky.....	63	749	9.2	15	10	19	24	37	29	54	64	87	121	114	64	98	11	2	
Ohio.....	38	188	9.7	6	1	2	9	3	18	19	19	7	14	23	12	24	17	12	2
Pennsylvania.....	128	930	10.2	10	8	11	14	28	23	38	85	88	106	149	156	197	14	3	
Tennessee.....	13	70	7.6	4	2	3	8	7	4	10	6	4	2	4	8	5	1	2	
Virginia.....	22	246	9.9	8	5	11	1	11	10	6	16	16	12	36	50	57	7		
West Virginia.....	144	1,606	8.9	114	64	47	44	41	57	104	94	155	204	239	172	219	32	7	13
Total.....	505	4,854	9.5	170	102	117	130	164	175	274	387	438	620	697	626	772	116	50	16
Bratticemen and timber men:																			
Alabama.....	19	106	9.9				1	3	6	5	17	15	10	20	13	14	1	1	
Colorado.....	15	79	10.0	2			4	2	6	5	5	6	9	9	11	9	7	2	2
Illinois.....	35	493	11.1	4	6	4	9	4	9	17	36	42	44	39	75	119	58	20	7
Indiana.....	26	136	11.1	4		2	1		6	2	9	4	12	11	34	34	7	10	
Kansas.....	6	14	10.2						3					1	3	1	2		
Kentucky.....	56	395	9.8	7	4	4	5	11	9	34	24	45	78	69	42	53	8	2	
Ohio.....	35	234	11.2	3	3	5	4	2	5	12	11	9	24	30	30	43	22	14	17
Pennsylvania.....	114	700	10.9	3	5	4	7	16	12	15	43	46	108	83	105	207	40	6	
Tennessee.....	12	29	8.8	3	2	1		1	2		3	1	3	3	4	2	3	1	
Virginia.....	20	124	11.0	3	1	2	2	3	4	2	2	4	5	21	23	44	7	1	
West Virginia.....	118	591	10.2	27	12	7	6	8	11	20	33	33	74	129	77	119	19	12	4
Total.....	456	2,901	10.6	56	33	29	39	50	73	112	183	208	368	415	417	645	174	69	30
Cagers:																			
Colorado.....	8	13	9.5			1			1	1	2	2	1	1	1	2		1	
Illinois.....	37	95	12.7						2		4	3	2	10	10	30	11	23	
Indiana.....	29	64	10.5					3	7	3	2	3	15	6	7	8	3	7	
Kansas.....	8	14	10.5						1		1	1	1	3	2	2	1	1	
Kentucky.....	11	25	7.2	1		3	5	2	2	2	2	6	1	2		1			

Ohio.....	22	42	10.3	8	1	-----	1	1	2	-----	2	2	5	6	4	7	4	8	1
Pennsylvania.....	52	86	11.0	1	-----	-----	3	5	1	-----	3	7	12	13	6	25	3	7	-----
Tennessee.....	1	2	(1)	-----	-----	-----	-----	-----	-----	-----	(1)	(1)	-----	1	2	2	-----	-----	-----
Virginia.....	2	6	11.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	2	2	-----	-----	-----
West Virginia.....	22	45	10.7	1	1	1	-----	2	1	-----	3	4	5	2	8	12	2	2	1
Total.....	192	392	10.9	5	4	2	4	14	21	7	21	29	42	44	40	89	24	44	2
Drivers:																			
Alabama.....	17	244	8.6	5	4	4	4	6	12	18	58	40	36	30	7	11	-----	-----	2
Colorado.....	15	213	6.6	18	12	16	22	19	10	13	38	27	15	7	5	5	8	1	5
Illinois.....	22	426	11.1	8	7	3	5	4	8	13	33	23	38	30	81	95	58	15	6
Indiana.....	18	271	9.7	4	5	4	4	14	25	9	11	23	49	42	27	29	14	11	-----
Kansas.....	5	60	9.3	1	-----	-----	4	2	1	8	10	4	8	5	6	10	1	-----	-----
Kentucky.....	29	331	8.2	6	6	6	23	30	31	49	40	26	30	18	17	43	6	-----	1
Ohio.....	31	401	9.7	10	14	12	10	13	15	18	47	36	28	57	39	41	44	16	1
Pennsylvania.....	69	1,108	10.1	14	7	7	33	50	30	39	83	84	183	136	163	265	11	3	-----
Tennessee.....	6	45	9.0	2	1	1	1	4	3	1	3	-----	7	12	9	-----	1	-----	-----
Virginia.....	5	36	9.5	2	2	-----	1	2	2	2	-----	2	3	2	10	7	1	-----	-----
West Virginia.....	65	676	8.9	24	22	12	43	17	31	44	77	59	81	80	88	79	15	1	3
Total.....	282	3,811	9.5	94	80	65	150	161	168	214	400	324	478	428	452	585	152	48	12
Laborers:																			
Alabama.....	18	703	8.9	15	14	16	21	32	22	53	95	76	118	117	77	44	1	2	-----
Colorado.....	7	39	8.9	-----	2	1	-----	2	-----	8	11	3	2	3	5	-----	-----	-----	-----
Illinois.....	35	751	10.3	17	14	15	9	15	30	32	67	42	101	45	111	173	55	24	1
Indiana.....	17	158	9.8	10	13	3	2	5	5	2	9	4	14	17	24	19	13	18	-----
Kansas.....	6	27	9.7	1	1	-----	1	2	1	-----	2	2	4	2	2	8	1	-----	-----
Kentucky.....	60	1,229	8.5	51	58	45	53	56	58	91	112	132	179	133	109	136	14	2	7
Ohio.....	33	302	9.8	1	15	8	10	10	21	22	24	16	18	32	29	44	30	15	-----
Pennsylvania.....	114	1,862	10.1	21	18	27	33	60	49	75	155	192	269	264	244	370	68	16	1
Tennessee.....	13	122	6.5	20	13	4	8	11	9	7	12	8	4	5	11	2	1	7	-----
Virginia.....	20	427	9.5	13	20	17	13	17	19	14	21	26	36	54	79	59	8	1	-----
West Virginia.....	133	2,222	7.9	319	135	97	73	77	73	113	135	144	211	313	203	265	44	16	4
Total.....	456	7,842	9.0	468	303	233	223	287	287	411	640	653	957	984	892	1,155	235	101	13
Loaders, contract:																			
Alabama.....	12	208	9.0	-----	1	5	29	9	12	14	21	43	60	13	1	-----	-----	-----	-----
Kentucky.....	22	221	10.2	1	1	-----	1	7	7	19	59	35	20	23	48	-----	-----	-----	-----
Pennsylvania.....	2	8	12.1	-----	-----	-----	-----	-----	-----	-----	1	-----	1	1	5	-----	-----	-----	-----
Tennessee.....	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	-----	2	7	5	-----	-----	-----	-----
Virginia.....	7	18	11.1	-----	-----	-----	-----	1	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----
West Virginia.....	21	104	10.7	-----	-----	-----	-----	6	6	1	13	17	21	7	23	-----	-----	-----	-----
Total.....	65	584	9.7	5	1	5	10	33	25	26	41	96	95	104	51	92	-----	-----	-----

1 Data included in total.

TABLE G.—Number of employees making each specified number of starts (days) in half month, 1929, by place of work, occupation, and State—
Continued

Place of work, occupation, and State	Number of mines	Number of employees	Average number of starts (days) in half month	Number of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSIDE MINE—continued																			
Loaders, hand:																			
Alabama.....	19	3,137	8.2	53	121	79	143	164	213	269	454	474	493	440	151	91	2		
Colorado.....	13	769	6.8	80	53	42	39	51	71	64	108	66	47	78	26	44			
Illinois.....	30	9,671	9.1	100	135	310	223	297	705	1,080	1,098	840	1,386	863	1,177	1,456		1	
Indiana.....	21	2,634	8.2	41	52	56	321	115	194	232	212	277	547	180	292	115			
Kansas.....	2	80	4.0	2	2	8	58	6	3	2									
Kentucky.....	64	9,080	8.2	204	239	294	938	339	467	816	1,217	1,172	1,018	995	636	732	12	1	
Ohio.....	41	6,948	8.9	92	127	233	203	304	728	621	1,005	457	709	907	472	567	521		2
Pennsylvania.....	120	18,439	9.3	231	325	379	571	1,021	869	1,492	1,817	1,960	2,172	2,432	2,343	2,725	100	2	
Tennessee.....	9	488	5.9	14	29	37	83	107	47	64	23	19	13	19	16	17			
Virginia.....	22	2,391	9.7	51	61	61	64	73	97	96	138	185	275	450	443	394	2	1	
West Virginia.....	134	17,216	9.0	299	365	393	593	600	960	1,554	1,673	2,108	2,521	2,417	1,679	1,886	164	3	1
Total.....	475	70,853	8.9	1,167	1,509	1,892	3,236	3,076	4,354	6,280	7,745	7,558	9,181	8,781	7,235	8,027	801	8	3
Loaders, machine:																			
Alabama.....	1	28	(1)								(1)								
Illinois.....	3	85	8.8	2	4	3	2	3	2	4	24	7	4	4	13	13			
Indiana.....	3	85	10.0	1	1		1	2	2	2	6	11	16	18	22	1	1	1	
Kentucky.....	4	26	9.2			1				2	6	5	8	1	2	1			
Ohio.....	1	2	(1)														(1)		
Pennsylvania.....	8	72	9.5		1		8		1	5	4	12	8	18	6	9			
Tennessee.....	1	18	(1)							(1)	(1)	(1)							
Virginia.....	3	32	11.8						1	1	1		2	3	12	9	3		
West Virginia.....	4	75	11.2	2	1	1	5				2	2	6	10	7	26	9	4	
Total.....	28	423	9.8	5	7	5	16	5	6	17	81	42	44	54	62	59	15	5	
Miners, gang:																			
Alabama.....	1	17	(1)	(1)				(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)			
Illinois.....	15	738	9.8	4	7	3	8	14	19	79	109	69	103	100	100	123			
Indiana.....	3	73	11.5				1	1	1		1	3	5	13	24	24			
Kentucky.....	3	41	5.5	4	1	2	20				8			4	2				
Ohio.....	2	9	10.4									1	8	5					

Pennsylvania.....	7	272	8.9	2	4	4	8	33	29	16	21	14	35	39	23	44			
Tennessee.....	2	27	9.2				3				1	12		11					
Total.....	33	1,177	9.5	11	12	9	40	49	50	97	142	101	148	173	153	192			
Miners, hand or pick:																			
Alabama.....	8	1,120	8.5	14	21	17	43	41	115	92	146	230	131	124	79	66	1		
Colorado.....	15	1,150	6.8	31	68	73	123	47	79	102	289	232	38	33	35				
Illinois.....	14	2,488	11.3	18	17	20	23	35	37	74	109	186	435	103	342	493	595	1	
Indiana.....	12	1,543	9.0	73	20	24	60	124	128	57	103	241	204	167	255	87			
Kansas.....	7	1,252	7.3	13	21	55	146	66	114	362	68	47	175	185					
Kentucky.....	19	731	9.8	9	9	12	12	13	22	34	80	91	115	194	91	79			
Ohio.....	1	3	(1)						(1)					(1)		(1)			
Pennsylvania.....	107	9,123	9.9	80	118	144	231	322	259	381	623	998	1,615	1,306	1,385	1,654	8		
Tennessee.....	10	559	8.0	3	17	13	14	30	93	93	38	53	98	54	52	1			
West Virginia.....	37	1,097	9.0	13	34	39	38	81	118	239	133	152	220	261	187	182			
Total.....	230	19,666	9.4	194	325	397	690	759	966	1,434	1,559	2,230	3,091	2,427	2,426	2,563	604	1	
Miners, machine (cutters):																			
Alabama.....	15	129	9.3	1	3	1	1	9	9	3	13	12	26	23	18	10			
Colorado.....	10	52	6.1	2	12	3	4	2	5	2	8	7		1	2	4			
Illinois.....	32	1,122	9.9	8	7	8	10	12	63	117	138	87	149	112	162	244	5		
Indiana.....	22	356	9.4	1	2	33	6	17	26	32	22	98	18	65	35	1			
Kansas.....	2	8	4.5			6		2											
Kentucky.....	60	669	9.2	6	11	08	13	18	36	53	109	95	101	36	113	2			
Ohio.....	41	663	10.2	9	13	7	4	44	31	100	21	51	121	29	94	122	2		
Pennsylvania.....	117	1,568	10.3	5	11	16	37	65	31	78	99	177	169	227	185	445	23		
Tennessee.....	9	28	6.6	1	1	5	1	1	4	4	4	4	1	1	2				
Virginia.....	21	128	11.1	2		2	3	2		5	1	3	8	25	33	42	2		
West Virginia.....	127	1,214	10.2	14	9	17	34	25	44	49	91	86	156	227	112	311	35	2	1
Total.....	456	5,937	10.0	51	61	78	204	140	237	351	539	528	752	856	642	1,300	190	4	4
Miners', machine (cutters'), helpers:																			
Alabama.....	13	101	8.1	7	4	1	2	3	7	8	17	10	21	11	5	5			
Colorado.....	7	18	7.4				4	1	1	2	5	3			1	1			
Kansas.....	2	9	4.3				7	1	1										
Kentucky.....	36	269	8.6	8	4	5	26	5	12	29	28	39	41	13	29	57			
Pennsylvania.....	29	183	10.4	5	2	2	5	5	4	6	30	12	27	24	27	3			
Tennessee.....	8	38	4.5	13	1	3	5	2	4	1	6			1	1				
Virginia.....	12	32	10.7	1	1		3	6	2	4	1	4	5	3	5	8	1		
West Virginia.....	29	115	10.3	6	2	3		1	3	1	5	5	16	23	15	33	2		
Total.....	136	765	9.0	40	14	14	47	22	30	48	63	64	108	108	67	134	4	2	

¹ Data included in total.

TABLE G.—Number of employees making each specified number of starts (days) in half month, 1929, by place of work, occupation, and State—
Continued

Place of work, occupation, and State	Number of mines	Number of employees	Average number of starts (days) in half month	Number of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INSIDE MINE—continued																			
Motormen:																			
Alabama	16	219	9.4	2	1	4	6	10	10	9	26	22	42	47	19	18	1	1	1
Colorado	8	33	9.6			2	2	2		1	6	3	1	6	2	4	1	2	1
Illinois	37	555	11.4	5		3	3	6	7	19	32	30	53	73	87	168	35	31	8
Indiana	28	217	10.7	1		4	5	5	7	4	14	14	30	40	31	30	16	16	
Kansas	5	14	8.9				1	3	1			2		3	1				
Kentucky	63	724	10.2	9	3	4	12	14	28	39	48	71	108	130	92	141	24		1
Ohio	41	200	10.2	3	3	2	7	3	11	23	14	12	18	16	22	29	22	5	10
Pennsylvania	128	1,083	10.6	3	6	5	8	30	29	40	103	106	116	138	176	289	29	5	
Tennessee	13	63	8.4	4	2	2	5	1	11	9	1	1	2	4	8	5	2	6	
Virginia	22	220	11.2	4	3	4	1	1	5	3	5	4	15	41	53	69	11	1	
West Virginia	143	1,532	9.8	67	48	31	33	43	38	66	79	107	171	274	176	306	45	27	21
Total	504	4,860	10.3	98	66	61	83	118	147	213	328	372	556	772	669	1,060	186	94	37
Pump men:																			
Alabama	20	115	11.8			2		1		2	3	6	7	20	17	46	2	9	
Colorado	9	17	14.2								1	1			1	2	1	3	8
Illinois	13	31	12.8					2		1	1		1		5	5	2	14	
Indiana	19	44	12.7				2	1				2	3	3	4	7	5	17	
Kentucky	58	180	12.2	4	2		1	4	5	1	4	5	4	17	15	57	20	41	
Ohio	35	75	13.0			1		1	1	2	4	2	1	2	7	17	3	25	9
Pennsylvania	109	303	13.3	1	2		4	1	1	2	8	12	10	16	25	48	30	115	29
Tennessee	10	24	9.3		1	2	1	2	1	1	2	1	3	1	2	4		3	
Virginia	11	32	12.6	1	1			1					1	1	4	9	2	12	
West Virginia	108	327	11.6	14	6	13	5	3	3	3	4	9	23	40	24	57	17	88	18
Total	390	1,148	12.3	20	12	18	13	16	10	12	27	38	53	100	104	252	82	327	64
Track men:																			
Alabama	22	115	10.0	1	2	2		3	8	5	6	11	15	24	17	20	1		
Colorado	15	58	10.4		1	1	4	2	2	3	1	3	4	14	2	11	7	3	
Illinois	37	691	10.9	6	8	9	10	15	11	25	40	51	60	82	122	158	67	25	2
Indiana	28	252	10.4	5	3	2	3	8		20	6	12	17	20	42	46	39	11	18
Kansas	8	19	11.1						2	1	2		2	1	3	5	2	1	

Kentucky.....	64	698	9.7	15	12	10	27	21	15	40	40	76	101	116	90	105	20	8	-----
Ohio.....	41	204	11.1		2	3		5	16	15	8	10	17	27	25	21	12	23	21
Pennsylvania.....	136	898	10.9	4	4	7	7	22	24	17	49	72	130	104	155	242	47	13	1
Tennessee.....	15	61	8.4	2	2	2	1	5	4	4	11	5	7	7	8	1	1	1	-----
Virginia.....	22	227	10.8	3	4	8	6	1	5	8	9	8	12	30	45	74	13	1	-----
West Virginia.....	144	1,435	9.9	56	36	33	36	32	43	55	66	116	159	234	164	324	49	18	14
Total.....	532	4,653	10.4	92	74	77	94	114	150	179	244	369	527	681	677	1,000	230	107	38
Trappers (boys):																			
Alabama.....	11	32	7.6	1			2	6	1	2	11	1	4	3		1			-----
Colorado.....	4	12	5.6	1		1	5		1			3	1						-----
Illinois.....	20	88	10.4		1	3		1	7	7	10	1	6	6	11	27	8		-----
Indiana.....	15	38	8.2	1		1	5	2	6	3	2	1	5	3	5	4			-----
Kansas.....	1	1	(1)											(1)					-----
Kentucky.....	25	72	9.0	1	1	3	10	2	4	3	3	7	7	8	7	15	1		-----
Ohio.....	27	114	9.4	3	2	2	5	4	6	6	19	2	11	22	9	10	13		-----
Pennsylvania.....	20	34	9.7				4		2		4	3	5	5	5	5	1		-----
Tennessee.....	5	33	8.4	1	4		2		2	1		5	6	9	1	2			-----
Virginia.....	12	33	10.1	1	1	1	1	2	2	1		1	2	11	9		1		-----
West Virginia.....	60	176	9.8	1	4	9	4	8	3	9	8	12	29	24	25	35	5		-----
Total.....	200	633	9.4	10	13	20	38	25	34	32	57	35	75	83	74	108	29		-----
Other employees:																			
Alabama.....	22	410	9.9		5		9	14	22	19	39	29	80	87	38	51	9	8	-----
Colorado.....	15	120	9.1	5	4	5	8	6	5	8	7	10	8	11	14	19	3	4	3
Illinois.....	37	1,041	11.1	5	9	7	15	12	26	81	86	71	75	74	113	244	93	113	17
Indiana.....	29	267	11.0			2	3	7	8	15	19	19	35	29	29	58	21	22	-----
Kansas.....	8	49	9.5		1		4	4	1	6	4	2	5	6	2	8	4	2	-----
Kentucky.....	64	874	10.2	19	11	8	20	14	21	35	51	78	162	142	72	191	37	13	-----
Ohio.....	39	220	11.9	2	3	5	3	3	4	3	13	7	10	12	18	68	33	19	17
Pennsylvania.....	135	1,882	11.2	9	13	15	22	55	34	45	110	125	176	187	205	661	151	68	6
Tennessee.....	10	53	7.8	7	6		3	2	2	4	1	2	8	8	4	6	1		-----
Virginia.....	20	239	11.2	7	2	5	1	5	5	2	5	13	13	32	42	86	16	5	-----
West Virginia.....	139	1,659	10.4	62	34	35	39	28	35	56	79	76	160	256	179	487	79	46	18
Total.....	518	6,814	10.7	116	86	83	127	150	163	274	414	432	722	844	716	1,879	447	300	61
OUTSIDE MINE																			
Blacksmiths:																			
Alabama.....	22	39	10.7	1			1	1		2	1	1	3	11	7	11			-----
Colorado.....	15	20	10.9		1				2			3	1	2	2	7	1	1	-----
Illinois.....	37	87	12.9		1				3				6	6	8	28	8	22	4
Indiana.....	29	41	11.3					3	3			1	5	2	4	1	7	8	-----
Kansas.....	8	9	12.6						1			1						5	-----
Kentucky.....	63	90	10.9				1	1	2	1	7	9	13	21	9	20	6		-----
Ohio.....	40	58	11.3				1	2	1	1	6	5	5	8	4	11	6	6	2

¹ Data included in total.

TABLE G.—Number of employees making each specified number of starts (days) in half month, 1929, by place of work, occupation, and State—
Continued

Place of work, occupation, and State	Number of mines	Number of employees	Average number of starts (days) in half month	Number of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OUTSIDE MINE—continued																			
Blacksmiths—Continued																			
Pennsylvania.....	128	223	11.4	1	1	1	4	5	2	1	10	16	25	28	25	67	22	14	1
Tennessee.....	14	17	9.4			2		1	2	1	2		1	1	4	1		2	
Virginia.....	21	28	12.6										1	2	10	12	1	2	
West Virginia.....	139	199	10.8	4	6	6			3	10	9	6	16	46	14	55	9	9	6
Total.....	516	811	11.3	6	9	7	9	13	19	16	41	41	76	128	87	217	60	69	13
Carpenters and car-repair men:																			
Alabama.....	20	81	10.3			1	1	4	2	3	4	8	16	21	6	15			
Colorado.....	9	18	9.6				1		3		1	2	4	2	2	3			
Illinois.....	35	130	12.3	1					1	3	5	3	13	10	17	39	14	23	1
Indiana.....	21	40	12.1					1	1	1	1		5	2	8	13	1	7	
Kansas.....	2	5	7.2		2			1							1			1	
Kentucky.....	58	158	10.7			1	3	6	3	3	17	10	25	16	18	51	5		
Ohio.....	36	81	10.9			1	4	3	7	4	1	6	3	7	8	12	16	9	
Pennsylvania.....	120	412	10.8	3	3	3	9	22	7	13	21	23	37	57	47	117	40	10	
Tennessee.....	12	29	10.4					1	2	4	1	1	4	1	5	10			
Virginia.....	19	56	12.1						2	1	2		4	4	9	26	7	1	
West Virginia.....	139	448	10.5	15	12	8	7	5	5	20	22	24	42	85	43	128	16	9	7
Total.....	471	1,458	10.8	19	17	14	25	43	33	52	75	77	153	205	164	414	99	60	8
Engineers:																			
Alabama.....	19	39	10.4					2	1	4	4	2	2	8	3	13			
Colorado.....	16	43	9.7	1	1	1	2	5	1	2	3	5	1	3	6	5		5	2
Illinois.....	37	123	14.9						1			1			1	5	3	94	18
Indiana.....	27	55	13.2								1		1			42	1	10	
Kansas.....	8	11	12.7				1					1			1	1	3	4	
Kentucky.....	28	47	12.3						1		1	3	4	3	9	16	3	7	
Ohio.....	25	35	14.3											1	1	9	4	14	6
Pennsylvania.....	84	190	13.0			1	2	2	2	1	3	1	14	10	14	69	15	51	7
Tennessee.....	5	6	7.0	1		1			2						1	1			
Virginia.....	5	6	12.3										1		2	2	1		

West Virginia.....	59	97	12.0	2	1	2	-----	-----	3	1	1	1	4	12	11	38	3	13	5
Total.....	313	652	12.8	4	2	3	5	9	11	8	13	14	27	37	40	201	33	198	38
Laborers:																			
Alabama.....	21	438	9.2	7	10	6	6	40	16	23	44	39	68	88	31	56	4	-----	-----
Colorado.....	16	146	7.1	8	3	12	29	10	5	10	9	18	15	8	9	5	4	-----	1
Illinois.....	37	789	11.1	11	12	10	11	11	20	28	45	47	72	51	151	161	62	88	9
Indiana.....	29	262	10.3	4	5	2	8	9	15	18	13	18	23	27	24	54	19	23	-----
Kansas.....	8	22	9.1	1	1	-----	2	4	-----	2	-----	-----	-----	-----	2	3	-----	5	-----
Kentucky.....	63	1,040	9.6	18	15	15	76	33	25	53	91	100	117	168	80	234	12	3	-----
Ohio.....	41	423	9.5	6	15	15	8	18	33	19	49	32	33	56	28	54	41	11	5
Pennsylvania.....	133	1,726	10.2	18	25	34	49	71	53	74	123	170	171	181	198	438	64	54	3
Tennessee.....	15	161	7.1	14	7	11	16	18	13	12	6	6	11	13	31	2	-----	1	-----
Virginia.....	22	286	11.0	5	5	1	3	7	4	11	11	6	10	40	76	102	4	1	-----
West Virginia.....	142	2,541	10.0	78	64	63	64	52	66	125	122	184	307	458	245	573	66	34	40
Total.....	527	7,834	10.0	170	162	169	272	273	250	375	513	622	827	1,090	875	1,682	276	220	58
Other employees:																			
Alabama.....	22	222	10.4	2	1	1	1	8	10	3	18	17	28	50	24	60	4	5	-----
Colorado.....	16	164	9.8	4	5	10	8	9	4	2	22	9	8	13	9	30	8	10	13
Illinois.....	37	358	12.3	2	3	1	-----	3	4	10	5	18	35	30	34	92	30	82	9
Indiana.....	16	45	12.6	-----	-----	-----	1	1	1	-----	-----	-----	3	8	8	15	5	9	-----
Kansas.....	8	32	10.0	1	-----	1	2	-----	2	3	3	1	3	1	3	8	-----	4	-----
Kentucky.....	61	317	10.7	1	2	2	8	3	8	12	27	25	46	40	25	95	10	13	-----
Ohio.....	40	206	12.5	1	2	1	2	4	4	2	9	5	8	14	11	68	25	24	26
Pennsylvania.....	131	1,498	11.2	17	12	20	23	47	21	54	86	97	118	134	135	504	112	110	28
Tennessee.....	13	48	10.2	1	-----	1	3	2	2	3	3	1	1	6	9	13	1	2	-----
Virginia.....	22	132	12.3	-----	2	1	1	1	1	1	1	2	3	16	20	61	16	7	-----
West Virginia.....	140	1,121	10.6	57	18	30	18	14	22	40	50	47	78	150	94	370	35	64	34
Total.....	506	4,143	11.1	86	43	69	60	92	79	130	204	222	331	462	367	1,306	246	330	110

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus() are out of print.*

Conciliation and Arbitration (including strikes and lockouts).

- *No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
- *No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
- No. 139. Michigan copper district strike. [1914.]
- *No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
- *No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
- *No. 191. Collective bargaining in the anthracite-coal industry. [1916.]
- *No. 198. Collective agreements in the men's clothing industry. [1916.]
- No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
- No. 255. Joint industrial councils in Great Britain. [1919.]
- No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
- No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
- *No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
- No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
- No. 402. Collective bargaining by actors. [1926.]
- No. 468. Trade agreements, 1927.
- No. 481. Joint industrial control in the book and job printing industry. [1928.]

Cooperation.

- No. 313. Consumers' cooperative societies in the United States in 1920.
- No. 314. Cooperative credit societies (credit unions) in America and in foreign countries. [1922.]
- No. 437. Cooperative movement in the United States in 1925 (other than agricultural).

Employment and Unemployment.

- *No. 109. Statistics of unemployment and the work of employment offices. [1913.]
- No. 172. Unemployment in New York City, N. Y. [1915.]
- *No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
- *No. 195. Unemployment in the United States. [1916.]
- No. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
- *No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
- No. 206. The British system of labor exchanges. [1916.]
- *No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- No. 235. Employment system of the Lake Carriers' Association. [1918.]
- *No. 241. Public employment offices in the United States. [1918.]
- No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.
- *No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
- No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

Foreign Labor Laws.

- *No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
- No. 494. Labor legislation of Uruguay. [1929.]
- No. 570. Labor legislation of Argentina. [1930.]

Housing.

- *No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
- No. 263. Housing by employers in the United States. [1920.]
- No. 295. Building operations in representative cities in 1920.
- No. 500. Building permits in the principal cities of the United States in [1921 to] 1928.

Industrial Accidents and Hygiene.

- *No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories [1912.]
- No. 120. Hygiene of painters' trade. [1913.]
- *No. 127. Dangers to workers from dust and fumes, and methods of protection. [1913.]
- *No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
- *No. 157. Industrial accident statistics. [1915.]
- *No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
- *No. 179. Industrial poisons used in the rubber industry. [1915.]
- No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
- *No. 201. Report of the committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
- *No. 209. Hygiene of the printing trades. [1917.]
- *No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
- No. 221. Hours, fatigue, and health in British munition factories. [1917.]
- No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
- *No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
- *No. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
- No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers' Committee. [1919.]
- No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
- No. 256. Accidents and accident prevention in machine building. [1919.]
- No. 267. Anthrax as an occupational disease. [1920.]
- No. 276. Standardization of industrial accident statistics. [1920.]
- No. 280. Industrial poisoning in making coal-tar dyes and dye-intermediates. [1921.]
- *No. 291. Carbon-monoxide poisoning. [1921.]
- No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
- No. 298. Causes and prevention of accidents in the iron and steel industry, 1910-1919.
- No. 306. Occupational hazard and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
- No. 392. Survey of hygienic conditions in the printing trades. [1925.]
- No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
- No. 427. Health survey of the printing trades, 1922 to 1925.
- No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-16, 1926.
- No. 460. A new test for industrial lead poisoning. [1928.]
- No. 466. Settlement for accidents to American seamen. [1928.]
- No. 488. Deaths from lead poisoning, 1925-1927.
- No. 490. Statistics of industrial accidents in the United States to the end of 1927.
- No. 507. Causes of death by occupation. [1929.]

Industrial Relations and Labor Conditions.

- No. 237. Industrial unrest in Great Britain. [1917.]
- No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 349. Industrial relations in the West Coast lumber industry. [1923.]
- No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
- No. 380. Postwar labor conditions in Germany. [1925.]
- No. 383. Works council movement in Germany. [1925.]
- No. 384. Labor conditions in the shoe industry in Massachusetts, 1920-1924.
- No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

Labor Laws of the United States (including decisions of courts relating to labor).

- No. 211. Labor laws and their administration in the Pacific States. [1917.]
- No. 229. Wage-payment legislation in the United States. [1917.]
- No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.]
- No. 321. Labor laws that have been declared unconstitutional. [1922.]
- No. 322. Kansas Court of Industrial Relations. [1923.]
- No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
- No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
- No. 408. Laws relating to payment of wages. [1926.]
- No. 444. Decisions of courts and opinions affecting labor, 1923.
- No. 486. Labor legislation of 1928.

Proceedings of Annual Conventions of the Association of Governmental Labor Officials of the United States and Canada. (Name changed in 1928 to Association of Governmental Officials in Industry of the United States and Canada.)

- No. 266. Seventh, Seattle, Wash., July 12-15, 1920.
- No. 307. Eighth, New Orleans, La., May 2-6, 1921.
- No. 323. Ninth, Harrisburg, Pa., May 22-26, 1922.
- *No. 352. Tenth, Richmond, Va., May 1-4, 1923.
- *No. 389. Eleventh, Chicago, Ill., May 19-23, 1924.
- *No. 411. Twelfth, Salt Lake City, Utah, August 13-15, 1925.
- No. 429. Thirteenth, Columbus, Ohio, June 7-10, 1926.
- *No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.
- No. 480. Fifteenth, New Orleans, La., May 21-24, 1928.
- No. 508. Sixteenth, Toronto, Canada, June 4-7, 1929.

Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.

- No. 210. Third, Columbus, Ohio, April 25-28, 1916.
- No. 248. Fourth, Boston, Mass., August 21-25, 1917.
- No. 264. Fifth, Madison, Wis., September 24-27, 1918.
- *No. 273. Sixth, Toronto, Canada, September 23-26, 1919.
- No. 281. Seventh, San Francisco, Calif., September 20-24, 1920.
- No. 304. Eighth, Chicago, Ill., September 19-23, 1921.
- No. 333. Ninth, Baltimore, Md., October 9-13, 1922.
- *No. 359. Tenth, St. Paul, Minn., September 24-26, 1923.
- No. 385. Eleventh, Halifax, Nova Scotia, August 26-28, 1924.
- No. 395. Index to proceedings, 1914-1924.
- No. 406. Twelfth, Salt Lake City, Utah, August 17-20, 1925.
- No. 432. Thirteenth, Hartford, Conn., September 14-17, 1926.
- *No. 456. Fourteenth, Atlanta, Ga., September 27-29, 1927.
- No. 485. Fifteenth, Paterson, N. J., September 11-14, 1928.
- No. 511. Sixteenth, Buffalo, N. Y., October 8-11, 1929. (In press.)

Proceedings of Annual Meetings of the International Association of Public Employment Services.

- No. 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
- No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
- No. 311. Ninth, Buffalo, N. Y., September 7-9, 1921.
- No. 337. Tenth, Washington, D. C., September 11-13, 1922.
- No. 355. Eleventh, Toronto, Canada, September 4-7, 1923.
- No. 400. Twelfth, Chicago, Ill., May 19-23, 1924.
- No. 414. Thirteenth, Rochester, N. Y., September 15-17, 1925.
- No. 478. Fifteenth, Detroit, Mich., October 25-28, 1927.
- No. 501. Sixteenth, Cleveland, Ohio, September 18-21, 1928.

Productivity of Labor.

- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
- No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 441. Productivity of labor in the glass industry. [1927.]
- No. 474. Productivity of labor in merchant blast furnaces. [1928.]
- No. 475. Productivity of labor in newspaper printing. [1929.]

Retail Prices and Cost of Living.

- *No. 121. Sugar prices, from refiner to consumer. [1913.]
- *No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
- *No. 164. Butter prices, from producer to consumer. [1914.]
- No. 170. Foreign food prices as affected by the war. [1915.]
- No. 357. Cost of living in the United States. [1924.]
- No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
- No. 495. Retail prices, 1890 to 1927.

Safety Codes.

- *No. 331. Code of lighting: Factories, mills, and other work places.
- No. 336. Safety code for the protection of industrial workers in foundries.
- No. 350. Specifications of laboratory tests for approval of electric headlighting devices for motor vehicles.
- *No. 351. Safety code for the construction, care, and use of ladders.
- No. 375. Safety code for laundry machinery and operations.
- No. 378. Safety code for woodworking plants.

Safety Codes—Continued.

- No. 382. Code of lighting school buildings.
- No. 410. Safety code for paper and pulp mills.
- No. 430. Safety code for power presses and foot and hand presses.
- No. 433. Safety codes for the prevention of dust explosions.
- No. 436. Safety code for the use, care, and protection of abrasive wheels.
- No. 447. Safety code for rubber mills and calenders.
- No. 451. Safety code for forging and hot-metal stamping.
- No. 463. Safety code for mechanical power-transmission apparatus—first revision.
- No. 509. Textile safety code.
- No. 512. Code for identification of gas mask canisters.

Vocational and Workers' Education.

- * No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
- * No. 162. Vocational education survey of Richmond, Va. [1915.]
- * No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
- No. 271. Adult working-class education in Great Britain and the United States. [1920.]
- No. 459. Apprenticeship in building construction. [1928.]

Wages and Hours of Labor.

- * No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
- * No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
- No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1912.
- * No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- No. 204. Street-railway employment in the United States. [1917.]
- No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- No. 265. Industrial survey in selected industries in the United States, 1919.
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