

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES } . . . { WHOLE
BUREAU OF LABOR STATISTICS } . . . { NUMBER 154

WAGES AND HOURS OF LABOR SERIES: No. 13

WAGES AND HOURS OF LABOR IN THE
BOOT AND SHOE AND HOSIERY AND
UNDERWEAR INDUSTRIES: 1907 TO 1913



MAY 22, 1914

WASHINGTON
GOVERNMENT PRINTING OFFICE
1914

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WAGES AND HOURS OF LABOR IN THE BOOT AND SHOE AND HOSIERY AND UNDERWEAR INDUSTRIES: 1907 TO 1913.

BOOT AND SHOE 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 in the boot and shoe industry in 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 reports of this Bureau present 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 boot and shoe manufacturing in 1913 were 7.4 per cent higher than such earnings in 1912; 6.7 per cent higher than in 1911; and 8.9 per cent higher than in 1910. The full-time hours of labor per week in this industry in 1913 were 0.9 per cent lower than in 1912, and 2.4 per cent lower than in 1911, and 2.6 per cent lower than in 1910. Rates of wages or earnings per hour in boot and shoe manufacturing in 1913 were 8.1 per cent higher than in 1912; 8.9 per cent higher than in 1911; and 11.4 per cent higher than in 1910.

The summary figures concerning the occupations covered by this report are presented in Table I (pp. 35-49). The data for the years

¹ Previous investigations of wages and hours of labor in boot and shoe manufacturing have been made and 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. 134 (August, 1913), covering 1907 to 1912.

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.

According to the plan of the table, direct comparisons can be made properly only between two or more successive years where the data are for identical establishments. Data from identical establishments for successive years are indicated by a brace before each group of years.

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

The figures for the years 1907 to the first presentation for 1912 are reproduced from Bulletin No. 134, except the average full-time weekly earnings, which figures have been computed for this Bulletin from the data gathered for the earlier years. The 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 pages 17 and 18.

Referring to Table I (pp. 35-49), it is seen that in 1913 the average full-time weekly earnings of males engaged in boot and shoe manufacturing, represented by 29 occupations, varied from \$14.46 for assemblers to \$27.60 for Goodyear welters. The average full-time weekly earnings of females, represented by 10 occupations, varied from \$8.56 for treers or ironers, hand, to \$13.45 for vampers.

The full-time hours of labor per week in 1913 in the several establishments did not exceed 60, and the average was about 55.

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 for cutters of cloth lining, for instance, are reported for 31 identical establishments for 1911 and 1912, and 72 identical establishments for 1912 and 1913. The average full-time weekly earnings in this occupation increased from \$14.87 in 1911 to \$15.23 in 1912, in 31 establishments, and increased from \$15.89 in 1912 to \$16.99 in 1913 in the 72 establishments reported. As the two groups of establishments do not show the same average earnings for 1912, it would not be correct to state that earnings had increased from \$14.87 in 1911 to \$16.99 in 1913. The movement from one year to another is indicated with the greater degree of certainty by the figures for identical establish-

ments. The difference between \$14.87 and \$15.23 represents the change between 1911 and 1912, and the difference between \$15.89 and \$16.99 represents the change between 1912 and 1913, as nearly as can be determined from the data available.

Owing to the 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 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 20. Thus, in the table below, the full-time weekly earnings of cutters, lining, cloth, in 1911 were 91.3 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 16.

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

(1913 = 100.0.)

Year.	Cutting department.											
	Cutters, lining, cloth, male.			Cutters, vamp and whole shoe, hand, male.			Cutters, vamp and whole shoe, machine, male.			Skivers, upper, machine, 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..	(1)	(1)	(1)	102.8	89.4	92.2	104.7	95.5	99.3	100.7	87.8	88.9
1911..	102.6	89.1	91.3	103.1	88.9	91.6	103.6	95.1	98.5	100.7	95.7	96.5
1912..	101.5	92.3	93.5	100.9	91.6	92.3	100.9	96.9	97.7	100.4	94.5	94.9
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

¹ No data.

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

Year.	Cutting department— Concluded.			Sole-leather department.						Fitting or stitching department.		
	Skivers, upper, machine, female.			Channelers, insole and outsole, male.			Cutters, outsole, male.			Backstay stitchers, female.		
	Relative full- time hours per week.	Relative rate of wages per hour.	Relative full- time weekly earn- ings.	Relative full- time hours per week.	Relative rate of wages per hour.	Relative full- time weekly earn- ings.	Relative full- time hours per week.	Relative rate of wages per hour.	Relative full- time weekly earn- ings.	Relative full- time hours per week.	Relative rate of wages per hour.	Relative full- time weekly earn- ings.
1910..	103.7	84.2	87.8	102.5	84.7	86.8	102.0	89.3	91.0	103.1	92.4	95.1
1911..	104.2	84.7	88.0	102.4	87.3	89.5	101.8	90.5	92.1	103.1	94.4	97.1
1912..	100.7	92.2	93.0	100.9	89.4	90.2	101.4	93.0	94.4	100.7	96.3	97.1
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
Fitting or stitching department—Continued.												
	Button fasteners, female.			Buttonhole makers, female.			Closers-on, female.			Lining makers, female.		
	(1)	(1)	(1)	(1)	(1)	(1)	104.8	92.5	96.7	103.5	87.6	90.0
	101.8	76.2	77.7	102.4	90.5	91.9	104.8	92.1	96.3	103.5	86.6	88.9
	100.9	88.7	89.3	100.7	92.8	93.1	101.1	95.7	96.6	100.7	89.3	89.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fitting or stitching department—Concluded.												
	Tip stitchers, female.			Top stitchers or under- trimmers, female.			Vampers, male.			Vampers, female.		
	(1)	(1)	(1)	104.0	90.7	94.1	101.1	93.8	94.7	103.7	95.5	99.1
	101.5	90.2	91.2	103.8	92.2	95.4	101.5	97.2	98.5	103.3	95.6	98.8
	100.4	95.0	95.1	100.5	93.9	94.2	100.4	95.7	95.9	100.7	93.6	94.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lasting department.												
	Assemblers, for pulling- over machine, male.			Bed-machine operators, male.			Hand-method lasting machine operators, male.			Pullers-over, hand, male.		
	(1)	(1)	(1)	102.4	92.3	94.2	103.1	87.9	90.3	102.0	87.5	89.2
	101.6	94.2	95.7	101.8	95.9	97.4	102.9	88.8	91.2	101.6	92.8	94.1
	100.5	91.0	91.4	100.7	90.9	91.5	100.7	91.0	91.5	100.0	94.9	94.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lasting department—Concluded.						Bottoming department.						
	Pullers-over, machine, male.			Turn lasters, male.			Buffers, male.			Edge setters, male.		
	103.2	93.1	96.3	(1)	(1)	(1)	(1)	(1)	(1)	101.8	87.9	89.4
	101.6	92.6	94.1	(1)	(1)	(1)	101.3	86.9	87.9	101.8	89.5	91.0
	100.7	88.9	89.5	101.1	88.8	89.7	101.3	90.7	91.6	100.9	91.7	92.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ No data.

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

Bottoming department—Continued.												
Year.	Edge trimmers, male.			Goodyear stitchers, male.			Goodyear welters, male.			Heel breasters, male.		
	Relative full-time hours per week.	Relative rate of wages per week.	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	91.5	92.9	101.8	91.3	93.1	101.6	83.4	84.7	(1)	(1)	(1)
1911..	101.3	93.5	94.4	101.3	94.8	96.2	101.3	88.5	89.5	101.6	90.9	91.8
1912..	100.9	92.6	93.3	101.3	94.3	95.4	100.9	89.0	89.7	100.9	94.4	94.7
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
Bottoming department—Continued.												
Year.	Heel burnishers, male.			Heelers, male.			Heel scourers, male.			Heel-seat nailers, male.		
	Relative full-time hours per week.	Relative rate of wages per week.	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..	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1911..	101.6	91.4	92.5	101.6	92.0	93.8	99.8	91.0	92.0	101.6	96.0	97.5
1912..	101.3	93.3	94.3	101.4	94.3	96.0	101.1	92.0	92.7	101.6	96.4	98.3
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
Bottoming department—Continued.												
Year.	Heel sluggers, male.			Heel trimmers or shavers, male.			Levelers, male.			McKay sewers, male.		
	Relative full-time hours per week.	Relative rate of wages per week.	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..	(1)	(1)	(1)	102.2	92.6	94.2	(1)	(1)	(1)	102.0	92.7	94.0
1911..	101.1	89.3	89.7	102.0	93.8	95.4	101.5	90.6	91.4	101.3	92.8	93.4
1912..	100.9	91.0	91.5	101.1	93.7	94.5	101.3	94.3	95.0	100.9	89.6	90.4
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
Bottoming department—Concluded.												
Finishing department.												
Year.	Rough rounders, male.			Treers or ironers, hand, male.			Treers or ironers, hand, female.					
	Relative full-time hours per week.	Relative rate of wages per week.	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..	102.4	80.8	82.4	100.7	95.8	96.2	106.8	90.7	96.6	-----	-----	-----
1911..	102.0	87.1	88.6	101.1	96.1	96.7	106.6	91.1	96.9	-----	-----	-----
1912..	101.3	87.6	88.5	100.9	94.3	95.0	99.6	97.0	97.2	-----	-----	-----
1913..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	-----

¹ No data.

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 11.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS IN BOOT AND SHOE 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.....	102.7	89.8	91.9
1911.....	102.5	91.8	93.7
1912.....	100.9	92.5	93.1
1913.....	100.0	100.0	100.0

From the table it is to be seen that the relative or index number for full-time hours per week in the boot and shoe industry as a whole decreased from 102.7 in 1910 to 100 in 1913, or, in other words, full-time hours per week were 102.7 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 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, it being from an index of 91.9 in 1910 to 100 in 1913.

In examining the relative or index numbers for the several occupations on pages 7 to 9 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 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 for the years 1890 to 1912 appears in the Appendix, page 119.

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 any imperfections, due, for example, to a small number of establishments, in the data for 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 satisfactory than in the earlier years. This reason for the change of base is further explained on page 18.

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 20. 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. 129, 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 all occupations were added, and the sum divided by the total employees.

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 a change in the industry is not always accurately reflected by the relative computed by averaging the occupation relatives. The reason is more fully explained on page 21.

In addition to the relative numbers shown for the several occupations and for the industry three tables are here presented showing the percent 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 7 to 10, 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 second line of the first table, it is seen that the full-time hours of labor of cutters, vamp and whole shoe, hand, in 1913 were 2.7 per cent lower than in 1910, 3 per cent lower than in 1911, and 0.9 per cent lower 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 0.3 per cent higher 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
Cutting department:					
Cutters, lining, cloth, male.....	(1)	—2.5	—1.5	—1.1	(1)
Cutters, vamp and whole shoe, hand, male.....	—2.7	—3.0	— .9	—2.1	+0.3
Cutters, vamp and whole shoe, ma- chine, male.....	—4.5	—3.5	— .9	—2.6	—1.1
Skivers, upper, machine, male.....	— .7	— .7	— .4	— .3	(2)
Skivers, upper, machine, female.....	—3.6	—4.0	— .7	—3.4	+ .5
Sole-leather department:					
Channelers, insole and outsole, male.....	—2.4	—2.3	— .9	—1.5	— .1
Cutters, outsole, male.....	—2.0	—1.8	—1.4	— .4	— .2
Fitting or stitching department:					
Backstay stitchers, female.....	—3.0	—3.0	— .7	—2.3	(2)
Button fasteners, female.....	(1)	—1.8	— .9	— .9	(2)
Buttonhole makers, female.....	(1)	—2.3	— .7	—1.7	(2)
Closers-on, female.....	—4.6	—4.6	—1.1	—3.5	(2)
Lining makers, female.....	—3.4	—3.4	— .7	—2.7	(2)
Tip stitchers, female.....	(1)	—1.5	— .4	—1.1	(2)
Top stitchers or undertrimmers, female.....	—3.8	—3.7	— .5	—3.2	— .2
Vampers, male.....	—1.1	—1.5	— .4	—1.1	+ .4
Vampers, female.....	—3.6	—3.2	— .7	—2.5	— .4
Lasting department:					
Assemblers, for pulling-over machine, male.....	(1)	—1.6	— .5	—1.1	(1)
Bed-machine operators, male.....	—2.3	—1.8	— .7	—1.1	— .6
Hand-method lasting machine oper- ators, male.....	—3.0	—2.8	— .7	—2.1	— .2
Pullers-over, hand, male.....	—2.0	—1.6	(2)	—1.6	— .4
Pullers-over, machine, male.....	—3.1	—1.6	— .7	— .9	—1.6
Turn lasters, hand, male.....	(1)	(1)	—1.1	(1)	(1)
Bottoming department:					
Buffers, male.....	(1)	—1.3	—1.3	(2)	(2)
Edge setters, male.....	—1.8	—1.8	— .9	— .9	(2)
Edge trimmers, male.....	—1.6	—1.3	— .9	— .4	— .3
Goodyear stitchers, male.....	—1.8	—1.3	—1.3	(2)	— .5
Goodyear welters, male.....	—1.6	—1.3	— .9	— .4	— .3
Heel breasters, male.....	(1)	—1.6	— .9	— .7	(2)
Heel burnishers, male.....	(1)	—1.6	—1.3	— .3	(2)
Heelers, male.....	(1)	—1.6	—1.4	— .2	(2)
Heel scourers, male.....	(1)	+ .2	—1.1	+1.3	(2)
Heel-seat nailers, male.....	(1)	—1.6	—1.6	(2)	(2)
Heel sluggers, male.....	(1)	—1.1	— .9	— .2	(2)
Heel trimmers or shavers, male.....	—2.2	—2.0	—1.1	— .9	— .2
Levelers, male.....	(1)	—1.5	—1.3	— .2	(1)
McKay sewers, male.....	—2.0	—1.3	— .9	— .4	— .7
Rough rounders, male.....	—2.3	—2.0	—1.3	— .7	— .4
Finishing department:					
Treers or ironers, hand, male.....	— .7	—1.1	— .9	— .2	+ .4
Treers or ironers, hand, female.....	—6.4	—6.2	+ .4	—6.6	— .2
The industry.....	—2.6	—2.4	— .9	—1.6	— .2

¹ No data.

² No change.

PERCENT 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
Cutting department:					
Cutters, lining, cloth, male.....	(1)	+12.2	+ 8.3	+ 3.6	(1)
Cutters, vamp and whole shoe, hand, male.....	+11.9	+12.5	+ 9.2	+ 3.0	—0.6
Cutters, vamp and whole shoe, ma- chine, male.....	+ 4.7	+ 5.2	+ 3.2	+ 1.9	— .4
Skivers, upper, machine, male.....	+13.9	+ 4.5	+ 5.8	—1.3	+9.0
Skivers, upper, machine, female.....	+18.8	+18.1	+ 8.5	+ 8.9	+ .6
Sole-leather department:					
Channelers, insole and outsole, male...	+18.1	+14.5	+11.9	+ 2.4	+3.1
Cutters, outsole, male.....	+12.0	+10.5	+ 7.5	+ 2.8	+1.3
Fitting or stitching department:					
Backstay stitchers, female.....	+ 8.2	+ 5.9	+ 3.8	+ 2.0	+2.2
Button fasteners, female.....	(1)	+31.2	+12.7	+16.4	(1)
Buttonhole makers, female.....	(1)	+10.5	+ 7.8	+ 2.5	(1)
Closers-on, female.....	+ 8.1	+ 8.6	+ 4.5	+ 3.9	— .4
Lining makers, female.....	+14.2	+15.5	+12.0	+ 3.1	—1.1
Tip stitchers, female.....	(1)	+10.9	+ 5.3	+ 5.3	(1)
Top stitchers or undertrimmers, female	+10.3	+ 8.5	+ 6.5	+ 1.8	+1.7
Vampers, male.....	+ 6.6	+ 2.9	+ 4.5	—1.5	+3.6
Vampers, female.....	+ 4.7	+ 4.6	+ 6.8	— 2.1	+ .1
Lasting department:					
Assemblers, for pulling-over machine, male.....	(1)	+ 6.2	+ 9.9	— 3.4	(1)
Bed-machine operators, male.....	+ 8.3	+ 4.3	+10.0	— 5.2	+3.9
Hand-method lasting machine, oper- ators, male.....	+13.8	+12.6	+ 9.9	+ 2.5	+1.0
Pullers-over, hand, male.....	+14.3	+ 7.8	+ 5.4	+ 2.3	+6.1
Pullers-over, machine, male.....	+ 7.4	+ 8.0	+12.5	— 4.0	— .5
Turn lasters, hand, male.....	(1)	(1)	+12.6	(1)	(1)
Bottoming department:					
Buffers, male.....	(1)	+15.1	+10.3	+ 4.4	(1)
Edge setters, male.....	+13.8	+11.7	+ 9.1	+ 2.5	+1.8
Edge trimmers, male.....	+ 9.3	+ 7.0	+ 8.0	— 1.0	+2.2
Goodyear stitchers, male.....	+ 9.5	+ 5.5	+ 6.0	— .5	+3.8
Goodyear welters, male.....	+19.9	+13.0	+12.4	+ .6	+6.1
Heel breasters, male.....	(1)	+10.0	+ 5.9	+ 3.9	(1)
Heel burnishers, male.....	(1)	+ 9.4	+ 7.2	+ 2.1	(1)
Heelers, male.....	(1)	+ 8.7	+12.4	— 3.3	(1)
Heel scourers, male.....	(1)	+ 9.9	+ 8.7	+ 1.1	(1)
Heel-seat nailers, male.....	(1)	+ 4.2	+15.1	— 9.5	(1)
Heel slugers, male.....	(1)	+12.0	+ 9.9	+ 1.9	(1)
Heel trimmers or shavers, male.....	+ 8.0	+ 6.6	+ 6.7	— .1	+1.3
Levelers, male.....	(1)	+10.4	+ 6.0	+ 4.1	(1)
McKay sewers, male.....	+ 7.9	+ 7.8	+11.6	— 3.4	+ .1
Rough rounders, male.....	+23.8	+14.8	+14.2	+ .6	+7.8
Finishing department:					
Treers or ironers, hand, male.....	+ 4.4	+ 4.1	+ 6.0	— 1.9	+ .3
Treers or ironers, hand, female.....	+10.3	+ 9.8	+ 3.1	+ 6.5	+ .4
The industry.....	+11.4	+ 8.9	+ 8.1	+ .8	+2.2

¹ 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.

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
Cutting department:					
Cutters, lining, cloth, male	(1)	+ 9.5	+ 7.0	+ 2.4	(1)
Cutters, vamp and whole shoe, hand, male.....	+ 8.5	+ 9.2	+ 8.3	+ .8	—0.7
Cutters, vamp and whole shoe, ma- chine, male.....	+ .7	+ 1.5	+ 2.4	— .8	— .8
Skivers, upper, machine, male.....	+12.5	+ 3.6	+ 5.4	— 1.7	+8.5
Skivers, upper, machine, female.....	+13.9	+13.6	+ 7.5	+ 5.7	+ .2
Sole-leather department:					
Channelers, insole and outsole, male...	+15.2	+11.7	+10.9	+ .8	+3.1
Cutters, outsole, male.....	+ 9.9	+ 8.6	+ 5.9	+ 2.5	+1.2
Fitting or stitching department:					
Backstay stitchers, female.....	+ 5.2	+ 3.0	+ 3.0	(2)	+2.1
Button fasteners, female.....	(1)	+28.7	+12.0	+14.9	(1)
Buttonhole makers, female.....	(1)	+ 8.8	+ 7.4	+ 1.3	(1)
Closers-on, female.....	+ 3.4	+ 3.8	+ 3.5	+ .3	— .4
Lining makers, female.....	+11.1	+12.5	+11.5	+ .9	—1.2
Tip stitchers, female.....	(1)	+ 9.6	+ 5.2	+ 4.3	(1)
Top stitcher or undertrimmers, female...	+ 6.3	+ 4.8	+ 6.2	— 1.3	+1.4
Vampers, male.....	+ 5.6	+ 1.5	+ 4.3	— 2.6	+4.0
Vampers, female.....	+ .9	+ 1.2	+ 6.0	— 4.6	— .3
Lasting department:					
Assemblers for pulling-over machine, male.....	(1)	+ 4.5	+ 9.4	— 4.5	(1)
Bed-machine operators, male.....	+ 6.2	+ 2.7	+ 9.3	— 6.1	+3.4
Hand-method lasting machine oper- ators, male.....	+10.7	+ 9.6	+ 9.3	+ .3	+1.0
Pullers-over, hand, male.....	+12.1	+ 6.3	+ 5.5	+ .7	+5.5
Pullers-over, machine, male.....	+ 3.8	+ 6.3	+11.7	— 4.9	—2.3
Turn lasters, hand, male.....	(1)	(1)	+11.5	(1)	(1)
Bottoming department:					
Buffers, male.....	(1)	+13.8	+ 9.2	+ 4.2	(1)
Edge setters, male.....	+11.9	+ 9.9	+ 8.2	+ 1.5	+1.8
Edge trimmers, male.....	+ 7.6	+ 5.9	+ 7.2	— 1.2	+1.6
Goodyear stitchers, male.....	+ 7.4	+ 4.0	+ 4.8	— .8	+3.3
Goodyear welters, male.....	+18.1	+11.7	+11.5	+ .2	+5.7
Heel breasters, male.....	(1)	+ 8.9	+ 5.6	+ 3.2	(1)
Heel burnishers, male.....	(1)	+ 8.1	+ 6.0	+ 1.9	(1)
Heelers, male.....	(1)	+ 6.6	+10.6	— 3.6	(1)
Heel scourers, male.....	(1)	+ 8.7	+ 7.9	+ .8	(1)
Heel-seat nailers, male.....	(1)	+ 2.6	+13.3	— 9.4	(1)
Heel sluggers, male.....	(1)	+11.5	+ 9.3	+ 2.0	(1)
Heel trimmers or shavers, male.....	+ 6.2	+ 4.8	+ 5.8	— .9	+1.3
Levelers, male.....	(1)	+ 9.4	+ 5.3	+ 3.9	(1)
McKay sewers, male.....	+ 6.4	+ 7.1	+10.6	— 3.2	— .6
Rough rounders, male.....	+21.4	+12.9	+13.0	— .1	+7.5
Finishing department:					
Treers or ironers, hand, male.....	+ 4.0	+ 3.4	+ 5.3	— 1.8	+ .5
Treers or ironers, hand, female.....	+ 3.5	+ 3.2	+ 2.9	+ .3	+ .3
The industry.....	+ 8.9	+ 6.7	+ 7.4	— .6	+2.0

¹ No data.

² No change.

EXPLANATION OF SCOPE AND METHOD.

This report on boot and shoe manufacturing includes establishments whose principal or only products are shoes made by the welt, McKay, or turn process. Men's, women's, and children's shoes are included in the product of these factories. No data are included from establishments whose main or sole products are nailed, screwed, or pegged shoes, or specialties such as slippers, leggings, felt boots, etc., nor from establishments doing only fitting or making sole stock.

All information in this report was secured from pay rolls of the various establishments by the 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.....	26 identical establishments.
1910 and 1911.....	60 identical establishments.
1911 and 1912.....	81 identical establishments.
1912 and 1913.....	88 identical establishments.

The data for 1907 to 1911 were secured in 1911 and the number of establishments included for the full period for 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 factory or new occupations introduced and sometimes data are not available for all occupations desired from a factory. 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 boot and shoe manufacturing is of material importance, the measure of importance being the number of employees reported by the United States Census of Manufactures. The table which follows shows by States the number of employees in boot and shoe manufacturing, as reported by the United States Census Office, 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 BOOT AND SHOE 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.....	74,710	27	22,515	7,597
New York.....	20,545	11	7,412	2,504
Missouri.....	16,336	11	5,683	1,834
Ohio.....	15,693	7	5,611	1,728
New Hampshire.....	13,042	7	5,046	1,722
Pennsylvania.....	10,576	8	3,944	1,406
Maine.....	6,808	5	3,033	886
Illinois.....	5,588	4	2,815	1,103
Wisconsin.....	5,081	2	1,245	410
New Jersey.....	4,084	4	1,299	491
Virginia.....	2,677	2	592	229
Other States ¹	10,276			
Total.....	185,116	88	59,195	19,910

¹ Includes States having less than 2,675 employees in 1910.

According to the census of 1910 more than 94 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 32 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 10.8 per cent of the total in the industry in 1910.

The pay-roll period taken each year was the one nearest February 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. 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.

The majority of boot and shoe employees are paid at piece rates. In a considerable number of establishments visited in preceding years the records of the hours worked by individual pieceworkers were so inadequate 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 in the factory, 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 shown 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 tabulated 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 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 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.	Rates of wages per week.	Rates 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.....	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 is \$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 10.

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 often 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 46 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 46 establishments possibly might have been a fairly acceptable base, the average of nearly twice as many establishments recently canvassed becomes more nearly representative of the industry, and thus a more satisfactory base. Data are available from 81 establishments for 1911 and 1912 and from 60 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 data 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 that may have been in data gathered in 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 in data for the earlier years will 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 vamps 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 VAMPERS COMPUTED ON TWO BASES: AVERAGE 1890-1899=100; AND AVERAGE FOR 1913=100.

Year.	Relative full-time hours per week.		Relative rate of wages $\frac{p}{h}$ per hour.	
	Relative, average 1890-1899 equals 100.	Relative, 1913 equals 100.	Relative, average 1890-1899 equals 100.	Relative, 1913 equals 100.
1910.....	97.5	103.7	130.3	95.5
1911.....	97.2	103.3	130.5	95.6
1912.....	94.8	100.7	127.8	93.6
1913.....	94.1	100.0	136.5	100.0

The first column of relative numbers indicates that the hours per week in 1910 were 97.5 per cent of the average hours in the period 1890-1899, while the next column shows the hours in 1910 to be 103.7 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 3.49 per cent and the other a decrease of 3.57 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 130.3 in 1910 to relative 136.5 in 1913, an increase of 4.76 per cent. The second series shows an increase from 95.5 in 1910 to 100 per cent in 1913, an increase of 4.71 per cent. Here again, allowing for terminal decimals, the results would be identical.

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, equal to 100 for the industry and for the several occupations published in Bulletin No. 134, are reproduced in this Bulletin, on pages 119 to 126.

Relative or index numbers for the several occupations and for the industry as a whole from 1910 to 1913 are presented on pages 7 to 10.

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 bed-machine operators are taken as an example:

	Number of iden- tical es- tablish- ments.	1910	1911	1912	1913
Rates of wages per hour.....	35 54 65	\$0.3108	\$0.3229 .3210	\$0.3042 .3004	\$0.3304
Relative rates of wages per hour computed therefrom.....		92.4	95.9	90.9	100.0
Rates of wages per hour in identical establishments covering the full four years.....	29	.3129	.3268	.3025	.3279
Relative rates of wages per hour computed therefrom.....		95.4	99.7	92.3	100.0

The rate per hour for 1913 is taken as the base (100), then \$0.3004 divided by \$0.3304 equals 90.9, the relative for 1912. The ratio of 1911 to 1912 is \$0.3210 to \$0.3042. The relative for 1912 just determined, 90.9 multiplied by \$0.3210, divided by \$0.3042 equals 95.9, the relative for 1911. The ratio of 1910 to 1911 is \$0.3108 to \$0.3229. The relative for 1911, 95.9, multiplied by \$0.3108, divided by \$0.3229 equals 92.4, the relative for 1910.

The method of computing relative numbers over a period of years, as illustrated above, is used because of the changes of establishments which occur.

Any 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 relative or index of the data from the additional establishments obtained for the later years.

Of the 35 establishments reporting data for 1910-11, 6 dropped out later and only 29 reported for the entire period. The average rates of wages per hour for the 29 establishments reporting for the entire period are 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 as 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 92.4 in 1910 to 100 in 1913, an increase in the relative of 7.6 over the relative 92.4, making an increase of 8.2 per cent, 7.6 being 8.2 per cent of 92.4, the relative from which comparison is made.

While the base for the computation of the relative numbers for the several occupations has been changed from the average of 1890-99 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 10. The relative numbers for the industry published in Bulletin No. 134 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. 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:

Occupation.	1912			1913		
	Em- ployees.	Rate of wages per day.	Aggre- gate.	Em- ployees.	Rate of wages per day.	Aggre- gate.
Actual wages:						
Occupation A.....	20	\$1.20	\$24.00	30	\$1.33 $\frac{1}{3}$	\$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 though 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 20, 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)	Em- ployees. (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.....		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 aver- age rate 1912 (\$2.66 $\frac{2}{3}$).....			75.00	.....	.....	.....	.....
Relative computed from average rate of all occupa- tions. 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 the 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 for 1912 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 20, with 1913 equal to 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 equal to 100. Thus, the relatives for the industry computed from the relatives of the occupations for 1912 beginning with 1913 as 100 and working back to 1911, are: 1913 equals 100; 1912 equals 125; 1911 equals 102.78. The actual average wages, however, are: \$2, \$2.66 $\frac{2}{3}$, and \$2. Thus, the same average wage for the industry is not represented by the same relative.

Comparing \$2.66 $\frac{2}{3}$, 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 (\$2.66 $\frac{2}{3}$), the relative is 75, and 75 per cent of 133.33, the relative for 1912, is 100, the relative for 1911 on the basis of 1913 equal to 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 when the relatives are computed from data where different groups of establishments show different averages for one and the same year.

Thus, on page 20 it is shown that the relative rate per hour in 1910 as computed through successive pairs of comparable data is 92.4, although \$0.3108, the average rate for 1910 in 35 establishments, is 94.1 per cent of \$0.3304, the average rate shown for 1913 in 65 establishments.

The relative numbers for the boot and shoe manufacturing industry as a whole, 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 BOOT AND SHOE 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.....	102.7	89.8	91.9	95.5	129.6
1911.....	102.5	91.8	93.7	95.3	131.7
1912.....	100.9	92.5	93.1	93.9	132.8
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 102.7 in 1910 to 100.9 in 1912, a decrease of 1.8 per cent. The figures by the other method show a decrease of relative hours from 95.5 in 1910 to 93.9 in 1912, or 1.7 per cent.

Relative rates of wages per hour computed by the present method show an increase from relative 89.8 in 1910 to 92.5 in 1912, an increase of 3.0 per cent. According to the figures by the other method, the increase was from 129.6 in 1910 to 132.8 in 1912, an

increase of 2.5 per cent. Relative full-time earnings were not computed by the other method.

Four general tables are presented for the boot and shoe 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 sufficient data for a State are available 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 THE PRINCIPAL PRODUCTIVE OCCUPATIONS.

The kinds of boots and shoes manufactured by the establishments furnishing data for this report are given on page 14.

So far as the staple products covered by this report are concerned, the processes of manufacture are practically standardized, and the operations are highly specialized. In a modern shoe factory there are more than 100 separate operations, each generally performed by a different person.

Of these 100 or more operations, more than 50 may be performed by machines. The number of operations, both hand and machine, varies with the process and product and the equipment of the factory.

A shoe factory usually has the following departments: Cutting, sole-leather, fitting or stitching, lasting, bottoming, finishing, and packing.

In the cutting department are cut the several parts of the uppers, the lining, and the trimmings. These parts pass to the fitting or stitching department, where they are sewed together, forming the whole upper.

In the sole-leather department the soles are cut, and heels, counters, and boxes made. Frequently these parts are bought ready-made from factories making a specialty of such manufacture.

In the lasting department the upper, insole, counter, and box are assembled and fitted together on the shoe last. From this depart-

ment the lasted shoe is sent to the bottoming department, where the welt (in welt shoes) is sewed on, the outer sole sewed on, the heel attached, and the heel and the edge of the sole trimmed to shape and finished.

In the finishing department the shoe is smoothed with a hot iron, scratches rubbed down, stains removed, and the shoe given a final cleaning and inspection. From this department the shoes go to the packing department, where they are boxed and cased for shipment.

Figures as to wages and hours of labor are presented in this report for 36 of the principal occupations of the industry. Hand and machine work on the same process are presented as separate occupations, except in lining cutting, in which occupation they are combined. The sex of the employees is shown for each occupation. Some occupations include both males and females in such numbers that data are presented for both sexes. Other occupations are filled largely or entirely by one sex; the few employees of the other sex in such occupations are not reported. Of the 36 occupations tabulated, data are shown for males alone in 26 occupations, for females alone in 7 occupations, and for both males and females in 3 occupations.

Nine of the 10 occupations represented by females are machine operations. Of all the employees reported for 1913, 27 per cent were females.

The occupations for which data are shown are here listed in alphabetical rather than process order, under each department. The departments, however, are listed in process order.

Cutting department:

- Cutters, lining, cloth, male.
- Cutters, vamp and whole shoe, hand, male.
- Cutters, vamp and whole shoe, machine, male.
- Skivers, upper, machine, male.
- Skivers, upper, machine, female.

Sole-leather department:

- Channelers, insole and outsole, male.
- Cutters, outsole, male.

Fitting or stitching department:

- Backstay stitchers, female.
- Button fasteners, female.
- Buttonhole makers, female.
- Closers-on, female.
- Lining makers, female.
- Tip stitchers, female.
- Top stitchers or undertrimmers, female.
- Vampers, male.
- Vampers, female.

Lasting department:

- Assemblers, for pulling-over machine, male.
- Bed-machine operators, male.

Lasting department—Concluded.

- Hand-method lasting machine operators, male.
- Pullers-over, hand, male.
- Pullers-over, machine, male.
- Turn lasters, hand, male.

Bottoming department:

- Buffers, male.
- Edge setters, male.
- Edge trimmers, male.
- Goodyear stitchers, male.
- Goodyear welters, male.
- Heel breasters, male.
- Heel burnishers, male.
- Heelers, male.
- Heel scourers, male.
- Heel-seat nailers, male.
- Heel sluggers, male.
- Heel trimmers or shavers, male.
- Levelers, male.
- McKay sewers, male.
- Rough rounders, male.

Finishing department:

- Trees or ironers, hand, male.
- Trees or ironers, hand, female.

CUTTING DEPARTMENT.

All operations of the cutting department here shown are usually performed by men, except skiving, on which operation women also are employed.

CUTTERS, LINING, CLOTH.

Included in this occupation are the men who cut the cloth lining of the upper of the shoe. The work may be performed by hand or machine. The hand cutter receives the cloth folded 8 to 12 thick. He lays his patterns on the cloth and draws a knife along the edge of the pattern, cutting through the several thicknesses of cloth. The machine operator uses a die which, under the pressure of a power machine, cuts 24 to 32 thicknesses at one time.

CUTTERS, VAMP AND WHOLE SHOE, HAND.

This occupation includes the men who cut by hand the entire top or outside of the shoe. It covers the men who cut the vamp and possibly some or all of the other parts of the top also, but does not include cutters of minor parts only. The vamp is the most important part of the upper and requires the greatest skill in cutting. It consists of the part or parts of the upper attached to the sole. The upper, according to the style of the shoe, may have other parts also, as quarters, tongue, tip, backstay, and foxing. The operator has a bench upon which he spreads the skin; he lays the pattern in the desired place and draws a knife along the edge of the pattern, cutting the part to the desired shape. For each different part of the upper there is a separate pattern. Incidental to the outside cutting care must be exercised in selecting like qualities and weights of stock for the same parts in a pair of shoes.

CUTTERS, VAMP AND WHOLE SHOE, MACHINE.

These operators cut the same part or parts as the hand cutters described above. Instead of patterns and a knife they use dies operated by a power press. Different dies are required for each part of each style and size of shoe. The cutting board is similar to that used by the hand worker, but has a beam over it which can be swung either to the left or right and to any position over the board. The cutter places the die in the desired position on the leather, grasps the handle of the beam of the machine and swings it over the die, with a downward pressure. A clutch is placed in operation, which brings the beam downward, pressing the die through the leather. After the cut the beam automatically returns to its full height and remains there until the handle is pressed again.

SKIVERS, UPPER, MACHINE.

Skiving consists of cutting away, on the flesh side, the edge of a piece of leather, so that the edge may be turned and pasted back, thus giving a finished rather than a raw edge of the same thickness as the other parts of the leather. The machine used has a sharp-edged revolving disk so shaped as to cut the desired bevel or shoulder on the leather fed to it.

SOLE-LEATHER DEPARTMENT.

The two operations of this department for which data are shown are performed by men.

CHANNELERS, INSOLE AND OUTSOLE.

The operator has a machine that cuts a slit near the edge of a welt insole or a McKay outsole. The slit extends only part way through the sole and is cut at an acute angle. The lip or lid of the channel is turned back by a channel turner. The channel in the outsole of the welt shoe is cut by the rough rounder. The channel in the welt insole avoids a seam inside the shoe and permits the insole, the welt, and the upper to be stitched together while on the last. In the outsole the channel permits the seam to be countersunk or embedded in the sole. After the outsole is stitched on, the lip of the channel is cemented down on the thread, protecting it from wear.

CUTTERS, OUTSOLE.

The operator cuts the outsole from a side of leather by means of a die and a heavy descending power beam. The leather is laid upon the cutting table, the cutter places the die, and with his foot presses a lever, releasing the beam, which comes down upon the die with sufficient force to press it through the leather. The operator sets the die so as to have as little waste leather as possible, and to have the same quality of leather throughout the sole.

FITTING OR STITCHING DEPARTMENT.

Women are employed so generally in this part of the manufacture of a shoe that data are shown for females alone in all occupations reported except vamping, in which occupation wages are shown for both sexes. All of these are machine operations.

BACKSTAY STITCHERS.

The back of the shoe is usually strengthened by an additional strip running all or part of the way from the top to the sole of the shoe. This stay is sewed on over the back seam. This work is also called back stripping.

BUTTON FASTENERS.

This is an automatic machine operation. The buttons are fastened on the shoe by either thread or wire. The upper comes to the operator with the place marked for each button. The operator has only to put the top of the shoe in position and start and stop the machine.

BUTTONHOLE MAKERS.

The upper is received by the operator with the position of each buttonhole marked. The machine cuts and works the buttonhole automatically. The operator has only to hold the upper in position and control the machine.

CLOSERS-ON.

This operation consists of stitching the lining to the top of the upper, both of these parts having been made previously. The work is also called inseaming. This operation is not performed on all shoes. In some shops it is omitted entirely; in others the lining is pasted on to hold it to the top until the upper is top-stitched.

LINING MAKERS.

These employees are sewing-machine operators who sew together the several parts of the shoe lining. In some shops the work is subdivided, two or more persons doing a part of the work on each lining. This operation of sewing the cloth lining requires less skill than the leather-sewing operations, to which lining makers are usually advanced as they acquire skill.

TIP STITCHERS.

The tip is a separate piece of leather generally put over the toe of the shoe. It is stitched to the vamp by machine.

TOP STITCHERS OR UNDERTRIMMERS.

When the lining has been closed on to the top of the upper, it is folded inside of the upper covering the closing-on seam and passed to the top stitcher who stitches, by machine, the edge of the folded-in seam. This operation is also called undertrimming. In some shops this top stitching is done without a previous closing-on, the lining being held in position or previously pasted.

VAMPERS.

The vamp is the part of the upper to which the sole is attached. Vamping is the process of sewing together the vamp or lower part of the shoe upper and the top part, known as top or quarter. Pumps or slippers having no tops or quarters do not require vamping. Vamping is the most important and best-paid operation in the fitting room.

The operator uses either a single or double needle power vamp sewing machine. Either males or females may operate the machine; women's shoes being light can be vamped by females, but men's shoes being heavier are usually vamped by men; however, in many plants making men's shoes only, there are women vampers.

LASTING DEPARTMENT.

Men are employed almost exclusively in the operations of the lasting room.

ASSEMBLERS, FOR PULLING-OVER MACHINE.

The assembler receives the last with the insole tacked on it. He wets the leather, shellacs the toe box or the tip or both, places the toe box and counter between the lining and the upper, and then puts the last inside the upper. Having centered the upper on the last, he places the last on the spindle of the assembling machine. By pressing a lever the machine automatically drives small tacks through the upper and insole into the bottom of the last at the toe, the heel, and either side, the tacks holding the upper in place temporarily. The shoe goes from the assembler to the machine puller-over. When the pulling-over is a hand operation, the assembling is done by the hand puller-over.

BED-MACHINE OPERATORS.

Lasting is the next operation after the shoe has been pulled over the last. The bed-machine operator places the shoe on the machine and by levers moves a series of wipers (friction pullers) which draw the upper over the edge of the insole at the toe and heel. Some factories designate this as toe and heel lasting. The shoe is placed with the sole up and the operator determines whether the shoe is properly lasted by placing his hand under the toe or heel. The wipers are kept in motion until the operator is satisfied that the upper has been wiped into the desired position. Under the welt system, the operator drives a tack through the upper and insole and partly into the last at one side and passes a fine wire from it around the drawn-in upper at the toe to the opposite side of the last and drives a tack, around which he winds the wire. The wire holds the toe of the upper in position as drawn in over the last. Under the McKay system, instead of the wire used on the toe of welt shoes, tacks are used. The upper at the heel is fastened by tacks driven in by hand. In case the side is lasted by the bed-machine laster the side or instep is lasted by hand with pincers. The operator draws the upper tightly over the last so that there are no wrinkles and tacks it down by hand. Lasting is one of the most important operations in the making of a shoe.

HAND-METHOD LASTING MACHINE OPERATORS.

In this method of lasting, which is done on a machine known either as "consolidated" or "niggerhead," the operator holds the edge of the shoe so that the pincers of the machine grasp the upper and draw it evenly and closely about the last. Immediately following the pincers as fast as the upper is drawn into position, there is a device on the machine that drives tacks automatically into the last to hold the upper in its proper place. In case any part of the shoe has not been properly lasted, the operator pulls the tacks and does the work over. Under the welt system this machine is often used to last only the side or instep while the bed machine lasts the toe and heel, thus cutting out the operation of hand lasting the side or instep, which is necessary in plants using only the bed machines.

PULLERS-OVER, HAND.

The hand puller-over is his own assembler, which occupation is described above. With the parts assembled, he takes hand pincers and draws the upper over the last and insole, taking care that the upper keeps its proper position, and drives a tack at the toe and two on either side to hold the upper in position for the laster.

PULLERS-OVER, MACHINE.

Where shoes are pulled over by machine, they are first assembled and put over the last by the assembler. The machine puller-over places the shoe in the machine and the pincers of the machine grasp the leather at different points on each side of the shoe. The operator stands so that he can see when the upper is properly centered. He presses a foot lever closing the pincers, which draw the leather securely against the last. The machine stops at this point and the operator can start or stop the machine at will. The operator now examines the shoe to see whether all the parts have been evenly pulled over the last. Where a part has not been properly pulled over it can be adjusted to the desired point by levers. When satisfied that the shoe is properly adjusted, the operator presses a foot lever, the pincers move toward each other, drawing the leather around the last, and at the same time the machine automatically drives two tacks on each side and one at the top through the upper and insole into the last to hold the upper in position.

TURN LASTERS, HAND.

The turn laster, working by hand, uses only hand tools, as pincers, hammers, etc. He pulls the upper, inside out, over the last upon which he has already placed the outsole. When he has pulled the upper smoothly over the last he tacks it to the sole. Sometimes the work is divided between first and second lasters. After the opera-

tions described above, which are performed by the first laster, the shoe goes to the Goodyear stitching-machine operator to be sewed. After sewing, all tacks are removed and all surplus upper stock trimmed off. The last is then removed and the shoe turned right side out. The second laster straightens out the upper and lining and inserts a shank piece which extends from the back of the heel to the ball of the shoe. He drives one tack into this shank piece and sticks it to the sole with glue. This is to stiffen the shank. He then inserts a last and smoothes the shoe.

BOTTOMING DEPARTMENT.

All operations in the bottoming department are usually performed by men.

BUFFERS.

After the shoe has been bottomed, the buffer removes stains from the sole and gives it a smooth, finished appearance by holding it against a revolving roll or wheel covered with sandpaper or emery paper.

EDGE SETTERS.

The edge setter holds the edge of the sole against a machine having hot irons shaped to fit the edge of the sole, which irons vibrate rapidly and give a lasting polish to the edge.

EDGE TRIMMERS.

The operator holds the edge of the sole against a machine having a series of revolving knives that trim the edge smooth and to the desired shape. This operation comes after the bottom has been sewed on and precedes edge setting.

GOODYEAR STITCHERS.

The operator uses a Goodyear outsole lock-stitch machine to stitch the outsole to the welt. The seam is run in the channel in the outsole through both outsole and welt on the outside of the shoe. The stitches show on the upper surface of the welt and are covered on the under surface of the sole by cementing down the lip of the channel.

GOODYEAR WELTERS.

The welt is a narrow strip of leather to which the outsole is to be stitched. It extends around the edge of the sole as far back as the breast of the heel. By one operation of the machine both the upper and the welt are sewed to the insole, the thread passing through the lip of the channel in the insole. The outsole is stitched to the welt in a later operation.

HEEL BREASTERS.

The heel breaster operates a machine having a knife which cuts to shape and trims evenly the breast or front surface of the heel, cutting down to the outsole, but not cutting into it.

HEEL BURNISHERS.

The final operation on the heel is the burnishing. The operator holds the shoe with his hand in such position that the heel comes in contact with a wheel on the burnishing machine, which gives it a hard, smooth surface. Hot wax is carried to the heel by a small disk and applied by a series of rubbing blows, which beat the wax thoroughly into the heel. A revolving brush on the same machine brings the heel to a perfectly smooth surface.

HEELERS.

The heels come to the heeler ready-made, except for the top lift or last layer of leather. A helper sticks nails into a steel plate. The helper places the shoe on a jack or metal last, puts the heel in position, swings the nail plate into place over the heel when the nails are dropped into another plate over the heel. By operating a foot lever another part of the machine drives the nails down through the heel, the insole, and the upper folded between the insole and the heel, and clinches the nails back into the leather of the insole. The nails protrude slightly above the unfinished heel. The top lift, coated with cement, is then pressed down by the machine on the protruding nails.

HEEL SCOURERS.

This operator holds the shoe by hand so the heel, trimmed but yet not smooth, comes in contact with rolls covered with sandpaper, which smooth the heel. The next operation on the heel is burnishing.

HEEL-SEAT NAILERS.

The heel seat is the heel end of the sole. The insole, the outsole, and the part of the upper brought in between them are nailed together by machine. Small brass nails are driven automatically through the parts and clinched on the insole side. The shoe is placed on a jack and the work of the operator is to guide it during the nailing.

HEEL SLUGGERS.

The slugger operates a machine which drives small pieces of brass or other metal, called "slugs," into the toplift of the heel to protect it from wear. The operator of this machine adjusts the plate so as to place accurately the desired number of slugs, and the machine automatically cuts off and drives the slugs as they are drawn from a coil of wire.

HEEL TRIMMERS OR SHAVERS.

The heel, when the shoe is received from the heeler, is rough and larger than the required size. The trimmer or shaver holds the shoe by hand in such position that the heel comes in contact with a series of revolving knives on his machine which cut away the heel to conform to the desired contour, as indicated by the top lift, which is of exact size when put on by the heeler. The machine has two sets of knives. With the first set the trimmer shaves that part of the heel from the top lift to the sole, then with the other set he trims the edge of the sole, taking care not to cut the upper.

LEVELERS.

The operation of leveling to correct any unevenness in the bottom of the shoe is done with an automatic sole-leveling machine. The operator places the shoe on a jack or metal last, which he attaches to the machine, where it is securely held by the spindle and a toe rest. He presses a foot lever and the shoe passes automatically beneath a roll under heavy pressure. This roll moves with a vibrating motion over the middle of the sole of the shoe from the toe down to and into the shank and passes back again to the toe. The roll then cants to the right and repeats the operation on that side of the sole, returning to the toe as before. It then cants to the left, repeating the operation on that side, after which the shoe automatically drops forward and is relieved from the pressure. While one shoe is under pressure the operator is preparing another shoe for the operation.

McKAY SEWERS.

This operator uses a McKay sewing machine to sew together the outsole, the upper, and the insole—the three parts being sewed together in one operation, except the heel seat, which is nailed. No welt is used in the McKay process, the seam being embedded in the channel of the outsole; the opposite side of the seam is on the inside of the shoe instead of on the top of the welt outside the shoe, as in the welt process of manufacture.

ROUGH ROUNDERS.

This operation consists of trimming by machine the edge of the outsole and welt so that they will extend a uniform distance from the upper. It is the first operation on the edge of the sole in the Goodyear process. The machine also cuts a channel in the outsole, in which the thread is embedded, when the Goodyear stitching is done later.

FINISHING DEPARTMENT.

TREERS OR IRONERS, HAND.

The treer places the shoe on a form, the shape of a last, supported on a frame. By pressing a foot lever the form is expanded so that the shoe fits tight over it. The tools of the treer are a hot iron, brush, cloth, etc. The treer brushes the shoe, cleans spots and discolorations, remedies any slight cut or blemish, and rubs the upper with a hot iron to take out wrinkles and produce a smooth surface. As females are engaged in this occupation to a considerable extent, data are shown for both sexes.

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Cutting Department.											
Cutters, lining, cloth, male:											
31 establishments.	{ 1911	115	55.4	\$0.2701	\$14.87	16	7	27	17	45	3
	{ 1912	128	54.8	.2800	15.23	20	12	43	14	34	5
72 establishments.	{ 1912	297	55.2	.2902	15.89	35	18	90	66	48	40
	{ 1913	258	54.4	.3143	16.99	37	18	110	49	37	7
Cutters, vamp and whole shoe, hand, male:											
20 establishments.	{ 1907	919	54.9	.3250	(1)	11	157	343	252	156	.....
	{ 1908	907	54.8	.3323	(1)	6	175	331	283	112	.....
	{ 1909	907	54.7	.3399	(1)	14	159	346	286	102	.....
	{ 1910	852	54.7	.3448	(1)	13	176	278	291	94	.....
48 establishments.	{ 1910	1,650	56.0	.3188	17.86	13	176	405	395	319	342
	{ 1911	1,602	56.2	.3169	17.75	14	158	425	398	311	296
64 establishments.	{ 1911	2,066	56.2	.3127	17.50	.....	158	589	587	384	348
	{ 1912	1,906	55.0	.3222	17.63	217	162	720	272	323	212
71 establishments.	{ 1912	1,995	55.0	.3215	17.58	242	162	738	297	336	220
	{ 1913	1,987	54.5	.3511	19.05	231	224	803	364	313	52
Cutters, vamp and whole shoe, machine, male:											
17 establishments.	{ 1910	235	57.8	.3013	17.23	.....	.....	13	70	98	54
	{ 1911	226	57.2	.3000	17.09	.....	.....	15	75	102	34
20 establishments.	{ 1911	270	57.0	.3126	17.69	.....	.....	59	69	87	55
	{ 1912	300	55.5	.3186	17.54	29	24	113	.....	85	49
33 establishments.	{ 1912	490	55.8	.3134	17.36	29	24	186	41	124	86
	{ 1913	549	55.3	.3234	17.77	32	27	213	117	121	39
Skivers, upper, machine, male:											
12 establishments.	{ 1910	74	54.7	.2878	15.80	.....	.....	49	13	12	.....
	{ 1911	79	54.7	.3139	17.15	.....	.....	52	21	6	.....
28 establishments.	{ 1911	136	54.8	.2921	15.98	.....	.....	92	24	20	.....
	{ 1912	146	54.6	.2885	15.73	.....	10	100	11	24	1
32 establishments.	{ 1912	156	54.7	.2824	15.41	.....	10	105	11	29	1
	{ 1913	134	54.5	.2987	16.23	.....	11	87	24	12	.....

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 employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Cutting Department—Con.											
Skivers, upper, machine, female:											
13 establishments.	{ 1907 1908 1909 1910	74 70 79 85	56.1 56.5 56.3 56.0	\$0.1875 .1918 .1914 .1954	(1) (1) (1) (1)	----- ----- ----- -----	----- ----- ----- -----	8 7 11 8	37 27 31 35	29 36 37 42	----- ----- ----- -----
49 establishments.	{ 1910 1911	338 314	57.0 57.3	.1749 .1757	\$9.94 9.97	----- -----	1 2	30 25	40 25	81 84	100 84
60 establishments.	{ 1911 1912	374 345	57.0 55.1	.1758 .1914	9.97 10.54	----- -----	----- 9	25 26	33 158	113 50	108 91
67 establishments.	{ 1912 1913	371 439	55.0 54.6	.1925 .2088	10.58 11.38	----- -----	9 12	26 32	179 231	59 104	87 60
Sole-leather Department.											
Channelers, insole and outsole, male:											
10 establishments.	{ 1907 1908 1909 1910	23 23 23 23	55.1 55.1 54.7 54.7	.2829 .2962 .3057 .3004	(1) (1) (1) (1)	4 4 4 4	----- ----- ----- -----	8 8 10 10	2 2 2 2	9 9 7 7	----- ----- ----- -----
44 establishments.	{ 1910 1911	138 140	56.3 56.2	.2963 .3056	16.61 17.12	4 4	7 7	39 37	22 31	48 48	18 13
57 establishments.	{ 1911 1912	157 149	56.3 55.5	.2889 .2956	16.21 16.35	----- -----	----- 12	7 61	46 31	38 30	45 39
75 establishments.	{ 1912 1913	200 196	55.9 55.4	.2979 .3334	16.62 18.42	----- -----	----- 17	12 71	63 71	52 59	57 44
Cutters, outsole, male:											
10 establishments.	{ 1907 1908 1909 1910	50 47 49 54	54.8 54.5 54.5 54.4	.3144 .3075 .3065 .3089	(1) (1) (1) (1)	----- ----- ----- -----	----- ----- ----- -----	38 35 37 42	5 10 10 10	7 2 2 2	----- ----- ----- -----
31 establishments.	{ 1910 1911	143 129	56.6 56.5	.2735 .2770	15.44 15.62	----- -----	----- -----	----- -----	48 40	29 34	46 39
36 establishments.	{ 1911 1912	146 161	56.6 56.4	.2784 .2861	15.70 16.09	----- -----	----- 2	43 56	43 34	39 48	21 21
42 establishments.	{ 1912 1913	177 196	56.2 55.4	.2813 .3025	15.75 16.69	----- -----	----- 16	2 83	66 83	39 46	49 51
Fitting or Stitching Department.											
Backstay stitchers, female:											
16 establishments.	{ 1907 1908 1909 1910	81 78 91 95	56.6 56.5 56.3 56.2	.1708 .1858 .1770 .1793	(1) (1) (1) (1)	----- ----- ----- -----	----- ----- ----- -----	15 13 21 16	18 23 25 25	48 42 45 54	----- ----- ----- -----
49 establishments.	{ 1910 1911	307 299	56.6 56.6	.1765 .1802	9.95 10.16	----- -----	1 1	32 28	35 36	88 79	84 99
67 establishments.	{ 1911 1912	392 378	56.5 55.2	.1854 .1893	10.42 10.42	----- -----	----- 11	28 8	69 203	110 41	121 97
78 establishments.	{ 1912 1913	426 389	55.1 54.7	.1874 .1945	10.31 10.62	----- -----	12 11	8 12	231 208	48 114	109 44

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Fitting or Stitching Department—Continued.											
Button fasteners, female:											
26 establishments.....	{ 1911	55	56.4	\$0.1572	\$8.88	.....	5	9	12	26	3
	{ 1912	70	55.9	.1831	10.21	.....	6	28	2	34	.....
72 establishments.....	{ 1912	205	55.3	.1768	9.78	3	15	101	19	58	9
	{ 1913	232	54.8	.1993	10.95	10	17	127	22	56	.....
Buttonhole makers, female:											
33 establishments.....	{ 1911	108	56.3	.1757	9.83	.....	2	29	23	48	6
	{ 1912	168	55.4	.1801	9.96	.....	17	79	8	64	.....
74 establishments.....	{ 1912	468	55.1	.1796	9.87	12	27	257	41	111	20
	{ 1913	517	54.7	.1936	10.60	6	41	306	70	94	.....
Closers-on, female:											
18 establishments.....	{ 1907	104	55.3	.2003	(1)	.....	17	25	34	28	.....
	{ 1908	100	55.1	.1901	(1)	.....	20	21	41	18	.....
	{ 1909	101	55.1	.2072	(1)	.....	19	19	45	18	.....
	{ 1910	95	55.0	.1979	(1)	.....	23	19	34	19	.....
49 establishments.....	{ 1910	262	57.1	.1784	10.13	1	23	34	57	60	87
	{ 1911	277	57.1	.1776	10.09	1	5	36	89	72	74
65 establishments.....	{ 1911	350	56.9	.1796	10.18	.....	5	62	108	88	87
	{ 1912	331	54.9	.1865	10.21	15	16	178	36	71	15
74 establishments.....	{ 1912	344	55.0	.1857	10.17	15	16	182	40	76	15
	{ 1913	349	54.4	.1941	10.53	18	17	206	73	35	.....
Lining makers, female:											
19 establishments.....	{ 1907	124	56.2	.1754	(1)	.....	.....	24	44	56	.....
	{ 1908	112	56.1	.1654	(1)	.....	.....	24	42	46	.....
	{ 1909	122	56.0	.1730	(1)	.....	.....	28	46	48	.....
	{ 1910	154	55.9	.1634	(1)	.....	.....	33	55	66	.....
53 establishments.....	{ 1910	585	56.5	.1639	9.19	2	88	76	145	141	133
	{ 1911	576	56.5	.1619	9.08	3	81	75	162	154	101
72 establishments.....	{ 1911	721	56.5	.1656	9.28	.....	81	136	190	189	125
	{ 1912	706	55.0	.1709	9.36	21	39	373	85	161	27
80 establishments.....	{ 1912	764	55.0	.1699	9.31	21	39	391	98	188	27
	{ 1913	854	54.6	.1902	10.38	29	47	469	199	110	.....
Tip stitchers, female:											
36 establishments.....	{ 1911	134	55.8	.2049	11.38	.....	10	38	32	49	5
	{ 1912	137	55.2	.2157	11.87	.....	12	68	17	40	.....
79 establishments.....	{ 1912	335	54.9	.2076	11.36	10	17	186	48	68	6
	{ 1913	337	54.7	.2186	11.94	10	27	175	78	47	.....
Top stitchers or undertrimmers, female:											
17 establishments.....	{ 1907	151	56.3	.1849	(1)	.....	.....	30	45	76	.....
	{ 1908	144	56.3	.1898	(1)	.....	.....	31	41	72	.....
	{ 1909	156	56.3	.1957	(1)	.....	.....	31	47	78	.....
	{ 1910	164	56.0	.2002	(1)	.....	.....	32	49	83	.....
53 establishments.....	{ 1910	721	56.9	.1884	10.69	3	64	111	148	192	203
	{ 1911	742	56.8	.1915	10.83	4	63	109	169	232	165
73 establishments.....	{ 1911	911	56.7	.1941	10.95	.....	63	183	212	268	185
	{ 1912	950	54.9	.1978	10.82	29	81	521	80	212	27
82 establishments.....	{ 1912	1,033	54.9	.1976	10.81	29	81	572	96	228	27
	{ 1913	1,070	54.6	.2104	11.47	25	96	573	237	139	.....

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Fitting or Stitching Department—Concluded.											
Vampers, male:											
13 establishments.....	{ 1907	167	54.9	\$.3175	(1)	-----	7	119	9	32	-----
	1908	99	55.2	.2869	(1)	-----	18	41	15	25	-----
	1909	150	54.6	.2867	(1)	-----	58	51	21	20	-----
	1910	134	54.5	.2941	(1)	-----	48	46	18	22	-----
33 establishments.....	{ 1910	263	55.5	.2927	\$16.24	-----	48	67	63	57	28
	1911	249	55.7	.3034	16.88	-----	21	69	81	53	25
51 establishments.....	{ 1911	343	55.5	.3147	17.42	-----	21	138	94	61	29
	1912	435	54.9	.3100	16.97	15	56	199	57	93	15
66 establishments.....	{ 1912	483	55.0	.3059	16.76	15	56	215	67	112	18
	1913	554	54.8	.3195	17.47	12	74	227	164	72	5
Vampers, female:											
22 establishments.....	{ 1907	351	55.7	.2463	(1)	4	54	56	105	132	-----
	1908	321	55.9	.2424	(1)	3	18	60	119	121	-----
	1909	391	55.5	.2526	(1)	5	77	66	123	120	-----
	1910	366	55.5	.2570	(1)	6	39	67	129	125	-----
53 establishments.....	{ 1910	863	56.9	.2378	13.46	20	39	125	206	241	232
	1911	909	56.7	.2382	13.43	26	45	138	229	268	203
71 establishments.....	{ 1911	1,124	56.5	.2384	13.46	21	45	191	291	315	261
	1912	1,019	55.1	.2334	12.84	15	66	546	107	237	48
79 establishments.....	{ 1912	1,088	55.1	.2305	12.68	15	66	575	121	263	48
	1913	1,072	54.7	.2462	13.45	14	72	620	216	150	-----
Lasting Department.											
Assemblers, for pulling-over machine, male:											
17 establishments.....	{ 1911	218	55.4	.2739	15.14	-----	-----	93	69	49	7
	1912	228	54.8	.2645	14.45	31	-----	102	37	47	11
50 establishments.....	{ 1912	542	55.8	.2376	13.21	31	26	174	96	131	84
	1913	532	55.5	.2611	14.46	14	31	201	134	121	31
Bed-machine operators, male:											
15 establishments.....	{ 1907	246	54.7	.3497	(1)	-----	54	126	22	44	-----
	1908	300	54.8	.3336	(1)	-----	23	194	31	52	-----
	1909	307	54.8	.3424	(1)	-----	31	189	34	53	-----
	1910	300	55.0	.3214	(1)	-----	15	169	36	80	-----
35 establishments.....	{ 1910	513	56.4	.3108	17.50	-----	15	169	77	153	99
	1911	568	56.1	.3229	18.09	-----	26	172	159	113	98
54 establishments.....	{ 1911	793	56.1	.3210	17.96	-----	26	263	201	183	120
	1912	1,004	55.5	.3042	16.88	-----	99	438	151	218	98
65 establishments.....	{ 1912	1,127	55.6	.3004	16.67	-----	99	446	216	246	120
	1913	1,220	55.2	.3304	18.21	-----	123	502	354	200	41
Hand-method lasting machine operators, male:											
6 establishments.....	{ 1907	99	57.1	.3111	(1)	-----	-----	-----	39	60	-----
	1908	89	56.6	.3070	(1)	-----	-----	-----	48	41	-----
	1909	75	56.7	.3088	(1)	-----	-----	-----	39	36	-----
	1910	80	56.1	.3223	(1)	-----	-----	-----	51	29	-----
33 establishments.....	{ 1910	325	57.4	.3062	17.49	4	-----	39	90	86	106
	1911	352	57.3	.3094	17.65	5	-----	45	94	107	101
39 establishments.....	{ 1911	477	57.0	.3164	17.96	-----	-----	94	137	112	134
	1912	478	55.8	.3242	18.03	26	-----	184	86	97	85
41 establishments.....	{ 1912	456	55.7	.3251	18.05	26	-----	167	102	83	78
	1913	449	55.3	.3572	19.72	13	-----	200	144	66	26

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—						
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	
Lasting Department—Con.												
Pullers-over, hand, male:												
13 establishments.....	{	1907	345	56.6	\$0.2558	(1)	.....	.....	77	73	195	.....
		1908	330	56.6	.2490	(1)	.....	.....	74	63	193	.....
		1909	366	56.2	.2867	(1)	.....	.....	111	82	173	.....
		1910	384	55.9	.2763	(1)	.....	.....	105	99	180	.....
35 establishments.....	{	1910	784	56.4	.2913	\$16.38	5	19	207	178	228	147
		1911	784	56.2	.3809	17.28	7	27	204	206	234	106
45 establishments.....	{	1911	897	56.3	.3121	17.50	.....	27	263	234	219	154
		1912	899	55.4	.3190	17.62	24	111	297	188	212	67
52 establishments.....	{	1912	1,066	55.3	.3155	17.41	24	111	343	287	195	76
		1913	937	55.3	.3326	18.37	.....	65	342	332	190	8
Pullers-over, machine, male:												
31 establishments.....	{	1910	251	57.4	.3204	18.37	.....	.....	50	36	85	80
		1911	266	56.5	.3188	17.95	.....	.....	77	91	47	51
43 establishments.....	{	1911	328	56.1	.3253	18.18	.....	.....	110	120	52	46
		1912	305	55.6	.3124	17.31	15	34	113	43	47	53
60 establishments.....	{	1912	402	55.8	.3124	17.39	7	34	148	64	82	67
		1913	421	55.4	.3513	19.42	5	19	183	107	82	25
Turn lasters, hand, male:												
28 establishments.....	{	1912	452	55.6	.2573	15.25	.....	106	56	74	127	89
		1913	524	55.0	.3100	17.00	.....	140	122	89	149	24
Bottoming Department.												
Buffers, male:												
36 establishments.....	{	1911	174	55.8	.2940	16.37	.....	5	51	49	67	2
		1912	170	55.8	.3068	17.06	.....	5	52	48	58	7
72 establishments.....	{	1912	338	56.0	.2889	16.09	.....	21	107	67	105	38
		1913	354	55.3	.3186	17.57	.....	23	123	134	57	17
Edge setters, male:												
18 establishments.....	{	1907	134	56.0	.3999	(1)	.....	.....	31	50	53	.....
		1908	142	56.2	.3509	(1)	.....	.....	29	48	65	.....
		1909	150	56.1	.3806	(1)	.....	.....	35	53	62	.....
		1910	163	55.9	.3852	(1)	.....	.....	34	58	71	.....
54 establishments.....	{	1910	560	56.3	.3733	20.94	3	72	97	142	146	100
		1911	573	56.3	.3800	21.31	4	60	113	148	147	101
68 establishments.....	{	1911	722	56.3	.3800	21.29	.....	60	191	170	177	124
		1912	698	55.8	.3892	21.63	.....	52	257	149	142	98
78 establishments.....	{	1912	789	55.8	.3785	21.05	.....	52	273	190	171	103
		1913	815	55.3	.4129	22.78	.....	64	300	276	148	27
Edge trimmers, male:												
23 establishments.....	{	1907	283	55.3	.4043	(1)	.....	46	93	67	77	.....
		1908	302	55.1	.3863	(1)	.....	48	113	79	62	.....
		1909	287	55.2	.3975	(1)	.....	46	93	83	65	.....
		1910	305	55.0	.4010	(1)	.....	58	97	83	67	.....
55 establishments.....	{	1910	573	56.4	.3818	21.44	3	58	117	137	137	121
		1911	615	56.2	.3899	21.80	4	55	139	175	140	102
71 establishments.....	{	1911	765	56.1	.3890	21.73	.....	55	220	200	174	116
		1912	751	55.9	.3855	21.48	.....	51	264	146	192	96
81 establishments.....	{	1912	827	55.9	.3797	21.15	.....	51	285	176	214	101
		1913	838	55.4	.4100	22.66	.....	49	314	285	160	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Bottoming Department—Continued.											
Goodyear stitchers, male:											
21 establishments.....	1907	215	55.3	\$0.4034	(1)	-----	23	93	45	54	-----
	1908	214	55.1	.3759	(1)	-----	21	92	59	42	-----
	1909	221	55.3	.3944	(1)	-----	26	76	66	53	-----
	1910	224	55.2	.3875	(1)	-----	21	77	70	56	-----
45 establishments.....	1910	366	56.3	.3739	\$20.97	3	21	88	96	89	69
	1911	398	56.0	.3879	21.65	3	28	106	118	81	62
61 establishments.....	1911	529	55.9	.3868	21.56	-----	28	184	133	110	74
	1912	562	55.9	.3847	21.40	-----	38	221	103	105	95
70 establishments.....	1912	627	55.9	.3757	20.96	-----	38	232	125	128	104
	1913	642	55.2	.3986	21.96	-----	60	267	184	119	12
Goodyear welters, male:											
14 establishments.....	1907	67	55.9	.4087	(1)	-----	-----	22	19	26	-----
	1908	70	56.0	.4087	(1)	-----	-----	23	18	29	-----
	1909	74	55.7	.4435	(1)	-----	-----	27	21	26	-----
	1910	81	55.6	.4222	(1)	-----	-----	29	20	32	-----
45 establishments.....	1910	275	56.2	.4373	24.49	2	19	79	62	61	52
	1911	289	56.0	.4637	25.88	2	27	78	79	52	51
60 establishments.....	1911	392	56.0	.4520	25.21	-----	27	132	93	77	63
	1912	411	55.8	.4544	25.27	-----	40	162	68	84	57
70 establishments.....	1912	466	55.8	.4453	24.75	-----	40	177	91	98	60
	1913	472	55.3	.5006	27.60	-----	44	188	139	85	16
Heel breasters, male:											
35 establishments.....	1911	76	56.1	.2906	16.23	-----	2	20	20	31	3
	1912	77	55.7	.3017	16.74	-----	8	23	19	23	4
75 establishments.....	1912	163	55.9	.2952	16.36	-----	16	48	38	40	21
	1913	171	55.4	.3127	17.27	-----	17	57	56	34	7
Heel burnishers, male:											
33 establishments.....	1911	106	55.6	.3062	16.97	-----	2	42	27	34	1
	1912	108	55.4	.3127	17.31	-----	5	45	25	30	3
74 establishments.....	1912	254	56.1	.2921	16.31	-----	13	84	57	63	37
	1913	268	55.4	.3130	17.29	-----	15	108	83	51	11
Heelers, male:											
31 establishments.....	1911	115	55.8	.4034	22.52	-----	10	33	26	44	2
	1912	124	55.7	.3906	21.71	-----	8	46	25	39	6
67 establishments.....	1912	254	56.2	.3777	21.17	-----	9	87	49	69	40
	1913	269	55.4	.4242	23.41	-----	12	114	83	52	8
Heel scourers, male:											
35 establishments.....	1911	125	54.8	.2908	16.12	-----	7	44	30	42	2
	1912	154	55.5	.2940	16.25	-----	15	59	24	52	4
78 establishments.....	1912	342	56.0	.2885	16.09	-----	20	116	67	89	50
	1913	364	55.4	.3135	17.35	-----	36	123	122	66	17
Heel-seat nailers, male:											
28 establishments.....	1911	43	55.8	.2987	16.61	-----	-----	17	10	15	1
	1912	43	55.8	.2706	15.04	-----	-----	19	9	13	2
72 establishments.....	1912	141	56.4	.2537	14.22	-----	10	40	26	43	22
	1913	135	55.5	.2918	16.11	-----	12	47	38	33	5
Heel sluggers, male:											
34 establishments.....	1911	77	55.9	.2848	15.79	-----	-----	27	19	28	3
	1912	79	55.8	.2901	16.11	-----	-----	31	17	27	4
78 establishments.....	1912	182	56.0	.2817	15.65	-----	12	57	43	48	22
	1913	179	55.5	.3097	17.10	-----	9	61	65	37	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—Continued.

NUMBER—Continued.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Bottoming Department—											
Concluded.											
Heel trimmers or shavers, male:											
23 establishments.....	{	1907 99	55.1	\$0.4382	(1)	.....	25	24	29	21	.....
		1908 84	55.2	.4387	(1)	.....	15	22	29	18	.....
		1909 82	55.3	.4465	(1)	.....	12	22	28	20	.....
		1910 91	55.2	.4430	(1)	.....	17	21	31	22	.....
55 establishments.....	{	1910 189	56.6	.4096	\$23.03	1	17	27	54	50	40
		1911 193	56.5	.4152	23.34	1	16	29	59	52	36
71 establishments.....	{	1911 246	56.5	.4154	23.32	.....	16	47	80	60	43
		1912 239	56.0	.4148	23.10	.....	18	70	56	63	32
81 establishments.....	{	1912 252	56.0	.4199	23.39	.....	18	75	61	66	32
		1913 277	55.4	.4482	24.74	.....	30	90	91	59	7
Levelers, male:											
36 establishments.....	{	1911 102	55.8	.2968	16.49	.....	7	32	23	37	3
		1912 102	55.7	.3090	17.13	.....	7	37	22	30	6
75 establishments.....	{	1912 268	55.9	.2864	15.90	.....	25	80	63	62	38
		1913 289	55.2	.3037	16.74	.....	35	95	90	62	7
McKay sewers, male:											
5 establishments.....	{	1907 34	55.2	.2880	(1)	.....	14	.....	11	9	.....
		1908 25	55.3	.3113	(1)	.....	9	.....	9	7	.....
		1909 28	55.7	.2737	(1)	.....	9	.....	8	11	.....
		1910 26	55.2	.2787	(1)	.....	10	.....	7	9	.....
28 establishments.....	{	1910 95	57.1	.2897	16.46	1	10	5	24	30	25
		1911 107	56.7	.2900	16.35	1	13	7	29	43	14
30 establishments.....	{	1911 129	56.5	.2956	16.63	.....	13	9	49	43	15
		1912 128	56.3	.2854	16.10	.....	3	24	40	50	11
32 establishments.....	{	1912 131	56.1	.2856	16.00	.....	3	26	42	52	8
		1913 136	55.6	.3186	17.70	.....	5	35	62	30	4
Rough rounders, male:											
15 establishments.....	{	1907 48	56.0	.3874	(1)	.....	.....	13	15	20	.....
		1908 49	56.0	.3683	(1)	.....	.....	13	16	20	.....
		1909 54	55.8	.4342	(1)	.....	.....	18	16	20	.....
		1910 56	55.5	.4115	(1)	.....	.....	19	16	21	.....
44 establishments.....	{	1910 165	56.7	.4056	22.85	1	.....	41	40	44	39
		1911 167	56.5	.4375	24.56	1	.....	39	59	33	35
60 establishments.....	{	1911 221	56.3	.4364	24.44	.....	2	65	68	43	43
		1912 248	55.9	.4388	24.41	.....	23	88	50	50	37
69 establishments.....	{	1912 273	55.9	.4352	24.21	.....	23	93	60	56	41
		1913 265	55.2	.4967	27.37	.....	27	99	84	47	8
Finishing Department.											
Treers or ironers, hand, male:											
17 establishments.....	{	1907 381	54.7	.3047	(1)	.....	107	153	72	49	.....
		1908 364	54.5	.2941	(1)	.....	107	132	102	23	.....
		1909 377	54.6	.2925	(1)	.....	105	124	113	35	.....
		1910 444	54.5	.2876	(1)	.....	173	110	114	47	.....
44 establishments.....	{	1910 832	55.9	.2594	14.42	.....	173	140	225	150	144
		1911 786	56.1	.2602	14.50	.....	100	156	250	141	139
63 establishments.....	{	1911 1,006	56.0	.2668	14.84	.....	100	265	311	181	149
		1912 1,076	55.9	.2618	14.57	.....	115	334	239	239	149
73 establishments.....	{	1912 1,143	55.8	.2656	14.76	.....	115	385	263	220	160
		1913 1,110	55.3	.2817	15.54	.....	125	407	319	220	39

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Finishing Department— Concluded.											
Treeers or ironers, hand, female:											
8 establishments.....	{ 1910 1911	74 70	57.8 57.7	\$0.1432 .1439	\$8.19 8.21	..... .....	..... .....	22 23	..... .....	32 25	20 22
11 establishments.....	{ 1911 1912	85 105	58.1 54.3	.1446 .1539	8.32 8.35	..... .....	..... 11	23 67	..... 13	25 14	37
13 establishments.....	{ 1912 1913	108 110	54.4 54.6	.1530 .1578	8.32 8.56	..... .....	11 20	67 61	13	17 29	..........

PER CENT.

Cutting Department.											
Cutters, lining, cloth, male:											
31 establishments.....	{ 1911	115	55.4	\$0.2701	\$14.87	13.9	6.1	23.5	14.8	39.1	2.6
	{ 1912	128	54.8	.2800	15.23	15.6	9.4	33.6	10.9	26.6	3.9
72 establishments.....	{ 1912	297	55.2	.2902	15.89	11.8	6.1	30.3	22.2	16.2	13.5
	{ 1913	258	54.4	.3143	16.99	14.3	7.0	42.6	19.0	14.3	2.7
Cutters, vamp and whole shoe, hand, male:											
20 establishments.....	{ 1907	919	54.9	.3250	(1)	1.2	17.1	37.3	27.4	17.0	.....
	{ 1908	907	54.8	.3323	(1)	.7	19.3	36.5	31.2	12.3	.....
	{ 1909	907	54.7	.3399	(1)	1.5	17.5	38.1	31.5	11.2	.....
	{ 1910	852	54.7	.3448	(1)	1.5	20.7	32.6	34.2	11.0	.....
48 establishments.....	{ 1910	1,650	56.3	.3188	17.86	.8	10.7	24.5	23.9	19.3	20.7
	{ 1911	1,602	56.2	.3169	17.75	.9	9.9	26.5	24.8	19.4	18.5
64 establishments.....	{ 1911	2,066	56.2	.3127	17.50	.....	7.6	28.5	28.4	18.6	16.8
	{ 1912	1,906	55.0	.3222	17.63	11.4	8.5	37.8	14.3	16.9	11.1
71 establishments.....	{ 1912	1,995	55.0	.3215	17.58	12.1	8.1	37.0	14.9	16.8	11.0
	{ 1913	1,987	54.5	.3511	19.05	11.6	11.3	40.4	18.3	15.8	2.6
Cutters, vamp and whole shoe, machine, male:											
17 establishments.....	{ 1910	235	57.8	.3013	17.23	.....	.....	5.5	29.8	41.7	23.0
	{ 1911	226	57.2	.3000	17.09	.....	.....	6.6	33.2	45.1	15.0
20 establishments.....	{ 1911	270	57.0	.3126	17.69	.....	.....	21.9	25.6	32.2	20.4
	{ 1912	300	55.5	.3186	17.54	9.7	8.0	37.7	.....	28.3	16.3
33 establishments.....	{ 1912	490	55.8	.3134	17.36	5.9	4.9	38.0	8.4	25.3	17.6
	{ 1913	549	55.3	.3234	17.77	5.8	4.9	38.8	21.3	22.0	7.1
Skivers, upper, machine, male:											
12 establishments.....	{ 1910	74	54.7	.2878	15.80	.....	.....	66.2	17.6	16.2	.....
	{ 1911	79	54.7	.3139	17.15	.....	.....	65.8	26.6	7.6	.....
28 establishments.....	{ 1911	136	54.8	.2921	15.98	.....	.....	67.6	17.6	14.7	.....
	{ 1912	146	54.6	.2885	15.73	.....	6.8	68.5	7.5	16.4	.7
32 establishments.....	{ 1912	156	54.7	.2824	15.41	.....	6.4	67.3	7.1	18.6	.6
	{ 1913	134	54.5	.2987	16.23	.....	8.2	64.9	17.9	9.0	.....

¹Not 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—					
						Over 45 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Cutting Department—											
Concluded.											
Skivers, upper, machine, female:											
13 establishments.....	{ 1907	74	56.1	\$. 1875	(1)	-----	-----	10.8	50.0	39.2	-----
	{ 1908	70	56.5	.1918	(1)	-----	-----	10.0	38.6	51.4	-----
	{ 1909	79	56.3	.1914	(1)	-----	-----	13.9	39.2	46.8	-----
	{ 1910	85	56.0	.1954	(1)	-----	-----	9.4	41.2	49.4	-----
49 establishments.....	{ 1910	338	57.0	.1749	\$9.94	0.3	8.9	11.8	24.0	25.4	29.6
	{ 1911	314	57.3	.1757	9.97	.6	8.0	8.0	26.8	29.9	26.8
60 establishments.....	{ 1911	374	57.0	.1758	9.97	-----	6.7	8.8	30.2	28.9	25.4
	{ 1912	345	55.1	.1914	10.54	2.6	7.5	45.8	14.5	26.4	3.2
67 establishments.....	{ 1912	371	55.0	.1925	10.58	2.4	7.0	48.2	15.9	23.5	3.0
	{ 1913	439	54.6	.2088	11.38	2.7	7.3	52.6	23.7	13.7	-----
Sole-Leather Department.											
Channelers, insole and outsole, male:											
10 establishments.....	{ 1907	23	55.1	.2829	(1)	17.4	-----	34.8	8.7	39.1	-----
	{ 1908	23	55.1	.2962	(1)	17.4	-----	34.8	8.7	39.1	-----
	{ 1909	23	54.7	.3057	(1)	17.4	-----	43.5	8.7	30.4	-----
	{ 1910	23	54.7	.3004	(1)	17.4	-----	43.5	8.7	30.4	-----
44 establishments.....	{ 1910	138	56.3	.2963	16.61	2.9	5.1	28.3	15.9	34.8	13.0
	{ 1911	140	56.2	.3056	17.12	2.9	5.0	26.4	22.1	34.3	9.3
57 establishments.....	{ 1911	157	56.3	.2889	16.21	-----	4.5	29.3	24.2	28.7	13.4
	{ 1912	149	55.5	.2956	16.35	-----	8.1	40.9	20.1	26.2	4.7
72 establishments.....	{ 1912	200	55.9	.2979	16.62	-----	6.0	31.5	26.0	28.5	8.0
	{ 1913	196	55.4	.3334	18.42	-----	8.7	36.2	30.1	22.4	2.6
Cutters, outsole, male:											
10 establishments.....	{ 1907	50	54.8	.3144	(1)	-----	-----	76.0	10.0	14.0	-----
	{ 1908	47	54.5	.3075	(1)	-----	-----	74.5	21.3	4.3	-----
	{ 1909	49	54.5	.3065	(1)	-----	-----	75.5	20.4	4.1	-----
	{ 1910	54	54.4	.3089	(1)	-----	-----	77.8	18.5	3.7	-----
31 establishments.....	{ 1910	143	56.6	.2735	15.44	-----	-----	33.6	20.3	32.2	14.0
	{ 1911	129	56.5	.2770	15.62	-----	-----	31.0	26.4	30.2	12.4
36 establishments.....	{ 1911	146	56.6	.2784	15.70	-----	-----	29.5	29.5	26.7	14.4
	{ 1912	161	56.4	.2861	16.09	-----	1.2	34.8	21.1	29.8	13.0
42 establishments.....	{ 1912	177	56.2	.2813	15.75	-----	1.1	37.3	22.0	27.7	11.9
	{ 1913	196	55.4	.3025	16.69	-----	8.2	42.3	23.5	26.0	-----
Fitting or Stitching Department.											
Backstay stitchers, female:											
16 establishments.....	{ 1907	81	56.6	.1708	(1)	-----	-----	18.5	22.2	59.3	-----
	{ 1908	78	56.5	.1858	(1)	-----	-----	16.7	29.5	53.8	-----
	{ 1909	91	56.3	.1770	(1)	-----	-----	23.1	27.5	49.5	-----
	{ 1910	95	56.2	.1793	(1)	-----	-----	16.8	26.3	56.8	-----
49 establishments.....	{ 1910	307	56.6	.1765	9.95	.3	10.4	11.4	28.7	27.4	21.8
	{ 1911	299	56.6	.1802	10.16	.3	9.4	12.0	26.4	33.1	18.7
67 establishments.....	{ 1911	392	56.5	.1854	10.42	-----	7.1	17.6	28.1	30.9	16.3
	{ 1912	378	55.2	.1893	10.42	2.9	2.1	53.7	10.8	25.7	4.8
78 establishments.....	{ 1912	426	55.1	.1874	10.31	2.8	1.9	54.2	11.3	25.6	4.2
	{ 1913	389	54.7	.1945	10.62	2.8	3.1	53.5	29.3	11.3	-----

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 employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Fitting or Stitching Department—Continued.											
Button fasteners, female:											
26 establishments.....	{ 1911	55	56.4	\$0.1572	\$8.88	.....	9.1	16.4	21.8	47.3	5.5
	{ 1912	70	55.9	.1831	10.21	.....	8.6	40.0	2.9	48.6	.....
72 establishments.....	{ 1912	205	55.3	.1768	9.78	1.5	7.3	49.3	9.3	28.3	4.4
	{ 1913	232	54.8	.1993	10.95	4.3	7.3	54.7	9.5	24.1	.....
Buttonhole makers, female:											
33 establishments.....	{ 1911	108	56.3	.1757	9.83	.....	1.9	26.9	21.3	44.4	5.6
	{ 1912	168	55.4	.1801	9.96	.....	10.1	47.0	4.8	38.1	.....
74 establishments.....	{ 1912	468	55.1	.1796	9.87	2.6	5.8	54.9	8.8	23.7	4.3
	{ 1913	517	54.7	.1936	10.60	1.2	7.9	59.2	13.5	18.2	.....
Closers-on, female:											
18 establishments.....	{ 1907	104	55.3	.2003	(1)	.....	16.3	24.0	32.7	26.9	.....
	{ 1908	100	55.1	.1901	(1)	.....	20.0	21.0	41.0	18.0	.....
	{ 1909	101	55.1	.2072	(1)	.....	18.8	18.8	44.6	17.8	.....
	{ 1910	95	55.0	.1979	(1)	.....	24.2	20.0	35.8	20.0	.....
49 establishments.....	{ 1910	262	57.1	.1784	10.13	.4	8.8	13.0	21.8	22.9	33.2
	{ 1911	277	57.1	.1776	10.09	.4	1.8	13.0	32.1	26.0	26.7
65 establishments.....	{ 1911	350	56.9	.1796	10.18	.....	1.4	17.7	30.9	25.1	24.9
	{ 1912	331	54.9	.1865	10.21	4.5	4.8	53.8	10.9	21.5	4.5
74 establishments.....	{ 1912	344	55.0	.1857	10.17	4.4	4.7	52.9	11.6	22.1	4.4
	{ 1913	349	54.4	.1941	10.53	5.2	4.9	59.0	20.9	10.0	.....
Lining makers, female:											
19 establishments.....	{ 1907	124	56.2	.1754	(1)	.....	.....	19.4	35.5	45.2	.....
	{ 1908	112	56.1	.1654	(1)	.....	.....	21.4	37.5	41.1	.....
	{ 1909	122	56.0	.1730	(1)	.....	.....	23.0	37.7	39.3	.....
	{ 1910	154	55.9	.1634	(1)	.....	.....	21.4	35.7	42.9	.....
53 establishments.....	{ 1910	585	56.5	.1639	9.19	.3	15.0	13.0	24.8	24.1	22.7
	{ 1911	576	56.5	.1619	9.08	.5	14.1	13.0	28.1	26.7	17.5
72 establishments.....	{ 1911	721	56.5	.1656	9.28	.....	11.2	18.9	26.4	26.2	17.3
	{ 1912	706	55.0	.1709	9.36	3.0	5.5	52.8	12.0	22.8	3.8
80 establishments.....	{ 1912	764	55.0	.1699	9.31	2.7	5.1	51.2	12.8	24.6	3.5
	{ 1913	854	54.6	.1902	10.38	3.4	5.5	54.9	23.3	12.9	.....
Tip stitchers, female:											
36 establishments.....	{ 1911	134	55.8	.2049	11.38	.....	7.5	28.4	23.9	36.6	3.7
	{ 1912	137	55.2	.2157	11.87	.....	8.8	49.6	12.4	29.2	.....
79 establishments.....	{ 1912	335	54.9	.2076	11.36	3.0	5.1	55.5	14.3	20.3	1.8
	{ 1913	337	54.7	.2186	11.94	3.0	8.0	51.9	23.1	13.9	.....
Top stitchers or undertrimmers, female:											
17 establishments.....	{ 1907	151	56.3	.1849	(1)	.....	.....	19.9	29.8	50.3	.....
	{ 1908	144	56.3	.1898	(1)	.....	.....	21.5	28.5	50.0	.....
	{ 1909	156	56.3	.1957	(1)	.....	.....	19.9	30.1	50.0	.....
	{ 1910	164	56.0	.2002	(1)	.....	.....	19.5	29.9	50.6	.....
53 establishments.....	{ 1910	721	56.9	.1884	10.69	.4	8.9	15.4	20.5	26.6	28.2
	{ 1911	742	56.8	.1915	10.83	.5	8.5	14.7	22.8	31.3	22.2
73 establishments.....	{ 1911	911	56.7	.1941	10.95	.....	6.9	20.1	23.3	29.4	20.3
	{ 1912	950	54.9	.1978	10.82	3.1	8.5	54.8	8.4	22.3	2.8
82 establishments.....	{ 1912	1,033	54.9	.1976	10.81	2.8	7.8	55.4	9.3	22.1	2.6
	{ 1913	1,070	54.6	.2104	11.47	2.3	9.0	53.6	22.1	13.0	.....

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Fitting or Stitching Department—Concluded.											
Vampers, male:											
13 establishments.....	{ 1907	167	54.9	\$0.3175	(1)	.....	4.1	71.3	5.4	19.2	.....
	1908	99	55.2	.2869	(1)	.....	18.2	41.4	15.2	25.3	.....
	1909	150	54.6	.2867	(1)	.....	38.7	34.0	14.0	13.3	.....
	1910	134	54.5	.2941	(1)	.....	35.8	34.3	13.4	16.4	.....
33 establishments.....	{ 1910	263	55.5	.2927	\$16.24	.....	18.3	25.5	24.0	21.7	10.6
	1911	249	55.7	.3034	16.88	.....	8.4	27.7	32.5	21.3	10.0
51 establishments.....	{ 1911	343	55.5	.3147	17.42	.....	6.1	40.2	27.4	17.8	8.5
	1912	435	54.9	.3100	16.97	3.4	12.9	45.7	13.1	21.4	3.4
66 establishments.....	{ 1912	483	55.0	.3059	16.76	3.1	11.6	44.5	13.9	23.2	3.7
	1913	554	54.8	.3195	17.47	2.2	13.4	41.0	29.6	13.0	.9
Vampers, female:											
22 establishments.....	{ 1907	351	55.7	.2463	(1)	1.1	15.4	16.0	29.9	37.6	.....
	1908	321	55.9	.2424	(1)	.9	5.6	18.7	37.1	37.7	.....
	1909	391	55.5	.2526	(1)	1.3	19.7	16.9	31.5	30.7	.....
	1910	366	55.5	.2570	(1)	1.6	10.7	18.3	35.2	34.2	.....
53 establishments.....	{ 1910	863	56.9	.2378	13.46	2.3	4.5	14.5	23.9	27.9	26.9
	1911	909	56.7	.2382	13.43	2.9	5.0	15.2	25.2	29.5	22.3
71 establishments.....	{ 1911	1,124	56.5	.2384	13.46	1.9	4.0	17.0	25.9	28.0	23.2
	1912	1,019	55.1	.2334	12.84	1.5	6.5	53.6	10.5	23.3	4.7
79 establishments.....	{ 1912	1,088	55.1	.2305	12.68	1.4	6.1	52.8	11.1	24.2	4.4
	1913	1,072	54.7	.2462	13.45	1.3	6.7	57.8	20.1	14.0	.....
Lasting Department.											
Assemblers, for pulling-over machine, male:											
17 establishments.....	{ 1911	218	55.4	.2739	15.14	.....	.....	42.7	31.7	22.5	3.2
	1912	228	54.8	.2645	14.45	13.6	.....	44.7	16.2	20.6	4.8
50 establishments.....	{ 1912	542	55.8	.2376	13.21	5.7	4.8	32.1	17.7	24.2	15.5
	1913	532	55.5	.2611	14.46	2.6	5.8	37.8	25.2	22.7	5.8
Bed-machine operators, male:											
15 establishments.....	{ 1907	246	54.7	.3497	(1)	.....	22.0	51.2	8.9	17.9	.....
	1908	300	54.8	.3336	(1)	.....	7.7	64.7	10.3	17.3	.....
	1909	307	54.8	.3424	(1)	.....	10.1	61.6	11.1	17.3	.....
	1910	300	55.0	.3214	(1)	.....	5.0	56.3	12.0	26.7	.....
35 establishments.....	{ 1910	513	56.4	.3108	17.50	.....	2.9	32.9	15.0	29.8	19.3
	1911	568	56.1	.3229	18.09	.....	4.6	30.3	28.0	19.9	17.3
54 establishments.....	{ 1911	793	56.1	.3210	17.96	.....	3.3	33.2	25.3	23.1	15.1
	1912	1,004	55.5	.3042	16.88	.....	9.9	43.6	15.0	21.7	9.8
65 establishments.....	{ 1912	1,127	55.6	.3004	16.67	.....	8.8	39.6	19.2	21.8	10.6
	1913	1,220	55.2	.3304	18.21	.....	10.1	41.1	29.0	16.4	3.4

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Lasting Department—Con.											
Hand-method lasting machine operators, male:											
6 establishments.....	{	1907 99	57.1	\$0.3111	(1)	.....	.....	.....	39.4	60.6	.....
		1908 89	56.6	.3070	(1)	.....	.....	.....	53.9	46.1	.....
		1909 75	56.7	.3088	(1)	.....	.....	.....	52.0	48.0	.....
		1910 80	56.1	.3223	(1)	.....	.....	.....	63.8	36.3	.....
33 establishments.....	{	1910 325	57.4	.3062	\$17.49	1.2	.....	12.0	27.7	26.5	32.6
		1911 352	57.3	.3094	17.65	1.4	.....	12.8	26.7	30.4	28.7
39 establishments.....	{	1911 477	57.0	.3164	17.96	.....	.....	19.7	28.7	23.5	28.1
		1912 478	55.8	.3242	18.03	5.4	.....	38.5	18.0	20.3	17.8
41 establishments.....	{	1912 456	55.7	.3251	18.05	5.7	.....	36.6	22.4	18.2	17.1
Pullers-over, hand, male:		1913 449	55.3	.3572	19.72	2.9	.....	44.5	32.1	14.7	5.8
13 establishments.....	{	1907 345	56.6	.2558	(1)	.....	.....	22.3	21.2	56.5	.....
		1908 330	56.6	.2490	(1)	.....	.....	22.4	19.1	58.5	.....
		1909 366	56.2	.2867	(1)	.....	.....	30.3	22.4	47.3	.....
		1910 384	55.9	.2763	(1)	.....	.....	27.3	25.8	46.9	.....
35 establishments.....	{	1910 784	56.4	.2913	16.38	.6	2.4	26.4	22.7	29.1	18.7
		1911 784	56.2	.3089	17.28	.9	3.4	26.0	26.3	29.8	13.5
45 establishments.....	{	1911 897	56.3	.3121	17.50	.....	3.0	29.3	26.1	24.4	17.2
		1912 899	55.4	.3190	17.60	2.7	12.3	33.0	20.9	23.6	7.5
52 establishments.....	{	1912 1,036	55.3	.3155	17.41	2.3	10.7	33.1	27.7	18.8	7.3
Pullers-over, machine, male:		1913 937	55.3	.3326	18.37	.....	6.9	36.5	35.4	20.3	.9
31 establishments.....	{	1910 251	57.4	.3204	18.37	.....	.....	19.9	14.3	33.0	31.9
		1911 266	56.5	.3188	17.95	.....	.....	28.9	34.2	17.7	19.2
43 establishments.....	{	1911 328	56.1	.3253	18.18	.....	.....	33.5	36.6	15.9	14.0
		1912 305	55.6	.3124	17.31	4.9	11.1	37.0	14.1	15.4	17.4
60 establishments.....	{	1912 402	55.8	.3124	17.39	1.7	8.5	36.8	15.9	20.4	16.7
Turn-lasters, hand, male:		1913 421	55.4	.3513	19.42	1.2	4.5	43.5	25.4	19.5	5.9
28 establishments.....	{	1912 452	55.6	.2753	15.25	.....	23.5	12.4	16.4	28.1	19.7
		1913 524	55.0	.3100	17.00	.....	26.7	23.3	17.0	28.4	4.6
Bottoming Department.											
Buffers, male:											
36 establishments.....	{	1911 174	55.8	.2940	16.37	.....	2.9	29.3	28.2	38.5	1.1
		1912 170	55.8	.3068	17.06	.....	2.9	30.6	28.2	34.1	4.1
72 establishments.....	{	1912 338	56.0	.2889	16.09	.....	6.2	31.7	19.8	31.1	11.2
		1913 354	55.3	.3186	17.57	.....	6.5	34.7	37.9	16.1	4.8
Edge setters, male:											
18 establishments.....	{	1907 134	56.0	.3999	(1)	.....	.....	23.1	37.3	39.6	.....
		1908 142	56.2	.3509	(1)	.....	.....	20.4	33.8	45.8	.....
		1909 150	56.1	.3806	(1)	.....	.....	23.3	35.3	41.3	.....
		1910 163	55.9	.3852	(1)	.....	.....	20.9	35.6	43.6	.....
54 establishments.....	{	1910 560	56.3	.3733	20.94	.5	12.9	17.3	25.4	26.1	17.9
		1911 573	56.3	.3800	21.31	.7	10.5	19.7	25.8	25.7	17.6
68 establishments.....	{	1911 722	56.3	.3800	21.29	.....	8.3	26.5	23.5	24.5	17.2
		1912 698	55.8	.3892	21.63	.....	7.4	36.8	21.3	20.3	14.0
78 establishments.....	{	1912 789	55.8	.3785	21.05	.....	6.6	34.6	24.1	21.7	13.1
		1913 815	55.3	.4129	22.78	.....	7.9	36.8	33.9	18.2	3.3

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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Bottoming Department—Continued.											
Edge trimmers, male:											
23 establishments.....	1907	283	55.3	\$0.4043	(1)	.....	16.3	32.9	23.7	27.2	.....
	1908	302	55.1	.3863	(1)	.....	15.9	37.4	26.2	20.5	.....
	1909	287	55.2	.3975	(1)	.....	16.0	32.4	28.9	22.6	.....
	1910	305	55.0	.4010	(1)	.....	19.0	31.8	27.2	22.0	.....
55 establishments.....	1910	573	56.4	.3818	\$21.44	0.5	10.1	20.4	23.9	23.9	21.1
	1911	615	56.2	.3899	21.80	.7	8.9	22.6	28.5	22.8	16.6
71 establishments.....	1911	765	56.1	.3890	21.73	.....	7.2	28.8	26.1	22.7	15.2
	1912	751	55.9	.3855	21.48	.....	6.8	35.2	19.4	25.6	13.0
81 establishments.....	1912	827	55.9	.3797	21.15	.....	6.2	34.5	21.3	25.9	12.2
	1913	838	55.4	.4100	22.66	.....	5.8	37.5	34.0	19.1	3.6
Goodyear stitchers, male:											
21 establishments.....	1907	215	55.3	.4034	(1)	.....	10.7	43.3	20.9	25.1	.....
	1908	214	55.1	.3759	(1)	.....	9.8	43.0	27.6	19.6	.....
	1909	221	55.3	.3944	(1)	.....	11.8	34.4	29.9	24.0	.....
	1910	224	55.2	.3875	(1)	.....	9.4	34.4	31.3	25.0	.....
45 establishments.....	1910	366	56.3	.3739	20.97	.8	5.7	24.0	26.2	24.3	18.9
	1911	398	56.0	.3879	21.65	.8	7.0	26.6	29.6	20.4	15.6
61 establishments.....	1911	529	55.9	.3868	21.56	.....	5.3	34.8	25.1	20.8	14.0
	1912	562	55.9	.3847	21.40	.....	6.8	39.3	18.3	18.7	16.9
70 establishments.....	1912	627	55.9	.3757	20.96	.....	6.1	37.0	19.9	20.4	16.6
	1913	642	55.2	.3986	21.96	.....	9.3	41.6	28.7	18.5	1.9
Goodyear welters, male:											
14 establishments.....	1907	67	55.9	.4087	(1)	.....	.....	32.8	28.4	38.8	.....
	1908	70	56.0	.4087	(1)	.....	.....	32.9	25.7	41.4	.....
	1909	72	55.7	.4435	(1)	.....	.....	36.5	28.4	35.1	.....
	1910	81	55.6	.4222	(1)	.....	.....	35.8	24.7	39.5	.....
45 establishments.....	1910	275	56.2	.4373	24.49	.7	6.9	28.7	22.5	22.2	18.9
	1911	289	56.0	.4637	25.88	.7	9.3	27.0	27.3	18.0	17.6
60 establishments.....	1911	392	56.0	.4520	25.21	.....	6.9	33.7	23.7	19.6	16.1
	1912	411	55.8	.4544	25.27	.....	9.7	39.4	16.5	20.4	13.9
70 establishments.....	1912	466	55.8	.4453	24.75	.....	8.6	38.0	19.5	21.0	12.9
	1913	472	55.3	.5006	27.60	.....	9.3	39.8	29.5	18.0	3.4
Heel breasters, male:											
35 establishments.....	1911	76	56.1	.2906	16.23	.....	2.6	26.3	26.3	40.8	3.9
	1912	77	55.7	.3017	16.74	.....	10.4	29.9	24.7	29.9	5.2
75 establishments.....	1912	163	55.9	.2952	16.36	.....	9.8	29.4	23.3	24.5	12.9
	1913	171	55.4	.3127	17.27	.....	9.9	33.3	32.7	19.9	4.1
Heel burnishers, male:											
33 establishments.....	1911	106	55.6	.3062	16.97	.....	1.9	39.6	25.5	32.1	.9
	1912	108	55.4	.3127	17.31	.....	4.6	41.7	23.1	27.8	2.8
74 establishments.....	1912	254	56.1	.2921	16.31	.....	5.1	33.1	22.4	24.8	14.6
	1913	268	55.4	.3130	17.29	.....	5.6	40.3	31.0	19.0	4.1
Heelers, male:											
31 establishments.....	1911	115	55.8	.4034	22.52	.....	8.7	28.7	22.6	38.3	1.7
	1912	124	55.7	.3906	21.71	.....	6.5	37.1	20.2	31.5	4.8
67 establishments.....	1912	254	56.2	.3777	21.17	.....	3.5	34.3	19.3	27.2	15.7
	1913	269	55.4	.4242	23.41	.....	4.5	42.4	30.9	19.3	3.0

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 employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Bottoming Department— Concluded.											
Heel scourers, male:											
35 establishments.....	{ 1911	125	54.8	\$0.2908	\$16.12	.....	5.6	35.2	24.0	33.6	1.6
	{ 1912	154	55.5	.2940	16.25	.....	9.7	38.3	15.6	33.8	2.6
78 establishments.....	{ 1912	342	56.0	.2885	16.09	.....	5.8	33.9	19.6	26.0	14.6
	{ 1913	364	55.4	.3135	17.35	.....	9.9	33.8	33.5	18.1	4.7
Heel-seat nailers, male:											
28 establishments.....	{ 1911	43	55.8	.2987	16.61	.....	.....	39.5	23.3	34.9	2.3
	{ 1912	43	55.8	.2706	15.04	.....	.....	44.2	20.9	30.2	4.7
72 establishments.....	{ 1912	141	56.4	.2537	14.22	.....	7.1	28.4	18.4	30.5	15.6
	{ 1913	135	55.5	.2918	16.11	.....	8.9	34.8	28.1	24.4	3.7
Heel sluggers, male:											
34 establishments.....	{ 1911	77	55.9	.2848	15.79	.....	.....	35.1	24.7	36.4	3.9
	{ 1912	79	55.8	.2901	16.11	.....	.....	39.2	21.5	34.2	5.1
78 establishments.....	{ 1912	182	56.0	.2817	15.65	.....	6.6	31.3	23.6	26.4	12.1
	{ 1913	179	55.5	.3097	17.10	.....	5.0	34.1	36.3	20.7	3.9
Heel trimmers or shavers, male:											
23 establishments.....	{ 1907	99	55.1	.4382	(¹)	.....	25.3	24.2	29.3	21.2	.....
	{ 1908	84	55.2	.4387	(¹)	.....	17.9	26.2	34.5	21.4	.....
	{ 1909	82	55.3	.4465	(¹)	.....	14.6	26.8	34.1	24.4	.....
	{ 1910	91	55.2	.4430	(¹)	.....	18.7	23.1	34.1	24.2	.....
55 establishments.....	{ 1910	189	56.6	.4096	23.03	0.5	9.0	14.3	28.6	26.5	21.2
	{ 1911	193	56.5	.4152	23.34	.5	8.3	15.0	30.6	26.9	18.7
71 establishments.....	{ 1911	246	56.5	.4154	23.32	.....	6.5	19.1	32.5	24.4	17.5
	{ 1912	239	56.0	.4148	23.10	.....	7.5	29.3	23.4	26.4	13.4
81 establishments.....	{ 1912	252	56.0	.4199	23.39	.....	7.1	29.8	24.2	26.2	12.7
	{ 1913	277	55.4	.4482	24.74	.....	10.8	32.5	32.9	21.3	2.5
Levelers, male:											
36 establishments.....	{ 1911	102	55.8	.2968	16.49	.....	6.9	31.4	22.5	36.3	2.9
	{ 1912	102	55.7	.3090	17.13	.....	6.9	36.3	21.6	29.4	5.9
75 establishments.....	{ 1912	268	55.9	.2864	15.90	.....	9.3	29.9	23.5	23.1	14.2
	{ 1913	289	55.2	.3037	16.74	.....	12.1	32.9	31.1	21.5	2.4
McKay sewers, male:											
5 establishments.....	{ 1907	34	55.2	.2880	(¹)	.....	41.2	.....	32.4	26.5	.....
	{ 1908	25	55.3	.3113	(¹)	.....	36.0	.....	36.0	28.0	.....
	{ 1909	28	55.7	.2737	(¹)	.....	32.1	.....	28.6	39.3	.....
	{ 1910	26	55.2	.2787	(¹)	.....	38.5	.....	26.9	34.6	.....
28 establishments.....	{ 1910	95	57.1	.2897	16.46	1.1	10.5	5.3	25.3	31.6	26.3
	{ 1911	107	56.7	.2900	16.35	.9	12.1	6.5	27.1	40.2	13.1
30 establishments.....	{ 1911	129	56.5	.2956	16.63	.....	10.1	7.0	38.0	33.3	11.6
	{ 1912	128	56.3	.2854	16.10	.....	2.3	18.8	31.3	39.1	8.6
32 establishments.....	{ 1912	131	56.1	.2856	16.00	.....	2.3	19.8	32.1	39.7	6.1
	{ 1913	136	55.6	.3186	17.70	.....	3.7	25.7	45.6	22.1	2.9
Rough rounders, male:											
15 establishments.....	{ 1907	48	56.0	.3874	(¹)	.....	.....	27.1	31.2	41.7	.....
	{ 1908	49	56.0	.3683	(¹)	.....	.....	26.5	32.7	40.8	.....
	{ 1909	54	55.8	.4342	(¹)	.....	.....	33.3	29.6	37.0	.....
	{ 1910	56	55.5	.4115	(¹)	.....	.....	33.9	28.6	37.5	.....
44 establishments.....	{ 1910	165	56.7	.4056	22.85	.6	.....	24.8	24.2	26.7	23.6
	{ 1911	167	56.5	.4375	24.56	.6	.....	23.4	35.3	19.8	21.0
60 establishments.....	{ 1911	221	56.3	.4364	24.44	.....	.9	29.4	30.8	19.5	19.5
	{ 1912	248	55.9	.4388	24.41	.....	9.3	35.5	20.2	20.2	14.9
69 establishments.....	{ 1912	273	55.9	.4352	24.21	.....	8.4	34.1	22.0	20.5	15.0
	{ 1913	265	55.2	.4967	27.37	.....	10.2	37.4	31.7	17.7	3.0

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—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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
Finishing Department.											
Treers or ironers, hand, male:											
17 establishments.....	{ 1907	381	54.7	\$0.3047	(1)	.....	28.1	40.2	18.9	12.9	.....
	{ 1908	364	54.5	.2941	(1)	.....	29.4	6.3	28.0	6.3	.....
	{ 1909	377	54.6	.2925	(1)	.....	27.9	32.9	30.0	9.3	.....
	{ 1910	444	54.5	.2876	(1)	.....	39.0	24.8	25.7	10.6	.....
44 establishments.....	{ 1910	832	55.9	.2594	\$14.42	.....	20.8	16.8	27.0	18.0	17.3
	{ 1911	786	56.1	.2602	14.50	.....	12.7	19.8	31.8	17.9	17.7
63 establishments.....	{ 1911	1,006	56.0	.2668	14.84	.....	9.9	26.3	30.9	18.0	14.8
	{ 1912	1,076	55.9	.2618	14.57	.....	10.7	31.0	22.2	22.2	13.8
73 establishments.....	{ 1912	1,143	55.8	.2656	14.76	.....	10.1	33.7	23.0	19.2	14.0
	{ 1913	1,110	55.3	.2817	15.54	.....	11.3	36.7	28.7	19.8	3.5
Treers or ironers, hand, female:											
8 establishments.....	{ 1910	74	57.8	.1432	8.19	.....	.....	29.7	.....	43.2	27.0
	{ 1911	70	57.7	.1439	8.21	.....	.....	32.9	.....	35.7	31.4
11 establishments.....	{ 1911	85	58.1	.1446	8.32	.....	.....	27.1	.....	29.4	43.5
	{ 1912	105	54.3	.1539	8.35	.....	10.5	63.8	12.4	13.3	.....
13 establishments.....	{ 1912	108	54.4	.1530	8.32	10.2	62.0	12.0	15.7
	{ 1913	110	54.6	.1578	8.56	18.2	55.5	26.4

¹ Not computed.

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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.

[The figures are for identical establishments in both years.]

CUTTING DEPARTMENT.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
CUTTERS, LINING, CLOTH, MALE.											
1912.											
Massachusetts.....	26	120	53.2	\$0.3337	\$17.69	35	12	54	10	7	2
New York.....	11	56	54.9	.3061	16.80	.....	6	22	19	3	6
Other States.....	35	121	57.2	.2398	13.67	.....	.....	14	37	38	32
Total.....	72	297	55.2	.2902	15.89	35	18	90	66	48	40
1913.											
Massachusetts.....	26	108	52.9	.3332	17.51	36	10	44	15	3	.....
New York.....	11	51	54.0	.3321	17.93	.....	8	31	12	.....	.....
Other States.....	35	99	56.2	.2845	15.93	1	.....	35	22	34	7
Total.....	72	258	54.4	.3143	16.99	37	18	110	49	37	7
CUTTERS, VAMP AND WHOLE SHOE, HAND, MALE.											
1912.											
Massachusetts.....	26	872	53.1	.3371	17.83	242	100	446	54	17	13
Missouri.....	5	111	59.5	.2992	17.81	.....	.....	9	.....	.....	102
New York.....	11	296	54.6	.3467	18.87	.....	62	160	24	19	31
Ohio.....	6	191	56.4	.3218	18.15	.....	.....	112	5	.....	74
Other States.....	23	525	56.7	.2860	16.19	.....	.....	11	214	300	.....
Total.....	71	1,995	55.0	.3215	17.58	242	162	738	297	336	220
1913.											
Massachusetts.....	26	855	53.0	.3608	19.06	216	167	385	63	24	.....
Missouri.....	5	112	56.8	.3241	18.31	.....	.....	60	.....	.....	52
New York.....	11	324	53.9	.3695	19.92	.....	57	232	35	.....	.....
Ohio.....	6	204	55.6	.3723	20.62	15	.....	102	10	77	.....
Other States.....	23	492	56.5	.3195	17.98	.....	.....	24	256	212	.....
Total.....	71	1,987	54.5	.3511	19.05	231	224	803	364	313	52
CUTTERS, VAMP AND WHOLE SHOE, MACHINE, MALE.											
1912.											
Massachusetts.....	13	191	53.6	.3621	19.42	29	.....	139	22	1	.....
Missouri.....	5	84	58.4	.2452	14.26	.....	.....	19	.....	20	45
New Hampshire.....	2	63	57.3	.3019	17.29	.....	.....	.....	.....	63	.....
New York.....	5	75	55.3	.3406	18.63	.....	24	28	.....	.....	23
Other States.....	8	77	57.9	.2501	14.47	.....	.....	.....	19	40	18
Total.....	33	490	55.8	.3134	17.36	29	24	186	41	124	86
1913.											
Massachusetts.....	13	201	53.6	.3696	19.80	32	.....	144	24	1	.....
Missouri.....	5	85	57.8	.2591	14.85	.....	.....	29	.....	17	39
New Hampshire.....	2	116	56.1	.2997	16.79	.....	.....	.....	72	44	.....
New York.....	5	67	53.3	.3647	19.40	.....	27	40	.....	.....	.....
Other States.....	8	80	57.5	.2754	15.80	.....	.....	.....	21	59	.....
Total.....	33	549	55.3	.3234	17.77	32	27	213	117	121	39

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.

CUTTING DEPARTMENT—Concluded.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
SKIVERS, UPPER, MACHINE, MALE.											
1912.											
Massachusetts.....	17	114	54.1	\$0.2932	\$15.87			105	8		1
Other States.....	15	42	56.2	.2532	14.16		10		3	29	
Total.....	32	156	54.7	.2824	15.41		10	105	11	29	1
1913.											
Massachusetts.....	17	98	54.2	.3053	16.53		1	85	9	3	
Other States.....	15	36	55.5	.2806	15.42		10	2	15	9	
Total.....	32	134	54.5	.2987	16.23		11	87	24	12	
SKIVERS, UPPER, MACHINE, FEMALE.											
1912.											
Massachusetts.....	18	98	53.5	.2017	10.77	9	20	69			
Missouri.....	6	40	54.0	.1856	10.02			40			
New Hampshire.....	5	40	57.2	.1898	10.85					40	
New York.....	9	47	55.2	.2168	11.94		6	28	1	1	11
Ohio.....	6	41	54.0	.1697	9.17			41			
Other States.....	23	105	56.4	.1856	10.45			1	58	46	
Total.....	67	371	55.0	.1925	10.58	9	26	179	59	87	11
1913.											
Massachusetts.....	18	113	53.6	.2252	12.06	7	27	79			
Missouri.....	6	57	54.0	.1831	9.89			57			
New Hampshire.....	5	45	55.7	.2056	11.46				34	11	
New York.....	9	54	53.6	.2537	13.56	3	5	46			
Ohio.....	6	49	53.8	.1857	9.99	2		47			
Other States.....	23	121	56.3	.1960	11.02			2	70	49	
Total.....	67	439	54.6	.2088	11.38	12	32	231	104	60	

SOLE-LEATHER DEPARTMENT.

CHANNELERS, INSOLE AND OUTSOLE, MALE.											
1912.											
Massachusetts.....	25	88	55.1	\$0.3236	\$17.85	.....	5	43	28	12	.....
New York.....	10	23	54.4	.3066	16.58	.....	7	9	3	1	3
Other States.....	40	89	57.1	.2704	15.42	.....	.....	11	21	44	13
Total.....	75	200	55.9	.2979	16.62	.....	12	63	52	57	16
1913.											
Massachusetts.....	25	85	54.4	.3649	19.85	.....	10	46	27	2	.....
New York.....	10	24	53.6	.3428	18.33	.....	7	14	3	.....	.....
Other States.....	40	87	56.9	.3001	17.05	.....	.....	11	29	42	5
Total.....	75	196	55.4	.3334	18.42	.....	17	71	59	44	5

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.

SOLE-LEATHER DEPARTMENT—Concluded.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
CUTTERS, OUTSOLE, MALE.											
1912.											
Massachusetts.....	16	82	54.9	\$0.3039	\$16.64			54	19	9	
Missouri.....	2	26	59.5	.2893	17.23					12	14
Other States.....	24	69	56.5	.2515	14.13		2	12	20	28	7
Total.....	42	177	56.2	.2813	15.75		2	66	39	49	21
1913.											
Massachusetts.....	16	86	54.6	.3187	17.34		14	42	22	8	
Missouri.....	2	44	55.6	.3243	18.00			30		14	
Other States.....	24	66	56.2	.2668	14.97		2	11	24	29	
Total.....	42	196	55.4	.3025	16.69		16	83	46	51	

FITTING OR STITCHING DEPARTMENT.

BACKSTAY STITCHERS, FEMALE.											
1912.											
Massachusetts.....	25	159	53.7	\$0.2095	\$11.26	11	4	144	.....	.....	.....
Missouri.....	8	27	54.0	.1469	7.93	.....	.....	27	.....	.....	.....
New Hampshire.....	6	57	57.1	.1661	9.49	.....	.....	.....	.....	57	.....
New York.....	9	52	56.0	.1730	9.61	1	4	26	.....	3	18
Ohio.....	6	32	54.0	.1774	9.58	.....	.....	32	.....	.....	.....
Other States.....	24	99	56.5	.1860	10.50	.....	.....	2	48	49	.....
Total.....	78	426	55.1	.1874	10.31	12	8	231	48	109	18
1913.											
Massachusetts.....	25	130	53.6	.2183	11.72	8	10	112	.....	.....	.....
Missouri.....	8	37	54.0	.1693	9.14	.....	.....	37	.....	.....	.....
New Hampshire.....	6	58	55.4	.1791	9.94	.....	.....	.....	51	7	.....
New York.....	9	30	53.7	.1784	9.53	3	.....	27	.....	.....	.....
Ohio.....	6	32	53.9	.1708	9.20	.....	2	30	.....	.....	.....
Other States.....	24	102	56.3	.1941	10.91	.....	.....	2	63	37	.....
Total.....	78	389	54.7	.1945	10.62	11	12	208	114	44	.....
BUTTONHOLE MAKERS, FEMALE.											
1912.											
Massachusetts.....	23	130	53.8	.2164	11.64	5	17	108	.....	.....	.....
Missouri.....	7	48	54.0	.1620	8.75	.....	.....	48	.....	.....	.....
New York.....	10	86	54.9	.1659	9.06	7	10	46	1	2	20
Ohio.....	6	55	54.0	.1564	8.45	.....	.....	55	.....	.....	.....
Other States.....	28	149	57.0	.1696	9.63	.....	.....	.....	40	109	.....
Total.....	74	468	55.1	.1796	9.87	12	27	257	41	111	20
1913.											
Massachusetts.....	23	157	53.8	.2166	11.66	3	27	127	.....	.....	.....
Missouri.....	7	52	54.0	.1844	9.96	.....	.....	52	.....	.....	.....
New York.....	10	88	53.5	.1897	10.13	3	12	72	1	.....	.....
Ohio.....	6	57	53.9	.1563	8.42	.....	2	55	.....	.....	.....
Other States.....	28	163	56.8	.1897	10.81	.....	.....	.....	69	94	.....
Total.....	74	517	54.7	.1936	10.60	6	41	306	70	94	.....

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.

FITTING OR STITCHING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
CLOSERS-ON, FEMALE.											
1912.											
Massachusetts.....	23	99	53.7	\$0.2096	\$11.25	7	3	89			
Missouri.....	8	33	54.0	.1580	8.53			33			
New Hampshire.....	5	21	57.3	.1839	10.55					21	
New York.....	11	69	54.5	.1839	9.90	8	13	29	2	2	15
Ohio.....	5	31	54.0	.1742	9.41			31			
Other States.....	22	91	56.8	.1756	9.96				38	53	
Total.....	74	344	55.0	.1857	10.17	15	16	182	40	76	15
1913.											
Massachusetts.....	23	98	53.6	.2165	11.60	9	6	83			
Missouri.....	8	46	54.0	.1717	9.27			46			
New Hampshire.....	5	17	55.4	.1739	9.64				15	2	
New York.....	11	72	53.2	.1928	10.21	9	9	51	3		
Ohio.....	5	28	53.9	.1903	10.25		2	26			
Other States.....	22	88	56.3	.1869	10.52				55	33	
Total.....	74	349	54.4	.1941	10.53	18	17	206	73	35	
LINING MAKERS, FEMALE.											
1912.											
Massachusetts.....	26	260	53.8	.1941	10.43	13	18	229			
Missouri.....	6	42	54.0	.1557	8.41			42			
New Hampshire.....	6	77	57.1	.1288	7.37					77	
New York.....	11	95	54.9	.1661	9.03	8	21	34	2	3	27
Ohio.....	6	80	54.0	.1698	9.17			80			
Other States.....	25	210	56.5	.1595	9.01			6	96	108	
Total.....	80	764	55.0	.1699	9.31	21	39	391	98	188	27
1913.											
Massachusetts.....	26	283	53.7	.2124	11.44	11	28	244			
Missouri.....	6	60	54.0	.1634	9.09			60			
New Hampshire.....	6	91	55.4	.1585	8.80				80	11	
New York.....	11	109	53.0	.1989	10.59	18	16	71	4		
Ohio.....	6	94	54.0	.1830	9.87		3	91			
Other States.....	25	217	56.6	.1792	10.11			3	115	99	
Total.....	80	854	54.6	.1902	10.33	29	47	469	199	110	
TIP STITCHERS, FEMALE.											
1912.											
Massachusetts.....	25	122	53.8	.2409	12.96	6	12	101	3		
Other States.....	54	213	55.5	.1885	10.44	4	5	85	45	68	6
Total.....	79	335	54.9	.2076	11.36	10	17	186	48	68	6
1913.											
Massachusetts.....	25	114	53.7	.2473	13.29	5	21	88			
Other States.....	54	223	55.1	.2040	11.25	5	6	87	78	47	
Total.....	79	337	54.7	.2186	11.94	10	27	175	78	47	

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.

FITTING OR STITCHING DEPARTMENT—Concluded.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
TOP STITCHERS OR UNDER-TRIMMERS, FEMALE.											
1912.											
Massachusetts.....	26	405	53.7	\$0.2189	\$11.76	24	63	318	.....	.....	.....
Missouri.....	8	93	54.0	.1715	9.26	.....	.....	93	.....	.....	.....
New Hampshire.....	6	107	57.1	.1608	9.18	.....	.....	.....	.....	107	.....
New York.....	11	114	54.9	.2097	11.42	5	18	61	1	2	27
Ohio.....	6	97	54.0	.1832	9.89	.....	.....	97	.....	.....	.....
Other States.....	25	217	56.7	.1872	10.60	.....	.....	3	95	119	.....
Total.....	82	1,033	54.9	.1976	10.81	29	81	572	96	228	27
1913.											
Massachusetts.....	26	375	53.7	.2310	12.41	16	77	282	.....	.....	.....
Missouri.....	8	102	54.0	.1951	10.53	.....	.....	102	.....	.....	.....
New Hampshire.....	6	144	55.6	.1653	9.19	.....	.....	.....	115	29	.....
New York.....	11	117	53.4	.2294	12.22	9	15	92	1	.....	.....
Ohio.....	6	98	53.9	.1992	10.74	.....	4	94	.....	.....	.....
Other States.....	25	234	56.6	.2067	11.70	.....	.....	3	121	110	.....
Total.....	82	1,070	54.6	.2104	11.47	25	96	573	237	139	.....
VAMPERS, MALE.											
1912.											
Massachusetts.....	22	304	54.0	.3215	17.35	15	40	207	33	5	4
New Hampshire.....	6	63	57.2	.2404	13.74	.....	.....	.....	.....	63	.....
New York.....	10	38	54.6	.3325	18.08	.....	16	4	7	11	.....
Other States.....	28	78	57.2	.2849	16.28	.....	.....	4	27	33	14
Total.....	66	483	55.0	.3059	16.76	15	56	215	67	112	18
1913.											
Massachusetts.....	22	310	53.9	.3443	18.57	12	59	192	39	8	.....
New Hampshire.....	6	65	55.7	.2488	13.88	.....	.....	.....	50	15	.....
New York.....	10	39	54.3	.3456	18.78	.....	15	10	14	.....	.....
Other States.....	28	140	56.3	.2902	16.32	.....	.....	25	61	49	5
Total.....	66	554	54.8	.3195	17.47	12	74	227	164	72	5
VAMPERS, FEMALE.											
1912.											
Massachusetts.....	25	327	53.8	.2464	13.23	14	43	270	.....	.....	.....
Missouri.....	8	98	54.0	.2189	11.82	.....	.....	98	.....	.....	.....
New Hampshire.....	6	106	57.1	.2171	12.39	.....	.....	.....	.....	106	.....
New York.....	9	141	55.6	.2506	13.84	1	23	68	1	.....	48
Ohio.....	6	136	54.0	.2126	11.48	.....	.....	136	.....	.....	.....
Other States.....	25	280	56.8	.2197	12.45	.....	.....	3	120	157	.....
Total.....	79	1,088	55.1	.2305	12.68	15	66	575	121	263	48
1913.											
Massachusetts.....	25	312	53.7	.2654	14.26	13	49	250	.....	.....	.....
Missouri.....	8	110	54.0	.2457	13.27	.....	.....	110	.....	.....	.....
New Hampshire.....	6	117	55.4	.2264	12.56	.....	.....	.....	100	17	.....
New York.....	9	140	53.7	.2764	14.83	1	17	121	1	.....	.....
Ohio.....	6	142	53.9	.2195	11.83	.....	6	136	.....	.....	.....
Other States.....	25	251	56.8	.2302	13.07	.....	.....	3	115	133	.....
Total.....	79	1,072	54.7	.2462	13.45	14	72	620	216	150	.....

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.**LASTING DEPARTMENT.**

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
ASSEMBLERS, FOR PULLING-OVER MACHINE, MALE.											
1912.											
Massachusetts.....	14	188	53.9	\$0.2781	\$15.00	31	93	59	2	3	
Missouri.....	8	71	58.5	.2103	12.36		17		5	49	
New Hampshire.....	3	55	57.4	.2171	12.47				55		
New York.....	5	91	54.6	.2375	12.90		26	51		14	
Ohio.....	4	35	57.3	.2156	12.31			9	8	18	
Other States.....	16	102	57.1	.2005	11.46			4	29	69	
Total.....	50	542	55.8	.2376	13.21	31	26	174	96	131	84
1913.											
Massachusetts.....	14	165	54.2	.3208	17.38	14	6	82	58	5	
Missouri.....	8	82	56.7	.2293	12.98			44		7	31
New Hampshire.....	3	44	56.6	.2326	13.18				21	23	
New York.....	5	89	53.7	.2346	12.60		25	64			
Ohio.....	4	43	57.1	.2509	14.33			9	9	25	
Other States.....	16	109	57.0	.2316	13.22			2	46	61	
Total.....	50	532	55.5	.2611	14.46	14	31	201	134	121	31
BED-MACHINE OPERATORS, MALE.											
1912.											
Massachusetts.....	21	543	54.4	.3037	16.52		58	383	76	13	13
Missouri.....	5	62	59.9	.2735	16.38					5	57
New Hampshire.....	4	112	57.2	.2297	13.14					112	
New York.....	9	131	54.7	.3458	18.87		41	46	20	11	13
Ohio.....	5	59	57.9	.3297	19.04			14	8		37
Other States.....	21	220	56.6	.3011	17.00			3	112	105	
Total.....	65	1,127	55.6	.3004	16.67		99	446	216	246	120
1913.											
Massachusetts.....	21	560	54.3	.3428	18.63		84	361	89	26	
Missouri.....	5	92	57.1	.3300	18.80			44		7	41
New Hampshire.....	4	132	55.8	.2522	14.09				97	35	
New York.....	9	134	54.0	.3572	19.28		39	74	21		
Ohio.....	5	58	55.9	.3600	20.11			19	21	18	
Other States.....	21	244	56.6	.3226	18.22			4	126	114	
Total.....	65	1,220	55.2	.3304	18.21		123	502	354	200	41

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.

LASTING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
HAND-METHOD LASTING MACHINE OPERATORS, MALE.											
1912.											
Massachusetts.....	12	194	53.9	\$0.3441	\$18.57	26	.....	99	69	.....	.....
Missouri.....	6	66	58.7	.2877	16.91	.....	.....	14	.....	.....	52
New Hampshire.....	2	33	57.0	.2911	16.59	.....	.....	.....	.....	33	.....
New York.....	3	46	55.9	.3529	19.54	.....	.....	25	8	.....	13
Ohio.....	6	56	55.6	.3365	18.69	.....	.....	29	14	.....	13
Other States.....	12	61	57.4	.2916	16.73	.....	.....	.....	11	50	.....
Total.....	41	456	55.7	.3251	18.05	26	.....	167	102	83	78
1913.											
Massachusetts.....	12	149	54.2	.3749	20.31	13	.....	75	61	.....	.....
Missouri.....	6	72	56.2	.3306	18.51	.....	.....	46	.....	.....	26
New Hampshire.....	2	39	55.0	.2766	15.21	.....	.....	.....	39	.....	.....
New York.....	3	44	54.2	.3782	20.49	.....	.....	37	7	.....	.....
Ohio.....	6	66	54.9	.3766	20.63	.....	.....	42	15	9	.....
Other States.....	12	79	57.6	.3599	20.74	.....	.....	.....	22	57	.....
Total.....	41	449	55.3	.3572	19.72	13	.....	200	144	66	26
PULLERS-OVER, HAND, MALE.											
1912.											
Massachusetts.....	17	543	54.3	.3209	17.37	24	111	262	110	28	8
New Hampshire.....	2	70	57.0	.2620	14.93	.....	.....	.....	.....	70	.....
New York.....	7	73	54.2	.3355	18.18	.....	.....	59	12	2	.....
Ohio.....	5	65	58.8	.3232	18.96	.....	.....	13	.....	.....	52
Other States.....	21	285	56.4	.3115	17.54	.....	.....	9	165	95	16
Total.....	52	1,036	55.3	.3155	17.41	24	111	343	287	195	76
1913.											
Massachusetts.....	17	445	54.4	.3413	18.57	.....	65	224	134	22	.....
New Hampshire.....	2	27	55.0	.2686	14.77	.....	.....	.....	27	.....	.....
New York.....	7	77	54.1	.3598	19.48	.....	.....	72	5	.....	.....
Ohio.....	5	75	56.7	.3390	19.24	.....	.....	31	5	39	.....
Other States.....	21	313	56.4	.3177	17.91	.....	.....	15	161	129	8
Total.....	52	937	55.3	.3326	18.37	.....	65	342	332	190	8
PULLERS-OVER, MACHINE, MALE.											
1912.											
Massachusetts.....	19	170	54.4	.3139	17.04	7	.....	121	35	4	3
Missouri.....	8	54	59.4	.2970	17.64	.....	.....	5	.....	5	44
New Hampshire.....	4	31	57.2	.2649	15.15	.....	.....	.....	.....	31	.....
New York.....	8	65	54.8	.3650	19.89	.....	34	12	5	2	12
Other States.....	21	82	56.9	.2958	16.79	.....	.....	10	24	40	8
Total.....	60	402	55.8	.3124	17.39	7	34	148	64	82	67
1913.											
Massachusetts.....	19	173	54.3	.3699	20.09	5	7	115	38	8	.....
Missouri.....	8	59	57.0	.3277	18.59	.....	.....	29	.....	5	25
New Hampshire.....	4	38	55.8	.2968	16.59	.....	.....	.....	28	10	.....
New York.....	8	45	53.9	.3771	20.33	.....	12	28	5	.....	.....
Other States.....	21	106	56.8	.3428	19.43	.....	.....	11	36	59	.....
Total.....	60	421	55.4	.3513	19.42	5	19	183	107	82	25

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.**LASTING DEPARTMENT—Concluded.**

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
TURN LASTERS, HAND, MALE.											
1912.											
Massachusetts.....	4	39	53.8	\$0.3379	\$18.18		16	22	1		
Missouri.....	3	74	60.0	.2444	14.66						74
New York.....	7	150	52.7	.3224	16.92		90	20	27	13	
Ohio.....	3	27	57.3	.2625	15.08			12			15
Other States.....	11	162	56.6	.2330	13.28			2	46	114	
Total.....	28	452	55.6	.2753	15.25		106	56	74	127	89
1913.											
Massachusetts.....	4	46	54.1	.3437	18.64		21	8	17		
Missouri.....	3	79	55.8	.3234	17.95			55			24
New York.....	7	173	52.2	.3220	16.77		119	37	17		
Ohio.....	3	36	56.4	.3312	18.78			19		17	
Other States.....	11	190	57.2	.2814	16.07			3	55	132	
Total.....	28	524	55.0	.3100	17.00		140	122	89	149	24

BOTTOMING DEPARTMENT.

BUFFERS, MALE.											
1912.											
Massachusetts.....	26	144	54.9	\$0.3190	\$17.46		5	79	48	9	3
Missouri.....	8	30	59.1	.2395	14.12			4		2	24
New Hampshire.....	6	54	57.1	.2509	14.34					54	
New York.....	6	24	52.7	.3527	18.68		16	7	1		
Ohio.....	6	29	56.4	.2707	15.21			15	3		11
Other States.....	20	57	57.1	.2570	14.70			2	15	40	
Total.....	72	338	56.0	.2889	16.09		21	107	67	105	38
1913.											
Massachusetts.....	26	141	54.6	.3530	19.25		11	71	50	9	
Missouri.....	8	38	57.1	.2691	15.25			18		3	17
New Hampshire.....	6	55	55.4	.2646	14.71				47	8	
New York.....	6	25	53.0	.3871	20.62		12	12	1		
Ohio.....	6	32	55.2	.3365	18.49			19	7	6	
Other States.....	20	63	56.6	.2827	16.04			3	29	31	
Total.....	72	354	55.3	.3186	17.57		23	123	134	57	17
EDGE SETTERS, MALE.											
1912.											
Massachusetts.....	26	324	54.6	.4101	22.36		32	184	92	11	5
Missouri.....	8	64	59.5	.3276	19.52			4		7	53
New Hampshire.....	6	72	57.1	.3047	17.42					72	
New York.....	9	94	54.7	.4104	22.37		20	52	9		13
Ohio.....	6	73	56.8	.3540	20.00			30	11		32
Other States.....	23	162	56.6	.3606	20.33			3	78	81	
Total.....	78	789	55.8	.3785	21.05		52	273	190	171	103

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
EDGE SETTERS, MALE—concluded.											
1913.											
Massachusetts.....	26	311	54.4	\$0.4520	\$24.59	.....	48	158	91	14	.....
Missouri.....	8	65	57.0	.3866	21.94	.....	.....	32	.....	6	27
New Hampshire.....	6	88	55.5	.3107	17.26	.....	.....	.....	72	16	.....
New York.....	9	96	53.9	.4531	24.43	.....	16	72	8	.....	.....
Ohio.....	6	78	55.9	.4039	22.50	.....	.....	34	17	27	.....
Other States.....	23	177	56.7	.3867	21.86	.....	.....	4	88	85	.....
Total.....	78	815	55.3	.4129	22.78	.....	64	300	276	148	27
EDGE TRIMMERS, MALE.											
1912.											
Massachusetts.....	26	366	54.7	.3877	21.15	.....	30	211	102	15	8
Missouri.....	8	58	59.3	.3249	19.26	.....	.....	6	.....	7	45
New Hampshire.....	6	92	57.2	.3417	19.56	.....	.....	.....	.....	92	.....
New York.....	10	92	55.3	.4178	22.95	.....	21	41	6	5	19
Ohio.....	6	64	56.9	.3784	21.46	.....	.....	24	11	.....	29
Other States.....	25	155	57.0	.3818	21.62	.....	.....	3	57	95	.....
Total.....	81	827	55.9	.3797	21.15	.....	51	285	176	214	101
1913.											
Massachusetts.....	26	334	54.5	.4307	23.45	.....	31	182	104	17	.....
Missouri.....	8	70	57.1	.3731	21.30	.....	.....	32	.....	8	30
New Hampshire.....	6	99	55.5	.3298	18.35	.....	.....	.....	83	16	.....
New York.....	10	94	54.0	.4958	26.80	.....	18	66	10	.....	.....
Ohio.....	6	69	55.9	.3844	21.46	.....	.....	29	18	22	.....
Other States.....	25	172	56.9	.3944	22.38	.....	.....	5	70	97	.....
Total.....	81	838	55.4	.4100	22.06	.....	49	314	285	160	30
GOODYEAR STITCHERS, MALE.											
1912.											
Massachusetts.....	23	266	54.4	.3954	21.66	.....	21	177	55	7	6
Missouri.....	6	61	59.9	.3337	20.00	.....	.....	.....	.....	6	55
New Hampshire.....	4	60	57.2	.2717	15.56	.....	.....	.....	.....	60	.....
New York.....	8	69	55.4	.4479	24.51	.....	17	25	10	.....	17
Ohio.....	6	58	56.8	.2946	16.66	.....	.....	26	6	.....	26
Other States.....	23	113	56.6	.4046	22.76	.....	.....	4	54	55	.....
Total.....	70	627	55.9	.3757	20.96	.....	38	232	125	128	104
1913.											
Massachusetts.....	23	268	54.3	.4263	23.25	.....	45	155	57	11	.....
Missouri.....	6	52	55.9	.3585	19.99	.....	.....	35	.....	5	12
New Hampshire.....	4	71	55.8	.2839	15.82	.....	.....	.....	52	19	.....
New York.....	8	67	53.9	.4646	25.00	.....	15	48	4	.....	.....
Ohio.....	6	53	55.8	.3124	17.34	.....	.....	23	14	16	.....
Other States.....	23	131	56.7	.4210	23.77	.....	.....	6	57	68	.....
Total.....	70	642	55.2	.3986	21.96	.....	60	267	184	119	12

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
GOODYEAR WELTERS, MALE.											
1912.											
Massachusetts.....	22	220	54.4	\$.4687	\$25.49	.....	30	141	40	5	4
Missouri.....	6	39	59.9	.4396	26.36	.....	.....	.....	.....	3	36
New Hampshire.....	4	42	57.2	.3520	20.16	.....	.....	.....	.....	42	.....
New York.....	9	40	54.8	.5218	28.46	.....	10	15	7	5	3
Ohio.....	6	40	56.7	.3755	21.14	.....	.....	18	5	.....	17
Other States.....	23	85	56.7	.4304	24.30	.....	.....	3	39	43	.....
Total.....	70	466	55.8	.4453	24.75	.....	40	177	91	98	60
1913.											
Massachusetts.....	22	201	54.3	.5513	29.97	.....	34	115	44	8	.....
Missouri.....	6	40	56.8	.4936	27.90	.....	.....	21	.....	3	16
New Hampshire.....	4	50	55.7	.3623	20.23	.....	.....	.....	38	12	.....
New York.....	9	47	54.1	.5367	29.03	.....	10	28	9	.....	.....
Ohio.....	6	40	55.6	.4034	22.34	.....	.....	21	8	11	.....
Other States.....	23	94	56.8	.4920	27.82	.....	.....	3	40	51	.....
Total.....	70	472	55.3	.5006	27.60	.....	44	188	139	85	16
HEEL BREASTERS, MALE.											
1912.											
Massachusetts.....	26	66	54.7	.3250	17.77	.....	8	32	22	3	1
Other States.....	49	97	56.7	.2749	15.41	.....	8	16	16	37	20
Total.....	75	163	55.9	.2952	16.36	.....	16	48	38	40	21
1913.											
Massachusetts.....	26	66	54.5	.3514	19.17	.....	11	30	21	4	.....
Other States.....	49	105	56.0	.2883	16.07	.....	6	27	35	30	7
Total.....	75	171	55.4	.3127	17.27	.....	17	57	56	34	7
HEEL BURNISHERS, MALE.											
1912.											
Massachusetts.....	26	108	54.7	.3257	17.81	.....	5	62	35	4	2
Missouri.....	8	24	59.1	.2168	12.79	.....	.....	3	.....	4	17
New Hampshire.....	6	29	57.3	.2441	14.00	.....	.....	.....	.....	29	.....
New York.....	8	26	55.4	.3296	18.15	.....	8	9	2	.....	.....
Ohio.....	6	22	57.1	.2827	16.17	.....	.....	8	3	.....	11
Other States.....	20	45	56.8	.2655	15.07	.....	.....	2	17	26	.....
Total.....	74	254	56.1	.2921	16.31	.....	13	84	57	63	37
1913.											
Massachusetts.....	26	111	54.5	.3540	19.30	.....	7	61	38	5	.....
Missouri.....	8	29	57.0	.2540	14.32	.....	.....	14	.....	4	11
New Hampshire.....	6	24	55.5	.2586	14.40	.....	.....	.....	20	4	.....
New York.....	8	29	53.8	.3528	18.96	.....	8	20	1	.....	.....
Ohio.....	6	29	56.4	.2857	16.18	.....	.....	11	5	13	.....
Other States.....	20	46	57.0	.2717	15.46	.....	.....	2	19	25	.....
Total.....	74	268	55.4	.3130	17.29	.....	15	108	83	51	11

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, year, and State.	Number of establishments.	Number of employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
HEELERS, MALE.											
1912.											
Massachusetts.....	22	96	54.8	\$0.4013	\$21.96	.....	8	53	27	5	3
Missouri.....	8	25	59.4	.3514	20.87	.....	.....	2	.....	3	20
New York.....	8	29	54.7	.3823	20.99	.....	1	22	1	3	2
Ohio.....	6	29	57.2	.3425	19.51	.....	.....	10	4	.....	15
Other States.....	23	75	57.2	.3681	20.94	.....	.....	.....	17	58	.....
Total.....	67	254	56.2	.3777	21.17	.....	9	87	49	69	40
1913.											
Massachusetts.....	22	96	54.6	.4783	26.08	.....	11	49	30	6	.....
Missouri.....	8	30	56.1	.3859	21.48	.....	.....	19	.....	3	8
New York.....	8	38	54.3	.4467	24.26	.....	1	30	7	.....	.....
Ohio.....	6	32	55.9	.3595	19.98	.....	.....	14	7	11	.....
Other States.....	23	73	56.5	.3853	21.74	.....	.....	2	39	32	.....
Total.....	67	269	55.4	.4242	23.41	.....	12	114	83	52	8
HEEL SCOURERS, MALE.											
1912.											
Massachusetts.....	25	127	54.5	.3150	17.16	.....	15	76	29	5	2
Missouri.....	8	34	59.2	.2365	13.99	.....	.....	4	.....	4	26
New Hampshire.....	6	49	57.1	.2263	12.94	.....	.....	.....	.....	49	.....
New York.....	9	38	55.4	.3439	18.92	.....	5	18	6	.....	9
Ohio.....	6	32	56.5	.2655	15.07	.....	.....	16	3	.....	13
Other States.....	24	62	56.6	.2897	16.35	.....	.....	2	29	31	.....
Total.....	78	342	56.0	.2885	16.09	.....	20	116	67	89	50
1913.											
Massachusetts.....	25	127	54.4	.3498	19.04	.....	23	59	38	7	.....
Missouri.....	8	41	57.1	.2822	15.98	.....	.....	19	.....	5	17
New Hampshire.....	6	43	55.4	.2357	13.07	.....	.....	.....	37	6	.....
New York.....	9	41	53.8	.3829	20.63	.....	13	23	5	.....	.....
Ohio.....	6	36	55.7	.2732	15.31	.....	.....	19	6	11	.....
Other States.....	24	76	56.7	.2953	16.88	.....	.....	3	36	37	.....
Total.....	78	364	55.4	.3135	17.35	.....	36	123	122	66	17
HEEL-SEAT NAILERS, MALE.											
1912.											
Massachusetts.....	22	48	54.5	.3098	16.87	.....	8	26	11	2	1
Other States.....	50	93	57.3	.2248	12.85	.....	2	14	15	41	21
Total.....	72	141	56.4	.2537	14.22	.....	10	40	26	43	22
1913.											
Massachusetts.....	22	47	54.5	.3257	18.02	.....	7	25	12	3	.....
Other States.....	50	88	56.0	.2737	15.23	.....	5	22	26	30	5
Total.....	72	135	55.5	.2918	16.11	.....	12	47	38	33	5

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
HEEL SLUGGERS, MALE.											
1912.											
Massachusetts.....	26	75	54.7	\$0.3067	\$16.74	.....	6	41	23	3	2
Other States.....	52	107	56.8	.2642	14.87	.....	6	16	20	45	20
Total.....	78	182	56.0	.2817	15.65	.....	12	57	43	48	22
1913.											
Massachusetts.....	26	65	54.6	.3749	20.46	.....	5	35	21	4	.....
Other States.....	52	114	56.1	.2725	15.18	.....	4	26	44	33	7
Total.....	78	179	55.5	.3097	17.10	.....	9	61	65	37	7
HEEL TRIMMERS OR SHAVERS, MALE.											
1912.											
Massachusetts.....	26	97	54.7	.4399	24.04	.....	11	49	30	4	3
New York.....	10	31	55.0	.4715	25.74	.....	7	13	4	3	4
Other States.....	45	124	57.3	.3913	22.28	.....	.....	13	27	59	25
Total.....	81	252	56.0	.4199	23.39	.....	18	75	61	66	32
1913.											
Massachusetts.....	26	97	54.4	.4948	26.94	.....	21	43	28	5	.....
New York.....	10	34	54.0	.5623	30.37	.....	9	20	5	.....	.....
Other States.....	45	146	56.3	.3906	21.98	.....	.....	27	58	54	7
Total.....	81	277	55.4	.4482	24.74	.....	30	90	91	59	7
LEVELERS, MALE.											
1912.											
Massachusetts.....	23	85	54.8	.3209	17.54	.....	7	41	31	4	2
New York.....	10	43	53.6	.3358	18.00	.....	18	18	4	.....	3
Ohio.....	6	35	56.5	.2462	13.85	.....	.....	17	4	.....	14
Other States.....	36	105	57.4	.2516	14.41	.....	.....	4	24	58	19
Total.....	75	268	55.9	.2864	15.90	.....	25	80	63	62	38
1913.											
Massachusetts.....	23	92	54.6	.3331	18.18	.....	13	40	33	6	.....
New York.....	10	54	53.1	.3241	17.31	.....	22	29	3	.....	.....
Ohio.....	6	27	55.9	.2826	15.80	.....	.....	11	7	9	.....
Other States.....	36	116	56.6	.2759	15.55	.....	.....	15	47	47	7
Total.....	75	289	55.2	.3037	16.74	.....	35	95	90	62	7

TABLE II.—AVERAGE RATE 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.

BOTTOMING DEPARTMENT—Concluded.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
MCKAY SEWERS, MALE.											
1912.											
Massachusetts.....	10	47	54.9	\$0.3073	\$16.85	.....	3	10	32	2	.....
Other States.....	22	84	56.8	.2735	15.53	.....	.....	16	10	50	8
Total.....	32	131	56.1	.2856	16.00	.....	3	26	42	52	8
1913.											
Massachusetts.....	10	51	54.8	.3409	18.66	.....	5	12	32	2	.....
Other States.....	22	85	56.1	.3052	17.13	.....	.....	23	30	28	4
Total.....	32	136	55.6	.3186	17.70	.....	5	35	62	30	4
ROUGH BOUNDERS, MALE.											
1912.											
Massachusetts.....	22	106	54.5	.4741	25.84	.....	11	66	24	3	2
Missouri.....	6	25	59.9	.3690	22.12	.....	.....	.....	.....	2	23
New Hampshire.....	4	26	57.2	.3799	21.76	.....	.....	.....	.....	26	.....
New York.....	9	35	54.9	.4663	25.48	.....	12	10	5	3	5
Ohio.....	6	28	56.5	.3158	17.79	.....	.....	13	4	.....	11
Other States.....	22	53	56.3	.4582	25.71	.....	.....	4	27	22	.....
Total.....	69	273	55.9	.4352	24.21	.....	23	93	60	56	41
1913.											
Massachusetts.....	22	103	54.3	.5353	29.11	.....	16	60	23	4	.....
Missouri.....	6	20	56.9	.4542	25.70	.....	.....	10	.....	2	8
New Hampshire.....	4	28	55.6	.3795	21.17	.....	.....	.....	22	6	.....
New York.....	9	33	53.9	.5355	28.92	.....	11	17	5	.....	.....
Ohio.....	6	24	55.9	.3889	21.61	.....	.....	10	6	8	.....
Other States.....	22	57	56.5	.5226	29.39	.....	.....	2	28	27	.....
Total.....	69	265	55.2	.4967	27.37	.....	27	99	84	47	8

FINISHING DEPARTMENT.

TREERS OR IRONERS, HAND, MALE.											
1912.											
Massachusetts.....	25	627	54.4	\$0.2808	\$15.28	.....	94	359	153	10	11
Missouri.....	7	98	59.9	.2165	12.96	.....	.....	.....	.....	12	86
New Hampshire.....	5	76	57.4	.2321	13.34	.....	.....	.....	.....	76	.....
New York.....	7	57	55.5	.2693	14.78	.....	21	13	7	.....	16
Ohio.....	6	68	58.3	.2127	12.39	.....	.....	13	8	.....	47
Other States.....	23	217	56.8	.2712	15.31	.....	.....	.....	95	122	.....
Total.....	73	1,143	55.8	.2656	14.76	.....	115	385	263	220	160
1913.											
Massachusetts.....	25	569	54.3	.2996	16.27	.....	104	298	146	21	.....
Missouri.....	7	104	56.9	.2687	15.11	.....	.....	52	.....	13	39
New Hampshire.....	5	81	56.3	.2425	13.70	.....	.....	.....	47	34	.....
New York.....	7	52	53.7	.2519	13.50	.....	21	26	5	.....	.....
Ohio.....	6	72	56.1	.2225	12.50	.....	.....	26	19	27	.....
Other States.....	23	232	56.8	.2823	15.98	.....	.....	5	102	125	.....
Total.....	73	1,110	55.3	.2817	15.54	.....	125	407	319	220	39

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.

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

CUTTING DEPARTMENT.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
CUTTERS, LINING, CLOTH, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	120	53.2	\$.3337	\$17.69	35	12	54	10	7	2
	{ 1913	108	52.9	.3332	17.51	36	10	44	15	3	.....
New York:											
11 establishments.....	{ 1912	56	54.9	.3061	16.80	.....	6	22	19	3	6
	{ 1913	51	54.0	.3321	17.93	.....	8	31	12	.....	.....
CUTTERS, VAMP AND WHOLE SHOE, HAND, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	872	53.1	.3371	17.83	242	100	446	54	17	13
	{ 1913	855	53.0	.3608	19.06	216	167	385	63	24	.....
Missouri:											
5 establishments.....	{ 1912	111	59.5	.2992	17.81	.....	.....	9	.....	.....	102
	{ 1913	112	56.8	.3241	18.31	.....	.....	60	.....	.....	52
New York:											
11 establishments.....	{ 1912	296	54.6	.3467	18.87	.....	62	160	24	19	31
	{ 1913	324	53.9	.3695	19.92	.....	57	232	35	.....	.....
Ohio:											
6 establishments.....	{ 1912	191	56.4	.3218	18.15	.....	.....	112	5	.....	74
	{ 1913	204	55.6	.3723	20.62	15	.....	102	10	77	.....
CUTTERS, VAMP AND WHOLE SHOE, MACHINE, MALE.											
Massachusetts:											
13 establishments.....	{ 1912	191	53.6	.3621	19.42	29	.....	139	22	1	.....
	{ 1913	201	53.6	.3696	19.80	32	.....	144	24	1	.....
Missouri:											
5 establishments.....	{ 1912	84	58.4	.2452	14.26	.....	.....	19	.....	20	45
	{ 1913	85	57.8	.2591	14.85	.....	.....	29	.....	17	39
New Hampshire:											
2 establishments.....	{ 1912	63	57.3	.3019	17.29	.....	.....	.....	.....	63	.....
	{ 1913	116	56.1	.2997	16.79	.....	.....	.....	72	44	.....
New York:											
5 establishments.....	{ 1912	75	55.3	.3406	18.63	.....	24	28	.....	.....	23
	{ 1913	67	53.3	.3647	19.40	.....	27	40	.....	.....	.....
SKIVERS, UPPER, MACHINE, MALE.											
Massachusetts:											
17 establishments.....	{ 1912	114	54.1	.2932	15.87	.....	.....	105	8	.....	1
	{ 1913	98	54.2	.3053	16.53	.....	1	85	9	3	.....
SKIVERS, UPPER, MACHINE, FEMALE.											
Massachusetts:											
18 establishments.....	{ 1912	98	53.5	.2017	10.77	9	20	69	.....	.....	.....
	{ 1913	113	53.6	.2252	12.06	7	27	79	.....	.....	.....
Missouri:											
6 establishments.....	{ 1912	40	54.0	.1856	10.02	.....	.....	40	.....	.....	.....
	{ 1913	57	54.0	.1831	9.89	.....	.....	57	.....	.....	.....
New Hampshire:											
5 establishments.....	{ 1912	40	57.2	.1898	10.85	.....	.....	.....	.....	40	.....
	{ 1913	45	55.7	.2056	11.46	.....	.....	.....	34	11	.....
New York:											
9 establishments.....	{ 1912	47	55.2	.2168	11.94	.....	6	28	1	1	11
	{ 1913	54	53.6	.2537	13.56	3	5	46	.....	.....	.....
Ohio:											
6 establishments.....	{ 1912	41	54.0	.1697	9.17	.....	.....	41	.....	.....	.....
	{ 1913	49	53.8	.1857	9.99	2	.....	47	.....	.....	.....

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.

SOLE-LEATHER DEPARTMENT.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
CHANNELERS, INSOLE AND OUTSOLE, MALE.											
Massachusetts:											
25 establishments.....	{ 1912	88	55.1	\$0.3236	\$17.85	.....	5	43	28	12	.....
	{ 1913	85	54.4	.3649	19.85	.....	10	46	27	2	.....
New York:											
10 establishments.....	{ 1912	23	54.4	.3066	16.58	.....	7	9	3	1	3
	{ 1913	24	53.6	.3428	18.33	.....	7	14	3	.....	.....
CUTTERS, OUTSOLE, MALE.											
Massachusetts:											
16 establishments.....	{ 1912	82	54.9	.3039	16.64	.....	.....	54	19	9	.....
	{ 1913	86	54.6	.3187	17.34	.....	14	42	22	8	.....
Missouri:											
2 establishments.....	{ 1912	26	59.5	.2893	17.23	.....	.....	.....	.....	12	14
	{ 1913	44	55.6	.3243	18.00	.....	.....	30	.....	14	.....

FITTING OR STITCHING DEPARTMENT.

BACKSTAY STITCHERS, FEMALE.											
Massachusetts:											
25 establishments.....	{ 1912	159	53.7	\$0.2095	\$11.26	11	4	144	.....	.....	.....
	{ 1913	130	53.6	.2183	11.72	8	10	112	.....	.....	.....
Missouri:											
8 establishments.....	{ 1912	27	54.0	.1469	7.93	.....	.....	27	.....	.....	.....
	{ 1913	37	54.0	.1693	9.14	.....	.....	37	.....	.....	.....
New Hampshire:											
6 establishments.....	{ 1912	57	57.1	.1661	9.49	.....	.....	.....	57	.....	.....
	{ 1913	58	55.4	.1791	9.94	.....	.....	.....	51	7	.....
New York:											
9 establishments.....	{ 1912	52	56.0	.1730	9.61	1	4	26	.....	3	18
	{ 1913	30	53.7	.1784	9.53	3	.....	27	.....	.....	.....
Ohio:											
6 establishments.....	{ 1912	32	54.0	.1774	9.58	.....	.....	32	.....	.....	.....
	{ 1913	32	53.9	.1708	9.20	.....	2	30	.....	.....	.....
BUTTONHOLE MAKERS, FEMALE.											
Massachusetts:											
23 establishments.....	{ 1912	130	53.8	.2164	11.64	5	17	108	.....	.....	.....
	{ 1913	157	53.8	.2166	11.66	3	27	127	.....	.....	.....
Missouri:											
7 establishments.....	{ 1912	48	54.0	.1620	8.75	.....	.....	48	.....	.....	.....
	{ 1913	52	54.0	.1844	9.96	.....	.....	52	.....	.....	.....
New York:											
10 establishments.....	{ 1912	86	54.9	.1659	9.06	7	10	46	1	2	20
	{ 1913	88	53.5	.1897	10.13	3	12	72	1	.....	.....
Ohio:											
6 establishments.....	{ 1912	55	54.0	.1564	8.45	.....	.....	55	.....	.....	.....
	{ 1913	57	53.9	.1563	8.42	.....	2	55	.....	.....	.....
CLOSERS-ON, FEMALE.											
Massachusetts:											
23 establishments.....	{ 1912	99	53.7	.2096	11.25	7	3	89	.....	.....	.....
	{ 1913	98	53.6	.2165	11.60	9	6	83	.....	.....	.....
Missouri:											
8 establishments.....	{ 1912	33	54.0	.1580	8.53	.....	.....	33	.....	.....	.....
	{ 1913	46	54.0	.1717	9.27	.....	.....	46	.....	.....	.....
New Hampshire:											
5 establishments.....	{ 1912	21	57.3	.1839	10.55	.....	.....	.....	15	21	.....
	{ 1913	17	55.4	.1739	9.64	.....	.....	.....	.....	2	.....
New York:											
11 establishments.....	{ 1912	69	54.5	.1839	9.90	8	13	29	2	2	15
	{ 1913	72	53.2	.1928	10.21	9	9	51	3	.....	.....
Ohio:											
5 establishments.....	{ 1912	31	54.0	.1742	9.41	.....	.....	31	.....	.....	.....
	{ 1913	28	53.9	.1903	10.25	.....	2	26	.....	.....	.....

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.

FITTING OR STITCHING DEPARTMENT—Concluded.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
LINING MAKERS, FEMALE.											
Massachusetts:											
26 establishments.....	{ 1912	260	53.8	\$0.1941	\$10.43	13	18	229			
	{ 1913	283	53.7	.2124	11.44	11	28	244			
Missouri:											
6 establishments.....	{ 1912	42	54.0	.1557	8.41			42			
	{ 1913	60	54.0	.1684	9.09			60			
New Hampshire:											
6 establishments.....	{ 1912	77	57.1	.1288	7.37					77	
	{ 1913	91	55.4	.1585	8.80				80	11	
New York:											
11 establishments.....	{ 1912	95	54.9	.1661	9.03	8	21	34	2	3	27
	{ 1913	109	53.0	.1989	10.59	18	16	71	4		
Ohio:											
6 establishments.....	{ 1912	80	54.0	.1698	9.17			80			
	{ 1913	94	54.0	.1830	9.87		3	91			
TIP STITCHERS, FEMALE.											
Massachusetts:											
25 establishments.....	1912	122	53.8	.2409	12.96	6	12	101	3		
	1913	114	53.7	.2473	13.29	5	21	88			
TOP STITCHERS OR UNDER-TRIMMERS, FEMALE.											
Massachusetts:											
26 establishments.....	{ 1912	405	53.7	.2189	11.76	24	63	318			
	{ 1913	375	53.7	.2310	12.41	16	77	282			
Missouri:											
8 establishments.....	{ 1912	93	54.0	.1715	9.26			93			
	{ 1913	102	54.0	.1951	10.53			102			
New Hampshire:											
6 establishments.....	{ 1912	107	57.1	.1608	9.18					107	
	{ 1913	144	55.6	.1653	9.19				115	29	
New York:											
11 establishments.....	{ 1912	114	54.9	.2097	11.42	5	18	61	1	2	27
	{ 1913	117	53.4	.2294	12.22	9	15	92	1		
Ohio:											
6 establishments.....	{ 1912	97	54.0	.1832	9.89			97			
	{ 1913	98	53.9	.1992	10.74		4	94			
VAMPERS, MALE.											
Massachusetts:											
22 establishments.....	{ 1912	304	54.0	.3215	17.35	15	40	207	33	5	4
	{ 1913	310	53.9	.3443	18.57	12	59	192	39	8	
New Hampshire:											
6 establishments.....	{ 1912	63	57.2	.2404	13.74					63	
	{ 1913	65	55.7	.2488	13.88				50	15	
New York:											
10 establishments.....	{ 1912	38	54.6	.3325	18.08		16	4	7	11	
	{ 1913	39	54.3	.3456	18.78		15	10	14		
VAMPERS, FEMALE.											
Massachusetts:											
25 establishments.....	{ 1912	327	53.8	.2464	13.23	14	43	270			
	{ 1913	312	53.7	.2654	14.26	13	49	250			
Missouri:											
8 establishments.....	{ 1912	98	54.0	.2189	11.82			98			
	{ 1913	110	54.0	.2457	13.27			110			
New Hampshire:											
6 establishments.....	{ 1912	106	57.1	.2171	12.39					106	
	{ 1913	117	55.4	.2264	12.56				100	17	
New York:											
9 establishments.....	{ 1912	141	55.6	.2506	13.84	1	23	68	1		48
	{ 1913	140	53.7	.2764	14.83	1	17	121	1		
Ohio:											
6 establishments.....	{ 1912	136	54.0	.2126	11.48			136			
	{ 1913	142	53.9	.2195	11.83		6	136			

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.

LASTING DEPARTMENT.

Occupation, sex, State, and number of establishments.	Year.	Number of employ-ees.	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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
ASSEMBLERS, FOR PULLING-OVER MACHINE, MALE.											
Massachusetts:											
14 establishments.....	{ 1912	188	53.9	\$0.2781	\$15.00	31	-----	93	59	2	3
	{ 1913	165	54.2	.3208	17.38	14	6	82	58	5	-----
Missouri:											
8 establishments.....	{ 1912	71	58.5	.2103	12.36	-----	-----	17	-----	5	49
	{ 1913	82	56.7	.2293	12.98	-----	-----	44	-----	7	31
New Hampshire:											
3 establishments.....	{ 1912	55	57.4	.2171	12.47	-----	-----	-----	21	55	-----
	{ 1913	44	56.6	.2326	13.18	-----	-----	-----	-----	23	-----
New York:											
5 establishments.....	{ 1912	91	54.6	.2375	12.90	-----	26	51	-----	-----	14
	{ 1913	89	53.7	.2346	12.60	-----	25	64	-----	-----	-----
Ohio:											
4 establishments.....	{ 1912	35	57.3	.2156	12.31	-----	-----	9	8	-----	18
	{ 1913	43	57.1	.2509	14.33	-----	-----	9	9	25	-----
BED-MACHINE OPERATORS, MALE.											
Massachusetts:											
21 establishments.....	{ 1912	543	54.4	.3037	16.52	-----	58	383	76	13	13
	{ 1913	560	54.3	.3428	18.63	-----	84	361	89	26	-----
Missouri:											
5 establishments.....	{ 1912	62	59.9	.2735	16.38	-----	-----	-----	-----	5	57
	{ 1913	92	57.1	.3300	18.80	-----	-----	44	-----	7	41
New Hampshire:											
4 establishments.....	{ 1912	112	57.2	.2297	13.14	-----	-----	-----	-----	112	-----
	{ 1913	132	55.8	.2522	14.09	-----	-----	-----	97	35	-----
New York:											
9 establishments.....	{ 1912	131	54.7	.3458	18.87	-----	41	46	20	11	13
	{ 1913	134	54.0	.3572	19.28	-----	39	74	21	-----	-----
Ohio:											
5 establishments.....	{ 1912	59	57.9	.3297	19.04	-----	-----	14	8	-----	37
	{ 1913	58	55.9	.3600	20.11	-----	-----	19	21	18	-----
HAND-METHOD LASTING MACHINE OPERATORS, MALE.											
Massachusetts:											
12 establishments.....	{ 1912	194	53.9	.3441	18.57	26	-----	99	69	-----	-----
	{ 1913	149	54.2	.3749	20.31	13	-----	75	61	-----	-----
Missouri:											
6 establishments.....	{ 1912	66	58.7	.2877	16.91	-----	-----	14	-----	-----	52
	{ 1913	72	56.2	.3306	18.51	-----	-----	46	-----	-----	26
New Hampshire:											
2 establishments.....	{ 1912	33	57.0	.2911	16.59	-----	-----	-----	39	33	-----
	{ 1913	39	55.0	.2766	15.21	-----	-----	-----	-----	-----	-----
New York:											
3 establishments.....	{ 1912	46	55.9	.3529	19.54	-----	-----	25	8	-----	13
	{ 1913	44	54.2	.3782	20.49	-----	-----	37	7	-----	-----
Ohio:											
6 establishments.....	{ 1912	56	55.6	.3365	18.69	-----	-----	29	14	-----	13
	{ 1913	66	54.9	.3766	20.63	-----	-----	42	15	9	-----
PULLERS-OVER, HAND, MALE.											
Massachusetts:											
17 establishments.....	{ 1912	543	54.3	.3209	17.37	24	111	262	110	28	8
	{ 1913	445	54.4	.3413	18.57	-----	65	224	134	22	-----
New Hampshire:											
2 establishments.....	{ 1912	70	57.0	.2620	14.93	-----	-----	-----	-----	70	-----
	{ 1913	27	55.0	.2686	14.77	-----	-----	-----	27	-----	-----
New York:											
7 establishments.....	{ 1912	73	54.2	.3355	18.18	-----	-----	59	12	2	-----
	{ 1913	77	54.1	.3598	19.48	-----	-----	72	5	-----	-----
Ohio:											
5 establishments.....	{ 1912	65	58.8	.3232	18.96	-----	-----	13	-----	-----	52
	{ 1913	75	56.7	.3390	19.24	-----	-----	31	5	39	-----

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.**LASTING DEPARTMENT—Concluded.**

Occupation, sex, State, and number of establishments.	Year.	Number of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Number of 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
PULLERS-OVER, MACHINE, MALE.											
Massachusetts:											
19 establishments.....	{ 1912	170	54.4	\$0.3139	\$17.04	7	-----	121	35	4	3
	{ 1913	173	54.3	.3699	20.09	5	7	115	38	8	-----
Missouri:											
8 establishments.....	{ 1912	54	59.4	.2970	17.64	-----	-----	5	-----	5	44
	{ 1913	59	57.0	.3277	18.59	-----	-----	29	-----	5	25
New Hampshire:											
4 establishments.....	{ 1912	31	57.2	.2649	15.15	-----	-----	-----	-----	31	-----
	{ 1913	38	55.8	.2968	16.59	-----	-----	-----	28	10	-----
New York:											
8 establishments.....	{ 1912	65	54.8	.3650	19.89	-----	34	12	5	2	12
	{ 1913	45	53.9	.3771	20.33	-----	12	28	5	-----	-----
TURN LASTERS, HAND, MALE.											
Massachusetts:											
4 establishments.....	{ 1912	39	53.8	.3379	18.18	-----	16	22	1	-----	-----
	{ 1913	46	54.1	.3437	18.64	-----	21	8	17	-----	-----
Missouri:											
3 establishments.....	{ 1912	74	60.0	.2444	14.66	-----	-----	-----	-----	-----	74
	{ 1913	79	55.8	.3234	17.95	-----	-----	55	-----	-----	24
New York:											
7 establishments.....	{ 1912	150	52.7	.3224	16.92	-----	90	20	27	13	-----
	{ 1913	173	52.2	.3220	16.77	-----	119	37	17	-----	-----
Ohio:											
3 establishments.....	{ 1912	27	57.3	.2625	15.08	-----	-----	12	-----	-----	15
	{ 1913	36	56.4	.3312	18.78	-----	-----	19	-----	17	-----

BOTTOMING DEPARTMENT.

BUFFERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	144	54.9	\$0.3190	\$17.46	-----	5	79	48	9	3
	{ 1913	141	54.6	.3530	19.25	-----	11	71	50	9	-----
Missouri:											
8 establishments.....	{ 1912	30	59.1	.2395	14.12	-----	-----	4	-----	2	24
	{ 1913	38	57.1	.2691	15.25	-----	-----	18	-----	3	17
New Hampshire:											
6 establishments.....	{ 1912	54	57.1	.2509	14.34	-----	-----	-----	-----	54	-----
	{ 1913	55	55.4	.2646	14.71	-----	-----	-----	47	8	-----
New York:											
6 establishments.....	{ 1912	24	52.7	.3527	18.68	-----	16	7	1	-----	-----
	{ 1913	25	53.0	.3871	20.62	-----	12	12	1	-----	-----
Ohio:											
6 establishments.....	{ 1912	29	56.4	.2707	15.21	-----	-----	15	3	-----	11
	{ 1913	32	55.2	.3365	18.49	-----	-----	19	7	6	-----
EDGE SETTERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	324	54.6	.4101	22.36	-----	32	184	92	11	5
	{ 1913	311	54.4	.4520	24.59	-----	48	158	91	14	-----
Missouri:											
8 establishments.....	{ 1912	64	59.5	.3276	19.52	-----	-----	4	-----	7	53
	{ 1913	65	57.0	.3866	21.94	-----	-----	32	-----	6	27
New Hampshire:											
6 establishments.....	{ 1912	72	57.1	.3047	17.42	-----	-----	-----	-----	72	-----
	{ 1913	88	55.5	.3107	17.26	-----	-----	-----	72	16	-----
New York:											
9 establishments.....	{ 1912	94	54.7	.4104	22.37	-----	20	52	9	-----	13
	{ 1913	96	53.9	.4531	24.43	-----	16	72	8	-----	-----
Ohio:											
6 establishments.....	{ 1912	73	56.8	.3540	20.00	-----	-----	30	11	-----	32
	{ 1913	78	55.9	.4039	22.50	-----	-----	34	17	27	-----

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
EDGE TRIMMERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	366	54.7	\$0.3877	\$21.15	.....	30	211	102	15	8
	{ 1913	334	54.5	.4307	23.45	.....	31	182	104	17	.....
Missouri:											
8 establishments.....	{ 1912	58	59.3	.3249	19.26	.....	.....	6	.....	7	45
	{ 1913	70	57.1	.3731	21.30	.....	.....	32	.....	8	30
New Hampshire:											
6 establishments.....	{ 1912	92	57.2	.3417	19.56	.....	.....	.....	83	92	.....
	{ 1913	99	55.5	.3298	18.35	.....	.....	.....	.....	16	.....
New York:											
10 establishments.....	{ 1912	92	55.3	.4178	22.95	.....	21	41	6	5	19
	{ 1913	94	54.0	.4958	26.80	.....	18	66	10	.....	.....
Ohio:											
6 establishments.....	{ 1912	64	56.9	.3784	21.46	.....	.....	24	11	.....	29
	{ 1913	69	55.9	.3844	21.46	.....	.....	29	18	22	.....
GOODYEAR STITCHERS, MALE.											
Massachusetts:											
23 establishments.....	{ 1912	266	54.4	.3954	21.66	.....	21	177	55	7	6
	{ 1913	268	54.3	.4263	23.25	.....	45	155	57	11	.....
Missouri:											
6 establishments.....	{ 1912	61	59.9	.3337	20.00	.....	.....	.....	.....	6	55
	{ 1913	52	55.9	.3585	19.99	.....	.....	35	.....	5	12
New Hampshire:											
4 establishments.....	{ 1912	60	57.2	.2717	15.56	.....	.....	.....	52	60	.....
	{ 1913	71	55.8	.2839	15.82	.....	.....	.....	.....	19	.....
New York:											
8 establishments.....	{ 1912	69	55.4	.4479	24.51	.....	17	25	10	.....	17
	{ 1913	67	53.9	.4646	25.00	.....	15	48	4	.....	.....
Ohio:											
6 establishments.....	{ 1912	58	56.8	.2946	16.66	.....	.....	26	6	.....	26
	{ 1913	53	55.8	.3124	17.34	.....	.....	23	14	16	.....
GOODYEAR WELTERS, MALE.											
Massachusetts:											
22 establishments.....	{ 1912	220	54.4	.4687	25.49	.....	30	141	40	5	4
	{ 1913	201	54.3	.5513	29.97	.....	34	115	44	8	.....
Missouri:											
6 establishments.....	{ 1912	39	59.9	.4396	26.36	.....	.....	.....	.....	3	36
	{ 1913	40	56.8	.4936	27.90	.....	.....	21	.....	3	16
New Hampshire:											
4 establishments.....	{ 1912	42	57.2	.3520	20.16	.....	.....	.....	38	42	.....
	{ 1913	50	55.7	.3623	20.23	.....	.....	.....	.....	12	.....
New York:											
9 establishments.....	{ 1912	40	54.8	.5218	28.46	.....	10	15	7	5	3
	{ 1913	47	54.1	.5367	29.03	.....	10	28	9	.....	.....
Ohio:											
6 establishments.....	{ 1912	40	56.7	.3755	21.14	.....	.....	18	5	.....	1
	{ 1913	40	55.6	.4034	22.34	.....	.....	21	8	11	.....
HEEL BREASTERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	66	54.7	.3250	17.77	.....	8	32	22	3	1
	{ 1913	66	54.5	.3514	19.17	.....	11	30	21	4	.....

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.

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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—					
						Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60
HEEL BURNISHERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	108	54.7	\$0.3257	\$17.81	.....	5	62	35	4	2
	{ 1913	111	54.5	.3540	19.30	.....	7	61	38	5	.....
Missouri:											
8 establishments.....	{ 1912	24	59.1	.2168	12.79	.....	.....	3	.....	4	17
	{ 1913	29	57.0	.2540	14.32	.....	.....	14	.....	4	11
New Hampshire:											
6 establishments.....	{ 1912	29	57.3	.2441	14.00	.....	.....	.....	20	29	.....
	{ 1913	24	55.5	.2586	14.40	.....	.....	.....	.....	4	.....
New York:											
8 establishments.....	{ 1912	26	55.4	.3296	18.15	.....	8	9	2	.....	7
	{ 1913	29	53.8	.3528	18.96	.....	8	20	1	.....	.....
Ohio:											
6 establishments.....	{ 1912	22	57.1	.2827	16.17	.....	.....	8	3	.....	11
	{ 1913	29	56.4	.2857	16.18	.....	.....	11	5	13	.....
HEELERS, MALE.											
Massachusetts:											
22 establishments.....	{ 1912	96	54.8	.4013	21.96	.....	8	53	27	5	3
	{ 1913	96	54.6	.4783	26.08	.....	11	49	30	6	.....
Missouri:											
25 establishments.....	{ 1912	25	59.4	.3514	20.87	.....	.....	2	.....	3	20
	{ 1913	30	56.1	.3859	21.48	.....	.....	19	.....	3	8
New York:											
8 establishments.....	{ 1912	29	54.7	.3823	20.99	.....	1	22	1	3	2
	{ 1913	38	54.3	.4467	24.26	.....	1	30	7	.....	.....
Ohio:											
6 establishments.....	{ 1912	29	57.2	.3425	19.51	.....	.....	10	4	.....	15
	{ 1913	32	55.9	.3595	19.98	.....	.....	14	7	11	.....
HEEL SCOURERS, MALE.											
Massachusetts:											
25 establishments.....	{ 1912	127	54.5	.3150	17.16	.....	15	76	29	5	2
	{ 1913	127	54.4	.3498	19.04	.....	23	59	38	7	.....
Missouri:											
8 establishments.....	{ 1912	34	59.2	.2365	13.99	.....	.....	4	.....	4	26
	{ 1913	41	57.1	.2822	15.98	.....	.....	19	.....	5	17
New Hampshire:											
6 establishments.....	{ 1912	49	57.1	.2263	12.94	.....	.....	.....	37	49	.....
	{ 1913	43	55.4	.2357	13.07	.....	.....	.....	.....	6	.....
New York:											
9 establishments.....	{ 1912	38	55.4	.3439	18.92	.....	5	18	6	.....	9
	{ 1913	41	53.8	.3829	20.63	.....	13	23	5	.....	.....
Ohio:											
6 establishments.....	{ 1912	32	56.5	.2655	15.07	.....	.....	16	3	.....	13
	{ 1913	36	55.7	.2732	15.31	.....	.....	19	6	11	.....
HEEL SEAT NAILERS, MALE.											
Massachusetts:											
22 establishments.....	{ 1912	48	54.5	.3098	16.87	.....	8	26	11	2	1
	{ 1913	47	54.5	.3257	18.02	.....	7	25	12	3	.....
HEEL-SLUGGERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	75	54.7	.3067	16.74	.....	6	41	23	3	2
	{ 1913	65	54.6	.3749	20.46	.....	5	35	21	4	.....

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.

BOTTOMING DEPARTMENT—Concluded.

Occupation, sex, State, and number of establishments.	Year.	Number of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Number of 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
HEEL TRIMMERS OR SHAVERS, MALE.											
Massachusetts:											
26 establishments.....	{ 1912	97	54.7	\$0.4399	\$24.04	.....	11	49	30	4	3
	{ 1913	97	54.4	.4948	26.94	.....	21	43	28	5	.....
New York:											
10 establishments.....	{ 1912	31	55.0	.4715	25.74	.....	7	13	4	3	4
	{ 1913	34	54.0	.5623	30.37	.....	9	20	5	.....	.....
LEVELERS, MALE.											
Massachusetts:											
23 establishments.....	{ 1912	85	54.8	.3209	17.54	.....	7	41	31	4	2
	{ 1913	92	54.6	.3331	18.18	.....	13	40	33	6	.....
New York:											
10 establishments.....	{ 1912	43	53.6	.3358	18.00	.....	18	18	4	.....	3
	{ 1913	54	53.1	.3241	17.31	.....	22	29	3	.....	.....
Ohio:											
6 establishments.....	{ 1912	35	56.5	.2462	13.85	.....	.....	17	4	.....	14
	{ 1913	27	55.9	.2826	15.80	.....	.....	11	7	9	.....
MCKAY SEWERS, MALE.											
Massachusetts:											
10 establishments.....	{ 1912	47	54.9	.3073	16.85	.....	3	10	32	2	.....
	{ 1913	51	54.8	.3409	18.66	.....	5	12	32	2	.....
ROUGH ROUNDERS, MALE.											
Massachusetts:											
22 establishments.....	{ 1912	106	54.5	.4741	25.84	.....	11	66	24	3	2
	{ 1913	103	54.3	.5353	29.11	.....	16	60	23	4	.....
Missouri:											
6 establishments.....	{ 1912	25	59.9	.3690	22.12	.....	.....	.....	.....	2	23
	{ 1913	20	56.9	.4542	25.70	.....	.....	10	.....	2	8
New Hampshire:											
4 establishments.....	{ 1912	26	57.2	.3799	21.76	.....	.....	.....	.....	26	.....
	{ 1913	28	55.6	.3795	21.17	.....	.....	.....	22	6	.....
New York:											
9 establishments.....	{ 1912	35	54.9	.4663	25.48	.....	12	10	5	3	5
	{ 1913	33	53.9	.5355	28.92	.....	11	17	5	.....	.....
Ohio:											
6 establishments.....	{ 1912	28	56.5	.3158	17.79	.....	.....	13	4	.....	11
	{ 1913	24	55.9	.3889	21.61	.....	.....	10	6	8	.....

FINISHING DEPARTMENT.

TREES OR IRONERS, HAND, MALE.											
Massachusetts:											
25 establishments.....	{ 1912	627	54.4	\$0.2808	\$15.28	.....	94	359	153	10	11
	{ 1913	569	54.3	.2996	16.27	.....	104	298	146	21	.....
Missouri:											
7 establishments.....	{ 1912	98	59.9	.2165	12.96	.....	.....	.....	.....	12	86
	{ 1913	104	56.9	.2687	15.11	.....	.....	52	.....	13	39
New Hampshire:											
5 establishments.....	{ 1912	76	57.4	.2321	13.34	.....	.....	.....	.....	76	.....
	{ 1913	81	56.3	.2425	13.70	.....	.....	.....	47	34	.....
New York:											
7 establishments.....	{ 1912	57	55.5	.2693	14.78	.....	21	13	7	.....	16
	{ 1913	52	53.7	.2519	13.50	.....	21	26	5	.....	.....
Ohio:											
6 establishments.....	{ 1912	68	58.3	.2127	12.39	.....	.....	13	8	.....	47
	{ 1913	72	56.1	.2225	12.50	.....	.....	26	19	27	.....

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

CUTTING DEPARTMENT.

Occupation, sex, 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 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 cts. and over.	
Cutters, lining, cloth, male:																	
Massachusetts.....	26	108	52.9	\$0.3332					2	1		10	28	34	29	4	
New York.....	11	51	54.0	.3321					1	3			9	30	7	1	
Other States.....	35	99	56.2	.2845			1	1	2	2	5	15	28	42	3		
Total.....	72	258	54.4	.3143			1	1	4	4	8	25	65	106	39	5	
Cutters, vamp and whole shoe, hand, male:																	
Massachusetts.....	26	855	53.0	.3608					1	5	1	20	104	573	88	63	
Missouri.....	5	112	56.8	.3241								5	32	64	11		
New York.....	11	324	53.9	.3695						1	1	13	40	162	99	8	
Ohio.....	6	204	55.6	.3723						3	1	13	26	85	63	13	
Other States.....	23	492	56.5	.3195					1	16	16	102	88	164	81	24	
Total.....	71	1,987	54.5	.3511					2	25	19	153	290	1048	342	108	
Cutters, vamp and whole shoe, machine, male:																	
Massachusetts.....	13	201	53.6	.3696								3	12	169	14	3	
Missouri.....	5	85	57.8	.2591					2	8	6	25	20	19	5		
New Hampshire.....	2	116	56.1	.2997					1		4	21	33	46	10	1	
New York.....	5	67	53.3	.3647					1	2	2	8	6	22	14	12	
Other States.....	8	80	57.5	.2754				1	3	3	4	19	24	21	5		
Total.....	33	549	55.3	.3234				1	7	13	16	76	95	277	48	16	
Skivers, upper, machine, male:																	
Massachusetts.....	17	98	54.2	.3053							3	2	32	53	7	1	
Other States.....	15	36	55.5	.2806					2	3	4	1	10	2	8	3	
Total.....	32	134	54.5	.2987					2	3	4	4	12	34	61	4	
Skivers, upper, machine, female:																	
Massachusetts.....	18	113	53.6	.2252			4	7	9	21	11	14	27	18	2		
Missouri.....	6	57	54.0	.1831		2	4	6	4	10	12	13	6				
New Hampshire.....	5	45	55.7	.2056				1	1	3	9	27	4				
New York.....	9	54	53.6	.2537						5	4	24	12	7	2		
Ohio.....	6	49	53.8	.1857			4	4	8	7	8	13	5				
Other States.....	23	121	56.3	.1960		1	8	8	11	19	13	43	12	6			
Total.....	67	439	54.6	.2088		3	20	26	33	65	57	134	66	31	4		

SOLE-LEATHER DEPARTMENT.

Channelers, insole and outsole, male:																
Massachusetts.....	25	85	54.4	\$0.3649								1	15	44	20	5
New York.....	10	24	53.6	.3428									5	16	3	
Other States.....	40	87	56.9	.3001						2	2	17	24	34	7	1
Total.....	75	196	55.4	.3334						2	2	18	44	94	30	6
Cutters, outsole, male:																
Massachusetts.....	16	86	54.6	.3187									33	48	5	
Missouri.....	2	44	55.6	.3243										44		
Other States.....	24	66	56.2	.2668						3	1	20	22	20		
Total.....	42	196	55.4	.3025						3	1	20	55	112	5	

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

FITTING OR STITCHING DEPARTMENT.

Occupation, sex, 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 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 cts. and over.			
Backstay stitchers, female:																			
Massachusetts.....	25	130	53.6	.2185				3	5	11	19	18	39	19	15	1			
Missouri.....	8	37	54.0	.1693		1	5	7	6	1	9	6	1	1					
New Hampshire.....	6	58	55.4	.1791			5	6	13	12	4	13	3	2					
New York.....	9	30	53.7	.1784		1	2		9	8	4	3	1	2					
Ohio.....	6	32	53.9	.1708			2	3	8	7	3	9							
Other States.....	24	102	56.3	.1941		1	4	14	10	18	17	19	15	4					
Total.....	78	389	54.7	.1945		3	21	35	57	65	55	89	39	24	1				
Button fasteners, female:																			
Total.....	72	232	54.8	.1993	2	5	18	27	33	30	28	40	22	18	9				
Buttonhole makers, female:																			
Massachusetts.....	23	157	53.8	.2166			13	18	15	13	14	34	25	21	3	1			
Missouri.....	7	52	54.0	.1844		2	2	5	6	10	9	13	4	1					
New York.....	10	88	53.5	.1897			5	9	11	12	14	30	7						
Ohio.....	6	57	53.9	.1563	2	2	11	12	9	8	4	6	1	1					1
Other States.....	28	163	56.8	.1897	1	12	12	19	26	16	15	27	23	12					
Total.....	74	517	54.7	.1936	3	16	43	63	67	59	56	110	60	35	3	2			
Closers-on, female:																			
Massachusetts.....	23	98	53.6	.2165			4	9	10	7	11	30	15	10	2				
Missouri.....	8	46	54.0	.1717			5	9	4	2	16	1							
New Hampshire.....	5	17	55.4	.1739			2	3	3	1	3	4	1						
New York.....	11	72	53.2	.1928			4	10	14	11	10	10	8	4	1				
Ohio.....	5	28	53.9	.1903			1	2	3	5	8	5	4						
Other States.....	22	88	56.3	.1869		5	6	10	9	11	12	23	10	1	1				
Total.....	74	349	54.4	.1941		5	22	43	48	39	46	88	39	15	4				
Lining makers, female:																			
Massachusetts.....	26	283	53.7	.2124		2	16	25	18	30	34	87	41	29	1				
Missouri.....	6	60	54.0	.1684		3	5	8	8	11	11	13	1						
New Hampshire.....	6	91	55.4	.1585		8	12	16	12	16	9	16	2						
New York.....	11	109	53.0	.1989		5	4	11	14	15	8	28	15	9					
Ohio.....	6	94	54.0	.1830	1	2	8	10	9	11	20	25	5	3					
Other States.....	25	217	56.6	.1792	3	9	30	27	20	22	25	57	18	6					
Total.....	80	854	54.6	.1902	4	29	75	97	81	105	107	226	82	47	1				
Tip stitchers, female:																			
Massachusetts.....	25	114	53.7	.2473			2	3	11	9	11	27	20	31					
Other States.....	54	223	55.1	.2040		4	7	15	28	39	17	72	26	14	1				
Total.....	79	337	54.7	.2186		4	9	18	39	48	28	99	46	45	1				
Top stitchers or undertrimmers, female:																			
Massachusetts.....	26	375	53.7	.2310			5	15	32	22	36	129	96	38	2				
Missouri.....	8	102	54.0	.1951			6	12	6	9	22	34	12	1					
New Hampshire.....	6	144	55.6	.1653		1	13	26	34	26	16	23	5						
New York.....	11	117	53.4	.2294		3	2	9	11	10	12	32	19	11	8				
Ohio.....	6	98	53.9	.1992			2	6	11	21	14	30	12	2					
Other States.....	25	234	56.6	.2067		2	10	21	30	26	31	59	32	21	2				
Total.....	82	1,070	54.6	.2104		6	38	89	124	114	131	307	176	73	12				
Vampers, male:																			
Massachusetts.....	22	310	53.9	.3443					1	3	3	22	58	146	72	5			
New Hampshire.....	6	65	55.7	.2488					3	8	5	19	17	12	1				
New York.....	10	39	54.3	.3456					1			2	10	15	8	3			
Other States.....	28	140	56.3	.2902				2	6	6	7	23	30	54	12				
Total.....	66	554	54.8	.3195				2	11	17	15	66	115	227	93	8			

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

FITTING OR STITCHING DEPARTMENT—Concluded.

Occupation, sex, 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 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 cts. and over.			
Vampers, female:																			
Massachusetts.....	25	312	53.7	\$0.2654	.....	.....	.....	1	7	18	19	101	85	67	13	1			
Missouri.....	8	110	54.0	.2457	.....	.....	.....	.....	1	10	15	39	21	24	.....	.....	
New Hampshire..	6	117	55.4	.2264	.....	.....	.....	3	3	13	23	37	25	13	.....	.....	
New York.....	9	140	53.7	.2764	.....	.....	.....	1	2	5	11	11	32	31	31	13	3		
Ohio.....	6	142	53.9	.2195	.....	.....	.....	4	5	11	14	19	54	25	9	1	.....	
Other States.....	25	251	56.8	.2302	.....	.....	.....	7	19	25	20	23	67	48	37	5	.....	
Total.....	79	1,072	54.7	.2462	.....	.....	.....	12	30	52	86	110	330	235	181	32	4		

LASTING DEPARTMENT.

Assemblers, for pulling-over machine, male:																			
Massachusetts.....	14	165	54.2	\$0.3208	.....	.....	.....	.....	.....	2	5	22	25	86	25	.....		
Missouri.....	8	82	56.7	.2293	.....	4	5	4	7	4	23	29	5	1	.....	.....	
New Hampshire..	3	44	56.6	.2326	.....	.....	.....	.....	.....	2	5	25	10	2	.....	.....	
New York.....	5	89	53.7	.2346	.....	1	3	4	7	8	32	25	9	.....	.....	.....
Ohio.....	4	43	57.1	.2509	.....	1	1	1	1	5	15	11	7	1	.....	.....	
Other States.....	16	109	57.0	.2316	.....	.....	1	10	6	17	41	20	12	2	.....	.....	
Total.....	50	532	55.5	.2611	.....	6	10	19	25	44	158	120	121	29	.....	.....	
Bed-machine operators, male:																			
Massachusetts....	21	560	54.3	.3428	.....	.....	.....	.....	.....	4	35	153	254	86	28	.....		
Missouri.....	5	92	57.1	.3300	.....	.....	.....	.....	.....	1	6	21	54	10	.....	.....	
New Hampshire..	4	132	55.8	.2522	.....	.....	.....	.....	2	18	51	34	24	1	.....	.....	
New York.....	9	134	54.0	.3572	.....	.....	.....	.....	.....	1	6	20	76	26	5	.....		
Ohio.....	5	58	55.9	.3600	.....	.....	.....	.....	.....	.....	4	11	27	13	3	.....		
Other States.....	21	244	56.6	.3226	.....	.....	.....	.....	3	6	23	62	112	34	4	.....		
Total.....	65	1,220	55.2	.3304	.....	.....	.....	.....	2	6	29	125	301	547	170	40			
Hand-method lasting-machine operators, male:																			
Massachusetts....	12	149	54.2	.3749	.....	.....	.....	.....	.....	.....	5	16	80	37	11	.....		
Missouri.....	6	72	56.2	.3306	.....	.....	.....	.....	.....	.....	3	16	48	5	.....	.....	
New Hampshire..	2	39	55.0	.2766	.....	.....	.....	.....	.....	1	2	11	13	12	.....	.....	
New York.....	3	44	54.2	.3782	.....	.....	.....	.....	.....	.....	3	6	18	12	5	.....		
Ohio.....	6	66	54.9	.3766	.....	.....	.....	.....	.....	.....	4	4	35	19	4	.....		
Other States.....	12	79	57.6	.3599	.....	.....	.....	.....	.....	1	12	5	39	19	3	.....		
Total.....	41	449	55.3	.3572	.....	.....	.....	.....	.....	1	3	38	60	232	92	23			
Pullers-over, hand, male:																			
Massachusetts....	17	445	54.4	.3413	.....	.....	.....	.....	1	.....	34	106	213	80	11	.....		
New Hampshire..	2	27	55.0	.2686	.....	.....	.....	.....	.....	.....	9	11	7	.....	.....		
New York.....	7	77	54.1	.3598	.....	.....	.....	.....	.....	1	7	7	41	16	4	.....		
Ohio.....	5	75	56.7	.3390	.....	.....	.....	.....	1	.....	9	8	43	13	1	.....		
Other States.....	21	313	56.4	.3177	.....	.....	1	1	5	8	54	63	133	43	5	.....		
Total.....	52	937	55.3	.3326	.....	.....	1	3	6	9	113	195	437	152	21	.....		
Pullers-over, machine, male:																			
Massachusetts....	19	173	54.3	.3699	.....	.....	.....	.....	.....	.....	3	22	96	43	9	.....		
Missouri.....	8	59	57.0	.3277	.....	.....	.....	.....	1	2	8	17	15	14	2	.....		
New Hampshire..	4	38	55.8	.2968	.....	.....	.....	.....	1	2	1	7	9	15	2	.....		
New York.....	8	45	53.9	.3771	.....	.....	.....	.....	.....	.....	2	4	22	13	4	.....		
Other States.....	21	106	56.8	.3428	.....	.....	1	.....	1	3	7	19	51	21	3	.....		
Total.....	60	421	55.4	.3513	.....	.....	1	1	4	6	27	71	199	93	19	.....		

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

LASTING DEPARTMENT—Concluded.

Occupation, sex, 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 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 cts. and over.			
Turn lasters, hand, male:																			
Massachusetts.....	4	46	54.1	\$0.3437	.....	.....	.....	.....	.....	.....	.....	4	9	23	9	1			
Missouri.....	3	79	55.8	.3234	.....	.....	.....	.....	.....	.....	1	3	22	53	.....	.....	
New York.....	7	173	52.2	.3220	.....	.....	.....	.....	.....	.....	2	18	41	98	10	4			
Ohio.....	3	36	56.4	.3312	.....	.....	.....	.....	.....	.....	2	2	9	15	7	1			
Other States.....	11	190	57.2	.2814	.....	.....	.....	.....	5	5	12	36	63	63	4	2			
Total.....	28	524	55.0	.3100	.....	.....	.....	.....	5	5	17	63	144	252	30	8			

BOTTOMING DEPARTMENT.

Buffers, male:																			
Massachusetts.....	26	141	54.6	\$0.3530	.....	.....	.....	.....	.....	1	2	6	24	79	26	3			
Missouri.....	8	38	57.1	.2691	.....	.....	.....	.....	.....	1	4	14	7	11	1	.....		
New Hampshire.....	6	55	55.4	.2646	.....	.....	.....	.....	.....	.....	3	19	19	14	.....	.....	
New York.....	6	25	53.0	.3871	.....	.....	.....	.....	.....	1	1	1	4	6	8	4			
Ohio.....	6	32	55.2	.3365	.....	.....	.....	.....	.....	2	2	4	6	13	5	2			
Other States.....	20	63	56.6	.2827	.....	2	1	2	1	3	5	13	13	11	12	.....		
Total.....	72	354	55.3	.3186	.....	2	1	2	1	6	17	57	73	134	52	9			
Edge setters, male:																			
Massachusetts.....	26	311	54.4	.4520	.....	.....	.....	.....	.....	.....	2	19	76	122	92	1			
Missouri.....	8	65	57.0	.3866	.....	.....	.....	.....	.....	.....	.....	9	16	37	.....	.....	
New Hampshire.....	6	88	55.5	.3107	.....	.....	.....	.....	.....	.....	2	6	25	51	4	.....		
New York.....	9	96	53.9	.4531	.....	.....	.....	.....	.....	.....	.....	.....	2	28	39	27			
Ohio.....	6	78	55.9	.4039	.....	.....	.....	.....	.....	.....	2	5	32	29	10	.....		
Other States.....	23	177	56.7	.3867	.....	.....	.....	.....	.....	2	2	10	27	71	39	26			
Total.....	78	815	55.3	.4129	.....	.....	.....	.....	.....	2	4	22	87	274	270	156			
Edge trimmers, male:																			
Massachusetts.....	26	334	54.5	.4307	.....	.....	.....	.....	.....	3	3	12	27	79	132	78			
Missouri.....	8	70	57.1	.3731	.....	.....	.....	.....	.....	.....	.....	8	16	26	23	2			
New Hampshire.....	6	99	55.5	.3298	.....	.....	.....	.....	.....	.....	4	11	22	39	23	.....		
New York.....	10	94	54.0	.4958	.....	.....	.....	.....	.....	.....	.....	.....	1	21	29	43			
Ohio.....	6	69	55.9	.3844	.....	.....	.....	.....	.....	.....	.....	.....	6	39	23	1			
Other States.....	25	172	56.9	.3944	.....	.....	.....	.....	.....	2	.....	18	24	60	38	30			
Total.....	81	838	55.4	.4100	.....	.....	.....	.....	.....	5	7	44	96	264	268	154			
Goodyear stitchers, male:																			
Massachusetts.....	23	268	54.3	.4263	.....	.....	.....	.....	.....	.....	3	9	107	95	54	.....		
Missouri.....	6	52	55.9	.3585	.....	.....	.....	.....	.....	2	1	7	5	25	4	8			
New Hampshire.....	4	71	55.8	.2839	.....	.....	.....	.....	.....	.....	1	15	28	27	.....	.....	
New York.....	8	67	53.9	.4646	.....	.....	.....	.....	.....	1	.....	1	7	19	15	24			
Ohio.....	6	53	55.8	.3124	.....	.....	.....	.....	.....	.....	.....	3	23	22	5	.....		
Other States.....	23	131	56.7	.4210	.....	.....	.....	.....	.....	.....	.....	7	20	42	27	35			
Total.....	70	642	55.2	.3986	.....	.....	.....	.....	.....	3	2	36	92	242	146	121			
Goodyear welters, male:																			
Massachusetts.....	22	201	54.3	.5513	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	56	138			
Missouri.....	6	40	56.8	.4936	.....	.....	.....	.....	.....	.....	.....	1	1	4	10	24			
New Hampshire.....	4	50	55.7	.3623	.....	.....	.....	.....	.....	.....	.....	2	4	28	16	.....		
New York.....	9	47	54.1	.5367	.....	.....	.....	.....	.....	.....	.....	.....	3	5	10	29			
Ohio.....	6	40	55.6	.4034	.....	.....	.....	.....	.....	.....	.....	1	3	17	15	4			
Other States.....	23	94	56.8	.4920	.....	.....	.....	.....	.....	.....	.....	1	10	19	18	46			
Total.....	70	472	55.3	.5006	.....	.....	.....	.....	.....	.....	.....	5	21	80	125	241			

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

BOTTOMING DEPARTMENT—Continued.

Occupation, sex, 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 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 cts. and over.		
Heel breasters, male:																		
Massachusetts.....	26	66	54.5	\$0.3514						2	2	8	11	24	12		7	
Other States.....	49	105	56.0	.2883			1	2	11	5	3	14	26	27	14		2	
Total.....	75	171	55.4	.3127			1	2	11	7	5	22	37	51	26		9	
Heel burnishers, male:																		
Massachusetts.....	26	111	54.5	.3540							1	12	19	50	27		2	
Missouri.....	8	29	57.0	.2540				1	3	1	3	8	5	6	2			
New Hampshire.....	6	24	55.5	.2586						1	6	4	8	3	2			
New York.....	8	29	53.8	.3528						1	7	14	7					
Ohio.....	6	29	56.4	.2857				1	1	2	5	10	8	2				
Other States.....	20	46	57.0	.2717			2	4	3	4	11	3	14	4		1		
Total.....	74	268	55.4	.3130				3	8	6	16	41	52	95	44		3	
Heelers, male:																		
Massachusetts.....	22	96	54.6	.4783							1	2	24	27		42		
Missouri.....	8	30	56.1	.3859							4	2	12	4		8		
New York.....	8	38	54.3	.4467						1	1	1	13	12		11		
Ohio.....	6	32	55.9	.3595						1	8	4	7	6		6		
Other States.....	23	73	56.5	.3853							10	13	23	11		16		
Total.....	67	269	55.4	.4242						1	1	23	22	79	60		83	
Heel scourers, male:																		
Massachusetts.....	25	127	54.4	.3498					2		1	11	21	66	21		5	
Missouri.....	8	41	57.1	.2822					2	1	6	3	13	12		4		
New Hampshire.....	6	43	55.4	.2357						2	5	24	10	1				
New York.....	9	41	53.8	.3829									11	17	9		4	
Ohio.....	6	36	55.7	.2732				1	1	2	4	7	7	12	1		1	
Other States.....	24	76	56.7	.2953			1	2	1	6	5	10	23	12	13		3	
Total.....	78	364	55.4	.3135			1	3	6	11	21	55	85	120	49		13	
Heel-seat nailers, male:																		
Massachusetts.....	22	47	54.5	.3257						3	1	5	10	21	6		1	
Other States.....	50	88	56.0	.2737			2	8	5	2	4	17	16	23	8		3	
Total.....	72	135	55.5	.2918			2	8	5	5	5	22	26	44	14		4	
Heel sluggers, male:																		
Massachusetts.....	26	65	54.6	.3749							8	7	25	21		4		
Other States.....	52	114	56.1	.2725				8	8	11	15	25	13	16	8		10	
Total.....	78	179	55.5	.3097				8	8	11	15	33	20	41	29		14	
Heel trimmers or shavers, male:																		
Massachusetts.....	26	97	54.4	.4948								1	3	21	24		48	
New York.....	10	34	54.0	.5623								2	9	2		21		
Other States.....	45	146	56.3	.3906				1	1	4	2	13	25	41	28		31	
Total.....	81	277	55.4	.4482				1	1	4	2	14	30	71	54		100	
Levelers, male:																		
Massachusetts.....	23	92	54.6	.3331						2	3	11	19	36	18		3	
New York.....	10	54	53.1	.3241				1	3	4	2	8	7	16	8		5	
Ohio.....	6	27	55.9	.2826						2		6	8	10	1			
Other States.....	36	116	56.6	.2759			3	7	1	4	7	7	20	24	31		4	
Total.....	75	289	55.2	.3037			3	7	2	7	15	12	45	58	93		12	
McKay sewers, male:																		
Massachusetts.....	10	51	54.8	.3409							6	11	22	10		2		
Other States.....	22	85	56.1	.3052					2	2	5	14	20	28	13		1	
Total.....	32	136	55.6	.3186					2	2	5	20	31	50	23		3	

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

BOTTOMING DEPARTMENT—Concluded.

Occupation, sex, 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 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 cts. and over.	
Rough rounders, male:																	
Massachusetts.....	22	103	54.3	\$0.5353	.....	.....	.....	.....	.....	.....	.....	.....	1	12	31	59
Missouri.....	6	20	56.9	.4542	.....	.....	.....	.....	.....	.....	.....	2	.....	2	8	8
New Hampshire.....	4	28	55.6	.3795	.....	.....	.....	.....	.....	.....	.....	.....	2	18	8	.....
New York.....	9	33	53.9	.5355	.....	.....	.....	.....	.....	.....	.....	1	1	11	4	16
Ohio.....	6	24	55.9	.3889	.....	.....	.....	.....	.....	.....	.....	.....	4	8	9	3
Other States.....	22	57	56.5	.5226	.....	.....	.....	.....	.....	1	.....	2	4	7	12	31
Total.....	69	265	55.2	.4967	.....	.....	.....	.....	.....	1	.....	5	12	58	72	117

FINISHING DEPARTMENT.

Treers or ironers, hand, male:																
Massachusetts.....	25	569	54.3	\$0.2996					3	4	19	119	163	218	39	4
Missouri.....	7	104	56.9	.2687				1	2	11	8	24	13	44	1	
New Hampshire.....	5	81	56.3	.2425					2	8	7	28	24	12		
New York.....	7	52	53.7	.2519			1	1	4	8	4	15	2	12	5	
Ohio.....	6	72	56.1	.2225				6	9	13	7	12	14	10	1	
Other States.....	23	232	56.8	.2823				13	7	11	15	47	59	57	13	10
Total.....	73	1,110	55.3	.2817			1	21	27	55	60	245	275	353	59	14
Treers or ironers, hand, female:																
Total.....	13	110	54.6	.1578	2	8	5	29	24	13	14	9	4	2		

HOSIERY AND UNDERWEAR MANUFACTURING.

SUMMARY.

In this report, based on information obtained from representative establishments, are shown 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 hosiery and underwear 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 under the designation Hosiery and Knit Goods. The data, however, in those reports were secured from establishments whose product was principally hosiery and underwear.

Summarized briefly, the average full-time weekly earnings of the employees in this industry in 1913 were 5.5 per cent higher than in 1912, 9.8 per cent higher than in 1911, and 10.4 per cent higher than in 1910.

The average full-time hours of labor per week in 1913 were 1.8 per cent lower than in 1912, 3.5 per cent lower than in 1911, and 3.7 per cent lower than in 1910.

The average rates of wages or earnings per hour in 1913 were 7.5 per cent higher than in 1912, 14.3 per cent higher than in 1911, and 14.7 per cent higher than in 1910. Owing to the reduction of hours, the increase in full-time weekly earnings between 1910 and 1913 was not so much as in rates of wages per hour.

The summary figures concerning the several occupations covered by this report are presented in Table I (pp. 94-103). 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.

¹ Previous investigations of wages and hours of labor in hosiery and underwear manufacturing have been made and 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. 134 (August, 1913), covering 1907 to 1912.

According to the plan of the table, direct comparisons can be made properly only between two or more successive years where the data are for identical establishments. Data for successive years from identical establishments are indicated by a brace before each group of years.

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. 134, except the average full-time weekly earnings, which figures have been computed for this Bulletin from the data gathered for the earlier years. The 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 generally 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 pages 17 and 18.

Referring to Table I (pp. 94-103), it is seen that in 1913 the average full-time weekly earnings of males engaged in the industry, represented by 7 occupations, varied from \$8.67 for knitters, footers or toppers, hosiery, to \$13.96 for knitters, web or tube, underwear.

The average full-time weekly earnings of females in 1913, represented by 16 occupations, varied from \$7.80 for fine menders of hosiery to \$10.69 for buttonhole makers on underwear.

Wages and hours of labor often differ materially 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. In Table I it is seen that the average full-time weekly earnings of boarders in 32 establishments increased from \$10.74 in 1911 to \$12.04 in 1912. In 41 establishments there was an increase from \$11.92 in 1912 to \$12.15 in 1913. Therefore, the inclusion of 9 additional establishments, changed the average weekly earnings for 1912 from \$12.04 to \$11.92. Consequently it would not be correct to state that the increase was from \$10.74 in 1911 to \$12.15 in 1913. The movement from one year to another is indicated with a greater degree of certainty by the figures for identical establishments. The difference between \$10.74 and \$12.04 represents the increase from 1911 to 1912, and the difference between \$11.92 and \$12.15 represents the change between 1912 and 1913 as nearly as can be determined from the data available.

Owing to the 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 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 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 20. Thus in the table below the full-time weekly earnings of boarders in 1910 were 89.1 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 16.

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

(1913=100.0.)

	Boarders, male.			Buttonhole makers, underwear, female.			Button sewers, underwear, female.			Cutters, hand, underwear, male.		
Year.	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..	102.3	86.8	89.1	105.5	82.2	86.9	106.6	86.7	92.7	107.1	88.5	94.5
1911..	102.3	85.3	87.5	105.8	84.2	89.2	107.0	85.6	91.7	106.4	91.2	96.9
1912..	100.0	98.0	98.1	104.2	85.9	89.3	105.1	86.4	90.8	106.4	84.6	90.0
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
Cutters, hand, underwear, female.				Finishers, underwear, female.			Inspectors and folders, female.			Knitters, footers or toppers, hosiery, male.		
1910..	104.1	84.2	88.1	106.4	82.7	88.5	104.5	87.9	92.0	100.3	93.5	94.4
1911..	104.1	85.3	89.1	106.2	82.5	88.2	104.7	88.0	92.3	100.0	96.4	96.7
1912..	100.9	93.9	95.0	104.4	85.6	89.6	102.9	90.5	93.3	99.5	103.7	103.3
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
Knitters, footers or toppers, hosiery, female.				Knitters, "lady hose," male.			Knitters, "lady hose," female.			Knitters, rib, hosiery, male.		
1910..	102.1	89.7	91.7	102.3	89.8	91.7	101.5	99.3	100.9	102.5	90.4	92.5
1911..	102.1	91.1	93.2	101.9	90.1	91.8	101.5	100.4	101.9	102.3	90.6	92.5
1912..	100.2	93.0	93.3	99.5	97.2	96.8	99.8	115.1	115.2	100.7	96.0	96.4
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

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

(1913=100.0.)

Year.	Knitters, rib, hosiery, female.			Knitters, web or tube, underwear, male.			Knitters, web or tube, underwear, female.			Loopers, 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..	103.1	79.4	82.0	105.7	78.4	83.1	104.2	116.2	117.6	102.0	92.1	94.7
1911..	103.4	93.0	96.4	105.9	83.9	88.9	103.5	110.5	114.7	102.0	89.8	92.3
1912..	99.8	90.9	91.1	104.2	90.3	94.2	100.7	92.3	93.1	100.2	97.6	98.1
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
Year.	Menders, fine, hosiery, female.			Menders, rough, hosiery, female.			Pressers, male.			Press hands, 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..	102.5	96.9	99.4	101.1	91.4	92.5	103.2	81.1	83.7	106.3	78.3	82.7
1911..	102.5	98.5	101.3	101.1	91.8	92.9	103.2	84.9	87.6	105.9	78.1	82.4
1912..	99.6	101.3	101.0	100.2	98.2	98.4	101.6	89.0	90.3	103.0	80.9	83.2
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
Year.	Seamers, underwear, female.			Welters, female.			Winders, 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..	105.9	81.9	87.2	102.5	84.8	87.5	105.7	84.6	89.8			
1911..	106.3	81.2	87.0	102.5	88.0	90.7	105.5	86.3	91.4			
1912..	105.3	86.4	91.1	100.2	99.4	99.8	102.9	92.8	95.9			
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.

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 11.

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

(1913=100.0.)

Year.	Relative full-time hours per week.	Relative rates of wages per hour.	Relative full-time weekly earnings.
1910.....	103.8	87.2	90.6
1911.....	103.6	87.5	91.1
1912.....	101.8	93.0	94.8
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 industry as a whole decreased from 103.8 in 1910 to 100 in 1913, or, in other words, full-time hours per week

were 103.8 per cent in 1910 of what they were in 1913. The relative or index number for rates of wages per hour increased from 87.2 in 1910 to 100 in 1913. Owing to the reduction of hours the increase in full-time weekly earnings was slightly less than the increase in wages per hour, the increase being from an index of 90.6 in 1910 to 100 in 1913.

In examining the relative or index numbers for the several occupations on pages 79 and 80, and for the industry as a whole in the table above, 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 for the years 1890 to 1912 appears in the appendix, page 127.

The reasons for changing the base of the relative numbers to the most recent year are stated on pages 10 and 18. 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 for the industry as a whole 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. 134 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 divided by the total employees.

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 a change in the industry is not always reflected by the relative computed by averaging the occupation relatives. This reason is more fully explained on page 18.

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 the 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 79 and 80, and simply reverse the method of comparison. Each of these tables also shows the increase or decrease in 1912 as compared with 1911, and in 1911 as compared with 1910. Referring to the second line of the first table, it is seen that the full-time hours of buttonhole makers, underwear, in 1913 were 4 per cent lower than in 1912, 5.5 per cent lower than in 1911, and 5.2 per cent lower than in 1910. Further, it is seen that the full-time hours of labor in this occupation were 1.5 per cent lower in 1912 than in 1911 and 0.3 per cent higher in 1911 than in 1910. The 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.	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
Boarders, male.....	-2.2	-2.2	(¹)	-2.2	(¹)
Buttonhole makers, underwear, female.....	-5.2	-5.5	-4.0	-1.5	+0.3
Button sewers, underwear, female.....	-6.2	-6.5	-4.9	-1.8	+ .4
Cutters, hand, underwear, male.....	-6.6	-6.0	-6.0	(¹)	- .7
Cutters, hand, underwear, female.....	-3.9	-3.9	- .9	-3.1	(¹)
Finishers, underwear, female.....	-6.0	-5.8	-4.2	-1.7	- .2
Inspectors and folders, female.....	-4.3	-4.5	-2.8	-1.7	+ .2
Knitters, footers or toppers, hosiery, male.....	- .3	(¹)	+ .5	- .5	- .3
Knitters, footers or toppers, hosiery, female.....	-2.1	-2.1	- .2	-1.9	(¹)
Knitters, "lady hose," male.....	-2.2	-1.9	+ .5	-2.4	- .4
Knitters, "lady hose," female.....	-1.5	-1.5	+ .2	-1.7	(¹)
Knitters, rib, hosiery, male.....	-2.4	-2.2	- .7	-1.6	- .2
Knitters, rib, hosiery, female.....	-3.0	-3.3	+ .2	-3.5	+ .3
Knitters, web or tube, underwear, male.....	-5.4	-5.6	-4.0	-1.6	+ .2
Knitters, web or tube, underwear, female.....	-4.0	-3.4	- .7	-2.3	- .7
Loopers, female.....	-2.0	-2.0	- .2	-1.8	(¹)
Menders, fine, hosiery, female.....	-2.4	-2.4	+ .4	-2.8	(¹)
Menders, rough, hosiery, female.....	-1.1	-1.1	- .2	- .9	(¹)
Pressers, male.....	-3.1	-3.1	-1.6	-1.6	(¹)
Press hands, female.....	-5.9	-5.6	-2.9	-2.7	- .4
Seamers, underwear, female.....	-5.6	-5.9	-5.0	- .9	+ .4
Welters, female.....	-2.4	-2.4	- .2	-2.2	(¹)
Winders, female.....	-5.4	-5.2	-2.8	-2.5	- .2
The industry.....	-3.7	-3.5	-1.8	-1.7	- .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.	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
Boarders, male.....	+15.2	+17.2	+ 2.0	+14.9	— 1.7
Buttonhole makers, underwear, female.....	+21.7	+18.8	+16.4	+ 2.0	+ 2.4
Button sewers, underwear, female.....	+15.3	+16.8	+15.7	+ .9	+ 1.3
Cutters, hand, underwear, male.....	+13.0	+ 9.6	+18.2	— 7.2	+ 3.1
Cutters, hand, underwear, female.....	+18.8	+17.2	+ 6.5	+10.1	+ 1.3
Finishers, underwear, female.....	+20.9	+21.2	+16.8	+ 3.8	— .2
Inspectors and folders, female.....	+13.8	+13.6	+10.5	+ 2.8	+ .1
Knitters, footers or toppers, hosiery, male.....	+ 7.0	+ 3.7	— 3.6	+ 7.6	+ 3.1
Knitters, footers or toppers, hosiery, female.....	+11.5	+ 9.8	+ 7.5	+ 2.1	+ 1.6
Knitters, "lady hose," male.....	+11.4	+11.0	+ 2.9	+ 7.9	+ .3
Knitters, "lady hose," female.....	+ .7	— .4	—13.1	+14.6	+ 1.1
Knitters, rib, hosiery, male.....	+10.6	+10.4	+ 4.2	+ 6.0	+ .2
Knitters, rib, hosiery, female.....	+25.9	+ 7.5	+10.0	— 2.3	+17.1
Knitters, web or tube, underwear, male.....	+27.6	+19.2	+10.7	+ 7.6	+ 7.0
Knitters, web or tube, underwear, female.....	—13.9	— 9.5	+ 8.3	—16.5	— 4.9
Loopers, female.....	+ 8.6	+11.4	+ 2.5	+ 8.7	— 2.5
Menders, fine, hosiery, female.....	+ 3.2	+ 1.5	— 1.3	+ 2.8	+ 1.7
Menders, rough, hosiery, female.....	+ 9.4	+ 8.9	+ 1.8	+ 7.0	+ .4
Pressers, male.....	+23.3	+17.8	+12.4	+ 4.8	+ 4.7
Press hands, female.....	+27.7	+28.0	+23.6	+ 3.6	— .9
Seamers, underwear, female.....	+22.1	+23.2	+15.7	+ 6.4	— .3
Welters, female.....	+17.9	+13.6	+ .6	+13.0	+ 3.8
Winders, female.....	+18.2	+15.9	+ 7.8	+ 7.5	+ 2.0
The industry.....	+14.7	+14.3	+ 7.5	+ 6.3	+ .3

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.

Boarders, male.....	+12.2	+14.3	+ 1.9	+12.1	— 1.8
Buttonhole makers, underwear, female.....	+15.1	+12.1	+12.0	+ .1	+ 2.6
Button sewers, underwear, female.....	+ 7.9	+ 9.1	+10.1	— 1.0	— 1.1
Cutters, hand, underwear, male.....	+ 5.8	+ 3.2	+11.1	+ 7.1	+ 2.5
Cutters, hand, underwear, female.....	+13.5	+12.2	+ 5.3	+ 6.6	+ 1.1
Finishers, underwear, female.....	+13.0	+13.4	+11.6	+ 1.6	— .3
Inspectors and folders, female.....	+ 8.7	+ 8.3	+ 7.2	+ 1.1	+ .3
Knitters, footers or toppers, hosiery, male.....	+ 5.9	+ 3.4	— 3.2	+ 6.8	+ 2.4
Knitters, footers or toppers, hosiery, female.....	+ 9.1	+ 7.3	+ 7.2	+ .1	+ 1.6
Knitters, "lady hose," male.....	+ 9.1	+ 8.9	+ 3.3	+ 5.4	+ .1
Knitters, "lady hose," female.....	— .9	— 1.9	—13.2	+13.1	+ 1.0
Knitters, rib, hosiery, male.....	+ 8.1	+ 8.1	+ 3.7	+ 4.2	(1)
Knitters, rib, hosiery, female.....	+22.0	+ 3.7	+ 9.8	— 5.5	+17.6
Knitters, web or tube, underwear, male.....	+20.3	+12.5	+ 6.2	+ 6.0	+ 7.0
Knitters, web or tube, underwear, female.....	—15.0	—12.8	+ 7.4	—18.8	— 2.5
Loopers, female.....	+ 5.6	+ 8.3	+ 1.9	+ .3	— 2.5
Menders, fine, hosiery, female.....	+ .6	— 1.3	— 1.0	— .3	+ 1.9
Menders, rough, hosiery, female.....	+ 8.1	+ 7.6	+ 1.6	+ 5.9	+ .4
Pressers, male.....	+19.5	+14.2	+10.7	+ 3.1	+ 4.7
Press hands, female.....	+20.9	+21.4	+20.2	+ 1.0	— .4
Seamers, underwear, female.....	+14.7	+14.9	+ 9.8	+ 4.7	— .2
Welters, female.....	+14.3	+10.3	+ .2	+10.0	+ 3.7
Winders, female.....	+11.4	+ 9.4	+ 4.3	+ 4.9	+ 1.8
The industry.....	+10.4	+ 9.8	+ 5.5	+ 4.1	+ .6

¹ No change.

EXPLANATION OF SCOPE AND METHOD.

This report on hosiery and underwear manufacturing includes establishments engaged primarily in the manufacture of hosiery or underwear. No data are included from establishments whose main products are mittens, gloves, caps, mufflers, athletic goods, shawls, special-

ties, etc. All information in this report was secured from pay rolls of the various establishments by the 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.....	15 identical establishments.
1910 and 1911.....	62 identical establishments.
1911 and 1912.....	62 identical establishments.
1912 and 1913.....	69 identical establishments.

The data for 1907 to 1911 were secured in 1911 and the number of establishments included in the full period from 1907 to 1910, inclusive, was limited owing to the difficulty of finding establishments that had preserved records for those years and also 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 factory or new occupations are introduced, and sometimes data are not available for all occupations in a factory.

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 hosiery and underwear 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, 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 HOSIERY AND UNDERWEAR 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.....	38,133	14	7,796	4,131
New York.....	35,613	18	7,963	3,501
Massachusetts.....	9,935	3	5,426	2,759
North Carolina.....	5,151	4	1,336	813
Wisconsin.....	4,263	4	1,516	902
Connecticut.....	3,338	3	1,154	554
Ohio.....	3,142	5	793	504
Tennessee.....	3,117	2	985	672
New Hampshire.....	3,067	3	1,068	534
Illinois.....	2,885	3	630	320
Georgia.....	2,743	3	940	631
Michigan.....	2,537	3	767	521
Indiana.....	1,933	2	1,769	456
Other States ¹	12,851	2	480	199
Total.....	128,708	69	32,623	16,497

¹ Includes States having less than 2,500 employees (except as entered in detail) in 1910.

According to the census of 1910, more than 90 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 25.3 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 12.8 per cent of the total in the industry in 1910. The pay-roll period taken each year was that ending 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 occupations under normal conditions in the establishments. 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 rates per hour, by dividing the earnings by the hours worked. The time workers and pieceworkers of each occupation are combined as one group.

A majority of the employees in this industry are paid at piece rates. In a considerable number of establishments visited in preceding years the records of the hours worked by individual pieceworkers were so inadequate 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 in the factory 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 shown 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 tabulated 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 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 pages 17 and 18.

The change of the basis of comparison in computing the relative numbers from the average of 1890-1899 to 1913 is referred to on page 81. A more extended explanation is also given on pages 11 and 18. 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. 134, are reproduced in this Bulletin on pages 127 to 131.

The method used in computing the relative or index numbers for the several occupations is explained and illustrated on page 20.

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, as shown in the table on page 80, the full-time weekly earnings in this industry increased from 90.6 in 1910 to 100 in 1913, an increase of 9.4 in the relative for 1913 over the relative for 1910, which number (9.4) is 10.4 per cent of 90.6, thus making the increase in full-time earnings per week of 10.4 per cent in 1913 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. 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 20 to 24.

Four general tables are presented for the hosiery and underwear 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 available data for a State are sufficient 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 THE PRINCIPAL PRODUCTIVE OCCUPATIONS.

The data presented in this Bulletin were obtained from establishments whose sole or main products are hosiery or underwear or both. Figures are shown for 18 occupations: Seven are common to the making of both hosiery and underwear; 5 pertain to hosiery making only, and 6 to underwear making only. While some of the mills do their own spinning and nearly all do dyeing, figures are not shown for such departments. The wages of spinning and dyeing are fairly covered in an earlier Bulletin on the cotton and woolen industries.

The principal departments or subdivisions in order of work in a hosiery mill are usually winding, knitting, looping, mending, boarding, pressing, and folding. In an underwear mill the principal departments in order are usually winding, knitting, cutting, seaming, finishing, boarding, pressing, and folding.

The occupations for which data are presented in this report are:

Boarders, male.	Knitters, rib, hosiery, male.
Buttonhole makers, underwear, female.	Knitters, rib, hosiery, female.
Button sewers, underwear, female.	Knitters, web or tube, underwear, male.
Cutters, hand, underwear, male.	Knitters, web or tube, underwear, female.
Cutters, hand, underwear, female.	Loopers, female.
Finishers, underwear, female.	Menders, fine, hosiery, female.
Inspectors and folders, female.	Menders, rough, hosiery, female.
Knitters, footers or toppers, hosiery, male.	Pressers, male.
Knitters, footers or toppers, hosiery, female.	Press hands, female.
Knitters, "lady hose," male.	Seamers, underwear, female.
Knitters, "lady hose," female.	Welters, female.
	Winders, female.

Hosiery and underwear manufacturing is to a very great extent a woman's industry. Many occupations are filled entirely or mainly by females.

Of the 18 occupations reported 11 are so largely filled by women that wages are presented for females only. In 5 of the occupations the number of each sex warrants the presentation for each sex separately. Two of the occupations, boarders and pressers, require such heavy labor that men are employed almost exclusively.

BOARDERS.

While this occupation occurs in the manufacture of both hosiery and underwear, it belongs mainly to hosiery. Practically all hosiery is boarded, while comparatively little underwear is boarded. The hosiery boarder receives the hose damp from the dyehouse. He draws the hose by hand, while yet damp, over a board shaped to the outline of the human foot and leg. When he has drawn the hose smooth over the board, he sets several boards in a rack and puts the rack in a hot

drying kiln. When the hose are dry he takes the rack from the kiln and removes the hose from the boards. The hose keep the shape given by the board. While racks of hose are drying others are being filled. Underwear boarding is similar to hosiery boarding. The board is shaped to the outline of the human body. Boarding is hard, hot work, and is always done by men.

BUTTONHOLE MAKERS, UNDERWEAR.

The operator uses a special power sewing machine which works and also cuts the buttonhole. The operator usually marks the place for the buttonhole, but the marking may be done by another person. Women are usually employed on this work.

BUTTON SEWERS, UNDERWEAR.

The operator uses a special power machine. The button is placed in position in the machine by hand, and the operation of the machine sews the button on the garment. Usually the operator marks the place for the button. The work is usually done by women.

CUTTERS, HAND, UNDERWEAR.

The material comes to the cutter in the form of a long flat tube or double thick web, or, in other words, a cylinder flattened down, rolled in a bundle. A portion of the web is spread on a long table. The cutter examines the material for defects, and then cuts off a section of this web to garment lengths, lays a pattern on the section, marks the pattern on the goods, and cuts out the garment with a pair of shears.

Or the process may be varied. Several sections of garment lengths may be put in a pile and all cut at one time with a large hand-operated knife worked up and down vertically through a slot in the table.

Both men and women are employed on this work. In some mills machines are used to cut several thicknesses at one time, but the wage data shown in this report do not include the operators of such machines.

FINISHERS, UNDERWEAR.

After the garment has been sewed together by the seamer and the seam has been covered by the cover seamer, the garment is ready for the finisher. The finisher uses a power sewing machine. This work consists in stitching straps, suspender tapes, and bands on drawers, stitching facings on shirts, and also various reseaming operations to strengthen or ornament the garment. Women are employed on this work.

INSPECTORS AND FOLDERS.

The occupations of inspecting and folding are here combined, for the reason that in a considerable number of mills employees are engaged on both interchangeably. Inspecting in this case consists in looking the garment over for defects in work or for holes in material. In many cases the inspectors also mend the imperfections found, and they also cut off threads or little pieces of material, such as tapes, bands, etc. The finished article is then folded to the size desired for packing in a box. Inspecting and folding are done by women.

KNITTERS, FOOTERS OR TOPPERS, HOSIERY.

This knitter is sometimes called a footer, a topper, or a transfer knitter. The operator starts his work with a section of ribbing previously knit on a rib machine. This section may be but 3 or 4 inches long, as placed at the top of men's or children's hose, or it may be a leg length of children's hose. The knitter first sets up the section of ribbing stitch by stitch, by hand, on the quills of a cylinder fitted to his machine, and transfers the stitching from the quills to the needles of his machine. The machine is then started. Automatically it knits onto the ribbing the remainder of the leg and the foot of the hose. The setting of the rib top on the quills preparatory to knitting is done in some instances by a boy or girl helper. A knitter can operate from six to nine machines when the quilling is done by a helper; doing both the transferring and the knitting, the knitter can operate from one to three machines. The machine knits the hose complete and seamless, except an opening across the toe, which must be looped together by another operation. Women greatly outnumber men in this occupation. This occupation is not found in the making of women's hose.

All knitters in this and other operations receive their yarn on cones. Their duties are to prepare the machines for work and see that they run properly and produce a perfect fabric, to tie broken yarn, and to replace empty cones, etc.

KNITTERS, "LADY HOSE."

This is a term quite generally applied to persons operating machines knitting women's seamless hosiery. The operation is also known as string work. The operator can attend from 10 to 16 machines, which knit the hose from the top to the toe, one hose after another, automatically. The machine drops and picks up stitches to knit the heel, and, after knitting the foot, again drops and picks up stitches to form the toe. The machine knits the hose complete and seamless, except an opening across the toe, which must be looped together by

another operation. Men and women are found in this occupation in about equal numbers.

KNITTERS, RIB, HOSIERY.

This knitter operates a machine which knits the rib that is used later as the top of men's and children's hose. One person can attend 20 or more machines. The rib is knit as a long cylinder or tube. Stitches are dropped at intervals to indicate where the rib is to be cut later in lengths for hose tops. Both men and women are employed on these machines. These tops when cut go to a knitter, known as a footer or topper.

KNITTERS, WEB OR TUBE, UNDERWEAR.

The knitting machines are cylindrical in shape and vary in size according to the size of garment to be made from the knit fabric. They knit a tube or cylinder which, when laid flat, forms a continuous piece of goods of double thickness and as wide as the garment to be cut therefrom. The knitter attends from 10 to 15 machines. These machines are either of the latch or spring needle type. The spring needle is one used for light or what is known as flat work; the latch needle is used for the heavier or rib work, which is more elastic and will stretch more than the flat fabric. In all mills it was not possible to separate the latch and spring needle knitters. Usually they do not work interchangeably, but in several mills where they have a few of each class of machines an operator can run either machine. Both men and women are employed at these machines.

LOOPERS.

In hosiery mills this operation consists of looping together the open edges at the toe of the hose as left to this extent unfinished by the knitter. Each edge is set up, stitch by stitch, by hand, on the points of a looping machine, stitches exactly opposite in the opening being placed on the same point. The open edges are then fastened together by the machine. This work requires care and nimble fingers and it takes some time to learn to become an expert operator. Each machine requires an operator. This operation is necessary whether the hose was knit by a footer or topper or a "lady hose" knitter. Females are usually employed on this work.

In an underwear factory this operation consists of looping cuffs to the sleeves of shirts and the ankles of drawers, and in a few cases attaching sleeves to shirts. Mills generally, however, sew on these parts rather than loop them.

MENDERS, FINE HOSIERY.

This work is performed after the hose has been dyed, boarded, and pressed. It consists of examining the hose and correcting by hand with needle and yarn the little faults disclosed by such inspection. The work is done by women. Pairing is sometimes done in connection with this work.

MENDERS, ROUGH, HOSIERY.

This work, sometimes termed first mending or white mending, is usually performed next after the hose has been looped. The hose is first stretched over a board shaped like a leg and foot. The mender examines the hose and corrects the defects found, by hand, using a needle and yarn.

PRESSERS.

Both hosiery and underwear are pressed to give them a smooth finished appearance. Generally the presser receives the hosiery or underwear after they have been piled for pressing by a press hand. The presser places the pile of garments in the press, removes it when sufficiently pressed and returns it to the press hand. This is heavy work and is nearly always done by men. In some mills the presser also does the work of the press hand, which is described below. The presses are of various kinds, running from the old-style hand lever or screw press to the modern power, steam, or hydraulic press.

PRESS HANDS.

Press hands, usually women, lay up the hose or underwear preparatory to pressing and strip out the garments after they have been pressed.

In laying up hose several hose are spread on a large pasteboard, and a pile built up of alternate layers of pasteboard and hose.

In laying up underwear the garment is put on a pasteboard, another board is laid on and the protruding arms of the shirt or legs of the drawers are folded over, and a pile made of alternate layers of pasteboards and garments. The piles are laid up as high as can be handled by the presser, who receives the pile from the press hands and puts it on the press.

After being pressed a sufficient time the piles of hosiery or underwear are returned to the press hands, who remove the garments from between the pasteboards.

SEAMERS, UNDERWEAR.

This term is here used to include cover seamers also, as in many mills the operators work interchangeably. The operators, usually women, use power sewing machines. The seamer receives the parts

of the garment from the cutter and stitches them together. The cover seamer then takes the garment and with a double-needle machine runs over the same seams. This operation covers and strengthens the seam. Other terms applied to this work are felling, cannoning, double needling, etc.

WELTERS.

This is a sewing machine operation also known as hemming. A power machine is used. The tops of stockings and bottoms of undershirts are turned back and stitched. This prevents raveling and gives strength to the top of the stocking and a finish to the shirt. Women usually do this work.

WINDERS.

Winders operate machines that wind yarn onto cones for the knitting machines. The cones hold from 2 to 3½ pounds of yarn. The winding machine brushes out knots and the tension reveals weak spots in the yarn by breaking it. From 10 to 24 cones are attended by one person, who sees that the machines work properly, puts on and removes bobbins and cones, and ties breaks in the yarn. Winding is usually done by women.

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 employ-ees.	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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
Boarders, male:													
8 establishments.....	{ 1907	203	58.4	\$0.2180	(¹)	.....	.....	.....	.....	.....	168	35	.....
	{ 1908	210	58.1	.2111	(¹)	.....	.....	.....	.....	.....	196	14	.....
	{ 1909	220	58.2	.2037	(¹)	.....	.....	.....	.....	.....	206	14	.....
	{ 1910	237	57.1	.2186	(¹)	.....	.....	.....	.....	127	96	14	.....
33 establishments.....	{ 1910	808	57.0	.1926	\$10.97	.....	.....	5	29	397	239	138	.....
	{ 1911	862	57.0	.1893	10.77	.....	.....	5	38	428	239	152	.....
32 establishments.....	{ 1911	869	56.9	.1891	10.74	.....	.....	7	38	435	266	123	.....
	{ 1912	959	55.6	.2173	12.04	.....	2	4	307	454	66	126	.....
41 establishments.....	{ 1912	1,153	55.8	.2145	11.92	.....	3	4	310	531	156	149	.....
	{ 1913	1,172	55.8	.2189	12.15	.....	3	5	319	539	168	138	.....
Buttonhole makers, underwear, female:													
21 establishments.....	{ 1910	178	57.8	.1624	9.41	.....	.....	.....	6	77	29	56	10
	{ 1911	167	58.0	.1663	9.66	.....	.....	.....	5	65	27	61	9
27 establishments.....	{ 1911	191	58.0	.1640	9.53	.....	.....	.....	5	72	30	75	9
	{ 1912	194	57.1	.1672	9.54	.....	4	.....	45	44	24	77	.....
28 establishments.....	{ 1912	196	57.0	.1675	9.55	.....	4	.....	47	44	24	77	.....
	{ 1913	205	54.7	.1951	10.69	.....	.....	.....	150	27	27	1	.....
Button sewers, underwear, female:													
21 establishments.....	{ 1910	159	58.1	.1490	8.66	.....	.....	.....	2	65	26	58	8
	{ 1911	151	58.3	.1471	8.57	.....	.....	.....	4	52	25	59	11
27 establishments.....	{ 1911	171	58.2	.1457	8.50	.....	.....	.....	4	57	28	71	11
	{ 1912	182	57.2	.1471	8.42	.....	5	.....	38	38	26	75	.....
28 establishments.....	{ 1912	183	57.2	.1471	8.42	.....	5	.....	39	38	26	75	.....
	{ 1913	208	54.4	.1702	9.27	.....	.....	.....	171	19	17	1	.....
Cutters, hand, underwear, male:													
12 establishments.....	{ 1910	130	59.3	.2168	12.82	.....	.....	.....	.....	32	15	56	27
	{ 1911	123	58.9	.2236	13.15	.....	.....	.....	.....	37	14	58	14
18 establishments.....	{ 1911	138	58.6	.2265	13.26	.....	.....	.....	.....	48	19	57	14
	{ 1912	162	58.6	.2101	12.32	.....	.....	.....	5	34	17	106	.....
18 establishments.....	{ 1912	148	58.5	.2145	12.56	.....	.....	.....	5	34	17	92	.....
	{ 1913	158	55.0	.2535	13.95	.....	.....	.....	89	45	23	1	.....
Cutters, hand, underwear, female:													
4 establishments.....	{ 1907	82	58.6	.1441	(¹)	.....	.....	.....	.....	.....	59	23	.....
	{ 1908	90	57.9	.1570	(¹)	.....	.....	.....	.....	7	75	8	.....
	{ 1909	98	58.0	.1448	(¹)	.....	.....	.....	.....	7	79	12	.....
	{ 1910	96	56.5	.1436	(¹)	.....	.....	.....	.....	83	.....	13	.....
10 establishments.....	{ 1910	182	56.5	.1374	7.79	.....	.....	.....	.....	144	19	19	.....
	{ 1911	154	56.5	.1391	7.88	.....	.....	.....	.....	122	14	18	.....
14 establishments.....	{ 1911	161	56.4	.1387	7.85	.....	.....	.....	.....	129	14	18	.....
	{ 1912	192	54.7	.1527	8.37	.....	7	.....	118	45	.....	22	.....
12 establishments.....	{ 1912	193	54.7	.1521	8.33	.....	7	.....	121	45	.....	20	.....
	{ 1913	202	54.2	.1620	8.77	.....	.....	.....	165	37	.....	.....	.....

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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
Finishers, underwear, female:													
5 establishments.....	1907	555	58.7	\$0.1579	(1)	.....	.....	.....	.....	.....	349	206	.....
	1908	516	58.6	.1508	(1)	.....	.....	.....	.....	.....	350	166	.....
	1909	533	58.7	.1480	(1)	.....	.....	.....	.....	.....	342	191	.....
	1910	519	57.8	.1541	(1)	.....	.....	.....	.....	315	204	.....	.....
23 establishments.....	1910	1,443	57.9	.1500	\$8.71	.....	.....	.....	23	599	263	509	49
	1911	1,439	57.8	.1497	8.68	.....	.....	.....	28	615	252	511	33
27 establishments.....	1911	1,533	57.9	.1479	8.59	.....	.....	.....	28	627	295	550	33
	1912	1,715	56.9	.1533	8.73	.....	50	.....	468	301	313	583	.....
29 establishments.....	1912	1,808	57.0	.1540	8.79	.....	50	.....	473	301	313	671	.....
	1913	1,934	54.6	.1800	9.81	.....	.....	.....	1,476	255	197	6	.....
Inspectors and folders, female:													
47 establishments.....	1910	1,241	57.7	.1256	7.25	.....	.....	.....	19	530	238	396	58
	1911	1,226	57.8	.1258	7.27	.....	.....	.....	31	522	235	400	38
52 establishments.....	1911	1,311	57.6	.1261	7.26	.....	.....	4	31	534	265	439	38
	1912	1,354	56.6	.1297	7.34	19	22	17	347	304	174	471	.....
56 establishments.....	1912	1,411	56.7	.1299	7.37	19	22	17	339	320	213	481	.....
	1913	1,398	55.1	.1435	7.90	.....	2	4	894	242	130	126	.....
Knitters, footers or toppers, hosiery, male:													
4 establishments.....	1910	152	58.2	.1359	7.88	.....	.....	.....	.....	67	.....	85	.....
	1911	133	58.0	.1400	8.07	.....	.....	.....	.....	65	.....	68	.....
12 establishments.....	1911	172	57.8	.1465	8.43	.....	.....	.....	.....	77	41	54	.....
	1912	209	57.5	.1576	9.01	.....	.....	.....	.....	38	41	82	.....
14 establishments.....	1912	257	57.7	.1558	8.96	.....	.....	.....	38	41	78	100	.....
	1913	314	58.0	.1503	8.67	.....	.....	.....	25	51	113	125	.....
Knitters, footers or toppers, hosiery, female:													
3 establishments.....	1907	154	58.1	.1234	(1)	.....	.....	.....	.....	.....	145	9	.....
	1908	175	58.1	.1337	(1)	.....	.....	.....	.....	.....	166	9	.....
	1909	145	58.1	.1332	(1)	.....	.....	.....	.....	.....	136	9	.....
	1910	116	56.1	.1328	(1)	.....	.....	.....	.....	112	.....	4	.....
32 establishments.....	1910	1,851	57.5	.1213	6.96	.....	.....	25	89	577	697	463	.....
	1911	1,740	57.5	.1232	7.07	.....	.....	26	86	510	653	465	.....
33 establishments.....	1911	2,174	57.2	.1348	7.71	.....	.....	34	86	729	925	400	.....
	1912	2,208	56.1	.1376	7.72	.....	.....	37	294	1,114	532	231	.....
37 establishments.....	1912	2,891	56.1	.1386	7.77	.....	.....	37	294	1,585	696	279	.....
	1913	2,905	56.0	.1490	8.33	7	28	38	439	1,439	693	261	.....
Knitters, "lady hose," male:													
12 establishments.....	1910	235	57.6	.1746	10.03	.....	.....	.....	8	61	128	38	.....
	1911	220	57.4	.1753	10.04	.....	.....	.....	8	65	122	25	.....
13 establishments.....	1911	215	57.4	.1757	10.09	.....	.....	.....	8	67	115	25	.....
	1912	278	56.0	.1895	10.64	.....	.....	.....	86	110	55	27	.....
16 establishments.....	1912	324	55.7	.1880	10.45	.....	.....	.....	140	90	63	31	.....
	1913	307	56.0	.1934	10.80	.....	.....	.....	127	66	71	43	.....

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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Knitters, "lady hose," female:												
12 establishments.....	{ 1910	277	56.2	\$0.1540	\$8.62				47	111	96	23
	{ 1911	260	56.2	.1557	8.70				49	104	82	25
11 establishments.....	{ 1911	252	55.8	.1615	8.99			10	49	104	82	7
	{ 1912	269	54.9	.1852	10.17			10	63	183	5	8
12 establishments.....	{ 1912	328	55.2	.1886	10.43			10	62	217	31	8
	{ 1913	282	55.3	.1638	9.05			8	68	152	54	
Knitters, rib, hosiery, male:												
17 establishments.....	{ 1910	55	56.6	.1992	11.23				4	31	9	11
	{ 1911	47	56.5	.1996	11.23				5	25	9	8
21 establishments.....	{ 1911	92	57.3	.1892	10.81				5	23	54	10
	{ 1912	86	56.4	.2004	11.26				11	33	35	7
21 establishments.....	{ 1912	102	56.8	.1944	10.99				10	33	46	13
	{ 1913	110	56.4	.2025	11.40				20	35	54	1
Knitters, rib, hosiery, female:												
14 establishments.....	{ 1910	49	57.4	.1299	7.45			1		17	18	13
	{ 1911	38	57.6	.1520	8.76			1		12	13	12
13 establishments.....	{ 1911	45	57.1	.1473	8.43			3		12	23	7
	{ 1912	52	55.1	.1440	7.97			13	1	30	4	4
16 establishments.....	{ 1912	68	55.9	.1414	7.92			13	1	30	15	9
	{ 1913	64	56.0	.1556	8.69		2	4		39	12	7
Knitters, web or tube, underwear, male:												
4 establishments.....	{ 1907	101	58.5	.2194	(¹)						74	27
	{ 1908	107	58.3	.2087	(¹)						89	18
	{ 1909	110	58.5	.2131	(¹)						84	26
	{ 1910	100	57.0	.2135	(¹)					74		26
14 establishments.....	{ 1910	212	58.0	.2012	11.69					106	23	69
	{ 1911	209	58.1	.2153	12.51					99	22	72
22 establishments.....	{ 1911	253	57.9	.2111	12.24				16	105	26	90
	{ 1912	261	57.0	.2273	12.97		1		74	58	24	104
20 establishments.....	{ 1912	246	56.9	.2309	13.15				74	58	24	90
	{ 1913	219	54.6	.2557	13.96				142	60	17	
Knitters, web or tube, underwear, female:												
3 establishments.....	{ 1907	101	58.3	.1433	(¹)						86	15
	{ 1908	113	58.4	.1448	(¹)						89	24
	{ 1909	109	58.5	.1316	(¹)						84	25
	{ 1910	96	56.9	.1477	(¹)					75		21
16 establishments.....	{ 1910	245	57.4	.1721	9.59					145	44	42
	{ 1911	205	57.0	.1636	9.36					130	35	36
19 establishments.....	{ 1911	216	56.9	.1618	9.23				3	138	35	36
	{ 1912	181	55.4	.1352	7.49		14		77	35	27	28
14 establishments.....	{ 1912	176	55.3	.1344	7.43		14		77	35	25	25
	{ 1913	166	54.9	.1456	7.98				106	34	22	4

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—						
						Under 48	Over 48 and under 57	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Loopers, female:												
9 establishments.....	1907	610	58.4	\$0.1403	(1)	.....	.....	.....	.....	446	164	.....
	1908	637	58.2	.1279	(1)	.....	.....	.....	.....	539	98	.....
	1909	603	58.2	.1385	(1)	.....	.....	.....	.....	507	96	.....
	1910	582	57.5	.1389	(1)	.....	.....	.....	.....	202	277	103
43 establishments.....	1910	2,013	57.3	.1326	\$7.59	.....	.....	5	48	800	759	401
	1911	1,904	57.3	.1293	7.40	.....	.....	7	66	734	722	375
44 establishments.....	1911	2,089	57.1	.1343	7.69	.....	.....	13	66	769	924	317
	1912	2,262	56.1	.1459	8.17	.....	12	12	486	1,021	413	318
49 establishments.....	1912	2,524	56.1	.1464	8.21	.....	12	12	486	1,159	520	335
	1913	2,542	56.0	.1500	8.37	.....	12	14	619	1,094	514	289
Menders, fine, hosiery, female:												
8 establishments.....	1907	112	58.5	.1446	(1)	.....	.....	.....	.....	80	32	.....
	1908	132	57.9	.1324	(1)	.....	.....	.....	.....	130	2	.....
	1909	115	57.8	.1313	(1)	.....	.....	.....	.....	113	2	.....
	1910	110	57.5	.1375	(1)	.....	.....	.....	.....	22	87	1
30 establishments.....	1910	385	57.2	.1320	7.53	.....	.....	5	14	136	181	49
	1911	399	57.2	.1342	7.67	.....	.....	5	15	156	155	68
27 establishments.....	1911	359	57.2	.1344	7.69	.....	.....	7	15	127	151	59
	1912	297	55.6	.1382	7.67	.....	.....	5	105	125	13	49
28 establishments.....	1912	326	55.4	.1424	7.88	.....	.....	3	128	132	25	38
	1913	276	55.6	.1406	7.80	.....	2	5	107	103	14	45
Menders, rough, hosiery, female:												
5 establishments.....	1907	147	58.4	.1108	(1)	.....	.....	.....	.....	116	31	.....
	1908	134	58.3	.1260	(1)	.....	.....	.....	.....	112	22	.....
	1909	123	58.4	.1276	(1)	.....	.....	.....	.....	100	23	.....
	1910	122	57.5	.1216	(1)	.....	.....	.....	.....	55	40	27
29 establishments.....	1910	704	57.0	.1219	6.93	.....	.....	6	25	357	145	171
	1911	648	57.0	.1225	6.96	.....	.....	5	23	325	147	148
30 establishments.....	1911	728	56.9	.1318	7.49	.....	.....	14	23	332	252	107
	1912	681	56.4	.1409	7.93	.....	.....	12	114	273	174	108
35 establishments.....	1912	782	56.5	.1408	7.94	.....	.....	12	114	306	224	126
	1913	813	56.4	.1434	8.07	.....	8	13	133	308	218	133
Pressers, male:												
7 establishments.....	1907	32	59.3	.1910	(1)	.....	.....	.....	.....	.....	12	20
	1908	35	59.2	.1670	(1)	.....	.....	.....	.....	.....	16	19
	1909	40	59.1	.1714	(1)	.....	.....	.....	.....	.....	19	21
	1910	33	58.9	.1850	(1)	.....	.....	.....	.....	.....	18	15
34 establishments.....	1910	155	58.0	.1774	10.23	.....	.....	.....	2	49	39	60
	1911	151	58.0	.1856	10.70	.....	.....	.....	2	48	36	60
33 establishments.....	1911	151	57.7	.1874	10.75	.....	.....	.....	2	61	29	54
	1912	157	56.8	.1964	11.09	.....	6	.....	10	75	10	55
39 establishments.....	1912	204	56.9	.1846	10.45	.....	6	.....	11	97	22	67
	1913	202	56.0	.2075	11.57	.....	.....	.....	62	79	25	36

¹ Not computed.² Sixty-three hours 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—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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Press hands, female:												
2 establishments.....	{ 1907	100	58.0	\$0.1188	(1)						100	
	{ 1908	107	58.0	.1182	(1)						107	
	{ 1909	115	58.0	.1055	(1)						115	
	{ 1910	94	56.0	.1281	(1)					94		
13 establishments.....	{ 1910	207	57.7	.1186	\$6.83				4	100	45	13
	{ 1911	208	57.5	.1183	6.80				5	111	33	7
12 establishments.....	{ 1911	196	57.4	.1157	6.65				5	108	22	54
	{ 1912	206	55.8	.1198	6.72				95	49	12	50
10 establishments.....	{ 1912	207	55.8	.1197	6.70				91	57	12	47
	{ 1913	196	54.2	.1480	8.05	3			158	22	13	
Seamers, underwear, female:												
5 establishments.....	{ 1907	390	58.6	.1443	(1)						269	121
	{ 1908	426	58.5	.1564	(1)						323	103
	{ 1909	439	58.6	.1576	(1)						307	132
	{ 1910	433	57.2	.1436	(1)					298		135
23 establishments.....	{ 1910	1,181	57.8	.1429	8.26				22	524	163	408
	{ 1911	1,197	58.0	.1417	8.24				28	508	149	453
27 establishments.....	{ 1911	1,280	58.1	.1411	8.22				28	514	170	509
	{ 1912	1,265	57.6	.1501	8.61		14		330	162	205	554
29 establishments.....	{ 1912	1,321	57.2	.1487	8.52		14		372	176	205	554
	{ 1913	1,371	54.3	.1721	9.35				1,137	162	69	3
Welters, female:												
23 establishments.....	{ 1910	250	57.6	.1205	6.95				2	107	76	65
	{ 1911	282	57.6	.1250	7.20				3	122	80	77
23 establishments.....	{ 1911	288	57.4	.1272	7.30				3	135	92	58
	{ 1912	303	56.1	.1437	8.03			2	110	99	25	67
26 establishments.....	{ 1912	302	56.1	.1445	8.08		1	2	111	85	36	67
	{ 1913	334	56.0	.1454	8.10				151	70	46	67
Winders, female:												
6 establishments.....	{ 1907	266	58.8	.1403	(1)						166	100
	{ 1908	276	58.7	.1625	(1)						177	99
	{ 1909	262	58.6	.1515	(1)						177	85
	{ 1910	276	57.5	.1492	(1)					172		104
38 establishments.....	{ 1910	1,020	58.0	.1292	7.51			1		411	243	246
	{ 1911	960	57.9	.1318	7.64			1		411	217	254
45 establishments.....	{ 1911	1,001	57.8	.1302	7.54			2	12	408	250	252
	{ 1912	982	56.4	.1400	7.91			15	2	265	311	115
53 establishments.....	{ 1912	1,099	56.4	.1392	7.87		15	2	269	386	122	305
	{ 1913	1,119	54.8	.1500	8.21		3	2	690	280	106	38

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.

Occupation, sex, and number of establishments.	Year.	Number of employ-ees.	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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63	
Boarders, male:													
8 establishments.....	{ 1907	203	58.4	\$0.2180	(1)	.....	.....	.....	.....	.....	82.8	17.2	.....
	{ 1908	210	58.1	.2111	(1)	.....	.....	.....	.....	.....	93.3	6.7	.....
	{ 1909	220	58.2	.2037	(1)	.....	.....	.....	.....	.....	93.6	6.4	.....
	{ 1910	237	57.1	.2186	(1)	.....	.....	.....	.....	53.6	40.5	5.9	.....
33 establishments.....	{ 1910	808	57.0	.1926	\$10.97	.....	.....	0.6	3.6	49.1	29.6	17.1	.....
	{ 1911	862	57.0	.1893	10.77	.....	.....	.6	4.4	49.7	27.7	17.6	.....
32 establishments.....	{ 1911	869	56.9	.1891	10.74	.....	.....	.8	4.4	50.1	30.6	14.2	.....
	{ 1912	959	55.6	.2173	12.04	.....	0.2	.4	32.0	47.3	6.9	13.1	.....
41 establishments.....	{ 1912	1,153	55.8	.2145	11.92	.....	.3	.3	26.9	46.1	13.5	12.9	.....
	{ 1913	1,172	55.8	.2189	12.15	.....	.3	.4	27.2	46.0	14.3	11.8	.....
Buttonhole makers, under- wear, female:													
21 establishments.....	{ 1910	178	57.8	.1624	9.41	.....	.....	.....	3.4	43.3	16.3	31.5	5.6
	{ 1911	167	58.0	.1663	9.66	.....	.....	.....	3.0	38.9	16.2	36.5	5.4
27 establishments.....	{ 1911	191	58.0	.1640	9.53	.....	.....	.....	2.6	37.7	15.7	39.3	4.7
	{ 1912	194	57.1	.1672	9.54	.....	2.1	.....	23.2	22.7	12.4	39.7	.....
28 establishments.....	{ 1912	196	57.0	.1675	9.55	.....	2.0	.....	24.0	22.4	12.2	39.3	.....
	{ 1913	205	54.7	.1951	10.69	.....	.....	.....	73.2	13.2	13.2	.5	.....
Button sewers, underwear, female:													
21 establishments.....	{ 1910	159	58.1	.1490	8.66	.....	.....	.....	1.3	40.9	16.4	36.5	5.0
	{ 1911	151	58.3	.1471	8.57	.....	.....	.....	2.6	34.4	16.6	39.1	7.3
27 establishments.....	{ 1911	171	58.2	.1457	8.50	.....	.....	.....	2.3	33.3	16.4	41.5	6.4
	{ 1912	182	57.2	.1471	8.42	.....	2.7	.....	20.9	20.9	14.3	41.2	.....
28 establishments.....	{ 1912	183	57.2	.1471	8.42	.....	2.7	.....	21.3	20.8	14.2	41.0	.....
	{ 1913	208	54.4	.1702	9.27	.....	.....	.....	82.2	9.1	8.2	.5	.....
Cutters, hand, underwear, male:													
12 establishments.....	{ 1910	130	59.3	.2168	12.82	.....	.....	.....	.....	24.6	11.5	43.1	20.8
	{ 1911	123	58.9	.2236	13.15	.....	.....	.....	.....	30.1	11.4	47.2	11.4
18 establishments.....	{ 1911	138	58.6	.2265	13.26	.....	.....	.....	.....	34.8	13.8	41.3	10.1
	{ 1912	162	58.6	.2101	12.32	.....	.....	3.1	21.0	10.5	65.4	.....	.....
18 establishments.....	{ 1912	148	58.5	.2145	12.56	.....	.....	3.4	23.0	11.5	62.2	.....	.....
	{ 1913	158	55.0	.2535	13.95	.....	.....	56.3	28.5	14.6	.6	.....	.....
Cutters, hand, underwear, female:													
4 establishments.....	{ 1907	82	58.6	.1441	(1)	.....	.....	.....	.....	.....	72.0	28.0	.....
	{ 1908	90	57.9	.1570	(1)	.....	.....	.....	.....	7.8	83.3	8.9	.....
	{ 1909	98	58.0	.1448	(1)	.....	.....	.....	.....	7.1	80.6	12.2	.....
	{ 1910	96	56.5	.1436	(1)	.....	.....	.....	.....	86.5	.....	13.5	.....
10 establishments.....	{ 1910	182	56.5	.1374	7.79	.....	.....	.....	.....	79.1	10.4	10.4	.....
	{ 1911	154	56.5	.1391	7.88	.....	.....	.....	.....	79.2	9.1	11.7	.....
14 establishments.....	{ 1911	161	56.4	.1387	7.85	.....	.....	.....	.....	80.1	8.7	11.2	.....
	{ 1912	192	54.7	.1527	8.37	.....	3.6	.....	61.5	23.4	.....	11.5	.....
12 establishments.....	{ 1912	193	54.7	.1521	8.33	.....	3.6	.....	62.7	23.3	.....	10.4	.....
	{ 1913	202	54.2	.1620	8.77	.....	.....	.....	81.7	18.3	.....	.....	.....

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 employ-ees.	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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Finishers, underwear, female:												
5 establishments.....	{ 1907	555	58.7	\$0.1579	(1)	.....	.....	.....	.....	62.9	37.1	.....
	{ 1908	516	58.6	.1508	(1)	.....	.....	.....	.....	67.8	32.2	.....
	{ 1909	533	58.7	.1480	(1)	.....	.....	.....	.....	64.2	35.8	.....
	{ 1910	519	57.8	.1541	(1)	.....	.....	.....	60.7	.....	39.3	.....
23 establishments.....	{ 1910	1,443	57.9	.1500	\$8.71	.....	.....	.....	1.6	41.5	18.2	35.3 3.4
	{ 1911	1,439	57.8	.1497	8.68	.....	.....	.....	1.9	42.7	17.5	35.5 2.3
27 establishments.....	{ 1911	1,533	57.9	.1479	8.59	.....	.....	.....	1.8	40.9	19.2	35.9 2.2
	{ 1912	1,715	56.9	.1533	8.73	.....	2.9	.....	27.3	17.6	18.3	34.0
29 establishments.....	{ 1912	1,808	57.0	.1540	8.79	.....	2.8	.....	26.2	16.6	17.3	37.1
	{ 1913	1,934	54.6	.1800	9.81	.....	.....	.....	76.3	13.2	10.2	3
Inspectors and folders, female:												
47 establishments.....	{ 1910	1,241	57.7	.1256	7.25	.....	.....	.....	1.5	42.7	19.2	31.9 4.7
	{ 1911	1,226	57.8	.1258	7.27	.....	.....	.....	2.5	42.6	19.2	32.6 3.1
52 establishments.....	{ 1911	1,311	57.6	.1261	7.26	.....	.....	0.3	2.4	40.7	20.2	33.5 2.9
	{ 1912	1,354	56.6	.1297	7.34	1.4	1.6	1.3	25.6	22.5	12.9	34.8
56 establishments.....	{ 1912	1,411	56.7	.1299	7.37	1.3	1.6	1.2	24.0	22.7	15.1	34.1
	{ 1913	1,398	55.1	.1435	7.90	.....	.1	.3	63.9	17.3	9.3	9.0
Knitters, footers or toppers, hosiery, male:												
4 establishments.....	{ 1910	152	58.2	.1359	7.88	.....	.....	.....	.....	44.1	.....	55.9
	{ 1911	133	58.0	.1400	8.07	.....	.....	.....	.....	48.9	.....	51.1
12 establishments.....	{ 1911	172	57.8	.1465	8.43	.....	.....	.....	.....	44.8	23.8	31.4
	{ 1912	209	57.5	.1576	9.01	.....	.....	.....	18.2	19.6	23.0	39.2
14 establishments.....	{ 1912	257	57.7	.1558	8.96	.....	.....	.....	14.8	16.0	30.4	38.9
	{ 1913	314	58.0	.1503	8.67	.....	.....	.....	8.0	16.2	36.0	39.8
Knitters, footers or toppers, hosiery, female:												
3 establishments.....	{ 1907	154	58.1	.1234	(1)	.....	.....	.....	.....	.....	94.2	5.8
	{ 1908	175	58.1	.1337	(1)	.....	.....	.....	.....	.....	94.9	5.1
	{ 1909	145	58.1	.1332	(1)	.....	.....	.....	.....	.....	93.8	6.2
	{ 1910	116	56.1	.1328	(1)	.....	.....	.....	.....	96.6	.....	3.4
32 establishments.....	{ 1910	1,851	57.5	.1213	6.96	.....	.....	1.4	4.8	31.2	37.7	25.0
	{ 1911	1,740	57.5	.1232	7.07	.....	.....	1.5	4.9	29.3	37.5	26.7
33 establishments.....	{ 1911	2,174	57.2	.1348	7.71	.....	.....	1.6	4.0	33.5	42.5	18.4
	{ 1912	2,208	56.1	.1376	7.72	.....	.....	1.7	13.3	50.5	24.1	10.5
37 establishments.....	{ 1912	2,891	56.1	.1386	7.77	.....	.....	1.3	10.2	54.8	24.1	9.7
	{ 1913	2,905	56.0	.1490	8.33	.2	1.0	1.3	15.1	49.5	23.9	9.0
Knitters, "lady hose," male:												
12 establishments.....	{ 1910	235	57.6	.1746	10.03	.....	.....	.....	3.4	26.0	54.5	16.2
	{ 1911	220	57.4	.1753	10.04	.....	.....	.....	3.6	29.5	55.5	11.4
13 establishments.....	{ 1911	215	57.4	.1757	10.09	.....	.....	.....	3.7	31.2	53.5	11.6
	{ 1912	278	56.0	.1895	10.64	.....	.....	.....	30.9	39.6	19.8	9.7
16 establishments.....	{ 1912	324	55.7	.1880	10.45	.....	.....	.....	43.2	27.8	19.4	9.6
	{ 1913	307	56.0	.1934	10.80	.....	.....	.....	41.4	21.5	23.1	14.0

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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
Knitters, "lady hose," female:													
12 establishments.....	{ 1910	277	56.2	\$0.1540	\$8.62	.....	.....	17.0	40.1	34.7	8.3	.....	.....
	{ 1911	260	56.2	.1557	8.70	.....	.....	18.8	40.0	31.5	9.6	.....	.....
11 establishments.....	{ 1911	252	55.8	.1615	8.99	.....	.....	4.0	19.4	41.3	32.5	2.8	.....
	{ 1912	269	54.9	.1852	10.17	.....	.....	3.7	23.4	68.0	1.9	3.0	.....
12 establishments.....	{ 1912	328	55.2	.1886	10.43	.....	.....	3.0	18.9	66.2	9.5	2.4	.....
	{ 1913	282	55.3	.1638	9.05	.....	.....	2.8	24.1	53.9	19.1	.....	.....
Knitters, rib, hosiery, male:													
17 establishments.....	{ 1910	55	56.6	.1992	11.23	.....	.....	7.3	56.4	16.4	20.0	.....	.....
	{ 1911	47	56.5	.1996	11.23	.....	.....	10.6	53.2	19.1	17.0	.....	.....
21 establishments.....	{ 1911	92	57.3	.1892	10.81	.....	.....	5.4	25.0	58.7	10.9	.....	.....
	{ 1912	86	56.4	.2004	11.26	.....	.....	12.8	38.4	40.7	8.1	.....	.....
21 establishments.....	{ 1912	102	56.8	.1944	10.99	.....	.....	9.8	32.4	45.1	12.7	.....	.....
	{ 1913	110	56.4	.2025	11.40	.....	.....	18.2	31.8	49.1	.9	.....	.....
Knitters, rib, hosiery, female:													
14 establishments.....	{ 1910	49	57.4	.1299	7.45	.....	.....	2.0	.....	34.7	36.7	26.5	.....
	{ 1911	38	57.6	.1520	8.76	.....	.....	2.6	.....	31.6	34.2	31.6	.....
13 establishments.....	{ 1911	45	57.1	.1473	8.43	.....	.....	6.7	.....	26.7	51.1	15.6	.....
	{ 1912	52	55.1	.1440	7.97	.....	.....	25.0	1.9	57.7	7.7	7.7	.....
16 establishments.....	{ 1912	68	55.9	.1414	7.92	.....	.....	19.1	1.5	44.1	22.1	13.2	.....
	{ 1913	64	56.0	.1556	8.69	.....	3.1	6.3	.....	60.9	18.8	10.9	.....
Knitters, web or tube, underwear, male:													
4 establishments.....	{ 1907	101	58.5	.2194	(¹)	.....	.....	.....	.....	73.3	26.7	.....	.....
	{ 1908	107	58.3	.2087	(¹)	.....	.....	.....	.....	83.2	16.8	.....	.....
	{ 1909	110	58.5	.2131	(¹)	.....	.....	.....	.....	76.4	23.6	.....	.....
	{ 1910	100	57.0	.2135	(¹)	.....	.....	.....	.....	74.0	26.0	.....	.....
14 establishments.....	{ 1910	212	58.0	.2012	11.69	.....	.....	.....	50.0	10.8	32.5	6.6	.....
	{ 1911	209	58.1	.2153	12.51	.....	.....	.....	47.4	10.5	34.4	7.7	.....
22 establishments.....	{ 1911	253	57.9	.2111	12.24	.....	.....	6.3	41.5	10.3	35.6	6.3	.....
	{ 1912	261	57.0	.2273	12.97	.....	4	.....	28.4	22.2	9.2	39.8	.....
20 establishments.....	{ 1912	246	56.9	.2309	13.15	.....	.....	30.1	23.6	9.8	36.6	.....	.....
	{ 1913	219	54.6	.2557	13.96	.....	.....	64.8	27.4	7.8	.....	.....	.....
Knitters, web or tube, underwear, female:													
3 establishments.....	{ 1907	101	58.3	.1433	(¹)	.....	.....	.....	.....	85.1	14.9	.....	.....
	{ 1908	113	58.4	.1448	(¹)	.....	.....	.....	.....	78.8	21.2	.....	.....
	{ 1909	109	58.5	.1316	(¹)	.....	.....	.....	.....	77.1	22.9	.....	.....
	{ 1910	96	56.9	.1477	(¹)	.....	.....	.....	.....	78.1	21.9	.....	.....
16 establishments.....	{ 1910	245	57.4	.1721	9.59	.....	.....	.....	59.2	18.0	17.1	5.7	.....
	{ 1911	205	57.0	.1636	9.36	.....	.....	.....	63.4	17.1	17.6	2.0	.....
19 establishments.....	{ 1911	216	56.9	.1618	9.23	.....	.....	1.4	63.9	16.2	16.7	1.9	.....
	{ 1912	181	55.4	.1352	7.49	.....	7.7	.....	42.5	19.3	14.9	15.5	.....
14 establishments.....	{ 1912	176	55.3	.1344	7.43	.....	8.0	.....	43.8	19.9	14.2	14.2	.....
	{ 1913	166	54.9	.1456	7.98	.....	.....	.....	63.9	20.5	13.3	2.4	.....

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 employ-ees.	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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63	
Loopers, female:													
9 establishments.....	{ 1907	610	58.4	\$0.1403	(1)	.....	.....	.....	.....	73.1	26.9	.....
	{ 1908	637	58.2	.1279	(1)	.....	.....	.....	.....	84.6	15.4	.....
	{ 1909	603	58.2	.1385	(1)	.....	.....	.....	.....	84.1	15.9	.....
	{ 1910	582	57.5	.1389	(1)	.....	.....	.....	34.7	47.6	17.7	.....
43 establishments.....	{ 1910	2,013	57.3	.1326	\$7.59	.....	.....	0.2	2.4	39.7	37.7	19.9
	{ 1911	1,904	57.3	.1293	7.40	.....	.....	.4	3.5	38.6	37.9	19.7
44 establishments.....	{ 1911	2,089	57.1	.1343	7.69	.....	.....	.6	3.2	36.8	44.2	15.2
	{ 1912	2,262	56.1	.1459	8.17	.....	0.5	.5	21.5	45.1	18.3	14.1
49 establishments.....	{ 1912	2,524	56.1	.1464	8.21	.....	.5	.5	19.3	45.9	20.6	13.3
	{ 1913	2,542	56.0	.1500	8.37	.....	.5	.6	24.4	43.0	20.2	11.4
Menders, fine, hosiery, female:													
8 establishments.....	{ 1907	112	58.5	.1446	(1)	.....	.....	.....	.....	71.4	28.6	.....
	{ 1908	132	57.9	.1324	(1)	.....	.....	.....	.....	98.5	1.5	.....
	{ 1909	115	57.8	.1313	(1)	.....	.....	.....	.....	98.3	1.7	.....
	{ 1910	110	57.5	.1375	(1)	.....	.....	.....	20.0	79.1	.9	.....
30 establishments.....	{ 1910	385	57.2	.1320	7.53	.....	.....	1.3	3.6	35.3	47.0	12.7
	{ 1911	399	57.2	.1342	7.67	.....	.....	1.3	3.8	39.1	38.8	17.0
27 establishments.....	{ 1911	359	57.2	.1344	7.69	.....	.....	1.9	4.2	35.4	42.1	16.4
	{ 1912	297	55.6	.1382	7.67	.....	.....	1.7	35.4	42.1	4.4	16.5
28 establishments.....	{ 1912	326	55.4	.1424	7.88	.....	.....	.9	39.3	40.5	7.7	11.7
	{ 1913	276	55.6	.1406	7.80	.....	.7	1.8	38.8	37.3	5.1	16.3
Menders, rough, hosiery, female:													
5 establishments.....	{ 1907	147	58.4	.1108	(1)	.....	.....	.....	.....	78.9	21.1	.....
	{ 1908	134	58.3	.1260	(1)	.....	.....	.....	.....	83.6	16.4	.....
	{ 1909	123	58.4	.1276	(1)	.....	.....	.....	.....	81.3	18.7	.....
	{ 1910	122	57.5	.1216	(1)	.....	.....	.....	45.1	32.8	22.1	.....
29 establishments.....	{ 1910	704	57.0	.1219	6.93	.....	.....	.9	3.6	50.7	20.6	24.3
	{ 1911	648	57.0	.1225	6.96	.....	.....	.8	3.5	50.2	22.7	22.8
30 establishments.....	{ 1911	728	56.9	.1318	7.49	.....	.....	1.9	3.2	45.6	34.6	14.7
	{ 1912	681	56.4	.1409	7.93	.....	.....	1.8	16.7	40.1	25.6	15.9
35 establishments.....	{ 1912	782	56.5	.1408	7.94	.....	.....	1.5	14.6	39.1	28.6	16.1
	{ 1913	813	56.4	.1434	8.07	.....	1.0	1.6	16.4	37.9	26.8	16.4
Pressers, male:													
7 establishments.....	{ 1907	32	59.3	.1910	(1)	.....	.....	.....	.....	37.5	62.5	.....
	{ 1908	35	59.2	.1670	(1)	.....	.....	.....	.....	45.7	54.3	.....
	{ 1909	40	59.1	.1714	(1)	.....	.....	.....	.....	47.5	52.5	.....
	{ 1910	33	58.9	.1850	(1)	.....	.....	.....	.....	54.5	45.5	.....
34 establishments.....	{ 1910	155	58.0	.1774	10.23	.....	.....	.....	1.3	31.6	25.2	38.7
	{ 1911	151	58.0	.1856	10.70	.....	.....	.....	1.3	31.8	23.8	39.7
33 establishments.....	{ 1911	151	57.7	.1874	10.75	.....	.....	.....	1.3	40.4	19.2	35.8
	{ 1912	157	56.8	.1964	11.09	.....	3.8	.....	6.4	47.8	6.4	35.0
39 establishments.....	{ 1912	204	56.9	.1846	10.45	.....	2.9	.....	5.4	47.5	10.8	32.8
	{ 1913	202	56.0	.2075	11.57	.....	.....	.....	30.7	39.1	12.4	17.8

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—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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Press hands, female:												
2 establishments.....	{ 1907	100	58.0	\$0.1188	(1)	.....	.....	.....	.....	100.0	.....	.....
	{ 1908	107	58.0	.1182	(1)	.....	.....	.....	.....	100.0	.....	.....
	{ 1909	115	58.0	.1055	(1)	.....	.....	.....	.....	100.0	.....	.....
	{ 1910	94	56.0	.1281	(1)	.....	.....	.....	.....	100.0	.....	.....
13 establishments.....	{ 1910	207	57.7	.1186	\$6.83	.....	.....	.....	1.9	48.3	21.7	6.3
	{ 1911	208	57.5	.1183	6.80	.....	.....	.....	2.4	53.4	15.9	3.4
12 establishments.....	{ 1911	196	57.4	.1157	6.65	.....	.....	.....	2.6	55.1	11.2	3.6
	{ 1912	206	55.8	.1198	6.72	.....	.....	.....	46.1	23.8	5.8	24.3
10 establishments.....	{ 1912	207	55.8	.1197	6.70	.....	.....	.....	44.0	27.5	5.8	22.7
	{ 1913	196	54.2	.1480	8.05	1.5	.....	.....	80.6	11.2	6.6	.....
Seamers, underwear, female:												
5 establishments.....	{ 1907	390	58.6	.1443	(1)	.....	.....	.....	.....	69.0	31.0	.....
	{ 1908	426	58.5	.1564	(1)	.....	.....	.....	.....	75.8	24.3	.....
	{ 1909	439	58.6	.1576	(1)	.....	.....	.....	.....	69.9	30.1	.....
	{ 1910	433	57.2	.1436	(1)	.....	.....	.....	.....	68.8	31.2	.....
23 establishments.....	{ 1910	1,181	57.8	.1429	8.26	.....	.....	.....	1.9	44.4	13.8	5.4
	{ 1911	1,197	58.0	.1417	8.24	.....	.....	.....	2.3	42.2	12.4	4.9
27 establishments.....	{ 1911	1,280	58.1	.1411	8.22	.....	.....	.....	2.2	40.2	13.3	4.6
	{ 1912	1,265	57.6	.1501	8.61	.....	1.1	.....	26.1	12.8	16.2	.....
29 establishments.....	{ 1912	1,321	57.2	.1487	8.52	.....	1.1	.....	28.2	13.3	15.5	41.9
	{ 1913	1,371	54.3	.1721	9.35	.....	.....	.....	82.9	11.8	5.0	.2
Welters, female:												
23 establishments.....	{ 1910	250	57.6	.1205	6.95	.....	.....	.....	.8	42.8	30.4	26.0
	{ 1911	282	57.6	.1250	7.20	.....	.....	.....	1.1	43.3	28.4	27.3
23 establishments.....	{ 1911	288	57.4	.1272	7.30	.....	.....	.....	1.0	46.9	31.9	20.1
	{ 1912	303	56.1	.1437	8.03	.....	.....	0.7	36.3	32.7	8.3	22.1
26 establishments.....	{ 1912	302	56.1	.1445	8.08	.....	.3	.7	36.8	28.1	11.9	22.2
	{ 1913	334	56.0	.1454	8.10	.....	.....	.....	45.2	21.0	13.8	20.0
Winders, female:												
6 establishments.....	{ 1907	266	58.8	.1403	(1)	.....	.....	.....	.....	.....	62.4	37.6
	{ 1908	276	58.7	.1625	(1)	.....	.....	.....	.....	.....	64.1	35.9
	{ 1909	262	58.6	.1515	(1)	.....	.....	.....	.....	.....	67.6	32.4
	{ 1910	276	57.5	.1492	(1)	.....	.....	.....	.....	.....	62.3	37.7
38 establishments.....	{ 1910	1,020	58.0	.1292	7.51	.....	.....	.1	.....	40.3	23.8	24.1
	{ 1911	960	57.9	.1318	7.64	.....	.....	.1	.....	42.8	22.6	26.5
45 establishments.....	{ 1911	1,001	57.8	.1302	7.54	.....	.....	.2	1.2	40.8	25.0	25.2
	{ 1912	982	56.4	.1400	7.91	.....	1.5	.2	27.0	31.7	11.7	27.9
53 establishments.....	{ 1912	1,099	56.4	.1392	7.87	.....	1.4	.2	24.5	35.1	11.1	27.8
	{ 1913	1,119	54.8	.1500	8.21	.....	.3	.2	61.7	25.0	9.5	3.4

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.

[The figures are for identical establishments in both years.]

BOARDERS: Male.

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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
1912.												
Georgia.....	3	62	58.5	\$0.1456	\$8.53					8	27	27
Massachusetts.....	3	273	54.0	.2164	11.69				273			
North Carolina.....	4	89	59.7	.1669	9.97					5		84
Pennsylvania.....	11	364	55.3	.2478	13.70					352		12
Wisconsin.....	3	72	55.0	.2590	14.24				3	69		
Other States.....	17	293	56.6	.1893	10.67		3	4	34	97	129	26
Total.....	41	1,153	55.8	.2145	11.92		3	4	310	531	156	149
1913.												
Georgia.....	3	64	58.6	.1509	8.81					8	26	30
Massachusetts.....	3	272	54.0	.2180	11.77				272			
North Carolina.....	4	102	59.7	.1579	9.42					6		96
Pennsylvania.....	11	368	55.1	.2537	13.99					368		
Wisconsin.....	3	56	55.0	.2865	15.76					56		
Other States.....	17	310	56.3	.2001	11.22		3	5	47	101	142	12
Total.....	41	1,172	55.8	.2189	12.15		3	5	319	539	168	138

BUTTONHOLE MAKERS, UNDERWEAR: Female.

1912.												
New York.....	16	108	58.9	\$0.1712	\$10.08					22	9	77
Other States.....	12	88	54.8	.1630	8.91		4		47	22	15	
Total.....	28	196	57.0	.1675	9.55		4		47	44	24	77
1913.												
New York.....	16	112	54.4	.2035	11.08				103		9	
Other States.....	12	93	55.1	.1849	10.23				47	27	18	1
Total.....	28	205	54.7	.1951	10.69				150	27	27	1

BUTTON SEWERS, UNDERWEAR: Female.

1912.												
New York.....	16	111	58.7	\$0.1499	\$8.79					26	10	75
Other States.....	12	72	54.8	.1429	7.84		5		39	12	16	
Total.....	28	183	57.2	.1471	8.42		5		39	38	26	75
1913.												
New York.....	16	128	54.0	.1725	9.32				128			
Other States.....	12	80	55.2	.1664	9.18				43	19	17	1
Total.....	28	208	54.4	.1702	9.27				171	19	17	1

TABLE II.—AVERAGE RATE 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.

CUTTERS, HAND, UNDERWEAR: Male.

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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
1912.													
New York.....	11	126	59.0	\$0.2121	\$12.52	.....	.....	.....	5	22	13	91	.....
Other States.....	7	22	55.5	.2283	12.76	.....	.....	.....	.....	12	4	1	.....
Total.....	18	148	58.5	.2145	12.56	.....	.....	.....	5	34	17	92	.....
1913.													
New York.....	11	132	54.9	.2517	13.81	.....	.....	.....	84	29	19	.....	.....
Other States.....	7	26	55.5	.2628	14.63	.....	.....	.....	5	16	4	1	.....
Total.....	18	158	55.0	.2535	13.95	.....	.....	.....	89	45	23	1	.....

FINISHERS, UNDERWEAR: Female.

1912.												
Connecticut.....	3	123	54.8	\$0.1552	\$8.50	.....	50	.....	.....	.....	67	6
New York.....	16	940	59.0	.1606	9.48	.....	.....	.....	.....	161	114	665
Pennsylvania.....	3	224	56.6	.1258	7.13	.....	.....	.....	.....	104	120	.....
Other States.....	7	521	54.2	.1537	8.33	.....	.....	.....	473	36	12	.....
Total.....	29	1,808	57.0	.1540	8.79	.....	50	.....	473	301	313	671
1913.												
Connecticut.....	3	109	56.8	.1723	9.80	.....	.....	.....	.....	48	55	6
New York.....	16	1,016	54.0	.1935	10.45	.....	.....	.....	1,016	.....	.....	.....
Pennsylvania.....	3	260	56.5	.1488	8.41	.....	.....	.....	.....	131	129	.....
Other States.....	7	549	54.2	.1715	9.31	.....	.....	.....	460	76	13	.....
Total.....	29	1,934	54.6	.1800	9.81	.....	.....	.....	1,476	255	197	6

INSPECTORS AND FOLDERS: Female.

1912.												
Connecticut.....	3	83	56.4	\$0.1321	\$7.44	.....	22	.....	.....	.....	41	20
Georgia.....	3	68	58.7	.1009	5.92	.....	.....	.....	.....	9	21	38
Massachusetts.....	2	281	54.0	.1363	7.36	.....	.....	.....	281	.....	.....	.....
New York.....	16	538	58.8	.1346	7.90	.....	.....	.....	.....	116	68	359
North Carolina.....	4	49	59.9	.1271	7.61	.....	.....	.....	.....	1	.....	48
Ohio.....	5	62	50.9	.1062	5.41	19	.....	4	39	.....	.....	.....
Pennsylvania.....	10	155	55.7	.1244	6.63	.....	.....	.....	.....	122	33	.....
Other States.....	13	175	56.1	.1296	7.28	.....	.....	13	19	72	55	16
Total.....	56	1,411	56.7	.1299	7.37	19	22	17	339	320	213	481
1913.												
Connecticut.....	3	66	58.3	.1486	8.65	.....	.....	.....	.....	13	22	31
Georgia.....	3	67	58.7	.1154	6.79	.....	.....	.....	.....	8	23	36
Massachusetts.....	2	292	54.0	.1416	7.64	.....	.....	.....	292	.....	.....	.....
New York.....	16	511	54.0	.1531	8.27	.....	.....	.....	511	.....	.....	.....
North Carolina.....	4	50	59.9	.1321	7.91	.....	.....	.....	.....	1	.....	49
Ohio.....	5	72	53.8	.1200	6.45	.....	2	4	66	.....	.....	.....
Pennsylvania.....	10	156	55.7	.1418	7.90	.....	.....	.....	.....	122	34	.....
Other States.....	13	184	56.0	.1421	7.95	.....	.....	.....	25	98	51	10
Total.....	56	1,398	55.1	.1435	7.90	.....	2	4	894	242	130	126

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.

KNITTERS, FOOTERS OR TOPPERS, HOSIERY: Female.

Year and State.	Number of establishments.	Number of employ-ees.	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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
1912.												
Connecticut.....	2	116	59.1	\$0.1476	\$8.69						54	62
Georgia.....	3	127	57.1	.1161	6.61					54	46	27
Illinois.....	3	144	59.0	.1029	6.07						101	43
Massachusetts.....	3	152	54.0	.1353	7.31				152			
Michigan.....	2	127	53.7	.1487	7.99			27	100			
New Hampshire.....	3	134	58.0	.1371	7.95						134	
North Carolina.....	3	120	59.1	.1027	6.04					21		99
Ohio.....	3	52	53.6	.1223	6.56			10	42			
Pennsylvania.....	8	1,390	55.5	.1470	8.17					1,193	197	
Tennessee.....	2	195	58.5	.1308	7.65						147	48
Wisconsin.....	2	219	55.0	.1474	8.10					219		
Other States.....	3	115	55.5	.1336	7.41					98	17	
Total.....	37	2,891	56.1	.1386	7.77			37	294	1,585	696	279
1913.												
Connecticut.....	2	111	59.1	.1568	9.25						52	59
Georgia.....	3	130	57.3	.1094	6.27					50	53	27
Illinois.....	3	166	55.6	.1279	7.12				113		53	
Massachusetts.....	3	195	54.0	.1470	7.94				195			
Michigan.....	2	141	53.7	.1433	7.69			31	110			
New Hampshire.....	3	132	58.0	.1526	8.85						132	
North Carolina.....	3	138	59.2	.0890	5.23					23		115
Ohio.....	3	63	51.0	.1265	6.46	7	28	7	21			
Pennsylvania.....	8	1,311	55.6	.1659	9.23					1,078	233	
Tennessee.....	2	186	58.6	.1388	8.14						126	60
Wisconsin.....	2	195	55.0	.1483	8.16					195		
Other States.....	3	137	55.9	.1361	7.60					93	44	
Total.....	37	2,905	56.0	.1490	8.33	7	28	38	439	1,439	693	261

KNITTERS, "LADY HOSE": Male.

1912.												
Massachusetts.....	2	126	54.0	\$0.1864	\$10.07				126			
New Hampshire.....	2	55	58.0	.1650	9.57						55	
Pennsylvania.....	2	70	55.4	.2222	12.30					70		
Other States.....	10	73	57.3	.1751	10.01				14	20	8	31
Total.....	16	324	55.7	.1880	10.45				140	90	63	31
1913.												
Massachusetts.....	2	113	54.0	.1920	10.37				113			
New Hampshire.....	2	64	58.0	.1796	10.42						64	
Pennsylvania.....	2	48	55.4	.2389	13.23					48		
Other States.....	10	82	57.7	.1794	10.25				14	18	7	43
Total.....	16	307	56.0	.1934	10.80				127	66	71	43

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.

KNITTERS, "LADY HOSE": 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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
1912.												
Pennsylvania.....	4	120	55.3	\$0.2001	\$11.06					120		
Wisconsin.....	2	97	55.0	.1729	9.51					97		
Other States.....	6	111	55.4	.1898	10.53			10	62		31	8
Total.....	12	328	55.2	.1886	10.43			10	62	217	31	8
1913.												
Pennsylvania.....	4	61	55.3	.1411	7.81					61		
Wisconsin.....	2	91	55.0	.1681	9.24					91		
Other States.....	6	130	55.5	.1716	9.50			8	68		54	
Total.....	12	282	55.3	.1638	9.05			8	68	152	54	

KNITTERS, WEB OR TUBE, UNDERWEAR: Male.

1912.												
New York.....	13	128	59.1	\$0.2363	\$13.99					18	20	90
Other States.....	7	118	54.5	.2251	12.24				74	40	4	
Total.....	20	246	56.9	.2309	13.15				74	58	24	90
1913.												
New York.....	13	113	54.7	.2744	15.01				85	15	13	
Other States.....	7	106	54.6	.2357	12.84				57	45	4	
Total.....	20	219	54.6	.2557	13.96				142	60	17	

LOOPERS: Female.

1912.												
Connecticut.....	3	90	57.6	\$0.1707	\$9.83		12				48	30
Georgia.....	3	75	58.7	.1364	7.99					6	33	36
Illinois.....	3	80	59.1	.1116	6.59						63	17
Indiana.....	2	94	55.0	.1403	7.72					94		
Massachusetts.....	3	404	54.0	.1413	7.63				404			
Michigan.....	2	72	53.9	.1638	8.83			5	67			
New Hampshire.....	3	129	58.0	.1429	8.29						129	
New York.....	3	89	58.4	.1689	9.88					28		61
North Carolina.....	4	190	59.6	.1224	7.29					16		174
Pennsylvania.....	13	961	55.5	.1519	8.45					821	140	
Tennessee.....	2	108	58.3	.1303	7.60						91	17
Wisconsin.....	3	182	55.0	.1602	8.81					182		
Other States.....	5	50	55.3	.1394	7.71			7	15	12	16	
Total.....	49	2,524	56.1	.1464	8.21		12	12	486	1,159	520	335

TABLE II.—AVERAGE RATE 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.

LOOPERS: 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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
1913.												
Connecticut.....	3	97	58.1	\$0.1778	\$10.34					18	46	33
Georgia.....	3	89	59.0	.1268	7.47					5	34	50
Illinois.....	3	91	57.2	.1240	7.10				33		58	
Indiana.....	2	87	55.0	.1451	7.98					87		
Massachusetts.....	3	413	54.0	.1505	8.13				413			
Michigan.....	2	81	53.9	.1507	8.12			7	74			
New Hampshire.....	3	128	58.0	.1617	9.38						128	
New York.....	3	93	54.0	.1991	10.75				93			
North Carolina.....	4	198	59.5	.1130	6.72					20		178
Pennsylvania.....	13	936	55.5	.1543	8.57					805	131	
Tennessee.....	2	110	58.5	.1327	7.76						82	28
Wisconsin.....	3	149	55.0	.1578	8.68					149		
Other States.....	5	70	55.2	.1464	8.02	12	7	6	10	35		
Total.....	49	2,542	56.0	.1500	8.37	12	14	619	1,094	514	289	

MENDERS, FINE, HOSIERY: Female.

1912.												
Massachusetts.....	3	105	54.0	\$0.1333	\$7.20				105			
Pennsylvania.....	8	117	55.2	.1646	9.08					110	7	
Other States.....	17	104	57.2	.1265	7.21			3	23	22	18	38
Total.....	28	326	55.4	.1424	7.88			3	128	132	25	38
1913.												
Massachusetts.....	3	88	54.0	.1243	6.71				88			
Pennsylvania.....	8	83	55.1	.1716	9.46					83		
Other States.....	17	105	57.2	.1299	7.40			2	5	19	20	45
Total.....	28	276	55.6	.1406	7.80			2	5	107	103	45

MENDERS, ROUGH, HOSIERY: Female.

1912.												
Georgia.....	3	72	58.4	\$0.1074	\$6.27					10	29	33
Indiana.....	2	69	55.0	.1523	8.37					69		
Massachusetts.....	3	87	54.0	.1453	7.85				87			
New Hampshire.....	2	55	58.0	.1299	7.53						55	
North Carolina.....	2	61	59.4	.1064	6.33					7		54
Pennsylvania.....	9	184	56.1	.1740	9.78					128	56	
Tennessee.....	2	68	58.5	.1204	7.05						50	18
Wisconsin.....	2	92	55.0	.1327	7.30					92		
Other States.....	10	94	56.6	.1404	7.93			12	27		34	21
Total.....	35	782	56.5	.1408	7.94			12	114	306	224	126
1913.												
Georgia.....	3	79	58.4	.1104	6.45					14	30	35
Indiana.....	2	52	55.0	.1525	8.39					52		
Massachusetts.....	3	109	54.0	.1456	7.86				109			
New Hampshire.....	2	54	58.0	.1406	8.15						54	
North Carolina.....	2	69	59.2	.1117	6.61					11		58
Pennsylvania.....	9	207	56.1	.1731	9.70					150	57	
Tennessee.....	2	78	58.5	.1257	7.36						57	21
Wisconsin.....	2	81	55.0	.1322	7.27					81		
Other States.....	10	84	55.7	.1482	8.23			8	13	24	20	19
Total.....	35	813	56.4	.1434	8.07			8	13	133	308	133

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.

SEAMERS, UNDERWEAR: 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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
1912.													
New York.....	16	770	59.1	\$0.1503	\$8.89	.....				86	134	550	.....
Ohio.....	2	62	54.0	.1343	7.25	.....				62			.....
Pennsylvania.....	3	111	56.3	.1281	7.22	.....					63	48	.....
Wisconsin.....	2	69	54.4	.1553	8.47	.....				42	27		.....
Other States.....	6	309	54.2	.1538	8.34	.....	14			268		23	4
Total.....	29	1,321	57.2	.1487	8.52	.....	14			372	176	205	554
1913.													
New York.....	16	812	54.0	.1780	9.61	.....				812			.....
Ohio.....	2	69	54.0	.1621	8.75	.....				69			.....
Pennsylvania.....	3	116	56.2	.1482	8.34	.....					69	47	.....
Wisconsin.....	2	80	55.0	.2084	11.46	.....					80		.....
Other States.....	6	294	54.4	.1579	8.61	.....				256	13	22	3
Total.....	29	1,371	54.3	.1721	9.35	.....				1,137	162	69	3

WELTERS: Female.

1912.												
Massachusetts.....	3	107	54.0	\$0.1450	\$7.83				107			
Pennsylvania.....	6	81	55.5	.1615	8.96					75	6	
Other States.....	17	114	58.6	.1319	7.70		1	2	4	10	30	67
Total.....	26	302	56.1	.1445	8.08		1	2	111	85	36	67
1913.												
Massachusetts.....	3	132	54.0	.1401	7.57				132			
Pennsylvania.....	6	84	55.7	.1791	9.97					55	9	
Other States.....	17	138	58.0	.1347	7.75				19	15	37	67
Total.....	26	334	56.0	.1454	8.10				151	70	46	67

WINDERS: Female.

1912.												
Connecticut.....	3	44	55.8	\$0.1379	\$7.74		15				18	11
Massachusetts.....	3	229	54.0	.1356	7.32				229			
New York.....	15	395	58.5	.1520	8.89					109	16	270
Pennsylvania.....	11	266	55.5	.1310	7.28					223	43	
Other States.....	21	165	56.3	.1270	7.13			2	40	54	45	24
Total.....	53	1,099	56.4	.1392	7.87		15	2	269	386	122	305
1913.												
Connecticut.....	3	35	57.6	.1484	8.55					10	17	8
Massachusetts.....	3	259	54.0	.1415	7.64				259			
New York.....	15	396	54.0	.1702	9.19				396			
Pennsylvania.....	11	238	55.6	.1370	7.63					193	45	
Other States.....	21	191	56.2	.1363	7.63		3	2	35	77	44	30
Total.....	53	1,119	54.8	.1500	8.21		3	2	690	280	106	38

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.

[The figures are for identical establishments in both years.]

BOARDERS: Male.

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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Georgia:												
3 establishments.....	{ 1912	62	58.5	\$0.1456	\$8.53	.....	.....	.....	.....	8	27	27
	{ 1913	64	58.6	.1509	8.81	.....	.....	.....	.....	8	26	30
Massachusetts:												
3 establishments.....	{ 1912	273	54.0	.2164	11.69	.....	.....	.....	273	.....	.....	.....
	{ 1913	272	54.0	.2180	11.77	.....	.....	.....	272	.....	.....	.....
North Carolina:												
4 establishments.....	{ 1912	89	59.7	.1669	9.97	.....	.....	.....	.....	5	.....	84
	{ 1913	102	59.7	.1579	9.42	.....	.....	.....	.....	6	.....	96
Pennsylvania:												
11 establishments.....	{ 1912	364	55.3	.2478	13.70	.....	.....	.....	.....	352	.....	12
	{ 1913	368	55.1	.2537	13.99	.....	.....	.....	.....	368	.....	.....
Wisconsin:												
3 establishments.....	{ 1912	72	55.0	.2590	14.24	.....	.....	.....	3	69	.....	.....
	{ 1913	56	55.0	.2865	15.76	.....	.....	.....	.....	56	.....	.....

BUTTONHOLE MAKERS, UNDERWEAR: Female.

New York:												
16 establishments.....	{ 1912	108	58.9	\$0.1712	\$10.08	.....	.....	.....	.....	22	9	77
	{ 1913	112	54.4	.2035	11.08	.....	.....	.....	103	.....	9	.....

BUTTON SEWERS, UNDERWEAR: Female.

New York:												
16 establishments.....	{ 1912	111	58.7	\$0.1499	\$8.79	.....	.....	.....	.....	26	10	75
	{ 1913	128	54.0	.1725	9.32	.....	.....	.....	128	.....	.....	.....

CUTTERS, HAND, UNDERWEAR: Male.

New York:												
11 establishments.....	{ 1912	126	59.0	\$0.2121	\$12.52	.....	.....	.....	.....	22	13	91
	{ 1913	132	54.9	.2517	13.81	.....	.....	.....	84	29	19	.....

FINISHERS, UNDERWEAR: Female.

Connecticut:												
3 establishments.....	{ 1912	123	54.8	\$0.1552	\$8.50	.....	.....	.....	.....	.....	67	6
	{ 1913	109	56.8	.1723	9.80	.....	.....	.....	.....	48	55	6
New York:												
16 establishments.....	{ 1912	940	59.0	.1606	9.48	.....	.....	.....	.....	161	114	665
	{ 1913	1,016	54.0	.1935	10.45	.....	.....	.....	1,016	.....	.....	.....
Pennsylvania:												
3 establishments.....	{ 1912	224	56.6	.1258	7.13	.....	.....	.....	.....	104	120	.....
	{ 1913	260	56.5	.1488	8.41	.....	.....	.....	.....	131	129	.....

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.

INSPECTORS AND FOLDERS: Female.

State and number of establishments.	Year.	Number of employ-ees.	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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Connecticut:												
3 establishments.....	{ 1912	83	56.4	\$0.1321	\$7.44		22				41	20
	{ 1913	66	58.3	.1486	8.65					13	22	31
Georgia:												
3 establishments.....	{ 1912	68	58.7	.1009	5.92					9	21	38
	{ 1913	67	58.7	.1154	6.79					8	23	36
Massachusetts:												
2 establishments.....	{ 1912	281	54.0	.1363	7.36				281			
	{ 1913	292	54.0	.1416	7.64				292			
New York:												
16 establishments.....	{ 1912	538	58.8	.1346	7.90					116	63	359
	{ 1913	511	54.0	.1531	8.27				511			
North Carolina:												
4 establishments.....	{ 1912	49	59.9	.1271	7.61					1		48
	{ 1913	50	59.9	.1321	7.91					1		49
Ohio:												
5 establishments.....	{ 1912	62	50.9	.1062	5.41	19		4	39			
	{ 1913	72	53.8	.1200	6.45		2	4	66			
Pennsylvania:												
10 establishments.....	{ 1912	155	55.7	.1244	6.93					122	33	
	{ 1913	156	55.7	.1418	7.90					122	34	

KNITTERS, FOOTERS OR TOPPERS, HOSIERY: Female.

Connecticut:												
2 establishments.....	{ 1912	116	59.1	\$0.1476	\$8.69						54	62
	{ 1913	111	59.1	.1568	9.25						52	59
Georgia:												
3 establishments.....	{ 1912	127	57.1	.1161	6.61					54	46	27
	{ 1913	130	57.3	.1094	6.27					50	53	27
Illinois:												
3 establishments.....	{ 1912	144	59.0	.1029	6.07						101	43
	{ 1913	166	55.6	.1279	7.12				113		53	
Massachusetts:												
3 establishments.....	{ 1912	152	54.0	.1353	7.31				152			
	{ 1913	195	54.0	.1470	7.94				195			
Michigan:												
2 establishments.....	{ 1912	127	53.7	.1487	7.99			27	100			
	{ 1913	141	53.7	.1433	7.69			31	110			
New Hampshire:												
3 establishments.....	{ 1912	134	58.0	.1371	7.95						134	
	{ 1913	132	58.0	.1526	8.85						132	
North Carolina:												
3 establishments.....	{ 1912	120	59.1	.1027	6.04					21		99
	{ 1913	138	59.2	.0890	5.23					23		115
Ohio:												
3 establishments.....	{ 1912	52	53.6	.1223	6.56			10	42			
	{ 1913	63	51.0	.1265	6.46	7	28	7	21			
Pennsylvania:												
8 establishments.....	{ 1912	1,390	55.5	.1470	8.17				1,193	197		
	{ 1913	1,311	55.6	.1659	9.23				1,078	233		
Tennessee:												
2 establishments.....	{ 1912	195	58.5	.1308	7.65						147	48
	{ 1913	186	58.6	.1388	8.14						126	60
Wisconsin:												
2 establishments.....	{ 1912	219	55.0	.1474	8.10					219		
	{ 1913	195	55.0	.1483	8.16					195		

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.

KNITTERS, "LADY HOSE": Male.

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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Massachusetts:												
2 establishments.....	{ 1912	126	54.0	\$0.1864	\$10.07					126		
	{ 1913	113	54.0	.1920	10.37					113		
New Hampshire:												
2 establishments.....	{ 1912	55	58.0	.1650	9.57						55	
	{ 1913	64	58.0	.1796	10.42						64	
Pennsylvania:												
2 establishments.....	{ 1912	70	55.4	.2222	12.30					70		
	{ 1913	48	55.4	.2389	13.23					48		

KNITTERS, "LADY HOSE": Female.

Pennsylvania:												
4 establishments.....	{ 1912	120	55.3	\$0.2001	\$11.06					120		
	{ 1913	61	55.3	.1411	7.81					61		
Wisconsin:												
2 establishments.....	{ 1912	97	55.0	.1729	9.51					97		
	{ 1913	91	55.0	.1681	9.24					91		

KNITTERS, WEB OR TUBE, UNDERWEAR: Male.

New York:												
13 establishments.....	{ 1912	128	59.1	\$0.2363	\$13.99					18	20	90
	{ 1913	113	54.7	.2744	15.01				85	15	13	

LOOPERS: Female.

Connecticut:												
3 establishments.....	{ 1912	90	57.6	\$0.1707	\$9.83	*	12				48	30
	{ 1913	97	58.1	.1778	10.34					18	46	33
Georgia:												
3 establishments.....	{ 1912	75	58.7	.1364	7.99					6	33	36
	{ 1913	89	59.0	.1268	7.47					5	34	50
Illinois:												
3 establishments.....	{ 1912	80	59.1	.1116	6.59						63	17
	{ 1913	91	57.2	.1240	7.10				33		58	
Indiana:												
2 establishments.....	{ 1912	94	55.0	.1403	7.72					94		
	{ 1913	87	55.0	.1451	7.98					87		
Massachusetts:												
3 establishments.....	{ 1912	404	54.0	.1413	7.63				404			
	{ 1913	413	54.0	.1505	8.13				413			
Michigan:												
2 establishments.....	{ 1912	72	53.9	.1638	8.83			5	67			
	{ 1913	81	53.9	.1507	8.12			7	74			
New Hampshire:												
3 establishments.....	{ 1912	129	58.0	.1429	8.29						129	
	{ 1913	128	58.0	.1617	9.38						128	
New York:												
3 establishments.....	{ 1912	89	58.4	.1689	9.88					28		61
	{ 1913	93	54.0	.1991	10.75				93			
North Carolina:												
4 establishments.....	{ 1912	190	59.6	.1224	7.29					16		174
	{ 1913	198	59.5	.1130	6.72					20		178
Pennsylvania:												
13 establishments.....	{ 1912	961	55.5	.1519	8.45					821	140	
	{ 1913	936	55.5	.1543	8.57					805	131	
Tennessee:												
2 establishments.....	{ 1912	108	58.3	.1303	7.60						91	17
	{ 1913	110	58.5	.1327	7.76						82	28
Wisconsin:												
3 establishments.....	{ 1912	182	55.0	.1602	8.81					182		
	{ 1913	149	55.0	.1578	8.68					149		

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.**MENDERS, FINE, HOSIERY: 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—							
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	60	Over 60 and under 63
Massachusetts:													
3 establishments.....	{ 1912	105	54.0	\$0.1333	\$7.20	.....	.....	.....	105	.....	.....	.....	.....
	{ 1913	88	54.0	.1243	6.71	.....	.....	.....	88	.....	.....	.....	.....
Pennsylvania:													
8 establishments.....	{ 1912	117	55.2	.1646	9.08	.....	.....	.....	110	7	.....	.....	.....
	{ 1913	83	55.1	.1716	9.46	.....	.....	.....	83	.....	.....	.....	.....

MENDERS, ROUGH, HOSIERY: Female.

Georgia:												
3 establishments.....	{ 1912	72	58.4	\$0.1074	\$6.27	.....	.....	.....	10	29	33	.....
	{ 1913	79	58.4	.1104	6.45	.....	.....	.....	14	30	35	.....
Indiana:												
2 establishments.....	{ 1912	69	55.0	.1523	8.37	.....	.....	.....	69	.....	.....	.....
	{ 1913	52	55.0	.1525	8.39	.....	.....	.....	52	.....	.....	.....
Massachusetts:												
3 establishments.....	{ 1912	87	54.0	.1453	7.85	.....	.....	87	.....	.....	.....	.....
	{ 1913	109	54.0	.1456	7.86	.....	.....	109	.....	.....	.....	.....
New Hampshire:												
2 establishments.....	{ 1912	55	58.0	.1299	7.53	.....	.....	.....	55	.....	.....	.....
	{ 1913	54	58.0	.1406	8.15	.....	.....	.....	54	.....	.....	.....
North Carolina:												
2 establishments.....	{ 1912	61	59.4	.1064	6.33	.....	.....	.....	7	.....	54	.....
	{ 1913	69	59.2	.1117	6.61	.....	.....	.....	11	.....	58	.....
Pennsylvania:												
9 establishments.....	{ 1912	184	56.1	.1740	9.78	.....	.....	.....	128	56	.....	.....
	{ 1913	207	56.1	.1731	9.70	.....	.....	.....	150	57	.....	.....
Tennessee:												
2 establishments.....	{ 1912	68	58.5	.1204	7.05	.....	.....	.....	50	18	.....	.....
	{ 1913	78	58.5	.1237	7.30	.....	.....	.....	57	21	.....	.....
Wisconsin:												
2 establishments.....	{ 1912	92	55.0	.1327	7.30	.....	.....	.....	92	.....	.....	.....
	{ 1913	81	55.0	.1322	7.27	.....	.....	.....	81	.....	.....	.....

SEAMERS, UNDERWEAR: Female.

New York:												
16 establishments.....	{ 1912	770	59.1	\$0.1503	\$8.89	.....	.....	.....	86	134	550	.....
	{ 1913	812	54.0	.1780	9.61	.....	.....	812	.....	.....	.....	.....
Ohio:												
2 establishments.....	{ 1912	62	54.0	.1343	7.25	.....	.....	62	.....	.....	.....	.....
	{ 1913	69	54.0	.1621	8.75	.....	.....	69	.....	.....	.....	.....
Pennsylvania:												
3 establishments.....	{ 1912	111	56.3	.1281	7.22	.....	.....	.....	63	48	.....	.....
	{ 1913	116	56.2	.1482	8.34	.....	.....	.....	69	47	.....	.....
Wisconsin:												
2 establishments.....	{ 1912	69	54.4	.1553	8.47	.....	.....	42	27	.....	.....	.....
	{ 1913	80	55.0	.2084	11.46	.....	.....	.....	80	.....	.....	.....

WELTERS: Female.

Massachusetts:												
3 establishments.....	{ 1912	107	54.0	\$0.1450	\$7.83	.....	.....	.....	107	.....	.....	.....
	{ 1913	132	54.0	.1401	7.57	.....	.....	.....	132	.....	.....	.....
Pennsylvania:												
6 establishments.....	{ 1912	81	55.5	.1615	8.96	.....	.....	.....	75	6	.....	.....
	{ 1913	64	55.7	.1791	9.97	.....	.....	.....	55	9	.....	.....

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.

WINDERS: 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—						
						Under 48	Over 48 and under 51	51 and under 54	54	Over 54 and under 57	57 and under 60	Over 60 and under 63
Connecticut:												
3 establishments.....	{ 1912	44	55.8	\$0.1379	\$7.74						18	11
	{ 1913	35	57.6	.1484	8.55					10	17	8
Massachusetts:												
3 establishments.....	{ 1912	229	54.0	.1356	7.32				229			
	{ 1913	259	54.0	.1415	7.64				259			
New York:												
15 establishments.....	{ 1912	395	58.5	.1520	8.89					109	16	270
	{ 1913	396	54.0	.1702	9.19				396			
Pennsylvania:												
11 establishments.....	{ 1912	266	55.5	.1310	7.28					223	43	
	{ 1913	238	55.6	.1370	7.63					193	45	

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

BOARDERS: Male.

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.												
					5 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.	
Georgia.....	3	64	58.6	\$0.1509	.....	.....	.....	5	6	9	14	18	11	1	.....	.....
Massachusetts.....	3	272	54.0	.2180	.....	.....	.....	1	3	5	45	20	28	92	57	21
North Carolina.....	4	102	59.7	.1579	.....	.....	.....	.....	9	23	27	21	14	7	1	.....
Pennsylvania.....	11	368	55.1	.2537	.....	.....	.....	.....	13	23	20	19	12	63	121	97
Wisconsin.....	3	56	55.0	.2865	.....	.....	.....	.....	.....	.....	2	.....	.....	10	23	21
Other States.....	17	310	56.3	.2001	.....	.....	.....	1	12	28	47	51	35	71	39	26
Total.....	41	1,172	55.8	.2189	.....	.....	.....	7	43	88	153	131	100	244	241	165

BUTTONHOLE MAKERS, UNDERWEAR: Female.

New York.....	16	112	54.4	\$0.2035	.....	.....	.....	.....	2	4	5	16	24	51	9	1
Other States.....	12	93	55.1	.1849	.....	1	.....	1	4	5	18	14	23	17	8	2
Total.....	28	205	54.7	.1951	.....	1	.....	1	6	9	23	30	47	68	17	3

BUTTON SEWERS, UNDERWEAR: Female.

New York.....	16	128	54.0	\$0.1725	.....	.....	1	2	10	15	19	20	27	31	3	.....
Other States.....	12	80	55.2	.1664	.....	1	.....	2	5	11	15	21	14	8	.....	1
Total.....	28	208	54.4	.1702	.....	1	1	4	15	26	34	41	41	39	5	1

CUTTERS, HAND, UNDERWEAR: Male.

New York.....	11	132	54.9	\$0.2517	.....	.....	.....	.....	.....	2	2	19	11	31	34	33
Other States.....	7	26	55.5	.2628	.....	.....	.....	.....	.....	3	2	1	2	5	5	8
Total.....	18	158	55.0	.2535	.....	.....	.....	.....	.....	5	4	20	13	36	39	41

CUTTERS, HAND, UNDERWEAR: Female.

Total.....	12	202	54.2	\$0.1620	3	4	6	3	15	18	44	44	40	18	5	2
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FINISHERS, UNDERWEAR: Female.

Connecticut.....	3	109	56.8	\$0.1723	2	7	9	16	31	27	13	4	
New York.....	16	1,016	54.0	.1935	1	7	9	49	105	103	140	161	294	129	18
Pennsylvania.....	3	260	56.5	.1488	.....	.....	2	8	6	34	47	77	52	16	16	2	.....
Other States.....	7	549	54.2	.1715	.....	14	10	6	10	39	60	71	90	121	101	15	12
Total.....	29	1,934	54.6	.1800	.....	15	14	21	25	129	221	267	313	325	424	150	30

INSPECTORS AND FOLDERS: Female.

Connecticut.....	3	66	58.3	\$0.1486	.....	.....	.....	1	12	15	10	19	7	2	.....	.....
Georgia.....	3	67	58.7	.1154	.....	4	4	7	25	13	12	2	.....	.....	.....	.....
Massachusetts.....	2	292	54.0	.1416	.....	11	14	5	18	40	45	65	31	39	24	.....
New York.....	16	511	54.0	.1531	.....	.....	13	4	15	102	89	85	41	61	16	.....
North Carolina.....	4	50	59.9	.1321	.....	.....	2	1	3	8	17	14	4	1	.....	.....
Ohio.....	5	72	53.8	.1200	.....	.....	14	11	3	6	7	22	9	.....	.....	.....
Pennsylvania.....	10	156	55.7	.1418	.....	.....	2	18	13	35	24	12	12	15	23	2
Other States.....	13	184	56.0	.1421	.....	.....	1	5	9	40	47	32	26	11	7	6
Total.....	56	1,398	55.1	.1435	11	50	48	69	268	257	252	188	114	117	24	.....

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

KNITTERS, FOOTERS OR TOPPERS, HOSIERY: Male.

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.											
					5 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.
Total.....	14	314	58.0	\$0.1503	1	3	12	9	63	73	47	40	29	23	6	8

KNITTERS, FOOTERS OR TOPPERS, HOSIERY: Female.

Connecticut.....	2	111	59.1	\$0.1568	.....	.....	1	2	13	15	30	27	11	12	.....	.....
Georgia.....	3	130	57.3	.1094	6	7	15	19	43	24	11	5	.....	.....	.....	.....
Illinois.....	3	166	55.6	.1279	.....	.....	1	5	62	61	24	12	1	.....	.....	.....
Massachusetts.....	3	195	54.0	.1470	.....	.....	.....	12	24	35	60	33	27	4	.....	.....
Michigan.....	2	141	53.7	.1433	.....	3	4	10	31	25	22	22	11	12	1	.....
New Hampshire.....	3	132	58.0	.1526	.....	.....	.....	10	41	34	25	13	9	.....	.....	.....
North Carolina.....	3	138	59.2	.0890	39	30	18	8	22	12	3	5	1	.....	.....	.....
Ohio.....	3	63	51.0	.1265	.....	.....	2	5	17	21	13	3	2	.....	.....	.....
Pennsylvania.....	8	1,311	55.6	.1659	6	33	32	32	92	137	203	306	195	241	30	4
Tennessee.....	2	186	58.6	.1388	.....	.....	.....	33	90	32	17	8	6	.....	.....	.....
Wisconsin.....	2	195	55.0	.1483	.....	.....	4	7	42	45	27	26	19	23	2	.....
Other States.....	3	137	55.9	.1361	2	2	3	12	28	38	21	14	8	8	1	.....
Total.....	37	2,905	56.0	.1490	53	75	80	112	417	544	480	495	296	315	34	4

KNITTERS, "LADY HOSE": Male.

Massachusetts.....	2	113	54.0	\$0.1920	.....	.....	.....	1	5	3	7	26	28	37	6	.....
New Hampshire.....	2	64	58.0	.1796	.....	.....	.....	.....	.....	8	8	13	23	11	1	.....
Pennsylvania.....	2	48	55.4	.2389	.....	.....	.....	1	2	4	3	17	17	21	.....	.....
Other States.....	10	82	57.7	.1794	.....	1	1	1	6	16	9	16	8	12	9	3
Total.....	16	307	56.0	.1934	.....	1	1	2	11	28	26	59	62	77	37	3

KNITTERS, "LADY HOSE": Female.

Pennsylvania.....	4	61	55.3	\$0.1411	.....	3	4	8	1	9	16	14	4	2	.....	.....
Wisconsin.....	2	91	55.0	.1681	.....	.....	.....	.....	14	16	8	16	10	24	3	.....
Other States.....	6	130	55.5	.1716	.....	.....	1	1	6	28	24	18	23	21	8	.....
Total.....	12	282	55.3	.1638	3	5	9	21	53	48	48	37	47	11

KNITTERS, RIB, HOSIERY: Male.

Total.....	21	110	56.4	\$0.2025	1	1	10	19	14	11	6	20	9	19
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KNITTERS, RIB, HOSIERY: Female.

Total.....	16	64	56.0	\$0.1556	2	2	8	16	19	2	4	7	3	1
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KNITTERS, WEB OR TUBE, UNDERWEAR: Male.

New York.....	13	113	54.7	\$0.2744	1	9	40	26	37
Other States.....	7	106	54.6	.2357	6	2	2	4	16	3	20	35	18
Total.....	20	219	54.6	.2557	.....	.....	6	.....	2	2	4	17	12	60	61	55

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

KNITTERS, WEB OR TUBE, UNDERWEAR: 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.											
					5 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.
Total.....	14	166	54.9	\$0.1456	5	5	6	42	23	35	21	8	16	4	1	

LOOPERS: Female.

Connecticut.....	3	97	58.1	\$0.1778	.....	.....	.....	6	13	18	15	16	26	3	.....
Georgia.....	3	89	59.0	.1268	.....	3	10	6	26	16	14	8	2	4	.....
Illinois.....	3	91	57.2	.1240	.....	1	.....	3	36	32	16	3	.....	.....	.....
Indiana.....	2	87	55.0	.1451	.....	2	3	7	15	16	9	16	9	10	.....
Massachusetts.....	3	413	54.0	.1505	4	8	10	50	32	68	77	62	42	56	1	3
Michigan.....	2	81	53.9	.1507	.....	11	4	1	14	8	14	9	3	12	3	2
New Hampshire.....	3	128	58.0	.1617	.....	.....	.....	1	7	14	24	64	11	7	.....
New York.....	3	93	54.0	.1991	.....	.....	.....	1	1	4	9	14	24	32	5	3
North Carolina.....	4	198	59.5	.1130	5	13	31	27	55	28	20	15	4	.....	.....
Pennsylvania.....	13	936	55.5	.1543	19	33	27	46	129	136	142	130	116	121	30	7
Tennessee.....	2	110	58.5	.1327	.....	.....	.....	35	54	8	5	4	3	.....	.....	1
Wisconsin.....	3	149	55.0	.1578	.....	6	3	3	29	22	17	20	17	26	4	2
Other States.....	5	70	55.2	.1464	.....	.....	.....	8	12	21	9	5	5	9	.....	1
Total.....	49	2,542	56.0	.1500	28	77	88	153	397	432	377	366	253	306	46	19

MENDERS, FINE, HOSIERY: Female.

Massachusetts.....	3	88	54.0	\$0.1243	.....	6	2	24	11	12	18	7	5	3	.....
Pennsylvania.....	8	83	55.1	.1716	.....	.....	3	5	7	6	12	11	10	28	1	
Other States.....	17	105	57.2	.1299	.....	2	2	13	22	44	8	8	2	4	.....
Total.....	28	276	55.6	.1406	.....	8	7	42	40	62	38	26	17	35	1	

MENDERS, ROUGH, HOSIERY: Female.

Georgia.....	3	79	58.4	\$0.1104	7	5	1	7	34	18	3	2	1	1	.....
Indiana.....	2	52	55.0	.1525	.....	.....	1	1	6	5	18	13	4	.....	.....
Massachusetts.....	3	109	54.0	.1456	.....	2	2	5	17	30	17	19	8	9	.....
New Hampshire.....	2	54	58.0	.1406	.....	.....	.....	4	33	7	7	1	2	.....	.....
North Carolina.....	2	69	59.2	.1117	.....	.....	.....	11	39	8	6	1	.....	.....	.....
Pennsylvania.....	9	207	56.1	.1731	4	6	8	9	15	11	18	31	31	65	9	
Tennessee.....	2	78	58.5	.1257	.....	.....	.....	.....	29	38	9	1	.....	1	.....
Wisconsin.....	2	81	55.0	.1322	3	.....	3	3	15	28	15	9	3	2	.....
Other States.....	10	84	55.7	.1482	.....	.....	1	2	20	19	18	10	5	4	5	
Total.....	35	813	56.4	.1434	14	13	20	38	179	190	111	93	53	88	14	

PRESSERS: Male.

Total.....	39	202	56.0	\$0.2075	5	14	32	33	20	55	20	23
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PRESS HANDS: Female.

Total.....	10	196	54.2	\$0.1480	5	13	6	13	31	21	34	25	15	25	8
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SEAMERS, UNDERWEAR: Female.

New York.....	16	812	54.0	\$0.1780	14	3	8	62	104	112	126	120	204	52	7
Ohio.....	2	69	54.0	.1621	1	.....	1	2	11	11	7	9	8	19	.....
Pennsylvania.....	3	116	56.2	.1482	1	1	5	2	14	28	25	20	6	14	.....
Wisconsin.....	2	80	55.0	.2084	.....	.....	5	6	6	6	4	1	3	12	16	16
Other States.....	6	294	54.4	.1579	3	6	4	9	23	43	57	70	43	34	2	
Total.....	29	1,371	54.3	.1721	19	12	18	27	116	192	205	226	180	283	70	23

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

WELTERS: 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.														
					5 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.			
Massachusetts.....	3	132	54.0	\$0.1401	5	13	5	12	11	15	24	18	16	13	....	.....	
Pennsylvania.....	6	64	55.7	.1791	....	1	2	2	8	4	8	6	8	20	4	1			
Other States.....	17	138	58.0	.1347	4	5	11	12	25	28	20	12	10	7	4	....		
Total.....	26	334	56.0	.1454	9	19	18	26	44	47	52	36	34	40	8	1			

WINDERS: Female.

Connecticut.....	3	35	57.6	\$0.1484	....	....	....	1	3	11	8	8	1	3	....	.....	
Massachusetts.....	3	259	54.0	.1415	1	2	3	19	29	63	76	51	10	5	....	.....	
New York.....	15	396	54.0	.1702	....	1	....	4	29	52	81	72	60	91	6	....		
Pennsylvania.....	11	238	55.6	.1370	2	3	10	2	32	88	60	30	8	3	....	.....	
Other States.....	21	191	56.2	.1363	2	12	12	19	37	31	28	20	14	10	6	....		
Total.....	53	1,119	54.8	.1500	5	18	25	45	130	245	253	181	93	112	12	....		

APPENDIX.

In order that the summary figures in regard to rates of wages and hours of labor in the two 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. 134.

TABLE 1.—RELATIVE FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN BOOT AND SHOE MANUFACTURING, 1890 TO 1912.

[Data are included from 46 establishments, 1890-1903; 50 establishments, 1903, 1904; 52 establishments, 1904, 1905; 52 establishments, 1905, 1906; 54 establishments, 1906, 1907; 26 establishments, 1907-1910; 60 establishments, 1910, 1911; and 81 establishments, 1911, 1912.]

Year.	Relative full-time hours per week.	Relative rate of wages per hour.
Average, 1890-1899.....	100.0	100.0
1890.....	100.3	98.5
1891.....	100.6	97.5
1892.....	100.2	99.3
1893.....	100.0	100.6
1894.....	100.0	99.8
1895.....	100.0	101.4
1896.....	100.0	100.5
1897.....	99.8	100.7
1898.....	99.7	100.5
1899.....	99.6	101.8
1900.....	99.3	104.1
1901.....	99.6	104.1
1902.....	98.4	108.0
1903.....	97.0	113.2
1904.....	97.1	116.9
1905.....	96.8	119.9
1906.....	96.3	121.8
1907.....	96.0	128.0
1908.....	95.9	125.5
1909.....	95.7	130.4
1910.....	95.5	129.6
1911.....	95.3	131.7
1912.....	93.9	132.8

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

[Data are included from 46 establishments, 1890-1903; 50 establishments, 1903, 1904; 52 establishments, 1904, 1905; 52 establishments, 1905, 1906; 54 establishments, 1906, 1907; 26 establishments, 1907-1910; 60 establishments, 1910, 1911; and 81 establishments, 1911, 1912.]

Year.	Cutting department.									
	Cutters, lining, cloth, male.		Cutters, vamp and whole shoe, hand, ¹ male.		Cutters, vamp and whole shoe, machine, male.		Skivers, upper, machine, male.		Skivers, upper, machine, 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						
1890			100.1	99.9						
1891			100.2	99.4						
1892			100.2	99.8						
1893			100.2	100.4						
1894			100.0	98.0						
1895			99.8	100.0						
1896			100.0	99.1						
1897			99.9	101.0						
1898			100.0	99.7						
1899			99.7	102.8						
1900			99.7	103.3						
1901			99.8	102.6						
1902			98.4	107.4						
1903			96.6	110.8						
1904			96.9	114.2						
1905			96.2	117.3						
1906			95.8	118.8						
1907			95.5	126.8					² 100.0	² 100.0
1908			95.3	129.7					² 100.7	² 102.3
1909			95.1	132.7					² 100.3	² 102.1
1910			95.1	134.6	³ 100.0	³ 100.0	³ 100.0	³ 100.0	² 99.8	² 104.2
1911	⁴ 100.0	⁴ 100.0	94.9	133.8	³ 99.0	³ 99.6	³ 100.0	³ 109.1	² 100.3	² 104.7
1912	⁴ 98.9	⁴ 103.7	92.9	137.9	³ 96.4	³ 101.5	³ 99.6	³ 107.8	² 97.0	² 114.0

¹ Employees in this occupation were reported as cutters, upper, for 1890 to 1907.

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

³ Data for 1890 to 1909 not available; computed with 1910=100.0.

⁴ Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Sole-leather department.				Fitting or stitching department.							
	Channelers, insole and outsole, male.		Cutters, outsole, male.		Backstay stitchers, female.		Button fasteners, female.		Buttonhole makers, female.		Closers-on, 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
1890			100.2	102.0							100.3	90.7
1891			101.7	99.5							100.5	96.8
1892			100.2	99.1							99.9	98.3
1893			99.8	100.1							100.1	100.4
1894			99.7	96.8							100.1	103.6
1895			99.8	100.2							99.6	98.4
1896			99.7	98.8							99.7	103.3
1897			99.6	101.2							99.7	105.2
1898			99.7	101.4							100.4	100.1
1899			99.7	100.6							99.7	102.9
1900			99.8	102.2							99.5	102.4
1901			99.6	100.5							99.3	105.5
1902			99.6	103.5							99.4	103.4
1903			98.2	106.0							98.8	108.4
1904			98.6	109.2							98.9	106.1
1905			98.5	109.9							98.8	109.0
1906			98.0	111.9							98.4	111.1
1907	¹ 100.0	¹ 100.0	98.0	114.3	¹ 100.0	¹ 100.0					96.9	112.3
1908	¹ 100.0	¹ 104.7	97.5	111.8	¹ 99.8	¹ 108.8					96.6	106.6
1909	¹ 99.3	¹ 108.1	97.5	111.4	¹ 99.5	¹ 103.6					96.6	116.2
1910	¹ 99.3	¹ 106.2	97.3	112.3	¹ 99.3	¹ 104.9					96.4	111.0
1911	¹ 99.1	¹ 109.5	97.1	113.7	¹ 99.3	¹ 107.1	² 100.0	² 100.0	² 100.0	² 109.0	96.4	110.5
1912	¹ 97.7	¹ 112.0	96.8	116.8	¹ 97.0	¹ 109.3	² 99.1	² 116.5	² 98.4	² 102.5	93.0	114.7

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.² Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Fitting or stitching department—Concluded.									
	Lining makers, female.		Tip stitchers, female.		Top stitchers or undertrimmers, female.		Vampers, male.		Vampers, 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
1890							95.8	112.3	100.4	99.9
1891							101.9	97.3	100.2	93.7
1892							102.4	92.4	100.4	98.3
1893							100.2	95.6	100.1	101.6
1894							99.7	89.4	99.9	102.3
1895							99.8	90.7	99.9	103.2
1896							100.0	101.5	99.6	102.0
1897							100.2	111.4	99.5	100.8
1898							100.3	103.0	100.1	99.4
1899							99.5	106.7	99.8	98.5
1900							100.5	110.6	99.7	103.0
1901							100.1	106.0	99.6	103.9
1902							99.4	114.7	99.2	104.5
1903							93.9	127.1	98.5	110.5
1904							96.3	124.4	98.5	110.7
1905							96.5	120.4	98.6	115.4
1906							96.1	127.5	98.2	120.9
1907	¹ 100.0	¹ 100.0			¹ 100.0	¹ 100.0	96.4	128.2	97.8	124.9
1908	¹ 99.8	¹ 94.3			¹ 100.0	¹ 102.7	96.9	115.8	98.2	122.9
1909	¹ 99.6	¹ 98.6			¹ 100.0	¹ 105.9	95.8	115.7	97.5	128.1
1910	¹ 99.4	¹ 93.1			¹ 99.5	¹ 108.3	95.6	118.7	97.5	130.3
1911	¹ 99.4	¹ 92.0	² 100.0	² 100.0	¹ 99.3	¹ 110.1	95.9	123.0	97.2	130.5
1912	¹ 96.8	¹ 94.9	² 98.9	² 105.3	¹ 96.2	¹ 112.2	94.9	121.2	94.8	127.8

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.² Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Lasting department.											
	Assemblers, for pulling-over machine, male.		Bed-machine operators, male.		Hand-method lasting machine operators, male.		Lasters, machine, ¹ male.		Pullers-over, hand, male.		Pullers-over, machine, 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				
1890.....							99.5	97.3				
1891.....							100.2	98.1				
1892.....							100.0	101.2				
1893.....							99.8	96.1				
1894.....							100.6	101.3				
1895.....							100.5	101.1				
1896.....							100.5	103.9				
1897.....							100.0	97.6				
1898.....							98.6	103.9				
1899.....							100.3	100.6				
1900.....							98.8	103.0				
1901.....							99.9	106.6				
1902.....							98.5	114.4				
1903.....							97.8	120.1				
1904.....							98.0	125.4				
1905.....							98.0	128.0				
1906.....							97.6	132.4				
1907.....			² 100.0	² 100.0	² 100.0	² 100.0	96.6	135.2	² 100.0	² 100.0		
1908.....			² 100.2	² 95.4	² 99.1	² 98.7			² 100.0	² 97.3		
1909.....			² 100.2	² 97.9	² 99.3	² 99.3			² 99.3	² 112.0		
1910.....			² 100.6	² 91.9	² 98.2	² 103.6			² 98.8	² 107.9	² 100.0	² 100.0
1911.....	⁴ 100.0	⁴ 100.0	² 100.1	² 95.5	² 98.0	² 104.7			² 98.5	² 114.4	² 98.4	² 99.5
1912.....	⁴ 98.9	⁴ 96.6	² 99.0	² 90.5	² 95.9	² 107.3			² 96.9	² 116.9	² 97.5	² 95.5

¹ Employees reported as lasters, machine, for 1890 to 1907, are reported for subsequent years as bed-machine operators and hand-method lasting-machine operators.

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

³ Data for 1890 to 1909 not available; computed with 1910=100.0.

⁴ Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Bottoming department.											
	Buffers, male.		Edge setters, male.		Edge trimmers, male.		Goodyear stitchers, male.		Goodyear welters, male.		Heel breasters, 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.	Relative full-time hours per week.	Relative rate of wages per hour.
Average: 1890-1899	100.0	100.0	100.0	100.0	.....	.....	.....	.....
1890.....	100.8	97.7	101.3	88.6	.....	.....	.....	.....
1891.....	100.8	97.2	100.6	93.9	.....	.....	.....	.....
1892.....	101.0	99.2	100.5	96.5	.....	.....	.....	.....
1893.....	100.8	105.1	100.7	96.4	.....	.....	.....	.....
1894.....	99.8	99.2	99.5	99.6	.....	.....	.....	.....
1895.....	99.5	103.1	99.8	100.9	.....	.....	.....	.....
1896.....	99.7	99.2	99.6	98.6	.....	.....	.....	.....
1897.....	99.9	100.4	99.7	108.4	.....	.....	.....	.....
1898.....	98.5	99.9	99.5	106.6	.....	.....	.....	.....
1899.....	99.2	99.0	98.9	110.4	.....	.....	.....	.....
1900.....	98.2	105.3	98.8	115.6	.....	.....	.....	.....
1901.....	99.2	105.0	98.7	117.3	.....	.....	.....	.....
1902.....	97.3	110.1	95.1	121.7	.....	.....	.....	.....
1903.....	95.8	114.7	94.4	131.0	.....	.....	.....	.....
1904.....	95.7	116.4	94.6	133.2	.....	.....	.....	.....
1905.....	95.6	118.7	94.9	130.2	.....	.....	.....	.....
1906.....	94.9	118.9	94.2	128.1	.....	.....	.....	.....
1907.....	¹ 100.0	¹ 100.0	95.1	127.1	94.0	132.2	¹ 100.0	¹ 100.0	.....	.....
1908.....	¹ 100.4	¹ 87.8	94.8	121.4	93.7	123.2	¹ 100.2	¹ 100.0	.....	.....
1909.....	¹ 100.2	¹ 95.2	95.0	124.9	94.0	129.3	¹ 99.7	¹ 108.5	.....	.....
1910.....	¹ 99.8	¹ 96.4	94.7	126.0	93.8	127.0	¹ 99.5	¹ 103.3	.....	.....
1911.....	² 100.0	² 100.0	¹ 99.8	¹ 98.1	94.4	128.7	93.3	131.7	¹ 99.1	¹ 109.5	² 100.0	² 100.0
1912.....	² 100.0	² 104.4	¹ 98.9	¹ 100.5	94.1	127.5	93.3	131.0	¹ 98.7	¹ 110.1	² 99.3	² 103.8

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.² Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Bottoming department—Continued.											
	Heel burnish- ers, male.		Heel scourers, male.		Heel-seat nailers, male.		Heel sluggers, male.		Heel trim- mers or shavers, ¹ male.		Heelers, 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.	Relative full- time hours per week.	Relative rate of wages per hour.
Average: 1890-1899.									100.0	100.0		
1890									101.6	91.9		
1891									100.7	90.8		
1892									100.7	97.0		
1893									100.4	104.7		
1894									99.7	102.3		
1895									99.4	103.6		
1896									99.4	101.0		
1897									99.3	102.3		
1898									99.6	105.0		
1899									99.1	101.5		
1900									97.7	104.8		
1901									97.6	105.5		
1902									96.7	106.9		
1903									96.2	115.7		
1904									95.7	122.0		
1905									96.1	125.1		
1906									95.0	127.4		
1907									94.7	129.6		
1908									94.9	129.7		
1909									95.1	132.0		
1910									94.9	131.0		
1911	² 100.0	² 100.0	² 100.0	² 100.0	² 100.0	² 100.0	² 100.0	² 100.0	94.7	132.8	² 100.0	² 100.0
1912	² 99.6	² 102.1	² 101.3	² 101.1	² 100.0	² 99.6	² 99.8	² 101.9	93.9	132.6	² 99.8	² 96.8

¹ Employees in this occupation were reported as heel trimmers for 1890 to 1907.² Data for 1890 to 1910 not available; computed with 1911=100.0.

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

Year.	Bottoming department—Concluded.						Finishing department.			
	Levelers, male.		McKay sewers, male.		Rough rounders, male.		Treeers or ironers, hand, male.		Treeers or ironers, hand, 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		
1890			101.6	95.0			100.1	101.4		
1891			101.5	94.1			100.7	97.4		
1892			100.4	99.3			99.4	98.8		
1893			100.4	104.4			99.0	100.4		
1894			99.8	100.6			99.7	101.4		
1895			100.2	104.3			100.9	100.9		
1896			99.8	98.9			100.3	101.6		
1897			99.1	101.2			99.9	97.9		
1898			98.5	102.6			100.3	97.7		
1899			98.6	99.6			99.7	102.6		
1900			96.4	99.9			99.6	107.9		
1901			98.0	99.1			99.8	105.5		
1902			96.7	100.7			98.2	110.0		
1903			96.6	103.6			96.0	123.4		
1904			96.3	103.5			95.9	123.3		
1905			95.8	102.2			95.9	126.0		
1906			95.7	104.3			95.2	122.3		
1907			95.2	101.0	¹ 100.0	¹ 100.0	95.5	135.6		
1908			95.4	109.2	¹ 100.0	¹ 95.1	95.1	130.9		
1909			96.1	96.0	¹ 99.6	¹ 112.1	95.3	130.2		
1910			95.2	97.8	¹ 99.1	¹ 106.2	95.1	128.0	² 100.0	² 100.0
1911	³ 100.0	³ 100.0	94.5	97.9	¹ 98.8	¹ 114.5	95.4	128.4	² 99.8	² 100.5
1912	³ 99.8	³ 104.1	94.2	94.5	¹ 98.1	¹ 115.1	95.2	126.0	² 93.3	² 107.0

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.² Data for 1890 to 1909 not available; computed with 1910=100.0.³ Data for 1890 to 1910 not available; computed with 1911=100.0.

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

[Data are included from 8 establishments, 1890-1903; 9 establishments, 1903, 1904; 22 establishments, 1904, 1905; 25 establishments, 1905, 1906; 30 establishments, 1906, 1907; 15 establishments, 1907-1910; 62 establishments, 1910, 1911; 62 establishments, 1911, 1912.]

Year.	Relative full-time hours per week.	Relative rate of wages per hour.
Average: 1890-1899	100.0	100.0
1890.....	101.1	105.6
1891.....	101.1	106.9
1892.....	101.2	100.3
1893.....	100.5	100.1
1894.....	94.8	96.7
1895.....	100.4	102.8
1896.....	100.3	99.3
1897.....	100.3	96.1
1898.....	100.3	96.4
1899.....	100.2	93.2
1900.....	98.9	95.4
1901.....	98.8	102.0
1902.....	98.9	111.0
1903.....	97.9	117.6
1904.....	97.8	114.8
1905.....	97.7	119.9
1906.....	97.2	126.9
1907.....	96.8	133.4
1908.....	96.5	133.7
1909.....	96.6	134.1
1910.....	94.8	135.5
1911.....	94.7	135.8
1912.....	93.1	143.7

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

[Data are included from 8 establishments, 1890-1903; 9 establishments, 1903, 1904; 22 establishments, 1904, 1905; 25 establishments, 1905, 1906; 30 establishments, 1906, 1907; 15 establishments, 1907-1910; 62 establishments, 1910, 1911; and 62 establishments, 1911, 1912.]

Year.	Boarders, male.		Buttonhole makers, underwear, female.		Button sewers, underwear, female.		Cutters, hand, underwear, 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.
Average, 1890-1899	100.0	100.0	.....	.....	.....	.....	.....	.....
1890	101.3	107.9	.....	.....	.....	.....	.....	.....
1891	101.3	100.3	.....	.....	.....	.....	.....	.....
1892	101.3	90.3	.....	.....	.....	.....	.....	.....
1893	99.7	106.8	.....	.....	.....	.....	.....	.....
1894	98.2	91.5	.....	.....	.....	.....	.....	.....
1895	99.4	110.8	.....	.....	.....	.....	.....	.....
1896	99.7	99.9	.....	.....	.....	.....	.....	.....
1897	99.7	99.0	.....	.....	.....	.....	.....	.....
1898	99.7	99.3	.....	.....	.....	.....	.....	.....
1899	99.8	94.2	.....	.....	.....	.....	.....	.....
1900	99.6	91.9	.....	.....	.....	.....	.....	.....
1901	99.2	116.2	.....	.....	.....	.....	.....	.....
1902	99.2	107.8	.....	.....	.....	.....	.....	.....
1903	98.2	125.4	.....	.....	.....	.....	.....	.....
1904	98.4	123.5	.....	.....	.....	.....	.....	.....
1905	98.3	127.9	.....	.....	.....	.....	.....	.....
1906	98.4	132.6	.....	.....	.....	.....	.....	.....
1907	97.5	148.6	.....	.....	.....	.....	.....	.....
1908	97.0	143.9	.....	.....	.....	.....	.....	.....
1909	97.2	138.8	.....	.....	.....	.....	.....	.....
1910	95.4	148.9	¹ 100.0	¹ 100.0	¹ 100.0	¹ 100.0	¹ 100.0	¹ 100.0
1911	95.4	146.4	¹ 100.0	¹ 102.4	¹ 100.2	¹ 98.7	¹ 99.3	¹ 103.1
1912	93.2	168.2	¹ 98.6	¹ 104.4	¹ 98.5	¹ 99.6	¹ 99.3	¹ 98.1
Average, 1890-1899	Cutters, hand, underwear, female.		Finishers, underwear, female.		Folders, female.		Inspectors and menders, underwear, female.	
	.....	.....	100.0	100.0	.....	.....	.....	.....
1890	.....	.....	101.3	106.6	.....	.....	.....	.....
1891	.....	.....	101.3	113.2	.....	.....	.....	.....
1892	.....	.....	101.3	105.2	.....	.....	.....	.....
1893	.....	.....	101.0	97.4	.....	.....	.....	.....
1894	.....	.....	91.3	92.4	.....	.....	.....	.....
1895	.....	.....	101.1	93.4	.....	.....	.....	.....
1896	.....	.....	100.8	100.9	.....	.....	.....	.....
1897	.....	.....	100.8	98.8	.....	.....	.....	.....
1898	.....	.....	100.6	100.7	.....	.....	.....	.....
1899	.....	.....	100.6	92.3	.....	.....	.....	.....
1900	.....	.....	98.1	99.3	.....	.....	.....	.....
1901	.....	.....	97.8	103.4	.....	.....	.....	.....
1902	.....	.....	98.1	118.7	.....	.....	.....	.....
1903	.....	.....	96.0	121.3	.....	.....	.....	.....
1904	.....	.....	96.7	119.7	.....	.....	.....	.....
1905	.....	.....	96.2	128.0	.....	.....	.....	.....
1906	.....	.....	94.4	137.0	.....	.....	.....	.....
1907	² 100.0	² 100.0	95.0	145.8	² 100.0	² 100.0	.....	.....
1908	² 98.8	² 109.0	94.8	139.2	² 99.7	² 96.1	.....	.....
1909	² 99.0	² 100.5	95.0	136.6	² 100.2	² 109.2	.....	.....
1910	² 96.4	² 99.7	93.5	142.2	² 98.0	² 109.3	¹ 100.0	¹ 100.0
1911	² 96.4	² 100.9	93.3	141.9	² 97.8	² 108.6	¹ 100.0	¹ 101.0
1912	² 93.5	² 111.1	91.7	147.1	² 95.8	² 111.2	¹ 99.0	¹ 104.2

¹ Data for 1890 to 1909 not available; computed with 1910=100.0.

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

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

Year.	Knitters, ¹ male.		Knitters, ¹ female.		Knitters, footers or toppers, ² male.		Knitters, footers or toppers, ² 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				
1890	102.8	107.7	100.5	104.9				
1891	102.8	118.6	100.6	104.8				
1892	102.8	99.8	100.6	99.0				
1893	100.5	113.4	100.5	97.4				
1894	91.3	110.0	95.7	101.1				
1895	100.3	112.2	100.4	104.6				
1896	100.1	90.4	100.5	98.5				
1897	99.9	81.8	100.5	98.7				
1898	99.8	85.4	100.5	96.2				
1899	99.8	80.7	100.5	94.5				
1900	98.7	90.9	99.3	91.5				
1901	98.7	92.3	99.6	103.1				
1902	98.7	95.7	99.3	112.4				
1903	97.4	123.9	98.6	116.6				
1904	97.6	115.4	98.2	111.4				
1905	97.3	119.2	98.1	124.1				
1906	99.0	126.2	97.6	130.8				
1907	96.9	128.1	97.1	135.5			§ 100.0	§ 100.0
1908							§ 100.0	§ 108.0
1909								
1910					¶ 100.0	¶ 100.0	§ 96.6	§ 107.7
1911					¶ 99.7	¶ 103.0	§ 96.6	§ 109.4
1912					¶ 99.2	¶ 110.8	§ 94.7	§ 111.7
Average, 1890-1899	Knitters, "lady hose," ² male.		Knitters, "lady hose," ² female.		Knitters, rib, hosiery, ² male.		Knitters, rib, hosiery, ² female.	
1890								
1891								
1892								
1893								
1894								
1895								
1896								
1897								
1898								
1899								
1900								
1901								
1902								
1903								
1904								
1905								
1906								
1907								
1908								
1909								
1910	¶ 100.0	¶ 100.0	¶ 100.0	¶ 100.0	¶ 100.0	¶ 100.0	¶ 100.0	¶ 100.0
1911	¶ 99.7	¶ 100.4	¶ 100.0	¶ 101.1	¶ 99.8	¶ 100.2	¶ 100.4	¶ 117.0
1912	¶ 97.3	¶ 108.3	¶ 98.4	¶ 115.9	¶ 98.2	¶ 106.1	¶ 96.9	¶ 114.4

¹ Employees reported as knitters for 1890 to 1907 are reported for subsequent years as knitters, footers or toppers; knitters, "lady hose"; knitters, rib, hosiery; and knitters, web or tube, underwear.

² Employees in this occupation were reported as knitters for 1890 to 1907.

³ Data for 1890 to 1906 not available; computed with 1907=100.0.

⁴ Data for 1890 to 1909 not available; computed with 1910=100.0.

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

Year.	Knitters, web or tube, underwear, ¹ male.		Knitters, web or tube, underwear, ¹ female.		Loopers, female.		Menders, ² 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
1890.....					101.9	99.8	101.8	108.9
1891.....					102.0	103.3	101.8	105.5
1892.....					102.0	100.0	101.8	99.6
1893.....					101.6	104.2	99.5	100.8
1894.....					91.5	95.9	95.9	92.4
1895.....					101.3	106.7	99.4	113.4
1896.....					99.9	117.4	99.7	97.8
1897.....					99.9	91.0	100.1	92.1
1898.....					99.9	93.3	100.2	95.8
1899.....					99.9	88.5	99.8	93.8
1900.....					98.3	80.7	99.2	104.1
1901.....					98.2	94.3	98.8	92.3
1902.....					98.2	92.9	99.0	112.2
1903.....					98.2	106.1	98.6	110.5
1904.....					98.1	93.3	98.6	106.1
1905.....					98.4	99.4	98.2	113.7
1906.....					97.8	105.5	98.0	117.2
1907.....	³ 100.0	³ 100.0	³ 100.0	³ 100.0	97.0	110.2	97.4	122.1
1908.....	³ 99.7	³ 95.1	³ 100.2	³ 101.1	96.7	100.5		
1909.....	³ 100.0	³ 97.1	³ 100.4	³ 91.9	96.7	108.8		
1910.....	³ 97.4	³ 97.3	³ 97.6	³ 103.1	95.5	109.1		
1911.....	³ 97.1	³ 104.1	³ 96.9	³ 98.0	95.5	106.4		
1912.....	³ 95.6	³ 112.1	³ 94.3	³ 81.9	93.8	115.6		
Year.	Menders, fine, hosiery, ⁴ female.		Menders, rough, hosiery, ⁴ female.		Pressers, male.		Press hands, 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
1890.....					101.1	107.4	102.4	110.8
1891.....					101.1	105.2	102.4	102.3
1892.....					101.1	92.6	102.4	101.5
1893.....					100.8	98.9	99.0	99.8
1894.....					92.3	94.6	99.0	109.6
1895.....					100.7	94.4	99.0	91.4
1896.....					100.7	100.9	99.0	105.4
1897.....					100.7	100.8	99.0	97.9
1898.....					100.7	103.9	99.0	88.8
1899.....					100.7	101.4	99.0	92.9
1900.....					98.3	106.6	99.0	107.1
1901.....					97.4	103.6	99.0	104.0
1902.....					99.0	107.1	99.0	110.3
1903.....					99.3	116.2	99.0	100.9
1904.....					99.5	112.9	97.2	122.3
1905.....					99.6	120.5	98.5	131.7
1906.....					99.4	123.7	98.6	137.6
1907.....	³ 100.0	³ 100.0	³ 100.0	³ 100.0	99.6	137.1	98.5	135.9
1908.....	³ 99.0	³ 91.6	³ 99.8	³ 113.7	99.4	119.9	98.5	135.2
1909.....	³ 98.8	³ 90.8	³ 100.0	³ 115.1	99.2	123.1	98.5	120.7
1910.....	³ 98.3	³ 95.1	³ 98.5	³ 109.7	98.9	132.9	95.1	146.6
1911.....	³ 98.3	³ 96.7	³ 98.5	³ 110.2	98.7	139.0	94.8	146.2
1912.....	³ 95.5	³ 99.4	³ 97.6	³ 117.8	97.2	144.3	93.6	153.6

¹ Employees in this occupation were reported as knitters for 1890 to 1907.² Employees reported as menders for 1890 to 1907 are reported for subsequent years as menders, fine, hosiery, and menders, rough, hosiery.³ Data for 1890 to 1906 not available; computed with 1907=100.0.⁴ Employees in this occupation were reported as members for 1890 to 1907.

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

Year.	Ribbers, female.		Seamers, underwear, female.		Welters, female.		Winders, 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						
1890.....	100.0	100.5						
1891.....	100.0	112.3						
1892.....	100.0	103.1						
1893.....	100.0	103.4						
1894.....	100.0	91.8						
1895.....	100.0	98.8						
1896.....	100.0	87.2						
1897.....	100.0	92.0						
1898.....	100.0	96.4						
1899.....	100.0	114.4						
1900.....	100.0	110.1						
1901.....	100.0	112.8						
1902.....	100.0	120.9						
1903.....	100.0	119.0						
1904.....	100.0	117.3						
1905.....	100.0	122.6						
1906.....	100.0	127.0						
1907.....	99.7	137.6	¹ 100.0	¹ 100.0			¹ 100.0	¹ 100.0
1908.....	(²)	(²)	¹ 99.8	¹ 103.4			¹ 99.8	¹ 115.8
1909.....			¹ 100.0	¹ 109.2			¹ 99.6	¹ 108.0
1910.....			¹ 97.6	¹ 99.5	² 100.0	² 100.0	¹ 97.7	¹ 106.4
1911.....			¹ 97.6	¹ 98.7	² 100.0	² 103.7	¹ 97.2	¹ 108.5
1912.....			¹ 96.8	¹ 105.0	² 97.7	² 117.1	¹ 94.8	¹ 116.7

¹ Data for 1890 to 1906 not available; computed with 1907=100.0.² Occupation discontinued.³ Data for 1890 to 1909 not available; computed with 1910=100.0.