

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES } . . . { WHOLE NUMBER 150
BUREAU OF LABOR STATISTICS }

WAGES AND HOURS OF LABOR SERIES: No. 10

WAGES AND HOURS OF LABOR IN THE COTTON,
WOOLEN, AND SILK INDUSTRIES
1907 TO 1913



MAY 11, 1914

WASHINGTON
GOVERNMENT PRINTING OFFICE
1914

CONTENTS.

	Page.
Cotton-goods manufacturing and finishing	5-91
Summary.....	5-19
Explanation of scope and method.....	19-31
Description of principal productive occupations.....	31-38
Cotton-goods manufacturing:	
Table I.—Average and classified rates of wages per hour in the United States, by years, 1907 to 1913.....	39-44
Table II.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.....	45-50
Table III.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.....	51-55
Table IV.—Average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.....	56-61
Table V.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.....	61-67
Table VI.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.....	67-72
Table VII.—Average full-time hours of work per week and average full-time weekly earnings, by States, 1912 and 1913.....	73-76
Cotton-goods finishing:	
Table VIII.—Average and classified rates of wages per hour in the United States, by years, 1911 to 1913.....	76, 77
Table IX.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.....	78-80
Table X.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.....	81, 82
Table XI.—Average and classified full-time hours of work per week in the United States, by years, 1911 to 1913.....	83, 84
Table XII.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.....	85-87
Table XIII.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.....	88, 89
Table XIV.—Average full-time hours of work per week and average full-time weekly earnings, by States, 1912 and 1913.....	90, 91
Woolen and worsted goods manufacturing	92-141
Summary.....	92-101
Explanation of scope and method.....	101-106
Description of principal productive occupations.....	106-114
Table I.—Average and classified rates of wages per hour in the United States, by years, 1907 to 1913.....	114-119
Table II.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.....	120-123
Table III.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.....	124-126

	Page.
Woolen and worsted goods manufacturing—Concluded.	
Table IV.—Average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.....	127-132
Table V.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.....	132-136
Table VI.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.....	136-139
Table VII.—Average full-time hours of work per week and average full-time weekly earnings, in each year, by States, 1912 and 1913.....	139-141
Silk-goods manufacturing.....	142-177
General summary.....	142-148
Explanation of scope and method.....	148-152
Description of principal productive occupations.....	152-159
Table I.—Average rate of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.....	159-167
Table II.—Average rates of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week in each year, by States, 1912 and 1913.....	168-172
Table III.—Average rates of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week in each State, by years, 1912 and 1913.....	173-175
Table IV.—Average full-time hours of work per week, and average and classified rates of wages per hour, by States, 1913.....	176, 177
Appendix.—Relative full-time hours per week and relative rates of wages per hour in cotton, woolen and worsted, and silk goods manufacturing, 1890 to 1912.....	178-185

BULLETIN OF THE U. S. BUREAU OF LABOR STATISTICS.

WHOLE NO. 150.

WASHINGTON.

MAY 11, 1914.

WAGES AND HOURS OF LABOR IN THE COTTON, WOOLEN, AND SILK INDUSTRIES, 1907 TO 1913.

COTTON-GOODS MANUFACTURING AND FINISHING.

SUMMARY.

This report, based on information obtained from representative establishments, shows the full-time weekly earnings, the full-time hours of labor per week, and the rates of wages (or earnings) per hour in the principal occupations of the cotton-goods industry of the United States. Figures relating to full-time hours of labor per week and rates of wages (or earnings) per hour are presented for the years 1907 to 1913, inclusive, and for full-time weekly earnings for the years 1910 to 1913, inclusive, for cotton-goods manufacturing. For cotton-goods finishing such data were obtained only for the years 1911 to 1913.

Earlier reports of this Bureau have presented wages and hours of labor in the industry from 1890 to 1912.¹

Briefly summarized, the average full-time weekly earnings of employees engaged in cotton-goods manufacturing in 1913 were 1.4 per cent higher than such earnings in 1912, 14.7 per cent higher than in 1911, and 15.3 per cent higher than in 1910. The full-time hours of labor per week in this industry showed no appreciable change between 1912 and 1913. They were, however, 1.7 per cent lower in 1913 than in 1910 and 1911, the average hours being the same in 1910 and 1911. Rates of wages, or earnings per hour, in cotton-goods manufacturing in 1913 were 0.7 per cent higher than in 1912, 10.7 per cent higher than in 1911, and 11.4 per cent higher than in 1910.

In cotton-goods finishing full-time weekly earnings in 1913 were 0.5 per cent lower than in 1912, but 1.2 per cent higher than in 1911. Full-time hours of labor per week in cotton-goods finishing were 0.2 per cent lower in 1913 than in 1912 and 0.9 per cent lower than in

¹ Previous reports of wages and hours of labor in cotton-goods manufacturing and finishing have been published by the Bureau, as follows: Nineteenth Annual Report, covering 1890 to 1903; Bulletin No. 59 (July, 1905), covering 1903 and 1904; Bulletin No. 65 (July, 1906), covering 1904 and 1905; Bulletin No. 71 (July, 1907), covering 1905 and 1906; Bulletin No. 77 (July, 1908), covering 1906 and 1907; and Bulletin No. 128 (August, 1913), covering 1907 to 1912, inclusive.

1911. Rates of wages, or earnings per hour, were 1.3 per cent lower in 1913 than in 1912, and 2.1 per cent higher than in 1911.

The most significant facts concerning the several occupations covered by this report are summarized in the table below. The data for the years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding establishments having records extending back for a period of years, and also owing to the amount of work involved, data for 1907 to 1909 were secured from a smaller number of establishments—some of them, perhaps, less representative—than have furnished data for the later years. The figures for identical establishments are grouped together by brackets.

The data are for one pay-roll period in each year, the period ending nearest May 15 being selected, except for a very few establishments in which conditions in May were abnormal.

The figures for the years 1907 to the first presentation for 1912 are reproduced from Bulletin No. 128, except the average full-time weekly earnings for 1910 to 1912, which figures have been computed for this Bulletin from data gathered for those years. Average full-time weekly earnings have not been computed for the period 1907 to 1910, owing to the lack of funds. It will be observed that the average full-time weekly earnings are not exactly the same as the product of the average rate of wages per hour and the average full-time hours per week. This difference is explained and illustrated on page 23.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1907 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employ-ees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60	Over 60		Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 cts. and over.	
Card strippers, male:														
36 establishments.	(1907	284	59.8	.....	.....	58.5	19.0	22.6	\$.1314	12.7	8.5	38.7	40.1	(1)
	(1908	289	59.3	.....	.....	64.4	24.2	11.5	.1240	11.8	20.8	51.2	16.2	(1)
	(1909	287	59.3	.....	.....	61.0	28.6	10.4	.1207	11.2	26.8	56.8	5.2	(1)
	(1910	318	57.8	.....	.....	52.2	24.5	16.4	6.9	.1235	5.9	26.1	61.6	6.3
	(1911	318	57.8	.....	.....	52.2	24.5	16.4	6.9	.1235	5.9	26.1	61.6	6.3
59 establishments.	(1910	523	58.4	.....	.....	47.8	23.1	13.0	16.0	.1199	10.8	26.4	56.4	6.5
	(1911	515	58.3	.....	.....	49.1	23.9	11.7	15.3	.1220	9.5	26.2	57.9	6.4
88 establishments.	(1911	786	58.3	.....	.....	39.9	32.4	16.0	11.6	.1209	7.2	28.6	58.7	5.5
	(1912	800	57.1	35.5	4.6	31.4	27.4	1.1	1.1	.1339	2.1	18.9	31.6	47.5
88 establishments.	(1912	804	57.1	35.3	4.6	31.2	27.7	1.1	1.1	.1338	1.9	19.3	31.5	47.3
	(1913	845 ¹	57.2	34.1	4.4	33.6	27.1	.8	.8	.1375	1.4	15.4	29.0	54.2

¹ Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1907 TO 1913—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Percent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60	Over 60		Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 cts. and over.	
Drawing tenders, male:														
34 establishments.	1907	219	60.4	.....	.....	51.1	11.9	37.1	\$.0997	39.3	33.8	24.7	2.3	(1)
	1908	234	59.7	.....	.....	47.0	40.2	12.8	.0976	47.0	36.3	15.0	1.7	(1)
	1909	253	59.7	.....	.....	51.0	35.2	13.8	.0985	48.3	36.8	13.8	1.2	(1)
	1910	253	58.5	.....	44.7	13.4	30.8	11.1	.0975	50.1	32.0	15.8	2.0	(1)
56 establishments.	1910	436	59.5	.....	33.0	12.4	25.5	29.1	.0962	59.1	28.9	10.8	1.1	\$5.70
	1911	457	59.7	.....	32.2	9.8	26.3	31.7	.0974	61.3	21.7	15.3	1.8	5.78
84 establishments.	1911	750	59.5	.....	28.1	17.3	31.3	23.2	.0968	59.6	25.6	12.0	2.8	5.73
	1912	723	57.9	27.0	5.4	17.3	48.1	2.3	.1080	29.5	35.8	25.4	9.3	6.22
82 establishments.	1912	727	57.9	26.8	5.4	17.2	48.4	2.3	.1077	30.2	35.4	25.3	9.2	6.20
	1913	624	58.0	26.3	5.9	12.0	54.6	1.1	.1094	28.0	35.4	25.5	11.2	6.31
Drawing tenders, female:														
19 establishments.	1907	234	60.2	.....	.....	50.0	27.4	22.6	.0926	53.7	42.7	3.4	.....	(1)
	1908	232	59.3	.....	.....	56.0	37.1	6.9	.0932	59.9	23.3	16.8	.....	(1)
	1909	249	59.4	.....	.....	51.4	42.2	6.4	.0905	61.4	31.7	6.8	.....	(1)
	1910	233	58.1	.....	28.8	47.2	21.0	3.0	.0893	71.2	26.2	2.1	.4	(1)
27 establishments.	1910	359	58.2	.....	37.9	38.7	15.6	7.8	.0898	71.0	27.3	1.4	.3	5.20
	1911	344	57.2	.....	42.4	42.2	10.8	4.7	.0940	62.6	27.6	9.6	.3	5.41
45 establishments.	1911	502	57.8	.....	34.3	50.8	11.2	3.8	.0946	60.8	30.1	9.0	.2	5.46
	1912	525	57.0	36.2	1.7	44.0	15.6	2.5	.1095	19.9	62.3	13.1	4.8	6.23
	1913	594	56.8	37.2	1.9	44.6	16.3	.....	.1143	11.2	59.3	19.9	9.6	6.48
Trimmers or inspectors, female:														
30 establishments.	1907	251	60.4	.....	.....	40.6	27.9	31.4	.1018	42.3	36.7	9.6	11.6	(1)
	1908	261	60.0	.....	.....	39.5	46.0	14.6	.1008	58.6	18.8	11.1	11.4	(1)
	1909	285	59.6	.....	.....	40.4	51.6	8.1	.0994	60.8	28.4	.7	10.3	(1)
	1910	297	58.1	.....	42.8	25.6	24.6	7.0	.1007	50.1	40.4	.....	9.5	(1)
46 establishments.	1910	408	58.3	.....	39.5	24.5	26.7	9.3	.0994	51.5	39.0	1.5	8.1	5.78
	1911	474	58.7	.....	35.2	25.1	27.0	12.7	.1018	46.3	37.3	6.8	9.4	5.94
75 establishments.	1911	712	58.7	.....	31.7	28.4	28.8	11.2	.1031	44.9	33.1	12.5	9.3	6.02
	1912	703	58.0	29.0	3.1	27.6	37.8	2.4	.1123	27.7	36.6	21.1	14.7	6.45
77 establishments.	1912	708	57.7	28.8	3.1	27.4	38.3	2.4	.1117	29.0	35.9	20.5	14.7	6.41
	1913	687	57.9	26.9	4.5	25.6	39.3	3.6	.1111	28.3	41.2	23.3	11.8	6.39
										Under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 cts. and over.	
Fine speeders, male:														
16 establishments.	1907	201	63.9	.....	.....	.....	.....	100.0	.1157	57.8	25.9	9.0	7.5	(1)
	1908	224	61.1	.....	.....	.....	76.3	23.6	.1225	54.1	25.9	8.9	11.2	(1)
	1909	258	61.2	.....	.....	.....	75.6	24.4	.1286	35.9	30.6	20.2	10.5	(1)
	1910	249	61.0	.....	.....	.....	77.1	22.8	.1306	36.9	28.9	17.3	16.9	(1)
32 establishments.	1910	426	61.4	.....	.....	64.1	35.9	.....	.1310	37.5	27.0	16.2	19.3	8.03
	1911	396	61.4	.....	.....	61.4	38.6	.....	.1351	32.5	29.8	16.9	21.0	8.29
62 establishments.	1911	623	61.2	.....	.5	2.7	76.1	20.7	.1350	31.7	27.0	22.5	18.8	8.24
	1912	666	59.7	7.5	.....	1.8	87.2	3.5	.1421	20.9	29.7	23.3	26.3	8.47
61 establishments.	1912	680	59.7	7.4	.....	1.8	87.5	3.4	.1429	19.3	29.9	24.4	26.3	8.52
	1913	745	59.8	5.2	.....	.5	92.8	1.5	.1446	19.8	25.2	28.5	26.6	8.72

¹ Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1907 TO 1913—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employ-ees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60	Over 60		Under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 cts. and over.	
Fine speeders, female:														
35 establishments.	1907	721	59.3	.....	.....	64.2	21.2	14.7	\$.1390	21.6	24.4	33.6	20.5	(1)
	1908	694	59.1	.....	.....	63.1	30.0	6.9	.1377	27.0	24.2	26.7	22.1	(1)
	1909	714	59.1	.....	.....	63.4	30.8	5.7	.1345	22.9	34.5	34.5	8.1	(1)
	1910	800	57.6	.....	54.6	23.1	17.9	4.4	.1338	25.1	35.8	27.1	12.1	(1)
57 establishments.	1910	1,175	57.8	.....	51.2	26.6	14.0	8.1	.1334	25.5	35.1	27.7	11.5	\$7.68
	1911	1,189	57.9	.....	50.2	26.2	13.9	9.7	.1353	25.4	29.6	32.6	12.4	7.80
82 establishments.	1911	1,753	57.9	.....	45.7	31.2	14.7	8.4	.1362	24.3	28.8	33.6	13.3	7.86
	1912	1,784	56.6	43.9	5.9	29.8	18.4	2.0	.1490	16.0	16.0	33.2	34.8	8.42
80 establishments.	1912	1,791	56.7	43.8	7.5	28.1	18.7	2.0	.1484	16.2	16.1	33.2	34.7	8.38
	1913	1,855	56.7	42.9	5.1	32.2	18.5	1.3	.1513	12.3	17.0	34.7	35.9	8.55
Spinners, frame, male:														
25 establishments.	1907	184	59.4	.....	.....	66.3	12.0	21.7	.1238	49.5	17.4	12.5	20.6	(1)
	1908	214	58.8	.....	.....	63.6	34.6	1.9	.1193	54.3	23.8	13.1	8.9	(1)
	1909	188	58.9	.....	.....	71.8	21.8	6.4	.1173	50.5	27.7	12.2	9.6	(1)
	1910	188	57.2	.....	58.0	25.0	16.5	.5	.1192	47.3	33.0	11.2	8.5	(1)
36 establishments.	1910	261	57.2	.....	61.3	20.3	16.9	1.5	.1198	42.8	40.2	9.6	7.3	6.83
	1911	420	57.0	.....	69.3	19.3	9.3	2.1	.1247	33.4	43.8	18.6	4.0	7.08
46 establishments.	1911	700	57.2	.....	57.4	32.6	7.4	2.6	.1257	35.4	39.7	19.0	5.7	7.18
	1912	679	56.2	52.0	.....	39.6	6.5	1.9	.1484	21.9	18.0	24.9	35.2	8.30
49 establishments.	1912	564	56.7	42.0	.....	47.7	8.0	2.3	.1442	25.2	19.1	26.6	29.1	8.14
	1913	530	56.9	38.5	3.2	35.1	22.3	.9	.1425	26.8	20.8	22.1	30.4	8.07
Spinners, frame, female:														
36 establishments.	1907	2,317	61.0	.....	.....	43.2	13.2	43.7	.1103	59.0	22.7	12.4	5.8	(1)
	1908	2,114	59.9	.....	.....	42.4	43.7	14.0	.1073	65.0	22.0	8.8	4.0	(1)
	1909	2,408	59.8	.....	.....	46.0	39.5	14.5	.1063	67.0	23.8	8.8	7.7	1.6
	1910	2,500	58.5	.....	40.8	17.7	31.4	10.1	.1119	59.9	23.9	12.6	3.7	(1)
59 establishments.	1910	3,704	59.0	.....	35.4	16.8	29.3	18.4	.1083	62.8	22.9	11.0	3.4	6.33
	1911	3,735	59.1	.....	34.4	17.3	28.2	20.0	.1105	60.7	23.9	11.6	3.8	6.48
88 establishments.	1911	5,981	59.1	.....	26.6	27.4	30.3	15.7	.1110	61.0	25.0	10.9	3.1	6.51
	1912	6,214	58.0	25.3	3.1	26.8	41.3	3.5	.1232	44.9	21.0	25.6	8.5	7.11
88 establishments.	1912	6,364	58.0	26.5	3.0	26.2	40.9	3.4	.1240	44.4	20.7	25.3	9.5	6.98
	1913	6,561	57.9	26.5	2.9	26.6	42.1	1.9	.1268	42.3	18.2	25.3	14.2	7.29
Weavers, male:														
36 establishments.	1907	2,769	60.3	.....	.....	50.5	18.1	31.4	.1609	19.8	29.0	33.5	17.6	(1)
	1908	2,848	59.6	.....	.....	50.0	35.3	14.6	.1596	20.1	31.5	30.1	18.2	(1)
	1909	3,123	59.8	.....	.....	47.9	37.0	15.0	.1506	23.0	39.8	26.5	10.8	(1)
	1910	3,037	58.3	.....	49.0	11.1	30.5	9.4	.1544	19.2	39.9	28.3	12.6	(1)
58 establishments.	1910	5,334	58.8	.....	41.1	13.2	27.0	18.8	.1509	21.0	42.1	26.9	9.9	8.83
	1911	5,012	58.8	.....	41.3	13.4	24.4	20.9	.1549	16.7	42.5	29.1	11.7	9.07
88 establishments.	1911	8,855	58.6	.....	35.3	26.7	24.8	13.2	.1556	16.0	40.8	31.7	11.5	9.08
	1912	9,751	57.5	30.1	7.9	23.8	36.8	1.4	.1688	11.8	30.9	34.7	22.5	9.67
88 establishments.	1912	9,775	57.5	30.0	7.8	23.8	37.0	1.4	.1687	12.0	31.0	34.6	22.4	9.67
	1913	9,316	57.7	27.3	6.5	23.6	41.7	.8	.1691	12.5	29.7	34.4	23.3	9.71

1 Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1907 TO 1913—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employ-ees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60	Over 60		Under 12 cts.	12 and under 16 cts.	16 and under 20 cts.	20 cts. and over.	
Weavers, female:														
36 establishments.	1907	3,724	59.5	.....	.....	60.9	21.7	17.4	\$.1514	20.9	36.3	35.6	7.2	(1)
	1908	3,903	59.0	.....	.....	63.4	30.7	5.9	.1521	20.7	39.7	32.9	6.9	(1)
	1909	3,930	59.1	.....	.....	60.1	34.2	5.7	.1438	23.9	47.7	24.2	4.2	(1)
	1910	3,905	57.6	.....	52.9	26.9	16.0	4.1	.1508	23.3	47.7	24.5	4.5	(1)
59 establishments.	1910	6,334	57.8	.....	50.7	26.5	13.4	9.5	.1471	25.1	47.5	23.1	4.4	\$8.47
	1911	6,242	57.8	.....	51.2	25.5	13.3	10.0	.1440	23.5	48.2	23.3	4.9	8.31
88 establishments.	1911	10,792	57.9	.....	39.1	41.2	13.2	6.6	.1479	21.0	44.9	28.1	6.1	8.54
	1912	10,980	56.9	35.4	5.7	40.7	17.2	1.0	.1631	13.5	33.7	36.6	16.2	9.26
88 establishments.	1912	10,998	56.9	35.4	5.7	40.6	17.3	1.0	.1630	13.7	33.6	36.5	16.3	9.26
	1913	11,105	56.8	37.9	5.1	39.2	16.9	.9	.1638	13.0	33.4	36.4	17.2	9.29
Slashers, male:														
35 establishments.	1907	159	60.3	.....	.....	48.4	18.2	33.3	.1829	29.6	10.1	56.6	3.3	(1)
	1908	158	59.6	.....	.....	47.5	43.7	8.8	.1828	27.9	15.9	41.2	15.2	(1)
	1909	167	59.4	.....	.....	49.1	43.7	7.2	.1795	25.8	16.2	49.1	9.0	(1)
	1910	166	58.1	.....	43.4	20.5	31.3	4.8	.1808	22.3	19.8	52.4	5.4	(1)
57 establishments.	1910	276	58.4	.....	42.0	19.2	26.1	12.7	.1780	26.1	15.9	54.7	3.3	10.33
	1911	303	58.5	.....	40.3	18.2	26.7	14.9	.1776	24.1	19.1	53.8	3.0	10.32
85 establishments.	1911	455	58.5	.....	32.7	31.6	23.3	12.3	.1937	18.4	18.0	48.6	14.9	11.26
	1912	447	57.4	31.3	3.8	34.2	29.3	1.3	.2153	12.8	20.6	43.6	20.3	12.28
85 establishments.	1912	449	57.4	31.2	3.8	34.1	29.6	1.3	.2163	10.2	20.5	46.3	22.9	12.34
	1913	472	57.6	28.0	3.2	32.6	35.2	1.0	.2115	10.6	26.7	39.8	22.9	12.12
Loom fixers, male:														
36 establishments.	1907	631	60.8	.....	.....	43.9	16.6	39.5	.2069	25.6	11.9	39.8	22.7	(1)
	1908	619	59.7	.....	.....	44.9	43.6	11.5	.2020	12.2	25.0	44.4	18.3	(1)
	1909	680	59.8	.....	.....	44.7	42.1	13.3	.1973	11.9	28.5	47.2	12.4	(1)
	1910	728	58.3	.....	44.4	18.3	28.4	8.9	.2022	10.5	24.0	43.0	22.4	(1)
59 establishments.	1910	1,267	58.7	.....	41.7	18.3	23.1	16.8	.1998	18.5	18.9	48.5	14.0	11.64
	1911	1,314	58.6	.....	43.7	17.2	22.5	16.6	.2031	17.1	18.0	49.9	15.0	11.81
88 establishments.	1911	2,200	58.6	.....	33.1	30.0	24.7	12.2	.2026	15.7	18.1	54.4	11.7	11.80
	1912	2,273	57.7	24.9	8.4	30.8	33.5	2.4	.2244	5.9	21.0	35.8	37.2	12.91
88 establishments.	1912	2,290	57.7	24.7	8.3	30.6	34.0	2.3	.2239	6.5	21.0	35.6	36.9	12.84
	1913	2,321	57.6	25.9	7.7	29.8	34.9	1.8	.2258	3.0	22.2	33.1	41.7	12.93

¹ Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS **MANUFACTURING**, 1907 TO 1913—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60	Over 60		Under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.	
Spinners, mule, male:														
11 establishments.	1907	199	58.6	.....	.....	69.3	30.7	.....	\$0.2343	17.1	53.8	27.1	2.0	(1)
	1908	193	58.4	.....	.....	81.9	18.1	.....	.2249	18.6	58.0	23.3	.....	(1)
	1909	156	53.5	.....	.....	75.6	24.4	.....	.2209	19.9	67.9	12.2	.....	(1)
	1910	131	56.8	.....	.....	67.9	25.2	6.9	.2181	29.8	61.1	8.4	.8	(1)
14 establishments.	1910	222	57.0	.....	52.7	43.2	4.1	.....	.2192	25.8	62.6	10.8	1.0	\$12.50
	1911	207	57.0	.....	53.1	42.5	4.3	.....	.2247	22.2	64.3	11.6	1.9	12.32
16 establishments.	1911	288	56.8	.....	62.2	34.7	3.1	.....	.2546	16.0	51.0	10.8	22.2	14.44
	1912	266	55.7	44.4	24.1	31.6	.....	.....	.2789	9.8	35.7	28.6	25.9	15.48
	1913	258	55.6	47.3	23.3	29.5	.....	.....	.2813	8.9	32.9	58.1	.....	15.58

¹ Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS **FINISHING**, 1911 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				Under 54	54	Over 54 and under 57	57 and under 60	60		Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 cts. and over.	
Knotters, female:														
19 establishments.	1911	281	56.9	.....	.....	65.1	18.9	16.0	\$0.1158	25.6	46.6	8.2	19.6	\$6.59
	1912	296	56.1	.....	28.4	45.6	13.5	12.5	.1212	22.6	36.8	19.3	21.3	6.78
19 establishments.	1912	300	56.5	.....	25.3	39.3	13.3	22.0	.1212	16.7	44.7	17.7	21.0	6.82
	1913	274	55.9	.....	38.7	34.7	16.1	10.6	.1176	14.6	45.6	21.5	18.3	6.54
Calendriers, male:	1911	412	57.9	.....	.....	28.6	48.8	22.6	.1487	4.1	19.2	51.7	25.0	8.61
	1912	409	57.8	.....	3.2	26.9	49.1	20.8	.1513	6.8	14.2	44.0	34.9	8.73
20 establishments.	1912	422	58.1	.....	1.4	22.5	47.6	28.4	.1502	6.9	15.4	46.2	31.5	8.72
	1913	395	57.8	.....	3.8	24.1	48.9	23.3	.1530	.....	15.2	51.6	33.2	8.85
Laborers, bleach house, male:	1911	688	57.5	.....	.....	52.9	18.6	28.5	.1327	21.4	41.1	29.9	7.6	7.63
	1912	748	57.2	.....	8.7	45.3	25.0	21.0	.1368	12.4	43.2	32.6	11.8	7.82
19 establishments.	1912	714	57.7	.....	1.3	43.3	26.2	29.3	.1365	10.7	45.8	32.8	10.7	7.88
	1913	787	57.7	.....	2.4	38.9	29.5	29.2	.1420	9.0	40.0	35.5	15.5	8.20

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS FINISHING, 1911 TO 1913—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				Under 54	54	Over 54 and under 57	57 and under 60	60		Under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 cts. and over.	
Laborers, color mixing, male:														
12 establishments.	(1911)	263	57.7	.....	.....	40.3	34.2	25.5	\$.1464	0.4	30.0	53.2	16.3	\$8.45
	(1912)	270	57.4	.....	14.4	23.7	38.1	23.7	.1473	1.1	26.7	56.3	15.9	8.45
12 establishments.	(1912)	243	58.4	.....	.....	17.7	42.4	39.9	.1448	1.2	34.6	53.5	10.7	8.46
	(1913)	246	58.6	.....	.....	14.6	43.1	42.3	.1490	.4	25.2	56.5	17.9	8.73
Laborers, dyehouse, male:														
30 establishments.	(1911)	1,229	57.7	.....	.....	33.8	46.8	19.4	.1443	5.0	30.0	46.9	18.1	8.32
	(1912)	1,268	57.2	.....	21.4	11.7	51.2	15.8	.1529	3.2	12.4	43.4	41.1	8.75
27 establishments.	(1912)	1,179	57.4	.....	17.7	10.7	55.0	16.5	.1538	2.0	13.6	42.2	42.2	8.83
	(1913)	1,120	57.4	.....	18.7	11.6	51.3	18.4	.1530	2.7	18.8	36.4	42.2	8.77
										Under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.	
Folders, male:														
19 establishments.	(1911)	268	57.4	.....	.....	59.0	14.2	26.9	.2300	33.2	35.1	21.6	10.1	13.16
	(1912)	277	57.2	.....	8.3	45.8	24.5	21.3	.2464	22.3	23.5	39.0	15.1	14.06
19 establishments.	(1912)	276	57.7	.....	.....	3.6	39.9	24.6	.2433	2.2	29.7	33.0	15.1	13.99
	(1913)	250	57.1	.....	17.2	40.8	13.6	28.4	.2501	9.0	38.0	39.6	13.2	14.20
										25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	
Printers, male:														
12 establishments.	(1911)	156	56.9	.....	.....	55.1	36.5	8.3	.4890	9.6	3.2	8.3	78.8	27.79
	(1912)	164	56.7	.....	13.4	40.2	37.8	8.5	.4867	11.0	5.5	7.9	75.6	27.54
12 establishments.	(1912)	137	57.4	.....	.....	38.0	48.2	13.9	.4720	13.1	6.6	16.1	64.2	27.04
	(1913)	133	57.1	.....	.....	42.1	48.1	9.8	.4695	15.8	6.0	8.3	69.9	26.78
										30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Engravers, male:														
12 establishments.	(1911)	179	55.8	17.9	.....	40.2	41.9	.....	.4790	5.0	63.7	30.2	1.1	26.68
	(1912)	166	55.4	17.5	21.7	18.7	42.2	.....	.4834	3.6	56.6	38.6	1.2	26.75
11 establishments.	(1912)	123	55.8	23.6	.....	18.7	56.9	.8	.4882	.8	63.4	34.1	1.6	27.20
	(1913)	107	55.9	30.8	.....	17.8	34.6	16.8	.4840	2.8	65.4	29.9	1.9	27.01

According to the plan of the table direct comparisons, which have been indicated by grouping the years within brackets, can be made properly only between two or more successive years where the data are for identical establishments.

In 1913 the average full-time weekly earnings of males engaged in cotton-goods manufacturing, represented by 8 occupations, varied from \$6.31 for drawing tenders to \$15.58 for mule spinners. The average full-time weekly earnings of females, represented by 5 occupations in this branch of the industry, varied from \$6.39 for trimmers or inspectors to \$9.29 for weavers. The full-time hours of labor per week in 1913 varied from 54 to 66 in the different establishments, the average being somewhat less than 58.

In cotton-goods finishing the full-time weekly earnings of males in 1913 varied from \$8.20 for bleach-house laborers to \$27.01 for the skilled occupation of engravers. Data were obtained for the wages of females in cotton-goods finishing for only one occupation—knotters—in which the average full-time weekly earnings in 1913 were \$6.54. The hours of labor in this branch of the industry do not vary materially from the hours of labor in cotton-goods manufacturing.

Wages and hours of labor differ in different establishments; hence the inclusion or exclusion of an establishment in the group, if the wages and hours therein differ considerably from the average, may raise or lower the average for the group. In the above table it is seen that data are presented for 88 establishments for the years 1911 and 1912, and for 88 establishments for the years 1912 and 1913. These are not 88 identical establishments, however. Three establishments included in the first group are not included in the second group, and three establishments included in the second group are not included in the first group. The figures for 1912 vary to some extent in the two groups of establishments. In the occupation of trimmers, or inspectors, for instance, it is seen that the average full-time weekly earnings increased from \$6.02 in 1911 to \$6.45 in 1912 in a group of 75 establishments, and in a group of 77 establishments they decreased from an average of \$6.41 in 1912 to \$6.39 in 1913. As the two groups of establishments do not show exactly the same earnings for 1912, it would not be a correct comparison to state that earnings increased from \$6.02 in 1911 to \$6.39 in 1913. The movement from one year to another is indicated with the greater degree of certainty by the figures for identical establishments. The difference between \$6.02 and \$6.45 represents the change between 1911 and 1912, and the difference between \$6.41 and \$6.39 represents the change between 1912 and 1913, as nearly as can be determined from the data available. In the table the comparable data for identical establishments are bracketed together.

Owing to a change in the number of establishments from year to year, it is difficult to make a comparison of the actual data over a

period of several years, which will give an exact measure of the changes. To aid in the making of such a comparison, relative (or index) numbers have been computed from the averages in the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings for each occupation for the years 1910 to 1913, inclusive. These relative numbers are simply percentages, in which the figures for 1913 are taken as the base or 100 per cent. The relative for each year is the per cent that the average in that year was of the average for 1913, as determined by the method explained on page 25. Thus in the table below full-time weekly earnings of card strippers in 1910 were 88 per cent of the full-time-weekly earnings in 1913.

It will be observed that the general tendency of the several occupations is toward a reduction of working hours and an increase in rates of wages per hour and of earnings per full week. No data are available to show the amount of work afforded employees each year or the variation from year to year. The relative full-time hours per week indicate the change in the hours of labor of employees working full time, but do not reflect in any way the greater or less amount of full-time work afforded. This point is further discussed on page 22.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING AND COTTON-GOODS FINISHING, 1910 TO 1913.

COTTON-GOODS MANUFACTURING.

(1913=100.0.)

Year.	Card strippers, male.			Drawing tenders, male.			Drawing tenders, female.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910	102.1	86.3	88.0	102.2	87.2	89.3	102.6	79.1	81.0
1911	101.9	87.9	89.7	102.6	88.2	90.5	101.8	82.8	84.3
1912	99.8	97.3	97.3	99.8	98.4	98.3	100.4	95.8	96.1
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Fine speeders, male.			Fine speeders, female.			Loom fixers, male.		
1910	102.3	91.0	92.1	102.1	88.4	90.1	101.9	88.1	89.5
1911	102.3	93.9	95.1	102.3	89.7	91.5	101.7	89.5	90.8
1912	99.8	98.8	97.7	100.0	98.1	98.0	100.2	99.2	99.3
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Slashers, male.			Spinners, frame, male.			Spinners, frame, female.		
1910	101.4	92.2	93.5	101.8	82.3	84.2	101.9	86.4	85.6
1911	101.6	92.0	93.4	101.4	85.7	87.3	102.1	88.1	87.7
1912	99.7	102.3	101.8	99.6	101.2	100.9	100.2	97.8	95.7
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING AND COTTON-GOODS FINISHING, 1910 TO 1913—Concluded.

COTTON-GOODS MANUFACTURING—Concluded.

(1913=100.0.)

Year.	Spinners, mule, male.			Trimmers or inspectors, female.			Weavers, male.			Weavers, female.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910..	102.2	88.3	90.4	100.2	90.1	91.1	101.6	89.6	89.6	101.9	92.2	93.7
1911..	102.2	90.5	92.7	100.9	92.3	93.6	101.6	92.0	92.1	101.9	90.2	91.9
1912..	100.2	99.1	99.4	99.7	100.5	100.3	99.7	99.8	98.0	100.2	99.5	99.7
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

COTTON-GOODS FINISHING.

Year.	Calendriers, male.			Engravers, male.			Folders, male.			Knotters, female.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1911..	100.7	96.5	97.2	100.5	100.0	100.4	101.4	90.8	92.2	102.5	98.5	101.4
1912..	100.5	98.2	98.5	99.8	100.9	100.7	101.1	97.3	98.5	101.1	103.1	104.3
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Year.	Laborers, bleach house, male.			Laborers, color mixing, male.			Laborers, dyehouse, male.			Printers, male.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1911..	100.5	93.2	93.8	100.2	96.6	96.9	100.9	94.9	95.7	100.9	101.0	101.9
1912..	100.0	96.1	96.1	99.7	97.2	98.9	100.0	100.5	100.7	100.5	100.5	101.0
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A like table of relative numbers is next shown for the industry as a whole, as determined by a combination of the data for the several occupations covered. Data were obtained for the principal occupations of the industry, but not for all occupations. The method of computing this table is explained on page 26.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN COTTON-GOODS MANUFACTURING AND IN COTTON-GOODS FINISHING, 1911 TO 1913.

COTTON-GOODS MANUFACTURING.

(1913=100.0.)

Year.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910.....	101.7	89.8	87.0
1911.....	101.7	90.3	87.5
1912.....	100.0	99.3	98.9
1913.....	100.0	100.0	100.0

COTTON-GOODS FINISHING.

1911.....	100.9	97.9	98.8
1912.....	100.2	100.3	100.5
1913.....	100.0	100.0	100.0

From the table it is seen that the relative or index number for full-time hours per week in cotton-goods manufacturing decreased from 101.7 in 1910 to 100.0 in 1913; or, in other words, full-time hours per week were 101.7 per cent in 1910 of what they were in 1913. The relative or index number for rate of wages per hour increased from 89.8 in 1910 to 100.0 in 1913. The increase in full-time weekly earnings was somewhat more than the increase in wages per hour, the increase being from an index of 87.0 in 1910 to 100.0 in 1913.

In examining the relative or index numbers for the several occupations and for the industry as a whole, on pages 13 and 14, it will be observed that they have been computed with 1913 taken as the base or 100 per cent. In the preceding reports of the Bureau relating to this industry relative numbers for rates of wages per hour and for hours of labor per week were presented back to 1890, and the base, or 100 per cent, was not the average rate of wages per hour or the average full-time hours per week in any one year, but the average rate of wages per hour and the average full-time hours per week for the 10-year period 1890-1899. The tables of such relative numbers for the years 1890 to 1912 appear in the appendix, page 178.

There are several reasons for changing the base to the most recent year.

The primary reason for changing the base to the last available year is that as the scope of the inquiry has been enlarged in recent years, it has seemed necessary in order to represent the industry adequately to include additional occupations. As no data were available for these occupations for 1890 to 1899, no relatives or index numbers could be computed for them with such period as a base. By using the last year as a base, however, it is possible to compute relatives for such additional occupations.

Again, relative or index numbers are most frequently used to compare the present year with different preceding years, and generally with the few years immediately preceding. Probably comparison between 1913 and 1912 will be made more often than between any other two years, and a comparison of any relative number with 100 conveys a clearer idea than a comparison with any other number. For example, the ratio 99.4:100 is more clearly grasped than the equal ratio 154.4:155.4.

A third reason for a change of base from 1890-1899 to 1913 is that imperfections, if any (due, for example, to a small number of establishments), in the index in earlier years are continued when additions are made from year to year to an old series of index numbers. The data for 1913 are the most comprehensive and satisfactory that have been gathered in any year, and the data back to 1910 are more satis-

factory than in the earlier years. This reason for the change of base is further explained on page 23.

For this Bulletin relative numbers have been computed back to the year 1910 on the basis of 1913 equal to 100 per cent. They were not computed for earlier years because data were available from a considerably smaller number of establishments, and, further, because of the large amount of work involved. The relative numbers for the several occupations were computed in both the old and the new series by the same process, which is explained on page 25. The relative numbers for the occupations shown in the new series here presented differ from those of the old series, shown in preceding reports, because of the change of the base; but the ratio existing between any two years is the same in both series. The relative numbers for the industry as a whole have likewise been recomputed with 1913 as the base.

In addition to making a change of the base year, a change has also been made in the method of computing the industry relatives, and because of this change the relatives for the industry as a whole here presented not only differ from the relatives computed by the old method, but show a slightly different ratio of change from year to year. In Bulletin No. 128 the relative numbers for this industry were averages of the relative numbers of the several occupations. For each year, for example, the relative rate of wages per hour of each occupation was multiplied (weighted) by the number of employees in that occupation. The products thus computed for the several occupations were added and the sum of the products for all occupations divided by the total employees in all occupations.

In computing the relative numbers from 1910 to 1913 for the industry as a whole as presented in this Bulletin, a combination was made, not of the relative numbers for the several occupations, but of the actual hours and wages of the several occupations. For each year the average hours and wages were computed for all employees in all occupations and the average for each preceding year was compared with the average for 1913 to determine the index. It was deemed necessary to make this change in method because by computing the industry relative by averaging the occupation relatives, a change in the industry is not always accurately reflected by the relative thus computed. This reason is more fully explained on page 26.

In addition to the relative numbers shown for the several occupations and for the industry, three tables are here presented showing the per cent of increase or decrease in full-time hours of labor per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each preceding year back to 1910. The figures of these tables are computed from the relative numbers shown on pages

13 and 14 and simply reverse the method of comparison. Each of the three tables also shows the increase or decrease in 1912 as compared with 1911, and in 1911 as compared with 1910.

Referring to the first line of the first table, it is seen that the full-time hours of labor of card strippers in 1913 were 2.1 per cent lower than in 1910; 1.9 per cent lower than in 1911; and 0.2 per cent higher than in 1912. Further, it is seen that the full-time hours of labor in this occupation were 2.1 per cent lower in 1912 than in 1911 and 0.2 per cent lower in 1911 than in 1910. The other figures of the table are read in like manner.

PER CENT OF INCREASE OR DECREASE IN **FULL-TIME HOURS PER WEEK**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

COTTON-GOODS MANUFACTURING.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Card strippers, male.....	-2.1	-1.9	+0.2	-2.1	-0.2
Drawing tenders, male.....	-2.2	-2.5	+ .2	-2.7	+ .4
Drawing tenders, female.....	-2.5	-1.8	- .4	-1.4	- .8
Fine speeders, male.....	-2.2	-2.2	+ .2	-2.4	(1)
Fine speeders, female.....	-2.1	-2.2	(1)	-2.2	+ .2
Loom fixers, male.....	-1.9	-1.7	- .2	-1.5	- .2
Slashers, male.....	-1.4	-1.6	+ .3	-1.9	+ .2
Spinners, frame, male.....	-1.8	-1.4	+ .4	-1.8	- .4
Spinners, frame, female.....	-1.9	-2.1	- .2	-1.9	+ .2
Spinners, mule, male.....	-2.2	-2.2	- .2	-2.0	(1)
Trimmers or inspectors, female.....	- .2	- .9	+ .3	-1.2	+ .7
Weavers, male.....	-1.6	-1.6	+ .3	-1.9	(1)
Weavers, female.....	-1.9	-1.9	- .2	-1.7	(1)
The industry.....	-1.7	-1.7	(1)	-1.7	(1)

COTTON-GOODS FINISHING.

Calendriers, male.....	(2)	-0.7	-0.5	-0.2	(2)
Engravers, male.....	(2)	- .5	+ .2	- .7	(2)
Folders, male.....	(2)	-1.4	-1.1	- .3	(2)
Knotters, female.....	(2)	-2.4	-1.1	-1.4	(2)
Laborers, bleach house, male.....	(2)	- .5	(1)	- .5	(2)
Laborers, color mixing, male.....	(2)	- .2	+ .3	- .5	(2)
Laborers, dyehouse, male.....	(2)	- .9	(1)	- .9	(2)
Printers, male.....	(2)	- .9	- .5	- .4	(2)
The industry.....	(2)	- .9	- .2	- .7	(2)

¹ No change.

² No data.

PER CENT OF INCREASE OR DECREASE IN **RATES OF WAGES PER HOUR**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

COTTON-GOODS MANUFACTURING.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Card strippers, male.....	+15.9	+13.8	+2.8	+10.7	+1.9
Drawing tenders, male.....	+14.7	+13.4	+1.6	+11.6	+1.1
Drawing tenders, female.....	+26.4	+20.8	+4.4	+15.7	+4.7
Fine speeders, male.....	+ 9.9	+ 6.5	+1.2	+ 5.2	+3.2
Fine speeders, female.....	+13.1	+11.5	+1.9	+ 9.4	+1.5
Loom fixers, male.....	+13.5	+11.7	+ .8	+10.8	+1.6
Slashers, male.....	+ 8.5	+ 8.7	-2.2	+11.2	- .2
Spinners, frame, male.....	+21.5	+16.7	-1.2	+18.1	+4.1
Spinners, frame, female.....	+15.7	+13.5	+2.2	+11.0	+2.0
Spinners, mule, male.....	+13.3	+10.5	+ .9	+ 9.5	+2.5
Trimmers or inspectors, female.....	+11.0	+ 8.3	- .5	+ 8.9	+2.4
Weavers, male.....	+11.6	+ 8.7	+ .2	+ 8.5	+2.7
Weavers, female.....	+ 8.5	+10.9	+ .5	+10.3	-2.2
The industry.....	+11.4	+10.7	+ .7	+10.0	+ .6

COTTON-GOODS FINISHING.

Calendriers, male.....	(2)	+ 3.6	+1.8	+1.8	(2)
Engravers, male.....	(2)	(1)	- .9	+ .9	(2)
Folders, male.....	(2)	+10.1	+2.8	+7.2	(2)
Knotters, female.....	(2)	+ 1.5	-3.0	+4.7	(2)
Laborers, bleach house, male.....	(2)	+ 7.3	+4.1	+3.1	(2)
Laborers, color mixing, male.....	(2)	+ 3.5	+2.9	+ .6	(2)
Laborers, dyehouse, male.....	(2)	+ 5.4	- .5	+5.9	(2)
Printers, male.....	(2)	- 1.0	- .5	- .5	(2)
The industry.....	(2)	+ 2.1	-1.3	+3.5	(2)

1 No change.

2 No data.

PER CENT OF INCREASE OR DECREASE IN **FULL-TIME WEEKLY EARNINGS**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

COTTON-GOODS MANUFACTURING.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Card strippers, male.....	+13.6	+11.5	+2.8	+ 8.5	+1.9
Drawing tenders, male.....	+12.0	+10.5	+1.7	+ 8.6	+1.3
Drawing tenders, female.....	+23.5	+18.6	+4.1	+14.0	+4.1
Fine speeders, male.....	+ 8.6	+ 5.2	+2.4	+ 2.7	+3.3
Fine speeders, female.....	+11.0	+ 9.3	+2.0	+ 7.1	+1.6
Loom fixers, male.....	+11.7	+10.1	+ .7	+ 9.4	+1.5
Slashers, male.....	+ 7.0	+ 7.1	-1.8	+ 9.0	- .1
Spinners, frame, male.....	+18.8	+14.5	- .9	+15.6	+3.7
Spinners, frame, female.....	+16.8	+14.0	+4.5	+ 9.1	+2.5
Spinners, mule, male.....	+10.6	+ 7.9	+ .6	+ 7.2	+2.5
Trimmers or inspectors, female.....	+ 9.8	+ 6.8	- .3	+ 7.2	+2.7
Weavers, male.....	+11.6	+ 8.6	+2.0	+ 6.4	+2.8
Weavers, female.....	+ 6.7	+ 8.8	+ .3	+ 8.5	-1.9
The industry.....	+15.3	+14.7	+1.4	+13.1	+ .6

PER CENT OF INCREASE OR DECREASE IN FULL-TIME WEEKLY EARNINGS, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910—Concluded.

COTTON-GOODS FINISHING.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Calendriers, male.....	(1)	+2.9	+1.5	+1.3	(1)
Engravers, male.....	(1)	-.4	-.7	+ .3	(1)
Folders, male.....	(1)	+8.5	+1.5	+6.8	(1)
Knotters, female.....	(1)	-1.4	-4.1	+2.9	(1)
Laborers, bleach house, male.....	(1)	+6.6	+4.1	+2.5	(1)
Laborers, color mixing, male.....	(1)	+3.2	+3.2	(2)	(1)
Laborers, dyehouse, male.....	(1)	+4.5	-.7	+5.2	(1)
Printers, male.....	(1)	-1.9	-1.0	-.9	(1)
The industry.....	(1)	+1.2	-.5	+1.7	(1)

¹ No data.

² No change.

EXPLANATION OF SCOPE AND METHOD.

This report includes establishments manufacturing cambrics, chambrays, checks, converters' goods, colored goods, combed goods, cotton flannel, crepe, damask, denims, drills, foulardines, gingham, lawns, madras, napped fabrics, organdies, percales, print cloths, sateens, sheetings, shirtings, stripes, tickings, twills, etc. Mills making mixed cotton and silk goods are not included.

All of the establishments from which data were secured both spin and weave. The textile directory for 1912-13 shows 520 establishments manufacturing exclusively the type of goods above indicated and doing both spinning and weaving. The present report includes data from establishments in which are located 33 per cent of the spindles and 33 per cent of the looms in establishments engaged in the exclusive manufacture of such cotton goods and doing both spinning and weaving. Some of the establishments furnishing data concerning cotton manufacturing have finishing departments, for which data were obtained at the same time. In addition, data were obtained from several establishments engaged exclusively in finishing cotton goods.

All information in this report was secured from pay rolls of the various establishments by agents of the Bureau. The number of establishments for which data were secured vary considerably during the period included in this report, as follows:

Cotton-goods manufacturing.

1907 to 1910.....	36 identical establishments.
1910 and 1911.....	59 identical establishments.
1911 and 1912.....	88 identical establishments.
1912 and 1913.....	88 identical establishments.

Cotton-goods finishing.

1911 and 1912.....	30 identical establishments.
1912 and 1913.....	27 identical establishments.

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of establishments included for the full period from 1907 to 1910, inclusive, was limited, owing to the difficulty of finding establishments that had preserved complete records for those years and also owing to the large amount of work involved. Data were not secured from a greater number of establishments in the more recent years because of the limited funds available for the purpose.

The establishments vary from year to year, as establishments go out of business or cease to be representative and new establishments must be substituted in the wage study. Occasionally occupations are dispensed with in a mill, or new occupations are introduced, and sometimes data are not available for all occupations desired from a mill. Data for a group of establishments in any year will not be precisely the same as for a different group in the same year, even though nearly all of the establishments may be common to both groups. In using the actual figures in this report, comparison from year to year should be made only between data coming from identical establishments. In the tables the data from identical establishments are bracketed together. Data from an establishment are not included in the report unless the information for at least two years is available.

In selecting establishments from which to secure data, the Bureau undertook to represent all States in which cotton-goods manufacturing and finishing are of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures. The table which follows shows by States the number of employees in cotton-goods manufacturing as reported by the United States Census Office for 1910; the total number on the pay roll in the establishments from which the Bureau secured data for 1913; and the number in the selected occupations for whom data for 1913 are shown.

TOTAL NUMBER OF EMPLOYEES IN COTTON-GOODS MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FOR WHICH DATA ARE SHOWN FOR 1913.

State.	Number of employees reported by United States Census Office 1910.	Establishments for which data are shown by the Bureau of Labor Statistics for 1913.		
		Number of establishments.	Number of employees—	
			On pay roll.	For whom data are shown.
Massachusetts.....	108, 018	18	21, 442	11, 046
North Carolina.....	47, 231	12	5, 204	2, 084
South Carolina.....	45, 454	21	13, 894	5, 410
Georgia.....	27, 750	13	7, 817	3, 056
Rhode Island.....	25, 365	3	3, 553	1, 852
New Hampshire.....	22, 265	5	17, 595	7, 946
Maine.....	14, 634	5	4, 425	2, 113
Connecticut.....	14, 289	12	1, 929	1, 433
Pennsylvania.....	13, 988	11	1, 780	1, 314
Alabama.....	12, 731	7	4, 232	1, 471
New York.....	10, 359	11	1, 353	1, 188
Other States ²	² 29, 098	.....	.....	.....
Total.....	371, 182	88	80, 224	35, 913

¹ Hours of pieceworkers not being a matter of record in most establishments causes small representation.
² Includes States having less than 6,500 employees in 1910.

According to the census of 1910, more than 92 per cent of the total number of employees in the industry are found in the States in which the establishments furnishing information to the Bureau of Labor Statistics are located. The number of employees in the establishments from which the Bureau obtained 1913 data was equal to 21.6 per cent of the total in the industry in 1910, and the number of such employees for which the Bureau presents detailed information for 1913 was equal to 9.7 per cent of the total in the industry in 1910.

The number of employees in cotton-goods finishing for whom data for 1913 are shown is as follows:

Massachusetts.....	955
Rhode Island.....	872
Connecticut.....	420
New Hampshire.....	378
New Jersey.....	199
New York.....	180
Maine.....	140
Pennsylvania.....	139
Other States.....	29
Total.....	3, 312

The pay rolls copied usually cover one week. For weavers and a few other pieceworkers—about one-half of all employees for whom data are shown—pay rolls for two, or in some instances four, consecutive weeks were taken for each employee. This was considered necessary to obtain a fair average. Weavers are not paid for work

until the cloth is taken from the loom, and a part of the work of one week is often paid for in the succeeding week. In some cases where a bonus or premium is paid the bonus is based on four weeks' work and it is necessary to take the earnings for the entire period in order to get the employee's real earnings.

The pay-roll period taken each year was that nearest May 15, except in a very few establishments where abnormal conditions made it desirable to take a pay roll for some other time of the year.

The full-time hours of labor per week shown in the tables of the report are the regular full-time hours of work of the occupation under normal conditions in the establishment, or if any establishment was running under unusual working time, because of rush work or of slack work, the hours to which both employer and employee expect to return when conditions become normal. The working time is the hours on duty including intervals of waiting for work. The full-time hours per week and the relatives based thereon do not in any way indicate the extent of unemployment. Employees may work overtime, or broken time, or be laid off, or a temporary reduction may be made in working hours without such change affecting the full-time hours per week as presented in this Bulletin.

The rates of wages per hour appearing in the tables include the wages of time workers and the earnings of pieceworkers. All time rates by the day or week have been reduced to rates per hour, and the earnings of pieceworkers or of persons working at both time and piece rates have been reduced to rates per hour by dividing the earnings by the hours worked. The time workers and pieceworkers of each occupation are combined as one group. Where there was no record regularly kept by the establishment of the actual time worked by pieceworkers the firms at the request of the Bureau kept a special record for the pay period taken. The importance of such a record for factory purposes is causing a greater number of firms each year to keep a record of time worked by all employees.

A change in the earnings per hour of pieceworkers does not of necessity indicate a change in piece rates. Without a change in piece rates, a change in methods or of machinery, a speeding up, or more steady work resulting from greater volume of business may increase the hourly earnings; or, on the other hand, changes in methods, a slowing down in speed, or a lull in business may reduce the hourly earnings. Varying intervals of waiting for work while on duty may also affect hourly earnings.

The full-time weekly earnings are the earnings per week of employees working full time, or the earnings on broken time reduced to equivalent earnings for a full week. In considering changes in full-time earnings per week notice should also be taken of changes in full-time hours of labor per week. A reduction in the hours of a pieceworker

may reduce his earnings in a week and leave his earnings per hour unchanged, while a reduction of hours for a week worker will, if his weekly rate remains the same, increase his rate per hour.

The averages of full-time hours per week, rates of wages per hour, and full-time weekly earnings are computed by adding the data for each individual employee and dividing the total by the number of employees.

It will be observed that the average full-time weekly earnings generally is not exactly the same as the result that would be obtained by multiplying the average rate per hour by the average hours per week, owing to the fact that hourly rates for individual employees are based on varying hours per week, which has the effect of changing the relative weighting of the wages of the several employees. A hypothetical illustration shows the difference:

Employees.	Full-time hours per week.	Rate of wages per week.	Rate of wages per hour.
1.....	48	\$15.00	\$0.3125
1.....	54	14.00	.2593
1.....	54	16.00	.2963
1.....	60	12.00	.2000
Total (4).....	216	57.00	1.0681
Average.....	54	14.25	.2670

The product of \$0.2670 multiplied by 54 is \$14.42, while the average earnings per week are \$14.25.

The change of the basis of comparison in computing the relative or index numbers from the average of 1890-1899 to 1913 is in part explained on page 15.

One of the reasons for the change of the base from 1890-1899 to the last year is that any imperfections in the data for earlier years are continued and compounded in the relative numbers when additions are made from year to year to an old series of relative numbers. The data for the period 1890-1899 were obtained mostly in 1901 from old and incomplete pay rolls, and it was sometimes difficult to classify the employees into the several occupations. For the 10-year period, 1890-1899, data were obtained from only 26 establishments, while data were obtained for 1912 and 1913 from 88 establishments. The number of establishments varied in the intervening years. While the average of 26 establishments possibly might have been a fairly acceptable base, the average of more than three times as many establishments recently canvassed becomes more nearly representative of the industry, and thus a more satisfactory base. Data are available from 88 establishments for 1911 and 1912 and from 59 establishments for 1910 and 1911.

Were the relative numbers for the occupations recomputed back to 1890 with 1913 as the base, any imperfections in the data for the earlier years would of course be carried into the relative numbers for those years, but would not appear in the relative numbers for the later years. With either period as the base, the relative numbers would show with the same degree of accuracy the trend from one year to the next. With 1890-1899 as the base, however, any fault in the relative number for the early years is continued and the relative for 1913 will be at fault. But with the last year as the base, the relative number for any of the recent years is as nearly accurate and representative as the data collected for such years, and does not contain in itself any imperfections which may have been in data gathered in the earlier years. In one series, the relative number, if beginning in fault, continues in fault even though the data of later years be entirely satisfactory. In the other series with the data for 1913 as the base, any imperfections of earlier years do not appear except in such years.

To illustrate the change in the relatives produced by the change of base, relative full-time hours of labor and relative rates of wages per hour of female weavers for the years 1910 to 1913 are given in the table following, computed with 1913 as the base, and with the average 1890-1899 as the base, so that the relative numbers computed on the two bases may be compared.

RELATIVE FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR OF FEMALE WEAVERS COMPUTED ON TWO BASES, AVERAGE 1890-1899=100, AND 1913=100.

Year.	Relative full-time hours per week.		Relative rate of wages per hour.	
	Relative, average 1890-1899 equals 100.	Relative, 1913 equals 100.	Relative, average 1890-1899 equals 100.	Relative, 1913 equals 100.
1910.....	95.6	101.9	135.9	92.2
1911.....	95.6	101.9	133.0	90.2
1912.....	93.9	100.2	146.7	99.5
1913.....	93.7	100.0	147.4	100.0

The first column of relative numbers indicates that the hours per week in 1910 were 95.6 per cent of the average hours in the period 1890-1899, while the next column shows the hours in 1910 to be 101.9 per cent of the hours in 1913. Both series of relatives indicate practically the same change from 1910 to 1913, the first making a decrease of 1.99 per cent, and the other of 1.86 per cent. Allowing for decimals dropped in computing the relatives, the results would be identical. The first series of relative wages per hour shows an increase from relative 135.9 in 1910 to relative 147.4 in 1913, an

increase of 8.46 per cent. The second series shows an increase from 92.2 in 1910 to 100 in 1913, an increase of 8.46 per cent, or identically the same per cent of increase as in the other series. The relative rates of wages per hour and the relative full-time hours per week from 1890 to 1912 on the basis of 1890-1899 equaling 100, published in Bulletin No. 128, are reproduced in this Bulletin in the Appendix, page 178.

Relative or index numbers for the several occupations and for the industry as a whole from 1910 to 1913 are presented on pages 13 and 14.

The method of computing such relative or index numbers for an occupation can best be explained by an illustration. The rates of wages per hour of female weavers are taken as an example.

	Number of identical establishments.	Year.			
		1910	1911	1912	1913
Rate of wages per hour.....	59	\$0.1471	\$0.1440	.....	.....
	88	.....	.1479	\$0.1631	.....
	88	.....	.....	.1630	\$0.1638
Relative rates of wages per hour computed therefrom.....	.....	92.2	90.2	99.5	100.0
Rate of wages per hour in identical establishments covering the full four years.....	57	\$0.1472	\$0.1441	\$0.1586	\$0.1608
Relative rates of wages per hour computed therefrom.....	.....	91.5	89.6	98.6	100.0

The rate per hour for 1913 is taken as the base (100.0) then \$0.1630 divided by \$0.1638 equals 99.5, the relative for 1912. The ratio of 1911 to 1912 is \$0.1479 divided by \$0.1631. The relative for 1912 just determined, 99.5, multiplied by \$0.1479 divided by \$0.1631 equals 90.2, the relative for 1911. The ratio of 1910 to 1911 is \$0.1471 divided by \$0.1440. The relative for 1911, 90.2, multiplied by \$0.1471 and divided by \$0.1440 equals 92.2, the relative for 1910.

The method of computing relative numbers over a period of years illustrated above is used because of the changes which occur in the number of establishments. A method of computing a series of relative numbers should take into account changes in establishments from year to year, as changes naturally occur, some establishments discontinuing operations or ceasing to be representative, and new establishments entering the field. The method explained above, bringing in the new establishments, has been followed in computing the relatives in this report. Otherwise no use could have been made in the index of the data from the additional establishments obtained for the later years.

Of the 59 establishments reporting data for 1910-11 only 57 reported for the entire period. The average rate of wages per hour for the 57 establishments reporting for the entire period is shown

also in the above table, with relatives computed therefrom. As might be expected, these relatives differ from the relatives based on the greater number of establishments. Presumptively they are not so nearly representative as are the relatives based on the greater number of establishments, but they are given here as an illustration of the difference shown by relatives based on different amounts of data. Data concerning rates of wages and hours of labor for the period 1907 to 1910, being available from a preceding Bulletin, are here reproduced, but, as before stated, owing to the small number of establishments in that period and limited funds, it has not been deemed advisable to compute relative numbers therefor, and average full-time weekly earnings have not been computed for that period.

A word of caution is given as to the use of relative numbers. The per cent of increase or decrease from one year to another is not the difference between the relative numbers for the years. Thus in the table above the relative rate of wages per hour increased from 92.2 in 1910 to 100 in 1913, an increase in the relative of 7.8 over the relative 92.2, making an increase of 8.5 per cent.

While the base for the computation of the relative numbers for the several occupations has been changed from the average of 1890-1899 to 1913, the method of computation has remained the same.

The relative numbers for the industry as a whole, however, have been computed for this Bulletin not only with a change of base, but in a different manner than for preceding Bulletins, and hence may be expected to show some variations in results. The change is referred to on page 16. The relative numbers for the industry published in Bulletin No. 128 were computed from the relative numbers of the several occupations. The relative numbers for the industry here presented, covering 1910 to 1913, are computed directly from the average hours of labor, rates of wages per hour, and weekly earnings of all employees in all occupations combined into one group. In other words, the relatives for the industry as a whole have been computed for this report in the same manner as the relatives for each occupation. It was deemed necessary to make this change in method because, by computing the industry relative from the relatives of the occupations, the change in the industry is not accurately reflected by the relative thus computed.

The following table for a hypothetical industry illustrates how a change in the industry as a whole may not be reflected by a combination of the relatives of the occupations.

Actual wages.

Occupation.	1912			1913		
	Em- ployees.	Rate of wages per day.	Aggre- gate.	Em- ployees.	Rate of wages per day.	Aggre- gate.
Occupation A.....	20	\$1.20	\$24.00	30	\$1.33½	\$40.00
Occupation B.....	20	3.60	72.00	10	4.00	40.00
Total.....	40	.....	96.00	40	.....	80.00
Average.....	.....	.....	2.40	.....	.....	2.00
Relative.....	.....	.....	120.0	.....	.....	100.0

Relative wages.

Occupation A.....	20	90	1,800	30	100	3,000
Occupation B.....	20	90	1,800	10	100	1,000
Total.....	40	.....	3,600	40	.....	4,000
Average.....	.....	.....	90.0	.....	.....	100.0

In this hypothetical table it is assumed that there were two occupations, A and B. Each occupation received an advance of wages in 1913, but there was a change in the number of employees in the two occupations, a larger proportion of lower-skilled employees being employed. The average rate of wages of both occupations combined in 1912 was \$2.40, and in 1913 it was \$2. Taking 1913 as the base, the relative for the industry for 1912 would be 120. On the other hand, computing the relative for each occupation, combining the relatives, and making the average thereof, the relative for 1912 is 90 as against 100 for 1913. Computed from occupation relatives, the relative rate of wages for the industry appears to increase from 90 to 100, while the relative for the industry as a whole, computed from the average rates, because of the change in number of employees in the occupations, actually decreased from 120 to 100.

The general tendency of many industries is toward an increase in the proportion of unskilled or low-skilled employees to highly-skilled employees, because of specialization and the increasing efficiency of machinery.

Even if it were possible to cover the same number of establishments each year, it would not be possible to cover identical establishments for a considerable number of years, as firms go out of business or for some reason it becomes impossible to get acceptable data from some firms. The desire of the Bureau is to enlarge the scope of the study from time to time by covering a larger number of establishments. In computing the relative from year to year, it is necessary therefore to use the method described on page 25, grouping the data for identical establishments in groups of two or more years as available. This method is necessary whether the industry relative

be computed from the actual average wages and hours of all occupations or an average of the relatives of all occupations.

In the necessary use of the method described a material statistical error may result if the industry relative is computed from the relatives of the occupations instead of the average for the industry. If the establishments should remain identical through a period of a few years and wages and hours in a later year return to the same wages and hours as in a preceding year, industry relatives computed from actual averages will be the same for the same averages occurring in the different years. If, however, the industry relative be computed from the relatives of the several occupations, like averages will not be represented by like relatives.

The subject is illustrated in the table below showing a hypothetical industry of three occupations, A, B, and C, of one employee each.

Occupation. (1)	Employ-ees. (2)	1911		1912		1913	
		Rate of wages per day. (3)	Relative wage, as compared with 1912. (4)	Rate of wages per day. (5)	Relative wage, as compared with 1913. (6)	Rate of wages per day. (7)	Relative wage. (8)
Occupation A.....	1	\$1.00	100.00	\$1.00	100.00	\$1.00	100.00
Occupation B.....	1	2.00	80.00	2.50	125.00	2.00	100.00
Occupation C.....	1	3.00	66.67	4.50	150.00	3.00	100.00
Total.....	3	6.00	246.67	8.00	375.00	6.00	300.00
Average.....	1	2.00	82.22	2.66 $\frac{2}{3}$	125.00	2.00	100.00
Relative computed from occupation relatives by method described. 1913 equals 100.....			102.78	.....	125.00	.....	100.00
Relative, average rate 1911 (\$2) compared with average rate 1912 (\$2.66 $\frac{2}{3}$).....			75.00	.....	.....	.....	.....
Relative computed from average rate of all occupations. 1913 equals 100.....			100.00	.....	133.33	.....	100.00

In this table column 7 shows the wages of each employee in 1913 and the average wages, \$2. Columns 3 and 5 show the detailed wages and average wages in 1911 and 1912, respectively. Column 8 shows the relative wages with 1913 as the base (100). Column 6 shows the relative wage of each occupation as compared with 1913 and the average of such relatives, namely, 125. Column 4 shows the relatives for 1911 as compared with 1912 and the average of such relatives based on 1912, namely, 82.22.

Below the line of the average is the relative for the industry as computed from the averages of the several occupation relatives by the method explained on page 25, with 1913 = 100: The relative for 1912 is 125 as compared with 1913. Computing 82.22 per cent of 125 produces the relative 102.78, the relative for 1911 on the basis of 1913 = 100. Thus the relatives for the industry computed from the relatives of the occupations beginning with 1913 as 100 and working back to 1911 are: 1913, 100; 1912, 125; 1911, 102.78.

The actual average wages, however, are \$2, \$2.66⅔, and \$2. Thus the same average wage for the industry is not represented by the same relative.

Comparing \$2.66⅔, the average rate for 1912, with \$2, the average rate for 1913, the relative is found to be 133.33. Comparing the average rate for 1911 (\$2) with the average rate for 1912 (\$2.66⅔) the relative is 75, and 75 per cent of 133.33, the relative for 1912, is 100; the relative for 1911 on the basis 1913=100, as computed by the described method from the average wages of the industry.

Thus the illustration shows that the industry relative computed from the average wages for the industry by the described method in identical establishments gives like industry relatives for like industry averages, but that if the industry relative be computed from the relatives of the several occupations the industry relative may not be the same for the same average wages for the industry in another year. The industry relatives given in this Bulletin have been computed from the actual average full-time hours per week, rates of wages per hour, and full-time weekly earnings for all employees reported for the industry in the same manner as for each separate occupation.

While this method always produces like relatives to represent like actual wages and hours when applied to the data for two groups of establishments, both having one and the same average for any year, it must not be understood that the like relatives will appear for the same concrete numbers where the relatives are computed from data where different groups of establishments show different averages for one and the same year. Thus, on page 25 it is shown that the relative rate per hour in 1910, as computed through successive pairs of comparable data, is 92.2, although \$0.1471, the average rate for 1910 in 59 establishments, is 89.8 per cent of \$0.1638, the average rate shown for 1913 in 88 establishments.

The relative numbers for the cotton-manufacturing industry computed by both methods are brought into comparison in the table given below. It will be observed that the results obtained by the two methods differ to some extent.

RELATIVE FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR IN THE COTTON-MANUFACTURING INDUSTRY COMPUTED ON TWO BASES: 1913=100, AND AVERAGE 1890-1899=100.

Year.	Method used in this report, 1913 equals 100.			Method used in preceding report, average 1890-1899 equals 100.	
	Relative full-time hours per week.	Relative rates of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rates of wages per hour.
1910.....	101.7	89.8	87.0	94.1	147.7
1911.....	101.7	90.3	87.5	94.1	149.1
1912.....	100.0	99.3	98.9	92.4	164.1
1913.....	100.0	100.0	100.0	(¹)	(¹)

¹ Not computed.

The figures computed according to the present method show a decrease of relative hours of labor from 101.7 in 1910 to 100 in 1912, a decrease of 1.7 per cent. The figures by the other method show a decrease of relative hours from 94.1 in 1910 to 92.4 in 1912, or 1.8 per cent.

Relative rates of wages per hour computed by the present method show an increase from relative 89.8 in 1910 to 99.3 in 1912, an increase of 10.6 per cent. According to the figures by the other method, the increase was from 147.7 in 1910 to 164.1 in 1912, an increase of 11.1 per cent. Relative full-time weekly earnings were not computed by the other method.

In addition to the text tables presented in the summary, 14 general tables are given, namely:

COTTON-GOODS MANUFACTURING.

Table I.—Average and classified rates of wages per hour in the United States, by years, 1907 to 1913.

Table II.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.

Table III.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.

Table IV.—Average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.

Table V.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.

Table VI.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.

Table VII.—Average full-time hours of work per week, and average full-time weekly earnings, by States, 1912 and 1913.

COTTON-GOODS FINISHING.

Table VIII.—Average and classified rates of wages per hour in the United States, by years, 1911 to 1913.

Table IX.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.

Table X.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.

Table XI.—Average and classified full-time hours of work per week in the United States, by years, 1911 to 1913.

Table XII.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.

Table XIII.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.

Table XIV.—Average full-time hours of work per week, and average full-time weekly earnings, by States, 1912 and 1913.

In Tables I, IV, VIII, and XI, in addition to actual data, percentages computed therefrom are given. The data from these tables are summarized in the text table on pages 6 to 11.

When sufficient data for a State are available to warrant presentation, such data are presented by States in Tables II, III, V, VI, IX, X, XII, and XIII. Tables III, VI, X, and XIII repeat the data for the several States given in Tables II, V, IX, and XII, respectively, rearranged for the convenience of the reader.

DESCRIPTION OF PRINCIPAL PRODUCTIVE OCCUPATIONS.

The occupations included in this report for 1913 are:

Cotton-goods manufacturing:	Cotton-goods finishing:
Card strippers.	Calendriers.
Drawing tenders.	Engravers.
Fine speeders.	Folders.
Loom fixers.	Knotters.
Slashers.	Laborers, bleach house.
Spinners, frame.	Laborers, color mixing.
Spinners, mule.	Laborers, dyehouse.
Trimmers or inspectors.	Printers.
Weavers.	

Brief descriptions of the work done by employees in each of these occupations follow:

COTTON-GOODS MANUFACTURING.

CARD STRIPPERS.

Carding machines are used to disentangle and straighten the cotton fiber and remove foreign substances, receiving the cotton from other machines on which this process is begun.

The carding machines are fitted with fine wire teeth mounted on backing, called card clothing. Card strippers feed the cotton lap as it comes from the lapping machine to the carding machine, strip or clean the card clothing as it becomes clogged, and deliver the sliver or carded cotton in cans to the drawing tender. The sliver or drawing comes from the machine a soft strand from one-fourth to one-half inch in diameter and is coiled in a can. The strands from several cards may be combined on a "railway" before being deposited in the receiving can. In automatic card stripping, which prevails in most mills, the card strippers strip the card by hand twice a day, and perhaps oftener if the stock is running bad. In mills where automatic machines are not used to strip cards, card strippers strip by hand every quarter or half hour, and do not deliver the drawings to the drawing tenders, as boys are employed to deliver the cans containing the drawings to the drawing tenders instead. Card stripping is done by males on a time or piece basis.

DRAWING TENDERS.

Several strands of sliver are combined and passed through the drawing frame to continue the process of parallelizing the fibers and reducing the sliver to uniform strength. In the machine the sliver goes through several sets of rolls, each set geared higher than the preceding. Drawing tenders attend these drawing frames. When the carding and drawing machines are located close together and there are railways attached to the card so that the drawings are deposited in cans only a few steps from the drawing machines, the drawing tenders remove the cans from the cards to the drawing machines and replace them with empty ones. Under these conditions the workers are called railway and drawing tenders. The work is done by males or females and generally on a time basis.

FINE SPEEDERS.

The sliver or strand of drawn-out cotton fiber, after leaving the drawing frame, generally passes through a slubbing frame and an intermediate frame where it is drawn out further and given a slight twist. The product is now known as roving.

The roving is taken to speeding machines which further combine, draw to smaller size, and twist it. The roving passes from perpendicular rows of bobbins on top of the speeder to bobbins arranged in a perpendicular row in front, the separate strands passing through small rolls. The rovings from two separate bobbins wind on one bobbin, making one strand. The fine speeder tends the machine and the duties are to watch the strands and, when they break, take the end that drops as it passes through the steel rolls and place it against the rolls, where the ends unite as the rolls, which stopped automatically, are again set in motion. A regular speeder generally runs two machines and the earnings of the operator depend upon the number of bobbins to a machine and the fineness of the speeding; that is, the finer the drawings are reduced by continued speeding the higher the rate of wages. In some mills fine speeders are called fly-frame tenders and fine-frame tenders, where the machine is the same as the fine speeder. In other mills fine frames and fly frames are constructed on principles somewhat different from the fine speeder, but they accomplish the same results. Employees tending fine speeders, fine frames, and fly frames are all classed in this report as fine speeders. In a few mills jacks are used to produce a particularly fine yarn that could not be produced through the use of fine speeders, fine frames, or fly frames. Data for jack tenders are not given in this report. The work of fine speeding is done by males or females, generally on a piece basis.

LOOM FIXERS.

Loom fixers make necessary repairs on looms, and besides being repairmen must understand weaving. On an average, a loom fixer will have the care of 96 common looms or 85 Draper or automatic looms. The work is done by males on a time or piece basis, generally on a time basis.

SLASHERS.

Warp yarn comes to the slashing machine wound on beams or rolls. A sufficient number of beams to provide the number of warp ends for the desired pattern are unrolled simultaneously. The yarn as it unwinds enters the size box, where it passes between rolls revolving in liquid sizing, and then between squeezer rolls which remove the surplus sizing. The warp is dried by passing between coils of steam pipes or over a heated cylinder. The purpose of the sizing is to stiffen and strengthen the yarn and make it smoother for weaving. After being dried, the warp, as the yarn is now called, passes through separators to separate the strands of yarn. It is then wound on one beam known as a warp beam, to be taken to the weaving room. The slasher either performs or directs the work required on the machine, which consists of placing and removing the beams, and often of mixing the sizing. The slasher generally has a helper. The work is done by males working on a time basis.

SPINNERS, FRAME.

Frame spinners operate machines called spinning frames. Each frame has two sides. Spools containing roving are placed in horizontal position on both sides of the frame. Ends of the roving strand are drawn through small metal rolls and attached to bobbins which are placed on a single row of perpendicular spindles on each side of the frame, at a distance of approximately 3 feet from the roving spools, so that the roving spins from the roving spool to the bobbin on a downward incline. On an average there are 72 bobbins on each side of a frame. The machines on which frame spinning is done are placed in rows with passages between the ways. For operative purposes each side is virtually a separate machine. A spinner attends several sides. A frame spinner's duty is to place the roving spools on the frame and to tie roving that breaks in spinning. The bobbins are placed on and taken off the frame by doffers. Frame spinning is done by males or females, generally females, and on a time or piece basis, usually time.

SPINNERS, MULE.

A spinning mule is a combination of drawing rollers and a spinning jenny. It is a machine from 25 to 160 feet in length which has a stationary frame and a movable frame or carriage. The carriage travels on an iron track a distance of about 64 inches and returns. Spools of roving are placed on spindles on the stationary frame. From the bobbins the roving passes between pairs of rolls on the frame and then to spindles on the carriage. During the outward movement of the carriage the rolls operate and attenuate the thread as in frame spinning, but the spindles on the carriage do not revolve. The carriage having traveled its distance, the rolls on the frame stop and the spindles on the carriage rotate, and as the carriage returns toward the frame the yarn is wound on bobbins on the spindles of the carriage.

The mule is a complicated machine, and skill is required to keep it adjusted properly. Men are almost always employed as mule spinners. No. 1 cotton yarn measures 840 yards per pound; No. 2 yarn measures 1,680 yards, etc., each additional number measuring a multiple of 840 yards. The mule spinner, besides operating the machine, must see that the mule is regulated to produce the desired number of yarn. When back boys, or piecers, are not employed, the mule spinners piece broken ends of roving or yarn in the same manner as fine speeders piece ends together. The spools of roving and the bobbins are placed on and taken off of the mules by boys. The work of mule spinning is done by males on a piece or time basis, generally on a piece basis.

TRIMMERS OR INSPECTORS.

Trimmers trim the cloth as it runs from a beam or roll at the back of a trimming machine over the top of the machine, which is square and box like, and comes down on an inclined board like a slanting desk, passing over it and winding on a roll at the bottom of the machine in front. The rolls are driven by a belt, the speed of which may be regulated by the trimmer at will. The trimmer uses a burling iron, a small flat piece of steel about half an inch in width, bent double, with a space of about 2 inches between the ends, which are sharpened to a fine edge to pick out knots. Besides the burling iron, the trimmer uses a short, fine-toothed steel comb to "scratch out"—comb out—imperfections in the cloth. When there are pieces of cloth on which there is grease or dirt, the trimmer makes a stitch with a piece of colored thread to mark the spot where the cloth is to be washed. If there is a poor section of cloth, it is marked in the same way to be cut out. Besides drawing the cloth over an inclined surface, another method is to lay the cloth on a table, and

examine it for knots to be picked out, and imperfections to be marked or to be combed out. The result of the work is the same, but the employees working under the first system are called trimmers and under the second system, inspectors. The work is done by males or females, usually females, on a time or piece basis, generally time.

WEAVERS.

From a bobbin box at the right of their loom or looms, weavers take bobbins wound with filling yarn, place them on a spindle inside a wooden shuttle, and draw the end of the yarn on the bobbin through a hole in the side of the shuttle thus "threading the shuttle," and then place the shuttle in a shuttle box at the right of the loom, drawing the yarn through the shuttle hole to a sufficient length to throw it between two harnesses of the loom containing the warp. The weaver then moves a clutch located at the right of the loom near the shuttle box to start the loom. A picker stick strikes the end of the shuttle, driving it through the warp and unwinding the yarn from the bobbin the length of its passage and passing the shuttle into a corresponding shuttle box at the left of the loom. Here it is hit by another picker stick, which returns the shuttle to the first shuttle box, the yarn unwinding as before, this process continuing until the yarn is used off the bobbin, when the loom is stopped and another full bobbin substituted. Some weavers can change bobbins without stopping the loom, but this practice is not encouraged, as a shuttle is likely to slip and cause damage. After the shuttle passes from right to left a warp harness drops down and a frame the length of the loom with fine small perpendicular steel teeth, through which the warp passes, presses up so that the side of the frame wire presses the filling yarn into place. Then a second warp harness drops down and the first harness comes up, the picker stick strikes the shuttle at the left of the loom and the yarn from the bobbin passes through the warp, whose threads are thus crossed first above and then below the filling yarn, and the frame with the fine teeth comes up and again presses the filling yarn into the web. If a filling or warp yarn breaks, a drop wire stops the loom and the weaver ties the broken ends and again starts the loom. The number of harnesses on a loom depends on the style or pattern of a cloth. Each time the filling yarn passes from one side to the other of the loom, through the warp, it is called a pick. Hence when the yarn starts from the right-hand shuttle box, goes to the left-hand shuttle box and returns, two picks have been made. As the picks form in the warp, weaving the cloth, the cloth winds upon a horizontal wooden roll or spool at the bottom of the loom, and the cloth filling this roll or spool constitutes a cut or cuts, a cut being a stated number of yards. Besides those looms in which the weaver inserts the bobbin by hand there are looms that are automatic.

One automatic loom has a circular holder the length to hold a bobbin (top) in which bobbins up to 24 can be placed. Starting the loom, a bobbin drops from the holder into a shuttle in the shuttle box of the loom, and is held by a spring, the yarn of the bobbin threading automatically, and the shuttle passing from the right shuttle box to the left, and back and forth, until the yarn is woven off the bobbin. Then a plunger throws the empty bobbin out of the shuttle into a box on the floor, and a full bobbin from the circular holder takes its place in the manner described. If a thread breaks in weaving, a drop wire, through which the warp runs drops down and throws off a switch, stopping the loom for the weaver to "mend the thread"—tie the broken ends. Weavers on common looms run from 4 to 8 looms, and on automatic, from 12 to 24.

Still another loom of automatic construction is used for weaving goods of different colors, particularly gingham goods. The looms are constructed so that filling of different colors is inserted at predetermined intervals. The looms are equipped with a bobbin holder, called a magazine or battery, in which four bobbins wound with filling of one color are arranged in a groove, the bobbins resting lengthwise under each other from the top bobbin down. There will be from two to three other similar rows of bobbins, each row of a different colored filling yarn. This fills the bobbin holder with either 12 or 16 bobbins. The construction of the loom gives practically a continuous weave of alternating colors. The average number of looms of this style run by a weaver is 14.

Weaving is done by males or females and generally on a piece basis.

COTTON-GOODS FINISHING (BLEACHING, DYEING, AND PRINTING).

CALENDREERS.

Calendriers run the cloth between steel rolls to give it finish or gloss. In the trade it is called "getting the right hand"—the proper finish. The rolls are generally hot, but at times cold rolls are used. The process might be termed "ironing." The work is done by males on a time basis.

ENGRAVERS.

Engravers embrace sketch makers, machine engravers, roll engravers, plate cutters, dye makers, clampers, and etchers. With the exception of clampers, the occupation name explains the nature of the work done. The clamper takes the engraving, after it is made on hard steel, and clamps it against soft steel of the same surface space, and secures an impress of the pattern or figure engraved on the hard steel, making what is known to the engraving trade as a "female." The "female" is kept as a copy of the engraving, to make another like pattern or figure, if desired, after the original plate

is worn out or destroyed. A great many establishments do not have engravers for each special kind of engraving work mentioned, but have a few engravers doing all the work enumerated. Some establishments have only one engraver, and if there is more work than the one engraver can do, have the extra work done outside. The work is done by males on a time basis.

FOLDERS.

Folders fold cloth into webs or pieces, and count and mark the number of yards in a web or piece. They also reject and leave out of the web or piece being folded any cloth that is damaged or not of standard grade. Folding is handwork. It is done by males on a time basis.

KNOTTERS.

After the cloth has been folded, girls run a thread or small string through at the end of each side of the web or piece, and tie the thread or small string together in a knot across the ends, to keep the cloth in folds. The occupation is also called sewing. The work is done by females on a time basis.

LABORERS, BLEACH HOUSE.

From the gray room or the opening room, in which the bales of cotton cloth to be finished are opened and a number of cuts of cloth sewed together, the cloth is conveyed on conveyors to the bleach house. In the bleach house the cloth moving rapidly on conveyors, passes through a vat filled with a solution of lime or caustic, generally lime, the vat being called the lime or caustic machine. It is then conveyed to a water vat, called the souring machine, to "sour." This partly washes off the lime or caustic solution, and the cloth is then passed between rolls to have the remaining liquid squeezed out. From the conveyors the cloth goes into kiers or bins, where it is packed, and is steamed from 6 to 10 hours. The work is all the work of common labor; watching the cloth to see that it runs on conveyors properly is designated floor work; watching the lime or caustic machines and souring machines, machine work; placing the cloth in kiers or bins, plating down or piling; and steaming the cloth, boiling. But all establishments where the work is done call the employees doing the work bleach-house laborers, or laborers, bleach house. Placing the cloth in kiers or bins is to a large extent the work of boys or young men. The work in the bleach house is done by males on a time basis.

LABORERS, COLOR MIXING.

A color mixer selects the colors to be mixed for use on the rolls of the printing machine. Laborers mix these colors as directed by the color mixer. These laborers convey the colors to the printing ma-

chine, bring the empty containers back to the coloring department, and clean all receptacles used in preparing and conveying color. The work is done by males on a time basis.

LABORERS, DYEHOUSE.

A dyer selects the dyes to be used. Laborers under his direction place the dye in vats, kettles, or dyeing machines, place the cloth in some one of these appliances, and attend to the dyeing. In addition to the dyeing machines there are other machines in the dyehouse for washing and drying the goods.

The work of the dyehouse is performed by males working on a time basis. It varies from the common labor to the tending of a machine which may require some technical skill.

The laborers of the three departments given—bleach house, color mixing, and dyehouse—get the same rate of wages as paid in the starching, drying, and soaping departments, and to tentering machine tenders, and well represent all these classes of work.

PRINTERS.

Printers have charge of the printing machines, under the supervision of the superintendent or overseer of printing. It is their duty to see that the rolls on which the cloth is wound to be printed and the rolls on which it is wound after printing are properly placed and taken off the machine; that the color feeds on to the print roll evenly, and is properly distributed over the engraved rolls or plates; that the rolls or plates are properly secured, and that the speed of the printing machine is right. The work is done by males on a time basis.

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913.

COTTON-GOODS MANUFACTURING.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.														
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.			
Card strippers, male:																			
36 establishments.	{1907 1908 1909 1910	{284 289 287 318	{59.8 59.3 59.3 57.8	\$.1314 .1240 .1207 .1235				3	33	24	110	98	16						
59 establishments.	{1910 1911	{523 515	{58.4 58.3	.1199 .1220			1	28	27	138	295	29	5						
88 establishments.	{1911 1912	{786 800	{58.3 57.1	.1209 .1339			1	26	30	225	461	37	6						
88 establishments.	{1912 1913	{804 845	{57.1 57.2	.1338 .1375				6	10	155	253	344	36						
Drawing tenders, male:																			
34 establishments.	{1907 1908 1909 1910	{219 234 253 253	{60.4 59.7 59.7 58.5	.0997 .0976 .0985 .0975	17	22	17	13	17	74	54	5							
56 establishments.	{1910 1911	{436 457	{59.5 59.7	.0962 .0974	15	15	46	58	124	126	47	5							
84 establishments.	{1911 1912	{750 723	{59.5 57.9	.0968 .1080	31	22	83	125	186	192	90	19	2						
82 establishments.	{1912 1913	{727 624	{57.9 58.0	.1077 .1094	7	12	91	38	71	257	184	51	14	2					
Drawing tenders, female:																			
19 establishments.	{1907 1908 1909 1910	{234 232 249 233	{60.2 59.3 59.4 58.1	.0926 .0932 .0905 .0893	19	8	20	38	41	100	8								
27 establishments.	{1910 1911	{359 344	{58.2 57.7	.0898 .0940	14	26	40	71	104	98	5	1							
45 establishments.	{1911 1912 1913	{502 525 594	{57.8 57.0 56.8	.0946 .1095 .1143	16	19	47	68	155	151	45	1							
Fine speeders, male:																			
16 establishments.	{1907 1908 1909 1910	{201 224 258 249	{63.9 61.1 61.2 61.0	.1157 .1225 .1286 .1306	2	12	10	12	17	63	52	18	10	5					
32 establishments.	{1910 1911	{426 396	{61.4 61.4	.1310 .1351			4	23	26	107	115	69	60	19	3				
62 establishments.	{1911 1912	{623 666	{61.2 59.7	.1350 .1421			5	30	32	131	168	140	66	46	5				
61 establishments.	{1912 1913	{680 745	{59.7 59.8	.1429 .1446			1	5	19	15	92	203	166	107	63	9			
Fine speeders, female:																			
35 establishments.	{1907 1908 1909 1910	{721 694 714 800	{59.3 59.1 59.1 57.6	.1390 .1377 .1345 .1338	2	7	26	25	95	176	242	123	19	6					
57 establishments.	{1910 1911	{1,175 1,189	{57.8 57.9	.1334 .1353			11	36	59	194	413	356	99	31	6				
82 establishments.	{1911 1912	{1,753 1,784	{57.9 56.6	.1362 .1490			3	13	38	89	283	505	589	169	53	8	3		
80 establishments.	{1912 1913	{1,791 1,855	{56.7 56.7	.1484 .1513			2	2	26	60	198	288	595	429	149	39	3		

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.														
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.			
Loom fixers, male:																			
36 establishments.	1907	631	60.8	\$0.2069						2	16	144	75	29	222	143			
	1908	619	59.7	.2020							7	69	155	69	206	113			
	1909	680	59.8	.1973						2	9	70	194	87	234	84			
	1910	728	58.3	.2022							9	68	175	100	213	163			
59 establishments.	1910	1,267	58.7	.1998							14	221	240	111	503	178			
	1911	1,314	58.6	.2031							12	213	236	112	544	197			
88 establishments.	1911	2,200	58.6	.2026							12	335	398	144	1,054	257			
	1912	2,273	57.7	.2244								135	478	152	662	846			
88 establishments.	1912	2,290	57.7	.2239								148	480	154	662	846			
	1913	2,321	57.6	.2258								69	516	170	599	967			
Slashers, male:																			
35 establishments.	1907	159	60.3	.1829				1	30	16	7	9	8	82	6				
	1908	158	59.6	.1828					12	32	17	8	29	36	24				
	1909	167	59.4	.1795					10	33	21	6	34	48	15				
	1910	166	58.1	.1808					9	28	20	13	38	49	9				
57 establishments.	1910	276	58.4	.1780					9	63	28	16	79	72	9				
	1911	303	58.5	.1776					10	63	38	20	82	81	9				
85 establishments.	1911	455	58.5	.1937			6		10	68	56	26	110	111	68				
	1912	447	57.4	.2153					8	36	58	34	13	195	103				
85 establishments.	1912	449	57.4	.2163					10	36	58	34	13	195	103				
	1913	472	57.6	.2115					25	25	91	35	16	172	108				
Spinners, frame, male:																			
25 establishments.	1907	184	59.4	.1238	3	4	15	8	29	32	32	23	31	2	5				
	1908	214	58.8	.1193	4	3	10	7	10	82	51	28	15	4					
	1909	188	58.9	.1173	4	16	9	5	25	36	52	23	6	12					
	1910	188	57.2	.1192	1	11	1	4	32	40	62	21	10	6					
36 establishments.	1910	261	57.2	.1198	1	15	3	5	34	54	105	25	13	6					
	1911	420	57.0	.1247	2	6	1	14	23	95	184	78	11	6					
46 establishments.	1911	700	57.2	.1257	2	6	1	17	52	171	278	133	33	6	1				
	1912	679	56.2	.1484	1	6	5	23	114	122	169	103	104	32					
49 establishments.	1912	564	56.7	.1442			6	5	23	108	108	150	85	64	15				
	1913	530	56.9	.1425		3	12	19	23	85	110	117	75	59	27				
Spinners, frame, female:																			
36 establishments.	1907	2,317	61.0	.1103	58	224	202	174	367	343	527	287	92	42	1				
	1908	2,134	59.9	.1073	56	197	208	147	156	612	466	186	59	5	22				
	1909	2,408	59.8	.1063	47	166	176	182	406	634	573	185	38	1					
	1910	2,500	58.5	.1119	45	147	164	191	274	674	597	316	84	8					
59 establishments.	1910	3,704	59.0	.1083	93	288	298	339	449	861	847	406	107	14	2				
	1911	3,735	59.1	.1105	34	218	286	369	488	871	891	434	124	20					
88 establishments.	1911	5,981	59.1	.1110	55	300	378	504	767	1,557	1,498	649	150	28	5				
	1912	6,214	58.0	.1232	16	159	322	325	512	1,452	1,304	1,591	397	121	15				
88 establishments.	1912	6,364	58.0	.1240	16	155	312	345	524	1,477	1,317	1,610	415	161	32				
	1913	6,561	57.9	.1268	12	192	308	365	450	1,442	1,194	1,662	643	212	81				
Spinners, mule, male:																			
11 establishments.	1907	199	58.6	.2343							2	1	8	23	107				
	1908	193	58.4	.2249								2	13	21	112				
	1909	156	58.5	.2209								4	10	17	106				
	1910	131	56.8	.2181								1	11	27	80				
14 establishments.	1910	222	57.0	.2192								3	11	43	139				
	1911	207	57.0	.2247								2	5	33	133				

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.												
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
Spinners, mule, male—Concl.	16 establishments.	{1911 288	56.8	\$0.2546							2	5		6	33	147	95
		{1912 266	55.7	.2789							1			5	20	95	145
		{1913 258	55.6	.2813									1	9	13	85	150
Trimmers or inspectors, female:	30 establishments.	{1907 251	60.4	.1018	7	26	31	2	40	92	24	24	5				
		{1908 261	60.0	.1008		13	41	22	77	49	29	15	15				
		{1909 285	59.6	.0994		5	45	15	108	81	2	21	7	1			
		{1910 297	58.1	.1007	1	4	40	16	88	120		21	5	2			
46 establishments.	{1910 408	58.3	.0994	4	10	49	38	109	159	6	25	6	2				
	{1911 474	58.7	.1018	4	12	56	27	121	177	32	41	3				1	
75 establishments.	{1911 712	58.7	.1031	11	12	90	62	145	236	89	48	16	2	1			
	{1912 703	58.0	.1123		6	61	66	61	257	148	53	41	7	3			
77 establishments.	{1912 708	57.7	.1117		6	74	65	60	254	145	53	41	7	3			
	{1913 687	57.9	.1111		4	73	45	41	283	160	56	23	2				
Weavers, male:	36 establishments.	{1907 2,769	60.3	.1609			6	61	149	333	433	372	474	454	415	72	
		{1908 2,848	59.6	.1596			1	40	113	418	462	437	402	456	479	40	
		{1909 3,123	59.8	.1506			5	47	147	517	573	671	534	293	303	33	
		{1910 3,037	58.3	.1544			1	24	129	430	581	632	542	318	348	32	
58 establishments.	{1910 5,314	58.8	.1509		8	59	211	845	1,119	1,125	900	535	491	41			
	{1911 5,012	58.8	.1549		4	51	172	612	961	1,169	902	556	540	45			
88 establishments.	{1911 8,855	58.6	.1556			9	90	278	1,048	1,709	1,904	1,672	1,133	945	67		
	{1912 9,751	57.5	.1688				50	203	900	1,452	1,565	1,839	1,545	1,911	286		
88 establishments.	{1912 9,775	57.5	.1687				49	201	921	1,445	1,580	1,850	1,537	1,906	286		
	{1913 9,316	57.7	.1691			1	34	205	923	1,345	1,425	1,697	1,509	1,913	264		
Weavers, female:	36 establishments.	{1907 3,724	59.5	.1514			12	84	165	516	646	707	821	505	257	11	
		{1908 3,903	59.0	.1521			3	59	151	593	768	779	796	486	252	16	
		{1909 3,930	59.1	.1438				69	181	689	863	1,009	725	228	153	13	
		{1910 3,905	57.6	.1508				45	162	704	851	1,011	664	292	166	10	
59 establishments.	{1910 6,334	57.8	.1471			3	96	278	1,213	1,423	1,583	960	498	267	13		
	{1911 6,242	57.8	.1440			7	74	268	1,118	1,482	1,531	1,019	437	292	14		
88 establishments.	{1911 10,792	57.9	.1479			12	124	438	1,689	2,381	2,400	1,929	1,100	619	40		
	{1912 10,980	56.9	.1631				91	283	1,109	1,611	2,081	2,222	1,798	1,647	138		
88 establishments.	{1912 10,998	56.9	.1630				94	284	1,124	1,610	2,086	2,218	1,797	1,647	138		
	{1913 11,105	56.8	.1638			8	54	249	1,130	1,648	2,071	2,251	1,786	1,764	144		

PER CENT.

Card strippers, male:	36 establishments.	{1907 284	59.8	\$0.1314			1.1	11.6	8.5	38.7	34.5	5.6					
		{1908 289	59.3	.1240				7	11.1	20.8	51.2	13.8	2.4				
		{1909 287	59.3	.1207					7	10.5	26.8	56.8	5.2				
		{1910 318	57.8	.1235					9	5.0	26.1	61.6	6.0	3			
59 establishments.	{1910 523	58.4	.1199			0.2	5.4	5.2	26.4	56.4	5.5	1.0					
	{1911 515	58.3	.1220			2	3.9	5.4	26.2	57.9	5.4	1.0					
88 establishments.	{1911 786	58.3	.1209			.1	3.3	3.8	28.6	58.7	4.7	.8					
	{1912 800	57.1	.1339				.8	1.3	18.9	31.6	43.0	4.5					
88 establishments.	{1912 804	57.1	.1338				.7	1.2	19.3	31.5	42.8	4.5					
	{1913 845	57.2	.1375			1	.5	.8	15.4	29.0	44.4	8.6	1.2				

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.											
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
Drawing tenders, male:																
34 establish-ments.	1907	219	60.4	\$0.0997	7.8	10.0	7.8	5.9	7.8	33.8	24.7	2.3				
	1908	234	59.7	.0976	3.4	7.7	15.4	8.1	12.4	36.3	15.0	1.7				
	1909	253	59.7	.0985	2.8	9.1	8.3	9.5	18.6	36.8	13.8	1.2				
	1910	253	58.5	.0975	5.1	3.6	13.4	7.1	20.9	32.0	15.8	2.0				
56 establish-ments.	1910	436	59.5	.0962	3.4	3.4	10.6	13.3	28.4	28.9	10.8	1.1				
	1911	457	59.7	.0974	3.3	4.8	8.1	19.7	25.4	21.7	15.3	1.8				
84 establish-ments.	1911	750	59.5	.0968	4.1	2.9	11.1	16.7	24.8	25.6	12.0	2.5	0.3			
	1912	723	57.9	.1080	1.0	1.7	11.6	5.4	9.8	35.8	25.4	7.1	1.9	0.2		
82 establish-ments.	1912	727	57.9	.1077	1.0	1.7	12.5	5.2	9.8	35.4	25.3	7.0	1.9	.3		
	1913	624	58.0	.1094	1.3	.5	11.1	2.4	12.7	35.4	25.5	8.8	1.9	.5		
Drawing tenders, female:																
19 establish-ments.	1907	234	60.2	.0926	8.1	3.4	8.5	16.2	17.5	42.7	3.4					
	1908	232	59.3	.0932	7.8	5.6	17.2	18.5	10.8	23.3	16.8					
	1909	249	59.4	.0905	7.6	4.8	15.3	21.7	12.0	31.7	6.8					
	1910	233	58.1	.0893	6.0	2.6	16.7	24.0	21.9	26.2	2.1	.4				
27 establish-ments.	1910	359	58.2	.0898	3.9	7.2	11.1	19.8	29.0	27.3	1.4	.3				
	1911	344	57.7	.0940	4.7	3.2	12.5	17.2	25.0	27.6	9.6	.3				
45 establish-ments.	1911	502	57.8	.0946	3.2	3.8	9.4	13.5	30.9	30.1	9.0	.2				
	1912	525	57.0	.1095	.8	2.3	.8	5.0	11.0	62.3	13.1	3.8	.8	.2		
	1913	594	56.8	.1143	.3	1.3	1.2	1.7	6.7	59.3	19.9	7.2	1.9	.5		
Fine speeders, male:																
16 establish-ments.	1907	201	63.9	.1157	1.0	6.0	5.0	6.0	8.5	31.3	25.9	9.0	5.0	2.5		
	1908	224	61.1	.1225			2.7	6.3	10.7	34.4	25.9	8.9	5.4	2.2	3.6	
	1909	258	61.2	.1286		.4	1.6	3.9	7.4	25.6	30.6	20.2	8.1	1.6	.8	
	1910	249	61.0	.1306			1.6	4.4	5.6	25.3	28.9	17.3	12.9	3.2	.8	
32 establish-ments.	1910	426	61.4	.1310			.9	5.4	6.1	25.1	27.0	16.2	14.1	4.5	.7	
	1911	396	61.4	.1351			.3	5.1	5.1	22.0	29.8	16.9	11.4	8.8	.8	
62 establish-ments.	1911	623	61.2	.1350			.8	4.8	5.1	21.0	27.0	22.5	10.6	7.4	.8	
	1912	666	59.7	.1421		.2	.8	2.9	2.4	14.6	29.7	23.3	15.9	9.0	1.4	
61 establish-ments.	1912	680	59.7	.1429		.1	.7	2.8	2.2	13.5	29.9	24.4	15.7	9.3	1.3	
	1913	745	59.8	.1446			.3	.4	3.5	15.6	25.2	28.5	15.6	7.1	3.6	
Fine speeders, female:																
35 establish-ments.	1907	721	59.3	.1390		.3	1.0	3.6	3.5	13.2	24.4	33.6	17.1	2.6	.8	
	1908	694	59.1	.1377			1.2	3.6	5.2	17.0	24.2	26.7	14.4	7.3	.4	
	1909	714	59.1	.1345			.1	1.8	4.3	16.7	34.5	34.5	7.1	.7	.3	
	1910	800	57.6	.1338			1.3	3.3	4.9	15.6	35.8	27.1	8.0	3.6	.5	
57 establish-ments.	1910	1,175	57.8	.1334			.9	3.1	5.0	16.5	35.1	27.7	8.4	2.6	.5	
	1911	1,189	57.9	.1353		.2	.6	2.4	5.2	17.0	29.6	32.6	8.9	2.9	.4	
82 establish-ments.	1911	1,753	57.9	.1362		.2	.7	2.2	5.1	16.1	28.8	33.6	9.6	3.0	.5	
	1912	1,784	56.6	.1490		.1	.1	1.5	3.4	10.9	16.0	33.2	24.0	8.4	2.2	
80 establish-ments.	1912	1,791	56.7	.1484		.1	.1	1.5	3.4	11.1	16.1	33.2	24.0	8.3	2.2	
	1913	1,855	56.7	.1513				.6	1.9	9.8	17.0	34.7	25.4	7.4	2.9	
Loom fixers, male:																
36 establish-ments.	1907	631	60.8	.2069						.3	2.5	22.8	11.9	4.6	35.2	
	1908	619	59.7	.2020							1.1	11.1	25.0	11.1	33.3	
	1909	680	59.8	.1973							.3	1.3	10.3	28.5	12.8	
	1910	728	58.3	.2022								1.2	9.3	24.0	13.7	
59 establish-ments.	1910	1,267	58.7	.1998							1.1	17.4	18.9	8.8	39.7	
	1911	1,314	58.6	.2031							.9	16.2	18.0	8.5	41.4	

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.												
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
Loom fixers, male—Concl'd.	1911	2,200	58.6	20.26							0.5	15.2	18.1	6.5	47.9	11.7	
	1912	2,273	57.7	22.44								5.9	21.0	6.7	29.1	37.2	
88 establish-ments.	1912	2,290	57.7	22.39								6.5	21.0	6.7	28.9	36.9	
	1913	2,321	57.6	22.58								3.0	22.2	7.3	25.8	41.7	
Slashers, male:	1907	159	60.3	18.29				0.6	18.9	10.1	4.4	5.7	5.0	51.6	3.8		
	1908	158	59.6	18.28					6.0	20.3	10.8	5.1	18.4	22.8	15.2		
	1909	167	59.4	17.95					7.0	19.8	12.6	3.6	20.4	28.7	9.0		
	1910	166	58.1	18.08					5.4	16.9	12.0	7.8	22.9	29.5	5.4		
57 establish-ments.	1910	276	58.4	17.80					3.3	22.8	10.1	5.8	28.6	26.1	3.3		
	1911	303	58.5	17.76					3.3	20.8	12.5	6.6	27.1	26.7	3.0		
85 establish-ments.	1911	455	58.5	19.37		1.3			2.2	14.9	12.3	5.7	24.2	24.4	14.9		
	1912	447	57.4	21.53					1.8	8.1	13.0	7.6	2.9	43.6	23.0		
85 establish-ments.	1912	449	57.4	21.63					2.2	8.0	12.9	7.6	2.9	43.4	22.9		
	1913	472	57.6	21.15					5.3	5.3	19.3	7.4	3.4	36.4	22.9		
Spinners, frame, male:	1907	184	59.4	12.38	1.6	2.2	8.2	4.3	15.8	17.4	17.4	12.5	16.8	1.1	2.7	.....
	1908	214	58.8	11.93	1.9	1.4	4.7	3.3	4.7	38.3	23.8	13.1	7.0	1.9	.....	.....
	1909	188	58.9	11.73	2.1	8.5	4.8	2.7	13.3	19.1	27.7	12.2	3.2	6.4	.....	.....
	1910	188	57.2	11.92	.5	5.9	.5	2.1	17.0	21.3	33.0	11.2	5.3	3.2	.....	.....
36 establish-ments.	1910	261	57.2	11.98	.4	5.7	1.1	1.9	13.0	20.7	40.2	9.6	5.0	2.3	.....	.....
	1911	420	57.0	12.47	.4	1.4	.2	3.3	5.5	22.6	43.8	18.6	2.6	1.4	.....	.....
46 establish-ments.	1911	700	57.2	12.57	.2	.9	.1	2.4	7.4	24.4	39.7	19.0	4.7	.9	.1	.....
	1912	679	56.2	14.84	.....	.1	.9	.7	3.4	16.8	18.0	24.9	15.2	15.3	4.7	.....
49 establish-ments.	1912	564	56.7	14.42	.....	.....	1.1	.9	4.1	19.1	19.1	26.6	15.1	11.3	2.7	.....
	1913	530	56.9	14.25	.....	.6	2.3	3.6	4.3	16.0	20.8	22.1	14.2	11.1	5.1	.....
Spinners, frame, female:	1907	2,317	61.0	11.03	2.5	9.7	8.7	7.5	15.8	14.8	22.7	12.4	4.0	1.8	.....	.....
	1908	2,114	59.9	10.73	2.6	9.3	9.8	7.0	7.4	28.9	22.0	8.8	2.8	.2	1.0	.....
	1909	2,408	59.8	10.63	2.0	6.9	7.3	7.6	16.9	26.3	23.8	7.7	1.6	.....	.....	.....
	1910	2,500	58.5	11.19	1.8	5.9	6.6	7.6	11.0	27.0	23.9	12.6	3.4	.3	.....	.....
59 establish-ments.	1910	3,704	59.0	10.83	2.5	7.8	8.0	9.2	12.1	23.2	22.9	11.0	2.9	.4	.1	.....
	1911	3,735	59.1	11.05	.9	5.8	7.7	9.9	13.1	23.3	23.9	11.6	3.3	.5	.....	.....
88 establish-ments.	1911	5,981	59.1	11.10	.9	5.0	6.3	9.9	12.8	26.0	25.0	10.9	2.5	.5	.1	.....
	1912	6,214	58.0	12.32	.3	2.6	5.2	5.2	8.2	23.4	21.0	25.6	6.4	1.9	.2	.....
88 establish-ments.	1912	6,364	58.0	12.40	.3	2.4	4.9	5.4	8.2	23.2	20.7	25.3	6.5	2.5	.5	.....
	1913	6,561	57.9	12.68	.2	2.9	4.7	5.6	6.9	22.0	18.2	25.3	9.8	3.2	1.2	.....
Spinners, mule, male:	1907	199	58.6	23.43	.....	.....	.....	.....	.....	.....	1.0	.5	4.0	11.6	53.8	29.1
	1908	193	58.4	22.49	.....	.....	.....	.....	.....	.....	.....	1.0	6.7	10.9	58.0	23.3
	1909	156	58.5	22.09	.....	.....	.....	.....	.....	.....	.....	2.6	6.4	10.9	67.9	12.2
	1910	131	56.8	21.81	.....	.....	.....	.....	.....	.....	.....	.8	8.4	20.6	61.1	9.2
14 establish-ments.	1910	222	57.0	21.92	.....	.....	.....	.....	.....	.....	.....	1.4	5.0	19.4	62.6	11.7
	1911	207	57.0	22.47	1.0	2.4	2.9	15.9	64.3	13.5
16 establish-ments.	1911	238	56.8	25.467	1.7	2.1	11.5	51.0	33.0
	1912	266	55.7	27.894	1.9	7.5	35.7	54.5
	1913	258	55.6	28.134	3.5	5.0	32.9	58.1

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Concluded.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.														
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.			
					Trimmers or inspectors, female:														
30 establish-ments.	1907	251	60.4	\$.1018	2.8	10.4	12.4	0.8	15.9	36.7	9.6	9.6	2.0	-----	-----	-----	-----	-----	
	1908	261	60.0	.1008	-----	5.0	15.7	8.4	29.5	18.8	11.1	5.7	5.7	-----	-----	-----	-----	-----	
	1909	285	59.6	.0994	-----	1.8	15.8	5.3	37.9	28.4	7	7.4	2.5	4.4	-----	-----	-----	-----	
	1910	297	58.1	.1007	-----	.3	1.3	13.5	5.4	29.6	40.4	-----	7.1	1.7	-----	-----	-----	-----	
46 establish-ments.	1910	408	58.3	.0994	1.0	2.5	12.0	9.3	26.7	39.0	1.5	6.1	1.5	-----	-----	-----	-----	-----	
	1911	474	58.7	.1018	-----	.8	2.5	11.8	5.7	25.5	37.3	6.8	8.6	-----	-----	-----	-----	0.2	
	1912	712	58.7	.1031	1.5	1.7	12.6	8.7	20.4	33.1	12.5	6.7	2.2	-----	-----	-----	-----	-----	
75 establish-ments.	1911	703	58.0	.1123	-----	.9	8.7	9.4	8.7	36.6	21.1	7.5	5.8	1.0	-----	-----	-----	-----	
	1912	703	58.0	.1123	-----	.9	8.7	9.4	8.7	36.6	21.1	7.5	5.8	1.0	-----	-----	-----	-----	
77 establish-ments.	1912	708	57.7	.1117	-----	.8	10.5	9.2	8.5	35.9	20.5	7.5	5.8	1.0	-----	-----	-----	-----	
	1913	687	57.9	.1111	-----	.6	10.6	6.6	6.0	41.2	23.3	8.2	3.3	-----	-----	-----	-----	-----	
	1913	687	57.9	.1111	-----	.6	10.6	6.6	6.0	41.2	23.3	8.2	3.3	-----	-----	-----	-----	-----	
Weavers, male:																			
36 establish-ments.	1907	2,769	60.3	.1609	-----	-----	-----	2	2.2	5.4	12.0	15.6	13.4	17.1	16.4	15.0	2.6	-----	
	1908	2,848	59.6	.1596	-----	-----	-----	-----	1.4	4.0	14.7	16.2	15.3	14.1	16.0	16.8	1.4	-----	
	1909	3,123	59.8	.1506	-----	-----	-----	2	1.5	4.7	16.6	18.3	21.5	17.1	9.4	9.7	1.1	-----	
	1910	3,037	58.3	.1544	-----	-----	-----	-----	8	4.2	14.2	19.1	20.8	17.8	10.5	11.5	1.1	-----	
58 establish-ments.	1910	5,334	58.8	.1509	-----	-----	-----	1	1.1	4.0	15.8	21.0	21.1	16.9	10.0	9.2	-----	-----	
	1911	5,012	58.8	.1549	-----	-----	-----	-----	1	1.0	3.4	12.2	19.2	23.3	18.0	11.1	10.8	-----	
	1912	8,855	58.6	.1556	-----	-----	-----	1	1.0	3.1	11.8	19.3	21.5	18.9	12.8	10.7	-----	-----	
88 establish-ments.	1912	9,751	57.5	.1688	-----	-----	-----	-----	.5	2.1	9.2	14.9	16.0	18.9	15.8	19.6	2.9	-----	
	1913	9,751	57.5	.1688	-----	-----	-----	-----	.5	2.1	9.2	14.9	16.0	18.9	15.8	19.6	2.9	-----	
88 establish-ments.	1912	9,775	57.5	.1687	-----	-----	-----	-----	.5	2.1	9.4	14.8	16.2	18.9	15.7	19.5	2.9	-----	
	1913	9,316	57.7	.1691	-----	-----	-----	-----	.4	2.2	9.9	14.4	15.3	18.2	16.2	20.5	2.8	-----	
	1913	9,316	57.7	.1691	-----	-----	-----	-----	.4	2.2	9.9	14.4	15.3	18.2	16.2	20.5	2.8	-----	
Weavers, female:																			
36 establish-ments.	1907	3,724	59.5	.1514	-----	-----	-----	3	2.3	4.4	13.9	17.3	19.0	22.0	13.6	6.9	-----	-----	
	1908	3,903	59.0	.1521	-----	-----	-----	-----	1	1.5	3.9	15.2	19.7	20.0	12.5	6.5	-----	-----	
	1909	3,930	59.1	.1438	-----	-----	-----	-----	1.8	4.6	17.5	22.0	25.7	18.4	5.8	3.9	-----	-----	
	1910	3,905	57.6	.1508	-----	-----	-----	-----	1.2	4.1	18.6	21.8	25.9	17.0	7.5	4.3	-----	-----	
59 establish-ments.	1910	6,334	57.8	.1471	-----	-----	-----	-----	1.5	4.4	19.2	22.5	25.0	15.2	7.9	4.2	-----	-----	
	1911	6,242	57.8	.1446	-----	-----	-----	-----	1	1.2	4.3	17.6	23.7	24.5	16.3	7.0	4.7	-----	
	1912	10,792	57.9	.1479	-----	-----	-----	-----	1	1.1	4.1	15.7	22.1	22.8	17.9	10.2	5.7	-----	
88 establish-ments.	1912	10,980	56.9	.1631	-----	-----	-----	-----	.8	2.6	10.1	14.7	19.0	20.2	16.4	15.0	-----	-----	
	1913	10,998	56.9	.1630	-----	-----	-----	-----	.9	2.6	10.2	14.6	19.0	20.2	16.3	15.0	-----	-----	
88 establish-ments.	1913	11,105	56.8	.1638	-----	-----	-----	-----	.1	.5	2.2	10.2	14.8	18.6	20.3	16.1	15.9	-----	

1 Less than one-tenth of 1 per cent.

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913.

COTTON-GOODS MANUFACTURING—Continued.

CARD STRIPPERS: Male.

Year and State.	Number of establishments.	Number of employes.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.										
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
1912.															
Alabama.....	7	21	62.4	\$0.1053				4	4	9	3		1		
Connecticut.....	2	22	58.0	.1380						21	1				
Georgia.....	13	69	60.0	.1184					2	33	29	5			
Maine.....	5	51	58.0	.1312						42	9				
Massachusetts... 18	279	54.0	.1437							7	81	172	19		
New Hampshire	5	175	58.0	.1432						1	35	138	1		
North Carolina..	12	40	60.0	.1082				2		32	6				
Rhode Island....	3	37	56.0	.1493						13	9	15			
South Carolina..	21	102	60.0	.1116				3	72	22	5	5			
Other States....	2	8	55.5	.1374				1	1	1	5				
Total.....	88	804	57.1	.1338			6	10	155	253	344	36			
1913.															
Alabama.....	7	21	61.9	.1063				4	3	11	2			1	
Connecticut.....	2	21	58.0	.1384							20	1			
Georgia.....	13	68	60.0	.1179						35	29	4			
Maine.....	5	53	58.0	.1330							43	6	4		
Massachusetts... 18	283	54.0	.1489							1	52	186	38	6	
New Hampshire	5	207	58.0	.1445						1	42	149	14	1	
North Carolina..	12	38	60.0	.1171			1			13	24				
Rhode Island....	3	37	56.0	.1495						11	11	15			
South Carolina..	21	109	60.0	.1165				4	68	20	16	1			
Other States....	2	8	55.5	.1529						1	2	2	1	2	
Total.....	88	845	57.2	.1375		1	4	7	130	245	375	73	10		

DRAWING TENDERS: Male.

1912.														
Alabama.....	5	36	62.3	\$0.0871	7	6	3	1	9	7	3			
Georgia.....	13	91	60.0	.0976		4	15	6	8	43	13	1	1	
Maine.....	5	35	58.0	.1108				6	1	17	11			
Massachusetts... 16	190	51.0	.1245						24	44	89	22	10	1
New Hampshire	4	67	58.0	.1237						33	22	8	3	1
North Carolina..	12	90	60.0	.0980			9			3	75	3		
Rhode Island....	3	39	56.0	.1255						5	25	9		
South Carolina..	21	151	60.0	.0902	2	64	20	16	30	12	7			
Other States....	3	28	57.3	.1112				5	10	3	6	4		
Total.....	82	727	57.9	.1077	7	12	91	38	71	257	184	51	14	2
1913.														
Alabama.....	5	29	61.0	.0870	8			3	9	5	4			
Georgia.....	13	86	60.0	.1002		2	19	3	4	42	13	2	1	
Maine.....	5	34	58.0	.1088					10	10	14			
Massachusetts... 16	159	54.0	.1267						24	27	74	23	8	3
New Hampshire	4	23	58.0	.1377						3	9	10	1	
North Carolina..	12	82	60.0	.0994			2		2	78				
Rhode Island....	3	37	56.0	.1300						3	21	11	2	
South Carolina..	21	151	60.0	.0954	1	47	9	26	45	17	6			
Other States....	3	23	57.1	.1184			1		4	8	7	3		
Total.....	82	624	58.0	.1094	8	3	69	15	79	221	159	55	12	3

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

DRAWING TENDERS: Female.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.												
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
1912.																	
Alabama.....	6	40	62.0	\$0.0802	4	12	4	4	10	5				1			
Georgia.....	9	53	60.0	.1033				5	10	33	5						
Maine.....	4	45	58.0	.0998				16	10	18	1						
Massachusetts...	15	190	54.0	.1166					1	146	32	10	1				
New Hampshire	5	177	58.0	.1128				1	18	119	30	6	2	1			
Other States....	6	20	57.3	.1111					9	6	1	4					
Total.....	45	525	57.0	.1095	4	12	4	26	58	327	69	20	4	1			
1913.																	
Alabama.....	6	30	60.0	.0854	2	8	2	4	2	12							
Georgia.....	9	62	60.0	.1069				1	5	43	10		3				
Maine.....	4	51	58.0	.1041					23	25	3						
Massachusetts...	15	220	54.0	.1172						155	49	15	1				
New Hampshire	5	204	58.0	.1206				5	9	108	48	24	7	3			
Other States....	6	27	57.4	.1103				5	1	9	8	4					
Total.....	45	594	56.8	.1143	2	8	7	10	40	352	118	43	11	3			

FINE SPEEDERS: Male.

1912.															
Alabama.....	6	54	62.6	\$0.1218		1	2	6	2	15	19	3	3	3	
Georgia.....	12	112	60.0	.1425			1	1	2	20	27	32	18	10	1
North Carolina..	12	123	60.0	.1466			2	1	6	9	29	37	24	13	2
South Carolina..	21	329	60.0	.1438				9	5	42	100	89	54	25	5
Other States....	10	62	54.8	.1500						6	28	5	8	12	1
Total.....	61	680	59.7	.1429		1	5	19	15	92	203	166	107	63	9
1913.															
Alabama.....	6	57	61.2	.1277				1	7	19	18	5	3	2	1
Georgia.....	12	167	60.0	.1422					9	30	32	57	25	9	5
North Carolina..	12	120	60.0	.1502				1	1	4	11	27	36	18	9
South Carolina..	21	358	60.0	.1454				1	1	6	49	92	113	67	20
Other States....	10	43	54.4	.1538						7	19	1	3	10	3
Total.....	61	745	59.8	.1446			2	3	26	116	188	212	116	53	27

FINE SPEEDERS: Female.

1912.															
Alabama.....	7	80	62.4	\$0.1085		1	1	8	20	29	16	5			
Connecticut.....	2	38	58.0	.1433						1	15	20	2		
Georgia.....	12	115	60.0	.1283				2	8	39	31	24	7	3	1
Maine.....	5	133	58.0	.1509				2	2	7	20	61	33	6	2
Massachusetts...	18	755	54.0	.1560					5	27	84	315	234	74	14
New Hampshire	5	332	58.0	.1590				2	4	20	42	97	101	52	13
North Carolina..	7	43	60.0	.1166			1	3	10	13	10	3	2	1	
Rhode Island...	3	106	56.0	.1621				1		2	7	45	34	9	8
South Carolina..	19	132	60.0	.1288				4	9	37	48	17	12	4	1
Other States....	2	57	56.0	.1235		1		4	2	23	15	8	4		1
Total.....	80	1,791	56.7	.1484		2	2	26	60	198	288	595	429	149	39

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

FINE SPEEDERS: Female—Concluded.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.											
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
1913.																
Alabama.....	7	77	61.7	\$0.1220				3	11	32	13	13	3	1	1	
Connecticut.....	2	39	58.0	.1339				2	1	4	17	13	2			
Georgia.....	12	130	60.0	.1325				3	5	28	43	40	10	1		
Maine.....	5	173	58.0	.1552				2	1	6	29	78	47	8	2	
Massachusetts....	18	773	54.0	.1576					3	33	94	307	239	70	25	2
New Hampshire	5	364	58.0	.1591					3	15	56	102	131	39	17	1
North Carolina..	7	44	60.0	.1239				1	4	14	15	9	1			
Rhode Island....	3	95	56.0	.1654						1	7	39	27	12	9	
South Carolina..	19	117	60.0	.1276				1	8	44	30	21	8	5		
Other States....	2	43	56.0	.1439						4	12	21	4	2		
Total.....	80	1,855	56.7	.1513				12	36	181	316	643	472	138	54	3

LOOM FIXERS: Male.

1912.																
Alabama.....	7	133	62.3	\$0.1740								31	60	35	7	
Connecticut.....	2	25	58.0	.2466											15	10
Georgia.....	13	201	60.0	.1750								10	141	25	24	1
Maine.....	5	132	58.0	.2398										1	95	36
Massachusetts....	18	558	54.0	.2592											258	300
New Hampshire	5	529	58.0	.2485											200	329
North Carolina..	12	138	60.0	.1684								23	102	3		
Rhode Island....	3	191	56.0	.2652											21	170
South Carolina..	21	370	60.0	.1733								78	172	85	35	
Other States....	2	23	56.6	.1846								6	5	5	7	
Total.....	88	2,290	57.7	.2239								148	480	154	662	846
1913.																
Alabama.....	7	137	61.7	.1771								11	78	33	15	
Connecticut.....	2	26	58.0	.2444											15	11
Georgia.....	13	211	60.0	.1826									126	40	44	1
Maine.....	5	141	58.0	.2407											101	40
Massachusetts....	18	595	54.0	.2608											170	425
New Hampshire	5	513	58.0	.2485											184	329
North Carolina..	12	125	60.0	.1695								4	120	1		
Rhode Island....	3	178	56.0	.2663											17	161
South Carolina..	21	378	60.0	.1757								54	191	89	44	
Other States....	2	17	56.8	.1989									1	7	9	
Total.....	88	2,321	57.6	.2258								69	516	170	599	967

SLASHERS: Male.

1912.																
Alabama.....	7	18	61.8	\$0.1451						2	2	12	2			
Georgia.....	13	45	60.0	.1535						6	3	19	14	1	2	
Maine.....	5	30	58.0	.2061										4	26	
Massachusetts....	17	138	54.0	.2295										6	102	30
New Hampshire	5	111	58.0	.2833											45	66
North Carolina..	10	33	60.0	.1415							26	2	4		1	
South Carolina..	21	43	60.0	.1530						2	5	21	13		2	
Other States....	7	31	56.6	.2269								4	1	2	17	7
Total.....	85	449	57.4	.2163						10	36	58	34	13	195	103

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

SLASHERS: Male—Concluded.

Year and State.	Number of establishments.	Number of employes.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.											
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
1913.																
Alabama.....	7	20	61.2	\$0.1439						2	3	13	2			
Georgia.....	13	61	60.0	.1460						10	7	29	11	4		
Maine.....	5	29	58.0	.2054										4	25	
Massachusetts.....	17	130	54.0	.2345										7	90	33
New Hampshire.....	5	113	58.0	.2865								1	1			66
North Carolina.....	10	33	60.0	.1507							4	25	4			
South Carolina.....	21	57	60.0	.1376						13	11	19	13	1		
Other States.....	7	29	56.7	.2210								4	4		12	9
Total.....	85	472	57.6	.2115						25	25	91	35	16	172	108

SPINNERS, FRAME: Male.

1912.																
Massachusetts.....	14	237	54.0	\$0.1555			1		5	21	38	71	51	40	10	
New Hampshire.....	5	228	58.0	.1468					1	43	49	76	30	24	5	
South Carolina.....	13	39	60.0	.1130			3	3	4	15	9	1	4			
Other States.....	17	60	59.9	.1102			2	2	13	29	12	2				
Total.....	49	564	56.7	.1442			6	5	23	108	108	150	85	64	15	
1913.																
Massachusetts.....	14	203	54.0	.1525				3	10	10	61	39	34	31	15	
New Hampshire.....	5	177	58.0	.1522					2	27	24	59	35	22	8	
South Carolina.....	13	100	60.0	.1099			2	4	13	9	41	18	11	2		
Other States.....	17	50	58.8	.1322			1	8	3	2	7	7	8	4	4	
Total.....	49	530	56.9	.1425			3	12	19	23	85	110	117	75	59	27

SPINNERS, FRAME: Female.

1912.																
Alabama.....	7	468	62.6	\$0.0991	4	34	72	22	91	148	88	9				
Connecticut.....	2	77	58.0	.1443					2	19	13	21	13	7	2	
Georgia.....	13	701	60.0	.1072	3	57	55	41	63	209	204	59	8		18	2
Maine.....	5	351	58.0	.1330					4	6	94	121	67	41	18	
Massachusetts.....	18	1,668	54.0	.1457					22	172	393	754	219	88	20	
New Hampshire.....	5	1,184	58.0	.1436					4	15	142	242	649	91	36	5
North Carolina.....	12	426	60.0	.0951		32	73	48	56	168	43	4	1	1		
Rhode Island.....	3	192	56.0	.1208	9	9	3	17	20	34	38	32	28	2		
South Carolina.....	21	1,222	60.0	.1015		23	104	203	230	465	174	10	11	2		
Other States.....	2	75	56.9	.1169					5	6	19	26	1	5	3	7
Total.....	88	6,364	58.0	.1240	16	155	312	345	524	1,477	1,317	1,610	415	161	32	
1913.																
Alabama.....	7	374	61.8	.0968	7	29	40	59	69	117	26	26	1			
Connecticut.....	2	93	58.0	.1378					4	3	15	30	25	10	4	2
Georgia.....	13	788	60.0	.1036	5	105	53	91	79	188	178	66	17	5	1	
Maine.....	5	368	58.0	.1413					4	4	17	50	103	96	58	8
Massachusetts.....	18	1,714	54.0	.1490					1	4	22	180	309	717	335	108
New Hampshire.....	5	1,208	58.0	.1478					2	14	125	190	651	159	49	18
North Carolina.....	12	437	60.0	.1010					76	35	34	196	86	8	1	
Rhode Island.....	3	193	56.0	.1439					5	4	7	26	50	35	39	13
South Carolina.....	21	1,288	60.0	.1023		58	129	157	201	488	209	35	10			1
Other States.....	2	98	57.0	.1212					5	4	57	13	3	13	3	
Total.....	88	6,561	57.9	.1268	12	192	308	365	450	1,442	1,194	1,662	643	212	81	

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

SPINNERS, MULE: Male.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.													
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and over.		
1912.																		
Maine	3	49	58.0	\$.2510										8	13	28		
Massachusetts	6	111	54.0	.3392												27	84	
New Hampshire	2	20	58.0	.2502										1	1	2	16	
Rhode Island	3	64	56.0	.2313							1				4	43	16	
Other States	2	22	66.7	.2018										4	7	10	1	
Total	16	266	55.7	.2789							1			5	20	95	145	
1913.																		
Maine	3	40	58.0	.2472										2	9	4	25	
Massachusetts	6	117	54.0	.3351											1	23	93	
New Hampshire	2	21	58.0	.2542										1		6	14	
Rhode Island	3	60	56.0	.2360											2	41	17	
Other States	2	20	57.0	.1996										1	6	1	11	
Total	16	258	55.6	.2813										1	9	13	85	150

TRIMMERS OR INSPECTORS: Female.

1912.																	
Alabama	6	36	61.2	\$.0918			3	7	17	7	2						
Georgia	9	62	60.0	.0951		6		11	5	38	1	1					
Maine	5	88	58.0	.1123					1	72	5		10				
Massachusetts	17	198	54.0	.1254					2	81	80	35					
New Hampshire	4	94	58.0	.1415					2	11	40	14	23	3	1		
North Carolina	9	31	60.0	.0941			8	3	3	13	4						
Rhode Island	3	22	56.0	.1627						1	4	3	8	4	2		
South Carolina	20	159	60.0	.0832			63	44	27	25							
Other States	4	18	56.7	.1196					3	6	9						
Total	77	708	57.7	.1117		6	74	65	60	254	145	53	41	7	3		
1913.																	
Alabama	6	56	62.4	.0995			5	1	14	31	5						
Georgia	9	61	60.0	.1025		1		9	8	25	18						
Maine	5	85	58.0	.1059						82	3						
Massachusetts	17	178	54.0	.1278						71	69	35	3				
New Hampshire	4	77	58.0	.1412						10	31	16	18	2			
North Carolina	9	26	60.0	.0969			3	5	1	15	2						
Rhode Island	3	31	56.0	.1344						2	22	5	2				
South Carolina	20	152	60.0	.0839			3	65	30	18	36						
Other States	4	21	56.7	.1177						11	10						
Total	77	687	57.9	.1111		4	73	45	41	283	160	56	23	2			

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

COTTON-GOODS MANUFACTURING—Continued.

WEAVERS: Male.

Year and State	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.												
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 11 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over	
1912.																	
Alabama	7	388	62.1	\$0.1412				10	22	88	84	69	62	33	18	2	
Connecticut	2	97	58.0	.1826					1	4	4	15	16	21	35	1	
Georgia	13	768	60.0	.1431				10	53	195	146	107	71	37	7		
Maine	5	384	58.0	.1967				1	1	15	21	39	61	57	154	35	
Massachusetts ..	18	2,903	54.0	.1797					23	118	251	415	722	606	680	88	
New Hampshire ..	5	1,825	58.0	.1902				4	8	56	73	173	307	469	676	59	
North Carolina...	12	855	60.0	.1439				8	25	121	221	231	187	44	17	1	
Rhode Island...	3	766	56.0	.1917					9	38	70	79	117	131	233	89	
South Carolina...	21	1,739	60.0	.1400				15	58	337	523	402	257	98	48	1	
Other States.....	2	50	55.3	.1744					2	2	3	11	14	7	8	3	
Total	88	9,775	57.5	.1687				49	201	921	1,445	1,580	1,850	1,537	1,906	286	
1913.																	
Alabama	7	343	61.4	.1437				11	32	56	74	54	53	36	24	3	
Connecticut	2	69	58.0	.1866					1	1	3	10	10	18	25	1	
Georgia	13	850	60.0	.1452				7	37	192	191	144	126	92	55	6	
Maine	5	349	58.0	.1990				1	1	17	16	33	43	55	154	30	
Massachusetts ..	18	2,512	54.0	.1818					8	92	169	369	634	556	605	79	
New Hampshire ..	5	1,762	58.0	.1911				2	8	47	83	149	295	446	673	59	
North Carolina...	12	801	60.0	.1465				2	16	116	171	262	148	61	25		
Rhode Island...	3	607	56.0	.1953				1	10	29	41	48	88	102	211	77	
South Carolina...	21	1,976	60.0	.1430				1	10	93	370	589	349	287	139	132	
Other States.....	2	47	55.7	.1736						3	8	7	13	4	9	3	
Total	88	9,316	57.7	.1691				1	34	205	923	1,345	1,425	1,697	1,509	1,913	264

WEAVERS: Female.

1912.																	
Alabama	7	279	62.1	\$0.1245				19	29	73	83	47	19	8	1		
Connecticut	2	133	58.0	.1479				2	2	15	29	45	28	9	2	1	
Georgia	13	583	60.0	.1306				21	47	163	167	96	54	24	10	1	
Maine	5	739	58.0	.1627				2	17	48	112	183	183	101	83	10	
Massachusetts ..	18	3,813	54.0	.1668					35	241	476	757	1,066	783	422	33	
New Hampshire ..	5	3,408	58.0	.1799				10	39	135	302	539	614	717	975	77	
North Carolina...	12	410	60.0	.1305				16	28	100	116	105	39	5			
Rhode Island...	3	626	56.0	.1705				1	23	49	66	124	99	113	139	12	
South Carolina...	21	746	60.0	.1272				18	43	257	219	129	60	17	3		
Other States.....	2	261	56.8	.1461				5	21	43	40	61	56	20	12	3	
Total	88	10,998	56.9	.1630				94	284	1,124	1,610	2,086	2,218	1,797	1,647	138	
1913.																	
Alabama	7	320	61.5	.1282				7	15	23	112	60	53	28	18		
Connecticut	2	134	58.0	.1391					1	9	22	39	40	14	9		
Georgia	13	556	60.0	.1329				1	22	44	139	148	104	57	22	10	
Maine	5	782	58.0	.1668					4	10	56	92	203	139	131	141	
Massachusetts ..	18	4,123	54.0	.1663					42	295	503	859	1,148	751	465	60	
New Hampshire ..	5	3,275	58.0	.1796				2	31	140	301	486	599	696	963	57	
North Carolina...	12	378	60.0	.1341					14	92	136	87	40	5	3	1	
Rhode Island...	3	571	56.0	.1733					13	39	87	67	112	106	134	13	
South Carolina...	21	719	60.0	.1296					7	48	205	251	129	47	18	13	
Other States.....	2	247	56.7	.1562					3	15	30	31	43	67	30	26	
Total	88	11,105	56.8	.1638				8	54	249	1,130	1,648	2,071	2,251	1,786	1,764	144

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913.

COTTON-GOODS MANUFACTURING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

CARD STRIPPERS: Male.

State and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.													
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.		
Alabama:																		
7 establishments.	{1912	21	62.4	\$0.1053				4	4	9		3			1			
	{1913	21	61.9	.1063				4	3	11		2				1		
Connecticut:																		
2 establishments.	{1912	22	58.0	.1380								21	1					
	{1913	21	58.0	.1384								20	1					
Georgia:																		
13 establishments.	{1912	69	60.0	.1184					2	33		29	5					
	{1913	68	60.0	.1179						35		29	4					
Maine:																		
5 establishments.	{1912	51	58.0	.1312								42	9					
	{1913	53	58.0	.1330								43	6	4				
Massachusetts:																		
18 establishments.	{1912	279	54.0	.1437						7		81	172	19				
	{1913	283	54.0	.1489						1		52	186	38	6			
New Hampshire:																		
5 establishments.	{1912	175	58.0	.1432							1	35	138	1				
	{1913	207	58.0	.1445							1	42	149	14	1			
North Carolina:																		
12 establishments.	{1912	40	60.0	.1082				2			32	6						
	{1913	38	60.0	.1171		1					13	24						
Rhode Island:																		
3 establishments.	{1912	37	56.0	.1493								13	9	15				
	{1913	37	56.0	.1495								11	11	15				
South Carolina:																		
21 establishments.	{1912	102	60.0	.1116					3	72		22	5					
	{1913	109	60.0	.1165					4	68		20	16	1				

DRAWING TENDERS: Male.

Alabama:																		
5 establishments.	{1912	36	62.3	\$0.0871	7	6	3	1	9	7	3							
	{1913	29	61.0	.0870	8			3	9	5	4							
Georgia:																		
13 establishments.	{1912	91	60.0	.0976		4	15	6	8	43	13	1	1					
	{1913	86	60.0	.1002		2	19	3	4	42	13	2	1					
Maine:																		
5 establishments.	{1912	35	58.0	.1108				6	1	17	11							
	{1913	34	58.0	.1088						10	10	14						
Massachusetts:																		
16 establishments.	{1912	190	54.0	.1245						24	44	89	22	10	1			
	{1913	159	54.0	.1267						24	27	74	23	8	3			
New Hampshire:																		
4 establishments.	{1912	67	58.0	.1237							33	22	8	3	1			
	{1913	23	58.0	.1377							3	9	10	1				
North Carolina:																		
12 establishments.	{1912	90	60.0	.0980			9		3	75	3							
	{1913	82	60.0	.0994			2		2	78								
Rhode Island:																		
3 establishments.	{1912	39	56.0	.1255						5	25	9						
	{1913	37	56.0	.1300						3	21	11	2					
South Carolina:																		
21 establishments.	{1912	151	60.0	.0902		2	64	20	16	30	12	7						
	{1913	151	60.0	.0954		1	47	9	26	45	17	6						

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

DRAWING TENDERS: Female.

State and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.											
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
					Alabama: 6 establishments.....	1912 1913	40 30	62.0 60.0	\$0.0802 .0854	4 2	12 8	4 2	4 4	10 2	5 12	
Georgia: 9 establishments.....	1912 1913	53 62	60.0 60.0	.1033 .1069				5 1	10 5	33 43	5 10			3		
Maine: 4 establishments.....	1912 1913	45 51	58.0 58.0	.0998 .1041				16 18	10 23	1 25	3					
Massachusetts: 15 establishments.....	1912 1913	190 220	54.0 54.0	.1166 .1172					1 155	146 49	32 5	10 1	1			
New Hampshire: 5 establishments.....	1912 1913	177 204	58.0 58.0	.1128 .1206			1 5	18 9	119 108	30 48	6 24	2 7	1 3			

FINE SPEEDERS: Male.

Alabama: 6 establishments.....	1912 1913	54 57	62.6 61.2	\$0.1218 .1277		1	2	6	2	15	19	3	3	3			
Georgia: 12 establishments.....	1912 1913	112 167	60.0 60.0	.1425 .1422			1	1	2	20	27	32	18	10	1		
North Carolina: 12 establishments.....	1912 1913	123 120	60.0 60.0	.1466 .1502			2	1	6	9	29	37	24	13	2		
South Carolina: 21 establishments.....	1912 1913	329 358	60.0 60.0	.1438 .1454			1	9	5	42	100	89	54	25	5		

FINE SPEEDERS: Female.

Alabama: 7 establishments.....	1912 1913	80 77	62.4 61.7	\$0.1085 .1220		1	1	8	20	29	16	5					
Connecticut: 2 establishments.....	1912 1913	38 39	58.0 58.0	.1433 .1339						1	15	20	2				
Georgia: 12 establishments.....	1912 1913	115 130	60.0 60.0	.1283 .1325				2	8	39	31	24	7	3	1		
Maine: 5 establishments.....	1912 1913	133 173	58.0 58.0	.1509 .1552				2	2	7	20	61	33	6	2		
Massachusetts: 18 establishments.....	1912 1913	755 773	54.0 54.0	.1760 .1576					5	27	84	315	234	74	14	2	
New Hampshire: 5 establishments.....	1912 1913	332 364	58.0 58.0	.1590 .1591				2	4	20	42	97	101	52	13	1	
North Carolina: 7 establishments.....	1912 1913	43 44	60.0 60.0	.1166 .1239			1	3	10	13	10	3	2	1			
Rhode Island: 3 establishments.....	1912 1913	106 95	56.0 56.0	.1621 .1654				1		2	7	45	34	9	8		
South Carolina: 19 establishments.....	1912 1913	132 117	60.0 60.0	.1288 .1276				4	9	37	48	17	12	4	1		

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

LOOM FIXERS: Male.

State and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.													
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.		
Alabama:																		
7 establishments.....	1912	133	62.3	\$0.1740									31	60	35	7		
	1913	137	61.7	.1771									11	78	33	15		
Connecticut:																		
2 establishments.....	1912	25	58.0	.2466													15	10
	1913	26	58.0	.2444													15	11
Georgia:																		
13 establishments.....	1912	201	60.0	.1750									10	141	25	24	1	
	1913	211	60.0	.1826										126	40	44	1	
Maine:																		
5 establishments.....	1912	132	58.0	.2398												1	95	36
	1913	141	58.0	.2407													101	40
Massachusetts:																		
18 establishments.....	1912	558	54.0	.2592													253	300
	1913	595	54.0	.2608													170	425
New Hampshire:																		
5 establishments.....	1912	529	58.0	.2485													200	329
	1913	513	58.0	.2485													184	329
North Carolina:																		
12 establishments.....	1912	128	60.0	.1684									23	102	3			
	1913	125	60.0	.1696									4	120	1			
Rhode Island:																		
3 establishments.....	1912	191	56.0	.2652													21	170
	1913	178	56.0	.2663													17	161
South Carolina:																		
21 establishments.....	1912	370	60.0	.1733									78	172	85	35		
	1913	378	60.0	.1757									54	191	89	44		

SLASHERS: Male.

Alabama:																		
7 establishments.....	1912	18	61.8	\$0.1451						2	2	12	2					
	1913	20	61.2	.1439						2	3	13	2					
Georgia:																		
13 establishments.....	1912	45	60.0	.1535					6	3	19	14	1	2				
	1913	61	60.0	.1460					10	7	29	11	4					
Maine:																		
5 establishments.....	1912	30	58.0	.2061											4	26		
	1913	29	58.0	.2054											4	25		
Massachusetts:																		
17 establishments.....	1912	138	54.0	.2295												6	102	30
	1913	130	54.0	.2345											7	90	33	
New Hampshire:																		
5 establishments.....	1912	111	58.0	.2833													45	66
	1913	113	58.0	.2865									1	1		45	66	
North Carolina:																		
10 establishments.....	1912	33	60.0	.1415								26	2	4			1	
	1913	33	60.0	.1507								4	25	4				
South Carolina:																		
21 establishments.....	1912	43	60.0	.1530						2	5	21	13				2	
	1913	57	60.0	.1376						13	11	19	13	1				

SPINNERS, FRAME: Male.

Massachusetts:																		
14 establishments.....	1912	237	54.0	\$0.1555			1		5	21	38	71	51	40	10			
	1913	203	54.0	.1525				3	10	10	61	39	34	31	15			
New Hampshire:																		
5 establishments.....	1912	228	58.0	.1468					1	43	49	76	30	24	5			
	1913	177	58.0	.1522					2	27	24	59	35	22	8			
South Carolina:																		
13 establishments.....	1912	39	60.0	.1130			3	3	4	15	9	1	4					
	1913	100	60.0	.1099			2	4	13	9	41	18	11	2				

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

SPINNERS, FRAME: Female.

State and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.													
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.		
Alabama: 7 establish-ments.	1912	468	62.6	\$0.0991	4	34	72	22	91	148	88	9						
	1913	374	61.8	.0968	7	29	40	59	69	117	26	26	1					
Connecticut: 2 establish-ments.	1912	77	58.0	.1443					2	19	13	21	13	7	2			
	1913	93	58.0	.1378				4	3	15	30	25	10	4	2			
Georgia: 13 establish-ments.	1912	701	60.0	.1072	3	57	55	41	63	209	204	59	8					
	1913	788	60.0	.1036	5	105	53	91	79	188	178	66	17	5	1			
Maine: 5 establish-ments.	1912	351	58.0	.1330				4	6	94	121	67	41	18				
	1913	368	58.0	.1413			4	4	17	50	103	96	58	28	8			
Massachusetts: 18 establish-ments.	1912	1,668	54.0	.1457					22	172	393	754	219	88	20			
	1913	1,714	54.0	.1490			1	4	22	180	309	717	335	108	38			
New Hampshire: 5 establish-ments.	1912	1,184	58.0	.1436				4	15	142	242	649	91	36	5			
	1913	1,208	58.0	.1478				2	14	125	190	651	159	49	18			
North Carolina: 12 establish-ments.	1912	426	60.0	.0951		32	73	48	56	168	43	4	1	1				
	1913	437	60.0	.1010		76	35	34	196	86	8	1	1	1				
Rhode Island: 3 establish-ments.	1912	192	56.0	.1208	9	9	3	17	20	34	38	32	28	2				
	1913	193	56.0	.1439		5	4	7	26	50	50	35	39	14	13			
South Carolina: 21 establish-ments.	1912	1,222	60.0	.1015		23	104	203	230	465	174	10	11	2				
	1913	1,288	60.0	.1023		58	129	157	201	488	209	35	10		1			

SPINNERS, MULE: Male.

Maine: 3 establish-ments.	1912	49	58.0	\$0.2510										8	13	28		
	1913	40	58.0	.2472										2	9	25		
Massachusetts: 6 establish-ments.	1912	111	54.0	.3392												27	84	
	1913	117	54.0	.3351											1	23	93	
New Hampshire: 2 establish-ments.	1912	20	58.0	.2502										1	1	2	16	
	1913	21	58.0	.2542										1		6	14	
Rhode Island: 3 establish-ments.	1912	64	56.0	.2313							1				4	43	16	
	1913	60	56.0	.2360										2	41	17		

TRIMMERS OR INSPECTORS: Female.

Alabama: 6 establish-ments.	1912	36	61.2	\$0.0918			3	7	17	7	2							
	1913	56	62.4	.0995			5	1	14	31	5							
Georgia: 9 establish-ments.	1912	62	60.0	.0951		6		11	5	35	1	1						
	1913	61	60.0	.1025		1		9	8	28	18							
Maine: 5 establish-ments.	1912	88	58.0	.1123					1	72	5		10					
	1913	85	58.0	.1059						82	3							
Massachusetts: 17 establish-ments.	1912	198	54.0	.1254					2	81	80	35						
	1913	178	54.0	.1278						71	69	35	3					
New Hampshire: 4 establish-ments.	1912	94	58.0	.1415					2	11	40	14	23	3	1			
	1913	77	58.0	.1412						10	31	16	18	2				
North Carolina: 9 establish-ments.	1912	31	60.0	.0941			8	3	3	13	4							
	1913	26	60.0	.0969			3	5	1	15	2							

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

COTTON-GOODS MANUFACTURING—Continued.

TRIMMERS OR INSPECTORS: Female—Concluded.

State and number of establishments.	Year.	Number of employes.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.											
					Under 6 cts.	6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.
Rhode Island: 3 establishments.....	1912	22	56.0	\$0.1627						1	4	3	8	4	2	
	1913	31	56.0	.1344						2	22	5	2			
South Carolina: 20 establishments.....	1912	159	60.0	.0832			63	44	27	25						
	1913	152	60.0	.0839		3	65	30	18	36						

WEAVERS: Male.

Alabama: 7 establishments.....	1912	388	62.1	\$0.1412				10	22	88	84	69	62	33	18	2
	1913	343	61.4	.1437				11	32	56	74	54	53	36	24	3
Connecticut: 2 establishments.....	1912	97	58.0	.1826				1		4	4	15	16	21	35	1
	1913	69	58.0	.1866					1	1	3	10	10	18	25	1
Georgia: 13 establishments.....	1912	768	60.0	.1431				7	53	142	195	146	107	71	37	7
	1913	850	60.0	.1452				10	37	192	191	144	126	92	55	6
Maine: 5 establishments.....	1912	384	58.0	.1967				1	1	15	21	39	61	57	154	35
	1913	349	58.0	.1990				1		17	16	33	43	55	154	30
Massachusetts: 18 establishments.....	1912	2,903	54.0	.1797				23	118	251	415	722	606	680	88	
	1913	2,512	54.0	.1818				8	92	169	369	634	556	605	79	
New Hampshire: 5 establishments.....	1912	1,825	58.0	.1902				4	8	56	73	173	307	469	676	59
	1913	1,762	58.0	.1911				2	8	47	83	149	295	446	673	59
North Carolina: 12 establishments.....	1912	855	60.0	.1439				8	25	121	221	231	187	44	17	1
	1913	801	60.0	.1465				2	16	116	171	262	148	61	25	
Rhode Island: 3 establishments.....	1912	766	56.0	.1917					9	38	70	79	117	131	233	89
	1913	607	56.0	.1953				1	10	29	41	48	88	102	211	77
South Carolina: 21 establishments.....	1912	1,739	60.0	.1400				15	58	337	523	402	257	98	48	1
	1913	1,976	60.0	.1430				1	10	93	370	589	349	287	139	132

WEAVERS: Female.

Alabama: 7 establishments.....	1912	279	62.1	\$0.1245				19	29	73	83	47	19	8	1	
	1913	320	61.5	.1282			7	15	23	112	60	53	28	18		4
Connecticut: 2 establishments.....	1912	133	58.0	.1479				2	2	15	29	45	28	9	2	1
	1913	134	58.0	.1391				1	9	22	39	40	14	9		
Georgia: 13 establishments.....	1912	583	60.0	.1306				21	47	163	167	96	54	24	10	1
	1913	556	60.0	.1329			1	22	44	139	148	104	57	22	19	
Maine: 5 establishments.....	1912	739	58.0	.1627				2	17	48	112	183	183	101	83	10
	1913	782	58.0	.1668				4	10	56	92	203	139	131	141	6
Massachusetts: 18 establishments.....	1912	3,813	54.0	.1668					35	241	476	757	1,066	783	422	33
	1913	4,123	54.0	.1663					42	295	503	859	1,148	751	465	60
New Hampshire: 5 establishments.....	1912	3,408	58.0	.1799				10	39	135	302	539	614	717	975	77
	1913	3,275	58.0	.1796				2	31	140	301	486	599	696	963	57
North Carolina: 12 establishments.....	1912	410	60.0	.1305				16	28	100	116	105	39	5		1
	1913	378	60.0	.1341					14	92	136	87	40	5	3	1
Rhode Island: 3 establishments.....	1912	626	56.0	.1705				1	23	49	66	124	99	113	139	12
	1913	571	56.0	.1733					13	39	87	67	112	106	134	13
South Carolina: 21 establishments.....	1912	746	60.0	.1272				18	43	257	219	129	60	17	3	
	1913	719	60.0	.1296				7	48	205	251	129	47	18	13	

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913.

COTTON-GOODS MANUFACTURING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Card strippers, male:										
36 establishments.....	{ 1907	284	59.8	.....	.....	166	54	24	4	36
	{ 1908	289	59.3	.....	.....	186	70	.....	10	23
	{ 1909	287	59.3	.....	.....	175	82	.....	9	21
	{ 1910	318	57.8	.....	166	78	52	.....	8	14
59 establishments.....	{ 1910	523	58.4	.....	250	121	63	12	19	53
	{ 1911	515	58.3	.....	253	123	60	12	19	48
88 establishments.....	{ 1 11	786	58.3	.....	314	255	126	12	22	57
	{ 1912	800	57.1	284	37	251	219	.....	1	8
88 establishments.....	{ 1912	804	57.1	284	37	251	223	.....	1	8
	{ 1913	845	57.2	288	37	284	229	.....	1	6
Drawing tenders, male:										
34 establishments.....	{ 1907	219	60.4	.....	.....	112	26	42	1	38
	{ 1908	234	59.7	.....	.....	110	94	.....	9	21
	{ 1909	253	59.7	.....	.....	129	89	.....	12	23
	{ 1910	253	58.5	.....	113	34	78	.....	10	18
56 establishments.....	{ 1910	436	59.5	.....	144	54	111	62	17	48
	{ 1911	457	59.7	.....	147	45	120	62	23	60
84 establishments.....	{ 1911	750	59.5	.....	211	130	235	62	28	84
	{ 1912	723	57.9	195	39	125	348	.....	4	12
82 establishments.....	{ 1912	727	57.9	195	39	125	352	.....	4	12
	{ 1913	624	58.0	164	37	75	341	.....	4	3
Drawing tenders, female:										
19 establishments.....	{ 1907	234	60.2	.....	.....	117	64	.....	16	37
	{ 1908	232	59.3	.....	.....	130	86	.....	.....	16
	{ 1909	249	59.4	.....	.....	128	105	.....	.....	16
	{ 1910	233	58.1	.....	67	110	49	.....	.....	7
27 establishments.....	{ 1910	359	58.2	.....	136	139	56	.....	.....	28
	{ 1911	344	57.7	.....	146	145	37	.....	.....	16
45 establishments.....	{ 1911	502	57.8	.....	172	255	56	.....	.....	19
	{ 1912	525	57.0	190	9	231	82	.....	.....	13
	{ 1913	594	56.8	221	11	265	97	.....	.....	.....
Fine speeders, male:										
16 establishments.....	{ 1907	201	63.9	.....	.....	.....	96	10	.....	95
	{ 1908	224	61.1	.....	.....	.....	171	24	.....	29
	{ 1909	258	61.2	.....	.....	.....	195	24	.....	39
	{ 1910	249	61.0	.....	.....	.....	192	29	.....	28
32 establishments.....	{ 1910	426	61.4	.....	.....	273	41	52	.....	60
	{ 1911	396	61.4	.....	.....	243	63	35	.....	55
62 establishments.....	{ 1911	623	61.2	.....	3	17	474	.....	41	88
	{ 1912	666	59.7	50	12	.....	581	.....	.....	23
61 establishments.....	{ 1912	680	59.7	50	12	.....	595	.....	.....	23
	{ 1913	745	59.8	39	4	.....	691	.....	.....	11
Fine speeders, female:										
35 establishments.....	{ 1907	721	59.3	.....	.....	463	153	30	22	53
	{ 1908	694	59.1	.....	.....	438	208	.....	5	43
	{ 1909	714	59.1	.....	.....	453	220	.....	1	40
	{ 1910	800	57.6	.....	437	185	143	.....	3	32
57 establishments.....	{ 1910	1,175	57.8	.....	602	313	165	21	12	62
	{ 1911	1,189	57.9	.....	597	311	165	36	10	70
82 establishments.....	{ 1911	1,753	57.9	.....	801	547	258	36	16	95
	{ 1912	1,784	56.6	784	106	531	328	.....	5	30
80 establishments.....	{ 1912	1,791	56.7	784	134	503	335	.....	5	30
	{ 1913	1,855	56.7	795	95	597	343	.....	6	91

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS 1907 TO 1913—Con.

COTTON-GOODS MANUFACTURING—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Loom fixers, male:										
36 establishments.....	1907	631	60.8			277	105	95	21	133
	1908	619	59.7			278	270		13	58
	1909	680	59.8			304	286		23	67
	1910	728	58.3		323	133	207		17	48
59 establishments.....	1910	1,267	58.7		528	232	293	56	46	112
	1911	1,314	58.6		574	226	296	60	46	112
88 establishments.....	1911	2,200	58.6		729	659	543	60	51	158
	1912	2,273	57.7	566	191	701	762		4	49
88 establishments.....	1912	2,290	57.7	566	191	701	779		4	49
	1913	2,321	57.6	600	178	692	811		4	36
Slashers, male:										
35 establishments.....	1907	159	60.3			77	29	25	7	21
	1908	158	59.6			75	69		1	13
	1909	167	59.4			82	73		1	11
	1910	166	58.1		72	34	52		1	7
57 establishments.....	1910	276	58.4		116	53	72	14	4	17
	1911	303	58.5		122	55	81	25	4	16
85 establishments.....	1911	455	58.5		149	144	106	25	6	25
	1912	447	57.4	140	17	153	131		1	5
85 establishments.....	1912	449	57.4	140	17	153	133		1	5
	1913	472	57.6	132	15	154	166		2	3
Spinners, frame, male:										
25 establishments.....	1907	184	59.4			122	22	26		14
	1908	214	58.8			136	74		1	3
	1909	183	58.9			135	41		1	11
	1910	188	57.2		109	47	31			1
36 establishments.....	1910	261	57.2		160	53	44		3	1
	1911	420	57.0		291	81	39			9
46 establishments.....	1911	700	57.2		402	228	52			18
	1912	679	56.2	353		269	44			13
49 establishments.....	1912	564	56.7	237		269	45			13
	1913	530	56.9	204	17	186	118			5
Spinners, frame, female:										
36 establishments.....	1907	2,317	61.0			1,000	305	327	113	572
	1908	2,114	59.9			896	923	17	61	217
	1909	2,408	59.8			1,107	951		84	266
	1910	2,500	58.5		1,020	442	784		98	156
59 establishments.....	1910	3,704	59.0		1,313	621	1,087	140	186	357
	1911	3,735	59.1		1,285	646	1,053	181	181	389
88 establishments.....	1911	5,981	59.1		1,590	1,639	1,811	181	209	551
	1912	6,214	58.0	1,572	192	1,667	2,566		23	194
88 establishments.....	1912	6,364	58.0	1,688	192	1,667	2,600		23	194
	1913	6,561	57.9	1,739	193	1,742	2,763		19	105
Spinners, mule, male:										
11 establishments.....	1907	199	58.6			138	61			
	1908	193	58.4			158	35			
	1909	156	58.5			118	38			
	1910	131	56.8		89	33	9			
14 establishments.....	1910	222	57.0		117	96	9			
	1911	207	57.0		110	88	9			
16 establishments.....	1911	288	56.8		179	100	9			
	1912	266	55.7	118	64	84				
	1913	258	55.6	122	60	76				

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

COTTON-GOODS MANUFACTURING—Continued.

NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Trimmers or inspectors, female:										
30 establishments.....	1907	251	60.4	.....	.....	102	70	40	.....	39
	1908	261	60.0	.....	.....	103	120	.....	7	31
	1909	285	59.6	.....	.....	115	147	.....	6	17
	1910	297	58.1	.....	127	76	73	.....	9	12
46 establishments.....	1910	408	58.3	.....	161	100	109	4	12	22
	1911	474	58.7	.....	167	119	128	9	14	37
75 establishments.....	1911	712	58.7	.....	226	202	205	9	19	51
	1912	703	58.0	.....	204	22	194	266	.....	17
77 establishments.....	1912	708	57.7	204	22	194	271	.....	.....	17
	1913	687	57.9	185	31	176	270	.....	5	20
Weavers, male:										
36 establishments.....	1907	2,769	60.3	.....	.....	1,397	502	321	76	473
	1908	2,848	59.6	.....	.....	1,424	1,006	115	81	222
	1909	3,123	59.8	.....	.....	1,497	1,156	.....	147	323
	1910	3,037	58.3	.....	1,489	337	925	.....	119	167
58 establishments.....	1910	5,334	58.8	.....	2,190	703	1,440	299	272	430
	1911	5,012	58.8	.....	2,069	670	1,225	434	236	378
88 establishments.....	1911	8,855	58.6	.....	3,129	2,366	2,195	434	244	487
	1912	9,751	57.5	.....	2,937	766	2,322	3,590	.....	2
88 establishments.....	1912	9,775	57.5	2,937	766	2,322	3,614	.....	.....	2
	1913	9,316	57.7	2,539	607	2,200	3,889	.....	3	78
Weavers, female:										
36 establishments.....	1907	3,724	59.5	.....	.....	2,267	809	172	185	291
	1908	3,903	59.0	.....	.....	2,473	1,197	31	29	173
	1909	3,930	59.1	.....	.....	2,363	1,345	.....	34	188
	1910	3,905	57.6	.....	2,065	1,052	625	.....	37	126
59 establishments.....	1910	6,334	57.8	.....	3,210	1,676	849	189	130	280
	1911	6,242	57.8	.....	3,198	1,590	830	236	120	268
88 establishments.....	1911	10,792	57.9	.....	4,216	4,442	1,422	236	149	327
	1912	10,980	56.9	3,890	626	4,464	1,890	.....	24	86
88 establishments.....	1912	10,998	56.9	3,890	626	4,464	1,908	.....	24	86
	1913	11,105	56.8	4,206	571	4,355	1,877	.....	34	62

PER CENT.

Card strippers, male:										
36 establishments.....	1907	284	59.8	.....	.....	58.5	19.0	8.5	1.4	12.7
	1908	289	59.3	.....	.....	64.4	24.2	.....	3.5	8.0
	1909	287	59.3	.....	.....	61.0	28.6	.....	3.1	7.3
	1910	318	57.8	.....	52.2	24.5	16.4	.....	2.5	4.4
59 establishments.....	1910	523	58.4	.....	47.8	23.1	13.0	2.3	3.6	10.1
	1911	515	58.3	.....	49.1	23.9	11.7	2.3	3.7	9.3
88 establishments.....	1911	786	58.3	.....	39.9	32.4	16.0	1.5	2.8	7.3
	1912	800	57.1	35.5	4.6	31.4	27.4	.....	.1	1.0
88 establishments.....	1912	804	57.1	35.3	4.6	31.2	27.7	.....	.1	1.0
	1913	845	57.2	34.1	4.4	33.6	27.1	.....	.1	.7
Drawing tenders, male:										
34 establishments.....	1907	219	60.4	.....	.....	51.1	11.9	19.2	.5	17.4
	1908	234	59.7	.....	.....	47.0	40.2	.....	3.8	9.0
	1909	253	59.7	.....	.....	51.0	35.2	.....	4.7	9.1
	1910	253	58.5	.....	44.7	13.4	30.8	.....	4.0	7.1

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Drawing tenders, male—										
Concluded.										
56 establishments.....	1910	436	59.5	.....	33.0	12.4	25.5	14.2	3.9	11.0
	1911	457	59.7	.....	32.2	9.8	26.3	13.6	5.0	13.1
84 establishments.....	1911	750	59.5	.....	28.1	17.3	31.3	8.3	3.7	11.2
	1912	723	57.9	27.0	5.4	17.3	48.1	.....	.6	1.7
82 establishments.....	1912	727	57.9	.....	26.8	5.4	17.2	48.4	.....	.6
	1913	624	58.0	26.3	5.9	12.0	54.6	.....	.6	.5
Drawing tenders, female:										
19 establishments.....	1907	234	60.2	.....	.....	50.0	27.4	.....	6.8	15.8
	1908	232	59.3	.....	.....	56.0	37.1	.....	.....	6.9
	1909	249	59.4	.....	.....	51.4	42.2	.....	.....	6.4
	1910	233	58.1	.....	28.8	47.2	21.0	.....	.....	3.0
27 establishments.....	1910	359	58.2	.....	37.9	38.7	15.6	.....	.....	7.8
	1911	344	57.7	.....	42.4	42.2	10.8	.....	.....	4.7
45 establishments.....	1911	502	57.8	.....	34.3	50.8	11.2	.....	.....	3.8
	1912	525	57.0	36.2	1.7	44.0	15.6	.....	.....	2.5
	1913	594	56.8	37.2	1.9	44.6	16.3	.....	.....	.....
Fine speeders, male:										
16 establishments.....	1907	201	63.9	.....	.....	.....	47.8	5.0	47.3	.....
	1908	224	61.1	.....	.....	76.3	.....	10.7	12.9	.....
	1909	258	61.2	.....	.....	75.6	.....	9.3	15.1	.....
	1910	249	61.0	.....	.....	77.1	.....	11.6	11.2	.....
32 establishments.....	1910	426	61.4	.....	.....	64.1	9.6	12.2	14.1	.....
	1911	396	61.4	.....	.....	61.4	15.9	8.8	13.9	.....
62 establishments.....	1911	623	61.2	.....	.5	2.7	76.1	.....	6.6	14.1
	1912	666	59.7	7.5	.....	1.8	87.2	.....	.....	3.5
61 establishments.....	1912	680	59.7	.....	7.4	.....	87.5	.....	.....	3.4
	1913	745	59.8	5.2	.....	.5	92.8	.....	.....	1.5
Fine speeders, female:										
35 establishments.....	1907	721	59.3	.....	.....	64.2	21.2	4.2	3.1	7.4
	1908	694	59.1	.....	.....	63.1	30.0	.....	.7	6.2
	1909	714	59.1	.....	.....	63.4	30.8	.....	.1	5.6
	1910	800	57.6	.....	54.6	23.1	17.9	.....	.4	4.0
57 establishments.....	1910	1,175	57.8	.....	51.2	26.6	14.0	1.8	1.0	5.3
	1911	1,189	57.9	.....	50.2	26.2	13.9	3.0	.8	5.9
82 establishments.....	1911	1,753	57.9	.....	45.7	31.2	14.7	2.1	.9	5.4
	1912	1,784	56.6	43.9	5.9	29.8	18.4	.....	.3	1.7
80 establishments.....	1912	1,791	56.7	43.8	7.5	28.1	18.7	.....	.3	1.7
	1913	1,855	56.7	42.9	5.1	32.2	18.5	.....	.3	1.0
Loom fixers, male:										
36 establishments.....	1907	631	60.8	.....	.....	43.9	16.6	15.1	3.3	21.1
	1908	619	59.7	.....	.....	44.9	43.6	.....	2.1	9.4
	1909	680	59.8	.....	.....	44.7	42.1	.....	3.4	9.9
	1910	728	58.3	.....	44.4	18.3	28.4	.....	2.3	6.6
59 establishments.....	1910	1,267	58.7	.....	41.7	18.3	23.1	4.4	3.6	8.8
	1911	1,314	58.6	.....	43.7	17.2	22.5	4.6	3.5	8.5
88 establishments.....	1911	2,200	58.6	.....	33.1	30.0	24.7	2.7	2.3	7.2
	1912	2,273	57.7	24.9	8.4	30.8	33.5	.....	.2	2.2
88 establishments.....	1912	2,290	57.7	24.7	8.3	30.6	34.0	.....	.2	2.1
	1913	2,321	57.6	25.9	7.7	29.8	34.9	.....	.2	1.6
Slashers, male:										
35 establishments.....	1907	159	60.3	.....	.....	48.4	18.2	15.7	4.4	13.2
	1908	158	59.6	.....	.....	47.5	43.7	.....	.6	8.2
	1909	167	59.4	.....	.....	49.1	43.7	.....	.6	6.6
	1910	166	58.1	.....	43.4	20.5	31.3	.....	.6	4.2

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Slashers, male—Concluded.										
57 establishments.....	{ 1910	276	58.4	.....	42.0	19.2	26.1	5.1	1.4	6.2
	{ 1911	303	58.5	.....	40.3	18.2	26.7	8.3	1.3	5.3
85 establishments.....	{ 1911	455	58.5	.....	32.7	31.6	23.3	5.5	1.3	5.5
	{ 1912	447	57.4	31.3	3.8	34.2	29.3	.....	.2	1.1
85 establishments.....	{ 1912	449	57.4	31.2	3.8	34.1	29.6	.....	.2	1.1
	{ 1913	472	57.6	28.0	3.2	32.6	35.2	.....	.4	.6
Spinners, frame, male:										
25 establishments.....	{ 1907	184	59.4	.....	.....	66.3	12.0	14.1	.....	7.6
	{ 1908	214	58.8	.....	.....	63.6	34.6	.....	.5	1.4
	{ 1909	188	58.9	.....	.....	71.8	21.8	.....	.5	5.9
	{ 1910	188	57.2	.....	58.0	25.0	16.5	.....	.....	.5
36 establishments.....	{ 1910	261	57.2	.....	61.3	20.3	16.9	.....	1.1	.4
	{ 1911	420	57.0	.....	69.3	19.3	9.3	.....	.....	2.1
46 establishments.....	{ 1911	700	57.2	.....	57.4	32.6	7.4	.....	.....	2.6
	{ 1912	679	56.2	52.0	.....	39.6	6.5	.....	.....	1.9
49 establishments.....	{ 1912	564	56.7	42.0	.....	47.7	8.0	.....	.....	2.3
	{ 1913	530	56.9	38.5	3.2	35.1	22.3	.....	.....	.9
Spinners, frame, female:										
36 establishments.....	{ 1907	2,317	61.0	.....	.....	43.2	13.2	14.1	4.9	24.7
	{ 1908	2,114	59.9	.....	.....	42.4	43.7	.8	2.9	10.3
	{ 1909	2,408	59.8	.....	.....	46.0	39.5	.....	3.5	11.0
	{ 1910	2,500	58.5	.....	40.8	17.7	31.4	.....	3.9	6.2
59 establishments.....	{ 1910	3,704	59.0	.....	35.4	16.8	29.3	3.8	5.0	9.6
	{ 1911	3,735	59.1	.....	34.4	17.3	28.2	4.8	4.8	10.4
88 establishments.....	{ 1911	5,981	59.1	.....	26.6	27.4	30.3	3.0	3.5	9.2
	{ 1912	6,214	58.0	25.3	3.1	26.8	41.3	.....	.4	3.1
88 establishments.....	{ 1912	6,364	58.0	26.5	3.0	26.2	40.9	.....	.4	3.0
	{ 1913	6,561	57.9	26.5	2.9	26.6	42.1	.....	.3	1.6
Spinners, mule, male:										
11 establishments.....	{ 1907	199	58.6	.....	.....	69.3	30.7	.....	.....	.....
	{ 1908	193	58.4	.....	.....	81.9	18.1	.....	.....	.....
	{ 1909	156	58.5	.....	.....	75.6	24.4	.....	.....	.....
	{ 1910	131	56.8	.....	67.9	25.2	6.9	.....	.....	.....
14 establishments.....	{ 1910	222	57.0	.....	52.7	43.2	4.1	.....	.....	.....
	{ 1911	207	57.0	.....	53.1	42.5	4.3	.....	.....	.....
16 establishments.....	{ 1911	288	56.8	.....	62.2	34.7	3.1	.....	.....	.....
	{ 1912	266	55.7	44.4	24.1	31.6	.....	.....	.....	.....
	{ 1913	258	55.6	47.3	23.3	29.5	.....	.....	.....	.....
Trimmers or inspectors, female:										
30 establishments.....	{ 1907	251	60.4	.....	.....	40.6	27.9	15.9	.....	15.5
	{ 1908	261	60.0	.....	.....	39.5	46.0	.....	2.7	11.9
	{ 1909	285	59.6	.....	.....	40.4	51.6	.....	2.1	6.0
	{ 1910	297	58.1	.....	42.8	25.6	24.6	.....	3.0	4.0
46 establishments.....	{ 1910	408	58.3	.....	39.5	24.5	26.7	1.0	2.9	5.4
	{ 1911	474	58.7	.....	35.2	25.1	27.0	1.9	3.0	7.8
75 establishments.....	{ 1911	712	58.7	.....	31.7	28.4	28.8	1.3	2.7	7.2
	{ 1912	703	58.0	29.0	3.1	27.6	37.8	.....	.....	2.4
77 establishments.....	{ 1912	708	57.7	28.8	3.1	27.4	38.3	.....	.....	2.4
	{ 1913	687	57.9	26.9	4.5	25.6	39.3	.....	.7	2.9
Weavers, male:										
36 establishments.....	{ 1907	2,769	60.3	.....	.....	50.5	18.1	11.6	2.7	17.1
	{ 1908	2,848	59.6	.....	.....	50.0	35.3	4.0	2.8	7.8
	{ 1909	3,123	59.8	.....	.....	47.9	37.0	.....	4.7	10.3
	{ 1910	3,037	58.3	.....	49.0	11.1	30.5	.....	3.9	5.5

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

COTTON-GOODS MANUFACTURING—Continued.

PER CENT—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Weavers, male—Concluded.										
58 establishments.....	1910	5,334	58.8	-----	41.1	13.2	27.0	5.6	5.1	8.1
	1911	5,012	58.8	-----	41.3	13.4	24.4	8.7	4.7	7.5
88 establishments.....	1911	8,855	58.6	-----	35.3	26.7	24.8	4.9	2.8	5.5
	1912	9,751	57.5	30.1	7.9	23.8	36.8	-----	(1)	1.4
88 establishments.....	1912	9,775	57.5	30.0	7.8	23.8	37.0	-----	(1)	1.4
	1913	9,316	57.7	27.3	6.5	23.6	41.7	-----	(1)	.8
Weavers, female:										
36 establishments.....	1907	3,724	59.5	-----	-----	60.9	21.7	4.6	5.0	7.8
	1908	3,903	59.0	-----	-----	63.4	30.7	.8	.7	4.4
	1909	3,930	59.1	-----	-----	60.1	34.2	-----	.9	4.8
	1910	3,905	57.6	-----	52.9	26.9	16.0	-----	.9	3.2
59 establishments.....	1910	6,334	57.8	-----	50.7	26.5	13.4	3.0	2.1	4.4
	1911	6,242	57.8	-----	51.2	25.5	13.3	3.8	1.9	4.3
88 establishments.....	1911	10,792	57.9	-----	39.1	41.2	13.2	2.2	1.4	3.0
	1912	10,980	56.9	35.4	5.7	40.7	17.2	-----	.2	.8
88 establishments.....	1912	10,998	56.9	35.4	5.7	40.6	17.3	-----	.2	.8
	1913	11,105	56.8	37.9	5.1	39.2	16.9	-----	.3	.6

¹ Less than one-tenth of 1 per cent.

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913.

COTTON-GOODS MANUFACTURING—Continued.

CARD STRIPPERS: Male.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
1912.										
Alabama.....	7	21	62.4	-----	-----	-----	12	-----	1	8
Connecticut.....	2	22	58.0	-----	-----	22	-----	-----	-----	-----
Georgia.....	13	69	60.0	-----	-----	-----	69	-----	-----	-----
Maine.....	5	51	58.0	-----	-----	51	-----	-----	-----	-----
Massachusetts.....	18	279	54.0	279	-----	-----	-----	-----	-----	-----
New Hampshire.....	5	175	58.0	-----	-----	175	-----	-----	-----	-----
North Carolina.....	12	40	60.0	-----	-----	-----	40	-----	-----	-----
Rhode Island.....	3	37	56.0	-----	37	-----	-----	-----	-----	-----
South Carolina.....	21	102	60.0	-----	-----	-----	102	-----	-----	-----
Other States.....	2	8	55.5	5	-----	3	-----	-----	-----	-----
Total.....	88	804	57.1	284	37	251	223	-----	1	8

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

CARD STRIPPERS: Male—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
1913.										
Alabama.....	7	21	61.9				14		1	6
Connecticut.....	2	21	58.0			21				
Georgia.....	13	68	60.0				68			
Maine.....	5	53	58.0			53				
Massachusetts.....	18	283	54.0	283						
New Hampshire.....	5	207	58.0			207				
North Carolina.....	12	38	60.0				38			
Rhode Island.....	3	37	56.0		37					
South Carolina.....	21	109	60.0				109			
Other States.....	2	8	55.5	5		3				
Total.....	88	845	57.2	288	37	284	229		1	6

DRAWING TENDERS: Male.

1912.										
Alabama.....	5	36	62.3				20		4	12
Georgia.....	13	91	60.0				91			
Maine.....	5	35	58.0			35				
Massachusetts.....	16	190	54.0	190						
New Hampshire.....	4	67	58.0			67				
North Carolina.....	12	90	60.0				90			
Rhode Island.....	3	39	56.0		39					
South Carolina.....	21	151	60.0				151			
Other States.....	3	28	57.3	5		23				
Total.....	82	727	57.9	195	39	125	352		4	12
1913.										
Alabama.....	5	29	61.0				22		4	3
Georgia.....	13	86	60.0				86			
Maine.....	5	34	58.0			34				
Massachusetts.....	16	159	54.0	159						
New Hampshire.....	4	23	58.0			23				
North Carolina.....	12	82	60.0				82			
Rhode Island.....	3	37	56.0		37					
South Carolina.....	21	151	60.0				151			
Other States.....	3	23	57.1	5		18				
Total.....	82	624	58.0	164	37	75	341		4	3

DRAWING TENDERS: Female.

1912.										
Alabama.....	6	40	62.0				27			13
Georgia.....	9	53	60.0				53			
Maine.....	4	45	58.0			45				
Massachusetts.....	15	190	54.0	190						
New Hampshire.....	5	177	58.0			177				
Other States.....	6	20	57.3		9	9	2			
Total.....	45	525	57.0	190	9	231	82			13
1913.										
Alabama.....	6	30	60.0				30			
Georgia.....	9	62	60.0				62			
Maine.....	4	51	58.0			51				
Massachusetts.....	15	220	54.0	220						
New Hampshire.....	5	204	58.0			204				
Other States.....	6	27	57.4	1	11	10	5			
Total.....	45	594	56.8	221	11	265	97			

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

FINE SPEEDERS: Male.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66
1912.									
Alabama.....	6	54	62.6				31		23
Georgia.....	12	112	60.0				112		
North Carolina.....	12	123	60.0				123		
South Carolina.....	21	329	60.0				329		
Other States.....	10	62	54.8	50		12			
Total.....	61	680	59.7	50		12	595		23
1913.									
Alabama.....	6	57	61.2				46		11
Georgia.....	12	167	60.0				167		
North Carolina.....	12	120	60.0				120		
South Carolina.....	21	358	60.0				358		
Other States.....	10	43	54.4	39		4			
Total.....	61	745	59.8	39		4	691		11

FINE SPEEDERS: Female.

1912.									
Alabama.....	7	80	62.4				45	5	30
Connecticut.....	2	38	58.0			38			
Georgia.....	12	115	60.0				115		
Maine.....	5	133	58.0			133			
Massachusetts.....	18	755	54.0	755					
New Hampshire.....	5	332	58.0			332			
North Carolina.....	7	43	60.0				43		
Rhode Island.....	3	106	56.0		106				
South Carolina.....	19	132	60.0				132		
Other States.....	2	57	56.0	29	28				
Total.....	80	1,791	56.7	784	134	503	335	5	30
1913.									
Alabama.....	7	77	61.7				52	6	19
Connecticut.....	2	39	58.0			39			
Georgia.....	12	130	60.0				130		
Maine.....	5	173	58.0			173			
Massachusetts.....	18	773	54.0	773					
New Hampshire.....	5	364	58.0			364			
North Carolina.....	7	44	60.0				44		
Rhode Island.....	3	95	56.0		95				
South Carolina.....	19	117	60.0				117		
Other States.....	2	43	56.0	22	21				
Total.....	80	1,855	56.7	795	95	597	343	6	19

LOOM FIXERS: Male.

1912.									
Alabama.....	7	133	62.3				80	4	49
Connecticut.....	2	25	58.0			25			
Georgia.....	13	201	60.0				201		
Maine.....	5	132	58.0			132			
Massachusetts.....	18	558	54.0	558					
New Hampshire.....	5	529	58.0			529			
North Carolina.....	12	128	60.0				128		
Rhode Island.....	3	191	56.0		191				
South Carolina.....	21	370	60.0				370		
Other States.....	2	23	56.6	8		15			
Total.....	88	2,290	57.7	566	191	701	779	4	49

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

LOOM FIXERS: Male—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
1913.										
Alabama.....	7	137	61.7				97		4	36
Connecticut.....	2	26	58.0			26				
Georgia.....	13	211	60.0				211			
Maine.....	5	141	58.0			141				
Massachusetts.....	18	595	54.0	595						
New Hampshire.....	5	513	58.0			513				
North Carolina.....	12	125	60.0				125			
Rhode Island.....	3	178	56.0		178					
South Carolina.....	21	378	60.0				378			
Other States.....	2	17	56.8	5		12				
Total.....	88	2,321	57.6	600	178	692	811		4	36

SLASHERS: Male.

1912.										
Alabama.....	7	18	61.8				12		1	5
Georgia.....	13	45	60.0				45			
Maine.....	5	30	58.0			30				
Massachusetts.....	17	138	54.0	138						
New Hampshire.....	5	111	58.0			111				
North Carolina.....	10	33	60.0				33			
South Carolina.....	21	43	60.0				43			
Other States.....	7	31	56.6	2	17	12				
Total.....	85	449	57.4	140	17	153	133		1	5
1913.										
Alabama.....	7	20	61.2				15		2	3
Georgia.....	13	61	60.0				61			
Maine.....	5	29	58.0			29				
Massachusetts.....	17	130	54.0	130						
New Hampshire.....	5	113	58.0			113				
North Carolina.....	10	33	60.0				33			
South Carolina.....	21	57	60.0				57			
Other States.....	7	29	56.7	2	15	12				
Total.....	85	472	57.6	132	15	154	166		2	3

SPINNERS, FRAME: Male.

1912.										
Massachusetts.....	14	237	54.0	237						
New Hampshire.....	5	228	58.0			228				
South Carolina.....	13	39	60.0				39			
Other States.....	17	60	59.9			41	6			13
Total.....	49	564	56.7	237		269	45			13
1913.										
Massachusetts.....	14	203	54.0	203						
New Hampshire.....	5	177	58.0			177				
South Carolina.....	13	100	60.0				100			
Other States.....	17	50	58.8	1	17	9	18			5
Total.....	49	530	56.9	204	17	186	118			5

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

SPINNERS, FRAME: Female.

Year and State.	Number of establishments.	Number of employ-ees.	Aver- age full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
1912.										
Alabama.....	7	468	62.6				251		23	134
Connecticut.....	2	77	58.0			77				
Georgia.....	13	701	60.0				701			
Maine.....	5	351	58.0			351				
Massachusetts.....	18	1,668	54.0	1,668						
New Hampshire.....	5	1,184	58.0			1,184				
North Carolina.....	12	426	60.0				426			
Rhode Island.....	3	192	56.0		192					
South Carolina.....	21	1,222	60.0				1,222			
Other States.....	2	75	56.9	20		55				
Total.....	88	6,364	58.0	1,685	192	1,667	2,600		23	194
1913.										
Alabama.....	7	374	61.8				250		19	105
Connecticut.....	2	93	58.0			93				
Georgia.....	13	788	60.0				788			
Maine.....	5	368	58.0			368				
Massachusetts.....	18	1,714	54.0	1,714						
New Hampshire.....	5	1,208	58.0			1,208				
North Carolina.....	12	437	60.0				437			
Rhode Island.....	3	193	56.0		193					
South Carolina.....	21	1,288	60.0				1,288			
Other States.....	2	98	57.0	25		73				
Total.....	88	6,561	57.9	1,739	193	1,742	2,763		19	10

SPINNERS, MULE: Male.

1912.										
Maine.....	3	49	58.0				49			
Massachusetts.....	6	111	54.0	111						
New Hampshire.....	2	20	58.0				20			
Rhode Island.....	3	64	56.0		64					
Other States.....	2	22	56.7	7		15				
Total.....	16	266	55.7	118	64	84				
1913.										
Maine.....	3	40	58.0			40				
Massachusetts.....	6	117	54.0	117						
New Hampshire.....	2	21	58.0			21				
Rhode Island.....	3	60	56.0		60					
Other States.....	2	20	57.0	5		15				
Total.....	16	258	55.6	122	60	76				

TRIMMERS OR INSPECTORS: Female.

1912.										
Alabama.....	6	36	61.2				19			17
Georgia.....	9	62	60.0				62			
Maine.....	5	88	58.0			88				
Massachusetts.....	17	198	54.0	198						
New Hampshire.....	4	94	58.0			94				

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

TRIMMERS OR INSPECTORS: Female—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66
1912.									
North Carolina.....	9	31	60.0				31		
Rhode Island.....	3	22	56.0		22				
South Carolina.....	20	159	60.0				159		
Other States.....	4	18	56.7	6		12			
Total.....	77	708	57.7	204	22	194	271		17
1913.									
Alabama.....	6	56	62.4				31		20
Georgia.....	9	61	60.0				61		
Maine.....	5	85	58.0			85			
Massachusetts.....	17	178	54.0	178					
New Hampshire.....	4	77	58.0			77			
North Carolina.....	9	26	60.0				26		
Rhode Island.....	3	31	56.0		31				
South Carolina.....	20	152	60.0				152		
Other States.....	4	21	56.7	7		14			
Total.....	77	687	57.9	185	31	176	270	5	20

WEAVERS: Male.

1912.									
Alabama.....	7	388	62.1				252		134
Connecticut.....	2	97	58.0			97			
Georgia.....	13	768	60.0				768		
Maine.....	5	384	58.0			384			
Massachusetts.....	18	2,903	54.0	2,903					
New Hampshire.....	5	1,825	58.0			1,825			
North Carolina.....	12	855	60.0				855		
Rhode Island.....	3	766	56.0		766				
South Carolina.....	21	1,739	60.0				1,739		
Other States.....	2	50	55.3	34		16			
Total.....	88	9,775	57.5	2,937	766	2,322	3,614	2	134
1913.									
Alabama.....	7	343	61.4				262		78
Connecticut.....	2	69	58.0			69			
Georgia.....	13	850	60.0				850		
Maine.....	5	349	58.0			349			
Massachusetts.....	18	2,512	54.0	2,512					
New Hampshire.....	5	1,762	58.0			1,762			
North Carolina.....	12	801	60.0				801		
Rhode Island.....	3	607	56.0		607				
South Carolina.....	21	1,976	60.0				1,976		
Other States.....	2	47	55.7	27		20			
Total.....	88	9,316	57.7	2,539	607	2,200	3,889	3	78

WEAVERS: Female.

1912.									
Alabama.....	7	279	62.1				169		86
Connecticut.....	2	133	58.0			133			
Georgia.....	13	583	60.0				583		
Maine.....	5	739	58.0			739			
Massachusetts.....	18	3,813	54.0	3,813					

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

WEAVERS: Female—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66
1912,									
New Hampshire.....	5	3,408	58.0			3,408			
North Carolina.....	12	410	60.0				410		
Rhode Island.....	3	626	56.0		626				
South Carolina.....	21	746	60.0				746		
Other States.....	2	261	56.8	77		184			
Total.....	88	10,998	56.9	3,890	626	4,464	1,908		24
1913.									
Alabama.....	7	320	61.5				224		34
Connecticut.....	2	134	58.0			134			
Georgia.....	13	556	60.0				556		
Maine.....	5	782	58.0			782			
Massachusetts.....	18	4,123	54.0	4,123					
New Hampshire.....	5	3,275	58.0			3,275			
North Carolina.....	12	378	60.0				378		
Rhode Island.....	3	571	56.0		571				
South Carolina.....	21	719	60.0				719		
Other States.....	2	247	56.7	83		164			
Total.....	88	11,105	56.8	4,206	571	4,355	1,877		34

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913.

COTTON-GOODS MANUFACTURING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

CARD STRIPPERS: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Alabama:										
7 establishments.....	{ 1912	21	62.4				12		1	8
	{ 1913	21	61.9				14		1	6
Connecticut:										
2 establishments.....	{ 1912	22	58.0			22				
	{ 1913	21	58.0			21				
Georgia:										
13 establishments.....	{ 1912	69	60.0				69			
	{ 1913	68	60.0				68			
Maine:										
5 establishments.....	{ 1912	51	58.0			51				
	{ 1913	53	58.0			53				
Massachusetts:										
18 establishments.....	{ 1912	279	54.0	279						
	{ 1913	283	54.0	283						
New Hampshire:										
5 establishments.....	{ 1912	175	58.0			175				
	{ 1913	207	58.0			207				
North Carolina:										
12 establishments.....	{ 1912	40	60.0				40			
	{ 1913	38	60.0				38			
Rhode Island:										
3 establishments.....	{ 1912	37	56.0		37					
	{ 1913	37	56.0		37					
South Carolina:										
21 establishments.....	{ 1912	102	60.0				102			
	{ 1913	109	60.0				109			

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Contd.

COTTON-GOODS MANUFACTURING—Continued.

DRAWING TENDERS: Male.

State, and number of establishments.	Year.	Number of employ-ees.	Aver- age full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Alabama:										
5 establishments	{ 1912	36	62.3				20		4	12
	{ 1913	29	61.0				22		4	3
Georgia:										
13 establishments	{ 1912	91	60.0				91			
	{ 1913	86	60.0				86			
Maine:										
5 establishments	{ 1912	35	58.0			35				
	{ 1913	34	58.0			34				
Massachusetts:										
16 establishments	{ 1912	190	54.0	190						
	{ 1913	159	54.0	159						
New Hampshire:										
4 establishments	{ 1912	67	58.0			67				
	{ 1913	23	58.0			23				
North Carolina:										
12 establishments	{ 1912	90	60.0				90			
	{ 1913	82	60.0				82			
Rhode Island:										
3 establishments	{ 1912	39	56.0		39					
	{ 1913	37	56.0		37					
South Carolina:										
21 establishments	{ 1912	151	60.0				151			
	{ 1913	151	60.0				151			

DRAWING TENDERS: Female.

Alabama:										
6 establishments	{ 1912	40	62.0				27			13
	{ 1913	30	60.0				30			
Georgia:										
9 establishments	{ 1912	53	60.0				53			
	{ 1913	62	60.0				62			
Maine:										
4 establishments	{ 1912	45	58.0			45				
	{ 1913	51	58.0			51				
Massachusetts:										
15 establishments	{ 1912	190	54.0	190						
	{ 1913	220	54.0	220						
New Hampshire:										
5 establishments	{ 1912	177	58.0			177				
	{ 1913	204	58.0			204				

FINE SPEEDERS: Male.

Alabama:										
6 establishments	{ 1912	54	62.6				31			23
	{ 1913	57	61.2				46			11
Georgia:										
12 establishments	{ 1912	112	60.0				112			
	{ 1913	167	60.0				167			
North Carolina:										
12 establishments	{ 1912	123	60.0				123			
	{ 1913	120	60.0				120			
South Carolina:										
21 establishments	{ 1912	329	60.0				329			
	{ 1913	358	60.0				358			

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Contd.

COTTON-GOODS MANUFACTURING—Continued.

FINE SPEEDERS: Female.

State and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Alabama:										
7 establishments.....	1912	80	62.4				45		5	30
	1913	77	61.7				52		6	19
Connecticut:										
2 establishments.....	1912	38	58.0			38				
	1913	39	58.0			39				
Georgia:										
12 establishments.....	1912	115	60.0				115			
	1913	130	60.0				130			
Maine:										
5 establishments.....	1912	133	58.0			133				
	1913	173	58.0			173				
Massachusetts:										
18 establishments.....	1912	755	54.0	755						
	1913	773	54.0	773						
New Hampshire:										
5 establishments.....	1912	332	58.0			332				
	1913	364	58.0			364				
North Carolina:										
7 establishments.....	1912	43	60.0				43			
	1913	44	60.0				44			
Rhode Island:										
3 establishments.....	1912	106	56.0		106					
	1913	95	56.0		95					
South Carolina:										
19 establishments.....	1912	132	60.0				132			
	1913	117	60.0				117			

LOOM FIXERS: Male.

Alabama:										
7 establishments.....	1912	133	62.3				80		4	49
	1913	137	61.7				97		4	36
Connecticut:										
2 establishments.....	1912	25	58.0			25				
	1913	26	58.0			26				
Georgia:										
13 establishments.....	1912	201	60.0				201			
	1913	211	60.0				211			
Maine:										
5 establishments.....	1912	132	58.0			132				
	1913	141	58.0			141				
Massachusetts:										
18 establishments.....	1912	558	54.0	558						
	1913	595	54.0	595						
New Hampshire:										
5 establishments.....	1912	529	58.0			529				
	1913	513	58.0			513				
North Carolina:										
12 establishments.....	1912	128	60.0				128			
	1913	125	60.0				125			
Rhode Island:										
3 establishments.....	1912	191	56.0		191					
	1913	178	56.0		178					
South Carolina:										
21 establishments.....	1912	370	60.0				370			
	1913	378	60.0				378			

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Contd.

COTTON-GOODS MANUFACTURING—Continued.

SLASHERS: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Alabama:										
7 establishments.....	1912	18	61.8				12		1	5
	1913	20	61.2				15		2	3
Georgia:										
13 establishments.....	1912	45	60.0				45			
	1913	61	60.0				61			
Maine:										
5 establishments.....	1912	30	58.0			30				
	1913	29	58.0			29				
Massachusetts:										
17 establishments.....	1912	138	54.0	138						
	1913	130	54.0	130						
New Hampshire:										
5 establishments.....	1912	111	58.0			111				
	1913	113	58.0			113				
North Carolina:										
10 establishments.....	1912	33	60.0				33			
	1913	33	60.0				33			
South Carolina:										
21 establishments.....	1912	43	60.0				43			
	1913	57	60.0				57			

SPINNERS, FRAME: Male.

Massachusetts:										
14 establishments.....	1912	237	54.0	237						
	1913	203	54.0	203						
New Hampshire:										
5 establishments.....	1912	228	58.0			228				
	1913	177	58.0			177				
South Carolina:										
13 establishments.....	1912	39	60.0				39			
	1913	100	60.0				100			

SPINNERS, FRAME: Female.

Alabama:										
7 establishments.....	1912	468	62.6				251		23	194
	1913	374	61.8				250		19	195
Connecticut:										
2 establishments.....	1912	77	58.0			77				
	1913	93	58.0			93				
Georgia:										
13 establishments.....	1912	701	60.0				701			
	1913	788	60.0				788			
Maine:										
5 establishments.....	1912	351	58.0			351				
	1913	368	58.0			368				
Massachusetts:										
18 establishments.....	1912	1,668	54.0	1,668						
	1913	1,714	54.0	1,714						
New Hampshire:										
5 establishments.....	1912	1,184	58.0			1,184				
	1913	1,208	58.0			1,208				
North Carolina:										
12 establishments.....	1912	426	60.0				426			
	1913	437	60.0				437			
Rhode Island:										
3 establishments.....	1912	192	56.0			192				
	1913	193	56.0			193				
South Carolina:										
21 establishments.....	1912	1,222	60.0				1,222			
	1913	1,288	60.0				1,288			

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Contd.

COTTON-GOODS MANUFACTURING—Continued.
SPINNERS, MULE: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
Maine:										
3 establishments.....	{ 1912	49	58.0			49				
	{ 1913	40	58.0			40				
Massachusetts:										
6 establishments.....	{ 1912	111	54.0	111						
	{ 1913	117	54.0	117						
New Hampshire:										
2 establishments.....	{ 1912	20	58.0			20				
	{ 1913	21	58.0			21				
Rhode Island:										
3 establishments.....	{ 1912	64	56.0		64					
	{ 1913	60	56.0		60					

TRIMMERS OR INSPECTORS: Female.

Alabama:										
6 establishments.....	{ 1912	36	61.2				19			17
	{ 1913	56	62.4				31		5	20
Georgia:										
9 establishments.....	{ 1912	62	60.0				62			
	{ 1913	61	60.0				61			
Maine:										
5 establishments.....	{ 1912	88	58.0			88				
	{ 1913	85	58.0			85				
Massachusetts:										
17 establishments.....	{ 1912	198	54.0	198						
	{ 1913	178	54.0	178						
New Hampshire:										
4 establishments.....	{ 1912	94	58.0			94				
	{ 1913	77	58.0			77				
North Carolina:										
9 establishments.....	{ 1912	31	60.0				31			
	{ 1913	26	60.0				26			
Rhode Island:										
3 establishments.....	{ 1912	22	56.0		22					
	{ 1913	31	56.0		31					
South Carolina:										
20 establishments.....	{ 1912	159	60.0				159			
	{ 1913	152	60.0				152			

WEAVERS: Male.

Alabama:										
7 establishments.....	{ 1912	388	62.1				252		2	134
	{ 1913	343	61.4				262		3	78
Connecticut:										
2 establishments.....	{ 1912	97	58.0			97				
	{ 1913	69	58.0			69				
Georgia:										
13 establishments.....	{ 1912	768	60.0				768			
	{ 1913	850	60.0				850			
Maine:										
5 establishments.....	{ 1912	384	58.0			384				
	{ 1913	349	58.0			349				
Massachusetts:										
18 establishments.....	{ 1912	2,903	54.0	2,903						
	{ 1913	2,512	54.0	2,512						
New Hampshire:										
5 establishments.....	{ 1912	1,825	58.0			1,825				
	{ 1913	1,762	58.0			1,762				

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Concl'd.

COTTON-GOODS MANUFACTURING—Continued.

WEAVERS: Male—Concluded.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63	63 and under 66	66
North Carolina: 12 establishments.....	{ 1912 1913	855 801	60.0 60.0				855 801			
Rhode Island: 3 establishments.....	{ 1912 1913	766 607	56.0 56.0		766 607					
South Carolina: 21 establishments.....	{ 1912 1913	1,739 1,976	60.0 60.0				1,739 1,976			

WEAVERS: Female.

Alabama: 7 establishments.....	{ 1912 1913	279 320	62.1 61.5				169 224		24 34	86 62
Connecticut: 2 establishments.....	{ 1912 1913	133 134	58.0 58.0			133 134				
Georgia: 13 establishments.....	{ 1912 1913	583 556	60.0 60.0				583 556			
Maine: 5 establishments.....	{ 1912 1913	739 782	58.0 58.0			739 782				
Massachusetts: 18 establishments.....	{ 1912 1913	3,813 4,123	54.0 54.0	3,813 4,123						
New Hampshire: 5 establishments.....	{ 1912 1913	3,408 3,275	58.0 58.0			3,408 3,275				
North Carolina: 12 establishments.....	{ 1912 1913	410 378	60.0 60.0				410 378			
Rhode Island: 3 establishments.....	{ 1912 1913	626 571	56.0 56.0		626 571					
South Carolina: 21 establishments.....	{ 1912 1913	746 719	60.0 60.0				746 719			

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913.

COTTON-GOODS MANUFACTURING—Continued.

CARD STRIPPERS: Male.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Alabama.....	7	21	62.4	\$6.58	21	61.9	\$6.59
Connecticut.....	2	22	58.0	8.00	21	58.0	8.03
Georgia.....	13	69	60.0	7.10	68	60.0	7.07
Maine.....	5	51	58.0	7.61	53	58.0	7.72
Massachusetts.....	18	279	54.0	7.76	283	54.0	8.04
New Hampshire.....	5	175	58.0	8.30	207	58.0	8.38
North Carolina.....	12	40	60.0	6.49	38	60.0	7.03
Rhode Island.....	3	37	56.0	8.36	37	56.0	8.37
South Carolina.....	21	102	60.0	6.69	109	60.0	6.99
Other States.....	2	8	55.5	7.59	8	55.5	8.46
Total.....	88	804	57.1	7.62	845	57.2	7.83

DRAWING TENDERS: Male.

Alabama.....	5	36	62.3	\$5.42	29	61.0	\$5.31
Georgia.....	13	91	60.0	5.86	86	60.0	6.01
Maine.....	5	35	58.0	6.43	34	58.0	6.31
Massachusetts.....	16	190	54.0	6.72	159	54.0	6.84
New Hampshire.....	4	67	58.0	7.17	23	58.0	7.98
North Carolina.....	12	90	60.0	5.88	82	60.0	5.96
Rhode Island.....	3	39	56.0	7.03	37	56.0	7.28
South Carolina.....	21	151	60.0	5.41	151	60.0	5.72
Other States.....	3	28	57.3	6.35	23	57.1	6.74
Total.....	82	727	57.9	6.20	624	58.0	6.31

DRAWING TENDERS: Female.

Alabama.....	6	40	62.0	\$4.98	30	60.0	\$5.13
Georgia.....	9	53	60.0	6.20	62	60.0	6.42
Maine.....	4	45	58.0	5.79	51	58.0	6.04
Massachusetts.....	15	190	54.0	6.29	220	54.0	6.33
New Hampshire.....	5	177	58.0	6.54	204	58.0	7.00
Other States.....	6	20	57.3	6.35	27	57.4	6.30
Total.....	45	525	57.0	6.23	594	56.8	6.48

FINE SPEEDERS: Male.

Alabama.....	6	54	62.6	\$7.58	57	61.2	\$7.82
Georgia.....	12	112	60.0	8.55	167	60.0	8.53
North Carolina.....	12	123	60.0	8.80	120	60.0	9.01
South Carolina.....	21	329	60.0	8.63	358	60.0	8.73
Other States.....	10	62	54.8	8.21	43	54.4	8.38
Total.....	61	680	59.7	8.52	745	59.8	8.72

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

FINE SPEEDERS: Female.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Alabama.....	7	80	62.4	\$6.78	77	61.7	\$7.45
Connecticut.....	2	38	58.0	8.31	39	58.0	7.77
Georgia.....	12	115	60.0	7.70	130	60.0	7.59
Maine.....	5	133	58.0	8.75	173	58.0	9.00
Massachusetts.....	18	755	54.0	8.42	773	54.0	8.75
New Hampshire.....	5	332	58.0	9.22	364	58.0	9.23
North Carolina.....	7	43	60.0	6.99	44	60.0	7.43
Rhode Island.....	3	106	56.0	9.08	95	56.0	9.26
South Carolina.....	19	132	60.0	7.73	117	60.0	7.66
Other States.....	2	57	56.0	6.91	43	56.0	8.00
Total.....	80	1,791	56.7	8.38	1,855	56.7	8.55

LOOM FIXERS: Male.

Alabama.....	7	133	62.3	\$10.83	137	61.7	\$10.90
Connecticut.....	2	25	58.0	14.30	26	58.0	14.17
Georgia.....	13	201	60.0	10.50	211	60.0	10.96
Maine.....	5	132	58.0	10.57	141	58.0	13.96
Massachusetts.....	18	558	54.0	14.00	595	54.0	14.09
New Hampshire.....	5	529	58.0	14.41	513	58.0	14.41
North Carolina.....	12	128	60.0	10.08	125	60.0	10.17
Rhode Island.....	3	191	56.0	14.85	178	56.0	14.91
South Carolina.....	21	370	60.0	10.40	378	60.0	10.54
Other States.....	2	23	56.6	10.42	17	56.8	11.29
Total.....	88	2,290	57.7	12.84	2,321	57.6	12.93

SLASHERS: Male.

Alabama.....	7	18	61.8	\$8.95	20	61.2	\$8.79
Georgia.....	13	45	60.0	9.21	61	60.0	8.76
Maine.....	5	30	58.0	11.96	29	58.0	11.91
Massachusetts.....	17	138	54.0	12.39	130	54.0	12.66
New Hampshire.....	5	111	58.0	16.43	113	58.0	16.71
North Carolina.....	10	33	60.0	8.49	33	60.0	9.04
South Carolina.....	21	43	60.0	9.18	57	60.0	8.26
Other States.....	7	31	56.6	12.83	29	56.7	12.51
Total.....	85	449	57.4	12.34	472	57.6	12.12

SPINNERS, FRAME: Male.

Massachusetts.....	14	237	54.0	\$8.40	203	54.0	\$8.24
New Hampshire.....	5	228	58.0	8.51	177	58.0	8.83
South Carolina.....	13	39	60.0	6.78	100	60.0	6.60
Other States.....	17	60	59.9	6.61	50	58.8	7.70
Total.....	49	564	56.7	8.14	530	56.9	8.07

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS MANUFACTURING—Continued.

SPINNERS, FRAME: Female.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Alabama.....	7	468	62.6	\$6.23	374	61.8	\$5.97
Connecticut.....	2	77	58.0	8.37	93	58.0	7.99
Georgia.....	13	701	60.0	6.43	788	60.0	6.21
Maine.....	5	351	58.0	7.72	368	58.0	8.19
Massachusetts.....	18	1,668	54.0	7.87	1,714	54.0	8.05
New Hampshire.....	5	1,184	58.0	8.33	1,208	58.0	8.57
North Carolina.....	12	426	60.0	5.71	437	60.0	6.06
Rhode Island.....	3	192	56.0	6.76	193	56.0	8.06
South Carolina.....	21	1,222	60.0	6.09	1,288	60.0	6.14
Other States.....	2	75	56.9	6.60	98	57.0	6.87
Total.....	88	6,364	58.0	6.98	6,561	57.9	7.29

SPINNERS, MULE: Male.

Maine.....	3	49	58.0	\$14.56	40	58.0	\$14.34
Massachusetts.....	6	111	54.0	18.32	117	54.0	18.10
New Hampshire.....	2	20	58.0	14.51	21	58.0	14.74
Rhode Island.....	3	64	56.0	12.95	60	56.0	13.21
Other States.....	2	22	56.7	11.43	20	57.0	11.36
Total.....	16	266	55.7	15.48	258	55.6	15.58

TRIMMERS OR INSPECTORS: Female.

Alabama.....	6	36	61.2	\$5.77	56	62.4	\$6.15
Georgia.....	9	62	60.0	5.71	61	60.0	6.19
Maine.....	5	88	58.0	6.50	85	58.0	6.14
Massachusetts.....	17	198	54.0	6.77	178	54.0	6.90
New Hampshire.....	4	94	58.0	8.20	77	58.0	8.19
North Carolina.....	9	31	60.0	5.64	26	60.0	5.81
Rhode Island.....	3	22	56.0	9.11	31	56.0	7.53
South Carolina.....	20	159	60.0	4.99	152	60.0	5.03
Other States.....	4	18	56.7	6.78	21	56.7	6.68
Total.....	77	708	57.7	6.41	687	57.9	6.39

WEAVERS: Male.

Alabama.....	7	388	62.1	\$8.75	343	61.4	\$8.80
Connecticut.....	2	97	58.0	10.59	69	58.0	10.82
Georgia.....	13	768	60.0	8.59	850	60.0	8.71
Maine.....	5	384	58.0	11.41	349	58.0	11.54
Massachusetts.....	18	2,903	54.0	9.70	2,512	54.0	9.82
New Hampshire.....	5	1,825	58.0	11.03	1,762	58.0	11.08
North Carolina.....	12	855	60.0	8.63	801	60.0	8.79
Rhode Island.....	3	766	56.0	10.74	607	56.0	10.94
South Carolina.....	21	1,739	60.0	8.40	1,976	60.0	8.58
Other States.....	2	50	55.3	9.60	47	55.7	9.63
Total.....	88	9,775	57.5	9.52	9,316	57.7	9.71

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Concluded.

COTTON-GOODS MANUFACTURING—Concluded.

WEAVERS: Female.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Alabama.....	7	279	62.1	\$7.72	320	61.5	\$7.86
Connecticut.....	2	133	58.0	8.58	134	58.0	8.07
Georgia.....	13	583	60.0	7.83	556	60.0	7.97
Maine.....	5	739	58.0	9.44	782	58.0	9.68
Massachusetts.....	18	3,813	54.0	9.01	4,123	54.0	8.93
New Hampshire.....	5	3,408	58.0	10.43	3,275	58.0	10.42
North Carolina.....	12	410	60.0	7.83	378	60.0	8.05
Rhode Island.....	3	626	56.0	9.55	571	56.0	9.70
South Carolina.....	21	746	60.0	7.63	719	60.0	7.78
Other States.....	2	261	56.8	8.29	247	56.7	8.90
Total.....	88	10,998	56.9	9.26	11,105	56.8	9.29

TABLE VIII.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1911 TO 1913.

COTTON-GOODS FINISHING.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.													
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.		
					Calendriers, male:													
20 establishments..	{1911	412	57.9	\$0.1487		17	79	213	100	2	1							
	{1912	409	57.8	.1513		28	58	180	128	12	3							
20 establishments..	{1912	422	58.1	.1502		29	65	195	124	5	4							
	{1913	395	57.8	.1530			60	204	114	15	2							
Engravers, male:																		
12 establishments..	{1911	179	55.8	.4790										9	114	54	2	
	{1912	166	55.4	.4834										6	94	64	2	
11 establishments..	{1912	123	55.8	.4882											1	78	42	2
	{1913	107	55.9	.4840										3	70	32	2	
Folders, male:																		
19 establishments..	{1911	268	57.4	.2300			2	28	13	46	94	58	27					
	{1912	277	57.2	.2464				28	7	27	65	108	36	4	2			
19 establishments..	{1912	276	57.7	.2433				28	7	26	82	91	36	4	2			
	{1913	250	57.1	.2501					11	12	95	99	33					
Knotters, female:																		
19 establishments..	{1911	281	56.9	.1158	72	131	23	18	32	4	1							
	{1912	296	56.1	.1212	67	109	57	16	35	6	4	2						
19 establishments..	{1912	300	56.5	.1212	50	134	53	16	35	6	4	2						
	{1913	274	55.9	.1176	40	125	59	26	23		1							
Laborers, bleach house, male:																		
19 establishments..	{1911	688	57.5	.1327	40	107	283	206	32	11	8	1						
	{1912	748	57.2	.1368	36	57	323	244	64	10	14							
19 establishments..	{1912	714	57.7	.1365	26	51	327	234	54	10	12							
	{1913	787	57.7	.1420	11	60	315	279	75	14	32	1						

TABLE VIII.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1911 TO 1913—Concluded.

COTTON-GOODS FINISHING—Continued.
NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.													
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.		
					Laborers, color mixing, male: 12 establishments..	{1911 1912}	263 270	57.7 57.4	\$.1464 .1473	1 3	79 72	140 152	33 32	7 9	3 2
12 establishments..	{1912 1913}	243 246	58.4 58.6	.1448 .1490	.....	3 1	84 62	130 139	16 28	8 12	2 4	.....	.....	.....	.....	.....	.....
Laborers, dyehouse, male: 30 establishments..	{1911 1912}	1,229 1,268	57.7 57.2	.1443 .1529	5 40	56 157	369 550	577 486	202 486	13 25	7 10	.....	.....	.....	.....	.....	.....
27 establishments..	{1912 1913}	1,179 1,120	57.4 57.4	.1538 .1530	3 27	24 210	160 408	497 443	465 443	22 25	11 4	.....	.....	.....	.....	.....	.....
Printers, male: 12 establishments..	{1911 1912}	156 164	56.9 56.7	.4890 .4867	.....	.....	.....	.....	.....	.....	.....	.....	15 18	5 9	13 13	123 121	.....
12 establishments..	{1912 1913}	137 133	57.4 57.1	.4720 .4695	.....	.....	.....	.....	.....	.....	.....	.....	4 17	18 8	9 11	22 11	88 93

PER CENT.

Calendriers, male: 20 establishments..	{1911 1912}	412 409	57.9 57.8	\$.1487 .1513	.....	4.1 6.8	19.2 14.2	51.7 44.0	24.3 31.3	0.5 2.9	0.2 .7	.....	.....	.....	.....	.....	.....
20 establishments..	{1912 1913}	422 395	58.1 57.8	.1502 .1530	.....	6.9 15.2	15.4 51.6	46.2 28.9	29.4 3.8	1.2 5	.9 5	.....	.....	.....	.....	.....	.....
Engravers, male: 12 establishments..	{1911 1912}	179 166	55.8 55.4	.4790 .4834	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.0 8.6	63.7 56.6	30.2 38.6	1.1 1.2
11 establishments..	{1912 1913}	123 107	55.8 55.9	.4882 .4840	8.6 2.8	63.4 65.4	34.1 29.9	1.6 1.9
Folders, male: 19 establishments..	{1911 1912}	268 277	57.4 57.2	.2300 .2464	.....	.....	7.0 10.1	4.9 2.5	17.2 9.7	35.1 39.0	21.6 13.0	10.1 1.4	.....	.....	.....	.....	.....
19 establishments..	{1912 1913}	276 250	57.7 57.1	.2433 .2501	.....	.....	10.1	2.5	9.4 4.4	29.7 4.8	33.6 38.0	13.0 39.6	1.4 13.2	.....	.....	.....	.....
Knotters, female: 19 establishments..	{1911 1912}	281 296	56.9 56.1	.1158 .1212	25.6 22.6	46.6 36.8	8.2 19.3	6.4 5.4	11.4 11.8	1.4 2.0	4 .7	.....	.....	.....	.....	.....	.....
19 establishments..	{1912 1913}	300 274	56.5 55.9	.1212 .1176	16.7 14.6	44.7 45.6	17.7 21.5	5.3 9.5	11.7 8.4	2.0	1.3.....	.7 .....	.....	.....	.....	.....	.....
Laborers, bleach house, male: 19 establishments..	{1911 1912}	688 748	57.5 57.2	.1327 .1368	5.8 4.8	15.6 7.6	41.1 43.2	29.9 32.6	4.7 8.6	1.6 1.3	1.2 1.9	.....	.....	.....	.....	.....	.....
19 establishments..	{1912 1913}	714 787	57.7 57.7	.1365 .1420	3.6 1.4	7.1 7.6	45.8 40.0	32.8 35.5	8.6 9.5	1.4 1.8	1.7 4.1	.....	.....	.....	.....	.....	.....
Laborers, color mixing, male: 12 establishments..	{1911 1912}	263 270	57.7 57.4	.1464 .1473	.....	.....	4.3 1.1	30.0 26.7	53.2 56.3	12.5 11.9	2.7 3.3	1.1 .7	.....	.....	.....	.....	.....
12 establishments..	{1912 1913}	243 246	58.4 58.6	.1448 .1490	.....	.....	1.2 4.25	34.6 25.5	53.5 56.5	6.6 11.4	3.3 4.9	.8 1.6	.....	.....	.....	.....	.....
Laborers, dyehouse, male: 30 establishments..	{1911 1912}	1,229 1,268	57.7 57.2	.1443 .1529	.....	4 3.2	4.6 12.4	30.0 43.4	46.9 38.3	16.4 2.0	1.1 .8	.6 .....	.....	.....	.....	.....	.....
27 establishments..	{1912 1913}	1,179 1,120	57.4 57.4	.1538 .1530	.....	.....	2.0 2.4	13.6 18.8	42.2 36.4	2.9 39.6	1.9 2.2	.9 4	.....	.....	.....	.....	.....
Printers, male: 12 establishments..	{1911 1912}	156 164	56.9 56.7	.4890 .4867	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.6 11.0	3.2 5.5	8.3 7.9	78.8 75.6
12 establishments..	{1912 1913}	137 133	57.4 57.1	.4720 .4695	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.0 12.8	6.6 6.0	16.1 8.3	64.2 69.9

TABLE IX.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913.

COTTON-GOODS FINISHING—Continued.

CALENDREERS: Male.

Year and State.	Number of establishments.	Number of employes.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.										
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.
1912.															
Connecticut.....	2	117	58.0	\$0.1419	28	18	38	31	1	1					
Massachusetts.....	4	55	57.6	.1370		36	18	1							
New Jersey.....	2	53	60.0	.1583		6	19	26	1	1					
Rhode Island.....	7	122	56.9	.1573		1	4	59	55	2	2				
Other States.....	5	75	59.1	.1555		1	1	61	11						
Total.....	20	422	58.1	.1502	29	65	195	124	5	4					
1913.															
Connecticut.....	2	116	58.0	.1478		24	63	29							
Massachusetts.....	4	50	57.4	.1375		29	21								
New Jersey.....	2	44	60.0	.1616			20	21	2	1					
Rhode Island.....	7	119	56.8	.1578		7	50	54	7	1					
Other States.....	5	66	58.2	.1597			50	10	6						
Total.....	20	395	57.8	.1530		60	204	114	15	2					

ENGRAVERS: Male.

1912.																
Connecticut.....	2	14	51.4	\$0.5302									5	7	2	
Massachusetts.....	3	70	58.0	.4722									61	9		
Rhode Island.....	4	22	55.0	.4731									1	11	10	
Other States.....	2	17	51.8	.5390										1	16	
Total.....	11	123	55.8	.4882									1	78	42	2
1913.																
Connecticut.....	2	15	51.2	.5174									1	5	7	2
Massachusetts.....	3	50	55.7	.4833										37	13	
Rhode Island.....	4	19	55.3	.4702									2	9	8	
Other States.....	2	23	58.2	.4749										19	4	
Total.....	11	107	55.9	.4840									3	70	32	2

FOLDERS: Male.

1912.															
Connecticut.....	2	18	60.0	\$0.1821			4	1	5	8					
Massachusetts.....	4	56	57.3	.2960						23	7	26			
New Jersey.....	2	18	60.0	.1930			2	3	6	7					
New York.....	2	39	60.0	.1919				3	13	23					
Rhode Island.....	6	110	56.0	.2693				2	21	71	10	4	2		
Other States.....	3	35	58.7	.1920			22			21	13				
Total.....	19	276	57.7	.2433			28	7	26	82	91	36	4	2	
1913.															
Connecticut.....	2	18	60.0	.1878				6		12					
Massachusetts.....	4	48	55.5	.2940						19	8	21			
New Jersey.....	2	19	60.0	.1987				2	9	8					
New York.....	2	34	57.7	.2070				1	1	32					
Rhode Island.....	6	102	56.0	.2710					1	11	78	12			
Other States.....	3	29	58.9	.2271				2	1	13	13				
Total.....	19	250	57.1	.2501				11	12	95	99	33			

TABLE IX.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS FINISHING—Continued.

KNOTTERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.										
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.
1912.															
Connecticut.....	2	18	58.0	\$0.1014	7	11									
Massachusetts.....	4	76	54.0	.1445			37	11	28						
New Jersey.....	2	14	60.0	.0953	8	6									
New York.....	2	39	60.0	.1089		35	4								
Rhode Island.....	6	118	55.7	.1206	35	54	5	5	7	6	4	2			
Other States.....	3	35	58.7	.1065		28	7								
Total.....	19	300	56.5	.1212	50	134	53	16	35	6	4	2			
1913.															
Connecticut.....	2	16	58.0	.1005	7	9									
Massachusetts.....	4	74	54.0	.1448			36	14	23		1				
New Jersey.....	2	15	60.0	.0853	15										
New York.....	2	32	54.0	.1175		21	11								
Rhode Island.....	6	95	55.7	.1102	18	57	8	12							
Other States.....	3	42	58.7	.1048		38	4								
Total.....	19	274	55.9	.1176	40	125	59	26	23		1				

LABORERS, BLEACH HOUSE: Male.

1912.															
Connecticut.....	2	95	60.0	\$0.1362		2	61	27	2		3				
Massachusetts.....	3	137	57.7	.1338	9	20	71	29	5	3					
New Jersey.....	2	52	60.0	.1400		6	22	8	15	1					
New York.....	2	43	60.0	.1312	12	1	8	15	7						
Rhode Island.....	7	309	56.0	.1381	5	22	114	129	24	6	9				
Other States.....	3	78	58.5	.1362			51	26	1						
Total.....	19	714	57.7	.1365	26	51	327	234	54	10	12				
1913.															
Connecticut.....	2	93	60.0	.1374		2	55	31	4		1				
Massachusetts.....	3	167	58.0	.1344	7	26	93	33	6	2					
New Jersey.....	2	61	60.0	.1384		1	39	4	15		2				
New York.....	2	68	58.3	.1808			21	1	14	7	25				
Rhode Island.....	7	306	56.0	.1406	4	20	84	156	32	5	4	1			
Other States.....	3	92	58.6	.1391		11	23	54	4						
Total.....	19	787	57.7	.1420	11	60	315	279	75	14	32	1			

LABORERS, COLOR MIXING: Male.

1912.															
Connecticut.....	2	41	60.0	\$0.1515			2	32	4	1	2				
Massachusetts.....	3	103	58.0	.1444			40	54	5	4					
Rhode Island.....	4	43	56.0	.1383		3	21	15	4						
Other States.....	3	56	60.0	.1457			21	29	3	3					
Total.....	12	243	58.4	.1448		3	84	130	16	8	2				
1913.															
Connecticut.....	2	48	60.0	.1544			3	36	6		3				
Massachusetts.....	3	106	58.0	.1473			33	55	13	5					
Rhode Island.....	4	36	56.0	.1459			14	15	5	1	1				
Other States.....	3	56	60.0	.1498		1	12	33	4	0					
Total.....	12	246	58.6	.1490		1	62	139	28	12	4				

TABLE IX.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

COTTON-GOODS FINISHING—Continued.

LABORERS, DYEHOUSE: Male.

Year and State.	Number of establishments.	Number of employes.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.										
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.
1912.															
Connecticut.....	3	98	59.6	\$0.1496			23	61	8	3	3				
Massachusetts.....	9	415	56.0	.1498			83	220	110	2					
New Hampshire.....	3	394	58.0	.1621			15	88	280	11					
New Jersey.....	2	42	60.0	.1630			6	4	31		1				
Rhode Island.....	5	155	56.7	.1528		2	15	99	27	6	6				
Other States.....	5	75	59.2	.1357		22	18	25	9		1				
Total.....	27	1,179	57.4	.1538		24	160	497	465	22	11				
1913.															
Connecticut.....	3	94	59.8	.1484			24	56	11	3					
Massachusetts.....	9	398	55.9	.1505			130	151	116		1				
New Hampshire.....	3	340	58.0	.1634			4	66	259	11					
New Jersey.....	2	42	60.0	.1615		2	5	3	31		1				
Rhode Island.....	5	167	56.9	.1464		3	1	30	107	16	8	2			
Other States.....	5	79	59.1	.1350		24	17	25	10	3					
Total.....	27	1,120	57.4	.1530	3	27	210	408	443	25	4				

PRINTERS: Male.

1912.														
Connecticut.....	2	20	55.0	\$0.5255										20
Massachusetts.....	3	62	58.0	.4291								18	9	2 33
Rhode Island.....	4	32	56.0	.5179										2 30
Other States.....	3	23	59.7	.4775										18 5
Total.....	12	137	57.4	.4720								18	9	22 88
1913.														
Connecticut.....	2	20	55.0	.5346										20
Massachusetts.....	3	62	58.0	.4164							4	17	8	1 32
Rhode Island.....	4	28	56.0	.5177										28
Other States.....	3	23	58.1	.4973										10 13
Total.....	12	133	57.1	.4695							4	17	8	11 93

TABLE X.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913.

COTTON-GOODS FINISHING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

CALENDERS: Male.

State, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.												
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
					Connecticut: 2 establishments... {1912 1913	117 116	58.0 58.0	\$0.1419 .1478		28	18	38	31	1	1		
Massachusetts: 4 establishments... {1912 1913	55 50	57.6 57.4	.1370 .1375			36	18	1									
New Jersey: 2 establishments... {1912 1913	53 44	60.0 60.0	.1583 .1616			6	19	26	1	1							
Rhode Island: 7 establishments... {1912 1913	122 119	56.9 56.8	.1573 .1578			4	59	55	2	2							

ENGRAVERS: Male.

Connecticut: 2 establishments... {1912 1913	14 15	51.4 51.2	\$0.5302 .5174														5 5	7 7	2 2
Massachusetts: 3 establishments... {1912 1913	70 50	58.0 55.7	.4722 .4833															61 37	9 13
Rhode Island: 4 establishments... {1912 1913	22 19	55.0 55.3	.4731 .4702														1 2	11 9	10 8

FOLDERS: Male.

Connecticut: 2 establishments... {1912 1913	18 18	60.0 60.0	\$0.1821 .1878				4	1	5	8									
Massachusetts: 4 establishments... {1912 1913	56 48	57.3 55.5	.2960 .2940							23	7	26							
New Jersey: 2 establishments... {1912 1913	18 19	60.0 60.0	.1930 .1987				2	3	6	7									
New York: 2 establishments... {1912 1913	39 34	60.0 54.7	.1919 .2070					3	13	32									
Rhode Island: 6 establishments... {1912 1913	110 102	56.0 56.0	.2693 .2710						2	21	71	10	4	2					

KNOTTERS: Female.

Connecticut: 2 establishments... {1912 1913	18 16	58.0 58.0	\$0.1014 .1005	7 7	11 9														
Massachusetts: 4 establishments... {1912 1913	76 74	54.0 54.0	.1445 .1448			37 36	11 14	28 23		1									
New Jersey: 2 establishments... {1912 1913	14 15	60.0 60.0	.0953 .0853	8 15	6														
New York: 2 establishments... {1912 1913	39 32	60.0 54.0	.1089 .1175			35 21	4 11												
Rhode Island: 6 establishments... {1912 1913	118 95	55.7 55.7	.1206 .1102	35 18	54 57	5 8	5 12	7	6	4	2								

TABLE X.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

COTTON-GOODS FINISHING—Continued.

LABORERS, BLEACH HOUSE: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.													
					8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.		
					Connecticut: 2 establishments...	1912 1913	95 93	60.0 60.0	\$0.1362 .1374	2 2	61 55	27 31	2 4	3 1				
Massachusetts: 3 establishments...	1912 1913	137 167	57.7 58.0	.1338 .1344	9 7	20 26	71 93	29 33	5 6	3 2								
New Jersey: 2 establishments...	1912 1913	52 61	60.0 60.0	.1400 .1384	6 1	22 39	6 4	15 15	1 1	1 2								
New York: 2 establishments...	1912 1913	43 68	60.0 58.3	.1312 .1808	12 1	1 39	8 1	15 14	7 7		25							
Rhode Island: 7 establishments...	1912 1913	309 306	53.0 56.0	.1381 .1406	5 4	22 20	114 84	129 156	32 24	6 5	9 4	1						

LABORERS, COLOR MIXING: Male.

Connecticut: 2 establishments...	1912 1913	41 48	60.0 60.0	\$0.1515 .1544			2 3	32 36	4 6	1 3	2						
Massachusetts: 3 establishments...	1912 1913	103 106	58.0 58.0	.1444 .1473			40 33	54 55	5 13	4 5							
Rhode Island: 4 establishments...	1912 1913	43 36	56.0 56.0	.1383 .1459		3	21 14	15 15	4 5	1	1						

LABORERS, DYEHOUSE: Male.

Connecticut: 3 establishments...	1912 1913	98 94	59.6 59.8	\$0.1496 .1484			23 24	61 56	8 11	3 3	3						
Massachusetts: 9 establishments...	1912 1913	415 398	56.0 55.9	.1498 .1505			83 130	220 151	110 116	2	1						
New Hampshire: 3 establishments...	1912 1913	394 340	58.0 58.0	.1621 .1634			15 4	88 66	280 259	11 11							
New Jersey: 2 establishments...	1912 1913	42 42	60.0 60.0	.1630 .1615			6 2	4 3	31 31		1 1						
Rhode Island: 5 establishments...	1912 1913	155 167	56.7 56.9	.1528 .1464		2 3	15 30	99 107	27 16	6 8	6 2						

PRINTERS: Male.

Connecticut: 2 establishments...	1912 1913	20 20	55.0 55.0	\$0.5255 .5346													20 20
Massachusetts: 3 establishments...	1912 1913	62 62	58.0 58.0	.4291 .4164							18 17	9 8	2 1	33 32			
Rhode Island: 4 establishments...	1912 1913	32 28	56.0 56.0	.5179 .5177											2		30 28

TABLE XI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1911 TO 1913.

COTTON-GOODS FINISHING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60	
Calendriers, male:											
20 establishments	{ 1911	412	57.9				118	201	93		
	{ 1912	409	57.8			13	110	201	85		
20 establishments	{ 1912	422	58.1			6	95	201	120		
	{ 1913	395	57.8			15	95	193	92		
Engravers, male:											
12 establishments	{ 1911	179	55.8	6	26		72	75			
	{ 1912	166	55.4	6	23	36	31	70			
11 establishments	{ 1912	123	55.8	6	23		23	70	1		
	{ 1913	107	55.9	6	27		19	37	18		
Folders, male:											
19 establishments	{ 1911	268	57.4				158	38	72		
	{ 1912	277	57.2			23	127	68	59		
19 establishments	{ 1912	276	57.7			10	110	68	88		
	{ 1913	250	57.1			43	102	34	71		
Knotters, female:											
19 establishments	{ 1911	281	56.9				183	53	45		
	{ 1912	296	56.1			84	135	40	37		
19 establishments	{ 1912	300	56.5			76	118	40	66		
	{ 1913	274	55.9			106	95	44	29		
Laborers, bleach house, male:											
19 establishments	{ 1911	688	57.5				364	128	196		
	{ 1912	748	57.2			65	339	187	157		
19 establishments	{ 1912	714	57.7			9	309	187	209		
	{ 1913	787	57.7			19	306	232	230		
Laborers, color mixing, male:											
12 establishments	{ 1911	263	57.7				106	90	67		
	{ 1912	270	57.4			39	64	103	64		
12 establishments	{ 1912	243	58.4				43	103	97		
	{ 1913	246	58.6				36	106	104		
Laborers, dyehouse, male:											
30 establishments	{ 1911	1,229	57.7				415	575	230	9	
	{ 1912	1,268	57.2			271	148	649	200		
27 establishments	{ 1912	1,179	57.4			209	126	649	195		
	{ 1913	1,120	57.4			209	130	575	206		
Printers, male:											
12 establishments	{ 1911	156	56.9				86	57	13		
	{ 1912	164	56.7			22	66	62	14		
12 establishments	{ 1912	137	57.4				52	66	19		
	{ 1913	133	57.1				56	64	13		

TABLE XI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1911 TO 1913—Concluded.

COTTON-GOODS FINISHING—Continued.

PER CENT.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60	
Calendriers, male:											
20 establishments.....	{ 1911	412	57.9				28.6	48.8	22.6		
	{ 1912	409	57.8			3.2	26.9	49.1	20.8		
20 establishments.....	{ 1912	422	58.1			1.4	22.5	47.6	28.4		
	{ 1913	395	57.8			3.8	24.1	48.9	23.3		
Engravers, male:											
12 establishments.....	{ 1911	179	55.8	3.4	14.5		40.2	41.9			
	{ 1912	166	55.4	3.6	13.9	21.7	18.7	42.2			
11 establishments.....	{ 1912	123	55.8	4.9	18.7		18.7	56.9	.8		
	{ 1913	107	55.9	5.6	25.2		17.8	34.6	16.8		
Folders, male:											
19 establishments.....	{ 1911	268	57.4				59.0	14.2	26.9		
	{ 1912	277	57.2			8.3	45.8	24.5	21.3		
19 establishments.....	{ 1912	276	57.7			3.6	39.9	24.6	31.9		
	{ 1913	250	57.1			17.2	40.8	13.6	28.4		
Knotters, female:											
19 establishments.....	{ 1911	281	56.9				65.1	18.9	16.0		
	{ 1912	296	56.1			28.4	45.6	13.5	12.5		
19 establishments.....	{ 1912	300	56.5			25.3	39.3	13.3	22.0		
	{ 1913	274	55.9			38.7	34.7	16.1	10.6		
Laborers, bleach house, male:											
19 establishments.....	{ 1911	688	57.5				52.9	18.6	28.5		
	{ 1912	748	57.2			8.7	45.3	25.0	21.0		
19 establishments.....	{ 1912	714	57.7			1.3	43.3	26.2	29.3		
	{ 1913	787	57.7			2.4	38.9	29.5	29.2		
Laborers, color mixing, male:											
12 establishments.....	{ 1911	263	57.7				40.3	34.2	25.5		
	{ 1912	270	57.4			14.4	23.7	38.1	23.7		
12 establishments.....	{ 1912	243	58.4				17.7	42.4	39.9		
	{ 1913	246	58.6				14.6	43.1	42.3		
Laborers, dyehouse, male:											
30 establishments.....	{ 1911	1,229	57.7				33.8	46.8	18.7	0.7	
	{ 1912	1,268	57.2			21.4	11.7	51.2	15.8		
27 establishments.....	{ 1912	1,179	57.4			17.7	10.7	55.0	16.5		
	{ 1913	1,120	57.4			18.7	11.6	51.3	18.4		
Printers, male:											
12 establishments.....	{ 1911	156	56.9				55.1	36.5	8.3		
	{ 1912	164	56.7			13.4	40.2	37.8	8.5		
12 establishments.....	{ 1912	137	57.4				38.0	48.2	13.9		
	{ 1913	133	57.1				42.1	48.1	9.8		

TABLE XII.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913.

COTTON-GOODS FINISHING—Continued.

CALENDREERS: Male.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60
1912.										
Connecticut.....	2	117	58.0					117		
Massachusetts.....	4	55	57.6			6		49		
New Jersey.....	2	53	60.0							53
Rhode Island.....	7	122	56.9				95			27
Other States.....	5	75	59.1					35		40
Total.....	20	422	58.1			6	95	201	120	
1913.										
Connecticut.....	2	116	58.0					116		
Massachusetts.....	4	50	57.4			7		43		
New Jersey.....	2	44	60.0							44
Rhode Island.....	7	119	56.8				95			24
Other States.....	5	66	58.2			8		34		24
Total.....	20	395	57.8			15	95	193	92	

ENGRAVERS: Male.

1912.										
Connecticut.....	2	14	51.4	6	7		1			
Massachusetts.....	3	70	58.0					70		
Rhode Island.....	4	22	55.0				22			
Other States.....	2	17	51.8		16					1
Total.....	11	123	55.8	6	23		23	70		1
1913.										
Connecticut.....	2	15	51.5	6	8		1			
Massachusetts.....	3	50	55.7		13			37		
Rhode Island.....	4	19	55.3				18			1
Other States.....	2	23	58.2		6					17
Total.....	11	107	55.9	6	27		19	37		18

FOLDERS: Male.

1912.										
Connecticut.....	2	18	60.0							18
Massachusetts.....	4	56	57.3			10		46		
New Jersey.....	2	18	60.0							18
New York.....	2	39	60.0							39
Rhode Island.....	6	110	56.0				110			
Other States.....	3	35	58.7					22		13
Total.....	19	276	57.7			10	110	68		88
1913.										
Connecticut.....	2	18	60.0							18
Massachusetts.....	4	48	55.5			30		18		
New Jersey.....	2	19	60.0							19
New York.....	2	34	57.7			13				21
Rhode Island.....	6	102	56.0				102			
Other States.....	3	29	58.9					16		13
Total.....	19	250	57.1			43	102	34		71

TABLE XII.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

COTTON-GOODS FINISHING—Continued.

KNOTTERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—					
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60
1912.									
Connecticut.....	2	18	58.0					18	
Massachusetts.....	4	76	54.0			76			
New Jersey.....	2	14	60.0						14
New York.....	2	39	60.0						39
Rhode Island.....	6	118	55.7				118		
Other States.....	3	35	58.7					22	13
Total.....	19	300	56.5			76	118	40	66
1913.									
Connecticut.....	2	16	58.0					16	
Massachusetts.....	4	74	54.0			74			
New Jersey.....	2	15	60.0						15
New York.....	2	32	54.0			32			
Rhode Island.....	6	95	55.7				95		
Other States.....	3	42	58.7					28	14
Total.....	19	274	55.9			106	95	44	29

LABORERS, BLEACH HOUSE: Male.

1912.									
Connecticut.....	2	95	60.0						95
Massachusetts.....	3	137	57.7			9		128	
New Jersey.....	2	52	60.0						52
New York.....	2	43	60.0						43
Rhode Island.....	7	309	56.0				309		
Other States.....	3	78	58.5					59	19
Total.....	19	714	57.7			9	309	187	209
1913.									
Connecticut.....	2	93	60.0						93
Massachusetts.....	3	167	58.0					167	
New Jersey.....	2	61	60.0						61
New York.....	2	68	58.3			19			49
Rhode Island.....	7	306	56.0				306		
Other States.....	3	92	58.6					65	27
Total.....	19	787	57.7			19	306	232	230

LABORERS, COLOR MIXING: Male.

1912.									
Connecticut.....	2	41	60.0						41
Massachusetts.....	3	103	58.0					103	
Rhode Island.....	4	43	56.0				43		
Other States.....	3	56	60.0						56
Total.....	12	243	58.4				43	103	97
1913.									
Connecticut.....	2	48	60.0						48
Massachusetts.....	3	106	58.0					106	
Rhode Island.....	4	36	56.0				36		
Other States.....	3	56	60.0						56
Total.....	12	246	58.6				36	106	104

TABLE XII.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

COTTON-GOODS FINISHING—Continued.

LABORERS, DYEHOUSE: Male.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60
1912.										
Connecticut.....	3	98	59.6					18	80	
Massachusetts.....	9	415	56.0			209		206		
New Hampshire.....	3	394	58.0					394		
New Jersey.....	2	42	60.0						42	
Rhode Island.....	5	155	56.7				126		29	
Other States.....	5	75	59.2					31	44	
Total.....	27	1,179	57.4			209	126	649	195	
1913.										
Connecticut.....	3	94	59.8					11	83	
Massachusetts.....	9	398	55.9			209		189		
New Hampshire.....	3	340	58.0					340		
New Jersey.....	2	42	60.0						42	
Rhode Island.....	5	167	56.9				130		37	
Other States.....	5	79	59.1					35	44	
Total.....	27	1,120	57.4			209	130	575	206	

PRINTERS: Male.

1912.									
Connecticut.....	2	20	55.0				20		
Massachusetts.....	3	62	58.0					62	
Rhode Island.....	4	32	56.0				32		
Other States.....	3	23	59.7					4	19
Total.....	12	137	57.4				52	66	19
1913.									
Connecticut.....	2	20	55.0				20		
Massachusetts.....	3	62	58.0					62	
Rhode Island.....	4	28	56.0				28		
Other States.....	3	23	58.1				8	2	13
Total.....	12	133	57.1				56	64	13

TABLE XIII.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913.

COTTON-GOODS FINISHING—Continued.

[The figures set opposite each bracketed group of years are for identical establishments.]

CALENDREERS: Male.

State, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60
Connecticut:										
2 establishments.....	{ 1912	117	58.0					117		
	{ 1913	116	58.0					116		
Massachusetts:										
4 establishments.....	{ 1912	55	57.6			6		49		
	{ 1913	50	57.4			7		43		
New Jersey:										
2 establishments.....	{ 1912	53	60.0						53	
	{ 1913	44	60.0						44	
Rhode Island:										
7 establishments.....	{ 1912	122	56.9				95		27	
	{ 1913	119	56.8				95		24	

ENGRAVERS: Male.

Connecticut:										
2 establishments.....	{ 1912	14	51.4	6	7		1			
	{ 1913	15	51.5	6	8		1			
Massachusetts:										
3 establishments.....	{ 1912	70	58.0		13			70		
	{ 1913	50	55.7					37		
Rhode Island:										
4 establishments.....	{ 1912	22	55.0				22			
	{ 1913	19	55.3				18		1	

FOLDERS: Male.

Connecticut:										
2 establishments.....	{ 1912	18	60.0						18	
	{ 1913	18	60.0						18	
Massachusetts:										
4 establishments.....	{ 1912	56	57.3			10		46		
	{ 1913	48	55.5			30		18		
New Jersey:										
2 establishments.....	{ 1912	18	60.0						18	
	{ 1913	19	60.0						19	
New York:										
2 establishments.....	{ 1912	39	60.0						39	
	{ 1913	34	57.7			13			21	
Rhode Island:										
6 establishments.....	{ 1912	110	56.0				110			
	{ 1913	102	56.0				102			

KNOTTERS: Female.

Connecticut:										
2 establishments.....	{ 1912	18	58.0					18		
	{ 1913	16	58.0					16		
Massachusetts:										
4 establishments.....	{ 1912	76	54.0			76				
	{ 1913	74	54.0			74				
New Jersey:										
2 establishments.....	{ 1912	14	60.0						14	
	{ 1913	15	60.0						15	
New York:										
2 establishments.....	{ 1912	39	60.0						39	
	{ 1913	32	54.0			32				
Rhode Island:										
6 establishments.....	{ 1912	118	55.7				118			
	{ 1913	95	55.7				95			

TABLE XIII.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

COTTON-GOODS FINISHING—Continued.

LABORERS, BLEACH HOUSE: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60
Connecticut:										
2 establishments.....	{ 1912	95	60.0							95
	{ 1913	93	60.0							93
Massachusetts:										
3 establishments.....	{ 1912	137	57.7			9		128		
	{ 1913	167	58.0					167		
New Jersey:										
2 establishments.....	{ 1912	52	60.0							52
	{ 1913	61	60.0							61
New York:										
2 establishments.....	{ 1912	43	60.0							43
	{ 1913	68	58.3			19				49
Rhode Island:										
7 establishments.....	{ 1912	309	56.0					309		
	{ 1913	306	56.0					306		

LABORERS, COLOR MIXING: Male.

Connecticut:										
2 establishments.....	{ 1912	41	60.0							41
	{ 1913	48	60.0							48
Massachusetts:										
3 establishments.....	{ 1912	103	58.0					103		
	{ 1913	106	58.0					106		
Rhode Island:										
4 establishments.....	{ 1912	43	56.0					43		
	{ 1913	36	56.0					36		

LABORERS, DYEHOUSE: Male.

Connecticut:										
3 establishments.....	{ 1912	98	59.6					18		80
	{ 1913	94	59.8					11		83
Massachusetts:										
9 establishments.....	{ 1912	415	56.0			209		206		
	{ 1913	398	55.9			209		189		
New Hampshire:										
3 establishments.....	{ 1912	394	58.0					394		
	{ 1913	340	58.0					340		
New Jersey:										
2 establishments.....	{ 1912	42	60.0							42
	{ 1913	42	60.0							42
Rhode Island:										
5 establishments.....	{ 1912	155	56.7					126		29
	{ 1913	167	56.9					130		37

PRINTERS: Male.

Connecticut:										
2 establishments.....	{ 1912	20	55.0					20		
	{ 1913	20	55.0					20		
Massachusetts:										
3 establishments.....	{ 1912	62	58.0					62		
	{ 1913	62	58.0					62		
Rhode Island:										
4 establishments.....	{ 1912	32	56.0					32		
	{ 1913	28	56.0					28		

TABLE XIV.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913.

COTTON-GOODS FINISHING—Continued.

CALENDREERS: Male.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Connecticut.....	2	117	58.0	\$8.23	116	58.0	\$8.57
Massachusetts.....	4	55	57.6	7.88	50	57.4	7.90
New Jersey.....	2	53	60.0	9.50	44	60.0	9.70
Rhode Island.....	7	122	56.9	8.94	119	56.8	8.96
Other States.....	5	75	59.1	9.18	66	58.2	9.27
Total.....	20	422	58.1	8.72	395	57.8	8.85

ENGRAVERS: Male.

Connecticut.....	2	14	51.4	\$27.26	15	51.2	\$26.46
Massachusetts.....	3	70	58.0	27.39	50	55.7	27.30
Rhode Island.....	4	22	55.0	26.02	19	55.3	26.01
Other States.....	2	17	51.8	27.88	23	58.2	27.57
Total.....	11	123	55.8	27.20	107	55.9	27.01

FOLDERS: Male.

Connecticut.....	2	18	60.0	\$10.92	18	60.0	\$11.27
Massachusetts.....	4	56	57.3	16.99	48	55.5	16.20
New Jersey.....	2	18	60.0	11.58	19	60.0	11.92
New York.....	2	39	60.0	11.51	34	57.7	11.96
Rhode Island.....	6	110	56.0	15.09	102	56.0	15.18
Other States.....	3	35	58.7	11.32	29	58.9	13.39
Total.....	19	276	57.7	13.99	250	57.1	14.20

KNOTTERS: Female.

Connecticut.....	2	18	58.0	\$5.88	16	58.0	\$5.83
Massachusetts.....	4	76	54.0	7.80	74	54.0	7.82
New Jersey.....	2	14	60.0	5.72	15	60.0	5.12
New York.....	2	39	60.0	6.53	32	54.0	6.35
Rhode Island.....	6	118	55.7	6.72	95	55.7	6.14
Other States.....	3	35	58.7	6.25	42	58.7	6.14
Total.....	19	300	56.5	6.82	274	55.9	6.54

LABORERS, BLEACH HOUSE: Male.

Connecticut.....	2	95	60.0	\$8.17	93	60.0	\$8.24
Massachusetts.....	3	137	57.7	7.73	167	58.0	7.80
New Jersey.....	2	52	60.0	8.40	61	60.0	8.31
New York.....	2	43	60.0	7.87	68	58.3	10.54
Rhode Island.....	7	309	56.0	7.74	306	56.0	7.87
Other States.....	3	78	58.5	7.97	92	58.6	8.14
Total.....	19	714	57.7	7.88	787	57.7	8.20

TABLE XIV.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Concluded.**COTTON-GOODS FINISHING—Concluded.****LABORERS, COLOR MIXING: Male.**

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Connecticut.....	2	41	60.0	\$9.09	48	60.0	\$9.27
Massachusetts.....	3	103	58.0	8.37	106	58.0	8.54
Rhode Island.....	4	43	56.0	7.74	36	56.0	8.17
Other States.....	3	56	60.0	8.74	56	60.0	8.99
Total.....	12	243	58.4	8.46	246	58.6	8.73

LABORERS, DYEHOUSE: Male.

Connecticut.....	3	98	59.6	\$8.92	94	59.8	\$8.87
Massachusetts.....	9	415	56.0	8.37	398	55.9	8.39
New Hampshire.....	3	394	58.0	9.40	340	58.0	9.48
New Jersey.....	2	42	60.0	9.78	42	60.0	9.69
Rhode Island.....	5	155	56.7	8.66	167	56.9	8.32
Other States.....	5	75	59.2	8.02	79	59.1	7.97
Total.....	27	1,179	57.4	8.83	1,120	57.4	8.77

PRINTERS: Male.

Connecticut.....	2	20	55.0	\$28.90	20	55.0	\$29.40
Massachusetts.....	3	62	58.0	24.89	62	58.0	24.18
Rhode Island.....	4	32	56.0	29.01	28	56.0	28.99
Other States.....	3	23	59.7	28.48	23	58.1	28.87
Total.....	12	137	57.4	27.04	133	57.1	23.78

WOOLEN AND WORSTED GOODS MANUFACTURING.

SUMMARY.

This report, based on information obtained from representative establishments, shows the full-time weekly earnings, the full-time hours of labor per week, and the rates of wages (or earnings) per hour in the principal occupations of the woolen and worsted industry of the United States. Figures relating to full-time hours of labor per week and rates of wages (or earnings) per hour are presented for the years 1907 to 1913, inclusive, and for full-time weekly earnings for the years 1910 to 1913, inclusive.

Earlier reports¹ of this Bureau have presented wages and hours of labor in the industry from 1890 to 1912.

Briefly summarized, the full-time weekly earnings of employees in woolen and worsted mills were 2.2 per cent lower in 1913 than in 1912, and 7.8 per cent higher than in 1911 and 8.1 per cent higher than in 1910.

Regular full-time hours of labor per week in 1913 were 0.2 per cent lower than in 1912, 1.8 per cent lower than in 1911, and 1.6 per cent lower than in 1910. The slight reduction in full-time hours of labor makes the changes in rates of wages per hour somewhat different from the changes in full-time weekly earnings. Rates of wages per hour in 1913 were 2.1 per cent lower than in 1912, but compared with 1911 they were 9.8 per cent higher and with 1910, 9.3 per cent higher.

The most significant facts concerning the several occupations covered by this report are summarized in the following table. The data for the years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding establishments having records extending back for a period of years and also owing to the amount of work involved, data for 1907 to 1909 were secured from a smaller number of establishments, some of them perhaps less representative than have furnished data for the later years. The figures for identical establishments are grouped together by brackets.

The data are for one pay-roll period in each year, the period ending nearest May 15 being selected, except in a very few establishments in which conditions in May were abnormal.

The figures for the years from 1907 to the first presentation for 1912 are reproduced from Bulletin No. 128, except the average full-

¹ Previous reports of wages and hours of labor in woolen and worsted goods manufacturing have been published by the Bureau, as follows: Nineteenth Annual Report, covering 1890 to 1903; Bulletin No. 59 (July, 1905), covering 1903 and 1904; Bulletin No. 65 (July, 1906), covering 1904 and 1905; Bulletin No. 71 (July, 1907), covering 1905 and 1906; Bulletin No. 77 (July, 1908), covering 1906 and 1907; and Bulletin No. 128 (August, 1913), covering 1907 to 1912, inclusive.

time weekly earnings, for 1910 to 1912 which figures have been computed for this Bulletin from data gathered for those years. Average full-time weekly earnings have not been computed for the period 1907 to 1910, owing to the lack of funds. It will be observed that the average full-time weekly earnings are not exactly the same as the product of the average rate of wages per hour and the average full-time hours per week. This difference is explained and illustrated on page 23.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1907 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employ-ees whose full-time hours per week were—			Average rate of wages per hour.	Per cent of employ-ees earning each classified rate of wages per hour.				Average full-time weekly earnings.	
				54	Over 54 and under 57	57 and under 60		60	Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.		14 cts. and over.
Burlers, female:													
18 establishments.	1907	611	58.3	9.3	60.9	29.8	\$0.1224	15.0	48.6	17.5	18.8	(1)	
	1908	494	58.0	12.1	69.2	18.6	.1160	13.0	51.6	23.1	12.3	(1)	
	1909	582	58.0	12.5	67.7	19.8	.1231	14.2	44.5	18.0	23.2	(1)	
	1910	598	56.9	67.6	15.9	16.6	.1238	9.1	47.8	18.9	24.2	(1)	
26 establishments.	1910	1,034	56.5	81.1	9.3	9.6	.1296	8.2	35.3	26.6	29.9	\$7.33	
	1911	1,010	56.6	79.1	7.8	13.1	.1273	10.0	34.2	31.7	24.2	7.20	
43 establishments.	1911	1,516	56.8	64.6	26.7	8.7	.1296	11.3	31.1	28.4	29.2	7.36	
	1912	1,471	55.9	48.4	16.5	28.0	7.1	.1472	4.0	10.1	43.5	8.22	
44 establishments.	1912	1,562	55.9	46.4	17.2	29.8	6.7	.1453	5.0	12.2	42.2	40.6	8.25
	1913	1,035	55.6	44.8	28.4	24.3	2.4	.1462	3.7	13.8	38.8	43.7	8.13
Carding-machine tenders, male:													
19 establishments.	1907	145	58.6	9.0	48.3	42.8	.1255	9.7	18.6	55.2	16.6	(1)	
	1908	136	58.6	9.6	47.1	43.4	.1210	11.2	25.0	53.7	13.2	(1)	
	1909	134	58.4	9.7	55.2	35.1	.1237	6.6	23.1	54.5	15.7	(1)	
	1910	133	57.3	51.9	26.3	21.8	.1250	4.6	28.6	48.9	18.1	(1)	
26 establishments.	1910	201	56.9	65.7	19.9	14.4	.1274	3.0	24.4	48.8	23.9	7.25	
	1911	196	56.9	67.9	18.4	13.8	.1414	2.5	30.6	42.3	24.4	8.02	
40 establishments.	1911	320	57.1	55.0	35.0	10.0	.1357	2.2	35.9	38.1	23.8	7.73	
	1912	412	56.4	35.7	18.4	33.3	12.6	.1354	.5	18.4	40.5	40.5	7.64
	1913	329	56.3	32.2	24.0	36.2	7.6	.1424	.9	6.7	31.9	60.5	8.01
Combers, female:													
4 establishments.	1907	101	55.7	78.2	17.8	4.0	.0989	58.4	23.8	7.9	9.9	(1)	
	1908	117	55.8	77.8	17.1	5.1	.0986	56.4	27.4	16.2	....	(1)
	1909	111	55.8	76.6	19.8	3.6	.1019	42.3	37.8	19.8	....	(1)
	1910	110	55.4	96.4	....	3.6	.1103	21.8	60.0	....	18.2	(1)
6 establishments.	1910	129	55.5	96.9	....	3.1	.1105	24.8	53.5	6.2	15.5	6.13
	1911	118	55.4	96.6	....	3.4	.1086	11.9	76.3	9.3	2.5	6.02
7 establishments.	1911	139	55.8	82.0	15.1	2.9	.1092	10.1	79.9	7.9	2.2	6.10	
	1912	150	55.8	82.0	13.3	4.7	.1157	8.7	68.0	15.3	10.0	6.47	
	1913	163	56.1	1.2	75.5	15.3	8.0	.1170	8.6	52.8	30.1	8.6	6.57
Twisters, female:													
7 establishments.	1907	186	57.2	41.9	36.0	22.0	.1119	10.3	64.5	18.3	7.0	(1)	
	1908	138	57.6	31.9	40.6	27.5	.1136	2.9	54.3	38.4	4.3	(1)	
	1909	223	58.0	22.4	41.7	35.9	.1123	7.5	55.2	30.9	6.2	(1)	
	1910	216	57.2	55.6	13.4	31.0	.1142	12.9	45.8	31.0	10.2	(1)	
10 establishments.	1910	332	56.9	68.4	8.7	22.9	.1262	8.4	47.0	27.1	17.4	7.16	
	1911	342	56.8	75.4	....	24.6	.1241	.3	43.3	43.6	12.7	7.03
12 establishments.	1911	600	56.7	76.0	10.0	14.0	.1308	1.1	31.7	26.7	40.6	7.40	
	1912	751	55.7	51.3	27.8	4.8	16.1	.1374	1.5	21.6	23.3	53.7	7.62
	1913	598	55.4	45.5	38.0	7.9	8.7	.1394	.7	12.2	47.5	39.6	7.50

¹ Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING 1907 TO 1913—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—			Average rate of wages per hour.	Per cent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.			
				54	Over 54 and under 57	57 and under 60		60	Under 12 cts.	12 and under 14 cts.	14 and under 16 cts.		16 cts. and over.		
Combers, male:															
4 establishments...	1907	52	58.5			75.0	25.0	\$0.1330	1.9	69.2	28.8		(1)		
	1908	29	58.6			72.4	27.6	.1312		72.4	24.1	3.4	(1)		
	1909	29	58.6			72.4	27.6	.1371		65.5	34.5		(1)		
	1910	42	57.2			69.0	31.0	.1398		33.3	66.7		(1)		
6 establishments...	1910	106	56.5			87.7	12.3	.1393		54.7	45.3		\$7.87		
	1911	124	56.5			87.1	12.9	.1384	.8	59.7	39.5		7.82		
9 establishments...	1911	188	56.5			81.9	9.6	8.5	.1405	5.9	57.4	26.6	10.1	7.94	
	1912	181	55.1			71.8	7.7	12.2	8.3	.1555	11.0	64.1	24.9	8.56	
	1913	115	54.8			77.4	6.1	16.5		.1556	7.8	54.8	37.4	8.51	
Spinners, frame, male:															
2 establishments...	1910	114	56.0			100.0			.1252	57.9	26.3	14.9	9	7.01	
	1911	134	56.0			100.0			.1287	38.8	35.8	23.9	1.5	7.21	
3 establishments...	1911	194	56.0			100.0			.1316	30.4	33.0	35.6	1.0	7.37	
	1912	244	54.0	100.0					.1580		2.9	82.8	14.3	8.53	
	1913	115	54.0	100.0					.1357	.9	74.8	24.3		7.33	
Spinners, frame, female:															
5 establishments...	1907	323	57.6			15.5	79.3	5.3	.1272	40.5	23.8	35.6		(1)	
	1908	284	57.5			21.1	73.2	5.6	.1294	34.5	65.5			(1)	
	1909	295	57.5			20.3	75.3	4.4	.1241	22.7	77.3			(1)	
	1910	286	56.0			94.1		5.9	.1278	18.8	67.5	13.6		(1)	
8 establishments...	1910	578	56.0			97.1		2.9	.1223	51.9	41.3	6.7		6.85	
	1911	683	56.0			98.2		1.8	.1272	30.8	57.8	11.0	4	7.17	
10 establishments...	1911	1,002	56.4			79.9	18.9	1.2	.1255	39.9	46.8	13.0	3	7.07	
	1912	1,070	55.2			53.0	32.2	14.1	.7	.1439	4.8	34.1	52.7	8.4	7.92
	1913	751	55.5			43.3	33.6	23.2		.1402	2.2	41.9	53.8	2.0	7.78
Menders, female:															
18 establishments...	1907	403	58.5			14.1	39.2	46.7	.1448	24.1	49.6	17.6	8.7	(1)	
	1908	341	58.4			17.9	32.8	49.3	.1481	30.5	34.6	21.7	13.2	(1)	
	1909	533	58.8			12.5	30.7	56.8	.1371	43.7	28.9	15.6	11.8	(1)	
	1910	498	58.0			34.1	23.3	42.6	.1479	36.9	27.9	22.5	12.6	(1)	
25 establishments...	1910	1,196	56.8			72.6	9.7	17.7	.1598	24.8	23.4	32.4	19.3	8.41	
	1911	1,115	56.9			71.8	6.7	21.4	.1591	22.1	28.2	35.5	14.4	9.05	
44 establishments...	1911	1,623	56.8			71.5	13.7	14.7	.1597	20.1	31.3	34.5	14.2	9.07	
	1912	1,668	55.7			53.5	20.3	14.1	12.1	.1890	9.0	19.4	28.0	43.4	10.50
42 establishments...	1912	1,589	55.6			56.1	19.8	11.5	12.6	.1929	5.8	19.4	29.2	45.6	10.71
	1913	1,388	55.3			57.4	22.6	15.9	4.0	.1829	7.1	24.3	33.2	35.3	10.11
Card strippers, male:															
18 establishments...	1907	89	58.2			19.1	42.7	38.2	.1447	37.1	44.9	18.0		(1)	
	1908	79	58.1			19.0	49.4	31.6	.1449	40.5	45.6	12.7	1.3	(1)	
	1909	80	58.1			16.3	52.5	31.3	.1510	28.8	42.5	23.8	5.0	(1)	
	1910	88	57.7			36.4	34.1	29.5	.1512	27.2	46.6	20.5	5.6	(1)	

1 Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1907 TO 1913—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employ-ees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employ-ees earning each classified rate of wages per hour.				Average full-time weekly earnings.	
				54	Over 54 and under 57	57 and under 60	60		Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 cts. and over.		
														Under 14 cts.	14 and under 18 cts.	18 and under 25 cts.	25 cts. and over.
Card strippers, male— Concluded.	27 establishments..	1910	162	57.0	64.2	19.8	16.0	\$.1526	15.4	57.4	22.8	4.3	\$8.69	
		1911	155	56.9	64.5	20.6	14.8	.1531	12.9	59.4	21.9	5.8	8.71	
	42 establishments..	1911	223	57.1	52.0	36.8	11.2	.1514	18.4	57.0	21.1	3.5	8.62	
		1912	240	56.9	28.8	45.4	39.2	16.7	.1634	1.7	32.9	57.1	8.3	9.29
		1913	238	56.4	29.0	24.4	42.9	3.8	.1670	22.3	60.9	16.8	9.41	
	Laborers, dyehouse, male:	19 establishments..	1907	434	58.1	11.5	65.2	23.3	.1439	40.8	54.6	4.4	.2	(1)
			1908	385	57.8	16.4	67.5	16.1	.1395	70.9	24.4	4.2	.6	(1)
			1909	514	57.9	16.0	63.0	21.0	.1336	71.4	23.0	4.9	.8	(1)
			1910	570	56.5	77.9	12.3	9.8	.1420	34.9	59.3	4.7	1.1	(1)
		27 establishments..	1910	837	56.3	84.6	8.7	6.7	.1430	36.5	52.1	10.5	.8	8.06
1911			877	56.5	82.0	6.8	11.2	.1445	29.7	59.0	10.1	1.1	8.16	
45 establishments..		1911	1,116	56.6	73.6	17.3	9.1	.1452	32.4	51.3	15.2	1.1	8.22	
		1912	1,093	55.5	51.3	24.9	16.9	6.9	.1571	7.1	62.0	28.3	2.6	8.72
		1913	1,033	55.5	46.0	29.2	22.4	2.4	.1587	5.2	61.5	27.2	6.1	8.81
Weavers, male:		19 establishments..	1907	1,653	58.5	11.2	44.9	43.9	.2027	10.0	22.4	52.6	15.1	(1)
	1908		1,409	58.6	3.1	60.3	35.7	.1955	11.0	27.4	49.6	12.1	(1)	
	1909		1,589	58.6	3.1	63.0	33.9	.1994	12.2	25.5	46.8	15.5	(1)	
	1910		1,716	57.8	41.0	27.3	31.7	.1985	6.4	27.0	55.7	11.1	(1)	
	27 establishments..	1910	2,907	57.1	64.7	16.6	18.7	.2068	6.5	23.8	51.9	17.8	11.79	
		1911	2,563	57.1	64.5	14.1	21.4	.2096	6.6	23.4	47.4	22.4	11.97	
	46 establishments..	1911	4,049	57.1	60.0	25.5	14.5	.2099	7.2	21.4	50.1	21.3	11.97	
		1912	4,476	55.3	33.4	28.1	23.6	14.9	.2357	3.5	12.0	44.7	39.6	13.30
		1913	3,845	56.1	31.9	31.5	31.7	4.8	.2324	3.9	14.6	45.3	36.3	13.03
	Weavers, female:	19 establishments..	1907	1,873	58.0	14.9	63.3	21.7	.1875	12.6	28.0	52.9	6.4	(1)
1908			1,882	57.7	18.2	69.8	12.0	.1663	24.5	41.1	32.8	1.7	(1)	
1909			1,807	57.6	22.5	64.6	12.9	.1660	28.6	35.7	31.7	2.9	(1)	
1910			2,116	56.4	80.2	7.6	12.2	.1739	21.8	31.9	43.5	2.7	(1)	
27 establishments..		1910	2,855	56.3	84.4	6.5	9.0	.1799	19.7	39.7	43.7	6.1	10.14	
		1911	2,366	56.4	81.3	6.3	12.4	.1780	19.8	34.4	39.8	5.9	10.06	
46 establishments..		1911	3,334	56.8	63.4	27.9	8.7	.1843	21.7	32.8	38.6	6.9	10.47	
		1912	3,586	55.9	38.8	27.9	25.3	7.9	.2057	9.6	22.9	48.3	19.2	11.48
		1913	3,481	55.9	31.5	31.9	35.0	1.6	.1969	12.4	27.3	45.0	15.1	11.00
Dressers, male:		19 establishments..	1907	119	58.8	5.0	47.9	47.1	.2236	412	5.9	80.7	9.2	(1)
	1908		97	58.4	7.2	61.9	30.9	.2254	2.5	10.3	74.2	13.4	(1)	
	1909		126	58.3	13.5	52.4	34.1	.2241	9.3	1.6	73.8	15.1	(1)	
	1910		1909	126	57.9	35.7	29.4	34.9	.2282	6.1	.8	77.8	15.1	(1)
			1910	126	57.9	35.7	29.4	34.9	.2282	6.1	.8	77.8	15.1	(1)

1 Not computed.

AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1907 TO 1913—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees earning each classified rate of wages per hour.				Average full-time weekly earnings.
				54	Over 54 and under 57	57 and under 60	60		Under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
Dressers, male—Con. 27 establishments.	1910	214	57.1	.....	61.2	18.2	20.6	\$0.2418	5.6	1.9	49.5	43.0	\$13.80
	1911	215	57.1	.....	63.3	16.3	20.5	.2394	7.0	3.7	46.0	43.3	13.65
46 establishments.	1911	337	57.1	.....	58.2	27.9	13.9	.2429	4.5	3.0	45.1	47.5	13.85
	1912	384	56.4	28.1	35.4	25.5	10.9	.2616	.....	2.9	36.7	60.4	14.71
	1913	346	56.2	28.3	37.3	29.8	4.6	.2614	1.7	2.0	34.7	61.6	14.66
Spinners, mule, male:													
19 establishments.	1907	384	58.6	.....	12.5	38.3	49.2	.2190	14.9	19.0	45.1	21.1	(1)
	1908	267	58.2	.....	18.0	43.4	38.6	.2152	18.7	18.0	37.1	26.2	(1)
	1909	297	58.2	.....	16.2	47.1	36.7	.2226	18.5	15.8	33.7	32.0	(1)
	1910	320	57.5	.....	38.1	39.7	22.2	.2227	11.5	18.4	41.3	28.8	(1)
26 establishments.	1910	529	57.0	.....	60.9	25.7	13.4	.2242	11.2	15.3	46.9	26.6	12.75
	1911	454	56.9	.....	63.0	22.2	14.8	.2312	8.3	11.7	46.7	33.2	13.16
40 establishments.	1911	638	57.3	.....	49.4	37.9	12.7	.2238	11.0	14.9	52.5	21.6	12.81
	1912	719	56.5	35.5	14.9	38.2	11.4	.2404	6.3	10.4	41.7	41.6	13.56
	1913	759	56.4	34.1	17.4	41.5	7.0	.2377	11.1	10.4	38.9	39.6	13.39
									Under 20 cts.	20 and under 25 cts.	25 and over.	30 cts. and over.	
Loom fixers, male:													
19 establishments.	1907	223	58.0	.....	13.9	62.8	23.3	.2668	1.3	22.9	69.5	6.3	(1)
	1908	218	57.9	.....	14.7	69.3	16.1	.2621	1.9	21.6	72.0	4.6	(1)
	1909	242	58.1	.....	12.0	66.1	21.9	.2629	1.7	16.9	76.9	4.5	(1)
	1910	260	57.0	.....	66.2	13.5	20.4	.2695	2.0	10.4	81.5	6.2	(1)
27 establishments.	1910	429	56.6	.....	78.8	8.9	12.4	.2787	1.2	6.3	76.0	16.6	15.76
	1911	390	56.6	.....	79.2	9.5	11.3	.2779	1.3	6.2	77.2	15.4	15.70
46 establishments.	1911	569	56.7	.....	68.4	23.9	7.7	.2752	.5	17.2	62.7	19.5	15.59
	1912	589	55.9	37.7	32.4	21.2	8.7	.3075	.....	7.8	49.6	42.6	17.13
	1913	578	55.7	40.5	31.5	24.6	3.5	.2977	.2	8.7	54.5	36.6	16.56
Wool sorters, male:													
11 establishments.	1907	184	58.0	.....	9.2	78.8	12.0	.2330	15.2	44.6	38.6	1.6	(1)
	1908	164	57.8	.....	13.4	78.0	8.5	.2233	22.6	67.7	9.8	.....	(1)
	1909	186	57.9	.....	8.1	83.9	8.1	.2393	4.3	62.9	32.8	.....	(1)
	1910	193	56.5	.....	83.9	4.7	11.4	.2464	7.7	24.4	64.8	3.1	(1)
18 establishments.	1910	289	56.3	.....	88.2	4.2	7.6	.2465	7.3	21.8	68.5	2.4	13.86
	1911	335	56.3	.....	89.3	3.9	6.9	.2494	3.3	23.0	72.5	1.2	14.03
19 establishments.	1911	444	56.4	.....	83.1	11.7	5.2	.2405	12.1	28.8	58.1	4.9	13.54
	1912	471	55.2	61.4	21.4	14.0	3.2	.2666	4.5	17.4	73.5	4.7	14.72
	1913	246	55.0	64.6	21.1	14.2	.....	.2806	2.8	4.9	78.5	13.8	15.43

¹ Not computed.

According to the plan of the table direct comparisons, which are indicated by the grouping of the years within brackets, can be made properly only between two or more successive years where the data are for identical establishments.

In 1913 the average full-time weekly earnings of males, represented by 10 occupations, varied from \$7.33 for frame spinners to

\$16.56 for loom fixers. The average full-time weekly earnings of females, represented by 6 occupations, varied from \$6.57 for combers to \$11 for weavers.

The full-time hours of labor per week in 1913 varied in the mills from 54 to 60, the average for all employees being about 56.

Wages and hours of labor differ in different establishments. Hence, the inclusion or exclusion of an establishment in a group, if the wages and hours therein differ greatly from the average, may raise or lower the average for the group. Thus, referring to the table above, it is seen that the average full-time weekly earnings of burlers in 43 establishments increased from \$7.36 in 1911 to \$8.22 in 1912. In 44 establishments there was a decrease from \$8.25 in 1912 to \$8.13 in 1913. The including of another establishment changed the average weekly earnings for 1912 from \$8.22 to \$8.25. Consequently, it would not be a correct comparison to state that weekly earnings increased from \$7.36 in 1911 to \$8.13 in 1913. The movement from one year to another is indicated with the greater degree of certainty by the figures for identical establishments. The difference between \$7.36 and \$8.22 represents the change between 1911 and 1912, and the difference between \$8.25 and \$8.13 represents the change between 1912 and 1913, as nearly as can be determined from the data available. In the table the comparable data for identical establishments are bracketed together.

Owing to a change in the number of establishments from year to year, it is difficult to make a comparison of the actual data over a period of several years or to get an exact measure of the changes. To aid in the making of such a comparison, relative (or index) numbers have been computed from the averages in the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings for each occupation for the years 1910 to 1913, inclusive. These relative numbers are simply percentages in which the figures for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent that the average in that year is of the average for 1913, as determined by the method explained on page 25. Thus, in the table following the full-time weekly earnings of burlers in 1910 were 92.5 per cent of the full-time weekly earnings in 1913.

It will be observed that the general tendency of each occupation is toward a reduction of working hours and an increase in rates of wages per hour and of earnings per full week. No data are available to show the amount of work afforded employees each year or the variation from year to year. The relative full-time hours per week indicate the change in the hours of labor of employees working full time, but do not reflect in any way the greater or less amount of full-time work afforded. This point is further discussed on page 22.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1910 TO 1913.

(1913=100.0.)

Year.	Burlers, female.			Carding-machine tenders, male.			Card strippers, male.			Combers, male.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910	102.0	89.1	92.5	101.4	85.9	87.4	101.4	90.4	91.4	103.1	90.9	93.9
1911	102.2	87.5	90.9	101.4	95.3	96.6	101.2	90.7	91.6	103.1	90.3	93.3
1912	100.5	99.4	101.5	100.2	95.1	95.4	100.9	97.8	98.7	100.5	99.9	100.6
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Combers, female.			Dressers, male.			Laborers, dyehouse, male.			Loom fixers, male.		
1910	99.7	95.0	94.5	101.6	93.9	95.5	101.6	90.5	92.2	101.8	92.7	94.5
1911	99.5	93.3	92.8	101.6	92.9	94.5	102.0	91.5	93.3	101.8	92.4	94.1
1912	99.5	98.9	98.5	100.4	100.1	100.3	100.0	99.0	99.0	100.4	103.3	103.4
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Menders, female.			Spinners, frame, male.			Spinners, frame, female.			Spinners, mule, male.		
1910	102.4	89.5	85.0	103.7	94.3	97.8	101.6	86.1	86.8	101.8	91.3	92.7
1911	102.5	89.1	91.5	103.7	97.0	100.5	101.6	89.5	90.9	101.6	94.2	95.7
1912	100.5	105.5	105.9	100.0	116.4	116.4	99.5	102.6	101.8	100.2	101.1	101.3
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Twisters, female.			Weavers, male.			Weavers, female.			Wool sorters, male.		
1910	102.5	95.8	100.5	101.8	89.1	90.5	101.4	94.6	95.9	102.5	84.7	86.7
1911	102.3	96.6	98.7	101.8	90.3	91.9	101.6	93.6	95.2	102.5	85.7	87.8
1912	100.5	101.5	101.6	100.4	101.9	102.1	100.0	104.5	104.4	100.4	95.0	95.4
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A like table of relative numbers is next shown for the industry as a whole, as determined by a combination of the data for the several occupations covered. Data were obtained for the principal occupations of the industry but not for all occupations. The method of computing this table is explained on page 26.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR AND FULL-TIME WEEKLY EARNINGS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1910 TO 1913.

(1913=100.0.)

Year.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910.....	101.6	91.5	92.5
1911.....	101.8	91.1	92.8
1912.....	100.2	102.1	102.3
1913.....	100.0	100.0	100.0

From the table it is seen that the relative or index number for full-time hours per week decreased from 101.6 in 1910 to 100 in 1913, or, in other words, full-time hours per week in 1910 were 101.6 per cent of what they were in 1913. The relative or index number for rate of wages per hour increased from 91.5 in 1910 to 100 in 1913. Owing to the reduction of hours the increase in full-time weekly earnings was somewhat less than the increase in wages per hour, the increase being from an index of 92.5 in 1910 to 100 in 1913.

In examining the relative or index numbers for the several occupations and for the industry as a whole in the tables on the preceding page it will be observed that they have been computed with 1913 taken as the base or 100 per cent. In the preceding reports of the Bureau relating to this industry relative numbers for rates of wages per hour and for hours of labor per week were presented back to 1890, and the base, or 100 per cent, was not the average rate of wages per hour or the average full-time hours per week in any one year, but the average rate of wages per hour and the average full-time hours per week for the 10-year period, 1890-1899. The table of such relative numbers appears in the appendix, page 178.

The reasons for changing the base of the relative numbers to the most recent year are stated on page 15. The relative numbers for the occupations shown in the new series here presented differ from those of the old series, shown in preceding reports, because of the change of the base, but the ratio existing between any two years is the same in both series. The relative numbers for the industry as a whole have likewise been recomputed with 1913 as the base.

In addition to making a change of the base year, a change has also been made in the method of computing the industry relatives, and because of this change the relatives here presented not only differ from the relatives computed by the old method, but shows a slightly different ratio of change from year to year. In Bulletin No. 128, relative numbers for this industry were averages of the relative numbers of the several occupations. For each year, for example, the relative rate of wages per hour of each occupation was multiplied (weighted) by the number of employees in that occupation, the products thus computed for the several occupations were added, and the sum of the products for all occupations divided by the total employees in all occupations.

In computing the relative numbers from 1910 to 1913 for the industry as a whole as presented in this Bulletin, a combination was made, not of the relative numbers for the several occupations, but of the actual hours and wages of the several occupations. For each year the average hours and wages were computed for all employees in all occupations and the average for each preceding year was compared with the average for 1913 to determine the index. It was

deemed necessary to make this change in method because, by computing the industry relative by averaging the occupation relatives, a change in the industry is not always reflected by the relative thus computed. This reason is more fully explained on page 26.

In addition to the relative numbers shown for the several occupations and for the industry, three tables are here presented showing the per cent of increase or decrease in full-time hours of labor per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each preceding year back to 1910. The figures of these tables are computed from the relative numbers shown on page 98 and simply reverse the method of comparison. Each of the three tables also shows the increase or decrease in 1912 as compared with 1911, and in 1911 as compared with 1910. Referring to the first line of the first table it is seen that the full-time hours of burlers in 1913 were 2 per cent lower than in 1910, 2.2 per cent lower in 1911, and 0.5 per cent lower than in 1912. Further it is seen that the full-time hours of labor in this occupation were 1.7 per cent lower in 1912 than in 1911, and 0.2 per cent higher in 1911 than in 1910. The other figures of the several tables are read in like manner.

PER CENT OF INCREASE OR DECREASE IN FULL-TIME HOURS PER WEEK, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Burlers, female.....	-2.0	-2.2	-0.5	-1.7	+0.2
Carding-machine tenders, male.....	-1.4	-1.4	-0.2	-1.2	(¹)
Card strippers, male.....	-1.4	-1.2	-0.9	-0.3	- .2
Combers, male.....	-3.0	-3.0	-0.5	-2.5	(¹)
Combers, female.....	+ .3	+ .5	+ .5	(¹)	- .2
Dressers, male.....	-1.6	-1.6	- .4	-1.2	(¹)
Laborers, dyehouse, male.....	-1.6	-2.0	(¹)	-2.0	+ .4
Loom fixers, male.....	-1.8	-1.8	- .4	-1.4	(¹)
Menders, female.....	-2.3	-2.4	- .5	-2.0	+ .1
Spinners, frame, male.....	-3.6	-3.6	(¹)	-3.6	(¹)
Spinners, frame, female.....	-1.6	-1.6	+ .5	-2.1	(¹)
Spinners, mule, male.....	-1.8	-1.6	- .2	-1.4	- .2
Twisters, female.....	-2.4	-2.2	- .5	-1.8	- .2
Weavers, male.....	-1.8	-1.8	- .4	-1.4	(¹)
Weavers, female.....	-1.4	-1.6	(¹)	-1.6	+ .2
Wool sorters, male.....	-2.4	-2.4	- .4	-2.0	(¹)
The industry.....	-1.6	-1.8	- .2	-1.6	+ .2

¹ No change.

PER CENT OF INCREASE OR DECREASE IN **RATES OF WAGES PER HOUR**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Burlers, female.....	+12.2	+14.3	+ 0.6	+13.6	- 1.8
Carding-machine tenders, male.....	+16.4	+ 4.9	+ 5.2	- .2	+10.9
Card strippers, male.....	+10.6	+10.3	+ 2.2	+ 7.8	+ .3
Combers, male.....	+10.0	+10.7	+ .1	+10.6	- .7
Combers, female.....	+ 5.3	+ 7.2	+ 1.1	+ 6.0	- 1.8
Dressers, male.....	+ 6.5	+ 7.6	- .1	+ 7.8	- 1.1
Laborers, dyehouse, male.....	+10.5	+ 9.3	+ 1.0	+ 8.2	+ 1.1
Loom fixers, male.....	+ 7.9	+ 8.2	- 3.2	+11.8	- .3
Menders, female.....	+11.7	+12.2	- 5.2	+18.4	- .4
Spinners, frame, male.....	+ 6.0	+ 3.1	-14.1	+20.0	+ 2.9
Spinners, frame, female.....	+16.1	+11.7	- 2.5	+14.6	+ 3.9
Spinners, mule, male.....	+ 9.5	+ 6.2	- 1.1	+ 7.3	+ 3.2
Twisters, male.....	+ 4.4	+ 3.5	- 1.5	+ 5.1	+ .8
Weavers, male.....	+12.2	+10.7	- 1.9	+12.8	+ 1.3
Weavers, female.....	+ 5.7	+ 6.8	- 4.3	+11.6	- 1.1
Wool sorters, male.....	+18.1	+16.7	+ 5.3	+10.9	+ 1.2
The industry.....	+ 9.3	+ 9.8	- 2.1	+12.1	- .4

PER CENT OF INCREASE OR DECREASE IN **FULL-TIME WEEKLY EARNINGS**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation and sex.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Burlers, female.....	+ 8.1	+10.0	- 1.5	+11.7	- 1.7
Carding-machine tenders, male.....	+14.4	+ 3.5	+ 4.8	- 1.2	+10.5
Card strippers, male.....	+ 9.4	+ 9.2	+ 1.3	+ 7.8	+ .2
Combers, male.....	+ 6.5	+ 7.2	- .6	+ 7.8	- .6
Combers, female.....	+ 5.8	+ 7.8	+ 1.5	+ 6.1	- 1.8
Dressers, male.....	+ 4.7	+ 5.8	- .3	+ 6.1	- 1.0
Laborers, dyehouse, male.....	+ 8.5	+ 7.2	+ 1.0	+ 6.1	+ 1.2
Loom fixers, male.....	+ 5.8	+ 6.3	- 3.3	+ 9.9	- .4
Menders, female.....	+17.6	+ 9.3	- 5.6	+15.7	+ 7.6
Spinners, frame, male.....	+ 2.2	- .5	-14.1	+15.8	+ 2.8
Spinners, frame, female.....	+15.2	+10.0	- 1.8	+12.0	+ 4.7
Spinners, mule, male.....	+ 7.9	+ 4.5	- 1.3	+ 5.9	+ 3.2
Twisters, female.....	- .5	+ 1.3	- 1.6	+ 2.9	- 1.8
Weavers, male.....	+10.5	+ 8.8	- 2.1	+11.1	+ 1.5
Weavers, female.....	+ 4.3	+ 5.0	- 4.2	+ 9.7	- .7
Wool sorters, male.....	+15.3	+13.9	+ 4.8	+ 8.7	+ 1.3
The industry.....	+ 8.1	+ 7.8	- 2.2	+10.2	+ .3

EXPLANATION OF SCOPE AND METHOD.

This report includes establishments making woollen and worsted materials for ladies' wear, including dress goods and cloakings; materials for men's wear, including suitings and overcoatings; uniform goods; flannels; and bed blankets. The textile directory for 1912-13 shows 460 establishments manufacturing exclusively these kinds of goods, and the present report includes data from establishments in which are located 32 per cent of the cards and 35 per cent of the

looms in establishments engaged in the exclusive manufacture of such goods.

All information in this report was secured from pay rolls of the various establishments by agents of the Bureau. The number of establishments from which data were secured has varied considerably during the period included in this report, as follows:

1907 to 1910.....	19 identical establishments.
1910 and 1911.....	27 identical establishments.
1911 to 1913.....	46 identical establishments.

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of establishments included for the full period from 1907 to 1910, inclusive, was limited, owing to the difficulty of finding establishments that had preserved complete records for these years and also owing to the large amount of work involved. Data were not secured from a greater number of establishments in the more recent years because of the limited funds available for the purpose. The establishments vary from year to year, as establishments go out of business or cease to be representative, and new establishments must be substituted in the wage study. Occasionally occupations are dispensed with in a mill, or new occupations are introduced, and sometimes data are not available for all occupations in a mill.

Data for a group of establishments in any year will not be precisely the same as for a different group in the same year, even though nearly all of the establishments may be common to both groups. In using the actual figures in this report, comparison from year to year should be made only between data coming from identical establishments. In the tables the data from identical establishments are bracketed together. Data from an establishment are not included in the report unless the information for at least two years is available.

In selecting establishments from which to secure data the Bureau undertook to represent all States in which woolen and worsted goods manufacturing is of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures, 1910. The table which follows shows by States the number of employees in this industry as reported by the United States Census Office for 1910; the total number on the pay roll in the establishments from which the Bureau secured data for 1913; and the number in the selected occupations for whom data for 1913 are shown.

TOTAL NUMBER OF EMPLOYEES IN WOOLEN AND WORSTED GOODS MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FOR WHICH DATA ARE SHOWN FOR 1913.

State.	Number of employees reported by United States Census Office, 1910.	Establishments for which data are shown by the Bureau of Labor Statistics for 1913.		
		Number of establishments.	Number of employees—	
			On pay roll.	For whom data are shown.
Massachusetts.....	52,564	13	14,078	6,188
Pennsylvania.....	26,669	(1)	(1)	(1)
Rhode Island.....	24,924	5	5,464	2,213
New Jersey.....	12,394	3	6,810	1,962
New Hampshire.....	9,486	7	5,132	2,335
Maine.....	8,553	11	2,155	1,259
New York.....	7,559	2	1,514	666
Connecticut.....	7,526	4	852	454
Other States ²	13,517	1	1,500	543
Total.....	163,192	46	37,505	15,620

¹ Time worked by pieceworkers not a matter of record in the establishments in this State, hence no data were obtainable.

² Includes States having less than 2,500 each in 1910.

According to the census of 1910, more than 75 per cent of the total number of employees in the industry are found in the States in which the establishments furnishing information to the Bureau of Labor Statistics are located. The number of employees in the establishments from which the Bureau secured 1913 data was equal to 23.0 per cent of the total in the industry in 1910, and the number for which the Bureau presents detailed information for 1913 was equal to 9.6 per cent of the total in the industry in 1910.

The pay rolls copied usually cover one week. For weavers and a few other pieceworkers—about one-half of all employees for whom data are shown—pay rolls for two, or in some instances four, consecutive weeks were taken for each employee. This was considered necessary to obtain a fair average. Weavers are not paid for work until the cloth is taken from the loom, and a part of the work of one week is often paid for in the succeeding week. In some cases, where a bonus or premium is paid the bonus is based on four weeks' work and it is necessary to take the earnings for the entire period in order to get the employee's real earnings.

The pay-roll period taken each year was that nearest May 15, except in a very few establishments where abnormal conditions made it desirable to take a pay roll for some other time of the year.

The full-time hours of labor per week shown in the tables of the report are the regular hours of work of the occupation under normal conditions in the establishment, or if the establishment is found running under unusual working time because of rush work or of slack work, the hours to which both employer and employee expect

to return when conditions become normal. The working time is the hours on duty including intervals of waiting for work.

The full-time hours per week and the relatives based thereon do not in any way indicate the extent of unemployment. Employees may work overtime, broken time, or be laid off, or a temporary reduction may be made in working hours, without such change affecting the full-time hours per week as presented in this Bulletin.

The rates of wages per hour appearing in the tables include the wages of time workers and the earnings of pieceworkers. All time rates by the day or week have been reduced to rates per hour, and the earnings of pieceworkers or of persons working at both time and piece rates have been reduced to earnings per hour, by dividing the earnings by the hours worked. The time workers and pieceworkers of each occupation are combined as one group. Where there was no record regularly kept by the establishment of the actual time worked by pieceworkers, the firms at the request of the Bureau kept a special record for the one pay period. The importance of such a record for factory purposes is causing a greater number of firms each year to keep a record of time worked by all employees.

A change in the earnings per hour of pieceworkers does not of necessity indicate a change in piece rates. Without a change in piece rates, a change in methods or machinery, a speeding up, or more steady work resulting from greater volume of business may increase the hourly earnings; or, on the other hand, changes in methods, a slowing down in speed, or a lull in business may reduce hourly earnings. Varying intervals of waiting for work while on duty may also affect hourly earnings.

The full-time weekly earnings are the earnings per week of employees working full time, or the earnings on broken time reduced to equivalent earnings for a full week. In considering changes in full-time earnings per week, notice should also be taken of changes in full-time hours of labor per week. A reduction in the hours of a pieceworker may reduce his earnings in a week and leave his earnings per hour unchanged, while a reduction of hours for a week worker will, if his weekly rate remains the same, increase his rate per hour.

The averages of full-time hours per week, rates of wages per hour, and full-time weekly earnings are computed by adding the data for each individual employee and dividing the total by the number of employees.

In studying the tables, it will be observed that the average full-time weekly earnings are not exactly the same as the result that would be obtained by multiplying the average rate per hour by the average hours per week, owing to the change in the relative weight of the items. This point is illustrated on page 23.

The change in the basis of comparison in computing the relative numbers from the average of 1890-1899 to 1913 is referred to on page 99. A more extended explanation is also given on pages 23 to 25. The relative rates of wages per hour and the relative full-time hours per week from 1890 to 1912 on the basis of 1890-1899 equaling 100, published in Bulletin No. 128, are reproduced in this Bulletin in the appendix, page 178.

The method used in computing the relative or index numbers for the several occupations can best be explained by an illustration. Such an illustration is given on page 25.

A word of caution is given as to the use of relative numbers. The per cent of increase or decrease from one year to another is not the difference between relative numbers for the years. Thus, as shown in the table on page 98, the relative full-time weekly earnings in the woolen and worsted industry increased from 92.5 in 1910 to 102.3 in 1912, an increase of 9.8 in the relative for 1912 over the relative for 1910, which number (9.8) is 10.6 per cent of 92.5, thus making the increase in full-time earnings per week of 10.6 per cent in 1912 over 1910.

The base for the computation of the relative numbers of the several occupations, as stated above, has been changed from the average of 1890-1899 to 1913. The same change of base has been made in computing the relative numbers for the industry as a whole. In addition to the change of base in computing the relative numbers for the industry, a change has been made in the method of computation. The relative numbers for the industry here presented, covering 1910 to 1913, are computed directly from the average hours of labor, rates of wages per hour, and weekly earnings of all employees in all occupations combined into one group. In other words, the relatives for the industry as a whole have been computed for this report in the same manner as the relatives for each occupation. This change of method is explained and illustrated on pages 26 to 30.

In addition to the text tables presented in the summary, 7 general tables are given, namely:

Table I.—Average and classified rates of wages per hour in the United States, by years, 1907 to 1913.

Table II.—Average and classified rates of wages per hour in each year, by States, 1912 and 1913.

Table III.—Average and classified rates of wages per hour in each State, by years, 1912 and 1913.

Table IV.—Average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.

Table V.—Average and classified full-time hours of work per week in each year, by States, 1912 and 1913.

Table VI.—Average and classified full-time hours of work per week in each State, by years, 1912 and 1913.

Table VII.—Average full-time hours of work per week and average full-time weekly earnings, by States, 1912 and 1913.

In Tables I and IV, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 93 to 96.

When data for a State are available in sufficient amount to warrant presentation, such data are presented by States in Tables II, III, V, and VI. Tables III and VI repeat the data for the several States given in Tables II and V, rearranged for the convenience of the reader.

DESCRIPTION OF PRINCIPAL PRODUCTIVE OCCUPATIONS.

The occupations included in the report for 1913 are:

Burlers.	Menders.
Carding-machine tenders.	Spinners, frame.
Card strippers.	Spinners, mule.
Combers.	Twisters.
Dressers.	Weavers.
Laborers, dyehouse.	Wool sorters.
Loom fixers.	

Brief descriptions of the work done by employees in each of these occupations follow:

BURLERS.

Burlers remove the knots from cloth. A "cut of cloth," so-called, is gradually pulled over the flat or slanting top of a burler's desk. As the knots are seen or found by the burler in passing her hands over the cloth she removes them with a "burling iron," which is a flat piece of steel about 6 inches long, bent double, allowing about an inch between the two ends, which are about half an inch wide and sharpened to fine edges. The burler can bring the ends together and release them at will. As the burler pulls the cloth over the desk it drops in folds on the floor in front of the desk. The burler works either standing or sitting, as she elects. The work is done by females and on either time or piece basis.

CARDING-MACHINE TENDERS.

Woolen cards (or carding machines) are a combination of three cylinders or three cards, "first breaker," "second breaker," and "finisher." Worsted cards are a combination of two cylinders or two cards, a first and a second breaker. The term carding-machine tenders embraces all employees in carding rooms outside of superin-

tendent, overseer, second hand, card grinder, and card stripper. The names applied to the work done in connection with carding machines frequently differ from mill to mill. When the stock (that is, the raw wool) is fed by hand to an endless apron which carries it to the first breakers, the first card through which the stock goes, and to the second breakers, the second card through which the stock goes, the employee in each case is called a "feeder." When an automatic machine is attached to the first breaker so as to draw the stock from the box of the automatic machine, the box being hand filled, the mechanism of the machine is such that the stock is weighed and evenly fed to the endless apron of the card. The employees who place the stock in the box of the automatic feeders are called "Bramwell feeds," taking their name from the manufacturer of the automatic machine. Wool stock comes through the first breaker in the form of a sliver or strand. Wound on a short wooden spool, this sliver is then fed into the second breaker, and the employee may be called a feeder, second feeder, or second breaker. Very little of this handwork is now done. Automatic machines are arranged to convey the sliver directly from the first breaker to the second breaker. Employees watch the sliver in passing from the first to the second breaker and mend it, if it breaks, by twisting the sliver together with their fingers. The employees doing this watching and mending, from the make of the automatic machine mentioned, are called "Apperley feeds." Sliver that is to become woollen yarn passes on to a third card known as a finisher or condenser. Sliver that is to be converted into worsted yarn does not go to the third card, being converted into worsted yarn by a combing and twisting process. Whether the sliver is taken off the cards at the second (and last) worsted cards, or at the third (and last) woollen cards, it is removed on spools or in cans in the same general way, though the method varies somewhat from mill to mill. The sliver winds upon spools attached to the last card in a horizontal position. As the spool winds full an employee takes it off and puts an empty spool in its place to be filled. The employee doing this is called finisher, baller, or doffer. An automatic machine run in connection with a row of last cards, taking the sliver from each card and uniting it in one continuous sliver, conveying it to one end of the row of cards, and winding it upon a spool in the same manner as when wound direct from one card on a spool, constitutes what is called, from the conveying process, a "railway." An employee attending a railway must see that the sliver does not break, must twist it together by hand if it does break, take off the spool when it is wound full, and place an empty spool in its place.

Sliver from the last card of the set, woollen or worsted, by another process, runs through what is known as a "card head," and coils into a can. When the can is filled with the sliver it is removed and

another put in its place. Employees having charge of the cans are called head feeds, heading tenders, and card ends.

Card boys are employed in some mills to clean up waste and assist employees in other occupations. Carding-machine tending is done by either males or females, generally males, and on a time basis.

CARD STRIPPERS.

The special duty of card strippers is to strip or clean the card clothing when it becomes clogged and produces a poor sliver. The card clothing of a carding machine consists of cotton cloth, enforced with rubber facing, through which fine wires of tempered steel from $\frac{3}{8}$ to $1\frac{1}{4}$ inches in length are fixed at various pitches to catch and draw the wool through the rolls of the cards. Card stripping is done by males and on a time basis.

COMBERS (WORSTED OCCUPATION).

Combers place the wooden rolls on which the sliver or roving, as it is now called, is wound on the combing machines. Eighteen rolls, "balls," as they are called, are provided for on most machines, places for the rolls being arranged so as to form a complete circle. The roving runs off the various rolls into a continuous strand which passes around a circle, where fine, metallic teeth comb the short fibers out of the strand. The short fibers, as they are combed, fall into a can, or drop through a hole in the floor under the combs to a conveyor, to be taken away as waste. This waste is known as "noils," and is combed out, as it can not be used in worsted goods. The long-fibered wool, with the short fibers combed out, comes from the combs in a long, continuous coil and feeds into tall, round cans, to be drawn or wound upon spools for spinning. Besides placing the spools on the comb and removing the empty spools, the comber watches the long-fiber strand to see that it does not break as it passes from the comb and coils into the can. Combers tend from one to two combs. The work is done by males or females and on a time basis.

DRESSERS.

Dressers "size" warp yarn by running it through a sizing solution of starch. The desired number of "ends" of yarn are run off spools onto wooden beams 32 to 40 inches long. From these beams the desired length of warp yarn required for a specified warp is drawn between rolls revolving in liquid starch and then between rolls to extract the surplus sizing. From the extractor rolls the yarn goes between and over a series of coils of steam-heated pipes varying in number, and in some cases over a drying cylinder to dry. It then goes through a separator to separate the strands and then is wound upon a beam. The dresser puts in place and removes the beams at

both the front and the back of the sizer and arranges the specified ends of yarn for dressing. The dresser may make the sizing solution, or an employee designated as size man or starch man may prepare it. Some mills buy their warp instead of making it, but all mills dress their warp whether they make or buy it. The work is done by males and on either a time or a piece basis.

LABORERS, DYEHOUSE.

Employees reported under this head are entered on the pay rolls as dyehouse laborers in some mills and in other mills as kettle men, pole men, vat men, reelers, and machine dyers. All get a common laborer's rate of pay, which varies a cent or two an hour between kettle men and pole men, reelers, and machine dyers. But one and all simply do common labor. All mills speak of them and consider them as laborers, or dyers, regardless of the pay-roll terms used. For the purpose of this investigation all are classed as "laborers, dyehouse." Kettle men place the cloth or wool to be dyed in a large copper kettle containing liquid dye, watch it revolve by automatic force inside the kettle, and take the material out when dyed as desired. Pole men and vat men place cloth or wool in wooden vats with liquid dye and move the material to be dyed about in the vat with long poles at short intervals and take it from the vats when dyed. A vat filled with liquid dye, with a large wooden reel or roll in a frame from 2 to 3 feet above the vat, with a similar reel at the bottom, constitutes a reel for dyeing. A reeler takes a cut or web of cloth, passes it over the reels and sews the ends together, forming an endless chain, and starts the machine, and the cloth passes around on the reels through the dye until it is properly colored, when the reeler removes the cloth from the reels. Machine dyers place cloth and wool in copper drums perforated at the sides and ends, and machine power revolves the drum through vats of liquid dye until the proper color of the material is secured. The operator then removes the material from the drums. In some years a mill manufactures less colored goods than in other years, so that the number of dyers employed varies from year to year according to the proportion of white and colored goods produced. The work is done by males and on a time basis.

LOOM FIXERS.

Loom fixers repair looms when any part of a loom breaks or the warp or filling runs bad through some defect of the machinery or because of improper speed. A loom fixer, besides being a machinist, must understand weaving. The work is done by males on either a time or a piece basis.

MENDERS.

Menders, sometimes called sewers, take the cloth and handle it on a desk in the same manner as the burlers, examine it for broken threads or dropped threads, which they sew in with a needle and thread, and for torn places or imperfections, which they mend. Sewers stand or sit at their work, as they elect. The work is done by females and on either a time or a piece basis.

SPINNERS, FRAME.

Frame spinners operate machines called spinning frames. Each frame has two sides, on both of which spools containing roving are placed horizontally. Ends of the roving strand are drawn through small metal rolls and attached to bobbins which are placed perpendicularly in a single row on spindles on each side of the frame, at a distance of approximately three feet from the roving spools, so that the roving spins from the roving spool to the bobbin on a downward incline. On an average there are 72 bobbins on each side of a frame. The machines on which frame spinning is done are placed in rows with passageways entirely around each machine. Each of the two sides of a spinning frame is known as a "side," and for operative purposes is virtually a separate machine. A frame spinner generally attends several sides. His duty is to place the roving spools on the frame and tie roving that breaks in spinning from the spools to the bobbin, so that it will wind upon the bobbins in a continuous even yarn. The bobbins are placed on the frames and taken off when full by doffers. Frame spinning is done largely by females and on a time basis.

SPINNERS, MULE.

The mule spinner operates a mule or a pair of spinning mules. The mules vary in length from 25 feet to 160 feet, the average length being approximately 80 feet. The number of spindles varies from 240 to 1,000, according to the yarn produced. Spools on which sliver has been wound at the cards, or after it has been combed are placed horizontally on a frame facing the mule carriage. The end of the strand of sliver from each spool is drawn through a set of small metal rolls, and between an upper and lower steel wire running the length of the carriage and is attached to bobbins placed perpendicularly on spindles on the mule carriage. The mule spinner starts the mule in operation by moving a clutch that controls the connection between the frame and the carriage. The carriage moves automatically outward from the frame from 5 to 7 feet, drawing out and twisting the sliver into yarn. Then the carriage automatically returns to the mule winding the yarn upon the bobbins. This drawing out and winding continue until the yarn is spun to the

required quality. The mill management specifies the fineness of yarn desired in runs, numbers, or skeins—generally runs or numbers. A run in woolen spinning is 1,600 yards to 1 pound of wool; in worsted spinning a run called a number is 560 yards to 1 pound of wool; hence, if one-run yarn in woolen or No. 1 yarn in worsted is wanted, the spinner must know the distance the mule carriage draws away from the frame of the mule and other measurements necessary to the unit, and figures the number of times the carriage must pass from and to the frame to secure the unit desired. Each run or number is a multiple of the first run or number; thus two-run woolen yarn is 3,200 yards to 1 pound of wool and ten runs 16,000 yards to 1 pound of wool; No 2 worsted yarn is 1,120 yards to 1 pound of wool and No. 10 worsted yarn 5,600 yards to 1 pound of wool. A fractional run or number is the proportion of the main unit—two-and-one-fourth-run woolen yarn is 3,600 yards to 1 pound of wool, and No. 2½ worsted yarn is 1,400 yards to a pound. The mule spinner's duties are to attend to running the mule and see that the desired run or number of yarn is produced; he is paid by the run or number of yarn spun, or pounds of wool spun, based on the run or number of yarn. A mule spinner in some mills pieces the sliver when it breaks by joining it by hand, or by placing it between the small metal rolls, if convenient, at the mule frame where it joins itself. In most of the mills there are boys who do the piecing work, and they are called piecers, creelers, or back boys. The spools filled with the sliver are put on the frames by boys and the bobbins or tops, on which the yarn is wound from spools to the spindles on the carriage, are also put on and taken off by boys. The former are called "roving hands," and the latter "doffers." In some mills older boys, or young men, do the roving work, the doffing work, and help the mule spinner to join the broken ends of sliver or yarn. In this case, they are called assistant mule spinners. The French system of spinning is by mules, the same as already described, and, as the work and the wage scale are the same, the operators are classed as mule spinners. Jacks formerly were used in place of mules, but they began to go out of use in 1874. The difference between the operation of a mule and a jack is that after the mule is once started, it works automatically until it is stopped, while the jack is operated by a spinner's turning a hand jack in the center of the carriage for the carriage to draw outward from the frame of the jack, walking backwards in advance of the carriage, and turning the hand jack back for the carriage to draw in or back to the frame, following the carriage in, and so on until the yarn is spun. The mule spinner walks back and forth, as the mule carriage draws out and in, but has no drawing or pushing to do. Mule spinning has nearly superseded jack spinning, and frame spinning in worsted is taking the place of mule spinning, as

frame-spinning machines do not take up as much room as mules, and the work can be done by boys and girls from 16 to 20 years of age, while mule spinning is usually done by men. In woolen, frame spinning is not used, as the texture of the yarn that is desired can not be secured by frame spinning. The work of mule spinning is done by males and almost invariably on a piece basis.

TWISTERS (WORSTED OCCUPATION).

This is a worsted occupation by which the yarn on what is termed a doubler's spool is run into two or more ply yarn or thread. A twisting machine can be regulated to make from 2 to 40 turns per inch. The yarn is twisted from the doubler's spools arranged in perpendicular rows on the top of the machine to twister bobbins which are arranged in a lower corresponding perpendicular row. When the twister bobbins are wound full, the twister breaks the thread running from the doubler's spool to the bobbin and ties it to the frame that holds the bobbins, if the yarn is not all run off of the doubler's spool. When empty bobbins are placed on the frame again, he unties the yarn ends and attaches them to the bobbins, replacing the filled bobbins. When the twisting machine is in operation, the operator watches for broken yarn or thread and ties the ends together to secure a continuous thread for the bobbins. The work is done by either males or females, but generally by females, and on a time basis.

WEAVERS.

Weavers take bobbins wound with filling yarn from a bobbin box at the right side of their looms and place them one at a time on a spindle inside of a wooden shuttle. They then draw the yarn through a hole in the side of the shuttle, "threading the shuttle," and place it in the shuttle box at the right of the loom, drawing the yarn through the shuttle hole, at a length sufficient to throw it between two harnesses of the loom containing the warp. The weaver then moves to the left a clutch located at the right, near the shuttle box, thus starting the loom in motion. A picker stick strikes the end of the shuttle, driving it with the bobbin through the warp and unwinding the yarn from the bobbin the length of its passage and passing the shuttle into a corresponding shuttle box at the left of the loom. It is then hit by another picker stick, which returns the shuttle to the first shuttle box, the yarn unwinding as before, the process continuing until the bobbin is emptied, when another bobbin is substituted by stopping and starting the loom, and so on. After the shuttle passes from the right to the left a warp harness drops down and a frame reaching the length of the loom with fine, small, perpendicular teeth through which the warp passes presses up so that the side of the

frame wire presses the filling yarn into place. Then a second warp harness drops down and the first harness comes up, the picker stick strikes the shuttle at the left of the loom, and the yarn from the bobbin passes through the warp, whose threads are thus crossed first above and then below the filling yarn and the frame with the fine teeth comes up and again presses the filling yarn into the web. The number of harnesses on a loom depends on the style or pattern of the cloth. Each time the filling yarn passes from one side of the loom to the other is called a pick. Hence starting from the right-hand shuttle box and going to the left-hand shuttle box and returning, two picks have been woven. If a filling or a warp yarn breaks, a drop wire stops the loom and the weaver ties the broken ends and again starts the loom. As the picks are formed in the warp, thus weaving the cloth, the latter winds upon a horizontal wooden roll at the bottom of the loom, and filling this roll or spool constitutes a cut. Woolen and worsted weavers are generally paid by the yard, and one of the important factors in fixing the piece price is the number of picks per inch. There are broad looms, three-quarter looms, and narrow looms. The width of a broad loom is approximately 110 inches; of a three-fourths loom, $72\frac{1}{2}$ inches; and of a narrow loom, 55 inches; but the width of the goods woven is considerably less, as, for instance, a double width may be 56 inches, and a single width 28 inches. Margins are allowed on each edge of the cloth to permit of its being trimmed or shrunk down to standard double and single widths, according to pattern. The width of looms varies considerably in different mills, and even in the same mill. Weavers on broad and three-quarter looms (there being few three-quarter looms) run from one to three looms, generally two. Narrow-loom weavers run from two to eight looms. Pattern weavers are not included in the weavers given in this report, as they should not be classed with regular weavers, being employed to get out samples from which the buyers make selections and give their purchase orders. The work is done by either males or females, usually on a piece basis.

WOOL SORTERS.

The wool is delivered in bags to the mills, each bag containing on an average 250 pounds of wool fleeces. The wool sorter opens a bag and takes out a portion of the fleeces, and lays them on the floor. Then, from the number of the fleeces taken out, the sorter takes one fleece and, standing up, shakes it over the floor to shake out the "belly wool" and "skirtings" (waste wool). Belly wool, as the name indicates, comes from the under part of the fleece, and skirtings from the hips and edges of the fleece. After shaking the fleece the sorter lays it on a table or bench near the bag from which the sorting is

being done and picks or pulls off the loose ends which have not come off through the shaking process. Then, from his knowledge of wool, the sorter decides what grade of wool the fleece is, and places it in a basket for that grade of wool. The work is almost invariably done by males, although in rare cases it is done by females. It is done on either a time or a piece basis.

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
Burlers, female:																				
18 establishments.	1907	611	58.3	\$0.1224	6	40	46	297	107	53	29	20	11	2						
	1908	494	58.0	.1160	3	39	22	255	114	38	14	6	3							
	1909	582	58.0	.1231	2	43	38	259	105	68	31	11	23	2						
	1910	598	56.9	.1238	1	19	34	286	113	93	23	18	11							
26 establishments.	1910	1,034	56.5	.1296	2	29	54	365	275	145	100	38	25	1						
	1911	1,010	56.6	.1273	6	27	68	345	320	118	76	29	20	1						
43 establishments.	1911	1,516	56.8	.1296	6	49	116	471	431	209	138	56	37	2	1					
	1912	1,471	55.9	.1472	12	47	148	640	191	173	100	145	14	1						
44 establishments.	1912	1,562	55.9	.1453	16	63	190	659	197	175	102	145	14	1						
	1913	1,635	55.6	.1462	3	5	53	225	634	209	230	136	126	12	2					
Carding-machine tenders, male:																				
19 establishments.	1907	145	58.6	.1255	1	3	10	27	80	24										
	1908	136	58.6	.1210	5	10	34	69	17	1										
	1909	134	58.4	.1237	1	3	5	31	73	21										
	1910	133	57.3	.1250	1	5	38	65	23	1										
26 establishments.	1910	201	56.9	.1274	1	5	49	98	46	1	1									
	1911	196	56.9	.1414	2	3	60	83	34	14										
40 establishments.	1911	320	57.1	.1357	2	5	115	122	63	13										
	1912	412	56.4	.1354	2	76	167	148	18	1										
	1913	329	56.3	.1424	1	2	22	105	170	27	1	1								
Card strippers, male:																				
18 establishments.	1907	89	58.2	.1447					3	30	40	16								
	1908	79	58.1	.1449					1	31	36	10	1							
	1909	80	58.1	.1510					23	34	19	4								
	1910	88	57.7	.1512					1	23	41	18	4	1						
27 establishments.	1910	162	57.0	.1526					1	24	93	37	6	1						
	1911	155	56.9	.1531					20	92	34	8	1							
42 establishments.	1911	223	57.1	.1514					8	33	127	47	7	1						
	1912	240	56.9	.1634					4	79	137	13	7							
	1913	238	56.4	.1670					53	145	37	3								
Combers, male:																				
4 establishments.	1907	52	58.5	.1330					1	36	15									
	1908	25	58.6	.1312					21	7	1									
	1909	29	58.6	.1371					10	10										
	1910	42	57.2	.1398					14	28										
6 establishments.	1910	106	56.5	.1393					58	48										
	1911	124	56.5	.1384					1	74	49									
9 establishments.	1911	188	56.5	.1405					11	108	50	10								
	1912	181	55.1	.1555					20	116	21	2								
	1913	115	54.8	.1556					9	63	40	3								

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and over cts.				
Combers, female:																				
4 establishments.	1907	101	55.7	\$.0989	13	20	26	24	8	10										
	1908	117	55.8	.0986	2	30	34	32	19											
	1909	111	55.8	.1019		20	27	42	22											
	1910	110	55.4	.1103		9	15	66		20										
6 establishments.	1910	129	55.5	.1105		9	23	69	8	20										
	1911	118	55.4	.1086			14	90	11	3										
7 establishments.	1911	139	55.8	.1092			14	111	11	3										
	1912	150	55.8	.1157			13	99	23	15										
	1913	163	56.1	.1170			14	86	49	14										
Dressers, male:																				
19 establishments.	1907	119	58.8	.2236						1	4	7	96	11						
	1908	97	58.4	.2254							2	10	72	13						
	1909	126	58.3	.2241							12	2	93	19						
	1910	126	57.9	.2282							8	1	98	19						
27 establishments.	1910	214	57.1	.2418							12	4	106	87	5					
	1911	215	57.1	.2394							15	8	99	90	3					
46 establishments.	1911	337	57.1	.2429							15	10	152	155	5					
	1912	384	56.4	.2616							11	11	141	194	38					
	1913	346	56.2	.2614							6	7	120	183	30					
Laborers, dyehouse, male:																				
19 establishments.	1907	434	58.1	.1439					177	237	19	1								
	1908	385	57.8	.1395					273	94	16	1	1							
	1909	514	57.9	.1366					367	118	25	2	2							
	1910	570	56.5	.1420					199	338	27	5	1							
27 establishments.	1910	837	56.3	.1430			1	305	436	88	6	1								
	1911	877	56.5	.1445				1	260	517	89	9	1							
45 establishments.	1911	1,116	56.6	.1452			1	360	573	170	11	1								
	1912	1,093	55.5	.1571			3	74	678	309	18	10	1							
	1913	1,033	55.5	.1587					54	635	281	52	11							
Loom fixers, male:																				
19 establishments.	1907	223	58.0	.2668							1	2	51	155	14					
	1908	218	57.9	.2621							1	3	47	157	10					
	1909	242	58.1	.2629								4	41	186	11					
	1910	260	57.0	.2695							2	3	27	212	16					
27 establishments.	1910	429	56.6	.2787							2	3	27	326	71					
	1911	390	56.6	.2779							1	4	24	301	60					
46 establishments.	1911	569	56.7	.2752								3	98	357	111					
	1912	589	55.9	.3075									46	292	222	29				
	1913	578	55.7	.2977							1		50	315	210	2				
Menders, female:																				
18 establishments.	1907	403	58.5	.1448		2	27	68	119	81	37	34	31	4						
	1908	341	58.4	.1481	3	8	22	71	61	57	39	35	35	10						
	1909	583	58.8	.1371	3	44	91	117	82	86	49	42	58	11						
	1910	498	58.0	.1479	1	14	44	125	81	58	30	82	43	16	4					
25 establishments.	1910	1,196	56.8	.1598	3	25	78	190	168	113	188	200	194	32	5					
	1911	1,115	56.9	.1591	1	13	52	179	149	165	168	227	140	16	5					
44 establishments.	1911	1,623	56.8	.1597	1	13	74	237	243	264	228	332	200	23	8					
	1912	1,668	55.7	.1890		4	27	120	144	180	184	284	572	124	27	2				
42 establishments.	1912	1,589	55.6	.1929			11	81	133	174	183	282	572	124	27	2				
	1913	1,388	55.3	.1829	3	9	15	72	168	170	208	253	377	95	18					
Spinners, frame, male:																				
2 establishments.	1910	114	56.0	.1252				66	30	17		1								
	1911	134	56.0	.1287				6	46	48	32	2								
3 establishments.	1911	194	56.0	.1316			6	53	64	69	2									
	1912	244	54.0	.1580					7	202	35									
	1913	115	54.0	.1357			1	86	28											

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
Spinners, frame, female:	5 establishments	1907	323	57.6	\$.1272	12	3	116	77	115										
		1908	284	57.5	.1224	4	4	90	186											
		1909	295	57.5	.1241	6	2	59	228											
		1910	286	56.0	.1278	1		53	193	39										
	8 establishments	1910	578	56.0	.1223	9	22	269	239	39										
		1911	683	56.0	.1272		4	206	395	75	3									
	10 establishments	1911	1,002	56.4	.1255			10	390	469	130	3								
		1912	1,070	55.2	.1439			15	36	365	564	90								
		1913	751	55.5	.1402			1	16	315	404	14	1							
	Spinners, mule, male:	19 establishments	1907	384	58.6	.2190			3	3	10	41	73	173	78	3				
1908			267	58.2	.2152			4	7	15	24	48	99	67	3					
1909			297	58.2	.2226					3	10	42	47	100	89	5	1			
1910			320	57.5	.2227			1	1	8	27	59	132	87	5					
26 establishments		1910	529	57.0	.2242			2	2	12	43	81	248	133	8					
		1911	454	56.9	.2312			1	2	5	30	53	212	135	16					
40 establishments		1911	638	57.3	.2238			1	3	11	55	95	335	118	20					
		1912	719	56.5	.2404				2	5	38	75	300	245	54					
		1913	759	56.4	.2377				1	7	8	68	79	295	223	77	1			
Twisters, female:		7 establishments	1907	186	57.2	.1119	12	7	120	34	13									
	1908		138	57.6	.1136			7	53	6										
	1909		223	58.0	.1123	11	1	5	123	69	11	3								
	1910		216	57.2	.1142	23		5	99	67	14	2	3	3						
	10 establishments	1910	332	56.9	.1262	23		5	156	90	23	2	3	30						
		1911	342	56.8	.1241			1	148	149	23	7	7	7						
12 establishments	1911	600	56.7	.1308	2	5	190	160	205	18	10	9	1							
	1912	751	55.7	.1374		11	162	175	352	44	6	1								
	1913	598	55.4	.1354		4	73	284	202	26	5	4								
Weavers, male:	19 establishments	1907	1,653	58.5	.2027	4	10	70	82	148	221	281	588	185	60	4				
		1908	1,409	58.6	.1955	2	6	9	38	101	177	208	254	445	120	43	6			
		1909	1,589	58.6	.1994	4	5	9	62	113	193	213	247	497	172	68	6			
		1910	1,716	57.8	.1985	1	4	25	79	175	288	393	562	160	27	2				
	27 establishments	1910	2,907	57.1	.2068	3	10	52	124	249	443	552	956	393	117	8				
		1911	2,563	57.1	.2096	6	14	48	102	248	352	383	834	471	101	4				
	46 establishments	1911	4,049	57.1	.2099	8	27	85	170	358	509	619	1,411	703	154	5				
		1912	4,476	56.3	.2367	2	6	50	104	202	336	474	1,528	1,184	574	16				
		1913	3,845	56.1	.2324		7	53	87	206	355	460	1,281	942	434	20				
	Weavers, female:	19 establishments	1907	1,873	58.0	.1875	4	13	72	148	225	300	419	572	109	11				
1908			1,882	57.7	.1663	14	18	174	256	370	402	312	305	27	3	1				
1909			1,807	57.6	.1660	4	11	36	215	252	302	362	274	298	38	15				
1910			2,116	56.4	.1739	4	7	49	168	234	311	364	428	494	44	11	2			
27 establishments		1910	2,855	56.3	.1799	6	8	54	200	293	387	489	542	704	131	39	2			
		1911	2,366	56.4	.1780		7	18	188	255	379	435	402	540	121	20	1			
46 establishments	1911	3,384	56.8	.1843	7	40	267	420	553	557	518	788	195	38	1					
	1912	3,586	55.9	.2057		41	130	175	317	505	595	1,135	496	190	2					
	1913	3,481	55.9	.1969		1	4	130	299	388	563	620	948	422	102	4				
Wool sorters, male:	11 establishments	1907	184	58.0	.2330				3	5	6	14	82	71	3					
		1908	164	57.8	.2233					1	8	16	12	111	16					
		1909	186	57.9	.2393						2	1	5	117	61					
	18 establishments	1910	193	56.5	.2464					1		7	1	6	47	125	6			
		1910	289	56.3	.2465				2		10	1	8	63	198	7				
		1911	335	56.3	.2494						6	2	3	77	243	4				
	19 establishments	1911	444	56.4	.2405						5	33	16	128	258	4				
		1912	471	55.2	.2666								21	82	346	22				
		1913	246	55.0	.2806						1		6	12	193	34				

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

PER CENT.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average rate of full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
Burlers, female:																				
18 establishments.	1907	611	58.3	\$0.1224	1.0	6.5	7.5	48.6	17.5	8.7	4.7	3.3	1.8	0.3						
	1908	494	58.0	.1160	.6	7.9	4.5	51.6	23.1	7.7	2.8	1.2	.6							
	1909	582	58.0	.1231	.3	7.4	6.5	44.5	18.0	11.7	5.3	1.9	4.0	.3						
	1910	598	56.9	.1238	.2	3.2	5.7	47.8	18.9	15.6	3.8	3.0	1.8							
23 establishments.	1910	1,034	56.5	.1296	.2	2.8	5.2	35.3	26.6	14.0	9.7	3.7	2.4	.1						
	1911	1,010	56.6	.1273	.6	2.7	6.7	34.2	31.7	11.7	7.5	2.9	2.0	.1						
43 establishments.	1911	1,516	56.8	.1296	.4	3.2	7.7	31.1	28.4	13.8	9.1	3.7	2.4	.1	0.1					
	1912	1,471	55.9	.1472		.8	3.2	10.1	43.5	13.0	11.8	6.8	9.9	1.0	.1					
44 establishments.	1912	1,562	55.9	.1453		1.0	4.0	12.2	42.2	12.6	11.2	6.5	9.3	.9	.1					
	1913	1,635	55.6	.1462	.2	.3	3.2	13.8	38.8	12.8	14.1	8.3	7.7	.7	.1					
Carding-machine tend-ers, male:																				
19 establishments.	1907	145	58.6	.1255	.7	2.1	6.9	18.6	55.2	16.6										
	1908	136	58.6	.1210		3.8	7.4	25.0	50.7	12.5	.7									
	1909	134	58.4	.1237	.7	2.2	3.7	23.1	54.5	15.7										
	1910	133	57.3	.1250		.8	3.8	28.6	48.9	17.3	.8									
26 establishments.	1910	201	56.9	.1274		.5	2.5	24.4	48.8	22.9	.5	.5								
	1911	196	56.9	.1414		1.0	1.5	30.6	42.3	17.3	7.1									
40 establishments.	1911	320	57.1	.1357		.6	1.6	35.9	38.1	19.7	4.1									
	1912	412	56.4	.1354			.5	18.4	40.5	35.9	4.4	.2								
	1913	329	56.3	.1424		.3	.6	6.7	31.9	51.7	8.2	.3	.3							
Card strippers, male:																				
18 establishments.	1907	89	58.2	.1447				3.4	33.7	44.9	18.0									
	1908	79	58.1	.1449				1.3	39.2	45.6	12.7	1.3								
	1909	80	58.1	.1510					28.8	42.5	23.8	5.0								
	1910	88	57.7	.1512				1.1	26.1	46.6	20.5	4.5	1.1							
27 establishments.	1910	162	57.0	.1526				.6	14.8	57.4	22.8	3.7	.6							
	1911	155	56.9	.1531					12.9	59.4	21.9	5.2	.6							
42 establishments.	1911	223	57.1	.1514				3.6	14.8	57.0	21.1	3.1	.4							
	1912	240	56.9	.1634					1.7	32.9	57.1	5.4	2.9							
	1913	238	56.4	.1670						22.3	60.9	15.5	1.3							
Combers, male:																				
4 establishments.	1907	52	58.5	.1330				1.9	69.2	28.8										
	1908	29	58.6	.1312					72.4	24.1	3.4									
	1909	29	58.6	.1371					65.5	34.5										
	1910	42	57.2	.1398					33.3	66.7										
6 establishments.	1910	106	56.5	.1393					54.7	45.3										
	1911	124	56.5	.1384					59.7	39.5										
9 establishments.	1911	188	56.5	.1405				5.9	57.4	26.6	10.1									
	1912	181	55.1	.1555					11.0	64.1	11.6	13.3								
	1913	115	54.8	.1556					7.8	54.8	34.8	2.6								
Combers, female:																				
4 establishments.	1907	101	55.7	.0989	12.9	19.8	25.7	23.8	7.9	9.9										
	1908	117	55.8	.0986	1.7	25.6	29.1	27.4	16.2											
	1909	111	55.8	.1019		18.0	24.3	37.8	19.8											
	1910	110	55.4	.1103		8.2	13.6	60.0		18.2										
6 establishments.	1910	129	55.5	.1105		7.0	17.8	53.5	6.2	15.5										
	1911	118	55.4	.1086			11.9	76.3	9.3	2.5										
7 establishments.	1911	139	55.8	.1092			10.1	79.9	7.9	2.2										
	1912	150	55.8	.1157			8.7	66.0	15.3	10.0										
	1913	163	56.1	.1170			8.6	52.8	30.1	8.6										
Dressers, male:																				
19 establishments.	1907	119	58.8	.2236						.8	3.4	5.9	80.7	9.2						
	1908	97	58.4	.2254							2.1	10.3	74.2	13.4						
	1909	126	58.3	.2241							9.5	1.6	73.8	15.1						
	1910	126	57.9	.2282							6.3	.8	77.8	15.1						
27 establishments.	1910	214	57.1	.2418							5.6	1.9	49.5	40.7	2.3					
	1911	215	57.1	.2394							7.0	3.7	46.0	41.9	1.4					

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.																	
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.						
Dressers, male—Con.																						
43 establishments.	1911	337	57.1	\$0.2429											4.5	3.0	45.1	46.0	1.5			
	1912	384	56.4	.2616											2.9	36.7	50.5	9.9				
	1913	346	56.2	.2614											1.7	2.0	34.7	52.9	8.7			
Laborers, dyehouse, male:																						
19 establishments.	1907	434	58.1	.1439						40.8	54.6	4.4	.2									
	1908	385	57.8	.1395						70.9	24.4	4.2	.3			.3						
	1909	514	57.9	.1366						71.4	23.0	4.9	.4			.4						
	1910	570	56.5	.1420						34.9	59.3	4.7	.9			.2						
27 establishments.	1910	837	56.3	.1430					0.1	36.4	52.1	10.5	.7			.1						
	1911	877	56.5	.1445					.1	29.6	59.0	10.1	1.0			.1						
45 establishments.	1911	1,116	56.6	.1452					1.3	32.3	51.3	15.2	1.0			.1						
	1912	1,093	55.5	.1571					.3	6.8	62.0	28.3	1.6			.9		.1				
	1913	1,033	55.5	.1587						5.2	61.5	27.2	5.0			1.1						
Loom fixers, male:																						
19 establishments.	1907	223	58.0	.2668									.4	.9	22.9	69.5	6.3					
	1908	218	57.9	.2621									.5	1.4	21.6	72.0	4.6					
	1909	242	58.1	.2629											1.7	16.9	76.9	4.5				
	1910	260	57.0	.2695											.8	1.2	10.4	81.5	6.2			
27 establishments.	1910	429	56.6	.2787									.5	.7	6.3	76.0	16.6					
	1911	390	56.6	.2779									.3	1.0	6.2	77.2	15.4					
46 establishments.	1911	569	56.7	.2752											.5	17.2	62.7	19.5				
	1912	589	55.9	.3075												7.8	49.6	37.7	4.9			
	1913	578	55.7	.2977											.2		8.7	54.5	36.3	.3		
Menders, female:																						
18 establishments.	1907	403	58.5	.1448		0.5	6.7	16.9	29.5	20.1	9.2	8.4		7.7		1.0						
	1908	341	58.4	.1481	0.9	2.3	6.5	20.8	17.9	16.7	11.4	10.3		10.3		2.9						
	1909	583	58.8	.1371	.5	7.5	15.6	20.1	14.1	14.8	8.4	7.2		9.9		1.9						
	1910	498	58.0	.1479	.2	2.8	8.8	25.1	16.3	11.6	6.0	16.5		8.6		3.2		.8				
25 establishments.	1910	1,196	56.8	.1598	.3	2.1	6.5	15.9	14.0	9.4	15.7	16.7		16.2		2.7		.4				
	1911	1,115	56.9	.1591	.1	1.2	4.7	16.1	13.4	14.8	15.1	20.4		12.6		1.4		.4				
44 establishments.	1911	1,623	56.8	.1597	.1	.8	4.6	14.6	15.0	16.3	14.0	20.5		12.3		1.4		.5				
	1912	1,668	55.7	.1890		.2	1.6	7.2	8.6	10.8	11.0	17.0		34.3		7.4		1.6				.1
42 establishments.	1912	1,589	55.6	.1929			.7	5.1	8.4	11.0	11.5	17.7		36.0		7.8		1.7				.1
	1913	1,388	55.3	.1829	.2	.6	1.1	5.2	12.1	12.2	15.0	18.2		27.2		6.8		1.3				
Spinners, frame, male:																						
2 establishments.	1910	114	56.0	.1252						57.9	26.3	14.9			.9							
	1911	134	56.0	.1287						4.5	34.3	35.8	23.9	1.5								
3 establishments.	1911	194	56.0	.1316						3.1	27.3	33.0	35.6	1.0								
	1912	244	54.0	.1580							2.9	82.8	14.3									
	1913	115	54.0	.1357							.9	74.8	24.3									
Spinners, frame, female:																						
5 establishments.	1907	323	57.6	.1272		3.7	.9	35.9	23.8	35.6												
	1908	284	57.5	.1224		1.4	1.4	31.7	65.5													
	1909	295	57.5	.1241		2.0		20.0	77.3													
	1910	286	56.0	.1278		.3		18.5	67.5	13.6												
8 establishments.	1910	578	56.0	.1223		1.6	3.8	46.5	41.3	6.7												
	1911	683	56.0	.1272				30.2	57.8	11.0	.4											
10 establishments.	1911	1,002	56.4	.1255				1.0	38.9	46.8	13.0	.3										
	1912	1,070	55.2	.1439				1.4	3.4	34.1	52.7	8.4										
	1913	751	55.5	.1402				.1	2.1	41.9	53.8	1.9	.1									

TABLE I.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Concluded.

PER CENT—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Employees earning each classified rate of wages per hour.															
					6	8	9	10	12	14	16	18	20	25	30	40				
					and under 8 cts.	and under 9 cts.	and under 10 cts.	and under 12 cts.	and under 14 cts.	and under 16 cts.	and under 18 cts.	and under 20 cts.	and under 25 cts.	and under 30 cts.	and under 40 cts.	and under 60 cts.				
Spinners, mule, male:	19 establishments.	1907	384	58.6	\$0.2190	.....	.....	.....	0.8	0.8	2.6	10.7	19.0	45.1	20.3	0.8	.....		
		1908	287	58.2	.2152	.....	.....	.....	1.5	2.6	5.6	9.0	18.0	37.1	25.1	1.1	.....		
		1909	297	58.2	.2226	.....	.....	.....	.....	1.0	3.4	14.1	15.8	33.7	30.0	1.7	0.3
		1910	320	57.5	.2227	.....	.....	.....	.3	.3	2.5	8.4	18.4	41.3	27.2	1.6	.....		
	26 establishments.	1910	529	57.0	.2242	.....	.....	.....	.4	.4	2.3	8.1	15.3	46.9	25.1	1.5	.....		
		1911	454	56.9	.2312	.....	.....	.....	.2	.4	1.1	6.6	11.7	46.7	29.7	3.5	.....		
	40 establishments.	1911	638	57.3	.2238	.....	.....	.....	.2	.5	1.7	8.6	14.9	52.5	18.5	3.1	.....		
		1912	719	56.5	.2404	.....	.....	.....	.....	.3	.7	5.3	10.4	41.7	34.1	7.5	.....		
		1913	759	56.4	.2377	.....	.....	.....	.1	.9	1.1	9.0	10.4	38.9	29.4	10.1	.1
	Twisters, female:	7 establishments.	1907	186	57.2	.1119	6.5	3.8	64.5	18.3	7.0		
			1908	138	57.6	.1136	2.9	54.3	38.4	4.3		
			1909	223	58.0	.1123	4.9	.4	2.2	55.2	30.9	4.9	1.3		
1910			216	57.2	.1142	10.6	.....	2.3	45.8	31.0	6.5	.....	9.1	1.4	.....	.....	.....
10 establishments.		1910	332	56.9	.1262	6.9	.....	1.5	47.0	27.1	6.9	.6	.9	9.0	.....	.....	.....
		1911	342	56.8	.1241	.....	.....	.3	43.3	43.6	6.7	2.0	2.0	2.0	.....	.....	.....
12 establishments.		1911	600	56.7	.1308	.....	.3	.8	31.7	26.7	34.2	3.0	1.7	1.5	.2	.....	.....	
		1912	751	55.7	.1374	.....	.....	1.5	21.6	23.3	46.9	5.9	.8	1.1	.....	.....	.....
		1913	598	55.4	.1354	.....	.....	.....	7.12	24.7	47.5	33.8	4.3	.8	.7	.....	.....	
Weavers, male:		19 establishments.	1907	1,653	58.5	.20272	.6	4.2	5.0	9.0	13.4	17.0	35.6	11.2	3.6	.2		
			1908	1,409	58.6	.1955	.1	.4	.6	2.7	7.2	12.6	14.8	18.0	31.6	8.5	3.1	.4		
			1909	1,589	58.6	.1994	.3	.3	.6	3.9	7.1	12.1	13.4	15.5	31.3	10.8	4.3	.4		
	1910		1,716	57.8	.1985	.....	.1	.2	1.5	4.6	10.2	16.8	22.9	32.8	9.3	1.6	.1	
	27 establishments.	1910	2,907	57.1	.2068	.....	.1	.3	1.8	4.3	8.6	15.2	19.0	32.9	13.5	4.0	.3	
		1911	2,563	57.1	.2096	.....	.2	.5	1.9	4.0	9.7	13.7	14.9	32.5	18.4	3.9	.2	
	46 establishments.	1911	4,049	57.1	.2099	.....	.2	.7	2.1	4.2	8.8	12.6	15.3	34.8	17.4	3.8	.1	
		1912	4,476	56.3	.2367	(1)	.....	1.1	1.1	2.3	4.5	7.5	10.6	34.1	26.5	12.8	.3		
		1913	3,845	56.1	.2324	.....	.....	.2	1.4	2.3	5.4	9.2	12.0	33.3	24.5	11.3	.5
	Weavers, female:	19 establishments.	1907	1,873	58.0	.18752	.7	3.8	7.9	12.0	16.0	22.4	30.5	5.8	.6		
			1908	1,882	57.7	.16637	1.0	9.2	13.6	19.7	21.4	16.6	16.2	1.4	.2	.1		
			1909	1,807	57.6	.1660	.2	.6	2.0	11.9	13.9	16.7	20.0	15.2	16.5	2.1	.8		
1910			2,116	56.4	.1739	.2	.3	2.3	7.9	11.1	14.7	17.2	20.2	23.3	2.1	.5	.1			
27 establishments.		1910	2,855	56.3	.1799	.2	.3	1.9	7.0	10.3	13.6	17.1	19.0	24.7	4.6	1.4	.1			
		1911	2,366	56.4	.1780	.....	.3	.8	7.9	10.8	16.0	18.4	17.0	22.8	5.1	.8	(1)	
46 establishments.		1911	3,384	56.8	.1843	.....	.2	1.2	7.9	12.4	16.3	16.5	15.3	23.3	5.8	1.1	(1)	
		1912	3,586	55.9	.2057	.....	.....	1.1	3.6	4.9	8.8	14.1	16.6	31.7	13.8	5.5	.1	
		1913	3,481	55.9	.1969	.....	(1)	.1	3.7	8.6	11.1	16.2	17.8	27.2	12.1	2.9	.1		
Wool sorters, male:		11 establishments.	1907	184	58.0	.2330	1.6	2.7	3.3	7.6	44.6	38.6	1.6		
			1908	164	57.8	.22336	4.9	9.8	7.3	67.7	9.8		
			1909	186	57.9	.2393	1.1	.5	2.7	62.9	32.8		
	1910		193	56.5	.24645	3.6	.5	3.1	24.4	64.8	3.1		
	18 establishments.	1910	289	56.3	.24657	3.5	.3	2.8	21.8	68.5	2.4		
		1911	335	56.3	.2494	.....	.....	.....	.....	.....	1.8	.6	.9	23.0	72.5	1.2	.....		
	19 establishments.	1911	444	56.4	.2405	.....	.....	.....	.....	.....	1.1	7.4	3.6	28.8	58.1	.9	.....		
		1912	471	55.2	.2666	.....	.....	.....	.....	.....	.....	.....	.....	4.5	17.4	4.7	.....		
		1913	246	55.0	.2806	4.4	2.4	4.9	78.5	13.8		

¹ Less than one-tenth of 1 per cent.

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913.

BURLERS: Female.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.																					
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.										
1912.																										
Massachusetts.....	12	724	54.0	\$.1479		2	5	43	402	91	67	43	60	11												
New Hampshire.....	6	253	58.0	.1334		3	2	4	205	9	16	9	5													
New Jersey.....	3	186	57.0	.1198		8	32	80	24	19	12	5	5	1												
New York.....	2	85	60.0	.1738					7	6	14	10	13	32												
Rhode Island.....	5	186	56.0	.1761				2	2	7	50	57	27	38	2							1				
Other States.....	16	128	58.3	.1266		3	19	54	15	14	13	5	5													
Total.....	44	1,562	55.9	.1453		16	63	190	659	197	175	192	145	14	1											
1913.																										
Massachusetts.....	12	721	54.0	.1417	3	3	12	47	442	76	58	38	33	8	1											
New Hampshire.....	6	275	57.9	.1657				11	50	43	88	48	35													
New Jersey.....	3	291	55.4	.1329				9	105	87	35	22	20	13												
New York.....	2	52	58.6	.1674					16	10	8	8	9													
Rhode Island.....	5	167	56.0	.1658			4	18	21	32	38	19	33	1	1											
Other States.....	16	129	58.0	.1262		2	28	44	18	13	16	3	3	2												
Total.....	44	1,635	55.6	.1462	3	5	53	225	634	209	230	136	126	12	2											

DRESSERS: Male.

1912.																										
Massachusetts.....	13	154	54.6	\$.2776									2	19	104	29										
Rhode Island.....	5	71	56.0	.2800										11	60											
Other States.....	28	159	58.2	.2380									9	111	30	9										
Total.....	46	384	56.4	.2616									11	141	194	38										
1913.																										
Massachusetts.....	13	134	54.6	.2770									1	12	100	21										
Rhode Island.....	5	72	56.0	.2797										13	59											
Other States.....	28	140	57.8	.2371									6	6	95	24	9									
Total.....	46	346	56.2	.2614									6	7	120	183	30									

LABORERS, DYEHOUSE: Male.

1912.																										
Massachusetts.....	13	627	54.2	\$.1572						36	443	142	6													
New Hampshire.....	7	96	57.8	.1641						1	36	57	1													
New Jersey.....	3	88	55.1	.1628				2	2	24	43	8	9													
Rhode Island.....	5	112	56.0	.1566				1	6	68	33	3	1													
Other States.....	17	170	58.9	.1502						29	107	34														
Total.....	45	1,093	55.5	.1571				3	74	678	309	18	10	1												
1913.																										
Massachusetts.....	13	512	54.2	.1549						39	392	75	6													
New Hampshire.....	7	126	57.8	.1662						1	44	81														
New Jersey.....	3	131	55.2	.1712							35	48	39	9												
Rhode Island.....	5	116	56.0	.1561						7	71	33	3	2												
Other States.....	17	148	58.0	.1564						7	93	44	4													
Total.....	45	1,033	55.5	.1587						54	635	281	52	11												

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

LOOM FIXERS: Male.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.												
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.	
1912.																	
Massachusetts.....	13	253	54.2	\$0.3257										2	125	112	14
New Hampshire.....	7	76	57.9	.2559											17	58	1
Rhode Island.....	5	89	56.0	.3196												30	59
Other States.....	21	171	57.4	.2971											27	79	50
Total.....	46	589	55.9	.3075											46	292	222
1913.																	
Massachusetts.....	13	250	54.2	.3017									1	15	162	70	2
New Hampshire.....	7	81	57.9	.2573										14	67		
Rhode Island.....	5	86	56.0	.3219											21	65	
Other States.....	21	161	56.7	.2991										21	65	75	
Total.....	46	578	55.7	.2977									1	50	315	210	2

MENDERS: Female.

1912.																	
Maine.....	10	105	58.0	\$0.1434					2	52	35	16					
Massachusetts.....	13	892	54.0	.1981			6	47	50	74	85	168	371	72	18	1	
New York.....	2	164	60.0	.2009				20	6	15	18	16	59	24	5	1	
Rhode Island.....	5	277	56.0	.1889			5	11	19	26	34	70	103	8	1		
Other States.....	12	151	57.8	.1951				1	6	24	30	28	39	20	3		
Total.....	42	1,589	55.6	.1929			11	81	133	174	183	282	572	124	27	2	
1913.																	
Maine.....	10	96	58.0	.1461				5	35	34	22						
Massachusetts.....	13	755	54.0	.1773	3	9	15	59	87	77	110	125	233	23	8		
New York.....	2	98	57.4	.2172				4	10	11	12	39	18	4			
Rhode Island.....	5	281	56.0	.1951				5	26	26	27	88	70	38	1		
Other States.....	12	158	57.4	.1884				3	16	23	32	28	35	16	5		
Total.....	42	1,388	55.3	.1829	3	9	15	72	168	170	208	253	377	95	18		

SPINNERS, FRAME: Male.

1912.																	
Massachusetts.....	3	244	54.0	\$0.1580						7	202	35					
1913.																	
Massachusetts.....	3	115	54.0	.1357					1	8	28						

SPINNERS, FRAME: Female.

1912.																	
Massachusetts.....	3	567	54.0	\$0.1568					1	12	464	90					
New Jersey.....	2	114	55.2	.1218			15	16	81	2							
Rhode Island.....	3	231	56.0	.1361					7	129	95						
Other States.....	2	158	58.1	.1247					12	143	3						
Total.....	10	1,070	55.2	.1439			15	36	365	564	90						
1913.																	
Massachusetts.....	3	316	54.0	.1460					84	232							
New Jersey.....	2	82	55.2	.1277			1	12	47	17	4	1					
Rhode Island.....	3	170	56.0	.1378					85	85							
Other States.....	2	183	57.8	.1377				4	99	70	10						
Total.....	10	751	55.5	.1402			1	16	315	404	14	1					

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

SPINNERS, MULE: Male.

Year and State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
1912.																				
Maine.....	11	139	58.0	\$.2251								1	12	13	83	25	5			
Massachusetts.....	11	279	54.2	.2529						2	1	5	16	99	129	27				
New Hampshire.....	7	113	58.0	.2314							1	3	23	53	22	11				
Rhode Island.....	4	65	56.0	.2483							1	1	6	25	31	1				
Other States.....	7	123	59.0	.2333							1	17	17	40	38	10				
Total.....	40	719	56.5	.2404						2	5	38	75	300	245	54				
1913.																				
Maine.....	11	153	58.2	.2175						3	3	11	29	85	19	3				
Massachusetts.....	11	284	54.2	.2526						2	1	4	13	106	121	37				
New Hampshire.....	7	124	58.0	.2239							2	28	9	56	14	15				
Rhode Island.....	4	79	56.0	.2427								6	12	22	38	1				
Other States.....	7	119	58.1	.2393					1	2	2	19	16	26	31	21	1			
Total.....	40	759	56.4	.2377					1	7	8	68	79	295	223	77	1			

TWISTERS: Female.

1912.																	
Massachusetts.....	3	385	54.0	\$.1481						1	65	297	22				
New Jersey.....	2	73	55.4	.1140				10	37	25	1						
New York.....	2	116	60.0	.1078					112	4							
Rhode Island.....	3	136	56.0	.1406				1	7	73	43	6	5	1			
Other States.....	2	41	58.2	.1519					5	8	11	16	1				
Total.....	12	751	55.7	.1374				11	162	175	352	44	6	1			
1913.																	
Massachusetts.....	3	246	54.0	.1394					4	110	132						
New Jersey.....	2	129	55.1	.1271				4	11	96	13	5					
New York.....	2	78	58.0	.1141					52	26							
Rhode Island.....	3	98	56.0	.1469					2	39	42	7	4	4			
Other States.....	2	47	58.0	.1493					4	13	15	14	1				
Total.....	12	598	55.4	.1354				4	73	284	202	26	5	4			

WEAVERS: Male.

1912.																		
Connecticut.....	4	231	58.3	\$.2486							2	7	15	22	71	76	38	
Maine.....	11	410	58.0	.2151					1	8	15	23	61	52	150	80	20	
Massachusetts.....	13	1,823	54.4	.2519			1	3	17	24	50	91	151	564	570	336	16	
New Hampshire.....	7	493	57.8	.2142					8	16	22	47	74	236	84	6		
New Jersey.....	3	207	55.0	.2233					3	8	14	14	24	80	55	9		
New York.....	2	359	60.0	.2076				1	2	18	50	44	49	123	58	14		
Rhode Island.....	5	683	56.0	.2504				1	6	10	21	32	63	195	212	143		
Other States.....	1	270	60.0	.2123			1		6	11	15	32	39	109	49	8		
Total.....	46	4,476	56.3	.2367				2	6	50	104	202	336	474	1,528	1,184	574	16
1913.																		
Connecticut.....	4	216	58.4	.2549				1		3	9	11	16	64	63	45	4	
Maine.....	11	398	58.2	.2299					7	9	23	52	48	121	85	49	4	
Massachusetts.....	13	1,347	54.4	.2384				3	24	29	66	105	144	411	374	181	10	
New Hampshire.....	7	502	57.8	.2122				2	4	11	29	62	83	235	68	8		
New Jersey.....	3	279	55.0	.2185					8	17	19	30	49	72	57	27		
New York.....	2	234	56.6	.2245					1		10	32	41	83	50	16	1	
Rhode Island.....	5	647	56.0	.2438					8	9	30	39	55	212	196	97	1	
Other States.....	1	222	58.0	.2164				1	1	9	20	24	24	83	49	11		
Total.....	46	3,845	56.1	.2324				7	53	87	206	355	460	1,281	942	434	20	

TABLE II.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

WEAVERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
1912.																				
Maine.....	11	190	58.0	\$.1987			2	11	10	16	27	28	73	19	4					
Massachusetts.....	13	1,390	54.0	.2311			3	17	31	54	141	173	494	317	158	2				
New Hampshire.....	7	700	57.9	.1911			1	11	21	74	144	219	188	37	5					
New Jersey.....	3	615	55.0	.1718			31	76	83	78	93	71	144	38	1					
New York.....	2	94	60.0	.2130				1		9	9	16	43	14	2					
Rhode Island.....	5	371	56.0	.1951			2	6	25	58	66	56	113	38	7					
Other States.....	5	226	59.7	.2082			2	8	5	28	25	32	80	33	13					
Total.....	46	3,586	55.9	.2057			41	130	175	317	505	595	1,135	496	19	2				
1913.																				
Maine.....	11	263	58.0	.2104				7	13	26	30	58	74	38	1	2				
Massachusetts.....	13	1,072	54.0	.2154				16	35	58	128	169	411	209	42	1				
New Hampshire.....	7	761	57.9	.1842			1	15	33	125	202	193	152	30	5					
New Jersey.....	3	722	55.0	.1693			2	68	182	126	96	85	106	46	11					
New York.....	2	79	58.2	.2028				1	2	5	16	17	31	6	1					
Rhode Island.....	5	374	56.0	.1993				17	36	35	60	71	101	48	11	1				
Other States.....	5	210	58.0	.2196			1	3	4	13	31	27	73	45	13					
Total.....	46	3,481	55.9	.1961			1	4	13	29	388	563	620	948	422	162	4			

WOOL SORTERS: Male.

1912.																		
Massachusetts.....	6	289	54.0	\$.2674									12	40	233	4		
Rhode Island.....	3	81	56.0	.2737										4	74	3		
Other States.....	10	101	58.2	.2585										9	38	39	15	
Total.....	19	471	55.2	.2666										21	82	346	22	
1913.																		
Massachusetts.....	6	159	54.0	.2782										3	1	154	1	
Rhode Island.....	3	38	56.0	.2961											2	13	23	
Other States.....	10	49	57.4	.2761							1			3	9	26	10	
Total.....	19	246	55.0	.2806							1			6	12	193	34	

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

BURLERS: Female.

State, and number of establishments.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
Massachusetts:																				
12 establishments.	(1912	724	54.0	\$0.1479	...	2	5	43	402	91	67	43	60	11	...	...	...	...	...
	(1913	721	54.0	.1417	3	3	12	47	442	76	58	38	33	8	1	...	...	...	...
New Hampshire:																				
6 establishments.	(1912	253	58.0	.1334	...	3	2	4	205	9	16	9	5	...	...	...	...	...	...
	(1913	275	57.9	.1657	...	...	...	11	50	43	88	48	35	...	...	...	...	...	...
New Jersey:																				
3 establishments.	(1912	186	57.0	.1198	...	8	32	80	24	19	12	5	5	1	...	...	...	...	...
	(1913	291	55.4	.1329	...	...	9	105	87	35	22	20	13	...	...	...	...	...	...
New York:																				
2 establishments.	(1912	85	60.0	.1738	...	3	7	6	14	10	13	32	...	...	...	...	...	...	...
	(1913	52	58.6	.1674	...	...	...	16	10	8	8	9	1	...	...	...	...	...	...
Rhode Island:																				
5 establishments.	(1912	186	56.0	.1761	...	2	2	7	50	57	27	38	2	1	...	...	...	...	...
	(1913	167	56.0	.1658	...	4	18	21	32	38	19	33	1	1	...	...	...	...	...

DRESSERS: Male.

Massachusetts:																			
13 establishments.	(1912	154	54.6	\$0.2776	...	...	...	...	...	...	...	2	19	104	29	...	...	...	...
	(1913	134	54.6	.2770	...	...	...	...	...	...	...	1	12	100	21	...	...	...	...
Rhode Island:																			
5 establishments.	(1912	71	56.0	.2800	...	...	...	...	...	...	...	...	11	60	...	...	...	...	...
	(1913	72	56.0	.2797	...	...	...	...	...	...	...	...	13	59	...	...	...	...	...

LABORERS, DYEHOUSE: Male.

Massachusetts:																			
13 establishments.	(1912	627	54.2	\$0.1572	...	...	...	...	36	443	142	6	...	...	...	...	...	...	...
	(1913	512	54.2	.1549	...	...	...	...	39	392	75	6	...	...	...	...	...	...	...
New Hampshire:																			
7 establishments.	(1912	96	57.8	.1641	...	...	...	...	1	36	57	1	...	1	...	...	...	...	...
	(1913	126	57.8	.1662	...	...	...	...	1	44	81	...	...	...	...	...	...	...	...
New Jersey:																			
3 establishments.	(1912	88	55.1	.1628	...	...	...	2	2	24	43	8	9	...	...	...	...	...	...
	(1913	131	55.2	.1712	...	...	...	...	...	35	48	39	9	...	...	...	...	...	...
Rhode Island:																			
5 establishments.	(1912	112	56.0	.1566	...	...	...	1	6	68	33	3	1	...	...	...	...	...	...
	(1913	116	56.0	.1561	...	...	...	...	7	71	33	3	2	...	...	...	...	...	...

LOOM FIXERS: Male.

Massachusetts:																			
13 establishments.	(1912	253	54.2	\$0.3257	...	...	...	...	...	...	...	2	125	112	14	...	...	...	...
	(1913	250	54.2	.3017	...	...	...	...	...	...	...	1	15	162	70	...	...	...	...
New Hampshire:																			
7 establishments.	(1912	76	57.9	.2559	...	...	...	...	...	...	...	...	17	58	1	...	...	...	...
	(1913	81	57.9	.2573	...	...	...	...	...	...	...	...	14	67	...	...	...	...	...
Rhode Island:																			
5 establishments.	(1912	89	56.0	.3196	...	...	...	...	...	...	...	...	...	30	59	...	...	...	...
	(1913	86	56.0	.3219	...	...	...	...	...	...	...	...	...	21	65	...	...	...	...

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

MENDERS: Female.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.															
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.				
Maine:																				
10 establishments.	{1912	105	58.0	\$0.1434					2	52	35	16								
	{1913	96	58.0	.1461					5	35	34	22								
Massachusetts:																				
13 establishments.	{1912	892	54.0	.1981			6	47	50	74	85	168	371	72	18					
	{1913	755	54.0	.1773	3	9	15	59	87	77	116	125	233	23	8					
New York:																				
2 establishments.	{1912	164	60.0	.2009				20	6	15	18	16	59	24	5	1				
	{1913	98	57.4	.2172					4	10	11	12	39	18	4					
Rhode Island:																				
5 establishments.	{1912	277	56.0	.1889			5	11	19	26	34	70	103	8	1					
	{1913	281	56.0	.1951				5	26	26	27	88	70	38	1					

SPINNERS: FRAME, Male.

Massachusetts:																			
3 establishments.	{1912	244	54.0	\$0.1580						7	202	35							
	{1913	115	54.0	.1357				1	86	28									

SPINNERS: FRAME, Female.

Massachusetts:																			
3 establishments.	{1912	567	54.0	\$0.1568				1	12	464	90								
	{1913	316	54.0	.1460					84	232									
New Jersey:																			
2 establishments.	{1912	114	55.2	.1218			15	16	81	2									
	{1913	82	55.2	.1277			1	12	47	17	4	1							
Rhode Island:																			
3 establishments.	{1912	231	56.0	.1361				7	129	95									
	{1913	170	56.0	.1378					85	85									

SPINNERS: MULE, Male.

Maine:																			
11 establishments.	{1912	139	58.0	\$0.2251						1	12	13	83	25	5				
	{1913	153	58.2	.2175					3	3	11	29	85	19	3				
Massachusetts:																			
11 establishments.	{1912	279	54.2	.2529					2	1	5	16	99	129	27				
	{1913	284	54.2	.2526					2	1	4	13	106	121	37				
New Hampshire:																			
7 establishments.	{1912	113	58.0	.2314						1	3	23	53	22	11				
	{1913	124	58.0	.2239						2	28	9	56	14	15				
Rhode Island:																			
4 establishments.	{1912	65	56.0	.2483						1	1	6	25	31	1				
	{1913	79	56.0	.2427							6	12	22	38	1				

TWISTERS: Female.

Massachusetts:																			
3 establishments.	{1912	385	54.0	\$0.1481				1	65	297	22								
	{1913	246	54.0	.1394				4	110	132									
New Jersey:																			
2 establishments.	{1912	73	55.4	.1140			10	37	25	1									
	{1913	129	55.1	.1271			4	11	96	13	5								
New York:																			
2 establishments.	{1912	116	60.0	.1078					112	4									
	{1913	78	58.0	.1141					52	26									
Rhode Island:																			
3 establishments.	{1912	136	56.0	.1406			1	7	73	43	6	5	1						
	{1913	98	56.0	.1469				2	39	42	7	4	4						

TABLE III.—AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

WEAVERS: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.														
					6 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 11 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 60 cts.			
Connecticut:																			
4 establishments..	1912	231	58.3	\$0.2486						2	7	15	22	71	76	38			
	1913	216	58.4	.2549						3	9	11	16	64	63	45			4
Maine:																			
11 establishments..	1912	410	58.0	.2151			1	8	15	23	61	52	150	80	20				
	1913	398	58.2	.2299				7	9	23	52	48	121	85	49				4
Massachusetts:																			
13 establishments..	1912	1,823	54.4	.2519		1	3	17	24	50	91	151	564	570	336	16			
	1913	1,347	54.4	.2384			3	24	29	66	105	144	411	374	181	19			
New Hampshire:																			
7 establishments..	1912	493	57.8	.2142				8	16	22	47	74	236	84	6				
	1913	502	57.8	.2122			2	4	11	29	62	83	235	68	8				
New Jersey:																			
3 establishments..	1912	207	55.0	.2233				3	8	14	14	24	80	55	9				
	1913	279	55.0	.2185				8	17	19	30	49	72	57	27				
New York:																			
2 establishments..	1912	359	60.0	.2076			1	2	18	50	44	49	123	58	14				
	1913	234	56.6	.2245				1	10	32	41	83	50	16					1
Rhode Island:																			
5 establishments..	1912	683	56.0	.2504			1	6	10	21	32	63	195	212	143				
	1913	647	56.0	.2438				8	9	30	39	55	212	196	97				

WEAVERS: Female.

Maine:																			
11 establishments..	1912	190	58.0	\$0.1987				2	11	10	16	27	28	73	19	4			
	1913	263	58.0	.2104					7	13	26	30	58	74	38	15			2
Massachusetts:																			
13 establishments..	1912	1,390	54.0	.2311			3	17	31	54	141	173	494	317	158	2			
	1913	1,072	54.0	.2154				19	35	58	128	169	411	209	42	1			
New Hampshire:																			
7 establishments..	1912	700	57.9	.1911			1	11	21	74	144	219	188	37	5				
	1913	761	57.9	.1842			1	15	33	125	202	193	152	30	9				
New Jersey:																			
3 establishments..	1912	615	55.0	.1718			31	76	83	78	93	71	144	38	1				
	1913	722	55.0	.1693			2	68	182	126	96	85	106	46	11				
New York:																			
2 establishments..	1912	94	60.0	.2130				1		9	9	16	43	14	2				
	1913	79	58.2	.2028				1	2	5	16	17	31	6	1				
Rhode Island:																			
5 establishments..	1912	371	56.0	.1951			2	6	25	58	66	56	113	38	7				
	1913	374	56.0	.1993				17	30	35	60	71	101	48	11				1

WOOL SORTERS: Male.

Massachusetts:																			
6 establishments..	1912	289	54.0	\$0.2674									12	40	233	4			
	1913	159	54.0	.2782									3	1	154	1			
Rhode Island:																			
3 establishments..	1912	81	56.0	.2737										4	74	3			
	1913	38	56.0	.2961										2	13	23			

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Burlers, female:							
18 establishments.....	{ 1907	611	58.3	.....	57	372	182
	{ 1908	494	58.0	.....	60	342	92
	{ 1909	582	58.0	.....	73	304	115
	{ 1910	598	56.9	.....	404	95	99
26 establishments.....	{ 1910	1,034	56.5	.....	839	96	99
	{ 1911	1,010	56.6	.....	799	79	132
43 establishments.....	{ 1911	1,516	56.8	.....	979	405	132
	{ 1912	1,471	55.9	712	243	412	104
44 establishments.....	{ 1912	1,562	55.9	724	268	466	104
	{ 1913	1,635	55.6	733	464	398	40
Carding-machine tenders, male:							
19 establishments.....	{ 1907	145	58.6	.....	13	70	62
	{ 1908	136	58.6	.....	13	64	59
	{ 1909	134	58.4	.....	13	74	47
	{ 1910	133	57.3	.....	69	35	29
26 establishments.....	{ 1910	201	56.9	.....	132	40	29
	{ 1911	196	56.9	.....	133	36	27
40 establishments.....	{ 1911	320	57.1	.....	176	112	32
	{ 1912	412	56.4	147	76	137	52
	{ 1913	329	56.3	106	79	119	25
Card strippers, male:							
18 establishments.....	{ 1907	89	58.2	.....	17	38	34
	{ 1908	79	58.1	.....	15	39	25
	{ 1909	80	58.1	.....	13	42	25
	{ 1910	88	57.7	.....	32	30	26
27 establishments.....	{ 1910	162	57.0	.....	104	32	26
	{ 1911	155	56.9	.....	100	32	23
42 establishments.....	{ 1911	223	57.1	.....	116	82	25
	{ 1912	240	56.9	69	37	94	40
	{ 1913	238	56.4	69	58	102	9
Combers, male:							
4 establishments.....	{ 1907	52	58.5	.....	.....	39	13
	{ 1908	29	58.6	.....	.....	21	8
	{ 1909	29	58.6	.....	.....	21	8
	{ 1910	42	57.2	.....	29	.....	13
6 establishments.....	{ 1910	106	56.5	.....	93	.....	13
	{ 1911	124	56.5	.....	108	.....	16
9 establishments.....	{ 1911	188	56.5	.....	154	18	16
	{ 1912	181	55.1	130	14	22	15
	{ 1913	115	54.8	89	7	19	.....
Combers, female:							
4 establishments.....	{ 1907	101	55.7	.....	79	18	4
	{ 1908	117	55.8	.....	91	20	6
	{ 1909	111	55.8	.....	85	22	4
	{ 1910	110	55.4	.....	106	.....	4
6 establishments.....	{ 1910	129	55.5	.....	125	.....	4
	{ 1911	118	55.4	.....	114	.....	4
7 establishments.....	{ 1911	139	55.8	.....	114	21	4
	{ 1912	150	55.8	.....	123	20	7
	{ 1913	163	56.1	2	123	25	13
Dressers, male:							
19 establishments.....	{ 1907	119	58.8	.....	6	57	59
	{ 1908	97	58.4	.....	7	60	30
	{ 1909	126	58.3	.....	17	66	43
	{ 1910	126	57.9	.....	45	37	44
27 establishments.....	{ 1910	214	57.1	.....	131	39	4
	{ 1911	215	57.1	.....	136	35	4

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Dressers, male—Concluded.							
46 establishments.....	{ 1911	337	57.1	.....	196	94	47
	{ 1912	384	56.4	108	136	98	42
	{ 1913	346	56.2	98	129	103	16
Laborers, dyehouse, male:							
19 establishments.....	{ 1907	434	58.1	.....	50	283	101
	{ 1908	385	57.8	.....	63	260	62
	{ 1909	514	57.9	.....	82	324	108
	{ 1910	570	56.5	.....	444	70	56
27 establishments.....	{ 1910	837	56.3	.....	708	73	56
	{ 1911	877	56.5	.....	719	60	98
45 establishments.....	{ 1911	1,116	56.6	.....	821	193	102
	{ 1912	1,093	55.5	561	272	185	75
	{ 1913	1,033	55.5	475	302	231	25
Loom fixers, male:							
19 establishments.....	{ 1907	223	58.0	.....	31	140	52
	{ 1908	218	57.9	.....	32	151	35
	{ 1909	242	58.1	.....	29	160	53
	{ 1910	260	57.0	.....	172	35	53
27 establishments.....	{ 1910	429	56.6	.....	338	38	53
	{ 1911	390	56.6	.....	309	37	44
46 establishments.....	{ 1911	569	56.7	.....	389	136	44
	{ 1912	589	55.9	222	191	125	51
	{ 1913	578	55.7	234	182	142	20
Menders, female:							
18 establishments.....	{ 1907	403	58.5	.....	57	158	188
	{ 1908	341	58.4	.....	61	112	168
	{ 1909	583	58.8	.....	73	179	331
	{ 1910	498	58.0	.....	170	116	212
25 establishments.....	{ 1910	1,196	56.8	.....	868	116	212
	{ 1911	1,115	56.9	.....	801	75	239
44 establishments.....	{ 1911	1,623	56.8	.....	1,161	223	239
	{ 1912	1,668	55.7	892	339	236	201
42 establishments.....	{ 1912	1,589	55.6	892	314	182	201
	{ 1913	1,388	55.3	797	314	221	56
Spinners, frame, male:							
2 establishments.....	{ 1910	114	56.0	.....	114	.....	.....
	{ 1911	134	56.0	.....	134	.....	.....
3 establishments.....	{ 1911	194	56.0	.....	194	.....	.....
	{ 1912	244	54.0	244	.....	.....	.....
	{ 1913	115	54.0	115	.....	.....	.....
Spinners, frame, female:							
5 establishments.....	{ 1907	323	57.6	.....	50	256	17
	{ 1908	284	57.5	.....	60	208	16
	{ 1909	295	57.5	.....	60	222	13
	{ 1910	286	56.0	.....	269	.....	17
8 establishments.....	{ 1910	578	56.0	.....	561	.....	17
	{ 1911	683	56.0	.....	671	.....	12
10 establishments.....	{ 1911	1,002	56.4	.....	801	189	12
	{ 1912	1,070	55.2	567	345	151	7
	{ 1913	751	55.5	325	252	174	.....
Spinners, mule, male:							
19 establishments.....	{ 1907	384	58.6	.....	48	147	189
	{ 1908	267	58.2	.....	48	116	103
	{ 1909	297	58.2	.....	48	140	109
	{ 1910	320	57.5	.....	122	127	71
26 establishments.....	{ 1910	529	57.0	.....	322	136	71
	{ 1911	484	56.9	.....	286	101	67
40 establishments.....	{ 1911	638	57.3	.....	315	242	81
	{ 1912	719	56.5	255	107	275	82
	{ 1913	759	56.4	259	132	315	53

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Twisters, female:							
7 establishments.....	1907	186	57.2	.....	78	67	41
	1908	138	57.6	.....	44	56	38
	1909	223	58.0	.....	50	93	80
	1910	216	57.2	.....	120	29	67
10 establishments.....	1910	332	56.9	.....	227	29	76
	1911	342	56.8	.....	258	.....	84
12 establishments.....	1911	600	56.7	.....	456	60	84
	1912	751	55.7	385	209	36	121
	1913	598	55.4	272	227	47	52
Weavers, male:							
19 establishments.....	1907	1,653	58.5	.....	185	743	725
	1908	1,409	58.6	.....	43	849	517
	1909	1,589	58.6	.....	49	1,001	539
	1910	1,716	57.8	.....	704	468	544
27 establishments.....	1910	2,907	57.1	.....	1,880	483	544
	1911	2,563	57.1	.....	1,653	361	549
46 establishments.....	1911	4,049	57.1	.....	2,430	1,032	587
	1912	4,476	56.3	1,494	1,257	1,057	668
	1913	3,845	56.1	1,227	1,213	1,220	185
Weavers, female:							
19 establishments.....	1907	1,873	58.0	.....	280	1,186	407
	1908	1,882	57.7	.....	343	1,314	225
	1909	1,807	57.6	.....	406	1,168	233
	1910	2,116	56.4	.....	1,697	161	258
27 establishments.....	1910	2,855	56.3	.....	2,411	186	258
	1911	2,366	56.4	.....	1,924	148	294
46 establishments.....	1911	3,384	56.8	.....	2,146	944	294
	1912	3,586	55.9	1,390	1,002	909	285
	1913	3,481	55.9	1,096	1,111	1,219	55
Wool sorters, male:							
11 establishments.....	1907	184	58.0	.....	17	145	22
	1908	164	57.8	.....	22	128	14
	1909	186	57.9	.....	15	156	15
	1910	193	56.5	.....	162	9	22
18 establishments.....	1910	289	56.3	.....	255	12	22
	1911	335	56.3	.....	299	13	23
19 establishments.....	1911	444	56.4	.....	369	52	23
	1912	471	55.2	289	101	66	15
	1913	246	55.0	159	52	35	.....

PER CENT.

Burlers, female:							
18 establishments.....	1907	611	58.3	.....	9.3	60.9	29.8
	1908	494	58.0	.....	12.1	69.2	18.6
	1909	582	58.0	.....	12.5	67.7	19.8
	1910	598	56.9	.....	67.6	15.9	16.6
26 establishments.....	1910	1,034	56.5	.....	81.1	9.3	9.6
	1911	1,010	56.6	.....	79.1	7.8	13.1
43 establishments.....	1911	1,516	56.8	.....	64.6	26.7	8.7
	1912	1,471	55.9	48.4	16.5	28.0	7.1
44 establishments.....	1912	1,562	55.9	46.4	17.2	29.8	6.7
	1913	1,635	55.6	44.8	28.4	24.3	2.4

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Carding-machine tenders, male:							
19 establishments.....	1907	145	58.6	.....	9.0	48.3	42.8
	1908	136	58.6	.....	9.6	47.1	43.4
	1909	134	58.4	.....	9.7	55.2	35.1
	1910	133	57.3	.....	51.9	26.3	21.8
26 establishments.....	1910	201	56.9	.....	65.7	19.9	14.4
	1911	196	56.9	.....	67.9	18.4	13.8
40 establishments.....	1911	320	57.1	.....	55.0	35.0	10.0
	1912	412	56.4	35.7	18.4	33.3	12.6
	1913	329	56.3	32.2	24.0	36.2	7.6
Card strippers, male:							
18 establishments.....	1907	89	58.2	.....	19.1	42.7	38.2
	1908	79	58.1	.....	19.0	49.4	31.6
	1909	80	58.1	.....	16.3	52.5	31.3
	1910	88	57.7	.....	36.4	34.1	29.5
27 establishments.....	1910	162	57.0	.....	64.2	19.8	16.0
	1911	155	56.9	.....	64.5	20.6	14.8
42 establishments.....	1911	223	57.1	.....	52.0	36.8	11.2
	1912	240	56.9	28.8	15.4	39.2	16.7
	1913	238	56.4	29.0	24.4	42.9	3.8
Combers, male:							
4 establishments.....	1907	52	58.5	.....	.....	75.0	25.0
	1908	29	58.6	.....	.....	72.4	27.6
	1909	29	58.6	.....	.....	72.4	27.6
	1910	42	57.2	.....	69.0	.....	31.0
6 establishments.....	1910	106	56.5	.....	87.7	.....	12.3
	1911	124	56.5	.....	87.1	.....	12.9
9 establishments.....	1911	188	56.5	.....	81.9	9.6	8.5
	1912	181	55.1	71.8	7.7	12.2	8.3
	1913	115	54.8	77.4	6.1	16.5	.....
Combers, female:							
4 establishments.....	1907	101	55.7	.....	78.2	17.8	4.0
	1908	117	55.8	.....	77.8	17.1	5.1
	1909	111	55.8	.....	76.6	19.8	3.6
	1910	110	55.4	.....	96.4	.....	3.6
6 establishments.....	1910	129	55.5	.....	96.9	.....	3.1
	1911	118	55.4	.....	96.6	.....	3.4
7 establishments.....	1911	139	55.8	.....	82.0	15.1	2.9
	1912	150	55.8	.....	82.0	13.3	4.7
	1913	163	56.1	1.2	75.5	15.3	8.0
Dressers, male:							
19 establishments.....	1907	119	58.8	.....	5.0	47.9	47.1
	1908	97	58.4	.....	7.2	61.9	30.9
	1909	126	58.3	.....	13.5	52.4	31.1
	1910	126	57.9	.....	35.7	29.4	34.9
27 establishments.....	1910	214	57.1	.....	61.2	18.2	20.6
	1911	215	57.1	.....	63.3	16.3	20.5
46 establishments.....	1911	337	57.1	.....	58.2	27.9	13.9
	1912	384	56.4	28.1	35.4	25.5	10.9
	1913	346	56.2	28.3	37.3	29.8	4.6
Laborers, dyehouse, male:							
19 establishments.....	1907	434	58.1	.....	11.5	65.2	23.3
	1908	385	57.8	.....	16.4	67.5	16.1
	1909	514	57.9	.....	16.0	63.0	21.0
	1910	570	56.5	.....	77.9	12.3	9.8
27 establishments.....	1910	837	56.3	.....	84.6	8.7	6.7
	1911	877	56.5	.....	82.0	6.8	11.2
45 establishments.....	1911	1,116	56.6	.....	73.6	17.3	9.1
	1912	1,093	55.5	51.3	24.9	16.9	6.9
	1913	1,033	55.5	46.0	29.2	22.4	2.4

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Con.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Loom fixers, male:							
19 establishments.....	1907	223	58.0	.....	13.9	62.8	23.3
	1908	218	57.9	.....	14.7	69.3	16.1
	1909	242	58.1	.....	12.0	66.1	21.9
	1910	260	57.0	.....	66.2	13.5	20.4
27 establishments.....	1910	429	56.6	.....	78.8	8.9	12.4
	1911	390	56.6	.....	79.2	9.5	11.3
46 establishments.....	1911	569	56.7	.....	68.4	23.9	7.7
	1912	589	55.9	37.7	32.4	21.2	8.7
	1913	578	55.7	40.5	31.5	24.6	3.5
Menders, female:							
18 establishments.....	1907	403	58.5	.....	14.1	39.2	46.7
	1908	341	58.4	.....	17.9	32.8	49.3
	1909	583	58.8	.....	12.5	30.7	56.8
	1910	498	58.0	.....	34.1	23.3	42.6
25 establishments.....	1910	1,196	56.8	.....	72.6	9.7	17.7
	1911	1,115	56.9	.....	71.8	6.7	21.4
44 establishments.....	1911	1,623	56.8	.....	71.5	13.7	14.7
	1912	1,068	55.7	53.5	20.3	14.1	12.1
42 establishments.....	1912	1,589	55.6	56.1	19.8	11.5	12.6
	1913	1,388	55.3	57.4	22.6	15.9	4.0
Spinners, frame, male:							
2 establishments.....	1910	114	56.0	.....	100.0	.....	.....
	1911	134	56.0	.....	100.0	.....	.....
3 establishments.....	1911	194	56.0	.....	100.0	.....	.....
	1912	244	54.0	100.0	.....	.....	.....
	1913	115	54.0	100.0	.....	.....	.....
Spinners, frame, female:							
5 establishments.....	1907	323	57.6	.....	15.5	79.3	5.3
	1908	284	57.5	.....	21.1	73.2	5.6
	1909	295	57.5	.....	20.3	75.3	4.4
	1910	286	56.0	.....	94.1	.....	5.9
8 establishments.....	1910	578	56.0	.....	97.1	.....	2.9
	1911	683	56.0	.....	98.2	.....	1.8
10 establishments.....	1911	1,002	56.4	.....	79.9	18.9	1.2
	1912	1,070	55.2	53.0	32.2	14.1	.7
	1913	751	55.5	43.3	33.6	23.2	.....
Spinners, mule, male:							
19 establishments.....	1907	384	58.6	.....	12.5	38.3	49.2
	1908	267	58.2	.....	18.0	43.4	38.6
	1909	297	58.2	.....	16.2	47.1	36.7
	1910	320	57.5	.....	38.1	39.7	22.2
26 establishments.....	1910	529	57.0	.....	60.9	25.7	13.4
	1911	454	56.9	.....	63.0	22.2	14.8
40 establishments.....	1911	638	57.3	.....	49.4	37.9	12.7
	1912	719	56.5	35.5	14.9	38.2	11.4
	1913	759	56.4	34.1	17.4	41.5	7.0
Twisters, female:							
7 establishments.....	1907	186	57.2	.....	41.9	36.0	22.0
	1908	138	57.6	.....	31.9	40.6	27.5
	1909	223	58.0	.....	22.4	41.7	35.9
	1910	216	57.2	.....	55.6	13.4	31.0
10 establishments.....	1910	332	56.9	.....	68.4	8.7	22.9
	1911	342	56.8	.....	75.4	.....	24.6
12 establishments.....	1911	600	56.7	.....	76.0	10.0	14.0
	1912	751	55.7	51.3	27.8	4.8	16.1
	1913	598	55.4	45.5	38.0	7.9	8.7

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913.—Con.

PER CENT—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Weavers, male:							
19 establishments.....	{ 1907	1,653	58.5	.....	11.2	44.9	43.9
	{ 1908	1,409	58.6	.....	3.1	60.3	36.7
	{ 1909	1,589	58.6	.....	3.1	63.0	33.9
	{ 1910	1,716	57.8	.....	41.0	27.3	31.7
27 establishments.....	{ 1910	2,907	57.1	.....	64.7	16.6	18.7
	{ 1911	2,563	57.1	.....	64.5	14.1	21.4
46 establishments.....	{ 1911	4,049	57.1	.....	60.0	25.5	14.5
	{ 1912	4,476	56.3	33.4	28.1	23.6	14.9
	{ 1913	3,845	56.1	31.9	31.5	31.7	4.8
Weavers, female:							
19 establishments.....	{ 1907	1,873	58.0	.....	14.9	63.3	21.7
	{ 1908	1,882	57.7	.....	18.2	69.8	12.0
	{ 1909	1,807	57.6	.....	22.5	64.6	12.9
	{ 1910	2,116	56.4	.....	80.2	7.6	12.2
27 establishments.....	{ 1910	2,855	56.3	.....	84.4	6.5	9.0
	{ 1911	2,366	56.4	.....	81.3	6.3	12.4
46 establishments.....	{ 1911	3,384	56.8	.....	63.4	27.9	8.7
	{ 1912	3,586	55.9	38.8	27.9	25.3	7.9
	{ 1913	3,481	55.9	31.5	31.9	35.0	1.6
Wool sorters, male:							
11 establishments.....	{ 1907	184	58.0	.....	9.2	78.8	12.0
	{ 1908	164	57.8	.....	13.4	78.0	8.5
	{ 1909	186	57.9	.....	8.1	83.9	8.1
	{ 1910	193	56.5	.....	83.9	4.7	11.4
18 establishments.....	{ 1910	289	56.3	.....	88.2	4.2	7.6
	{ 1911	335	56.3	.....	89.3	3.9	6.9
19 establishments.....	{ 1911	444	56.4	.....	83.1	11.7	5.2
	{ 1912	471	55.2	61.4	21.4	14.0	3.2
	{ 1913	246	55.0	64.6	21.1	14.2	.....

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913.

BURLERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
1912.							
Massachusetts.....	12	724	54.0	724	.....	.....	.....
New Hampshire.....	6	253	58.0	.....	4	249	.....
New Jersey.....	3	186	57.0	.....	78	108	.....
New York.....	2	85	60.0	.....	.....	.....	85
Rhode Island.....	5	186	56.0	.....	186	.....	.....
Other States.....	16	128	58.3	.....	.....	109	19
Total.....	44	1,562	55.9	724	268	466	104
1913.							
Massachusetts.....	12	721	54.0	721	.....	.....	.....
New Hampshire.....	6	275	57.9	.....	6	269	.....
New Jersey.....	3	291	55.4	.....	291	.....	.....
New York.....	2	52	58.6	12	.....	.....	40
Rhode Island.....	5	167	56.0	.....	167	.....	.....
Other States.....	16	129	58.0	.....	.....	129	.....
Total.....	44	1,635	55.6	733	464	398	40

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

DRESSERS: Male.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
1912.							
Massachusetts.....	13	154	54.6	108	46		
Rhode Island.....	5	71	56.0		71		
Other States.....	28	159	58.2		19	98	42
Total.....	46	384	56.4	108	136	98	42
1913.							
Massachusetts.....	13	134	54.6	95	39		
Rhode Island.....	5	72	56.0		72		
Other States.....	28	140	57.8	3	18	103	16
Total.....	46	346	56.2	98	129	103	16

LABORERS, DYEHOUSE: Male.

1912.							
Massachusetts.....	13	627	54.2	561	66		
New Hampshire.....	7	96	57.8		6	90	
New Jersey.....	3	88	55.1		88		
Rhode Island.....	5	112	56.0		112		
Other States.....	17	170	58.9			95	75
Total.....	45	1,093	55.5	561	272	185	75
1913.							
Massachusetts.....	13	512	54.2	464	48		
New Hampshire.....	7	126	57.8		7	119	
New Jersey.....	3	131	55.2		131		
Rhode Island.....	5	116	56.0		116		
Other States.....	17	148	58.0	11		112	25
Total.....	45	1,033	55.5	475	302	231	25

LOOM FIXERS: Male.

1912.							
Massachusetts.....	13	253	54.2	222	31		
New Hampshire.....	7	76	57.9		2	74	
Rhode Island.....	5	89	56.0		89		
Other States.....	21	171	57.4		69	51	51
Total.....	46	589	55.9	222	191	125	51
1913.							
Massachusetts.....	13	250	54.2	226	24		
New Hampshire.....	7	81	57.9		2	79	
Rhode Island.....	5	86	56.0		86		
Other States.....	21	161	56.7	8	70	63	20
Total.....	46	578	55.7	234	182	142	20

MENDERS: Female.

1912.							
Maine.....	10	105	58.0			105	
Massachusetts.....	13	892	54.0	892			
New York.....	2	164	60.0				164
Rhode Island.....	5	277	56.0		277		
Other States.....	12	151	57.8		37	77	37
Total.....	42	1,589	55.6	892	314	182	201

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

MENDERS: Female—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
1913.							
Maine.....	10	96	58.0			96	
Massachusetts.....	13	755	54.0	755			
New York.....	2	98	57.4	42			56
Rhode Island.....	5	281	56.0		281		
Other States.....	12	158	57.4		33	125	
Total.....	42	1,388	55.3	797	314	221	56

SPINNERS, FRAME: Male.

1912.							
Massachusetts.....	3	244	54.0	244			
1913.							
Massachusetts.....	3	115	54.0	115			

SPINNERS, FRAME: Female.

1912.							
Massachusetts.....	3	567	54.0	567			
New Jersey.....	2	114	55.2		114		
Rhode Island.....	3	231	56.0		231		
Other States.....	2	158	58.1			151	7
Total.....	10	1,070	55.2	567	345	151	7
1913.							
Massachusetts.....	3	316	54.0	316			
New Jersey.....	2	82	55.2		82		
Rhode Island.....	3	170	56.0		170		
Other States.....	2	183	57.8	9		174	
Total.....	10	751	55.5	325	252	174	

SPINNERS, MULE: Male.

1912.							
Maine.....	11	139	58.0			139	
Massachusetts.....	11	279	54.2	255	24		
New Hampshire.....	7	113	58.0			113	
Rhode Island.....	4	65	56.0		65		
Other States.....	7	123	59.0		18	23	82
Total.....	40	719	56.5	255	107	275	82
1913.							
Maine.....	11	153	58.2			138	15
Massachusetts.....	11	284	54.2	256	28		
New Hampshire.....	7	124	58.0			124	
Rhode Island.....	4	79	56.0		79		
Other States.....	7	119	58.1	3	25	53	38
Total.....	40	759	56.4	259	132	315	53

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

TWISTERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
1912.							
Massachusetts.....	3	385	54.0	385			
New Jersey.....	2	73	55.4		73		
New York.....	2	116	60.0				116
Rhode Island.....	3	136	56.0		136		
Other States.....	2	41	58.2			36	5
Total.....	12	751	55.7	385	209	36	121
1913.							
Massachusetts.....	3	246	54.0	246			
New Jersey.....	2	129	55.1		129		
New York.....	2	78	58.0	26			52
Rhode Island.....	3	98	56.0		98		
Other States.....	2	47	58.0			47	
Total.....	12	598	55.4	272	227	47	52

WEAVERS: Male.

1912.							
Connecticut.....	4	231	58.3			192	39
Maine.....	11	410	58.0			410	
Massachusetts.....	13	1,823	54.4	1,494	329		
New Hampshire.....	7	493	57.8		38	455	
New Jersey.....	3	207	55.0		207		
New York.....	2	359	60.0				359
Rhode Island.....	5	683	56.0		683		
Other States.....	1	270	60.0				270
Total.....	46	4,476	56.3	1,494	1,257	1,057	668
1913.							
Connecticut.....	4	216	58.4			174	42
Maine.....	11	398	58.2			358	40
Massachusetts.....	13	1,347	54.4	1,096	251		
New Hampshire.....	7	502	57.8		36	466	
New Jersey.....	3	279	55.0		279		
New York.....	2	234	56.6	131			103
Rhode Island.....	5	647	56.0		647		
Other States.....	1	222	58.0			222	
Total.....	46	3,845	56.1	1,227	1,213	1,220	185

WEAVERS: Female.

1912.							
Maine.....	11	190	58.0			190	
Massachusetts.....	13	1,390	54.0	1,390			
New Hampshire.....	7	700	57.9		16	684	
New Jersey.....	3	615	55.0		615		
New York.....	2	94	60.0				94
Rhode Island.....	5	371	56.0		371		
Other States.....	5	226	59.7			35	191
Total.....	46	3,586	55.9	1,390	1,002	909	285
1913.							
Maine.....	11	263	58.0			263	
Massachusetts.....	13	1,072	54.0	1,072			
New Hampshire.....	7	761	57.9		15	746	
New Jersey.....	3	722	55.0		722		
New York.....	2	79	58.2	24			55
Rhode Island.....	5	374	56.0		374		
Other States.....	5	210	58.0			210	
Total.....	46	3,481	55.9	1,096	1,111	1,219	55

TABLE V.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

WOOL SORTERS: Male.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
1912.							
Massachusetts.....	6	289	54.0	289			
Rhode Island.....	3	81	56.0		81		
Other States.....	10	101	58.2		20	66	15
Total.....	19	471	55.2	289	101	66	15
1913.							
Massachusetts.....	6	159	54.0	159			
Rhode Island.....	3	38	56.0		38		
Other States.....	10	49	57.4		14	35	
Total.....	19	246	55.0	159	52	35	

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

BURLERS: Female.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Massachusetts:							
12 establishments.....	{ 1912	724	54.0	724			
	{ 1913	721	54.0	721			
New Hampshire:							
6 establishments.....	{ 1912	253	58.0		4	249	
	{ 1913	275	57.9		6	269	
New Jersey:							
3 establishments.....	{ 1912	186	57.0		78	108	
	{ 1913	291	55.4		291		
New York:							
2 establishments.....	{ 1912	85	60.0				85
	{ 1913	52	58.6	12			40
Rhode Island:							
5 establishments.....	{ 1912	186	56.0		186		
	{ 1913	167	56.0		167		

DRESSERS: Male.

Massachusetts:							
13 establishments.....	{ 1912	154	54.6	108	46		
	{ 1913	134	54.6	95	39		
Rhode Island:							
5 establishments.....	{ 1912	71	56.0		71		
	{ 1913	72	56.0		72		

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

LABORERS, DYEHOUSE: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Massachusetts:							
13 establishments.....	{ 1912	627	54.2	561	66		
	{ 1913	512	54.2	464	48		
New Hampshire:							
7 establishments.....	{ 1912	96	57.8		6	90	
	{ 1913	126	57.8		7	119	
New Jersey:							
3 establishments.....	{ 1912	88	55.1		88		
	{ 1913	131	55.2		131		
Rhode Island:							
5 establishments.....	{ 1912	112	56.0		112		
	{ 1913	116	56.0		116		

LOOM FIXERS: Male.

Massachusetts:							
13 establishments.....	{ 1912	253	54.2	222	31		
	{ 1913	250	54.2	226	24		
New Hampshire:							
7 establishments.....	{ 1912	76	57.9		2	74	
	{ 1913	81	57.9		2	79	
Rhode Island:							
5 establishments.....	{ 1912	89	56.0		69		
	{ 1913	86	56.0		86		

MENDERS: Female.

Maine:							
10 establishments.....	{ 1912	105	58.0			105	
	{ 1913	96	58.0			96	
Massachusetts:							
13 establishments.....	{ 1912	892	54.0	892			
	{ 1913	755	54.0	755			
New York:							
2 establishments.....	{ 1912	164	60.0				164
	{ 1913	98	57.4	42			56
Rhode Island:							
5 establishments.....	{ 1912	277	56.0		277		
	{ 1913	281	56.0		281		

SPINNERS, FRAME: Male.

Massachusetts:							
3 establishments.....	{ 1912	244	54.0	244			
	{ 1913	115	54.0	115			

SPINNERS, FRAME: Female.

Massachusetts:							
3 establishments.....	{ 1912	567	54.0	567			
	{ 1913	316	54.0	316			
New Jersey:							
2 establishments.....	{ 1912	114	55.2		114		
	{ 1913	82	55.2		82		
Rhode Island:							
3 establishments.....	{ 1912	231	56.0		231		
	{ 1913	170	56.0		170		

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

SPINNERS, MULE: Male.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
Maine:							
11 establishments.....	{ 1912	139	58.0			139	
	{ 1913	153	58.2			138	15
Massachusetts:							
11 establishments.....	{ 1912	279	54.2	255	24		
	{ 1913	284	54.2	256	28		
New Hampshire:							
7 establishments.....	{ 1912	113	58.0			113	
	{ 1913	124	58.0			124	
Rhode Island:							
4 establishments.....	{ 1912	65	56.0		65		
	{ 1913	79	56.0		79		

TWISTERS: Female.

Massachusetts:							
3 establishments.....	{ 1912	385	54.0	385			
	{ 1913	246	54.0	246			
New Jersey:							
2 establishments.....	{ 1912	73	55.4		73		
	{ 1913	129	55.1		129		
New York:							
2 establishments.....	{ 1912	116	60.0				116
	{ 1913	78	58.0	26			52
Rhode Island:							
3 establishments.....	{ 1912	136	56.0		136		
	{ 1913	98	56.0		98		

WEAVERS: Male.

Connecticut:							
4 establishments.....	{ 1912	231	58.3			192	39
	{ 1913	216	58.4			174	42
Maine:							
11 establishments.....	{ 1912	410	58.0			410	
	{ 1913	398	58.2			358	40
Massachusetts:							
13 establishments.....	{ 1912	1,823	54.4	1,494	329		
	{ 1913	1,347	54.4	1,096	251		
New Hampshire:							
7 establishments.....	{ 1912	493	57.8		38	455	
	{ 1913	502	57.8		36	466	
New Jersey:							
3 establishments.....	{ 1912	207	55.0		207		
	{ 1913	279	55.0		279		
New York:							
2 establishments.....	{ 1912	359	60.0				359
	{ 1913	234	56.6	131			103
Rhode Island:							
5 establishments.....	{ 1912	683	56.0		683		
	{ 1913	647	56.0		647		

WEAVERS: Female.

Maine:							
11 establishments.....	{ 1912	190	58.0			190	
	{ 1913	263	58.0			263	
Massachusetts:							
13 establishments.....	{ 1912	1,390	54.0	1,390			
	{ 1913	1,072	54.0	1,072			
New Hampshire:							
7 establishments.....	{ 1912	700	57.9		16	684	
	{ 1913	761	57.9		15	746	

TABLE VI.—AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

WEAVERS: Female—Concluded.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—			
				54	Over 54 and under 57	57 and under 60	60
New Jersey:							
3 establishments.....	{ 1912	615	55.0		615		
	{ 1913	722	55.0		722		
New York:							
2 establishments.....	{ 1912	94	60.0				94
	{ 1913	79	58.2	24			55
Rhode Island:							
5 establishments.....	{ 1912	371	56.0		371		
	{ 1913	374	56.0		374		

WOOL SORTERS: Male.

Massachusetts:							
6 establishments.....	{ 1912	289	54.0	289			
	{ 1913	159	54.0	159			
Rhode Island:							
3 establishments.....	{ 1912	81	56.0		81		
	{ 1913	38	56.0		38		

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913.

[The average full-time weekly earnings of occupations not tabulated by States in this table will be found in the table on p. 93.]

BURLERS: Female.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Massachusetts.....	12	724	54.0	\$7.99	721	54.0	\$7.65
New Hampshire.....	6	253	58.0	7.73	275	57.9	9.60
New Jersey.....	3	186	57.0	6.80	291	55.4	7.37
New York.....	2	85	60.0	10.43	52	58.6	9.88
Rhode Island.....	5	186	56.0	9.86	167	56.0	9.29
Other States.....	16	128	58.3	7.38	129	58.0	7.32
Total.....	44	1,562	55.9	8.25	1,635	55.6	8.13

DRESSERS: Male.

Massachusetts.....	13	154	54.6	\$15.15	134	54.6	\$15.12
Rhode Island.....	5	71	56.0	15.68	72	56.0	15.66
Other States.....	28	159	58.2	13.84	140	57.8	13.70
Total.....	46	384	56.4	14.71	346	56.2	14.66

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Continued.

LABORERS, DYEHOUSE: Male.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Massachusetts.....	13	627	54.2	\$8.52	512	54.2	\$8.36
New Hampshire.....	7	96	57.8	9.49	126	57.8	9.62
New Jersey.....	3	88	55.1	8.97	131	55.2	9.45
Rhode Island.....	5	112	56.0	8.77	116	56.0	8.74
Other States.....	17	170	58.9	8.83	148	58.0	9.08
Total.....	45	1,093	55.5	8.72	1,033	55.5	8.81

LOOM FIXERS: Male.

Massachusetts.....	13	253	54.2	\$17.66	250	54.2	\$16.35
New Hampshire.....	7	76	57.9	14.82	81	57.9	14.90
Rhode Island.....	5	89	56.0	17.90	86	56.0	18.03
Other States.....	21	171	57.4	16.98	161	56.7	16.93
Total.....	46	589	55.9	17.13	578	55.7	16.56

MENDERS: Female.

Maine.....	10	105	58.0	\$8.32	96	58.0	\$8.48
Massachusetts.....	13	892	54.0	10.70	755	54.0	9.58
New York.....	2	164	60.0	12.05	98	57.4	12.40
Rhode Island.....	5	277	56.0	10.58	281	56.0	10.92
Other States.....	12	151	57.8	11.22	158	57.4	10.77
Total.....	42	1,589	55.6	10.71	1,388	55.3	10.11

SPINNERS, FRAME: Female.

Massachusetts.....	3	567	54.0	\$8.47	316	54.0	\$7.89
New Jersey.....	2	114	55.2	6.72	82	55.2	7.05
Rhode Island.....	3	231	56.0	7.62	170	56.0	7.72
Other States.....	2	158	58.1	7.25	183	57.8	7.97
Total.....	10	1,070	55.2	7.92	751	55.5	7.78

SPINNERS, MULE: Male.

Maine.....	11	139	58.0	\$13.05	153	58.2	\$12.66
Massachusetts.....	11	279	54.2	13.69	284	54.2	13.68
New Hampshire.....	7	113	58.0	13.42	124	58.0	12.99
Rhode Island.....	4	65	56.0	13.91	79	56.0	13.59
Other States.....	7	123	59.0	13.78	119	58.1	13.92
Total.....	40	719	56.5	13.56	759	56.4	13.39

TWISTERS: Female.

Massachusetts.....	3	385	54.0	\$8.00	246	54.0	\$7.53
New Jersey.....	2	73	55.4	6.32	129	55.1	7.01
New York.....	2	116	60.0	6.47	78	58.0	6.60
Rhode Island.....	3	136	56.0	7.87	98	56.0	8.23
Other States.....	2	41	58.2	8.84	47	58.0	8.66
Total.....	12	751	55.7	7.62	598	55.4	7.50

TABLE VII.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE FULL-TIME WEEKLY EARNINGS, BY STATES, 1912 AND 1913—Concluded.

WEAVERS: Male.

State.	Number of establishments.	1912			1913		
		Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.	Number of employees.	Average full-time hours per week.	Average full-time weekly earnings.
Connecticut.....	4	231	58.3	\$14.49	216	58.4	\$14.86
Maine.....	11	410	58.0	12.47	398	58.2	13.38
Massachusetts.....	13	1,823	54.4	13.69	1,347	54.4	12.96
New Hampshire.....	7	493	57.8	12.37	502	57.8	12.26
New Jersey.....	3	207	55.0	12.28	279	55.0	12.02
New York.....	2	359	60.0	12.46	234	56.6	12.66
Rhode Island.....	5	683	56.0	14.02	647	56.0	13.65
Other States.....	1	270	60.0	12.74	222	58.0	12.56
Total.....	46	4,476	56.3	13.30	3,845	56.1	13.03

WEAVERS: Female.

Maine.....	11	190	58.0	\$11.52	263	58.0	\$12.20
Massachusetts.....	13	1,390	54.0	12.48	1,072	54.0	11.63
New Hampshire.....	7	700	57.9	11.07	761	57.9	10.67
New Jersey.....	3	615	55.0	9.45	722	55.0	9.31
New York.....	2	94	60.0	12.78	79	58.2	11.76
Rhode Island.....	5	371	56.0	10.91	374	56.0	11.16
Other States.....	5	226	59.7	12.43	210	58.0	12.74
Total.....	46	3,586	55.9	11.48	3,481	55.9	11.00

WOOL SORTERS: Male.

Massachusetts.....	6	289	54.0	\$14.44	159	54.0	\$15.02
Rhode Island.....	3	81	56.0	15.32	38	56.0	16.58
Other States.....	10	101	58.2	15.04	49	57.4	15.85
Total.....	19	471	55.2	14.72	246	55.0	15.43

SILK GOODS MANUFACTURING.

This report, based on information obtained from representative establishments, shows the full-time weekly earnings, the full-time hours of labor per week, and the rates of wages (or earnings) per hour in the principal occupations of the silk-goods industry of the United States. Figures relating to full-time hours of labor per week and rates of wages (or earnings) per hour are presented for the years 1907 to 1913, inclusive, and for full-time weekly earnings for the years 1910 to 1913, inclusive.

Earlier reports¹ of the Bureau have presented wages and hours of labor in the industry from 1890 to 1912.

Briefly summarized, the average full-time weekly earnings of employees in this industry in 1913 were 5.6 per cent higher than such earnings in 1912, 8.8 per cent higher than in 1911, and 10.1 per cent higher than in 1910. The full-time hours of labor per week in 1913 were 0.4 per cent lower than in 1912, 1.3 per cent lower than in 1911, and 1.4 per cent lower than in 1910. The rates of wages (or earnings) per hour were 5.8 per cent higher in 1913 than in 1912, 10.1 per cent higher than in 1911, and 11.7 per cent higher than in 1910.

The summary figures concerning the several occupations covered by this report are presented in Table I, pages 159 to 167. The data for the years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding establishments having records extending back for a period of years and also owing to the amount of work involved, data for 1907 to 1909 were secured from a smaller number of establishments, some of them perhaps less representative, than have furnished data for the later years.

The data are for one pay-roll period in each year, the pay roll ending nearest May 15 being selected, except in a very few establishments in which conditions in May were abnormal.

The figures for the years 1907 to the first presentation for 1912 are reproduced from Bulletin No. 128, except the average full-time weekly earnings for 1910 to 1912, which figures have been computed for this Bulletin from the data gathered for those years. Owing to the work involved and the lack of funds, the average full-time weekly earnings have not been computed for the period 1907

¹ Previous reports of wages and hours of labor in silk-goods manufacturing have been published by the Bureau, as follows: Nineteenth Annual Report, covering 1890 to 1903; Bulletin No. 59 (July, 1905), covering 1903 and 1904; Bulletin No. 65 (July, 1906), covering 1904 and 1905; Bulletin No. 71 (July, 1907), covering 1905 and 1903; and Bulletin No. 77 (July, 1908), covering 1906 and 1907, and Bulletin No. 128 (August, 1913) covering 1907 to 1912, inclusive.

to 1910. It will be observed that the average full-time weekly earnings are not exactly the same as the product of the average rate of wages per hour and the average full-time hours per week. This difference is explained and illustrated on page 23.

Referring to Table I, page 159, it is seen that in 1913 the average full-time weekly earnings of males engaged in silk manufacturing as represented by eight occupations varied from \$6.61 for spinners, to \$18.83 for warpers. The average full-time weekly earnings of females, represented by five occupations, varied from \$5.70 for doublers to \$13.46 for ribbon weavers. The full-time hours of labor per week in 1913 varied from 44 to 60, the average being about 56 hours per week.

Wages and hours of labor differ in different establishments, hence the inclusion or exclusion of an establishment in a group, if the wages and hours therein differ considerably from the average, may raise or lower the average for the group. In Table I it is seen that data were presented for doublers for 12 establishments for the years 1911 and 1912, and for 11 establishments for the years 1912 and 1913. The average full-time weekly earnings decreased from \$5.56 in 1911 to \$5.41 in 1912 in the group of 12 establishments. In 11 establishments the full-time weekly earnings increased from \$5.38 in 1912 to \$5.70 in 1913. As the two groups of establishments do not show exactly the same earnings for 1912, it would not be a correct comparison to say that weekly earnings increased from \$5.56 in 1911 to \$5.70 in 1913. The movement from one year to another is indicated with the greater degree of accuracy by the figures for identical establishments. The difference between \$5.56 and \$5.41 represents the change between 1911 and 1912, and the difference between \$5.38 and \$5.70 represents the change between 1912 and 1913 as nearly as can be determined from the data available. In the table the comparable data for identical establishments are bracketed together.

Owing to a change in the number of establishments from year to year, it is difficult to make a comparison of the actual data over a period of several years which will give an exact measure of the changes. To aid in the making of such a comparison, relative (or index) numbers have been computed from the averages in Table I for full-time hours per week, rates of wages per hour, and full-time weekly earnings for each occupation for the years 1910 to 1913, inclusive. These relative numbers, which are shown in the table following, are simply percentages in which the figures for 1913 are taken as the base or 100 per cent. The relative for each year is the per cent that the average in that year is of the average for 1913, as determined by the method explained on page 25. Thus, in the table the full-time

weekly earnings of doublers in 1910 were 92.4 per cent of the full-time weekly earnings in 1913.

It will be observed that the general tendency of the several occupations is toward a reduction of working hours and an increase in rates of wages per hour and of earnings per full week. No data are available to show the amount of work afforded employees each year or the variation from year to year. The relative full-time hours per week indicate the change in the hours of labor of employees working full time, but do not reflect in any way the greater or less amount of full-time work afforded. This point is further discussed on page 22.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN THE PRINCIPAL OCCUPATIONS IN SILK-GOODS MANUFACTURING, 1910 TO 1913.

(1913=100.0)

Year.	Doublers, silk throwing, female.			Laborers, dyehouse, male.			Loom fixers, male.			Pickers, cloth, female.			
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.	
1910..	101.6	90.4	92.4	100.0	94.5	94.5	100.7	92.5	93.1	101.4	81.0	82.7	
1911..	101.3	95.3	97.0	100.0	95.0	95.1	100.7	94.0	94.8	101.6	87.5	89.4	
1912..	101.3	93.3	94.4	100.0	100.0	100.1	100.4	96.7	97.1	100.0	85.6	85.6	
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Quillers, female.			Reelers, male.			Reelers, female.			Spinners, male.			
1910..	102.2	95.1	97.6	101.6	72.9	74.5	99.5	91.5	91.0	101.6	84.4	85.6	
1911..	102.2	95.2	97.4	101.4	80.4	81.7	100.2	92.1	92.6	101.6	85.4	86.7	
1912..	100.7	95.5	96.1	101.1	82.7	83.4	99.8	90.4	90.2	101.1	86.4	87.0	
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Spinners, female.			Twisters-in, male.			Twisters-in, female.			Warpers, male.			
1910..	101.6	92.0	93.2	101.4	88.4	89.7	101.2	89.7	90.7	100.4	97.7	97.9	
1911..	101.4	94.0	95.2	101.4	93.9	95.3	101.1	90.9	92.0	100.4	96.7	96.9	
1912..	100.5	95.0	95.5	100.2	95.1	95.3	100.5	97.2	97.8	100.5	93.7	94.1	
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Warpers, female.			Weavers, broad silk, male.			Weavers, broad silk, female.			Weavers, ribbon, male.			
1910..	101.4	89.6	90.9	101.4	91.1	92.2	102.7	90.9	93.3	100.7	86.6	87.2	
1911..	101.4	86.4	87.6	101.6	90.7	91.7	102.5	86.0	88.2	100.5	89.6	90.2	
1912..	100.2	92.8	93.1	100.5	93.5	94.0	100.2	90.4	90.4	100.5	94.5	95.2	
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Weavers, ribbon, female.			Winders, hard silk, female.			Winders, soft silk, female.						
1910..	100.7	91.0	91.5	102.0	87.8	89.4	101.6	92.5	94.4				
1911..	100.5	92.3	92.8	102.0	90.5	92.1	101.4	94.6	96.3				
1912..	100.4	94.1	94.4	100.9	92.7	93.3	100.2	97.5	97.8				
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				

A like table of relative numbers is next shown for the industry as a whole as determined by a combination of the data for the several occupations covered. Data were obtained for the principal occupations of the industry, but not for all occupations. The method of computing this table is explained on page 26.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN SILK-GOODS MANUFACTURING, 1910 TO 1913.

(1913=100.0.)

Year.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time weekly earnings.
1910.....	101.4	89.5	90.8
1911.....	101.3	90.8	91.9
1912.....	100.4	94.5	94.7
1913.....	100.0	100.0	100.0

From the table it is seen that the relative or index number for full-time hours per week in the silk industry as a whole decreased from 101.4 in 1910 to 100.0 in 1913; or, in other words, full-time hours per week were 101.4 per cent in 1910 of what they were in 1913. The relative or index number for rates of wages per hour increased from 89.5 in 1910 to 100 in 1913. Owing to the reduction of hours, the increase in full-time weekly earnings were somewhat less than the increase in wages per hour, the increase being from an index of 90.8 in 1910 to 100 in 1913.

In examining the relative or index numbers for the several occupations, on page 144, and for the industry as a whole, in the table above, it will be observed that they have been computed with 1913, taken as a base, or 100 per cent. In the preceding reports of the Bureau relating to this industry relative numbers for full-time hours of labor and rates of wages per hour were presented back to 1890, and the base, or 100 per cent, was not the average rate of wages per hour or the average full-time hours per week in any one year, but the average rate of wages per hour and the average full-time hours per week for the 10-year period, 1890-1899. The table of such relative numbers for the years 1890 to 1912 appears in the appendix, page 178.

The reasons for changing the base of the relative numbers to the most recent years are stated on page 15.

The relative numbers for the several occupations shown in the new series here presented differ from those of the old series, shown in preceding reports, because of the change of the base; but the ratio existing between any two years is the same in both series. The relative numbers for the industry as a whole have likewise been recomputed with 1913 as the base.

In addition to making a change of the base year in computing the industry relatives, a change has also been made in the method of computing the industry relatives, and because of this change the relative or index for the industry as a whole here presented not only differs from the relative computed by the former method, but shows a slightly different ratio of change from year to year.

In Bulletin No. 128 the relative numbers for this industry were averages of the relative numbers of the several occupations. For each year, for example, the relative rate of wages per hour of each occupation was multiplied (weighted) by the number of employees in that occupation, the products thus computed for the several occupations were added, and the sum of the products for all occupations divided by the total employees in all occupations.

In computing the relative numbers from 1910 to 1913 for the industry as a whole, as presented in this Bulletin, a combination was made, not of the relative numbers for the several occupations, but of the actual hours and wages of the several occupations. For each year the average hours and wages were computed for all employees in all occupations, and the average for each preceding year was compared with the average for 1913 to determine the index.

It was deemed necessary to make this change in method, because by computing the industry relative by averaging the occupation relatives a change in the industry is not always accurately reflected by the relative thus computed. This reason is more fully explained on page 26.

In addition to the relative numbers shown for the several occupations and for the industry, three tables are here presented, showing the per cent of increase or decrease in full-time hours of labor per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each preceding year back to 1910. The figures of these tables are computed from the relative numbers shown on pages 144 and 145 and simply reverse the method of comparison. Each of the three tables also shows the increase or decrease in 1912 as compared with 1911 and in 1911 as compared with 1910.

Referring to the first line of the first table, it is seen that the full-time hours of labor of doublers in 1913 was 1.6 per cent lower than in 1910, 1.3 per cent lower than in 1911, and 1.3 per cent lower than in 1912.

Further, it is seen that the full-time hours of labor in this occupation were the same in 1912 as in 1911 and 0.3 per cent lower in 1911 than in 1910.

The other figures of the table are read in like manner.

PER CENT OF INCREASE OR DECREASE IN **FULL-TIME HOURS PER WEEK**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Doublers, silk throwing, female.....	-1.6	-1.3	-1.3	(¹)	-0.3
Laborers, dyehouse, male.....	(¹)	(¹)	(¹)	(¹)	(¹)
Loom fixers, male.....	- .7	- .7	- .4	- .3	(¹)
Pickers, cloth, female.....	-1.4	-1.6	(¹)	-1.6	+ .2
Quillers, female.....	-2.2	-2.2	- .7	-1.5	(¹)
Reelers, male.....	-1.6	-1.4	-1.1	- .3	- .2
Reelers, female.....	+ .5	- .2	+ .2	- .4	+ .7
Spinners, male.....	-1.6	-1.6	-1.1	- .5	(¹)
Spinners, female.....	-1.6	-1.4	- .5	- .9	- .2
Twisters-in, male.....	-1.4	-1.4	- .2	-1.2	(¹)
Twisters-in, female.....	-1.2	-1.1	- .5	- .6	- .1
Warpers, male.....	- .4	- .4	- .5	+ .1	(¹)
Warpers, female.....	-1.4	-1.4	- .2	-1.2	(¹)
Weavers, broad silk, male.....	-1.4	-1.6	- .5	-1.1	+ .2
Weavers, broad silk, female.....	-2.6	-2.4	- .2	-2.2	- .2
Weavers, ribbon, male.....	- .7	- .5	- .5	(¹)	- .2
Weavers, ribbon, female.....	- .7	- .5	- .4	- .1	- .2
Winders, hard silk, female.....	-2.0	-2.0	- .9	-1.1	(¹)
Winders, soft silk, female.....	-1.6	-1.4	- .2	-1.2	- .2
The industry.....	-1.4	-1.3	- .4	- .9	- .1

¹ No change.

PER CENT OF INCREASE OR DECREASE IN **RATES OF WAGES PER HOUR**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911	1911 than in 1910
Doublers, silk throwing, female.....	+10.6	+ 4.9	+ 7.2	-2.1	+ 5.4
Laborers, dyehouse, male.....	+ 5.8	+ 5.3	(¹)	+5.3	+ .5
Loom fixers, male.....	+ 8.1	+ 6.4	+ 3.4	+2.9	+ 1.6
Pickers, cloth, female.....	+23.5	+14.3	+16.8	-2.2	+ 8.0
Quillers, female.....	+ 5.2	+ 5.0	+ 4.7	+ .3	+ .1
Reelers, male.....	+37.2	+24.4	+20.9	+2.9	+10.3
Reelers, female.....	+ 9.3	+ 8.6	+10.6	-1.3	+ .7
Spinners, male.....	+18.5	+17.1	+15.7	+1.2	+ 1.2
Spinners, female.....	+ 8.7	+ 6.4	+ 5.3	+1.1	+ 2.2
Twisters-in, male.....	+13.1	+ 6.5	+ 5.2	+1.3	+ 6.2
Twisters-in, female.....	+11.5	+10.0	+ 2.9	+6.9	+ 1.3
Warpers, male.....	+ 2.4	+ 3.4	+ 6.7	-3.1	- 1.0
Warpers, female.....	+11.6	+15.7	+ 7.8	+7.4	- 3.6
Weavers, broad goods, male.....	+ 9.8	+10.3	+ 7.0	+3.1	- .4
Weavers, broad goods, female.....	+10.0	+16.3	+10.6	+5.1	- 5.4
Weavers, ribbon, male.....	+15.5	+11.6	+ 5.8	+5.5	+ 3.5
Weavers, ribbon, female.....	+ 9.9	+ 8.3	+ 6.3	+2.0	+ 1.4
Winders, hard silk, female.....	+13.9	+10.5	+ 7.9	+2.4	+ 3.1
Winders, soft silk, female.....	+ 8.1	+ 5.7	+ 2.6	+3.1	+ 2.3
The industry.....	+11.7	+10.1	+ 5.8	+4.1	+ 1.5

¹ No change.

PER CENT OF INCREASE OR DECREASE IN **FULL-TIME WEEKLY EARNINGS**, 1913 COMPARED WITH EACH OF THE 3 YEARS PRECEDING, 1912 COMPARED WITH 1911, AND 1911 COMPARED WITH 1910.

Occupation.	Per cent higher (+) or lower (-) in 1913 than in—			Per cent higher (+) or lower (-) in—	
	1910	1911	1912	1912 than in 1911 ¹	1911 than in 1910
Doublers, silk throwing, female.....	+ 8.2	+ 3.1	+ 5.9	-2.7	+5.0
Laborers, dyehouse, male.....	+ 5.8	+ 5.1	— .1	+5.3	+ .6
Loom fixers, male.....	+ 7.4	+ 5.5	+ 3.0	+2.4	+1.8
Pickers, cloth, female.....	+20.9	+11.9	+16.8	-4.3	+8.1
Quillers, female.....	+ 2.5	+ 2.7	+ 4.1	-1.3	— .2
Reelers, male.....	+34.2	+22.4	+19.9	+2.1	+9.7
Reelers, female.....	+ 9.9	+ 8.0	+10.9	-2.6	+1.8
Spinners, male.....	+16.8	+15.3	+14.9	+ .3	+1.3
Spinners, female.....	+ 7.3	+ 5.0	+ 4.7	+ .3	+2.1
Twisters-in, male.....	+11.5	+ 4.9	+ 4.9	(1)	+6.2
Twisters-in, female.....	+10.3	+ 8.7	+ 2.2	+6.3	+1.4
Warpers, male.....	+ 2.1	+ 3.2	+ 6.3	-2.9	-1.0
Warpers, female.....	+10.0	+14.2	+ 7.4	+6.3	-3.6
Weavers, broad goods, male.....	+ 8.5	+ 9.1	+ 6.4	+2.5	— .5
Weavers, broad goods, female.....	+ 7.2	+13.4	+10.6	+2.5	-5.5
Weavers, ribbon, male.....	+14.7	+10.9	+ 5.0	+5.5	+3.4
Weavers, ribbon, female.....	+ 9.3	+ 7.8	+ 5.9	+1.7	+1.4
Winders, hard silk, female.....	+11.9	+ 8.6	+ 7.2	+1.3	+3.0
Winders, soft silk, female.....	+ 5.9	+ 3.8	+ 2.2	+1.6	+2.0
The industry.....	+10.1	+ 8.8	+ 5.6	+3.0	+1.2

¹ No change.

EXPLANATION OF SCOPE AND METHOD.

This report on silk-goods manufacturing includes establishments engaged in silk throwing and establishments engaged in the manufacture of broad silks and ribbons. Establishments manufacturing exclusively machine twist, sewing and embroidery silks, silk braids, laces, novelties, etc., have not been included.

All information in this report was secured from pay rolls of the various establishments by agents of the bureau. The number of establishments for which data were secured varied considerably during the period included in this report, as follows:

1907 to 1910.....	10 identical establishments.
1910 and 1911.....	42 identical establishments.
1911 and 1912.....	42 identical establishments.
1912 and 1913.....	51 identical establishments.

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of establishments included for the full period from 1907 to 1910, inclusive, was limited, owing to the difficulty of finding establishments that had preserved acceptable records for those years and also owing to the large amount of work involved. Data were not secured from a greater number of establishments in the more recent years because of the limited funds available for the purpose.

The establishments vary from year to year, as establishments go out of business or cease to be representative, and new establishments must be substituted in the wage study. Occasionally occupations

are dispensed with in a mill, or new occupations are introduced, and sometimes data are not available for all occupations desired from a mill.

Data for a group of establishments in any year will not be precisely the same as for a different group in the same year, even though nearly all of the establishments may be common to both groups. In using the actual figures in this report, comparison from year to year should be made only between data coming from identical establishments. In the tables the data from identical establishments are bracketed together. Data from an establishment are not included in the report unless the information for at least two years is available.

In selecting establishments from which to secure data, the Bureau undertook to represent all States in which silk-goods manufacturing is of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures. The table which follows shows by States the number of employees in this industry as reported by the United States Census Office for 1910; the total number on the pay roll in the establishments from which the Bureau secured data for 1913; and the number in the selected occupations for whom data for 1913 are shown.

TOTAL NUMBER OF EMPLOYEES IN SILK GOODS MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FOR WHICH DATA ARE SHOWN FOR 1913.

State.	Number of employees reported by United States Census Office, 1910.	Establishments for which data are shown by the Bureau of Labor Statistics for 1913.		
		Number of establishments.	Number of employees—	
			On pay roll.	For whom data are shown.
Pennsylvania.....	36,469	18	7,680	5,212
New Jersey.....	30,285	23	6,924	4,581
New York.....	12,903	14	759	430
Connecticut.....	8,703	5	5,228	1,852
Massachusetts.....	4,109	1	584	345
Other States ²	6,568			
Total.....	99,037	51	21,175	12,420

¹ The silk industry in New York State is confined largely to the manufacture of braids, laces, novelties, etc., and establishments engaged exclusively in the manufacture of such articles are not included in this report.

² Includes States having less than 2,000 employees in 1910.

According to the census of 1910, 93 per cent of the total number of employees in the industry are found in the States in which the establishments furnishing information to the Bureau are located. The number of employees in the establishments from which the Bureau obtained data for 1913 was equal to 21.4 per cent of the total number in the industry in 1910, and the number of such employees for which

the Bureau secured detailed information for 1913 was equal to 12.5 per cent of the total number in the industry in 1910.

The data are for one pay-roll period in each year, the pay roll ending nearest May 15, except in a very few establishments where abnormal conditions made it advisable to take some other period.

The full-time hours of labor per week shown in the tables of the report are the regular full-time hours of work of the occupation under normal conditions in the establishment, or, if any establishment was running under unusual working time because of rush work or of slack work, the hours to which both employer and employee expect to return when conditions become normal. The working time is the hours on duty, including intervals of waiting for work.

The full-time hours per week and the relatives based thereon do not in any way indicate the extent of unemployment. Employees may work overtime, or broken time, or be laid off, or a temporary reduction may be made in working hours without such change affecting the full-time hours per week as presented in this bulletin.

The rate of wages per hour appearing in the tables include the wages of time workers and the earnings of pieceworkers. All time rates by the day or week have been reduced to rates per hour, and the earnings of pieceworkers or of persons working at both time and piece rates have been reduced to rates per hour by dividing the earnings by the hours worked. The time workers and pieceworkers of each occupation are combined as one group.

Silk manufacturing is an industry in which much piecework is found. This is particularly true of broad silks. In a considerable number of establishments visited in preceding years the piecework system was found in operation with such inadequate records of hours worked that it was not deemed advisable to attempt to tabulate classified rates of wages or earnings per hour.

In 1913, however, where there was no record regularly kept of the actual time worked by pieceworkers, the firms, at the request of the Bureau, kept a special record for the pay period taken, making it possible to present the classified rates in Table IV. The importance of such a record for factory purposes is causing more firms each year to keep a record of time worked by all employees.

A change in the earnings per hour of pieceworkers does not of necessity indicate a change in piece rates. Without a change in piece rates, a change in methods or of machinery, a speeding up or more steady work resulting from greater volume of business may increase the hourly earnings; or, on the other hand, changes in methods, a slowing down in speed, or a lull in business may reduce the hourly earnings. Varying intervals of waiting for work while on duty may also affect hourly earnings.

The full-time weekly earnings are the earnings per week of employees working full time, or the earnings on broken time reduced to equivalent earnings for a full week. In considering changes in full-time earnings per week, notice should also be taken of full-time hours of labor per week. A reduction in the hours of a pieceworker may reduce his earnings in a week and leave his earnings per hour unchanged, while a reduction of hours for a week worker will, if his weekly rate remains the same, increase his rate per hour.

The averages of full-time hours per week, rates of wages per hour, and full-time weekly earnings are computed by adding the data for each individual employee and dividing the total by the number of employees.

In studying the tables it will be observed that the average full-time weekly earnings generally is not exactly the same as the result that would be obtained by multiplying the average rate per hour by the average hours per week, owing to the change in the relative weight of the items. This point is illustrated on page 23.

The change in the basis of comparison in computing the relative numbers from the average of 1890-1899 to 1913 is referred to on page 145. A more extended explanation is given on pages 23 to 25. The relative rates of wages per hour and the relative full-time hours per week from 1890 to 1912 on the basis of 1890-1899 equals 100, published in Bulletin No. 128, are reproduced in this Bulletin in the appendix, page 178.

The method used in computing the relative or index numbers for the several occupations herein published can best be explained by an illustration. Such an illustration is given on page 25.

A word of caution is given as to the use of relative numbers. The per cent of increase or decrease from one year to another is not the difference between relative numbers for the years. Thus, as shown in the table on page 145, the relative full-time weekly earnings in the silk industry increased from 90.8 in 1910 to 94.7 in 1912, an increase of 3.9 in the relative for 1912 over the relative for 1910, making an increase of 4.3 per cent.

The base for the computation of the relative numbers of the several occupations, as stated above, has been changed from the average of 1890-1899 to 1913. The same change of base has been made in computing the relative numbers for the industry as a whole. In addition to the change of base in computing the relative numbers for the industry, a change has been made in the method of computation. The relative numbers for the industry here presented, covering 1910 to 1913, are computed directly from the average hours of labor, rates of wages per hour, and weekly earnings of all employees in all occupations combined into one group. In other words, the relatives for the industry as a whole have been computed for this report in the

same manner as the relatives for each occupation. This change of method is explained and illustrated on pages 26 to 30.

Four general tables are presented for the silk industry, as follows:

Table I.—Average rates of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week in the United States, by years, 1907 to 1913.

Table II.—Average rates of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week in each year, by States, 1912 and 1913.

Table III.—Average rates of wages per hour, average full-time weekly earnings, and average and classified full-time hours of work per week, in each State, by years, 1912 and 1913.

Table IV.—Average full-time hours of work per week and average and classified rates of wages per hour, by States, 1913.

In Table I, in addition to actual data, percentages computed therefrom are given.

When data for a State are available in sufficient amounts to warrant presentation, such data are presented by States in Tables II, III, and IV.

Table III repeats the data for the several States given in Table II, rearranged for the convenience of the reader.

DESCRIPTION OF PRINCIPAL PRODUCTIVE OCCUPATIONS.

With the exception of learners, helpers, laborers, etc., practically all classes of productive labor below the rank of foremen in silk mills have been reported. The different operations have become so thoroughly systematized that the per cent of persons in productive work who fall without the classifications adopted is not large. At the same time it should be borne in mind that many of the so-called occupations in the silk industry are regularly filled by young persons, often mere boys or girls, who possess little skill and who are hardly removed from the learners' class. Moreover, it has been found that in some kinds of work, as winding, doubling, reeling, etc., the line of demarcation between learners and regular workers is largely an imaginary one. In such cases, where classification could not be made by the person furnishing the information, an arbitrary minimum wage limit for persons to be included had to be adopted.

Of the usual silk mill occupations, those believed to be of sufficient importance to warrant their inclusion in the tabulation are as follows:

Doublers, silk throwing.	Twisters-in.
Laborers, dyehouse.	Warpers.
Loom fixers.	Weavers, broad silk.
Pickers, cloth.	Weavers, ribbon.
Quillers.	Winders, hard silk.
Reelers.	Winders, soft silk.
Spinners.	

About two-thirds of all employees in the average throwing or weaving establishment are included within these occupations.

DOUBLERS, SILK THROWING.

In the manufacture of thrown silk, doubling follows the first-time spinning process and closely resembles winding in its nature. In this operation two or more silk filaments are united by drawing them from as many separate bobbins and winding them onto a single one, at the same time twisting them into one strand. This work is commonly performed by females, often young girls, and requires little skill. In many throwing mills an improved type of spinning frame has been installed which provides for doubling as a part of the spinning process and obviates the need of separate employees for this work.

LABORERS, DYEHOUSE.

This term is here broadly used to include all classes of adult male labor in dye works except such men as are charged with directing or supervising the work of others.

In the larger and more important silk-dyeing establishments there are usually three main groups or classes of employees. These are generally styled head dyers, dyers, and helpers, respectively. The head dyers rank as foremen, often having a considerable number of men under their direction, and are chosen for their technical knowledge of materials and processes. They command large salaries. The next group, called dyers, may properly be regarded as subforemen, each having a gang of men under him, numbering as high as 30 or 40 at times, but usually less, according to the kind of work being done. These men also must possess some technical knowledge and ability to direct work, which facts are considered in fixing their wages. The third class of employees, commonly known as "helpers," are the ones who do the actual manipulation of the materials to be dyed and who are believed to correspond more nearly to the journeyman class of workers in other industries. In some establishments the work is so specialized that dyehouse hands may be split into various groups as strippers, dyers, weighters, finishers, etc., according to the particular operations which they perform, but usually all classes of employees are included under the general terms dyers and helpers, and subdivisions of the latter class can not be made.

In general, the work performed in skein-dyeing establishments is as follows:

After being weighed, the skeins of silk are taken to the stripping tanks, where they are worked in a soap bath near the boiling point to remove all gummy substances from the fiber. This operation requires about an hour and furnishes the boiled-off liquor used as an addition

to the dye bath later. After stripping, the silk is washed in a weak solution of soda. The stripper proper directs the work of his helpers, who do the actual manual work. Usually a few men are employed to tend the centrifugal machines used for extracting the water from the silk. These are better paid than the helpers. Above the helpers also are "box fixers," or "end men," who act as gang leaders and are paid slightly higher wages. The stripping process is also designated as "boiling off" or "degumming."

The dyeing operation follows stripping. Long vats filled with the dyeing solution are used, in which the skeins are suspended from rods and are worked back and forth in the dye and also turned on the rods to cause the color to strike in uniformly. The dyers proper, often called "journeymen dyers," do little manual labor, each having a gang of helpers to work the silk about in the dye.

The weighting process usually takes place before dyeing. This is accomplished by repeatedly soaking the silk fiber in the weighting solution. Weighted silk is usually brightened by working it in a dilute solution of acetic, sulphuric, or tartaric acid for a short time.

After weighting and dyeing the silk is "finished" to give it a glossy appearance. "Shaking out men" hang the skeins on stout wooden arms or pegs and shake out the fiber by hard jerks. The finishers stretch the silk and give it luster by working it on the pegs with a stout wooden club like a marlinspike. Considerable skill is required to know when the fiber has been sufficiently "worked." For glossing, the skeins are twisted up tight and allowed to remain so several hours. In lustering the skeins are stretched and steamed at the same time. The final process is drying, in which the silk is placed in heated rooms until thoroughly dry, when it is ready for shipment.

In piece dyeing, the lengths of silk fabric are continuously immersed in tanks of dye solution from revolving frames until the proper color is obtained. They are then put through a finishing process and dried by being passed between hot rollers. The class of labor employed in piece dyeing is quite similar to that found in skein-dyeing establishments.

LOOM FIXERS.

These are skilled mechanics who adjust and repair the looms. A good loom fixer must be familiar with all the different processes employed in a weaving mill and must be able to repair and keep all parts of the loom in good running order. They are usually on a semisalaried basis.

PICKERS, CLOTH.

Cloth pickers examine and remove defects from the fabric after it is woven. Rough ends of threads are picked off and grease spots or other stains are removed with wood alcohol or gasoline. Some-

times the latter work is done by girls or women called cleaners, but usually it is done by the pickers. Persons called examiners usually do the final picking. Most pickers are females, but examining is often done by expert males.

QUILLERS.

From the winding frame, or the doubling frame, if this operation is used, the bobbins of silk used for tram (or filling) are taken to the quiller, who places them on a series of metal pins set on the quilling frame, from which the silk is wound on quills for the use of the weaver. These quills, when full, are cone shaped if for use in the shuttle of broad looms, or cylindrical if for a ribbon loom. Quilling is somewhat similar to winding, but is usually done by a younger class of operatives, often girls. Little skill is required for the work, but the quiller must be on the alert for broken threads. When a thread breaks or when a quill is full, that particular spindle stops automatically and it becomes the duty of the quiller to tie up the broken ends or replace the full quill with an empty one without delay.

REELERS.

Reeling is a throwing-mill occupation. While regarded as unskilled work, it contains a sufficient number of employees to warrant its inclusion in the tabulation. It consists in transferring the spun silk from the bobbins to the hexagonal power-driven reels in order to make up the skeins for dyeing. It is the reverse of winding and is usually done by females, but often by boys. Where reeling is done by females, reel lifters are employed to carry the heavy reels to the lacers, who lace or tie the skeins to prevent tangling during the dyeing process. The reeler must watch her work closely to tie up broken threads and keep all reels running.

SPINNERS.

The work of spinning follows winding in throwing mills, and is usually done by males, often young boys, although in some establishments female spinners are employed exclusively. With the ordinary type of machine, the wound bobbins of silk are placed on the lower row of spindles on the spinning frame, from which the fiber is transferred to bobbins turning on spindles set on the upper rail of the frame. In first-time spinning of organzine (warp fiber), the thread is given about 15 twists to the inch, while in second-time spinning, which follows doubling, the thread is twisted about the same number of times per inch, but in the opposite direction. In tram (filling) spinning, only 5 or 6 twists to the inch are given the fiber. Spinning is considered the most important operation in silk throwing. Improved machines which combine the doubling and spinning operations have been introduced into many throwing mills.

TWISTERS-IN.

Twisting, as the term is employed in silk weaving, is a highly skilled occupation. It consists in joining the ends of a new warp which is ready for the loom to the ends of the preceding warp by a twisting motion. This is accomplished by deftly rolling the two threads between the thumb and the finger tips. In broad silk weaving, the twister sits in the frame of the loom in a fairly comfortable position, but in twisting for ribbons, owing to the construction of the loom, he has to reach over the harness with his chest pressing against the latter, thus working in a very cramped position. Twisting is usually done by males, but some expert female twisters have been found in broad silk mills. A twisting machine has been introduced into a few mills, but generally the work is done entirely by hand. In most establishments twisters also do the entering whenever necessary.

WARPERS.

The spools of organzine silk (silk to be used as warp) are taken from the winder to the warper by boys or girls called "bobbin carriers." The warper places these spools on the creel, which is an inclined board or stand containing from 400 to 900 metal pins for holding the spools. The end of each thread is then drawn through a rack or comb having a series of glass pins for guiding the thread. The threads are then led through a reed, which keeps them separate, and are attached to the warping mill. This machine is of two kinds—the Swiss and the horizontal. The Swiss mill, which is the older and is still much used, consists of a cylinder about 9 feet in circumference and 6 feet long, which rests horizontally in its frame and revolves on pivots formed by an iron bar or rod running through its center and projecting at each end, forming an axis. A belt connecting the central rod with a shaft causes the mill to revolve.

The horizontal warping mill consists of a drum-shaped frame, from 24 to 30 feet in circumference and about 6 feet wide, resting horizontally upon a support. To start this machine, the operator presses a foot lever. Removing the pressure stops the mill. Many horizontal warping mills are now fitted with the Swiss attachment, which is said to admit of as fine work being done as is possible on the Swiss mill, with the advantage of a considerable saving of time. No appreciable difference in the pay of warpers on the horizontal and the Swiss mills has been observed. In Paterson warping is usually done by males; elsewhere it is done largely by females. It is a skilled occupation.

In addition to the two kinds of warping mills described, a third class, operated by hand, is sometimes used. This is a small frame which revolves vertically by means of a hand crank. It is in use to

some extent in a few ribbon mills and where warping is let out by manufacturers to home workers of the neighborhood.

Direct warping is sometimes done in ribbon mills. The direct warper is a simple, compact machine for winding the warp direct from the bobbins to the warp beam of the ribbon loom. It is generally operated by girls and is not difficult to handle. Many manufacturers say that the direct warping machine is not satisfactory.

Edge warping consists in preparing the warp for the edges of ribbons and broad goods. This is done on a special machine which requires little skill and is easy to operate. The work is usually done by girls.

WEAVERS, BROAD SILK.

While weaving requires less skill than some other occupations, such as loom fixing or twisting-in, it employs far more people. Weaving is largely an automatic process, the duty of the weaver being merely to watch the loom, see that all its parts are working properly, and correct defects in the fabric before they are carried too far. These defects in the texture can not be remedied after they have passed beyond a certain point, usually but a few inches from the edge or pick line.

The weaver does not regulate the speed of his looms. All looms producing a particular kind of silk in the mill are speeded uniformly, and the yardage turned out by an individual weaver depends, apart from the quality of material used and number of looms tended, entirely on his dexterity in piecing up broken ends of the warp threads and drawing them into place through the harness and reed, in filling empty shuttles with new quills and placing them in the loom properly, in taking off cuts of cloth, and in performing other necessary operations with the least possible delay in the interruption of the weaving work.

Weavers in broad silk mills are almost invariably pieceworkers. Their earnings depend on a number of circumstances. In the first place, the number of looms operated by a weaver affects his earnings. The common rule is 2 looms per weaver, but instances have been noted where the weaver had 3 and even 4 looms. On plain goods an efficient weaver can tend 3 or 4 looms, while on looms with Jacquard attachment 1 loom is usually considered all a weaver can look after. The number of looms operated by a weaver depends on the amount of work on hand and may vary within the pay-roll period. During dull seasons many mills reduce the number of looms per weaver instead of reducing the number of weavers.

Again, the weaver's earnings depend on the quality of silk being woven at the time. Frequent changes occur in this respect. At times the weaver's earnings may be so impaired that it is necessary to

put him temporarily on a time basis. On easy weave plain goods, as messalines, satins, etc., it is said that a good weaver can average about 35 yards per day of 10 hours on 2 looms or about 20 yards per day on a single loom. On Jacquard work and on other figured goods the average is considerably lower. On some grades of fine silks 7 or 8 yards per day is considered a good average for 1 loom. The rate of pay per yard is based, of course, on the kind of silk being woven at the time.

WEAVERS, RIBBON.

The duties of the ribbon weaver, while of the same general nature as those of the broad-silk weaver, are greater and more arduous. A loom of a radically different type is used. Instead of a single-warp beam, harness, reed, and batten, with a single shuttle carrying the filling, there are as many of these accessories as there are strands of ribbon to be woven. This may vary from 6 to 100, according to the type of the loom or width of the ribbon. Looms producing 24 pieces of ribbon at a time are a common type. With a greater number of shuttles to keep filled, a greater number of warp threads to piece together, and more mechanism to be kept in operation it naturally follows that ribbon weavers must as a rule possess greater skill and command better wages than do broad-silk weavers. For this reason they have been tabulated separately. As a rule, ribbon weavers are paid by the week. The work is usually done by males, but with the introduction of improved automatic machinery there is a growing tendency to replace skilled male weavers with females of less skill and experience.

WINDERS, HARD SILK.

Winding done in throwing mills is commonly designated as hard-silk winding to distinguish it from the similar operation on dyed or soft silk in weaving mills. It is usually performed by females, and requires but a small degree of skill. After the soaking process, winding is the first operation in throwing mills. The skeins of raw silk are taken to the winding frame and placed on hexagonal-shaped revolving reels called swifts. From these swifts the silk filament is wound on spools or bobbins set on swiftly revolving spindles. The winder has to exercise constant watchfulness to tie broken threads, to replace filled bobbins with empty ones, and to see that all the swifts are kept running. Each winder usually tends two rows or "decks" of swifts, standing between them. In some establishments double-decker winding frames have been found, but these are objected to on the ground that they necessitate too high reaching.

WINDERS, SOFT SILK.

In weaving mills the work of the soft (dyed) silk winder is practically the same as that of the hard (undyed) silk winder in throwing mills. Much the same processes are employed, and much the same kind of labor is utilized in the two branches of the industry. In soft-silk winding, however, the thread has been spun and doubled, and is thus stronger and less liable to break. Also, being soft, it is less apt to cause the fingers of the winder to become sore than is the case with hard silk. In view of these facts, and also because silk throwing and silk weaving are recognized as distinct branches of the industry, it appears desirable to report winders, hard silk, and winders, soft silk, as separate occupations. Occasionally, undyed silk or hard silk is wound for use in ribbon mills, also for weaving certain kinds of fabrics in broad-goods mills. It has been noted that as a rule soft-silk winders appear to be better paid than are hard-silk winders, due possibly to the fact that employees of the former class are often more mature than those of the latter class.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913.

[The figures set opposite each bracketed group of years are for identical establishments.]

NUMBER.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—					
						50 and under 54	54	Over 54 and under 57	57 and under 60	60	
Dobblers, silk throwing, female:	4 establishments.....	(1907	72	57.6	\$0.1037	(1)			34	38	
		1908	67	56.9	.1030	(1)			36	10	
		1909	78	56.4	.0992	(1)			39	39	
		1910	64	56.2	.1053	(1)			37	27	
	13 establishments.....	1910	255	57.3	.0928	\$5.37			101	126	28
		1911	237	57.1	.0989	5.64			97	126	14
	12 establishments.....	1911	316	56.2	.0988	5.56			192	124	
		1912	302	56.2	.0967	5.41			190	112	
	11 establishments.....	1912	269	56.0	.0962	5.38			195	74	
		1913	249	55.3	.1031	5.70			222	27	
	Laborers, dyehouse, male:	4 establishments.....	(1907	1,231	55.6	.1856	(1)			998	16
			1908	888	55.5	.2021	(1)			709	179
1909			1,355	55.5	.2009	(1)			1,123	232	
1910			1,175	55.6	.2014	(1)			949	226	
8 establishments.....		1910	1,746	55.8	.1973	10.99			1,364	226	156
		1911	2,052	55.8	.1985	11.05			1,636	248	168
11 establishments.....		1911	2,516	55.6	.2010	11.15			2,145	203	168
		1912	2,670	55.6	.2116	11.74	38	21	2,204	132	275
12 establishments.....		1912	2,739	55.6	.2105	11.68	38	21	2,273	132	275
		1913	2,625	55.6	.2104	11.67	55	24	2,150	132	264

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Loom fixers, male:										
8 establishments.....	1907	75	57.4	\$0.2597	(1)			18	50	7
	1908	72	57.1	.2717	(1)			20	49	3
	1909	89	57.2	.2677	(1)			21	68	
	1910	90	56.9	.2759	(1)			28	62	
22 establishments.....	1910	138	56.5	.2888	\$16.28			69	69	
	1911	144	56.5	.2934	16.56			69	75	
19 establishments.....	1911	128	56.8	.2896	16.40		6	45	77	
	1912	125	56.6	.2979	16.81		12	44	69	
29 establishments.....	1912	230	56.1	.3070	17.20	3	12	120	95	
	1913	243	55.9	.3175	17.71	16	5	125	97	
Pickers, cloth, female:										
7 establishments.....	1907	177	57.8	.1314	(1)			27	116	34
	1908	168	57.4	.1292	(1)			32	124	12
	1909	225	57.5	.1327	(1)			37	173	15
	1910	253	57.2	.1306	(1)			41	201	11
19 establishments.....	1910	394	56.7	.1244	7.09			156	227	11
	1911	418	56.8	.1344	7.66			165	242	11
17 establishments.....	1911	503	56.8	.1504	8.55			242	250	11
	1912	493	55.9	.1471	8.19			303	190	
25 establishments.....	1912	570	55.9	.1342	7.50		18	362	190	
	1913	523	55.9	.1568	8.76	3	21	326	173	
Quillers, female:										
7 establishments.....	1907	107	58.0	.0965	(1)			19	55	33
	1908	122	57.9	.0962	(1)			22	67	33
	1909	130	57.7	.0907	(1)			25	77	28
	1910	146	57.5	.1045	(1)			34	93	93
23 establishments.....	1910	340	56.2	.1074	6.04		18	189	114	19
	1911	382	56.2	.1075	6.03		18	225	123	16
23 establishments.....	1911	538	56.2	.1110	6.24		18	355	149	16
	1912	528	55.4	.1113	6.16		218	172	138	
31 establishments.....	1912	520	55.7	.1117	6.22		42	338	140	
	1913	557	55.3	.1170	6.47	2	39	359	133	
Reelers, male:										
10 establishments.....	1910	104	58.0	.0906	5.27			17	72	15
	1911	97	57.9	.0999	5.78			21	63	13
12 establishments.....	1911	133	57.1	.1014	5.80			57	72	4
	1912	118	56.9	.1042	5.92		8	43	67	
11 establishments.....	1912	111	56.9	.1091	6.20		6	42	63	
	1913	77	56.3	.1320	7.43		4	41	32	
Reelers, female:										
2 establishments.....	1907	41	56.8	.0862	(1)			26		15
	1908	36	56.3	.0888	(1)			27		9
	1909	29	56.0	.0991	(1)			19	10	
	1910	25	56.2	.1064	(1)			15	10	
7 establishments.....	1910	82	57.2	.0937	5.34			44	13	25
	1911	108	57.6	.0943	5.43			47	19	42
10 establishments.....	1911	256	56.4	.0978	5.53			159	73	24
	1912	271	56.2	.0960	5.39		23	148	70	30
11 establishments.....	1912	199	56.6	.0911	5.17			110	59	30
	1913	194	56.7	.1008	5.73		5	91	79	19

¹ Not computed.

² Including 9 employees whose hours were 44 per week.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Spinners, male:										
4 establishments.....	1907	153	56.8	\$0.0975	(1)			99		54
	1908	162	56.8	.0928	(1)			101	8	53
	1909	174	56.3	.0916	(1)			96	78	
	1910	134	56.0	.0949	(1)			87	47	
16 establishments.....	1910	327	57.5	.0942	\$5.40			120	146	61
	1911	396	57.5	.0954	5.47			139	176	81
14 establishments.....	1911	338	57.6	.1010	5.80			99	201	38
	1912	327	57.3	.1022	5.82		32	81	168	46
14 establishments.....	1912	277	57.2	.1008	5.75		22	87	122	46
	1913	262	56.6	.1166	6.61	20		126	79	37
Spinners, female:										
2 establishments.....	1907	45	58.7	.0829	(1)			12		33
	1908	33	58.5	.0898	(1)			10		23
	1909	30	57.2	.0844	(1)			8	22	
	1910	33	57.1	.0845	(1)			10	23	
9 establishments.....	1910	86	56.9	.0909	5.15			39	41	6
	1911	85	56.8	.0929	5.26			38	45	2
12 establishments.....	1911	369	56.5	.1225	6.90			233	134	2
	1912	395	56.0	.1238	6.92		97	154	133	19
11 establishments.....	1912	282	56.6	.1043	5.92			154	117	11
	1913	340	56.3	.1098	6.20		18	176	134	12
Twisters-in, male:										
7 establishments.....	1907	50	57.8	.2463	(1)			7	34	1
	1908	51	57.6	.2296	(1)			7	37	7
	1909	54	57.5	.2536	(1)			7	45	2
	1910	49	57.4	.2427	(1)			7	40	2
17 establishments.....	1910	85	56.7	.2557	14.49		1	35	47	2
	1911	92	56.7	.2717	15.40		2	35	54	1
21 establishments.....	1911	166	56.4	.2589	14.60		2	103	60	1
	1912	184	55.7	.2622	14.60		60	61	63	
28 establishments.....	1912	192	55.8	.2735	15.23		12	122	58	
	1913	206	55.7	.2875	15.98	13	11	118	64	
Twisters-in, female:										
5 establishments.....	1907	36	56.5	.1352	(1)			22	7	7
	1908	58	55.9	.1161	(1)			45	6	7
	1909	68	56.0	.1343	(1)			48	13	7
	1910	85	55.7	.1299	(1)			66	14	5
9 establishments.....	1910	92	55.7	.1366	7.63		2	71	14	5
	1911	99	55.6	.1385	7.74		1	80	13	5
6 establishments.....	1911	46	58.0	.1565	9.07		1	2	38	5
	1912	46	57.7	.1673	9.64		3		43	
11 establishments.....	1912	76	56.6	.1918	10.82		1	32	43	
	1913	51	56.3	.1973	11.06	2		24	25	
Warpers, male:										
3 establishments.....	1907	27	57.0	.3056	(1)			5	22	
	1908	25	56.8	.3062	(1)			7	18	
	1909	32	57.2	.2977	(1)			5	27	
	1910	34	57.3	.3150	(1)			4	30	
7 establishments.....	1910	51	56.6	.3166	17.88			21	30	
	1911	50	56.6	.3135	17.69			20	30	

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Warpers, male—Contd.										
5 establishments.....	1911	42	56.8	30.3105	\$17.57			17	25	
	1912	37	56.9	.3007	17.07			14	23	
13 establishments.....	1912	79	55.9	.3179	17.72			56	23	
	1913	84	55.6	.3393	18.83	3		63	18	
Warpers, female:										
6 establishments.....	1907	169	57.8	.1624	(1)			46	70	53
	1908	176	57.0	.1576	(1)			65	94	17
	1909	233	57.1	.1538	(1)			79	127	27
	1910	155	56.7	.1534	(1)			68	78	9
17 establishments.....	1910	290	56.3	.1792	10.08			186	95	9
	1911	346	56.3	.1727	9.72			213	118	15
19 establishments.....	1911	508	56.7	.1850	10.50			275	218	15
	1912	539	56.0	.1998	11.15		144	170	225	
26 establishments.....	1912	666	55.9	.1899	10.60			414	225	
	1913	659	55.8	.2046	11.39	28	32	333	216	
Weavers, broad silk, male:										
5 establishments.....	1907	369	57.7	.2063	(1)			22	346	1
	1908	438	57.4	.1848	(1)			60	377	1
	1909	585	57.5	.1966	(1)			74	502	9
	1910	587	57.5	.1989	(1)			70	513	4
14 establishments.....	1910	1,008	56.9	.2133	12.17			339	615	4
	1911	1,037	57.0	.2125	12.10			381	654	2
13 establishments.....	1911	1,462	56.9	.2140	12.15			647	813	2
	1912	1,441	56.3	.2205	12.45		379	331	731	
20 establishments.....	1912	1,403	56.4	.2235	12.59			103	569	731
	1913	1,571	56.1	.2391	13.40	156	97	525	793	
Weavers, broad silk, female:										
6 establishments.....	1907	719	57.1	.1429	(1)			275	338	106
	1908	801	56.9	.1274	(1)			338	374	89
	1909	870	56.7	.1283	(1)			441	330	99
	1910	964	56.6	.1304	(1)			502	364	98
14 establishments.....	1910	1,190	56.7	.1410	8.02			569	523	98
	1911	1,145	56.6	.1334	7.58			577	497	71
11 establishments.....	1911	1,378	57.2	.1812	10.32			612	695	71
	1912	1,450	55.9	.1904	10.58		687	136	627	
19 establishments.....	1912	1,626	56.1	.1731	9.69			24	975	627
	1913	1,647	56.0	.1915	10.72	31	32	981	603	
Weavers, ribbon, male:										
2 establishments.....	1907	52	57.2	.2245	(1)			13	39	
	1908	34	57.1	.2306	(1)			10	24	
	1909	45	57.1	.2028	(1)			12	32	
	1910	61	57.6	.2138	(1)			6	55	
8 establishments.....	1910	353	55.3	.2374	13.11			44	254	55
	1911	426	55.2	.2457	13.56			62	310	54
6 establishments.....	1911	369	54.8	.2477	13.57			62	307	
	1912	386	54.8	.2614	14.33			65	321	
12 establishments.....	1912	720	54.9	.2770	15.21			65	653	2
	1913	718	54.6	.2930	15.97	69		649		

1 Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

NUMBER—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Weavers, ribbon, female:										
4 establishments.....	1907	317	57.2	\$0.1983	(1)			121	129	67
	1908	227	57.0	.2022	(1)			108	65	54
	1909	280	56.9	.1981	(1)			123	128	29
	1910	230	56.6	.2089	(1)			118	89	23
10 establishments.....	1910	591	55.6	.2259	\$12.53		14	465	89	23
	1911	683	55.5	.2292	12.70		18	548	101	16
9 establishments.....	1911	635	55.3	.2266	12.51		18	548	53	16
	1912	580	55.2	.2310	12.73		17	509	54	
11 establishments.....	1912	638	55.1	.2310	12.71		17	599	22	
	1913	704	54.9	.2455	13.46	26		649	29	
Winders, hard silk, female:										
4 establishments.....	1907	149	57.6	.0985	(1)			73		76
	1908	165	57.1	.0871	(1)			88	18	59
	1909	181	56.5	.0886	(1)			90	91	
	1910	140	56.4	.0931	(1)			72	68	
17 establishments.....	1910	559	57.3	.0927	5.30			221	267	71
	1911	592	57.3	.0955	5.46			243	268	81
18 establishments.....	1911	889	56.8	.1037	5.88			483	361	45
	1912	834	56.2	.1062	5.96		181	305	310	38
19 establishments.....	1912	787	56.8	.1035	5.88		43	323	383	38
	1913	836	56.3	.1117	6.30	20	43	399	328	46
Winders, soft silk, female:										
8 establishments.....	1907	431	58.0	.1028	(1)			86	208	137
	1908	315	57.6	.0991	(1)			57	211	47
	1909	394	57.6	.1039	(1)			67	277	50
	1910	400	57.2	.1079	(1)			104	271	25
24 establishments.....	1910	675	56.6	.1191	6.74		15	291	344	25
	1911	730	56.5	.1219	6.88		15	365	329	21
22 establishments.....	1911	900	56.7	.1261	7.14			453	426	21
	1912	891	56.0	.1299	7.25		236	286	369	
28 establishments.....	1912	836	55.8	.1358	7.57		41	546	249	
	1913	874	55.7	.1393	7.74	30	49	551	244	

PER CENT.

Doublers, silk throwing, female:										
4 establishments.....	1907	72	57.6	\$0.1037	(1)			47.2		52.8
	1908	67	56.9	.1030	(1)			53.7	14.9	31.3
	1909	78	56.4	.0992	(1)			50.0	50.0	
	1910	64	56.2	.1053	(1)			57.8	42.2	
13 establishments.....	1910	255	57.3	.0938	\$5.37			39.6	49.4	11.0
	1911	237	57.1	.0989	5.64			40.9	53.2	5.9
12 establishments.....	1911	316	56.2	.0988	5.56			60.8	39.2	
	1912	302	56.2	.0967	5.41			62.9	37.1	
11 establishments.....	1912	269	56.0	.0962	5.38			72.5	27.5	
	1913	249	55.3	.1031	5.70			89.2	10.8	

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Laborers, dyehouse, male:										
4 establishments.....	1907	1,231	55.6	\$0.1856	(¹)	.....	.....	81.1	17.6	1.3
	1908	888	55.5	.2021	(¹)	.....	.....	79.8	20.2	.....
	1909	1,355	55.5	.2009	(¹)	.....	.....	82.9	17.1	.....
	1910	1,175	55.6	.2014	(¹)	.....	.....	80.8	19.2	.....
8 establishments.....	1910	1,746	55.8	.1973	\$10.99	.....	.....	78.1	12.9	8.9
	1911	2,052	55.8	.1985	11.05	.....	.....	79.7	12.1	8.2
11 establishments.....	1911	2,516	55.6	.2010	11.15	.....	.....	85.3	8.1	6.7
	1912	2,670	55.6	.2116	11.74	1.4	0.8	82.5	4.9	10.3
12 establishments.....	1912	2,739	55.6	.2105	11.68	1.4	.8	83.0	4.8	10.0
	1913	2,625	55.6	.2104	11.67	2.1	.9	81.9	5.0	10.1
Loom fixers, male:										
8 establishments.....	1907	75	57.4	.2597	(¹)	.....	.....	24.0	66.7	9.3
	1908	72	57.1	.2717	(¹)	.....	.....	27.8	68.1	4.2
	1909	89	57.2	.2677	(¹)	.....	.....	23.6	76.4	.....
	1910	90	56.9	.2759	(¹)	.....	.....	31.1	68.9	.....
22 establishments.....	1910	138	56.5	.2888	16.28	.....	.....	50.0	50.0	.....
	1911	144	56.5	.2934	16.56	.....	.....	47.9	52.1	.....
19 establishments.....	1911	128	56.8	.2896	16.40	.....	4.7	35.2	60.2	.....
	1912	125	56.6	.2979	16.81	.....	9.6	35.2	55.2	.....
29 establishments.....	1912	230	56.1	.3070	17.20	1.3	5.2	52.2	41.3	.....
	1913	243	55.9	.3175	17.71	6.6	2.1	51.4	39.9	.....
Pickers, cloth, female:										
7 establishments.....	1907	177	57.8	.1314	(¹)	.....	.....	15.3	65.5	19.2
	1908	168	57.4	.1292	(¹)	.....	.....	19.0	73.8	7.1
	1909	225	57.5	.1327	(¹)	.....	.....	16.4	76.9	6.7
	1910	253	57.2	.1306	(¹)	.....	.....	16.2	79.4	4.3
19 establishments.....	1910	394	56.7	.1244	7.09	.....	.....	39.6	57.6	2.8
	1911	418	56.8	.1344	7.66	.....	.....	39.5	57.9	2.6
17 establishments.....	1911	503	56.8	.1504	8.55	.....	.....	48.1	49.7	2.2
	1912	493	55.9	.1471	8.19	.....	.....	61.5	38.5	.....
25 establishments.....	1912	570	55.9	.1342	7.50	.....	3.2	63.5	33.3	.....
	1913	523	55.9	.1568	8.76	.....	6	62.3	33.1	.....
Quillers, female:										
7 establishments.....	1907	107	58.0	.0965	(¹)	.....	.....	17.8	51.4	30.8
	1908	122	57.9	.0962	(¹)	.....	.....	18.0	54.9	27.0
	1909	130	57.7	.0907	(¹)	.....	.....	19.2	59.2	21.5
	1910	146	57.5	.1045	(¹)	.....	.....	23.3	63.7	13.0
23 establishments.....	1910	340	56.2	.1074	6.04	.....	5.3	55.6	33.5	5.6
	1911	382	56.2	.1075	6.03	.....	4.7	58.9	32.2	4.2
23 establishments.....	1911	538	56.2	.1110	6.24	.....	3.3	66.0	27.7	3.0
	1912	528	55.4	.1113	6.16	.....	41.3	32.6	26.1	.....
31 establishments.....	1912	520	55.7	.1117	6.22	.....	8.1	65.0	26.9	.....
	1913	557	55.3	.1170	6.47	7.0	4.6	64.5	23.9	.....
Reelers, male:										
10 establishments.....	1910	104	58.0	.0906	5.27	.....	.....	16.3	69.2	14.4
	1911	97	57.9	.0999	5.78	.....	.....	21.6	64.9	13.4
12 establishments.....	1911	133	57.1	.1014	5.80	.....	.....	42.9	54.1	3.0
	1912	118	56.9	.1042	5.92	.....	6.8	36.4	56.8	.....
11 establishments.....	1912	111	56.9	.1091	6.20	.....	5.4	37.8	56.8	.....
	1913	77	56.3	.1320	7.43	.....	5.2	53.2	41.6	.....

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time working hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Beelers, female:										
2 establishments.....	1907	41	56.8	\$.0862	(1)	.....	.....	63.4	.....	36.6
	1908	36	56.3	.0888	(1)	.....	.....	75.0	.....	25.0
	1909	29	56.0	.0991	(1)	.....	.....	65.5	34.5	.....
	1910	25	56.2	.1064	(1)	.....	.....	60.0	40.0	.....
7 establishments.....	1910	82	57.2	.0937	\$5.34	.....	.....	53.7	15.9	30.5
	1911	108	57.6	.0943	5.43	.....	.....	43.5	17.6	38.9
10 establishments.....	1911	256	56.4	.0978	5.53	.....	.....	62.1	28.5	9.4
	1912	271	56.2	.0960	5.39	.....	8.5	54.6	25.8	11.1
11 establishments.....	1912	199	56.6	.0911	5.17	.....	.....	55.3	29.6	15.1
	1913	194	56.7	.1008	5.73	.....	2.6	46.9	40.7	9.8
Spinners, male:										
4 establishments.....	1907	153	56.8	.0975	(1)	.....	.....	64.7	.....	35.3
	1908	162	56.8	.0928	(1)	.....	.....	62.3	4.9	32.7
	1909	174	56.3	.0916	(1)	.....	.....	55.2	44.8	.....
	1910	134	56.0	.0949	(1)	.....	.....	64.9	35.1	.....
16 establishments.....	1910	327	57.5	.0942	5.40	.....	.....	36.7	44.6	18.7
	1911	396	57.5	.0954	5.47	.....	.....	35.1	44.4	20.5
14 establishments.....	1911	338	57.6	.1010	5.80	.....	.....	29.3	59.5	11.2
	1912	327	57.3	.1022	5.82	.....	9.8	24.8	51.4	14.1
14 establishments.....	1912	277	57.2	.1008	5.75	.....	7.9	31.4	44.0	16.6
	1913	262	56.6	.1166	6.61	7.6	.....	48.1	30.2	14.1
Spinners, female:										
2 establishments.....	1907	45	58.7	.0829	(1)	.....	.....	26.7	.....	73.3
	1908	33	58.5	.0898	(1)	.....	.....	30.3	.....	69.7
	1909	30	57.2	.0844	(1)	.....	.....	26.7	73.3	.....
	1910	33	57.1	.0845	(1)	.....	.....	30.3	69.7	.....
9 establishments.....	1910	86	56.9	.0909	5.15	.....	.....	45.3	47.7	7.0
	1911	85	56.8	.0929	5.26	.....	.....	44.7	52.9	2.4
12 establishments.....	1911	369	56.5	.1225	6.90	.....	.....	63.1	36.3	.5
	1912	395	56.0	.1238	6.92	.....	24.6	39.0	33.7	2.8
11 establishments.....	1912	282	56.6	.1043	5.92	.....	.....	54.6	41.5	3.9
	1913	340	56.3	.1098	6.20	.....	5.3	51.8	39.4	3.5
Twisters-in, male:										
7 establishments.....	1907	50	57.8	.2463	(1)	.....	.....	14.0	68.0	18.0
	1908	51	57.6	.2296	(1)	.....	.....	13.7	72.5	13.7
	1909	54	57.5	.2536	(1)	.....	.....	13.0	83.3	3.7
	1910	49	57.4	.2427	(1)	.....	.....	14.3	81.6	4.1
17 establishments.....	1910	85	56.7	.2557	14.49	.....	1.2	41.2	55.3	2.4
	1911	92	56.7	.2717	15.40	.....	2.2	38.0	58.7	1.1
21 establishments.....	1911	166	56.4	.2589	14.60	.....	1.2	62.0	36.1	.6
	1912	184	55.7	.2622	14.60	.....	32.6	33.2	34.2	.....
28 establishments.....	1912	192	55.8	.2735	15.23	.....	6.3	63.5	30.2	.....
	1913	206	55.7	.2875	15.98	6.3	.....	57.3	31.1	.....
Twisters-in, female:										
5 establishments.....	1907	36	56.5	.1352	(1)	.....	.....	61.1	19.4	19.4
	1908	58	55.9	.1161	(1)	.....	.....	77.6	10.3	12.1
	1909	68	56.0	.1343	(1)	.....	.....	70.6	19.1	10.3
	1910	85	55.7	.1299	(1)	.....	.....	77.6	16.5	5.9
9 establishments.....	1910	92	55.7	.1366	7.63	.....	2.2	77.2	15.2	5.4
	1911	99	55.6	.1385	7.74	.....	1.0	80.8	13.1	5.1
6 establishments.....	1911	46	58.0	.1565	9.07	.....	2.2	4.3	82.6	10.9
	1912	46	57.7	.1673	9.64	.....	6.5	.....	93.5	.....
11 establishments.....	1912	76	56.6	.1918	10.82	.....	1.3	42.1	56.6	.....
	1913	51	56.3	.1973	11.06	3.9	.....	47.1	49.0	.....

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Continued.

PER CENT—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Warpers, male:										
3 establishments.....	1907	27	57.0	\$0.3056	(1)	.....	.....	18.5	81.5	.....
	1908	25	56.8	.3062	(1)	.....	.....	28.0	72.0	.....
	1909	32	57.2	.2977	(1)	.....	.....	15.6	84.4	.....
	1910	34	57.3	.3150	(1)	.....	.....	11.8	88.2	.....
7 establishments.....	1910	51	56.6	.3166	\$17.88	.....	.....	41.2	58.8	.....
	1911	50	56.6	.3135	17.69	.....	.....	40.0	60.0	.....
5 establishments.....	1911	42	56.8	.3105	17.57	.....	.....	40.5	59.5	.....
	1912	37	56.9	.3007	17.07	.....	.....	37.8	62.2	.....
13 establishments.....	1912	79	55.9	.3179	17.72	.....	.....	70.9	29.1	.....
	1913	84	55.6	.3393	18.83	3.6	.....	75.0	21.4	.....
Warpers, female:										
6 establishments.....	1907	169	57.8	.1624	(1)	.....	.....	27.2	41.4	31.4
	1908	176	57.0	.1576	(1)	.....	.....	36.9	53.4	9.7
	1909	233	57.1	.1538	(1)	.....	.....	33.9	54.5	11.6
	1910	155	56.7	.1534	(1)	.....	.....	43.9	50.3	5.8
17 establishments.....	1910	290	56.3	.1792	10.08	.....	.....	64.1	32.8	3.1
	1911	346	56.3	.1727	9.72	.....	.....	61.6	34.1	4.3
19 establishments.....	1911	508	56.7	.1859	10.50	.....	.....	54.1	42.9	3.0
	1912	539	56.0	.1998	11.15	.....	26.7	31.5	41.7	.....
26 establishments.....	1912	666	55.9	.1899	10.60	.....	4.1	62.2	33.8	.....
	1913	659	55.8	.2046	11.39	4.2	4.9	58.1	32.8	.....
Weavers, broad silk, male:										
5 establishments.....	1907	369	57.7	.2063	(1)	.....	.....	6.0	93.8	.3
	1908	438	57.4	.1848	(1)	.....	.....	13.7	86.1	.2
	1909	585	57.5	.1996	(1)	.....	.....	12.6	85.8	1.5
	1910	587	57.5	.1989	(1)	.....	.....	11.9	87.4	.7
14 establishments.....	1910	1,008	56.9	.2133	12.17	.....	.....	38.6	61.0	.4
	1911	1,037	57.0	.2125	12.10	.....	.....	36.7	63.1	.2
13 establishments.....	1911	1,462	56.9	.2140	12.15	.....	.....	44.3	55.6	.1
	1912	1,441	56.3	.2205	12.45	.....	26.3	23.0	50.7	.....
20 establishments.....	1912	1,403	56.4	.2235	12.59	.....	7.3	40.6	52.1	.....
	1913	1,571	56.1	.2391	13.40	9.9	6.2	33.4	50.4	.....
Weavers, broad silk, female:										
6 establishments.....	1907	719	57.1	.1429	(1)	.....	.....	38.2	47.0	14.7
	1908	801	56.9	.1274	(1)	.....	.....	42.2	46.7	11.1
	1909	870	56.7	.1283	(1)	.....	.....	50.7	37.9	11.4
	1910	964	56.6	.1304	(1)	.....	.....	52.1	37.8	10.2
14 establishments.....	1910	1,190	56.7	.1410	8.02	.....	.....	47.8	43.9	8.2
	1911	1,145	56.6	.1334	7.58	.....	.....	50.4	43.4	6.2
11 establishments.....	1911	1,378	57.2	.1812	10.32	.....	.....	44.4	50.4	5.2
	1912	1,450	55.9	.1904	10.58	.....	47.4	9.4	43.2	.....
19 establishments.....	1912	1,626	56.1	.1731	9.69	.....	1.5	60.0	38.5	.....
	1913	1,647	56.0	.1915	10.72	1.9	1.9	59.6	36.6	.....
Weavers, ribbon, male:										
2 establishments.....	1907	52	57.2	.2245	(1)	.....	.....	25.0	75.0	.....
	1908	34	57.1	.2306	(1)	.....	.....	29.4	70.6	.....
	1909	45	57.1	.2028	(1)	.....	.....	28.9	71.1	.....
	1910	61	57.6	.2138	(1)	.....	.....	9.8	90.2	.....
8 establishments.....	1910	353	55.3	.2374	13.11	.....	12.5	72.0	15.6	.....
	1911	426	55.2	.2457	13.56	.....	14.6	72.8	12.7	.....

¹ Not computed.

TABLE I.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—Concluded.

PER CENT—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Weavers, ribbon, male—										
Concluded.										
6 establishments.....	1911	369	54.8	\$0.2477	\$13.57	.....	16.8	83.2	.....	.....
	1912	386	54.8	.2614	14.33	.....	16.8	83.2	.....	.....
12 establishments.....	1912	720	54.9	.2770	15.21	.....	9.0	90.7	9.3	.....
	1913	718	54.6	.2930	15.97	9.6	.....	90.4	.....	.....
Weavers, ribbon, female:										
4 establishments.....	1907	317	57.2	.1983	(1)	.....	.....	38.2	40.7	21.1
	1908	227	57.0	.2022	(1)	.....	.....	47.6	28.6	23.8
	1909	280	56.9	.1981	(1)	.....	.....	43.9	45.7	10.4
	1910	230	56.6	.2089	(1)	.....	.....	51.3	38.7	10.0
10 establishments.....	1910	591	55.6	.2259	12.53	.....	2.4	78.7	15.1	3.9
	1911	683	55.5	.2292	12.70	.....	2.6	80.2	14.8	2.3
9 establishments.....	1911	635	55.3	.2266	12.51	.....	2.8	86.3	8.3	2.5
	1912	580	55.2	.2310	12.73	.....	2.9	87.8	9.3	.....
11 establishments.....	1912	638	55.1	.2310	12.71	.....	2.6	93.9	3.4	.....
	1913	704	54.9	.2455	13.46	3.7	.....	92.2	4.1	.....
Winders, hard silk, female:										
4 establishments.....	1907	149	57.6	.0985	(1)	.....	.....	49.0	.....	51.0
	1908	165	57.1	.0871	(1)	.....	.....	53.3	10.9	35.8
	1909	181	56.5	.0886	(1)	.....	.....	49.7	50.3	.....
	1910	140	56.4	.0931	(1)	.....	.....	51.4	48.6	.....
17 establishments.....	1910	559	57.3	.0927	5.30	.....	.....	39.5	47.8	12.7
	1911	592	57.3	.0955	5.46	.....	.....	41.0	45.3	13.7
18 establishments.....	1911	889	56.8	.1037	5.88	.....	.....	54.3	40.6	5.1
	1912	834	56.2	.1062	5.96	.....	21.7	36.6	37.2	4.6
19 establishments.....	1912	787	56.8	.1035	5.88	.....	5.5	41.0	48.7	4.8
	1913	836	56.3	.1117	6.30	2.4	5.1	47.7	39.2	5.5
Winders, soft silk, female:										
8 establishments.....	1907	431	58.0	.1028	(1)	.....	.....	20.0	48.3	31.8
	1908	315	57.6	.0991	(1)	.....	.....	18.1	67.0	14.9
	1909	394	57.6	.1039	(1)	.....	.....	17.0	70.3	12.7
	1910	400	57.2	.1079	(1)	.....	.....	26.0	67.8	6.3
24 establishments.....	1910	675	56.6	.1191	6.74	.....	2.2	43.1	51.0	3.7
	1911	730	56.5	.1219	6.88	.....	2.1	50.0	45.1	2.9
22 establishments.....	1911	900	56.7	.1261	7.14	.....	.....	50.3	47.3	2.3
	1912	891	56.0	.1299	7.25	.....	26.5	32.1	41.4	.....
28 establishments.....	1912	836	55.8	.1358	7.57	.....	4.9	65.3	29.8	.....
	1913	874	55.7	.1393	7.74	3.4	5.6	63.0	27.9	.....

¹ Not computed.

TABLE II.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913.

DOUBLERS, SILK THROWING: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
1912.										
Pennsylvania.....	6	220	56.2	\$0.0916	\$5.14			148	72	
Other States.....	5	49	55.1	.1166	6.43			47	2	
Total.....	11	269	56.0	.0962	5.38			195	74	
1913.										
Pennsylvania.....	6	204	55.4	.0990	5.48			179	25	
Other States.....	5	45	55.1	.1216	6.70			43	2	
Total.....	11	249	55.3	.1031	5.70			222	27	

LABORERS, DYEHOUSE: Male.

1912.										
Connecticut.....	2	170	56.5	\$0.1856	\$10.48	38			132	
New Jersey.....	3	1,614	55.0	.2190	12.04			1,614		
Pennsylvania.....	6	934	56.5	.2013	11.31			659		275
Other States.....	1	21	54.0	.1722	9.30		21			
Total.....	12	2,739	55.6	.2105	11.68	38	21	2,273	132	275
1913.										
Connecticut.....	2	187	56.1	.2049	11.43	55			132	
New Jersey.....	3	1,359	55.0	.2164	11.90			1,359		
Pennsylvania.....	6	1,055	57.3	.2045	11.46			791		264
Other States.....	1	24	54.0	.1667	9.00		24			
Total.....	12	2,625	55.6	.2104	11.28	55	24	2,150	132	264

LOOM FIXERS: Male.

1912.										
Connecticut.....	4	57	57.9	\$0.2762	\$16.00				57	
New Jersey.....	15	65	55.0	.3478	19.13			65		
Pennsylvania.....	6	89	56.2	.2914	16.38			51	38	
Other States.....	4	19	54.1	.3326	17.98	3	12	4		
Total.....	29	230	56.1	.3070	17.20	3	12	120	95	
1913.										
Connecticut.....	4	61	57.9	.2703	15.66				61	
New Jersey.....	15	73	54.9	.3533	19.41	1		72		
Pennsylvania.....	6	89	56.2	.3137	17.62			53	36	
Other States.....	4	20	52.3	.3481	18.15	15	5			
Total.....	29	243	55.9	.3175	17.71	16	5	125	97	

PICKERS, CLOTH: Female.

1912.										
Connecticut.....	4	132	57.9	\$0.1480	\$8.58				132	
New Jersey.....	14	213	55.0	.1106	6.08			213		
Pennsylvania.....	6	207	55.8	.1455	8.09			149	58	
Other States.....	1	18	54.0	.1809	9.77		18			
Total.....	25	570	55.9	.1342	7.50		18	362	190	

TABLE II.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

PICKERS, CLOTH: Female—Concluded.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
1913.										
Connecticut.....	4	119	57.9	\$0.1594	\$9.24				119	
New Jersey.....	14	196	54.9	.1343	7.37	3		193		
Pennsylvania.....	6	187	55.8	.1776	9.87			133	54	
Other States.....	1	21	54.0	.1695	9.15		21			
Total.....	25	523	55.9	.1568	8.76	3	21	326	173	

QUILLERS: Female.

1912.										
Connecticut.....	5	92	58.0	\$0.1138	\$6.53				92	
New Jersey.....	16	208	55.0	.1194	6.57			208		
Pennsylvania.....	6	168	55.8	.1053	5.86			120	48	
Other States.....	4	52	54.1	.0979	5.30		42	10		
Total.....	31	520	55.7	.1117	6.22		42	338	140	
1913.										
Connecticut.....	5	73	57.9	.1310	7.57				73	
New Jersey.....	16	242	55.0	.1220	6.70	2		240		
Pennsylvania.....	6	179	56.0	.1108	6.19			119	60	
Other States.....	4	63	51.4	.0995	5.09	1	37	26		
Total.....	31	557	55.3	.1170	6.47	1	39	26	359	133

REELERS: Female.

1912.										
Pennsylvania.....	7	154	56.2	\$0.0837	\$4.71			110	14	30
Other States.....	4	45	58.0	.1167	6.77				45	
Total.....	11	199	56.6	.0911	5.17			110	59	30
1913.										
Pennsylvania.....	7	124	56.1	.0900	5.06			91	14	19
Other States.....	4	70	57.6	.1199	6.91		5		65	
Total.....	11	194	56.7	.1008	5.73		5	91	79	19

SPINNERS: Male.

1912.										
Pennsylvania.....	8	216	57.9	\$0.0917	\$5.31			55	115	46
Other States.....	6	61	55.0	.1332	7.32		22	32	7	
Total.....	14	277	57.2	.1008	5.75		22	87	122	46
1913.										
Pennsylvania.....	8	189	57.1	.1055	6.02			84	68	37
Other States.....	6	73	55.2	.1452	8.00	20		42	11	
Total.....	14	262	56.6	.1166	6.61	20		126	79	37

¹ Including 9 employees whose full-time hours per week were 44.

TABLE II.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

SPINNERS: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
1912.										
Connecticut.....	3	52	57.9	\$0.1218	\$7.05				52	
Pennsylvania.....	6	198	56.0	.0949	5.31			145	42	11
Other States.....	2	32	58.5	.1346	7.93			9	23	
Total.....	11	282	56.6	.1043	5.92			154	117	1
1913.										
Connecticut.....	3	92	57.9	.1256	7.29				92	
Pennsylvania.....	6	222	55.9	.0983	5.50			168	42	12
Other States.....	2	26	54.3	.1527	8.29		18	8		
Total.....	11	340	56.3	.1098	6.20		18	176	134	12

WARPERS: Female.

1912.										
Connecticut.....	4	107	58.0	\$0.1770	\$10.26				107	
New Jersey.....	13	182	55.0	.2335	12.84			182		
Pennsylvania.....	6	323	56.1	.1650	9.24			205	118	
Other States.....	3	54	54.3	.2176	11.86		27	27		
Total.....	26	666	55.9	.1899	10.60		27	414	225	
1913.										
Connecticut.....	4	94	58.0	.1994	11.56				94	
New Jersey.....	13	195	54.9	.2478	13.61	2		193		
Pennsylvania.....	6	312	56.1	.1756	9.84			190	122	
Other States.....	3	58	53.7	.2239	12.00	26	32			
Total.....	26	659	55.8	.2046	11.39	28	32	383	216	

WEAVERS, BROAD SILK: Male.

1912.										
Connecticut.....	4	460	57.9	\$0.2203	\$12.77				460	
New Jersey.....	7	408	55.0	.2443	13.43			408		
New York.....	2	93	54.6	.2601	14.21			93		
Pennsylvania.....	6	339	57.4	.1864	10.69			68	271	
Other States.....	1	103	54.0	.2453	13.25		103			
Total.....	20	1,403	56.4	.2235	12.59		103	569	731	
1913.										
Connecticut.....	4	511	57.9	.2323	13.46				511	
New Jersey.....	7	475	54.7	.2667	14.56	33		442		
New York.....	2	123	53.4	.2317	12.38	123				
Pennsylvania.....	6	365	57.3	.2055	11.77			83	282	
Other States.....	1	97	54.0	.2763	14.92		97			
Total.....	20	1,571	56.1	.2391	13.40	156	97	525	793	

TABLE II.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Continued.

WEAVERS, BROAD SILK: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
1912.										
Connecticut.....	4	318	57.9	\$0.1643	\$9.52				318	
New Jersey.....	7	208	55.0	.2299	12.64			208		
Pennsylvania.....	6	1,051	55.9	.1612	9.00			742	309	
Other States.....	2	49	54.5	.2451	13.38		24	25		
Total.....	19	1,626	56.1	.1731	9.69		24	975	627	
1913.										
Connecticut.....	4	300	57.9	.1817	10.53				300	
New Jersey.....	7	244	55.0	.2449	13.47	2		242		
Pennsylvania.....	6	1,042	55.8	.1797	10.03			739	303	
Other States.....	2	61	53.9	.2278	12.26	29	32			
Total.....	19	1,647	56.0	.1915	10.72	31	32	981	603	

WEAVERS, RIBBON: Male.

1912.										
New Jersey.....	8	552	55.0	\$0.2818	\$15.50			552		
Pennsylvania.....	3	103	55.0	.2380	13.10			101	2	
Other States.....	1	65	54.0	.2980	16.09		65			
Total.....	12	720	54.9	.2770	15.21		65	653	2	
1913.										
New Jersey.....	8	543	55.0	.2963	16.30			543		
Pennsylvania.....	3	106	55.0	.2574	14.16			106		
Other States.....	1	69	50.3	.3216	16.18	69				
Total.....	12	718	54.6	.2930	15.97	69		649		

WEAVERS, RIBBON: Female.

1912.										
New Jersey.....	7	509	55.0	\$0.2395	\$13.17			509		
Pennsylvania.....	3	112	55.5	.1888	10.46			90	22	
Other States.....	1	17	54.0	.2527	13.65		17			
Total.....	11	638	55.1	.2310	12.71		17	599	22	
1913.										
New Jersey.....	7	565	55.0	.2541	13.97			565		
Pennsylvania.....	3	113	55.6	.1976	10.87			84	29	
Other States.....	1	26	50.3	.2667	13.42	26				
Total.....	11	704	54.9	.2455	13.46	26		649	29	

TABLE II.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1912 AND 1913—Concluded.

WINDERS, HARD SILK: Female.

Year and State.	Number of establishments.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
1912.										
Connecticut.....	3	80	57.9	\$0.1279	\$7.41				80	
New Jersey.....	4	92	55.0	.1200	6.60			92		
Pennsylvania.....	9	551	57.0	.0943	5.39			231	282	38
Other States.....	3	64	55.9	.1284	7.15		43		21	
Total.....	19	787	56.8	.1035	5.88		43	323	383	38
1913.										
Connecticut.....	3	108	57.9	.1334	7.73				108	
New Jersey.....	4	105	55.0	.1270	6.98			105		
Pennsylvania.....	9	560	56.6	.1029	5.84			294	220	46
Other States.....	3	63	52.8	.1274	6.76	20	43			
Total.....	19	836	56.3	.1117	6.30	20	43	399	328	46

WINDERS, SOFT SILK: Female.

1912.										
Connecticut.....	4	200	57.9	\$0.1261	\$7.32				200	
New Jersey.....	16	257	55.0	.1563	8.60			257		
Pennsylvania.....	5	312	55.4	.1166	6.46			263	49	
Other States.....	3	67	54.3	.1758	9.54		41	26		
Total.....	28	836	55.8	.1358	7.57		41	546	249	
1913.										
Connecticut.....	4	187	57.9	.1286	7.45				187	
New Jersey.....	16	304	54.9	.1578	8.67	4		300		
Pennsylvania.....	5	308	55.5	.1196	6.63			251	57	
Other States.....	3	75	53.8	.1723	9.27	26	49			
Total.....	28	874	55.7	.1393	7.74	30	49	551	244	

TABLE III.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913.

DOUBLERS, SILK THROWING: Female.

[The figures set opposite each bracketed group of years are for identical establishments.]

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Pennsylvania: 6 establishments.....	1912	220	56.2	\$0.0916	\$5.14	.....	.....	148	72	.....
	1913	204	55.4	.0990	5.48	.....	.....	179	25	.....

LABORERS, DYEHOUSE: Male.

Connecticut: 2 establishments.....	1912	170	56.5	\$0.1856	\$10.48	38	.....	.....	132	.....
	1913	187	56.1	.2049	11.43	55	.....	.....	132	.....
New Jersey: 3 establishments.....	1912	1,614	55.0	.2190	12.04	.....	.....	1,614	.....	.....
	1913	1,359	55.0	.2164	11.90	.....	.....	1,359	.....	.....
Pennsylvania: 6 establishments.....	1912	934	56.5	.2013	11.31	.....	.....	659	.....	275
	1913	1,055	57.3	.2045	11.46	.....	.....	791	.....	264

LOOM FIXERS: Male.

Connecticut: 4 establishments.....	1912	57	57.9	\$0.2762	\$16.00	.....	.....	.....	57	.....
	1913	61	57.9	.2703	15.66	.....	.....	.....	61	.....
New Jersey: 15 establishments.....	1912	65	55.0	.3478	19.13	.....	.....	65	.....	.....
	1913	73	54.9	.3533	19.41	1	.....	72	.....	.....
Pennsylvania: 6 establishments.....	1912	89	56.2	.2914	16.38	.....	.....	51	.....	38
	1913	89	56.2	.3137	17.62	.....	.....	53	.....	36

PICKERS, CLOTH: Female.

Connecticut: 4 establishments.....	1912	132	57.9	\$0.1480	\$8.58	.....	.....	.....	132	.....
	1913	119	57.9	.1594	9.24	.....	.....	.....	119	.....
New Jersey: 14 establishments.....	1912	213	55.0	.1106	6.08	.....	.....	213	.....	.....
	1913	196	54.9	.1343	7.37	3	.....	193	.....	.....
Pennsylvania: 6 establishments.....	1912	207	55.8	.1455	8.09	.....	.....	149	.....	58
	1913	187	55.8	.1776	9.87	.....	.....	133	.....	54

QUILLERS: Female.

Connecticut: 5 establishments.....	1912	92	58.0	\$0.1138	\$6.53	.....	.....	.....	92	.....
	1913	73	57.9	.1310	7.57	.....	.....	.....	73	.....
New Jersey: 16 establishments.....	1912	208	55.0	.1194	6.57	.....	.....	208	.....	.....
	1913	242	55.0	.1220	6.70	2	.....	240	.....	.....
Pennsylvania: 6 establishments.....	1912	168	55.8	.1053	5.86	.....	.....	120	.....	48
	1913	179	56.0	.1108	6.19	.....	.....	119	.....	60

TABLE III.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Continued.

REELERS: Female.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Pennsylvania: 7 establishments.....	1912	154	56.2	\$0.0837	\$4.71	.....	.....	110	14	30
	1913	124	56.1	.0900	5.06	.....	.....	91	14	19

SPINNERS: Male.

Pennsylvania: 8 establishments.....	1912	216	57.9	\$0.0917	\$5.31	.....	.....	55	115	46
	1913	189	57.1	.1055	6.02	.....	.....	84	68	37

SPINNERS: Female.

Connecticut: 3 establishments.....	1912	52	57.9	\$0.1218	\$7.05	.....	.....	.....	52	.....
	1913	92	57.9	.1256	7.29	.....	.....	.....	92	.....
Pennsylvania: 6 establishments.....	1912	198	56.0	.0949	5.31	.....	.....	145	42	11
	1913	222	55.9	.0983	5.50	.....	.....	168	42	12

WARPERS: Female.

Connecticut: 4 establishments.....	1912	107	58.0	\$0.1770	\$10.26	.....	.....	.....	107	.....
	1913	94	58.0	.1994	11.56	.....	.....	.....	94	.....
New Jersey: 13 establishments.....	1912	182	55.0	.2335	12.84	.....	.....	182	.....	.....
	1913	195	54.9	.2478	13.61	2	.....	193	.....	.....
Pennsylvania: 6 establishments.....	1912	323	56.1	.1650	9.24	.....	.....	205	118	.....
	1913	312	56.1	.1756	9.84	.....	.....	190	122	.....

WEAVERS, BROAD SILK: Male.

Connecticut: 4 establishments.....	1912	460	57.9	\$0.2203	\$12.77	.....	.....	.....	460	.....
	1913	511	57.9	.2323	13.46	.....	.....	.....	511	.....
New Jersey: 7 establishments.....	1912	408	55.0	.2443	13.43	.....	.....	408	.....	.....
	1913	475	54.7	.2667	14.50	33	.....	442	.....	.....
New York: 2 establishments.....	1912	93	54.6	.2601	14.21	.....	.....	93	.....	.....
	1913	123	53.4	.2317	12.38	123	.....	.....	.....	.....
Pennsylvania: 3 establishments.....	1912	339	57.4	.1864	10.69	.....	.....	68	271	.....
	1913	365	57.3	.2055	11.77	.....	.....	83	282	.....

TABLE III.—AVERAGE RATES OF WAGES PER HOUR, AVERAGE FULL-TIME WEEKLY EARNINGS, AND AVERAGE AND CLASSIFIED FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1912 AND 1913—Concluded.

WEAVERS, BROAD SILK: Female.

State, and number of establishments.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees whose full-time hours per week were—				
						50 and under 54	54	Over 54 and under 57	57 and under 60	60
Connecticut:										
4 establishments.....	1912	318	57.9	\$0.1643	\$9.52				318	
	1913	300	57.9	.1817	10.53				300	
New Jersey:										
7 establishments.....	1912	208	55.0	.2299	12.64			208		
	1913	244	55.0	.2449	13.47	2		242		
Pennsylvania:										
6 establishments.....	1912	1,051	55.9	.1612	9.00			742	309	
	1913	1,042	55.8	.1797	10.03			739	303	

WEAVERS, RIBBON: Male.

New Jersey:										
8 establishments.....	1912	552	55.0	\$0.2818	\$15.50			552		
	1913	543	55.0	.2963	16.30			543		
Pennsylvania:										
3 establishments.....	1912	103	55.0	.2380	13.10			101	2	
	1913	106	55.0	.2574	14.16			106		

WEAVERS, RIBBON: Female.

New Jersey:										
7 establishments.....	1912	509	55.0	\$0.2395	\$13.17			509		
	1913	565	55.0	.2541	13.97			565		
Pennsylvania:										
3 establishments.....	1912	112	55.5	.1888	10.46			90	22	
	1913	113	55.6	.1976	10.87			84	29	

WINDERS, HARD SILK: Female.

Connecticut:										
3 establishments.....	1912	80	57.9	\$0.1279	\$7.41				80	
	1913	108	57.9	.1334	7.73				108	
New Jersey:										
4 establishments.....	1912	92	55.0	.1200	6.60			92		
	1913	105	55.0	.1270	6.98			105		
Pennsylvania:										
9 establishments.....	1912	551	57.0	.0943	5.39			231	282	38
	1913	560	56.6	.1029	5.84			294	220	46

WINDERS, SOFT SILK: Female.

Connecticut:										
4 establishments.....	1912	200	57.9	\$0.1261	\$7.32				200	
	1913	187	57.9	.1286	7.45				187	
New Jersey:										
16 establishments.....	1912	257	55.0	.1563	8.60			257		
	1913	304	54.9	.1578	8.67	4		300		
Pennsylvania:										
5 establishments.....	1912	312	55.4	.1166	6.46			263	49	
	1913	308	55.5	.1196	6.63			251	57	

TABLE IV.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY STATES, 1913.

DOUBLERS, SILK THROWING: Female.

State.	Number of establishments	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.													
					6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.		
Pennsylvania.....	6	204	55.4	\$0.0990	6	8	18	102	43	23	2	2	.....	.....	.....	.....	.....	.....
Other States.....	5	45	55.1	.1216	.....	.....	.....	.....	20	25	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	11	249	55.3	.1031	6	8	18	102	63	48	2	2	.....	.....	.....	.....	.....	.....

LABORERS, DYEHOUSE: Male.

Connecticut.....	2	187	56.1	\$0.2049	.....	.....	.....	.....	.....	.....	.....	36	64	61	22	.....	.....	4
New Jersey.....	3	1,359	55.0	.2164	.....	.....	.....	.....	.....	.....	.....	85	86	101	906	181	.....	.....
Pennsylvania.....	6	1,055	57.3	.2045	.....	.....	.....	.....	.....	.....	.....	62	153	89	695	55	.....	1
Other States.....	1	24	54.0	.1667	.....	.....	.....	.....	.....	.....	.....	.....	24	.....	.....	.....	.....	.....
Total.....	12	2,625	55.6	.2104	.....	.....	.....	.....	.....	.....	.....	147	299	254	1,662	258	.....	5

LOOM FIXERS: Male.

Connecticut.....	4	61	57.9	\$0.2703	.....	.....	.....	.....	.....	.....	.....	.....	1	2	9	29	20	.....
New Jersey.....	15	73	54.9	.3533	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	71	.....
Pennsylvania.....	6	89	56.2	.3137	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	74	.....
Other States.....	4	20	52.3	.3481	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	15	.....
Total.....	29	243	55.9	.3175	.....	.....	.....	.....	.....	.....	.....	.....	1	2	10	50	180	.....

PICKERS, CLOTH: Female.

Connecticut.....	4	119	57.9	\$0.1594	.....	.....	3	23	15	21	17	18	20	2	.....	.....	.....	.....
New Jersey.....	14	196	54.9	.1343	.....	.....	18	10	74	37	13	6	14	19	5	.....	.....	.....
Pennsylvania.....	6	187	55.8	.1776	.....	.....	2	9	18	23	29	23	22	43	9	.....	.....	.....
Other States.....	1	21	54.0	.1695	.....	.....	.....	.....	.....	7	7	.....	.....	.....	.....	.....	.....	.....
Total.....	25	523	55.9	.1568	.....	.....	20	22	115	75	70	53	61	82	16	.....	.....	.....

QUILLERS: Female.

Connecticut.....	5	73	57.9	\$0.1310	3	1	6	1	12	19	18	9	4	.....	.....	.....	.....	.....
New Jersey.....	16	242	55.0	.1220	.....	.....	4	23	87	99	25	2	2	.....	.....	.....	.....	.....
Pennsylvania.....	6	179	56.0	.1108	22	19	16	12	50	29	14	4	9	4	.....	.....	.....	.....
Other States.....	4	63	51.4	.0995	.....	8	8	20	23	4	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	31	557	55.3	.1170	25	28	34	56	172	151	57	15	15	4	.....	.....	.....	.....

REELERS: Male.

Total.....	11	77	56.3	\$0.1320	6	7	3	14	16	15	10	3	2	1
------------	----	----	------	----------	-------	---	---	---	----	----	----	----	---	---	---	-------	-------	-------

REELERS: Female.

Pennsylvania.....	7	124	56.1	\$0.0900	1	5	21	37	30	26	5	.....	.....	.....	.....	.....	.....	.....
Other States.....	4	70	57.6	.1199	.....	.....	.....	6	24	39	1	.....	.....	.....	.....	.....	.....	.....
Total.....	11	194	56.7	.1008	1	5	21	37	36	50	44	1	.....	.....	.....	.....	.....	.....

¹ Including 1 employee earning 5 and under 6 cents per hour.

TABLE IV.—AVERAGE FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY STATES, 1913—Concluded.

SPINNERS: Male.

State.	Number of establishments.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Number of employees earning each classified rate of wages per hour.												
					6 and under 7 cts.	7 and under 8 cts.	8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.	
Pennsylvania.....	8	189	57.1	\$0.1055	16	25	30	17	47	23	22	4	2	3
Other States.....	6	73	55.2	.1452	.....	.....	1	.....	10	18	12	29	3	.....	.....	.....
Total.....	14	262	56.6	.1166	16	25	31	17	57	41	34	33	5	3	.....	.....

SPINNERS: Female.

Connecticut.....	3	92	57.9	\$0.1256	.....	.....	.....	.....	3	15	72	2	.....	.....	.....	.....
Pennsylvania.....	6	222	55.9	.0983	3	17	21	76	92	11	2	.....	.....	.....	.....	.....
Other States.....	2	26	54.3	.1527	.....	.....	.....	.....	3	4	5	10	4	.....	.....	.....
Total.....	11	340	56.3	.1098	3	17	21	79	110	87	9	10	4	.....	.....	.....

TWISTERS-IN: Male.

Total.....	28	206	55.7	\$0.2875	1	1	3	4	11	39	53	94
------------	----	-----	------	----------	-------	-------	-------	-------	---	---	---	---	----	----	----	----

TWISTERS-IN: Female.

Total.....	11	51	56.3	\$0.1973	3	4	11	6	4	13	8	2
------------	----	----	------	----------	-------	-------	-------	-------	---	---	----	---	---	----	---	---

WARPERS: Male.

Total.....	13	84	55.6	\$0.3393	1	8	9	66
------------	----	----	------	----------	-------	-------	-------	-------	-------	-------	-------	---	-------	---	---	----

WARPERS: Female.

Connecticut.....	4	94	58.0	\$0.1994	.....	.....	.....	2	4	4	8	11	12	39	14	.....
New Jersey.....	13	195	54.9	.2478	.....	.....	.....	.....	.....	.....	3	3	7	64	106	12
Pennsylvania.....	6	312	56.1	.1756	.....	.....	2	7	24	44	41	36	74	58	22	4
Other States.....	3	58	53.7	.2239	.....	.....	.....	1	7	5	9	6	5	3	6	16
Total.....	26	659	55.8	.2046	.....	.....	2	10	35	53	61	56	98	164	148	32

WINDERS, HARD SILK: Female.

Connecticut.....	3	108	57.9	\$0.1334	.....	.....	.....	3	9	50	46	.....	.....	.....	.....	.....
New Jersey.....	4	105	55.0	.1270	.....	.....	.....	2	4	8	90	1	.....	.....	.....	.....
Pennsylvania.....	9	560	56.6	.1029	22	41	52	155	191	70	20	7	2	.....	.....	.....
Other States.....	3	63	52.8	.1274	.....	1	5	18	10	9	8	6	2	4	.....	.....
Total.....	19	836	56.3	.1117	22	42	59	180	218	219	75	13	4	4	.....	.....

WINDERS, SOFT SILK: Female.

Connecticut.....	4	187	57.9	\$0.1286	1	.....	3	1	55	88	26	7	3	3	.....	.....
New Jersey.....	16	304	54.9	.1578	.....	.....	.....	3	5	54	132	59	28	19	4	.....
Pennsylvania.....	5	308	55.5	.1196	17	24	18	24	70	72	58	14	9	1	1	.....
Other States.....	3	75	53.8	.1723	.....	.....	.....	3	2	6	4	28	27	5	.....	.....
Total.....	28	874	55.7	.1393	18	24	21	31	132	220	220	108	67	28	5	.....

APPENDIX.

In order that the summary figures in regard to rates of wages and hours of labor in the three industries covered in this Bulletin, heretofore published for the years 1890 to 1912, may be available for reference, the tables following are reproduced from Bulletin No. 128.

TABLE 1.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN COTTON-GOODS MANUFACTURING, 1890 TO 1913.

[Data are included from 26 establishments, 1890-1903; 23 establishments, 1903, 1904; 30 establishments, 1904, 1905; 30 establishments, 1905, 1906; 38 establishments, 1906, 1907; 36 establishments, 1907-1910; 59 establishments, 1910, 1911; 88 establishments, 1911, 1912; and 88 establishments, 1912, 1913.]

Year.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899.....	100.0	100.0
1890.....	100.0	101.6
1891.....	101.2	99.4
1892.....	101.6	99.2
1893.....	100.0	105.0
1894.....	97.5	98.9
1895.....	99.8	98.2
1896.....	99.5	104.1
1897.....	99.1	100.4
1898.....	100.3	96.7
1899.....	100.3	95.8
1900.....	100.1	108.4
1901.....	99.9	108.8
1902.....	99.5	113.3
1903.....	99.3	117.5
1904.....	99.2	117.1
1905.....	99.2	118.7
1906.....	98.7	131.3
1907.....	97.5	149.8
1908.....	96.3	148.4
1909.....	96.4	143.0
1910.....	94.1	147.7
1911.....	94.1	149.1
1912.....	92.4	164.1

TABLE 2.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1890 TO 1912.

[Data are included from 26 establishments, 1890-1903; 23 establishments, 1903, 1904; 30 establishments, 1904, 1905; 30 establishments, 1905, 1906; 38 establishments, 1906, 1907; 36 establishments, 1907-1910; 59 establishments, 1910, 1911; 88 establishments, 1911, 1912; and 88 establishments, 1912.]

Year.	Card strippers, ¹ male.		Drawing tenders, male.		Drawing tenders, female.		Dyers, male.		Fine speeders, male.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899..	100.0	100.0					100.0	100.0		
1890.....	100.7	98.0					99.1	106.3		
1891.....	101.1	99.8					98.9	107.2		
1892.....	101.2	99.5					99.7	105.1		
1893.....	99.6	101.4					99.6	104.1		
1894.....	97.8	102.1					100.3	95.6		
1895.....	99.7	101.4					100.7	92.3		
1896.....	100.0	101.9					100.2	95.2		
1897.....	98.9	100.8					100.6	96.9		
1898.....	100.5	97.8					100.3	99.4		
1899.....	100.5	97.0					100.7	97.8		
1900.....	100.5	104.5					100.5	100.9		
1901.....	100.8	103.2					100.0	102.3		
1902.....	100.2	108.3					98.6	107.1		
1903.....	100.2	108.9					98.8	107.7		
1904.....	99.9	109.3					98.7	104.8		
1905.....	100.1	112.3					98.6	105.7		
1906.....	99.8	119.8					98.2	112.0		
1907.....	98.5	134.3	² 100.0	² 100.0	² 100.0	² 100.0	95.4	123.5	² 100.0	² 100.0
1908.....	97.7	126.7	² 98.8	² 97.9	² 98.5	² 100.7	(3)	(3)	² 95.6	² 105.9
1909.....	97.7	123.3	² 98.8	² 98.8	² 98.7	² 97.8			² 95.8	² 111.2
1910.....	95.2	126.2	² 96.8	² 97.8	² 96.5	² 96.5			² 95.5	² 112.9
1911.....	95.0	128.4	² 97.1	² 99.0	² 95.7	² 101.0			² 95.5	² 116.4
1912.....	93.0	142.2	² 94.5	² 110.5	² 94.4	² 116.9			² 93.2	² 122.5
	Fine speeders, female.		Loom fixers, male.		Slashers, male.		Spinners, frame, male.		Spinners, frame, female.	
Average, 1890-1899..			100.0	100.0			100.0	100.0	100.0	100.0
1890.....			100.4	102.6			97.3	111.6	100.2	99.8
1891.....			101.0	100.4			100.5	89.7	101.0	99.4
1892.....			100.8	101.2			102.4	91.6	101.5	95.4
1893.....			99.9	103.9			100.2	89.9	100.3	102.1
1894.....			97.4	99.2			100.4	85.7	98.1	97.9
1895.....			99.6	98.0			100.9	91.2	100.0	99.5
1896.....			99.9	100.5			98.3	127.0	99.6	108.3
1897.....			99.3	99.9			99.2	109.2	98.8	104.1
1898.....			100.7	97.6			100.5	98.9	100.1	97.6
1899.....			100.9	96.4			100.3	105.8	100.2	96.3
1900.....			100.6	105.7			100.0	128.5	100.1	108.7
1901.....			100.5	105.8			99.0	135.8	99.5	111.8
1902.....			99.7	110.3			98.0	147.3	99.2	117.1
1903.....			99.8	111.4			96.4	185.9	98.9	123.7
1904.....			99.9	108.8			97.8	169.7	98.9	125.0
1905.....			99.9	108.4			97.8	200.4	98.8	132.4
1906.....			99.6	115.6			94.2	275.7	98.6	149.4
1907.....	² 100.0	² 100.0	97.7	128.8	² 100.0	² 100.0	92.4	303.8	97.2	171.4
1908.....	² 99.7	² 99.1	95.9	125.7	² 98.8	² 100.0	91.5	292.8	95.5	166.7
1909.....	² 99.7	² 96.8	96.1	122.8	² 98.5	² 98.2	91.7	287.9	95.3	165.1
1910.....	² 97.2	² 96.3	93.7	125.8	² 96.3	² 98.0	89.0	292.6	93.2	173.8
1911.....	² 97.4	² 97.7	95.5	127.9	² 96.5	² 98.7	88.7	304.6	93.4	177.3
1912.....	² 95.2	² 106.9	92.1	141.7	² 94.7	² 109.7	87.1	359.6	91.7	196.8

¹ Employees in this occupation were reported as carding-machine tenders for 1890 to 1907.0.

² Data for 1890 to 1906 not available; computed with 1907=100.0.

³ Discontinued. See laborers, dyehouse, cotton-goods finishing.

TABLE 2.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN COTTON-GOODS MANUFACTURING, 1890 TO 1912—Concluded.

Year.	Spinners, mule, male.		Trimmers, or inspectors, female.		Weavers, male.		Weavers, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899..	100.0	100.0	.....	.....	100.0	100.0	100.0	100.0
1890.....	101.0	91.4	.....	.....	99.2	113.5	101.1	99.1
1891.....	101.0	93.2	.....	.....	100.7	103.1	101.5	98.6
1892.....	101.0	110.7	.....	.....	101.5	99.0	101.8	99.7
1893.....	99.7	114.2	.....	.....	99.5	107.6	100.2	105.2
1894.....	99.4	96.2	.....	.....	99.0	98.6	96.6	99.6
1895.....	99.7	97.8	.....	.....	99.7	96.6	99.8	98.3
1896.....	99.2	99.5	.....	.....	99.3	102.9	99.6	103.5
1897.....	99.7	102.3	.....	.....	100.1	95.3	98.6	100.8
1898.....	99.7	98.2	.....	.....	100.5	91.5	100.3	98.4
1899.....	99.7	96.4	.....	.....	100.5	92.1	100.3	96.8
1900.....	99.7	110.0	.....	.....	100.0	105.1	100.1	109.8
1901.....	99.7	110.0	.....	.....	100.2	104.3	99.9	109.6
1902.....	98.9	116.5	.....	.....	99.5	110.7	99.6	112.2
1903.....	99.0	115.2	.....	.....	98.9	118.3	99.6	114.3
1904.....	99.0	111.0	.....	.....	98.5	115.3	99.7	113.5
1905.....	99.0	113.4	.....	.....	98.6	116.9	99.7	114.4
1906.....	98.9	117.6	.....	.....	97.7	128.2	99.4	121.8
1907.....	98.4	138.4	1 100.0	1 100.0	96.6	147.1	98.7	136.5
1908.....	98.1	132.9	1 99.3	1 99.0	95.5	145.9	97.9	137.1
1909.....	98.3	130.5	1 98.6	1 97.6	95.8	137.7	98.1	129.6
1910.....	95.4	128.8	1 96.1	1 98.9	93.4	141.2	95.6	135.9
1911.....	95.4	132.0	1 96.8	1 101.3	93.4	144.9	95.6	133.0
1912.....	93.5	144.6	1 95.6	1 110.3	91.6	157.2	93.9	146.7

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.

TABLE 3.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1890 TO 1912.

[Data are included from 16 establishments, 1890-1903; 17 establishments, 1903, 1904; 27 establishments, 1904, 1905; 26 establishments, 1905, 1906; 29 establishments, 1906, 1907; 19 establishments, 1907-1910; 27 establishments, 1910, 1911; 46 establishments, 1911, 1912, and 46 establishments, 1912.]

Year.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899.....	100.0	100.0
1890.....	101.0	99.6
1891.....	101.0	99.3
1892.....	101.0	100.7
1893.....	99.5	105.7
1894.....	99.0	94.9
1895.....	100.1	95.3
1896.....	100.1	98.1
1897.....	98.4	100.4
1898.....	99.9	103.3
1899.....	100.0	102.3
1900.....	99.8	111.3
1901.....	99.9	111.9
1902.....	98.8	114.9
1903.....	98.7	118.7
1904.....	97.9	115.4
1905.....	98.5	119.3
1906.....	98.4	127.1
1907.....	97.9	135.3
1908.....	97.7	128.1
1909.....	97.8	129.0
1910.....	96.1	132.5
1911.....	96.2	133.3
1912.....	94.6	149.1

TABLE 4.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1890 TO 1912.

[Data are included from 16 establishments, 1890-1903; 17 establishments, 1903, 1904; 27 establishments, 1904, 1905; 26 establishments, 1905, 1906; 29 establishments, 1906, 1907; 19 establishments, 1907-1910; 27 establishments, 1910, 1911; 46 establishments, 1911, 1912, and 46 establishments, 1912.]

Year.	Burlers, female.		Carding machine tenders, male. ¹		Carding machine tenders, female. ¹		Card strippers, male.		Combers, male.		Combers, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1890.....	103.1	93.3	101.9	99.1	100.5	104.1	100.0	92.4	102.4	95.7	100.5	98.3
1891.....	103.1	93.7	101.8	99.6	100.5	104.6	100.0	99.3	102.4	98.9	100.5	98.8
1892.....	102.8	97.5	101.8	101.7	100.5	101.1	100.0	103.3	102.4	98.7	100.5	98.5
1893.....	99.5	100.5	100.5	103.4	100.5	79.1	100.0	99.5	99.0	99.5	99.4	101.3
1894.....	92.8	99.2	100.5	98.5	96.3	97.6	100.0	99.0	99.0	107.2	99.9	93.4
1895.....	101.7	99.6	100.4	97.7	100.5	103.5	100.0	96.5	99.0	94.0	100.0	96.3
1896.....	101.6	107.9	100.5	98.1	100.2	100.3	100.0	104.0	99.0	104.6	99.9	103.1
1897.....	92.4	100.4	91.8	101.7	100.5	96.0	100.0	100.2	99.0	95.4	99.8	102.9
1898.....	101.7	102.9	100.4	99.8	99.9	108.1	100.0	98.9	99.0	95.9	99.8	104.0
1899.....	101.2	105.5	100.3	100.0	100.5	105.5	100.0	106.7	99.0	113.3	99.8	103.3
1900.....	101.4	111.3	100.2	110.9	100.5	107.0	100.0	111.4	99.0	106.6	99.9	110.3
1901.....	101.5	108.3	100.3	106.2	100.4	112.8	100.0	112.2	99.0	107.9	99.8	111.1
1902.....	100.1	113.3	99.9	106.7	100.5	108.9	100.0	116.6	99.0	103.8	99.3	112.6
1903.....	99.6	119.4	99.5	109.4	100.5	111.9	100.0	117.6	99.0	102.1	98.4	110.4
1904.....	98.1	118.7	98.6	115.0	99.4	127.2	98.4	120.5	99.6	93.3	98.0	105.8
1905.....	98.9	124.4	100.0	116.8	100.9	123.6	98.1	121.8	99.3	94.8	97.4	101.7
1906.....	98.6	129.5	100.0	121.0	(*)	(*)	97.1	122.6	99.5	95.3	97.0	105.4
1907.....	97.9	126.7	99.6	123.7	.....	.....	96.9	125.5	98.4	96.9	96.3	106.5
1908.....	97.4	129.6	98.6	124.1	.....	.....	96.7	125.7	98.6	95.6	96.5	106.2
1909.....	97.4	137.5	99.3	126.9	.....	.....	96.7	131.0	98.6	99.9	96.5	109.8
1910.....	95.5	138.3	97.4	128.2	.....	.....	96.0	131.2	96.2	101.9	95.8	118.8
1911.....	95.7	135.9	97.4	142.3	.....	.....	95.8	131.6	96.2	101.2	95.6	116.8
1912.....	94.2	154.4	96.2	142.0	.....	.....	95.5	142.0	93.7	112.0	95.6	123.7

Year.	Dressers, male.		Laborers, dyehouse, male. ²		Loom fixers, male.		Menders, female.		Spinners, frame, male.		Spinners, frame, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1890.....	99.5	100.2	100.5	98.3	.....	.....	.....	.....	100.9	96.7
1891.....	99.6	101.5	100.4	98.2	.....	.....	.....	.....	100.9	97.6
1892.....	99.5	100.7	100.3	100.2	.....	.....	.....	.....	100.9	98.4
1893.....	98.4	103.1	99.9	102.0	.....	.....	.....	.....	99.6	103.5
1894.....	101.8	95.5	97.1	96.4	.....	.....	.....	.....	99.8	94.2
1895.....	101.4	96.5	100.4	96.7	.....	.....	.....	.....	99.8	95.1
1896.....	100.4	98.5	100.4	101.2	.....	.....	.....	.....	99.7	101.1
1897.....	97.8	99.4	100.4	102.0	.....	.....	.....	.....	99.6	102.5
1898.....	100.7	101.4	100.2	102.0	.....	.....	.....	.....	99.5	104.4
1899.....	100.8	102.6	100.4	102.8	.....	.....	.....	.....	99.3	106.5
1900.....	100.5	109.3	100.3	112.5	.....	.....	.....	.....	99.2	118.0
1901.....	100.6	106.8	100.5	112.2	.....	.....	.....	.....	99.4	115.4
1902.....	99.1	108.4	99.1	114.0	.....	.....	.....	.....	97.7	122.8
1903.....	99.6	108.2	99.0	115.9	.....	.....	.....	.....	98.0	123.2
1904.....	98.9	108.9	98.2	112.7	.....	.....	.....	.....	98.0	120.2

¹ Employees in this occupation were reported as carders for 1890 to 1907.

² Occupation discontinued.

³ Employees in this occupation were reported as dyers for 1890 to 1907.

TABLE 4.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING, 1890 TO 1912—Concluded.

Year.	Dressers, male.		Laborers, dyehouse, male.		Loom fixers, male.		Menders, female.		Spinners, frame, male.		Spinners, frame, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
1905.....			99.9	109.3	98.8	114.5					97.9	121.6
1906.....			99.8	114.8	98.5	122.7					97.9	125.6
1907.....	¹ 100.0	¹ 100.0	98.9	122.3	97.8	128.9	¹ 100.0	¹ 100.0			96.8	139.8
1908.....	¹ 99.3	¹ 100.8	98.4	118.6	97.6	126.6	¹ 99.8	¹ 102.3			96.6	134.5
1909.....	¹ 99.1	¹ 100.2	98.6	116.1	97.9	127.0	¹ 100.5	¹ 94.7			96.6	136.4
1910.....	¹ 98.4	¹ 102.0	96.2	120.7	96.0	130.2	¹ 99.1	¹ 102.2	² 100.0	² 100.0	94.1	140.5
1911.....	¹ 98.4	¹ 101.0	96.5	122.0	96.0	129.8	¹ 99.3	¹ 101.8	² 100.0	² 102.8	94.1	146.1
1912.....	¹ 97.0	¹ 108.8	94.6	132.0	94.6	145.0	¹ 97.4	¹ 120.5	² 96.4	² 123.4	92.1	167.5
Average, 1890-1899.....	100.0	100.0	100.0	100.0			100.0	100.0	100.0	100.0		
1890.....	102.7	96.6	100.0	99.1			100.6	101.6	101.0	100.4		
1891.....	102.7	95.5	100.0	99.8			100.6	102.2	101.0	99.1		
1892.....	102.6	93.9	100.0	99.6			100.6	103.8	101.0	100.8		
1893.....	99.2	101.5	100.0	110.3			99.5	109.7	99.5	106.7		
1894.....	90.4	98.1	100.0	97.3			99.7	92.8	99.6	94.3		
1895.....	101.6	96.2	100.0	98.0			99.7	94.9	99.6	93.8		
1896.....	101.6	103.7	100.0	97.7			99.8	94.7	99.7	96.7		
1897.....	94.6	104.2	100.0	99.3			99.7	98.0	99.7	100.7		
1898.....	101.6	111.1	100.0	98.9			99.8	101.1	99.4	104.6		
1899.....	102.9	99.0	100.0	99.5			99.8	100.9	99.4	102.4		
1900.....	101.8	115.6	100.0	100.9			99.6	111.7	99.4	109.8		
1901.....	101.7	114.3	100.0	104.7			99.6	113.6	99.4	112.5		
1902.....	100.9	114.0	100.0	121.4			98.7	120.4	98.2	112.5		
1903.....	100.4	124.8	100.0	113.8			98.4	124.7	98.2	115.9		
1904.....	98.8	125.9	98.1	135.1			98.1	116.6	97.1	113.4		
1905.....	98.6	131.1	(*)	(*)			98.5	123.8	98.0	117.1		
1906.....	98.7	140.6					98.3	136.0	98.0	126.4		
1907.....	98.5	143.3			¹ 100.0	¹ 100.0	97.9	142.1	97.8	137.1	¹ 100.0	¹ 100.0
1908.....	97.8	140.8			¹ 100.7	¹ 101.5	98.1	137.1	97.3	121.6	¹ 99.7	¹ 95.8
1909.....	97.8	145.6			¹ 101.4	¹ 100.3	98.1	139.8	97.1	121.4	¹ 99.9	¹ 102.7
1910.....	96.6	145.7			¹ 100.0	¹ 102.0	96.8	139.2	95.1	127.2	¹ 97.5	¹ 105.8
1911.....	96.4	150.2			¹ 99.8	¹ 102.8	96.8	141.1	95.3	125.9	¹ 97.5	¹ 107.0
1912.....	95.1	162.3			¹ 98.0	¹ 108.0	95.4	159.1	93.8	140.5	¹ 95.4	¹ 118.6

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.

² Data for 1890 to 1909 not available; computed with 1910=100.0.

* Occupation discontinued.

TABLE 5.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN SILK-GOODS MANUFACTURING, 1890 TO 1913.

[Data are included from 12 establishments, 1890-1903; 12 establishments, 1903, 1904; 18 establishments, 1904, 1905; 19 establishments, 1905, 1906; 19 establishments, 1906, 1907; 10 establishments, 1907-1910; 42 establishments, 1910, 1911; and 42 establishments, 1911, 1912.]

Year.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899.....	100.0	100.0
1890.....	102.6	98.6
1891.....	102.9	93.2
1892.....	101.9	98.6
1893.....	98.8	102.0
1894.....	98.6	102.9
1895.....	98.5	101.5
1896.....	99.0	106.5
1897.....	99.1	99.1
1898.....	99.3	98.4
1899.....	99.5	97.4
1900.....	99.6	98.4
1901.....	99.2	98.1
1902.....	98.7	101.4
1903.....	98.8	102.6
1904.....	97.2	101.8
1905.....	98.2	102.5
1906.....	98.4	106.1
1907.....	98.0	112.1
1908.....	97.6	109.2
1909.....	97.5	110.5
1910.....	97.4	112.5
1911.....	97.4	113.3
1912.....	96.6	117.1

TABLE 6.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN SILK-GOODS MANUFACTURING, 1890 TO 1912.

Data are included from 12 establishments, 1890-1903; 12 establishments, 1903, 1904; 18 establishments, 1904, 1905; 19 establishments, 1905, 1906; 19 establishments, 1906, 1907; 10 establishments, 1907-1910; 42 establishments, 1910, 1911; and 42 establishments, 1911, 1912.]

Year.	Beamers, male.		Doublers, female.		Laborers, dyehouse, male. ¹		Loom fixers, male.		Pickers, male.		Pickers, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1890.....	104.0	104.5	102.8	107.0	103.1	97.2	104.4	94.7	100.0	109.7	100.0	84.9
1891.....	104.0	99.8	102.8	98.6	103.1	96.1	104.5	93.8	100.0	111.7	100.0	108.6
1892.....	104.0	102.1	102.2	99.6	103.1	95.1	101.6	96.4	100.0	98.6	100.0	119.8
1893.....	98.2	102.1	98.7	98.4	103.1	92.6	98.6	99.0	100.0	84.2	100.0	108.2
1894.....	98.2	102.1	98.3	101.8	98.7	100.9	98.4	97.7	100.0	96.8	100.0	97.9
1895.....	97.5	99.8	98.7	102.5	98.2	102.0	98.2	103.7	100.0	104.2	100.0	100.9
1896.....	98.2	102.1	98.7	102.0	97.9	103.1	98.6	101.0	100.0	82.3	100.0	80.2
1897.....	98.5	93.0	99.3	95.5	96.9	106.6	98.4	104.2	100.0	94.2	100.0	93.2
1898.....	99.9	88.0	99.1	97.9	97.9	102.3	98.4	105.1	100.0	110.6	100.0	101.5
1899.....	97.4	106.6	99.4	96.2	97.8	104.0	98.0	104.3	100.0	107.7	100.0	104.8
1900.....	99.9	93.2	99.3	97.0	98.1	103.8	98.5	106.2	100.0	111.4	100.0	107.2
1901.....	98.2	100.6	98.9	106.9	97.4	105.2	98.6	105.3	100.0	107.3	100.0	107.1
1902.....	99.1	100.2	99.0	114.3	94.8	102.2	98.6	103.0	100.0	111.5	100.0	103.9
1903.....	98.6	101.3	98.0	123.4	94.8	103.1	98.6	103.3	100.0	119.4	100.0	123.2
1904.....	98.3	104.5	97.5	130.2	94.8	103.4	98.2	104.0	101.0	117.4	100.5	121.9

¹ Employees in this occupation were reported as dyers for 1890 to 1907.

TABLE 6.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN SILK-GOODS MANUFACTURING, 1890 TO 1912—Continued.

Year.	Beamers, male.		Doublers, female.		Laborers, dyehouse, male.		Loom fixers, male.		Pickers, male.		Pickers, female.	
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.
1905.....	98.5	99.5	97.7	126.2	94.8	104.1	98.3	104.4	100.3	112.8	101.7	120.6
1906.....	98.5	100.7	97.7	132.5	94.9	103.7	98.3	105.6	(1)	(1)	101.7	123.9
1907.....	98.4	103.4	96.8	146.1	94.9	100.9	98.1	110.1	.....	.....	101.0	133.2
1908.....	(1)	(1)	95.6	145.1	94.7	109.9	97.6	115.2	.....	.....	100.3	131.0
1909.....	.....	.....	94.8	139.7	94.7	109.3	97.8	113.5	.....	.....	100.5	134.6
1910.....	.....	.....	94.5	148.3	94.9	109.6	97.3	117.0	.....	.....	100.0	132.5
1911.....	.....	.....	94.2	156.4	94.9	110.3	97.3	118.9	.....	.....	100.2	143.2
1912.....	.....	.....	94.2	153.1	94.9	116.1	97.0	122.3	.....	.....	98.6	140.1
Average, 1890-1899.....	100.0	100.0	.....	.....	.....	.....	100.0	100.0	.....	.....	100.0	100.0
1890.....	104.0	103.1	.....	.....	.....	.....	102.7	103.2	.....	.....	106.2	98.2
1891.....	103.4	99.5	.....	.....	.....	.....	102.7	93.9	.....	.....	106.2	100.2
1892.....	101.9	94.8	.....	.....	.....	.....	100.1	99.9	.....	.....	106.2	100.5
1893.....	98.4	104.7	.....	.....	.....	.....	99.2	98.5	.....	.....	97.3	97.7
1894.....	98.1	96.3	.....	.....	.....	.....	99.5	95.9	.....	.....	97.3	104.2
1895.....	97.9	97.4	.....	.....	.....	.....	98.9	99.7	.....	.....	97.3	104.8
1896.....	98.5	109.8	.....	.....	.....	.....	99.1	103.4	.....	.....	97.3	98.9
1897.....	99.3	99.2	.....	.....	.....	.....	99.0	104.4	.....	.....	97.3	102.3
1898.....	99.0	99.2	.....	.....	.....	.....	99.3	99.7	.....	.....	97.3	95.2
1899.....	99.4	95.6	.....	.....	.....	.....	99.6	101.5	.....	.....	97.3	98.0
1900.....	99.8	95.9	.....	.....	.....	.....	99.8	97.2	.....	.....	97.3	102.6
1901.....	99.4	96.4	.....	.....	.....	.....	99.9	105.3	.....	.....	97.3	87.4
1902.....	99.3	97.6	.....	.....	.....	.....	99.8	103.3	.....	.....	97.3	100.2
1903.....	98.7	107.9	.....	.....	.....	.....	99.8	105.3	.....	.....	97.8	103.4
1904.....	98.9	107.7	.....	.....	.....	.....	97.7	109.5	.....	.....	97.3	100.3
1905.....	98.8	107.1	.....	.....	.....	.....	98.2	113.4	.....	.....	97.2	101.9
1906.....	99.0	111.0	.....	.....	.....	.....	98.2	125.0	.....	.....	97.2	103.2
1907.....	99.0	119.0	.....	.....	2 100.0	2 100.0	98.0	127.2	2 100.0	2 100.0	97.2	110.7
1908.....	98.8	118.6	.....	.....	2 99.1	2 103.0	98.0	121.1	2 99.1	2 108.3	96.9	103.2
1909.....	98.5	111.8	.....	.....	2 98.6	2 114.9	95.2	119.5	2 97.5	2 101.8	96.7	114.0
1910.....	98.2	128.8	3 100.0	3 100.0	2 99.0	2 123.4	94.7	123.8	2 97.3	2 101.9	96.5	109.1
1911.....	98.2	128.9	3 99.8	3 110.3	2 99.7	2 124.2	94.7	125.4	2 97.1	2 104.1	96.5	115.9
1912.....	96.8	129.2	3 99.5	3 113.3	2 99.4	2 121.9	94.2	130.6	2 96.2	2 105.2	95.3	117.4

¹ Occupation discontinued.

² Data for 1890 to 1906 not available; computed with 1907=100.

³ Data for 1890 to 1909 not available; computed with 1910=100.

TABLE 6.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN SILK-GOODS MANUFACTURING, 1890 TO 1912—Concluded.

Year.	Twisters-in, female.		Warpers, male.		Warpers, female.		Weavers, broad goods, male.		Weavers, broad goods, female.		
	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	Relative full-time hours per week.	Relative rate of wages per hour.	
Average, 1890-1899.....			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1890.....			105.3	93.1	103.1	96.1	102.9	95.6	100.8	95.6	
1891.....			105.4	90.6	103.1	88.6	103.7	98.0	102.0	89.9	
1892.....			102.9	97.9	103.1	97.6	101.1	102.6	100.6	100.6	
1893.....			98.1	100.4	98.4	103.8	98.2	105.8	98.7	105.2	
1894.....			98.1	93.8	97.8	104.3	98.2	101.2	99.0	111.0	
1895.....			98.1	110.1	98.6	105.6	98.3	97.3	98.7	101.0	
1896.....			98.1	96.8	98.4	111.0	98.1	111.2	100.2	113.3	
1897.....			98.1	110.5	98.6	105.7	99.3	97.9	100.1	93.1	
1898.....			98.1	105.0	99.3	90.8	100.1	95.5	99.9	94.5	
1899.....			98.1	101.7	99.3	96.5	100.2	94.6	100.0	92.8	
1900.....			98.1	111.6	100.1	90.0	100.2	98.9	100.1	96.1	
1901.....			98.1	116.3	100.2	88.3	100.6	90.8	99.2	94.0	
1902.....			98.1	122.8	99.9	94.4	100.9	97.4	99.4	100.5	
1903.....			98.1	112.4	100.0	90.9	100.3	94.3	99.7	99.5	
1904.....			98.1	124.3	99.4	97.4	100.1	101.4	99.4	92.0	
1905.....				96.5	135.0	99.4	96.0	100.2	104.1	99.4	94.4
1906.....				96.6	132.9	99.5	100.5	99.9	109.9	99.6	97.6
1907.....			100.0	100.0	96.8	138.5	98.8	106.9	114.7	99.1	107.5
1908.....	¹ 98.9	¹ 85.9	96.5	138.8	97.4	103.7	99.4	102.7	98.8	95.8	
1909.....	¹ 99.1	¹ 99.4	97.2	134.9	97.6	101.2	99.6	110.9	98.5	96.5	
1910.....	¹ 98.6	¹ 96.1	97.4	142.7	98.5	100.9	99.6	110.5	98.3	8.1	
1911.....	¹ 98.4	¹ 97.4	97.4	141.3	98.5	97.2	99.8	110.1	98.1	92.8	
1912.....	¹ 97.9	¹ 104.1	97.6	136.8	97.3	104.5	98.8	113.4	95.9	97.5	
	Weavers, ribbon, male.		Weavers, ribbon, female.		Winders, female. ²		Winders, hard silk, female. ³		Winders, soft silk, female. ³		
Average, 1890-1899.....	100.0	100.0	100.0	100.0	100.0	100.0					
1890.....	105.0	116.5	100.0	99.3	103.0	95.9					
1891.....	104.0	98.4	100.0	102.0	103.1	84.3					
1892.....	105.3	98.7	100.0	100.2	102.2	92.8					
1893.....	98.0	107.1	100.0	101.4	98.4	98.4					
1894.....	98.0	90.2	100.0	100.2	98.7	106.8					
1895.....	98.0	100.1	100.0	95.6	98.7	106.2					
1896.....	98.0	102.1	100.0	99.7	99.0	103.2					
1897.....	98.0	88.7	100.0	97.7	99.0	101.4					
1898.....	98.0	99.1	100.0	104.0	98.8	107.4					
1899.....	98.0	99.0	100.0	100.0	99.1	103.3					
1900.....	98.0	93.0	100.0	95.2	99.3	105.3					
1901.....	98.0	83.4	100.0	95.4	99.1	109.1					
1902.....	98.0	82.8	100.0	84.6	99.2	111.2					
1903.....	98.0	86.8	100.0	89.7	99.3	115.3					
1904.....	94.4	86.9	92.2	83.3	98.9	115.2					
1905.....	94.8	86.3	92.6	89.2	99.1	116.7					
1906.....	94.6	89.1	92.2	90.4	99.3	115.2					
1907.....	94.6	98.6	91.7	98.3	99.0	125.5	¹ 100.0	¹ 100.0	¹ 100.0	¹ 100.0	
1908.....	94.4	101.3	91.4	100.2	(²)	(²)	¹ 99.1	¹ 88.4	¹ 99.3	¹ 96.4	
1909.....	94.4	89.1	91.2	98.2			¹ 98.1	¹ 89.9	¹ 99.3	¹ 101.1	
1910.....	95.2	93.9	90.7	103.6			¹ 97.9	¹ 94.5	¹ 98.6	¹ 105.0	
1911.....	95.0	97.2	90.5	105.1			¹ 97.9	¹ 97.4	¹ 98.4	¹ 107.5	
1912.....	95.0	102.6	90.3	107.1			¹ 96.9	¹ 99.7	¹ 97.2	¹ 110.7	

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.

² Employees reported as winders for 1890 to 1907 are reported as winders, hard silk, or winders, soft silk, for subsequent years.

³ The occupations, winders, hard silk, and winders, soft silk, include employees reported as winders for 1890 to 1907.

