

UNITED STATES DEPARTMENT OF LABOR

W. N. DOAK, Secretary

BUREAU OF LABOR STATISTICS

ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES }
BUREAU OF LABOR STATISTICS } **No. 532**

WAGES AND HOURS OF LABOR SERIES

**WAGES AND HOURS OF LABOR IN THE
CIGARETTE MANUFACTURING INDUSTRY**

1930



FEBRUARY, 1931

**UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1931**

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NO. 532

WASHINGTON

FEBRUARY, 1931

WAGES AND HOURS OF LABOR IN THE CIGARETTE MANUFACTURING INDUSTRY, 1930

This report presents the results of a study in 1930 by the Bureau of Labor Statistics of wages and hours of labor of wage earners in the cigarette manufacturing industry in the United States. The data cover all employees—6,187 males and 8,079 females—engaged in the preparation of the tobacco and the manufacture, packing, and shipping of cigarettes in the 13 representative establishments in three States covered in the study. The figures were obtained directly from the pay rolls and other records of the establishments and are for representative pay-roll periods in March, April, and May, of this year.

AVERAGE HOURS AND EARNINGS, BY OCCUPATION AND SEX

Average full-time hours per week, average earnings per hour, and average full-time earnings per week are presented in Table 1 for each of the principal occupations in the industry, for a group of miscellaneous workers listed as "other employees," and for the industry as a whole. The group designated as "other employees" includes wage earners in occupations whose number was too small to warrant tabulation as an occupation.

Average full-time hours per week for males in all occupations, for females, and for both sexes, that is, for the industry, were 49.9. Average earnings per hour for males in all occupations were 37.8 cents, for females 26.8 cents, and for both sexes combined 31.8 cents. Average full-time earnings per week for males in all occupations were \$18.86, for females \$13.37, and for both males and females together \$15.87.

The range in average full-time hours per week for males as between the several occupations was from 49.8 to 50.0, or only two-tenths of an hour between the lowest and the highest, and for females from 49.7 to 50.7, making 1 hour difference between the lowest and the highest occupation.

Average earnings per hour for males ranged from 22.1 cents for hand stemmers to 69 cents for mechanics, and for females from 19 cents for laborers to 41.8 cents for glassine wrapping-machine operators.

Average full-time earnings per week for males ranged from \$11.05 for hand stemmers to \$34.36 for mechanics, and for females from \$9.48 for laborers to \$20.90 for glassine wrapping-machine operators. Because of the narrow range in full-time hours, the lowest and the highest average full-time earnings per week for both males and females occurred in the same occupations as average earnings per hour.

TABLE 1.—Average hours and earnings, by occupation and sex

Occupation	Sex	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Stemming-machine feeders	Female	8	658	49.7	\$0.202	\$10.04
Stemmers, hand	Male	9	328	50.0	.221	11.05
	Female	9	1,913	49.8	.192	9.56
Strip searchers	Male	5	39	50.0	.286	14.30
	Female	10	1,075	49.7	.198	9.84
Turkish pickers	Female	6	87	49.7	.195	9.69
Wetters, casers, and driers	Male	12	44	49.9	.484	24.15
Cutter feeders	Male	11	206	49.8	.326	16.23
Knife changers	Male	13	54	50.0	.374	18.70
Knife grinders	Male	13	19	49.9	.398	19.86
Making-machine operators	Male	13	1,143	49.9	.429	21.41
	Female	7	126	49.8	.372	18.53
Hopper feeders	Male	9	130	49.9	.311	15.52
	Female	3	24	50.7	.245	12.42
Catchers	Female	8	608	50.1	.298	14.93
Machine fixers	Male	13	230	49.9	.573	28.59
Inspectors	Male	3	10	50.0	.423	21.15
	Female	13	379	49.9	.367	18.31
Packing-machine operators	Male	10	240	49.9	.415	20.71
	Female	10	377	49.9	.381	19.01
Packers, hand	Female	5	476	49.8	.363	18.08
Glassine wrapping-machine operators	Male	8	314	50.0	.418	20.90
Carton packers	Female	13	543	49.8	.300	19.42
Carton banders or wrappers	Male	7	32	49.8	.354	17.63
	Female	10	100	49.9	.322	16.07
Case packers	Male	12	113	49.9	.344	17.17
Carton-making-machine operators	Male	12	70	49.9	.415	20.71
Mechanics	Male	11	224	49.8	.690	34.36
Laborers	Male	13	2,303	49.9	.301	15.02
	Female	13	504	49.9	.190	9.48
Other employees	Male	13	1,002	50.0	.427	21.35
	Female	13	895	50.1	.290	14.53
All employees	Male	13	6,187	49.9	.378	18.86
	Female	13	8,079	49.9	.268	13.37
All employees, male and female		13	14,266	49.9	.318	15.87

AVERAGE HOURS AND EARNINGS, BY SEX AND STATE

Average full-time hours per week, earnings per hour, and full-time earnings per week are presented in Table 2 for wage earners of each sex and for both sexes combined in each of the three States covered, and for all States.

Average full-time hours by States for males were 49.9, 50.0, and 51.7; for females, 49.8, 49.9, and 51.6; and for both sexes, 49.8, 49.9, and 51.7.

Average full-time earnings per week by States for males were \$17.86, \$21.25, and \$23.89; for females, \$12.95, \$14.09, and \$14.67; and for both sexes, \$15.09, \$17.91, and \$18.41.

TABLE 2.—Average hours and earnings, by sex and State

Sex and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
<i>Males</i>					
North Carolina	7	4,390	49.9	\$0.358	\$17.86
Virginia	4	1,694	50.0	.425	21.25
Kentucky	2	103	51.7	.462	23.89
Total	13	6,187	49.9	.378	18.86
<i>Females</i>					
North Carolina	7	5,965	49.8	.260	12.95
Virginia	4	1,966	49.9	.294	14.67
Kentucky	2	148	51.6	.273	14.09
Total	13	8,079	49.9	.268	13.37
<i>Males and females</i>					
North Carolina	7	10,355	49.8	.303	15.09
Virginia	4	3,660	49.9	.359	17.91
Kentucky	2	251	51.7	.356	18.41
Total	13	14,266	49.9	.318	15.87

AVERAGE AND CLASSIFIED EARNINGS PER HOUR, BY OCCUPATION AND SEX

Table 3 presents a percentage distribution of average earnings per hour of the employees by occupations. The percentage is the nearest whole per cent in each group. For example, if 6.6 per cent of the employees fall in a group, it is shown as 7 per cent.

Approximately 18 per cent of the employees earned under 20 cents per hour and approximately 6 per cent earned 50 cents or more per hour. The majority of the employees, therefore, earned between 20 cents and 50 cents per hour.

TABLE 3.—Average hourly earnings and per cent earning each classified amount per hour, by occupation and sex

Occupation.....	Stem- ming- ma- chine feeders	Stemmers, hand		Strip searchers		Turk- ish pickers	Wet- ters, casers, and driers	Cutter feeders	Knife chang- ers
Sex.....	F.	M.	F.	M.	F.	F.	M.	M.	M.
Establishments.....	8	9	9	5	10	6	12	11	13
Employees.....	658	328	1,913	39	1,075	87	44	206	54
Average earnings per hour....	\$0.202	\$0.221	\$0.192	\$0.286	\$0.198	\$0.195	\$0.484	\$0.326	\$0.374
Per cent earning each classified amount per hour									
CLASSIFIED EARNINGS									
4 and under 5 cents.....			(1)						
5 and under 6 cents.....			(1)						
6 and under 7 cents.....			(1)						
7 and under 8 cents.....		1	1						
8 and under 9 cents.....		1	3						
9 and under 10 cents.....		2	3						
10 and under 11 cents.....		5	4						
11 and under 12 cents.....		5	5						
12 and under 13 cents.....		5	6						
13 and under 14 cents.....		5	5		(1)				
14 and under 15 cents.....		6	6						
15 and under 16 cents.....		6	6		1				
16 and under 17 cents.....	1	3	4		(1)				
17 and under 18 cents.....	3	5	5		1	18			
18 and under 19 cents.....	27	2	4		27	36			
19 and under 20 cents.....	8	5	4		7	3			
20 and under 21 cents.....	35	4	5		45	30		1	
21 and under 22 cents.....	12	3	5	3	13				
22 and under 23 cents.....	3	2	5		(1)	1			
23 and under 24 cents.....	1	5	4		2				6
24 and under 25 cents.....	4	2	3		(1)				
25 and under 27½ cents.....	7	9	8	31	3	12			9
27½ and under 30 cents.....	(1)	6	6	3	(1)			2	4
30 and under 32½ cents.....		5	3	59	(1)		11	43	6
32½ and under 35 cents.....		5	2	5				37	15
35 and under 37½ cents.....		2	1				7	10	19
37½ and under 40 cents.....		2	1				7	2	7
40 and under 42½ cents.....		1	(1)				21	1	20
42½ and under 45 cents.....		(1)							6
45 and under 47½ cents.....			(1)				21		11
47½ and under 50 cents.....		1					2		2
50 and under 55 cents.....		1					9		
55 and under 60 cents.....		1					5		
60 and under 65 cents.....							5		
65 and under 70 cents.....							2		
70 and under 75 cents.....							7		
85 and under 90 cents.....							2		
100 and under 110 cents.....							2		

¹Less than 1 per cent.

WAGES AND HOURS OF LABOR

TABLE 3.—Average hourly earnings and per cent earning each classified amount per hour, by occupation and sex—Continued

Occupation.....	Knife grind- ers	Making-ma- chine operators		Hopper feeders		Catch- ers	Ma- chine fixers	Inspectors	
Sex.....	M.	M.	F.	M.	F.	F.	M.	M.	F.
Establishments.....	13	13	7	9	3	8	13	3	13
Employees.....	19	1, 143	126	130	24	608	230	10	* 379
Average earnings per hour.....	\$0. 398	\$0. 429	\$0. 372	\$0. 311	\$0. 245	\$0. 298	\$0. 573	\$0. 423	\$0. 367
Per cent earning each classified amount per hour									
CLASSIFIED EARNINGS									
20 and under 21 cents.....						1			
21 and under 22 cents.....					13	(¹)			
22 and under 23 cents.....					13	(¹)			(¹)
23 and under 24 cents.....				1	17	3			(¹)
24 and under 25 cents.....					8	2			(¹)
25 and under 27½ cents.....	5	(¹)	1	12	42	10			2
27½ and under 30 cents.....		(¹)		30	8	13			4
30 and under 32½ cents.....	5	2	1	25		57		10	6
32½ and under 35 cents.....	11	2	2	15		13			11
35 and under 37½ cents.....	11	8	48	16		(¹)	1	30	32
37½ and under 40 cents.....	26	11	35	2		1			17
40 and under 42½ cents.....	16	32	11				2	40	24
42½ and under 45 cents.....	11	19	2				1		2
45 and under 47½ cents.....	5	8					8		1
47½ and under 50 cents.....		7					10		(¹)
50 and under 55 cents.....	11	9					30		(¹)
55 and under 60 cents.....		2					15	20	
60 and under 65 cents.....		1					8		
65 and under 70 cents.....		(¹)					7		
70 and under 75 cents.....							12		
75 and under 80 cents.....		(¹)					4		
80 and under 85 cents.....							2		
90 and under 95 cents.....						(¹)			
100 and under 110 cents.....						1			

Occupation.....	Packing-ma- chine operators		Pack- ers, hand	Glass- ine wrap- ping- ma- chine opera- tors	Carton packers	Carton banders or wrappers		Case packers	Carton- making ma- chine opera- tors
Sex.....	M.	F.	F.	F.	F.	M.	F.	M.	M.
Establishments.....	10	10	5	8	13	7	10	12	12
Employees.....	240	377	476	314	543	32	100	113	70
Average earnings per hour.....	\$0. 415	\$0. 381	\$0. 363	\$0. 418	\$0. 390	\$0. 354	\$0. 322	\$0. 344	\$0. 415
Per cent earning each classified amount per hour									
CLASSIFIED EARNINGS									
15 and under 16 cents.....							4		
16 and under 17 cents.....			(¹)						
18 and under 19 cents.....			(¹)						
19 and under 20 cents.....			(¹)						
20 and under 21 cents.....			1						
21 and under 22 cents.....			(¹)						
22 and under 23 cents.....			2						
23 and under 24 cents.....			1						
24 and under 25 cents.....			5	(¹)	(¹)		1		
25 and under 27½ cents.....			12	2	2		12	4	
27½ and under 30 cents.....	1	3	7	1	5	9	6	6	
30 and under 32½ cents.....	5	2	6	3	4	25	39	39	10
32½ and under 35 cents.....	5	5	6	3	3	16	3	11	6
35 and under 37½ cents.....	13	19	13	13	37	9	27	13	9
37½ and under 40 cents.....	12	50	11	19	13	13	2	6	11
40 and under 42½ cents.....	20	19	11	18	11	25	1	12	40
42½ and under 45 cents.....	16	2	10	2	3		2	4	4
45 and under 47½ cents.....	12	1	6	16	9		2	3	6
47½ and under 50 cents.....	10		4	21	13			2	4
50 and under 55 cents.....	5		3	2	1		1		3
55 and under 60 cents.....	(¹)		2						1
60 and under 65 cents.....	1		1			3			4
65 and under 70 cents.....									1

¹ Less than 1 per cent.

TABLE 3.—Average hourly earnings and per cent earning each classified amount per hour, by occupation and sex—Continued

Occupation.....	Mechanics	Laborers		Other employees		All employees		
Sex.....	M.	M.	F.	M.	F.	M.	F.	Total
Establishments.....	11	13	13	13	13	13	13	13
Employees.....	224	2, 303	504	1, 002	895	6, 187	8, 079	14, 266
Average earnings per hour....	\$0. 690	\$0. 301	\$0. 190	\$0. 427	\$0. 290	\$0. 378	\$0. 268	\$0. 318
Per cent earning each classified amount per hour								
CLASSIFIED EARNINGS								
4 and under 5 cents.....					(1)		(1)	(1)
5 and under 6 cents.....					1		(1)	(1)
6 and under 7 cents.....					2		(1)	(1)
7 and under 8 cents.....					(1)		(1)	(1)
8 and under 9 cents.....					(1)		(1)	(1)
9 and under 10 cents.....					(1)		(1)	1
10 and under 11 cents.....					(1)		(1)	1
11 and under 12 cents.....					(1)		(1)	1
12 and under 13 cents.....			(1)		(1)		(1)	1
13 and under 14 cents.....			(1)		(1)		(1)	1
14 and under 15 cents.....			(1)		(1)		(1)	1
15 and under 16 cents.....			9	1	2	1	2	2
16 and under 17 cents.....			7		1	(1)	2	1
17 and under 18 cents.....			8	1	2	(1)	2	2
18 and under 19 cents.....			28	(1)	1	(1)	9	5
19 and under 20 cents.....			3		1	(1)	3	2
20 and under 21 cents.....		1	35	2	16	1	15	9
21 and under 22 cents.....		(1)	4	(1)	(1)	(1)	4	3
22 and under 23 cents.....		1	1	(1)	2	1	2	1
23 and under 24 cents.....		1	3	2	1	1	2	2
24 and under 25 cents.....		1	(1)	(1)	2	1	2	1
25 and under 27½ cents.....		23	2	6	7	11	6	8
27½ and under 30 cents.....		10		3	12	6	5	5
30 and under 32½ cents.....		44	(1)	16	12	23	8	15
32½ and under 35 cents.....		8		5	7	7	4	5
35 and under 37½ cents.....		7		10	8	8	8	8
37½ and under 40 cents.....		3		4	6	5	7	6
40 and under 42½ cents.....	(1)	1		11	13	10	6	8
42½ and under 45 cents.....		(1)		3	1	5	1	3
45 and under 47½ cents.....	3	(1)		5	(1)	4	2	3
47½ and under 50 cents.....		(1)		2	(1)	3	2	2
50 and under 55 cents.....	6	(1)		8		5	(1)	2
55 and under 60 cents.....	7			3		2	(1)	1
60 and under 65 cents.....	13			5		2	(1)	1
65 and under 70 cents.....	8			2		1		(1)
70 and under 75 cents.....	27			4		2		1
75 and under 80 cents.....	27			2		2		1
80 and under 85 cents.....	4			1		(1)		(1)
85 and under 90 cents.....	3			1		(1)		(1)
90 and under 95 cents.....	1			(1)		(1)		(1)
95 and under 100 cents.....	(1)			(1)		(1)		(1)
100 and under 110 cents.....				1		(1)		(1)
110 and under 120 cents.....				(1)		(1)		(1)

¹ Less than 1 per cent.

A very wide range of hourly earnings is seen in Table 3 especially among hand stemmers. This is mostly a piecework occupation. Some employees in this occupation are content with small earnings and do not exert themselves. Others are naturally either slow or rapid in turning out work and the slow pieceworker naturally earns less than the rapid worker. A similar condition but of less extent is found in other occupations.

FULL-TIME HOURS

The full-time hours herein presented are the regular customary working hours of the factory with lunch time excluded and with no overtime and no loss of time.

Table 4 shows the regular full-time hours per week and per day of each of the 13 establishments covered. While all the factories were on a 6-day basis each had a short Saturday. These figures represent the factories as units. In a few instances the hours of individual workers were more or less than the usual hours of the establishment. Two establishments with 2 per cent of the total number of employees covered in this report had a full-time week of 48 hours, 3 establishments with 25 per cent had 49½ hours, 7 establishments with 71 per cent had 50 hours, and 1 establishment with 1 per cent 55 hours per week. The remaining 1 per cent of employees had full-time hours ranging from 53½ to 73½ per week.

TABLE 4.—*Classification of establishments in each State by full-time hours per week and per day*

Full-time hours per week	Full-time hours per day		Number of establishments having specified hours		
	Monday to Friday	Saturday	Kentucky	North Carolina	Virginia
48 hours.....	9	3	1	-----	-----
48 hours.....	8¾	4¼	-----	-----	1
49½ hours.....	9	4½	-----	3	-----
50 hours.....	9	5	-----	4	3
55 hours.....	10	5	1	-----	-----
Total.....	-----	-----	2	7	4

BONUS SYSTEMS

Only 3 of the 13 establishments had bonus systems in effect at the time of the study.

In one establishment an attendance bonus of \$1 per week was paid to each employee who was on hand every day and was not tardy during the week. The amount was increased to \$1.25 per week for full-time attendance for four consecutive weeks. This bonus applied to all employees except those who were paid weekly or monthly rates.

Two establishments paid a production bonus to employees in certain occupations in the cutting department.

CHANGES IN WAGE RATES SINCE MARCH 1, 1929

Only one establishment reported any change in wage rates between March 1, 1929, and the period of the study. This establishment decreased the piece rates of hand packers nearly 19 per cent.

No changes in regular hours were reported.

PAY FOR OVERTIME AND FOR WORK ON SUNDAY AND HOLIDAYS

Overtime is generally considered as time worked in excess of the regular full-time hours per day and per week and is sometimes paid for at a higher rate. Only 7 of the 13 establishments covered reported extra pay for overtime and for work on Sunday and holidays. Of these, 5 paid time and a half, 1 paid time and a quarter, and 1 paid time and a half after 6 p. m. from Monday to Friday and after 1 p. m.

Saturday. Five establishments paid time and a half and one paid time and a quarter for work on Sunday and holidays, while one paid time and a half for work on holidays and double time for all Sunday work.

GROWTH OF THE INDUSTRY

Table 5 shows the number of cigarettes manufactured in each of the specified calendar years, 1900 to 1925, and the fiscal year 1930. These figures were taken from the reports of the Commissioner of Internal Revenue.

The production of cigarettes increased very little between the years 1900 and 1905, but doubled from 1905 to 1910. It more than doubled again from 1910 to 1915 and also between 1915 and 1920. The production steadily increased to 82 billions in 1925 and to approximately 120 billions in 1930.

TABLE 5.—*Production of cigarettes, by weight, in specified years, 1900 to 1930*

[From reports of Commissioner of Internal Revenue]

Calendar year	Weighing more than 3 pounds per 1,000	Weighing not more than 3 pounds per 1,000	Total
	<i>Cigarettes</i>	<i>Cigarettes</i>	<i>Cigarettes</i>
1900.....	4,585,675	3,254,130,630	3,258,716,305
1905.....	6,913,138	3,666,814,273	3,673,727,411
1910.....	19,374,077	8,644,335,407	8,663,709,484
1915.....	15,816,210	17,964,348,272	17,980,164,482
1920.....	28,038,552	47,430,105,055	47,458,143,607
1925.....	17,428,807	82,247,100,347	82,264,529,154
1930 ¹	9,041,735	119,935,433,267	119,944,475,002

¹ For fiscal year ending June 30, 1930.

METHOD OF COMPUTATION

This report covers wage workers only and does not include any data for executives, supervisors, nor clerical and office force.

Average earnings per hour of wage earners in each occupation, as presented in the various tables in this report, were computed by dividing the combined earnings of all wage earners in the occupation by the total hours worked by them.

Average full-time hours per week of wage earners in each occupation were obtained by dividing the aggregate full-time hours of all wage earners in the occupation by the number of wage earners. The full-time hours per week of each wage earner were used in arriving at this average, even though some employees may have worked more or less than full time on account of overtime, sickness, disability, or other cause.

Average full-time earnings per week of wage earners in each occupation were computed by multiplying the average earnings per hour by the average full-time hours per week. This shows what the earnings would have been had all wage earners in the occupation worked full time, no more nor less, at the same average earnings per hour as in the one week covered in the 1930 study of the industry.

CLASSIFIED EARNINGS PER HOUR

MALE LABORERS, BY STATE

Table 6 shows for each of the three States included in this report and for the three together the per cent of male laborers earning each classified amount per hour. None of them earned less than 20 cents per hour, approximately 4 per cent earned less than 25 cents per hour, 33 per cent earned 25 and under 30 cents, and 63 per cent of them earned 30 cents or more per hour. The highest earnings were 50 and under 55 cents per hour.

TABLE 6.—Classified earnings per hour of male laborers, by State

Classified earnings per hour	Per cent of male laborers			
	North Carolina	Kentucky	Virginia	Total
20 and under 21 cents.....	1	—	(¹)	1
21 and under 22 cents.....	1	—	(¹)	(¹)
22 and under 23 cents.....	1	—	2	1
23 and under 24 cents.....	1	—	1	1
24 and under 25 cents.....	1	—	2	1
25 and under 27½ cents.....	30	—	5	23
27½ and under 30 cents.....	13	—	2	10
30 and under 32½ cents.....	41	3	52	44
32½ and under 35 cents.....	5	—	17	8
35 and under 37½ cents.....	6	33	10	7
37½ and under 40 cents.....	1	44	6	3
40 and under 42½ cents.....	(¹)	11	2	1
42½ and under 45 cents.....	(¹)	6	(¹)	(¹)
45 and under 47½ cents.....	(¹)	—	1	(¹)
47½ and under 50 cents.....	(¹)	3	1	(¹)
50 and under 55 cents.....	(¹)	—	1	(¹)

¹ Less than 1 per cent.

ALL EMPLOYEES, BY SEX AND STATE

Table 7 shows for each of the three States included in this report and for the three States together the per cent of males, of females, and of males and females in all occupations combined, earning each classified amount per hour.

TABLE 7.—*Classified earnings per hour of employees in all occupations in the industry combined, by sex and State*

Classified earnings per hour	Per cent of males in all occupations				Per cent of females in all occupations				Per cent of males and females in all occupations			
	North Carolina	Kentucky	Virginia	Total	North Carolina	Kentucky	Virginia	Total	North Carolina	Kentucky	Virginia	Total
4 and under 5 cents.							(1)	(1)			(1)	(1)
5 and under 6 cents.					(1)		(1)	(1)			(1)	(1)
6 and under 7 cents.			(1)	(1)			1	(1)			(1)	(1)
7 and under 8 cents.	(1)		(1)	(1)	(1)		1	(1)			1	(1)
8 and under 9 cents.	(1)		(1)	(1)	1		1	1	(1)			(1)
9 and under 10 cents.	(1)		(1)	(1)	1		1	1			1	1
10 and under 11 cents.	(1)		1	(1)	1		1	1	1		1	1
11 and under 12 cents.	(1)		(1)	(1)	1		1	1	1		(1)	1
12 and under 13 cents.	(1)		(1)	(1)	2		1	2	1		1	1
13 and under 14 cents.	(1)		(1)	(1)	2		1	1	1		(1)	1
14 and under 15 cents.	(1)		(1)	(1)	2		1	1	1		1	1
15 and under 16 cents.	1		(1)	1	2		3	2	2		1	2
16 and under 17 cents.	(1)		(1)	(1)	2		2	2	1		1	1
17 and under 18 cents.	1		(1)	(1)	3		2	2	2		1	2
18 and under 19 cents.	(1)		(1)	(1)	7		16	9	4		9	5
19 and under 20 cents.	(1)		(1)	(1)	3		1	3	2		1	2
20 and under 21 cents.	1	1	(1)	1	18		5	15	11	(1)	3	9
21 and under 22 cents.	(1)		(1)	(1)	5		1	4	3		1	3
22 and under 23 cents.	1		1	1		10	1	2	1	6	1	1
23 and under 24 cents.	1		1	1	2	1	2	2	2	(1)	1	2
24 and under 25 cents.	(1)		1	1	2	15	2	2	1	9	1	1
25 and under 27½ cents.	14		4	11	6	35	5	6	9	20	5	8
27½ and under 30 cents.	7		2	6	4	26	6	5	5	15	4	5
30 and under 32½ cents.	24	2	23	23	7	9	10	8	14	6	16	15
32½ and under 35 cents.	5		11	7	2		9	4	4		10	5
35 and under 37½ cents.	8	15	8	8	9	5	7	8	8	9	7	8
37½ and under 40 cents.	4	37	4	5	6		8	7	6	15	6	6
40 and under 42½ cents.	12	10	6	10	6	1	6	6	8	4	6	8
42½ and under 45 cents.	6	6	3	5	1	1	2	1	3	3	2	3
45 and under 47½ cents.	3	2	5	4	2		2	2	2	1	3	3
47½ and under 50 cents.	2	4	5	3	2		3	2	2	2	4	2
50 and under 55 cents.	4	5	8	5	(1)		1	(1)	2	2	4	2
55 and under 60 cents.	1	2	3	2	(1)		(1)	(1)	1	1	2	1
60 and under 65 cents.	2	4	3	2	(1)		(1)	(1)	1	2	1	1
65 and under 70 cents.	1	2	1	1					(1)	1	1	(1)
70 and under 75 cents.	2	5	4	2					1	2	2	1
75 and under 80 cents.	1	2	4	2						1	2	1
80 and under 85 cents.	(1)	5	(1)	(1)						2	(1)	(1)
85 and under 90 cents.	(1)		1	(1)					(1)		(1)	(1)
90 and under 95 cents.	(1)		(1)	(1)					(1)		(1)	(1)
95 and under 100 cents.			(1)	(1)							(1)	(1)
100 and under 110 cents.	(1)		1	(1)					(1)		(1)	(1)
110 and under 120 cents.	(1)		(1)	(1)					(1)		(1)	(1)

¹ Less than 1 per cent.

OCCUPATIONS

The occupations for which data are presented in this bulletin are arranged below as nearly as possible in order of manufacture:

Stemming-machine feeders
Stemmers, hand
Strip searchers
Turkish pickers
Wetters, casers, and driers
Cutter feeders
Knife changers
Knife grinders
Making-machine operators
Hopper feeders
Catchers

Machine fixers
Inspectors
Packing-machine operators
Packers, hand
Glassine wrapping-machine operators
Carton packers
Carton banders or wrappers
Case packers
Carton-making-machine operators
Mechanics
Laborers

Wage figures are also presented in this report for a group designated as "other employees." This group includes employees in all occupations in the industry other than listed above, but each too few in number of employees to warrant publishing as an occupation.

DESCRIPTION OF OCCUPATIONS AND MACHINES

Ordering men.—Tobacco must be pliable to be worked. Usually the ordering machine is essentially a steam filled chamber into which the tobacco is fed through rollers and is carried along by a slowly moving belt, the steam penetrating and softening the tobacco. The chamber is divided so that the steam is confined in one end. While the tobacco is hot in passing through this end it cools somewhat in going through the other end. As the tobacco comes out of the machine on the belt it is placed in receptacles to be carried to other departments. The ordering man is in charge of the machine. He must know the required temperature and amount of steam and directs the laborers as to the proper feeding of the tobacco into the machine. Frequently the ordering man is also a foreman or subforeman who is paid a high rate commensurate with his whole duties. Since there are so few that are clearly confined to the one duty this occupation has been combined with wetters, casers, and driers.

Stemming-machine feeders.—Stemming machines are of several types. In all, the machines engage the butt of the midrib or stem of the leaf and draw it between revolving rolls which remove the leaf from the stem. The stemming-machine feeders untie the bundles of tobacco and place the leaves in position to be handled by the stemming machine. The part separated from the stem is known as the "strip." The stems and the strips fall into separate places. The machines will stem about 85 per cent of the tobacco fed to them. The leaves which the machine does not catch fall into a receptacle apart from the strips and are later stemmed by hand. Some leaves will break and get into the strips with too much stem. *Strip searchers* are employed to remove these parts of stems. Almost invariably the stemming machines are fed by female time workers.

Stemmers, hand.—Both males and females work at this occupation, though females predominate in most establishments. They stem the leaves which for various reasons are not put through the machines and also those leaves missed by the machines. Strip searchers also go through those strips to see that the work is properly done. Hand stemming is almost all piecework.

There is a very marked difference in the earnings of individual hand stemmers. This is due in a measure to the character of the employees generally found in this occupation. Many of them are people who are indifferent to the opportunities of earning and work only fast enough to get a certain small sum of money each week. A considerable number in this occupation are employees who have lost their usefulness in other occupations and the management hesitates to turn them off entirely. Against these are some who are active and ambitious and who work to earn as much as they can.

Strip searchers examine the "strips" to make sure the leaves have been properly stemmed, not too much stem left in, that strips have not been unduly wet, and that foreign matter has not been put in

with the strips. They remove any parts of stems they may find. Female time workers largely predominate in the occupation.

Turkish pickers.—When Turkish tobacco is received it is in a very hard pressed bale, the leaves adhering tightly to each other. The picker separates the leaves from each other. The workers stand at tables fitted with belt conveyors which carry the tobacco along the table and into a hamper. Males in this occupation are too few to be shown separately in the tabulation and are included with "other employees."

Wetters and casers.—Casing is the treatment which gives the distinctive flavor to each brand. The casing liquid is prepared under laboratory formulas. Sometimes a dipping and wringing process and sometimes a spraying process is employed to apply the liquid. The tobacco is left to "draw" for some time after casing so that the flavor may permeate thoroughly and evenly. The caser is in charge of this process.

Driers.—When the dipping process is employed for casing, the strips are partially dried through long revolving heated drums before cutting, and the cut tobacco is further partially dried in similar machines. Driers are in charge of the drying machines, regulating the temperature and the length of time the tobacco must remain in the machine. For the reason stated under *ordering men* and also because the caser may also be the drier the occupations are shown together.

Cutter feeders.—The cutting machine has a hopper into which the strips are placed by the cutter feeder, and from which they are drawn by rolls and solidly packed and forced through an opening or slot two or more inches wide and several inches long. A knife operates rapidly over the slot and cuts the tobacco into shreds. The cut tobacco falls on a conveyor. As but a few females are found in this occupation data for them are included in the group of "other employees."

Knife changers are stationed at the cutting machine opposite the hopper. The knife operates vertically at high speed. The changer watches the cut tobacco and the working of the knife. The knives must be changed and ground frequently. If the knife becomes dulled it is changed for a sharp one. Some factories have the knives changed at regular intervals.

Knife grinders sharpen the cutting-machine knives on a grinding wheel. Some skill is required to preserve the proper cutting angle on certain machines. However, a majority of the grinding machines are so arranged that the angle is preserved automatically.

Dressing-out-machine operators.—The cut tobacco is placed in the dressing machine. This is a long revolving drumlike device with lugs inside which tumble and break up any solid masses and thoroughly mix the whole into an even fluffy mass and deposit it into receptacles to go to the making room. The operators of these machines were sometimes found to perform other work. The number performing the work of operators only were too few to warrant tabulation as an occupation, and consequently data for them are included in the group of "other employees."

Making-machine operators.—The shredded tobacco is placed in a hopper on the upper part of the machine. Below the hopper are rolls which draw the tobacco down and scatter it evenly on a belt which carries it onto the paper. The paper is in a large roll of tape at the

side of the machine and feeds into a narrow troughlike device. One roll of paper will make 40,000 cigarettes. The machine has a device which prints the name of the brand on each cigarette length of paper. As the tobacco is deposited on the paper the edges of the paper are bent upward and at the same time a device deposits paste on one edge of the paper and this edge is pressed down, slightly overlapping the other edge. The length of cigarette is then cut off by a rapid-action knife, and the cigarettes fall on a moving belt from which they are either removed and placed in a tray by a worker called the catcher or they are automatically deposited in the tray.

When a catcher is employed the operator of the machine usually fills the hopper. When the machine is of the automatic catcher type the operator must give more attention to the catching device, and a hopper feeder is then employed to fill the hoppers of several machines. Usually an operator tends only one machine, but in a few cases he tends two and occasionally three machines. The machines can be equipped with a device which will put a cork or a glassine tip on the cigarette. The capacity of each machine is from 700 to 1,000 cigarettes per minute. Both males and females are employed as operators. The operator watches the machine, puts on new rolls of paper, and makes minor adjustments.

Hopper feeders keep the hoppers of the making machines filled with tobacco when such work is not done by the operator. Each one has several machines to tend. Both sexes are found in this occupation but males are more numerous.

Catchers are stationed at the end of the machines where the cigarettes come out. As the cigarettes drop on a moving belt the catcher gathers them up by handfuls and places them in a tray. This work, which is done exclusively by females, is not heavy but requires strict attention. Besides handling the cigarettes the catcher must observe if they are being properly made, though she is not primarily an inspector. Some machines do not require catchers as the cigarettes are automatically deposited in the tray.

Machine fixers.—Each fixer usually has several machines in charge. They make adjustments to machines which are not working properly. They are not necessarily machinists who can make or repair a machine part. Vacancies in this occupation are most frequently filled by promoting especially competent operators. Making-machine fixers and packing-machine fixers are combined. Males only are employed in this occupation.

Inspectors observe the product at any and all stages for imperfection at any point. Only a few males are found in this occupation.

Packing-machine operators operate and make minor adjustments to the packing machines.

Most cigarettes are packed in packages of 20, 7 cigarettes in the two outside rows and 6 in the middle row. The tray filled at the making machine is carried to the packing machine. Most of the machines feed automatically from the tray but some machines must be fed by hand, one feeder (female) feeding two machines. Data for feeders are not shown except in "other employees."

The machine is fitted with a roll of paper and foil rolled together. The machine automatically counts the cigarettes and places them on this paper and then cuts off and wraps the paper and foil around the

cigarettes, folding the ends of the paper and foil. Before one end is folded an electrical device contacts with the ends of the cigarettes. If the package has not the proper number of cigarettes or if any cigarette is too short or the end too soft or broken, the package is automatically scored so that it may be detected as it leaves the machine. At another place on the machine the printed outside wrappers or labels are in a pile. A fingerlike device places this label in position, and it is wrapped around the paper and foil wrapped package. Another type of machine forms the printed label into a cup shape, and the paper and foil wrapped package is pushed into the cup. As the package leaves the machine another fingerlike device places the revenue stamps over the center of the package and the stamp is pressed down and stuck. Some older-type machines make the cup and wrap the cigarettes on separate machines and they are then put through a third machine to be stamped. Besides the package of 20, machines will also pack packages of 10 and 12 cigarettes. Both males and females operate the packing machines.

Packers, hand.—Flat tins, cans, and some cardboard packages are packed by hand. The revenue stamp is put on later, generally by machine. On a comparatively few packages the stamp is pasted by hand. All hand packing is done by females.

Glassine wrapping-machine operators and carton packers.—A glassine wrapper is used on many packages to prevent change of moisture in the cigarettes. Two employees work together at one machine. One feeds the packages into an upright chute, from the bottom of which they are automatically placed on the glassine which is fed from a roll. The glassine is cut off and wrapped around the package and is pasted, closing one end. The other employee puts the finished package into the carton by hand. These employees frequently change positions. The data for each of these occupations, however, are shown separately.

Carton banders or wrappers.—Some establishments place a band lengthwise around the carton. Others wrap the carton entirely in a waxed-paper wrapper. The bands or the waxed paper feed from rolls and are automatically pasted and sealed. Both males and females tend these machines.

Case packers.—The cartons are placed in the shipping cases or containers by hand, usually by men. Females in this occupation are too few to show data for and are included with "other employees." The containers when full are put on a belt conveyor. This is fitted with a pair of lugs which fold up the flaps of the container. A strip of adhesive paper is then pasted over the closing.

Carton-making-machine operators.—The cardboard from which cartons are made is in a large roll or web. As this feeds into the machine, dies cut and crease the carton and bend up and fasten the sides and ends. One-piece cartons are left open on one side. Of the 2-piece carton, one part is slightly larger than the other and is the cover for the latter. Each operator has one or two helpers, shown only as "other employees," who nest the cartons conveniently for the carton packers. There are also machines which make cartons from sheets of cardboard instead of web.

Rippers operate and feed machines which are fitted with knives set close together. Faulty cigarettes are fed into this machine and

the paper is slit from end to end. The tobacco and slit paper are carried out of the machine by a belt. Some machines have a winnow which blows most of the paper away from the tobacco. What is not blown away must be hand picked. The tobacco is sifted to remove the finest particles and the good tobacco is then redressed and used. This occupation was not found in sufficient number to warrant showing.

Mechanics are skilled workers familiar with machine tools who repair worn or broken parts of machines or make new parts.

Laborers are male or female workers who do various unskilled work or work requiring no training. They unload or load freight cars, truck or roll hogsheads, open and unpack hogsheads, pack and close hogsheads, push hampers or trucks, distribute tobacco or other materials to the various machines, sweep floors, fork tobacco onto conveyors or into ordering, drying, or dressing drums, clean scrap or stems, bulk tobacco, do yard work, line hogsheads, strip bales, load trucks, wreck hogsheads, pick up tobacco or waste, feed ordering machines, fill hampers, scrub floors, dump tobacco, stack tubs, sift and pick shorts, pick strips, spread tobacco, stack containers, shake out tobacco, cover hampers, feed shorts, bale stems, search scrap, feed dipping machines, feed butting machines, etc.

Other employees are employees in occupations each too few in number to warrant showing separately. Occupations included in the group of "other employees" are elevator operators, paper and stamp cutters, stock keepers, cup makers, electricians, carpenters, electric truck operators, bad work repairers, cuppers, stampers, selectors, painters, learners, old or young people not capable of doing the work of any occupation, tray boys, carton nesters, steam and pipe fitters, bricklayers, leaf weighers, casing cookers, rehandlers of cigarettes, coopers, helpers if not laborers, truck chauffeurs, oilers, millwrights, stencilers, hand carton wrappers, cigarette weighers, tobacco examiners, hot sealers, air conditioners or humidifier operators, tanners, solderers, nail pullers, hoopers, band sawyers, head matchers, instructors, blacksmiths, special sticker pasters, printers, air-hoist operators, packing-machine feeders, sliver pickers, string cutters, belt makers, etc.

GENERAL TABLES

In addition to the text tables already shown in this bulletin, two general tables are presented, as follows:

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, by occupation, sex, and State.

TABLE B.—Average and classified earnings per hour, by occupation, sex, and State.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, by occupation, sex, and State

Occupation, sex, and State	Number of establishments	Number of employees	Average number of days worked per week	Average full-time hours per week	Average hours actually worked per week	Per cent of full time worked	Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
Stemming-machine feeders, female:									
North Carolina.....	4	508	5.3	49.7	44.5	89.5	\$0.200	\$9.94	\$8.92
Virginia.....	3	147	4.2	49.9	31.4	62.9	.209	10.43	6.58
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	8	658	5.1	49.7	41.5	83.5	.202	10.04	8.40
Stemmers, hand, male:									
North Carolina.....	5	243	5.0	49.9	42.7	85.6	.212	10.58	9.05
Virginia.....	3	74	4.3	49.4	34.5	69.8	.201	9.93	6.94
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	9	328	4.9	50.0	41.2	82.4	.221	11.05	9.13
Stemmers, hand, female:									
North Carolina.....	5	1,720	5.1	49.9	43.3	86.8	.193	9.63	8.35
Virginia.....	4	193	4.3	49.3	34.6	70.2	.184	9.07	6.36
Total.....	9	1,913	5.0	49.8	42.4	85.1	.192	9.56	8.15
Strip searchers, male:									
North Carolina.....	3	31	4.9	50.0	44.2	88.4	.285	14.25	12.58
Virginia.....	2	8	4.5	50.0	36.1	72.2	.291	14.55	10.52
Total.....	5	39	4.8	50.0	42.6	85.2	.286	14.30	12.16
Strip searchers, female:									
North Carolina.....	6	927	5.3	49.7	45.2	90.9	.199	9.89	8.98
Virginia.....	3	137	4.9	49.9	39.0	78.2	.184	9.18	7.17
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	10	1,075	5.3	49.7	44.4	89.3	.198	9.84	8.78
Turkish pickers, female:									
North Carolina.....	3	40	4.8	49.9	41.8	83.8	.187	9.33	7.81
Virginia.....	2	37	5.6	50.0	46.3	92.6	.183	9.15	8.50
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	6	87	5.2	49.7	44.1	88.7	.195	9.69	8.61
Wetters, casers, and driers, male:									
North Carolina.....	6	26	5.6	49.8	52.8	106.0	.438	21.81	23.14
Virginia.....	4	15	5.5	49.6	48.7	98.2	.586	29.07	28.54
Kentucky.....	2	3	5.7	52.7	51.0	96.8	.410	21.61	20.92
Total.....	12	44	5.6	49.9	51.3	102.8	.484	24.15	24.83
Cutter feeders, male:									
North Carolina.....	7	154	5.3	49.8	46.4	93.2	.323	16.09	14.96
Virginia.....	4	52	5.3	49.9	45.1	90.4	.336	16.77	15.16
Total.....	11	206	5.3	49.8	46.0	92.4	.326	16.23	15.01
Knife changers, male:									
North Carolina.....	7	33	4.5	49.8	47.5	95.4	.393	19.57	18.67
Virginia.....	4	18	6.5	49.9	40.0	80.2	.328	16.37	13.13
Kentucky.....	2	3	5.7	52.7	50.5	95.8	.401	21.13	20.24
Total.....	13	54	5.2	50.0	45.2	90.4	.374	18.70	16.91
Knife grinders, male:									
North Carolina.....	7	9	5.3	49.8	47.1	94.6	.402	20.02	18.96
Virginia.....	4	8	5.0	49.8	42.1	84.5	.394	19.62	16.61
Kentucky.....	2	2	6.0	51.5	54.5	105.8	.395	20.84	21.55
Total.....	13	19	5.3	49.9	45.8	91.8	.398	19.86	18.24

¹ Data included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, by occupation, sex, and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average number of days worked per week	Average full-time hours per week	Average hours actually worked per week	Per cent of full time worked	Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
Making-machine operators, male:									
North Carolina.....	7	820	5.2	49.8	44.9	90.2	\$0.410	\$20.42	\$18.43
Virginia.....	4	313	5.3	50.0	45.7	91.4	.476	23.80	21.77
Kentucky.....	2	10	4.4	53.6	40.2	75.0	.394	21.12	15.82
Total.....	13	1,143	5.3	49.9	45.1	90.4	.429	21.41	19.33
Making-machine operators, female:									
North Carolina.....	3	71	5.9	49.5	47.3	95.0	.368	18.22	17.41
Virginia.....	2	49	5.1	50.0	40.4	80.8	.383	19.15	15.50
Kentucky.....	2	6	4.3	52.7	41.0	77.8	.335	17.65	13.74
Total.....	7	126	5.5	49.8	44.3	89.0	.372	18.53	16.49
Hopper feeders, male:									
North Carolina.....	5	97	5.1	49.8	43.9	88.2	.302	15.04	13.26
Virginia.....	3	31	5.3	49.9	42.9	86.0	.336	16.77	14.44
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	9	130	5.1	49.9	43.3	86.8	.311	15.52	13.48
Hopper feeders, female:									
Virginia.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	2	9	4.4	51.9	42.2	81.3	.252	13.08	10.63
Total.....	3	24	4.2	50.7	33.3	65.7	.245	12.42	8.16
Catchers, female:									
North Carolina.....	3	403	4.9	50.0	43.3	86.6	.295	14.75	12.76
Virginia.....	3	187	4.8	49.9	39.6	79.4	.310	15.47	12.25
Kentucky.....	2	18	4.3	52.7	41.6	78.9	.261	13.75	10.85
Total.....	8	608	4.8	50.1	42.1	84.0	.298	14.93	12.54
Machine fixers, male:									
North Carolina.....	7	163	5.3	49.9	48.7	97.6	.541	27.00	26.33
Virginia.....	4	59	5.4	50.0	49.6	99.2	.647	32.35	32.12
Kentucky.....	2	8	6.0	51.5	52.0	101.0	.648	33.37	33.70
Total.....	13	230	5.4	49.9	49.0	98.2	.573	28.59	28.07
Inspectors, male:									
North Carolina.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia.....	2	4	4.5	50.0	39.3	78.6	.500	25.00	19.65
Total.....	3	10	4.8	50.0	42.4	84.8	.423	21.15	17.96
Inspectors, female:									
North Carolina.....	7	263	5.3	49.9	46.3	92.8	.373	18.61	17.26
Virginia.....	4	105	4.9	50.0	40.4	80.8	.362	18.10	14.64
Kentucky.....	2	11	4.5	50.5	41.1	81.4	.269	13.58	11.06
Total.....	13	379	5.1	49.9	44.5	89.2	.367	18.31	16.35
Packing-machine operators, male:									
North Carolina.....	7	186	5.1	49.9	47.0	94.2	.393	19.61	18.50
Virginia.....	2	5.1	5.0	49.9	44.2	88.6	.492	24.55	21.74
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	10	240	5.1	49.9	46.4	93.0	.415	20.71	19.27
Packing-machine operators, female:									
North Carolina.....	6	257	5.4	49.7	45.6	91.8	.386	19.18	17.59
Virginia.....	3	111	5.2	50.0	43.8	87.6	.375	18.75	16.44
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	10	377	5.3	49.9	44.9	90.0	.381	19.01	17.10

¹ Data included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, by occupation, sex, and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average number of days worked per week	Average full-time hours per week	Average hours actually worked per week	Per cent of full time worked	Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
Packers, hand, female:									
North Carolina.....	3	339	5.3	49.9	47.0	94.2	\$0.349	\$17.42	\$16.40
Virginia.....	2	137	5.5	49.7	45.1	90.7	.399	19.83	18.03
Total.....	5	476	5.4	49.8	46.5	93.4	.363	18.08	16.87
Glassine wrapping-machine operators, female:									
North Carolina.....	4	171	4.9	50.0	43.6	87.2	.424	21.20	18.50
Virginia.....	3	142	5.5	50.0	45.9	91.8	.412	20.60	18.91
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	8	314	5.1	50.0	44.6	89.2	.418	20.90	18.66
Carton packers, female:									
North Carolina.....	7	413	5.4	49.7	45.7	92.0	.385	19.13	17.60
Virginia.....	4	123	5.0	49.9	41.3	82.8	.415	20.71	17.13
Kentucky.....	2	7	4.4	52.0	42.0	80.8	.282	14.66	11.86
Total.....	13	543	5.3	49.8	44.6	89.6	.390	19.42	17.42
Carton banders or wrappers, male:									
North Carolina.....	5	28	5.1	50.0	47.8	95.6	.348	17.40	16.63
Virginia.....	2	4	4.8	49.0	41.9	85.5	.400	19.60	16.74
Total.....	7	32	5.0	49.8	47.0	94.4	.354	17.63	16.64
Carton banders or wrappers, female:									
North Carolina.....	5	60	5.3	49.8	45.6	91.6	.329	16.38	15.01
Virginia.....	3	37	5.2	50.0	43.2	86.4	.313	15.65	13.55
Kentucky.....	2	3	4.3	52.7	41.7	79.1	.274	14.44	11.42
Total.....	10	100	5.2	49.9	44.6	89.4	.322	16.07	14.36
Case packers, male:									
North Carolina.....	7	87	5.1	49.8	46.5	93.4	.328	16.33	15.26
Virginia.....	3	24	5.3	50.0	46.6	93.2	.392	19.70	18.35
Kentucky.....	2	2	4.5	51.5	47.5	92.2	.374	19.26	17.78
Total.....	12	113	5.2	49.9	46.4	93.0	.344	17.17	15.96
Carton-making-machine operators, male:									
North Carolina.....	7	50	5.4	49.7	46.5	93.6	.391	19.43	18.20
Virginia.....	3	18	5.2	50.0	45.4	90.8	.482	24.10	21.87
Kentucky.....	2	2	4.5	51.5	42.5	82.5	.408	21.01	17.33
Total.....	12	70	5.3	49.9	46.1	92.4	.415	20.71	19.12
Mechanics, male:									
North Carolina.....	6	133	5.8	49.8	52.0	104.4	.655	32.62	34.09
Virginia.....	4	86	6.0	49.9	53.5	107.2	.740	36.93	39.61
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	11	224	5.9	49.8	52.6	105.6	.690	34.36	36.29
Laborers, male:									
North Carolina.....	7	1,626	5.3	49.9	47.0	94.2	.290	14.47	13.63
Virginia.....	4	641	5.2	49.9	45.6	91.4	.324	16.17	14.79
Kentucky.....	2	36	5.1	51.1	46.6	91.2	.385	19.67	17.92
Total.....	13	2,303	5.3	49.9	46.6	93.4	.301	15.02	14.02
Laborers, female:									
North Carolina.....	7	280	5.1	49.9	44.3	88.8	.193	9.63	8.55
Virginia.....	4	215	4.7	50.0	38.2	76.4	.181	9.05	6.92
Kentucky.....	2	9	4.8	49.6	43.8	88.3	.264	13.09	11.58
Total.....	13	504	4.9	49.9	41.7	83.6	.190	9.48	7.91

¹ Data included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, by occupation, sex, and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average number of days worked per week	Average full-time hours per week	Average hours actually worked per week	Per cent of full time worked	Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
Other employees, male:									
North Carolina.....	7	698	5.5	49.9	49.1	98.4	\$0.402	\$20.06	\$19.74
Virginia.....	4	288	5.3	50.3	46.8	93.0	.487	24.50	22.82
Kentucky.....	2	16	5.8	50.6	50.6	100.0	.495	25.05	25.03
Total.....	13	1,002	5.4	50.0	48.5	97.0	.427	21.35	20.73
Other employees, female:									
North Carolina.....	7	513	4.9	50.0	44.0	88.0	.297	14.85	13.04
Virginia.....	4	331	4.8	49.9	39.3	78.8	.280	13.97	10.99
Kentucky.....	2	51	4.5	52.8	43.0	81.4	.275	14.52	11.84
Total.....	13	895	4.9	50.1	42.2	84.2	.290	14.53	12.22
All employees, male:									
North Carolina.....	7	4,390	5.3	49.9	46.8	93.8	.358	17.86	16.79
Virginia.....	4	1,694	5.3	50.0	45.7	91.4	.425	21.25	19.42
Kentucky.....	2	103	5.3	51.7	47.8	92.5	.462	23.89	22.09
Total.....	13	6,187	5.3	49.9	46.5	93.2	.378	18.86	17.60
All employees, female:									
North Carolina.....	7	5,965	5.2	49.8	44.5	89.4	.260	12.95	11.56
Virginia.....	4	1,966	4.9	49.9	39.6	79.4	.294	14.67	11.64
Kentucky.....	2	148	4.5	51.6	42.4	82.2	.273	14.09	11.59
Total.....	13	8,079	5.1	49.9	43.2	86.6	.268	13.37	11.58
All employees, male and female:									
North Carolina.....	7	10,355	5.2	49.8	45.5	91.4	.303	15.09	13.78
Virginia.....	4	3,660	5.0	49.9	42.4	85.0	.359	17.91	15.24
Kentucky.....	2	251	4.8	51.7	44.6	86.3	.356	18.41	15.90
Total.....	13	14,266	5.2	49.9	44.7	89.6	.318	15.87	14.19

¹ Data included in total.

TABLE B.—Average and classified earnings per hour, by occupation, sex, and State

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose earnings per hour were—																				
				Under 8 cts.	8, under 10 cts.	10, under 12 cts.	12, under 14 cts.	14, under 16 cts.	16, under 18 cts.	18, under 20 cts.	20, under 25 cts.	25, under 30 cts.	30, under 35 cts.	35, under 40 cts.	40, under 45 cts.	45, under 50 cts.	50, under 55 cts.	55, under 60 cts.	60, under 70 cts.	70, under 80 cts.	80, under 90 cts.	90, under 100 cts.	100, under 110 cts.	110, under 120 cts.
Stemming-machine feeders, female:																								
North Carolina.....	4	508	\$0.200						1	180	290	37												
Virginia.....	3	147	.209						26	47	67	7												
Kentucky.....	1	(1)	(1)									(1)												
Total.....	8	658	.202						27	227	357	47												
Stemmers, hand, male:																								
North Carolina.....	5	243	.212	1	5	20	23	34	18	20	45	42	26	8	1									
Virginia.....	3	74	.201	2	7	12	9	6	8	3	9	4	7	4	1		1	1						
Kentucky.....	1	(1)	(1)											(1)	(1)	(1)	(1)	(1)						
Total.....	9	328	.221	3	12	32	32	40	26	23	54	46	33	13	5	4	3	2						
Stemmers, hand, female:																								
North Carolina.....	5	1,720	.193	19	77	158	192	203	164	151	400	242	84	26	2	2								
Virginia.....	4	193	.184	11	37	23	20	14	9	8	25	28	11	7										
Total.....	9	1,913	.192	30	114	181	212	217	173	159	425	270	95	33	2	2								
Strip searchers, male:																								
North Carolina.....	3	31	.285									11	20											
Virginia.....	2	8	.291								1	2	5											
Total.....	5	39	.286								1	13	25											
Strip searchers, female:																								
North Carolina.....	6	927	.199				1	8	7	246	642	23												
Virginia.....	3	137	.184					4	1	114	15	3												
Kentucky.....	1	(1)	(1)									(1)	(1)											
Total.....	10	1,075	.198				1	12	8	360	657	36	1											

1 Data included in total.

TABLE B.—Average and classified earnings per hour, by occupation, sex, and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose earnings per hour were—																				
				Under 8 cts.	8, under 10 cts.	10, under 12 cts.	12, under 14 cts.	14, under 16 cts.	16, under 18 cts.	18, under 20 cts.	20, under 25 cts.	25, under 30 cts.	30, under 35 cts.	35, under 40 cts.	40, under 45 cts.	45, under 50 cts.	50, under 55 cts.	55, under 60 cts.	60, under 70 cts.	70, under 80 cts.	80, under 90 cts.	90, under 100 cts.	100, under 110 cts.	110, under 120 cts.
Turkish pickers, female:																								
North Carolina	3	40	\$0.187						16	3	21													
Virginia	2	37	.183							31	6													
Kentucky	1	(1)	(1)									(1)												
Total	6	87	.195						16	34	27	10												
Wetters, casers, and driers, male:																								
North Carolina	6	26	.438										3	4	6	9	2	1	1					
Virginia	4	15	.586										2		3		2	1	2	3	1		1	
Kentucky	2	3	.410											2		1								
Total	12	44	.484										5	6	9	10	4	2	3	3	1		1	
Cutter feeders, male:																								
North Carolina	7	154	.323									14	120	20										
Virginia	4	52	.336								2		45	4	1									
Total	11	206	.326								2	14	165	24	1									
Knife changers, male:																								
North Carolina	7	33	.393											6	10	11	6							
Virginia	4	18	.328												2	2	1							
Kentucky	2	3	.401									3	5	5	2	1								
Total	13	54	.374									3	5	11	14	14	7							
Knife grinders, male:																								
North Carolina	7	9	.402											3	1	3	1	1						
Virginia	4	8	.394												5	1								
Kentucky	2	2	.395												1	1								
Total	13	19	.398										1	3	7	5	1	2						
Making-machine operators, male:																								
North Carolina	7	820	.410									7	42	178	493	76	23		1					
Virginia	4	313	.476										1	31	84	87	75	25	9	1				

[illegible]¹ Data included in total.

TABLE B.—Average and classified earnings per hour, by occupation, sex, and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose earnings per hour were—																				
				Under 8 cts.	8, under 10 cts.	10, under 12 cts.	12, under 14 cts.	14, under 16 cts.	16, under 18 cts.	18, under 20 cts.	20, under 25 cts.	25, under 30 cts.	30, under 35 cts.	35, under 40 cts.	40, under 45 cts.	45, under 50 cts.	50, under 55 cts.	55, under 60 cts.	60, under 70 cts.	70, under 80 cts.	80, under 90 cts.	90, under 100 cts.	100, under 110 cts.	110, under 120 cts.
Packing-machine operators, male:																								
North Carolina.....	7	186	\$0.393										2	23	58	85	18							
Virginia.....	2	51	.492												1	2	35	10	1	2				
Kentucky.....	1	(1)	(1)															(1)		(1)				
Total.....	10	240	.415										2	23	59	87	53	12	1	3				
Packing-machine operators, female:																								
North Carolina.....	6	257	.386											9	171	74	3							
Virginia.....	3	111	.375										2	15	89	5								
Kentucky.....	1	(1)	(1)										(1)											
Total.....	10	377	.381										11	24	260	79	3							
Packers, hand, female:																								
North Carolina.....	3	339	.349						1	1	32	83	36	88	64	25	7	1	1					
Virginia.....	2	137	.399							2	7	11	21	27	32	21	6	8	2					
Total.....	5	476	.363						1	3	39	94	57	115	96	46	13	9	3					
Glassine wrapping-machine operators, female:																								
North Carolina.....	4	171	.424								1	7	13	34	35	81								
Virginia.....	3	142	.412									1	5	65	29	35	7							
Kentucky.....	1	(1)	(1)									(1)												
Total.....	8	314	.418								1	9	18	99	64	116	7							
Carton packers, female:																								
North Carolina.....	7	413	.385								1	18	16	256	40	82								
Virginia.....	4	123	.415									14	21	13	31	39	5							
Kentucky.....	2	7	.282									6	1											
Total.....	13	543	.390								1	38	38	269	71	121	5							

¹ Data included in total.

TABLE B.—Average and classified earnings per hour, by occupation, sex and State—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose earnings per hour were—																				
				Under 8 cts.	8, under 10 cts.	10, under 12 cts.	12, under 14 cts.	14, under 16 cts.	16, under 18 cts.	18, under 20 cts.	20, under 25 cts.	25, under 30 cts.	30, under 35 cts.	35, under 40 cts.	40, under 45 cts.	45, under 50 cts.	50, under 55 cts.	55, under 60 cts.	60, under 70 cts.	70, under 80 cts.	80, under 90 cts.	90, under 100 cts.	100, under 110 cts.	110, under 120 cts.
Other employees, male:																								
North Carolina.....	7	698	\$0.402	3	2			8	10	1	28	72	156	99	103	54	60	26	43	25	4	1	2	1
Virginia.....	4	288	.487	1	1	2	3	1	1		10	23	60	33	31	14	22	6	29	35	7	3	6	
Kentucky.....	2	16	.495								1		1	6	2			2	2	1	3			
Total.....	13	1,002	.427	4	3	2	3	9	11	1	39	95	217	138	136	68	82	32	74	61	14	4	8	1
Other employees, female:																								
North Carolina.....	7	513	.297	9	3	3	6	1	15	11	146	53	63	91	110	2								
Virginia.....	4	331	.280	26	5	1	1	18	10	6	22	89	107	32	11	3								
Kentucky.....	2	51	.275								16	24	6	3	2									
Total.....	13	895	.290	35	8	4	7	19	25	17	184	166	176	126	123	5								
All employees, male:																								
North Carolina.....	7	4,390	.358	4	7	20	23	42	28	21	134	910	1,272	515	763	212	162	63	103	91	13	3	3	1
Virginia.....	4	1,694	.425	3	8	14	12	7	9	3	52	92	576	208	151	162	127	51	66	123	16	6	8	
Kentucky.....	2	103	.462								1		2	53	16	6	5	2	6	7	5			
Total.....	13	6,187	.378	7	15	34	35	49	37	24	187	1,002	1,850	776	930	380	294	116	175	221	34	9	11	1
All employees, female:																								
North Carolina.....	7	5,965	.260	28	80	161	200	236	247	621	1,712	589	565	925	395	197	7	1	1					
Virginia.....	4	1,966	.294	37	42	24	21	61	75	334	214	209	370	293	153	103	20	8	2					
Kentucky.....	2	148	.273								37	89	13	7	2									
Total.....	13	8,079	.268	65	122	185	221	297	322	955	1,963	887	948	1,225	550	300	27	9	3					
All employees, male and female:																								
North Carolina.....	7	10,355	.303	32	87	181	223	278	275	642	1,846	1,499	1,837	1,440	1,158	409	169	64	104	91	13	3	3	1
Virginia.....	4	3,660	.359	40	50	38	33	68	84	337	266	301	946	501	304	265	147	59	68	123	16	6	8	
Kentucky.....	2	251	.356								38	89	15	60	18	6	5	2	6	7	5			
Total.....	13	14,266	.318	72	137	219	256	346	359	979	2,150	1,889	2,798	2,001	1,480	680	321	125	178	221	34	9	11	1

¹ Data included in total.

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).
- No. 531. Consumers', credit, and productive cooperative societies, 1929. (In press.)

Employment and Unemployment.

- *No. 109. Statistics of unemployment and the work of employment offices in the United States. [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.
- No. 520. Social and economic character of unemployment in Philadelphia, April, 1929.

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. 510. Labor legislation of Argentina. [1930.]
- No. 529. Workmen's compensation legislation of the Latin American countries.

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. 524. Building permits in the principal cities of the United States in [1921 to] 1929.

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 hazards 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.]

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- 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.]

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- 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. 517. Decisions of courts and opinions affecting labor, 1927-1928.
- No. 528. Labor legislation of 1929. (In press.)

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- 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.
- No. 530. Seventeenth, Louisville, Ky., May 20-23, 1930.

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.

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, 1899 to 1928.

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- *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. 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.
- No. 519. Safety code for woodworking plants, as revised 1930.
- No. 527. Safety code for the use, care, and protection of abrasive wheels.

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- *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.]

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- *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 1913.
- *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.
- No. 297. Wages and hours of labor in the petroleum industry, 1920.
- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 358. Wages and hours of labor in the automobile-tire industry, 1923.
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
- No. 394. Wages and hours of labor in metalliferous mines, 1924.
- No. 407. Labor costs 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. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
- No. 472. Wages and hours of labor in the slaughtering and meat-packing industry, 1927.
- No. 476. Union scales of wages and hours of labor, 1927. [Supplement to Bulletin 457.]
- No. 484. Wages and hours of labor of common street laborers, 1928.
- No. 487. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1928.
- No. 492. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1928.
- No. 497. Wages and hours of labor in the lumber industry in the United States, 1928.
- No. 498. Wages and hours of labor in the boot and shoe industry, 1910 to 1928.
- No. 499. History of wages in the United States from colonial times to 1928.
- No. 502. Wages and hours of labor in the motor vehicle industry, 1928.
- No. 503. Wages and hours of labor in the men's clothing industry, 1911 to 1928.
- No. 504. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1928.
- No. 513. Wages and hours of labor in the iron and steel industry, 1929.
- No. 514. Pennsylvania Railroad wage data. From Report of Joint Fact Finding Committee in wage negotiations in 1927.
- No. 515. Union scales of wages, May 15, 1929.
- No. 516. Hours and earnings in bituminous coal mining, 1929.
- No. 522. Wages and hours of labor in foundries and machine shops, 1929.
- No. 523. Wages and earnings in the manufacture of airplanes and aircraft engines, 1929.
- No. 525. Wages and hours of labor in the Portland cement industry, 1929. (In press.)
- No. 526. Wages and hours of labor in the furniture industry, 1910 to 1929. (In press.)

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- *No. 123. Employers' welfare work. [1913.]
- No. 222. Welfare work in British munitions factories. [1917.]
- *No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]
- No. 458. Health and recreation activities in industrial establishments, 1926.

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- No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
- No. 453. Revised index numbers of wholesale prices, 1923 to July, 1927.
- No. 521. Wholesale prices, 1929.

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- No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
- *No. 117. Prohibition of night work of young persons. [1913.]
- *No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
- No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
- *No. 122. Employment of women in power laundries in Milwaukee. [1913.]
- *No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- *No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
- *No. 175. Summary of the report on condition of woman and child wage earners in the United States. [1915.]
- *No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
- *No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
- *No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
- *No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
- *No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
- No. 253. Women in the lead industries. [1919.]

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- *No. 101. Care of tuberculous wage earners in Germany. [1912.]
- *No. 102. British national insurance act, 1911.
- No. 103. Sickness and accident insurance law of Switzerland. [1912.]
- No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
- *No. 155. Compensation for accidents to employees of the United States. [1914.]
- *No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5-9, 1916.
- *No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
- No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
- No. 312. National health insurance in Great Britain, 1911 to 1921.
- No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
- No. 477. Public-service retirement systems, United States and Europe. [1929.]
- No. 496. Workmen's compensation legislation of the United States and Canada as of January, 1929. (With text of legislation enacted in 1927 and 1928.)

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- *No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
- No. 208. Profit sharing in the United States. [1916.]
- No. 242. Food situation in central Europe, 1917.
- No. 254. International labor legislation and the society of nations. [1919.]
- No. 268. Historical survey of international action affecting labor. [1920.]
- No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
- No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]
- No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1923.]
- No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
- No. 346. Humanity in government. [1923.]
- No. 372. Convict labor in 1923.
- No. 386. Cost of American almshouses. [1925.]
- No. 398. Growth of legal-aid work in the United States. [1926.]
- No. 401. Family allowances in foreign countries. [1926.]
- No. 461. Labor organization in Chile. [1928.]
- No. 462. Park recreation areas in the United States. [1928.]
- No. 465. Beneficial activities of American trade-unions. [1928.]
- No. 479. Activities and functions of a State department of labor. [1928.]
- No. 483. Conditions in the shoe industry in Haverhill, Mass., 1928.
- No. 489. Care of aged persons in United States. [1929.]
- No. 491. Handbook of labor statistics, 1929 edition.
- No. 505. Directory of homes for the aged in the United States. [1929.]
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