U. S. DEPARTMENT OF LABOR BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

WAGES AND HOURS OF LABOR SERIES: No. 4

WAGES AND HOURS OF LABOR IN THE BOOT AND SHOE AND HOSIERY AND KNIT GOODS INDUSTRIES: 1890 TO 1912



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The field work for 1907 to 1911 in connection with the report on boot and shoe manufacturing and on hosiery and knit goods manufacturing was done under the immediate charge of Eugene A. Logan, and that for 1912 was done under the immediate charge of Frank W. Bird. The reports were prepared and the field work directed by Fred C. Croxton.

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WAGES AND HOURS OF LABOR IN THE BOOT AND SHOE AND HOSIERY AND KNIT GOODS INDUSTRIES: 1890 TO 1912.

BOOT AND SHOE MANUFACTURING.

GENERAL SUMMARY.

This study of wages and hours of labor in boot and shoe manufacturing shows rates of wages per hour and nominal full-time hours of work per week for the years 1907 to 1912, inclusive, and in addition it summarizes data published in previous reports ¹ of the Bureau of Labor Statistics and thus furnishes a comparison for the 23-year period, 1890 to 1912, inclusive.

The present report and also previous reports show wages and hours of labor for each of the most important productive occupations in boot and shoe manufacturing, but do not show data for all the occupations in the industry. The occupations for which data are presented in this report are given in the table below. These occupations include a large proportion of the total employees on productive work and approximately thirty per cent of the total employees engaged in productive and nonproductive work.

Comparing 1912 with certain other years the changes in nominal full-time hours per week, as shown by combining the principal occupations, were as follows:

1912 compared	with	1890	. 6. 4	per cent decline.
1912 compared	with	1895	.6.1	per cent decline.
1912 compared	with	1900	.5.4	per cent decline.
1912 compared	with	1905	.3.0	per cent decline.
		1910		

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; and Bulletin No. 77 (July, 1908), covering 1906 and 1907.

The changes in nominal full-time hours per week for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF DECREASE IN NOMINAL FULL-TIME HOURS PER WEEK: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING.

	Per	cent low	er in 191	2 than i	a
Occupation.	1907	1908	1909	1910	1911
Cutting department:					
Cutters, lining, cloth, male Cutters, vamp and whole shoe, hand, male	(1)	(1)	(1)	(1)	1.1
Cutters, vamp and whole shoe, hand, male.	(1) 2.7	(¹) 2.5	(1) 2.3	(1) 2.3	2.1
Cutters, vamp and whole shoe, machine, male	(1)	(1)	(1)	3.61	2. €
Skivers, upper, machine, male	(1) (1)	(1) (1) (1) 3.7	(1) (1) 3.3	.4	3. 3
Skivers, upper, machiné, female	`3,0	`3.7	`3.3	2.8	3. 3
Sole-leather department:					
Channelers, insole and outsole, male	2,3	2.3	1.6	1.6	1.4
Cutters, outsole, male	1.2	.7	.7	.5	. 8
Fitting or stitching department:					
Backstay stitchers, female	3.0	2,8	2.5	2,3	2.3
Button fasteners, female	(1)	(1)	(1)	(1)	.9
Buttonhole makers, female	(1)	(1)	(1)	(1)	1.6
Closers-on, female	4.0	(1) (1) 3. 7 3. 0	2.5 (1) (1) 3.7 2.8	2, 3 (1) (1) 3, 5 2, 6	3.5
Lining makers, female	3.2		2.8	2.6	2.6
Tip stitchers, fémale	(¹) 3, 8	(1) 3.8	(¹) 3.8	(1) 3, 3	1.1
Top stitchers or undertrimmers, female Vampers, male	3.8	3.8	3.8	3.3	3. 1
Vampers, male	1.6	2.1	.9	.7	1.0
vampers, iemaie	3.1	3, 5	2.8	2.8	2, 5
Lasting department:				l i	
Assemblers, for pulling-over machine, male	(1)	(¹) 1, 2	(1) 1.2	(1) 1.6	1.1
Bed-machine operators, male	`1.0	1, 2	1.2		1.1
Hand-method lasting machine operators, male		3.2	3.4	2.3	2, 1
Pullers-over, hand, male	3.1	3.1	2.4	1.9	1.0
Pullers-over, machine, male	(1)	(1)	(1)	2.5	.1
Bottoming department:					
Buffers, male		(4)	(¹) 1.3	(1)	(2)
Edge setters, male	1.1	(1) 1.5		`.9	
Edge trimmers, male	1, 1		.9	.6	,
Goodyear stitchers, male	.7	4	.7	.5	(2)
Goodyear welters, male		1.5	1.0	8	
Heel breasters, male	- 23	1 25	5:5	\;\tag{2}	
Heel burnishers, male	0.0000000000000000000000000000000000000		1.0		
Heelers, male	1 2:3	\;\ \;\	\ ; ;?	\;;\	3 1.
Heel scourers, male	1 53	53	53	532	(2)
Heel duggers male	537	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Si2	137	(-)
Heel sluggers, male	(-),8	7.1	72	171	``.
Levelers, male	ar.°	(1)	71.0	(1,1)	
McKay sewers, male.	(¹) 1.1	(¹) 1.3	(¹) 2.0	(1) 1.1	
Rough rounders, male	1.9	1.9	1.5	1.0	•
Finishing department:	1.9	1. 9	1.0	1.0	• •
Treers or ironers, hand, male	.3	8.1	.1	8.1	.:
Treers or ironers, hand, female.	(1)	(1)	(1)	-6.7	6.
Total		2.1	1.9	1.7	1.4
TOLST	2.2	· 2.	1.9	1.7	1.4

¹ No data.

Comparing 1912 with certain other years the changes in rates of wages per hour, as shown by combining the principal occupations, were as follows:

1912 compared	with 1890	34.8 per cent advance.
1912 compared	with 1895	31.0 per cent advance.
1912 compared	with 1900	27.6 per cent advance.
1912 compared	with 1905	10.8 per cent advance.
1912 compared	with 1910	2.5 per cent advance.

² No change.

³ Increase.

The changes in rates of wages per hour for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF INCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912 COM-PARED WITH EACH OF THE FIVE YEARS PRECEDING.

Occupation.	Per cer	ıt higher	(+) or lo than in-	ower (—) -	in 1912
	1907	1908	1909	1910	1911
utting department:					
Cutters, lining, cloth, male	(1)	(1) +6.3	(1) +3.9	$^{(1)}$ +2.5	+3.
Cutters, vamp and whole shoe, hand, male	+8.8		+3.9	+2.5	+3.
Cutters, vamp and whole shoe, machine, male	(1)	(1)	(1) (1)	+1.5	+1.
Skivers, upper, machine, male Skivers, upper, machine, female	(1)	(1)	(1)	+7.8	1.
Skivers, upper, machine, female	+14.0	+11.4	+11.7	+9.4	+8.
ole-leather department:			l		
Channelers, insole and outsole, male	+12.0	+7.0	+3.6	+5.5	+2.
Cutters, outsole, male	+2.2	+4.5	+4.8	+4.0	+2.
itting or stitching department:					
Backstay stitchers, female	+9.3	+ .5	+5.5	+4.2	+2.
Button fasteners, female	. (1)	(1)	(1)	(1)	+16.
Buttonhole makers, female	(1)	(1)	(1)	(1)	+2.
Closers-on, female	+2.1	+7.6	-1.3	+3.3	+3.
Lining makers, female	-5.1	+ .6	-3.8	+1.9	+3.
Tip stitchers, female	(1)	(1)	(1)	(1)	+5.
Top stitchers or undertrimmers, iemaie	+12.2	+9.3	+5.9	+3.6	+1.
Vampers, male	-5.5	+4.7	+4.8	+2.1	-1.
Vampers, female	+2.3	+4.0	2	-1.9	-2.
asting department:	(1)		(0)		-3.
Assemblers, for pulling-over machine, male	(1)	(1)	((1)	(1)	
Assemblers, for pulling-over machine, male Bed-machine operators Hand-method lasting machine operators, male	-9.5 + 7.3	$-5.1 \\ +8.7$	-7.6	-1.5	-5.
Pullers-over, hand, male	+16.9	+20.1	+8.1	+3.6	+2.
Pullers-over, machine, male	+10.9	(1)	+4.4	$+8.3 \\ -4.5$	+2. -4.
ottoming department:	(1)	(-)	(-)	-4.5	-4.
Buffers, male	(1)	(1)	(1)	(1)	+4.
Edge setters, male.		+14.5	+5.6	+4.3	+2.
Edge trimmers, male	+ .3	+5.0	+2.1	+1.2	+2.
Goodyear stitchers, male.	9	+6.3	+1.3	+3.1	_ :
Goodyear welters, male	+10.1	+10.1	+1.5	¥6.6	+ :
Heel breasters, male	(1)	(1)	(1)	(1)	+3.
Heel burnishers, male	11	\\(\alpha\)	71	(1)	$^{+3}$.
Heelers, male		(1)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(1)	$-\frac{1}{3}$.
Heel scourers, male.		(1)	(1)	(1)	+1.
Heel-seat nailers, male.	(1)	\ \i\	\ \i\ \	71	_g.
Heel sluggers, male	(1)	(1)	(1)	(1)	+1.
Heel trimmers or shavers, male.	+2.3	+2.2	+ .5	+1.2	<u> </u>
Levelers, male	(1)	(1)	(1)	(1)	+4.
McKav sewers, male	-6.4	-13.5	-1.6	-3.4	-3.
McKay sewers, male	+15.1	+21.0	+2.7	+8.4	+ .
inishing department.	1 1		,		
Treers or ironers, hand, male	-7.1	-3.7	-3.2	-1.6	-1.1
Treers or ironers, hand, female	(1)	(1)	(1)	+7.0	+6.
Total	+3.8	+5.8	+1.8	+2.5	+0.

¹ No data.

The next table shows for the industry the course of nominal fulltime hours per week and the rates of wages per hour during the 23year period from 1890 to 1912. The occupations combined and the sex for which data are shown each year are indicated in the table on pages 9 to 15.

The figures of the table are relative hours of labor and relative wages computed from the actual hours and wages in the establishments furnishing data. They also show the per cent of change from year to year as measured by the average from 1890 to 1899.

By nominal full-time hours per week is meant the usual full working time, such as prevails when there is no industrial depression or other unusual factor affecting the industry.

In combining the relatives for the principal occupations to determine the relatives for the industry shown in the table which follows, the relatives for each occupation were weighted according to the number of employees reported each year. This weighting causes the figures for 1890 to 1907 to differ slightly from those shown for the industry in Bulletin No. 77 (July, 1908), where the relative for the industry was a simple average of occupation relatives. Under these two methods, the difference in relative hours does not exceed 0.4 per cent in any of the 18 years, and the difference in relative wages does not exceed 1 per cent in 8 of the 18 years, the greatest difference being about 3.7 per cent. The base used in computing the relatives in this table is the average for the 10-year period, 1890 to 1899.

RELATIVE NOMINAL 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 nominal full-time hours per week.	Relative rate of wages per hour.
Average, 1890–1899	100.0	100. 0
1890 1891	100.3 100.6	98. 5 97. 5
1892 1893 1894	100.2 100.0 100.0	99.3 100.6 99.8
1895	100.0	101.4
1896. 1897. 1898.	100.0 99.8 99.7	100.5 100.7 100.5
1899	99.6	101.8
1900	99.3 99.6 98.4	104.1 104.1 108.0
1903. 1904.	97.0 97.1	113. 2 116. 9
1905	96.8	119.9
1906. 1907. 1908.		121.8 128.0 125.5
1909	95.7	130.4
1910	95.5 95.3	129.6 131.7
1912	93.9	132.8

The table which follows shows, for each of the principal occupations in the industry, relative nominal full-time hours per week and relative rates of wages per hour during the 23-year period 1890 to 1912. As indicated in this table many changes in the occupations included have been made from time to time during the period covered. The base used for computing the relatives for each occupation, except as noted, is the average of the 10-year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU-FACTURING, 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.]

				(Cutting	departn	nent.			
	Cutters	s, lining, , male.	Cutters and wh hand,	s, vamp ole shoe, 1 male.	Cutter and wh machin	s, vamp iole shoe, ie, male.	Skivers machin	, upper, e, male.	Skivers machine	, upper, , female.
Year.	Relative nominal fulltime hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.
Average: 1890-1899			100. 0	100.0						
1890			100. 1 100. 2 100. 2 100. 2 100. 0	99. 9 99. 4 99. 8 100. 4 98. 0						
1895 1896 1897 1898			99. 8 100. 0 99. 9 100. 0 99. 7							
1900 1901 1902 1903			99. 7 99. 8 98. 4 96. 6 96. 9	107. 4 110. 8						
1905			96. 2 95. 8 95. 5 95. 3 95. 1	118.8 126.8						² 100. 0 ² 102. 3 ² 102. 1
1910 1911 1912	4 100. 0	4 100. 0 4 103. 7	95. 1 94. 9 92. 9	134, 6 133, 8 137, 9	3 100. 0 3 99. 0 3 96. 4	³ 100. 0 ³ 99. 6 ³ 101. 5	⁸ 100. 0 ⁸ 100. 0 ⁸ 99. 6	⁸ 100. 0 ⁸ 109. 1 ⁸ 107. 8	² 99. 8 ² 100. 3 ² 97. 0	² 104. 2 ² 104. 7 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.
 ✓ Data for 1890 to 1910 not available; computed with 1911=100.0.

RELATIVE NOMINAL 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.

	Sole-le	ather	depart	ment.		Fitt	ting or	stitch	ing de	partm	ent.	
	insol	nelers, e and e, male.	Cut outsole	ters, e. male.	stite	rstay hers, ale.	faste	tton ners, ale.	mal	nhole ters, ale.	Close fem	rs-on, ale.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.
Average: 1890–1899			100.0	100.0							100.0	100.0
1890. 1891. 1892. 1893.			100. 2 101. 7 100. 2 99. 8 99. 7								99.9	90. 7 96. 8 98. 3 100. 4 103. 6
1895. 1896. 1397. 1898.			99. 8 99. 7 99. 6 99. 7 99. 7	98.8							99.7 100.4	98. 4 103. 3 105. 2 100. 1 102. 9
1900			99.6 99.6 98.2	102. 2 100. 5 103. 5 106. 0 109. 2							99. 5 99. 3 99. 4 98. 8 98. 9	102. 4 105. 5 103. 4 108. 4 106. 1
1905. 1906. 1907. 1908.	1 100. 0 1 100. 0	1 100. 0 1 104. 7	98. 5 98. 0 98. 0 97. 5 97. 5	109. 9 111. 9 114. 3 111. 8 111. 4	1 100. 0	1 100.0 1 108.8					98. 8 98. 4 96. 9 96. 6 96. 6	109.0 111.1 112.3 106.6 116.2
1910 1911 1912	1 99.1	1 106. 2 1 109. 5 1 112. 0	97.3 97.1 96.8	112.3 113.7 116.8	1 99.3	1 104. 9 1 107. 1 1 109. 3	2 100. 0 2 99. 1	2 100. 0 2 116. 5		2 100. 0 2 102. 5	96. 4 96. 4 93. 0	111.0 110.5 114.7

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.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU-FACTURING, 1890 TO 1912-Continued.

			Fitti	ng or sti	itching	departm	ent—Con	cluded.				
Year. Year. Average: 1890-1899	Lining fem	makers, ale.	Tip s'i fem	tchers, ale.	underti	tchers or immers, iale.	Vamper	s, male.	Vampers	nominal ull-time hours per week.		
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	full-time hours per	rate of wages per		
Average: 1890–1899							100.0	100.0	100.0	100.0		
1890 1891 1892 1893							95. 8 101. 9 102. 4 100. 2 99. 7	112.3 97.3 92.4 95.6 89.4	100.2	93.		
1895 1896 1897 1898							99. 8 100. 0 100. 2 100. 3 99. 5	90. 7 101. 5 111. 4 103. 0 106. 7	99. 9 99. 6 99. 5 100. 1 99. 8	103.1 102.0 100.1 99.		
1900 1901 1902 1903 1904							100.5 100.1 99.4 93.9 96.3	110. 6 106. 0 114. 7 127. 1 124. 4	99. 7 99. 6 99. 2 98. 5 98. 5	103.4 103.5 104.4 110.4		
1905 1906 1907 1908	1 100.0 1 99.8	1 100. 0 1 94. 3				1 100. 0 1 102. 7 1 105. 9	96. 5 96. 1 96. 4 96. 9 95. 8	120. 4 127. 5 128. 2 115. 8 115. 7	98. 6 98. 2 97. 8 98. 2 97. 5	115. 120. 124. 122. 128.		
1910 1911 1912	1 99.4	1 93. 1 1 92. 0 1 94. 9	2 100.0 2 98.9	2 100.0 2 105.3	1 99.5 1 99.3 1 96.2	1 108.3 1 110.1 1 112.2	95. 6 95. 9 94. 9	118.7 123.0 121.2	97.5 97.2 94.8	130.3 130.3 127.3		

 $^{^1}$ 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

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU. FACTURING, 1890 TO 1912-Continued.

					Last	ing de	partm	ent.	_			
	Assemblers, for pulling- over machine, male.		opera	achine ators, ale.	lastin chine	method g ma- opera- male.		rs, ma- ¹ male.		s-over, male.	Puller mac fem	
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Rela- tive nomi- nal full- time hours per week.	Relative rate of wages per hour.
Average: 1890-1899							100. 0	100. 0				
1890. 1891. 1892. 1893.							99. 5 100. 2 100. 0 99. 8 100. 6	101. 2 96. 1				
1895							100.5 100.5 100.0 98.6 100.3	97.6 103.9				.
1900							97.8	106. 6 114. 4				
1905 1906 1907 1908			2 100. 0 2 100. 2	l.		1 '	98. 0 97. 6 96. 6	128. 0 132. 4 135. 2	² 100. 0 ² 100. 0	2 100. 0 2 97. 3 2 112. 0		
1910 1911 1912	4 100. 0		2 100. 6 2 100. 1 2 99. 0	2 91. 9 2 95. 5 2 90. 5	2 98. 2 2 98. 0 2 95. 9	2 103. 6 2 104. 7 2 107. 3			2 98.5	2 107. 9 2 114. 4 2 116. 9	⁸ 100. 0 ⁸ 98. 4 ⁵ 97. 5	3 100.0 8 99.1 3 95.1

 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.

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

				1	Botton	ning de	epartm	ent.				
1890-1899 890 891 892 893 894 895 896	Buf me	fers, ile.	Edge s ms	setters, ale.	Edge mers,	trim- male.		lyear hers, ile.	wel	lyear ters, ile.		oreast- male.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate o wages per hour.
Average: 1890-1899					100. 0	100. 0	100.0	100.0				
1890					100. 8 100. 8 101. 0 100. 8 99. 8	97. 7 97. 2 99. 2 105. 1 99. 2	101.3 100.6 100.5 100.7 99.5	88.6 93.9 96.5 96.4 99.6		.		
1895					99. 5 99. 7 99. 9 98. 5 99. 2	103, 1 99, 2 100, 4 99, 9 99, 0	99. 8 99. 6 99. 7 99. 5 98. 9	108.4				
1900					98. 2 99. 2 97. 3 95. 8 95. 7	105.3 105.0 110.1 114.7 116.4	98. 8 98. 7 95. 1 94. 4 94. 6	115.6 117.3 121.7 131.0 133.2				
905 906 907 908			1 100. 0 1 100. 4 1 100. 2	100.0 187.8 195.2	95. 6 94. 9 95. 1 94. 8 95. 0	118.7 118.9 127.1 121.4 124.9	94.9 94.2 94.0 93.7 94.0		1 100. 0 1 100. 2	1 100. 0 1 100. 0 1 108. 5		
1910 1911 1912	2 100 . 0		1 99.8 1 99.8	1 96. 4 1 98. 1 1 100. 5	94. 7 94. 4 94. 1	126. 0 128. 7 127. 5	93.8 93.3 93.3	127. 0 131. 7 131. 0	1 99.1	1 103.3 1 109.5 1 110.1	² 100. 0 ² 99. 3	² 100. ² 103.

 $^{^1}$ 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.

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RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU-FACTURING, 1890 TO 1912-Continued.

				Botto	ming (leparti	nent-	Continu	æd.			
·	Heel burnish- ers, male.			courers,	nai	l-seat lers, ale.		luggers,	mer shav	trim- rs or vers, ¹ ale.		lers, ale.
Year.	Relative nominal full-time hours per week.	Rela- tive rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wag es per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Rela tive rate o wage per hour
verage: 1890-1899									100. 0	100.0		
90									101.6	91.9		
91			ļ						100.7			
92									100.7			
93 94									100. 4 99. 7	104.7 102.3		
94						į			99.7	104.3		
95									99.4	103.6		i
96										101.0		
97									99.3			
98				[[.]					99.6	105.0		
99									99.1	101.5		
00	i				ļ		i		97.7	104.0		
00 01					• • • • • •				97.7		<i>-</i>	
02									96.7			
03									96.2			
04									95.7	122.0		
05				'					96.1	125.1		
06									95.0			
07											• • • • • •	
08									94.9		• • • • • •	
09							• • • • • • •	• • • • • • •	95.1	132.0		
10	}	I	1		l			1	94.9	131.0	l	
11	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		2 100. 0	2 10
12	2 99.6	2 102. 1	2 101 3	2 101 1	2 100 0	2 90.6	2 99. 8	2 101. 9	93.9	132.6	2 99. 8	29

 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.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU-FACTURING, 1890 TO 1912-Concluded.

	В	ottomin	g depar	tment-	-Conclud	led.	Fin	ishing (lepartm	ent.
		elers, ale.		sewers,		rounders, ale.	Treers or ironers, hand, male.		Treers or hand,	r ironers, female.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative
Average: 1890-1899			100. 0	100.0			100.0	100.0		
1890 1891 1892 1893 1894			101.6 101.5 100.4 100.4 99.8				100. 1 100. 7 99. 4 99. 0 99. 7	101. 4 97. 4 98. 8 100. 4 101. 4		
1895			100. 2 99. 8 99. 1 98. 5	104.3 98.9 101.2 102.6			100. 9 100. 3 99. 9 100. 3	100. 9 101. 6		
1900			98.6 96.4 98.0 96.7 96.6	100.7 103.6			99. 7 99. 6 99. 8 98. 2 96. 0	107. 9 105. 5 110. 0 123. 4		
1904			96.3 95.8 95.7 95.2 95.4 96.1	103.5 102.2 104.3 101.0 109.2 96.0	1 100.0 1 100.0 1 99.6	1 100.0 1 95.1 1 112.1	95. 9 95. 9 95. 2 95. 5 95. 1 95. 3	123.3 126.0 122.3 135.6 130.9 130.2		
1910 1911 1912		3 100. 0 3 104. 1	95. 2 94. 5 94. 2	97. 8 97. 9 94. 5	1 99.1 1 98.8 1 98.1	1 106, 2 1 114, 5 1 115, 1	95. 1 95. 4 95. 2	128. 0 128. 4 126. 0	2 100. 0 2 99. 8 2 93. 3	2 100. 0 2 100. 5 2 107. 0

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

The most significant facts concerning nominal full-time working hours per week and rates of wages per hour in each of the principal occupations of the industry are shown for 1907 to 1912, or for such of those years as data are available, in the table which follows.

The data for the several years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding records for past years and also owing to the great amount of work involved, data for 1907 to 1909 were secured from only a limited number of establishments. Data for 1910 and 1911 were obtained from a larger number of establishments.

In 1912 data were gathered for the year 1912 from the establishments that furnished data for 1911, and at the same time some additional data relating to 1911 and 1912 were gathered from a few new establishments, the scope of the work being enlarged to include a greater number of establishments.

To permit a comparison of data from year to year the data for identical establishments are grouped together. A true comparison can be made, of course, only of data from the same establishments. Data for 1912 from new establishments are included in this tabulation only when it was possible to get like data for 1911 from the same establishments. The data are for the pay-roll period ending nearest February 15 each year, except for a very few establishments in which conditions in February were particularly abnormal.

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912.

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

Occupation, sex, and number of establishments.	Year.	Number of em- ployees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Cutting department.			woon.	
• •		1		
Cutters, lining, cloth, male: 31 establishments	{ 1911	115	55. 4	\$0.2701
	1912	128	54. 8	.2800
Cutters, vamp and whole shoe, hand, male: 20 establishments	1907	919	54. 9	.3250
	1908	907	54. 8	.3323
	1909	907	54. 7	.3399
	1910	852	54. 7	.3448
48 establishments	{ 1910	1,650	56.3	.3188
	1911	1,602	56.2	.3169
64 establishments	{ 1911	2,066	56. 2	.3127
	1912	1,906	55. 0	.3222
17 establishments	{ 1910	235	57.8	.3013
	1911	226	57.2	.3000
20 establishments	{ 1911	270	57. 0	.3126
	1912	300	55. 5	.3186
12 establishments	{ 1910	74	54. 7	. 2878
	1911	79	54. 7	. 3139
28 establishments	{ 1911	136	54. 8	. 2921
	1912	146	54. 6	. 2885
Skivers, upper, machine, female: 13 establishments	1907	74	56. 1	. 1875
	1908	70	56. 5	. 1918
	1909	79	56. 3	. 1914
	1910	85	56. 0	. 1954
49 establishments	{ 1910	338	57.0	.1749
	1911	314	57.3	.1757
60 establishments	{ 1911	374	57.0	. 1758
	1912	345	55.1	. 1914
Sole-leather department.				
Channelers, insole and outsole, male: 10 establishments	1907 1908 1909 1910	23 23 23 23 23	55. 1 55. 1 54. 7 54. 7	. 2829 . 2962 . 3057 . 3004
44 establishments	{ 1910	138	56.3	. 2963
	1911	140	56.2	. 3056
57 establishments	$\left\{\begin{array}{c} 1911 \\ 1912 \end{array}\right.$	157 149	56.3 55.5	. 2889 . 2956
Cutters, outsole, male: 10 establishments	1907	50	54. 8	.3144
	1908	47	54. 5	.3075
	1909	49	54. 5	.3065
	1910	54	54. 4	.3080
31 establishments	{ 1910	143	56.6	.2735
	1911	129	56.5	.2770
36 establishments	$\left\{\begin{array}{c} 1911 \\ 1912 \end{array}\right.$	146 161	56. 6 56. 4	.2784 .2861

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912—Continued.

Occupation, sex, and number of establishments.	Year.	Number of em- ployees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Fitting or stitching department.				
Backstay stitchers, female:	(1907	81	F0 0	\$ 0.1708
16 establishments	1908 1909 1910	78 91 95	56. 6 56. 5 56. 3 56. 2	. 1858 . 1770 . 1793
49 establishments	{ 1910 1911	307 299	56. 6 56. 6	.1765 .1802
67 establishments	1911	392	56.5	.1854
Button fasteners, female:	1912	378	55. 2	.1893
26 establishments	1911 1912	55 70	56. 4 55. 9	.1572 .1831
Buttonhole makers, female:	(1911	108	56.3	. 1757
33 establishments	1912	168	55. 4	.1801
Closers-on, female:	(1907	104	55.3	. 2003
18 establishments	1908 1909 1910	100 100 101 95	55. 1 55. 1 55. 0	. 2003 . 1901 . 2072 . 1979
49 establishments	{ 1910 1911	262 277	57.1 57.1	. 1784 . 1776
65 establishments.	{ 1911 1912	350 331	56.9 54.9	. 1796 . 1865
Lining makers, female:	(1907	124	56. 2	. 1754
19 establishments	1908 1909 1910	112 122 154	56. 1 56. 0 55. 9	. 1654 . 1730 . 1634
53 establishments	{ 1910 1911	585 576	56. 5 56. 5	. 1639 . 1619
72 establishments	1911	721	56.5	.1656
Tip stitchers, female:	1912	706	55.0	. 1709
36 establishments	$\left\{ egin{array}{c} 1911 \ 1912 \end{array} ight.$	134 137	55. 8 55. 2	. 2049 . 2157
Top stitchers or undertrimmers, female:	1907	151	56.3	. 1849
17 establishments	1908 1909 1910	144 156 164	56. 3 56. 3 56. 0	. 1898 . 1957 . 2002
53 establishments	{ 1910 1911	721 742	56.9 56.8	. 1884 . 1915
73 establishments	$\left\{\begin{array}{c} 1911 \\ 1912 \end{array}\right.$	911 950	56.7 54.9	. 1941 . 1978
Vampers, male:	1907	167	54.9	.3175
13 establishments	1908 1909 1910	99 150 134	55. 2 54. 6 54. 5	. 2869 . 2867 . 2941
33 establishments	{ 1910 1911	263 249	55. 5 55. 7	. 2927 . 3034
51 establishments	{ 1911 1912	343 435	55. 5 54. 9	.3147 .3100
Vampers, female:	1907	351	55. 7	. 2463
22 establishments	1908 1909 1910	321 391 366	55. 9 55. 5 55. 5	. 2424 . 2526 . 2570
53 establishments	{ 1910 1911	863 909	56. 9 56. 7	. 2378 . 2382
71 establishments.	1911 1912	1,124 1,019	56. 5 55. 1	. 2384

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AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912—Continued.

*				
Occupation, sex, and number of establishments.	Year.	Number of em- ployees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Lasting department.				
Assemblers, for pulling-over machine, male: 17 establishments	{ 1911	218	55. 4	\$0.2739
	1912	228	54. 8	.2645
Bed-machine operators, male:	1007	040		0407
15 establishments	1907	246	54.7	.3497
	1908	300	54.8	.3336
	1909	307	54.8	.3424
	1910	300	55.0	.3214
35 establishments	{ 1910	513	56. 4	. 3108
	1911	568	56. 1	. 3229
54 establishments	{ 1911	793	56. 1	.3210
	1912	1,004	55. 5	.3042
Hand-method lasting machine operators, male:	(1907	99	57.1	.3111
6 establishments	1908	89	56. 6	.3070
	1909	75	56. 7	.3088
	1910	80	56. 1	.3223
33 establishments	{ 1910	325	57.4	. 3062
	1911	352	57.3	. 3094
39 establishments	{ 1911	477	57.0	. 3164
	1912	478	55.8	. 3242
Pullers-over, hand, male:	(1907	345	56.6	. 2558
13 establishments	1908	330	56. 6	. 2490
	1909	366	56. 2	. 2867
	1910	384	55. 9	. 2763
35 establishments	1910	784	56. 4	. 2913
	1911	784	56. 2	. 3089
45 establishments	{ 1911	897	56.3	. 3121
	1912	899	55.4	. 3190
Pullers-over, machine, male: 31 establishments	1010	251 266	57.4 56.5	.3204
43 establishments	{ 1911	328	56.1	.3253
	{ 1912	305	55.6	.3124
Bottoming department. Buffers, male:	İ	1		
36 establishments	1911	174	55. 8	. 2940
	1912	170	55. 8	. 3068
Edge setters, male: 18 establishments	1907	134	56. 0	. 3999
	1908	142	56. 2	. 3509
	1909	150	56. 1	. 3806
	1910	163	55. 9	. 3852
54 establishments	{ 1910	560	56. 3	. 3733
	1911	573	56. 3	. 3800
68 establishments	. { 1911	722	56. 3	.3800
	1912	698	55. 8	.3892
Edge trimmers, male:	1907	283	55. 3	. 4043
23 establishments	1908	302	55. 1	. 3863
	1909	287	55. 2	. 3975
	1910	305	55. 0	. 4010
55 establishments	1910	573	56. 4	.3818
	1911	615	56. 2	.3899
71 establishments	. { 1911	765	56. 1	.3890
	1912	751	55. 9	.3855

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912—Continued.

Occupation, sex, and number of establishments.	Year.	Number of em- ployees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Bottoming department—Concluded.				
Goodyear stitchers, male: 21 establishments	1907	215	55.3	\$0.4034
	1908	214	55.1	.3759
	1909	221	55.3	.3944
	1910	224	55.2	.3875
45 establishments	{ 1910	366	56.3	. 3739
	1911	398	56.0	. 3879
61 establishments	{ 1911	529	55. 9	. 3868
	1912	562	55. 9	. 3847
Goodyear welters, male: 14 establishments	1907	67	55. 9	. 4087
	1908	70	56. 0	. 4087
	1909	74	55. 7	. 4435
	1910	81	55. 6	. 4222
45 establishments	{ 1910	275	56. 2	. 4373
	1911	289	56. 0	. 4637
60 establishments	{ 1911	392	56.0	. 4520
	1912	411	55.8	. 4544
35 establishments	{ 1911	76	56. 1	. 2906
	1912	77	55. 7	. 3017
33 establishments	{ 1911	106	55. 6	.3062
	1912	108	55. 4	.3127
35 establishments	{ 1911	125	54. 8	. 2908
	1912	154	55. 5	. 2940
28 establishments	{ 1911	43	55. 8	. 2987
	1912	43	55. 8	. 2706
34 establishments	{ 1911	77	55. 9	. 2848
	1912	79	55. 8	. 2901
23 establishments	1907	99	55. 1	. 4382
	1908	84	55. 2	. 4387
	1909	82	55. 3	. 4465
	1910	91	55. 2	. 4430
55 establishments	{ 1910	189	56. 6	. 4096
	1911	193	56. 5	. 4152
71 establishments	$\left\{\begin{array}{c} 1911 \\ 1912 \end{array}\right.$	246 239	56. 5 56. 0	. 4154 . 4148
31 establishments	1911	115	55.8	. 4034
	1912	124	55.7	. 3906
36 establishments	{ 1911	102	55. 8	. 2968
	1912	102	55. 7	. 3090
5 establishments	1907	34	55. 2	. 2880
	1908	25	55. 3	. 3113
	1909	28	55. 7	. 2737
	1910	26	55. 2	. 2787
28 establishments	{ 1910	95	57.1	. 2897
	1911	107	56.7	. 2900
30 establishments	{ 1911	129	56. 5	. 2956
	1912	128	56. 3	. 2854
15 establishments	1907	48	56.0	. 3874
	1908	49	56.0	. 3683
	1909	54	55.8	. 4342
	1910	56	55.5	. 4115
44 establishments	{ 1910	165	56. 7	. 4056
	1911	167	56. 5	. 4375
60 establishments	{ 1911	221	56. 3	. 4364
	1912	248	55. 9	. 4388

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912—Concluded.

Occupation, sex, and number of establishments.		Number of em- ployees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Finishing department.				
Treers or ironers, hand, male:				
17 establishments	1907	381	54.7	\$0,3047
	1908	364	54.5	.2941
	1909	377	54.6	.2925
	1910	444	54.5	.2876
44 establishments	{ 1910	832	55. 9	. 2594
	1911	786	56. 1	. 2602
63 establishments	{ 1911	1,006	56. 0	. 2668
	1912	1,076	55. 9	. 2618
8 establishments	{ 1910	74	57.8	. 1432
	1911	70	57.7	. 1439
11 establishments.	{ 1911	85	58. 1	. 1446
	1912	105	54. 3	. 1539

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.

The number of establishments for which data concerning rates of wages per hour and nominal full-time hours of work per week were secured has varied considerably during the 23-year period, as follows:

1890 to 1903	46 identical establishments.
1903 and 1904	50 identical establishments.
1904 and 1905	52 identical establishments.
1905 and 1906	52 identical establishments.
1906 and 1907	54 identical establishments.
1907 to 1910	26 identical establishments.
1910 and 1911	60 identical establishments.
1911 and 1912	81 identical establishments.

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of establishments included for the full period 1907 to 1910 was limited owing to the difficulty in finding establishments which had preserved complete records for those years.

In order that the data from year to year may be entirely comparable it is necessary that information be secured from identical establishments; therefore when in 1912 the number of establishments was increased to 81 the Bureau secured data for 1911 also from all establishments added, thus providing for an exact comparison of the two years 1911 and 1912.

In selecting the 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 as reported by the United States Census of Manufactures, 1905. In selecting establishments in 1912 every State having 1,725 or more employees in the industry, according to the United States Census of Manufactures in 1905, is represented. The table which follows shows by States the number of employees in the boot and shoe manufacturing industry, as given in the reports of the United States Census Office for 1910 and 1905; the total number on the pay roll in the establishments from which the Bureau secured data in 1912, and the number in the selected occupations and for whom data were secured in 1912. Data were secured from the pay roll ending nearest February 15, except for a few establishments where conditions in February were particularly abnormal.

The census figures for 1910 were not available at the time the work for 1911 and 1912 was planned, and therefore the establishments selected, as already stated, were distributed by States according to the census of 1905. The relative importance, however, of the various States, as measured by the number of employees in this industry, did not change materially—except in the case of Missouri, Wisconsin, and Illinois—during the five years from 1905 to 1910.

TOTAL NUMBER OF EMPLOYEES IN BOOT AND SHOE MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FROM WHICH DATA WERE SECURED IN 1912.

	reported	employees by United nsus Office.	Establishments furnishing informa- tion to the Bureau of Labor Sta- tistics in 1912.				
State.				Number of employees—			
	1910		Number of establish- ments.	On pay roll.	For whom data were secured.		
Massachusetts New York. Ohio. Missouri.		62, 633 16, 556 13, 890 10, 428	24 11 5 11	21,214 7,170 4,459 5,480	6,628 1,854 1,162 1,132		
New Hampshire. Pennsylvania. Maine. New Jersey.	6,508 4,084	10,415 8,878 5,775 4,192	7 7 4 4	5,373 3,348 2,523 1,327	1,474 845 649 429		
Illinois Wisconsim Virginia. Other States ¹	5,081	3,947 3,226 1,738 8,246	4 2 2	2,630 1,224 498	668 274 203		
Total	185, 116	149, 924	81	55,246	15,318		

¹ Includes States having less than 2,675 employees in 1910 and less than 1,725 in 1905.

According to both the census of 1905 and 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 on the pay rolls of the establishments from which the Bureau secured 1912 data was equal to 29.8 per cent of the total in the industry in 1910, as reported by the United States Census Office, and the number of employees for whom the Bureau secured detailed information in 1912 was equal to 8.3 per cent of the total in the industry in 1910.

All information included in this report was secured from pay rolls of the various establishments by agents of the Bureau of Labor Statistics.

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 20.

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 the 100 or more operations of a modern factory, 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 department 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 35 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 35 occupations tabulated, data are shown for males only in 25 occupations, for females only in 7 occupations, and for both males and females in 3 occupations.

The occupations represented by females only are all machinesewing operations. Of all the employees reported for 1912, 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,

Lasting department—Concluded.

Bed-machine operators, male.

Hand-method lasting machine operators, male.

Pullers-over, hand, male.

Pullers-over, machine, 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:

Treers or ironers, hand, male.

Treers 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 part 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, with a beam over it which can be swung either to the left or right and 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 clicking 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 to have as little waste leather as possible, and to have the same quality of leather in a 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 only 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 position marked for each button. The operator has only to put the top of the shoe in position and start and stop her 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, which holds 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 lower part of the shoe, or vamp, and the upper 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 require male vampers usually; 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. 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. 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 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 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.

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 shoe 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 insoles. 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 in a steel plate. The heeler places the shoe on a jack or metal last, puts the heel in position,

swings the nail plate into position 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. This operator 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 top lift 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 the 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.

EXPLANATION OF TABLES.

This report includes one general table covering the 6-year period, 1907 to 1912, and two general tables covering the 3-year period, 1910 to 1912, as follows:

Table I.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in the United States, by years, 1907 to 1912.

Table II.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each year, by States, 1910 to 1912.

Table III.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each State, by years, 1910 to 1912.

Table I.—Average rates of wages per hour and average and classified nominal full-time hours of work per week in the United States, by years, 1907 to 1912 (pp. 34 to 43).—This table summarizes the data concerning rates of wages and nominal full-time hours of work secured from the whole number of establishments furnishing information. For each of the principal occupations enumerated on page 6 data are shown, as far as available, for each of the six years, 1907 to 1912.

The first section of the table shows for each occupation the number of establishments from which data were secured, number of employees, average rate of wages per hour, average nominal full-time hours per week, and number of employees under each classified number of nominal full-time working hours per week. The data as to time worked by individual employees paid on a piece basis were not sufficiently satisfactory in many establishments to warrant the presentation of classified rates of wages per hour. The second section of the table shows the per cent of employees under each classified number of nominal full-time working hours per week.

The data for years grouped together by brackets in the table are from identical establishments. As previously explained, exact comparison can be made from year to year only when the establishments compared are identical.

The relative nominal full-time hours per week and the relative rates of wages per hour for 1907 to 1912, shown on pages 9 to 15, are computed from the averages shown in this table. The method of computing the relatives can best be explained by using an illustration, thus: For outsole cutters the average nominal full-time hours per week in 10 establishments was 54.8 in 1907 and 54.5 in the same 10 establishments in 1908. The average in 1908 (54.5) was 99.45 per cent of the average (54.8) in 1907. Bulletin No. 77 (July, 1908) shows that, for nominal full-time hours per week for outsole cutters, the relative was 98.0 in 1907 (average for 1890-1899=100.0). The average nominal full-time hours for 1908 were then reduced to a comparison with the base period (average for 1890-1899=100.0) by computing 99.45 per cent of 98.0, which is 97.5. The same method was followed in computing the relative rate of wages per hour; the average in 1908 (\$0.3075) was 97.81 per cent of the average in 1907 (\$0.3144); the relative (average for 1890–1899 = 100.0) for 1907 as shown in Bulletin No. 77 was 114.3; and 97.81 per cent of 114.3 is 111.8, or the relative rate of wages per hour in 1908 if the average for 1890 to 1899 is the

base or 100.0. In computing for this occupation the relatives for 1911, comparison was made of the data for 31 identical establishments and in computing the relatives for 1912 comparison was made of the data from 36 identical establishments.

Table II.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each year, by States, 1910 to 1912 (pp. 44 to 58).—This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several States. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. Under each year, 1910 to 1912, or for such of those years as data are available, the data are shown for each of the States represented by any considerable number of employees.

Table III.—Average rates of wages per hour and average and classified nominal full-time hours of work per week in each State, by years, 1910 to 1912 (pp. 59 to 69).—This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several years, 1910 to 1912. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. For each of the more important States in this industry the data are shown for each of the three years, 1910 to 1912, or for such of these years as data are available.

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TABLE I.—AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912.

BOOT AND SHOE MANUFACTURING.

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

NUMBER.

		NUN	1BER.							
		Num-	Aver-	Average		loyees rking l				
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Cutting department.					1					
Cutters, lining, cloth, male: 31 establishments Cutters, vamp and whole shoe, hand, male:	(1911 (1912	115 128	\$0.2701 .2800	55. 4 54. 8	16 20	7 12	27 43	17 14	45 34	3 5
20 establishments	$\begin{cases} 1907 \\ 1908 \\ 1909 \\ 1910 \end{cases}$	919 907 907 852	. 3250 . 3323 . 3399 . 3448	54. 9 54. 8 54. 7 54. 7	11 6 14 13	157 175 159 176	343 331 346 278	252 283 286 291	156 112 102 94	
48 establishments	{1910 1911	$1,650 \\ 1,602$.3188 .3169	56.2	13 14	176 158	405 425	395 398	319 311	342 296
64 establishments Cutters, vamp and whole shoe, machine, male:	{1911 {1912	2,066 1,906	.3127	56, 2 55, 0	217	158 162	589 720	587 272	384 323	348 212
17 establishments	(1910 (1911	235 226	.3013	57.8 57.2	 		13 15	70 75	98 102	54 34
20 establishments		270 300	. 3126 . 3186	57. 0 55. 5	29	24	59 113	69	87 85	55 49
12 establishments	{1910 1911	74 79	. 2878 . 3139	54. 7 54. 7			49 52	13 21	12 6	
28 establishments		136 146	. 2921 . 2885	54. 8 54. 6		10	92 100	24 11	20 24	i
13 establishments	$\begin{cases} 1907 \\ 1908 \\ 1909 \\ 1910 \end{cases}$	74 70 79 85	.1875 .1918 .1914 .1954	56, 1 56, 5 56, 3 56, 0			8 7 11 8	37 27 31 35	29 36 37 42	
49 establishments	{1910 1911	338 314	.1749 .1757	57.0 57.3	$\frac{1}{2}$	30 25	40 25	81 84	86 94	100 84
60 establishments	{1911 {1912	374 345	.1758 .1914	57.0 55.1	9	25 26	33 158	113 50	108 91	95 11
Sole-leather department.									•	
Channelers, insole and outsole, male: 10 establishments	1907 1908 1909 1910	23 23 23 23	. 2829 . 2962 . 3057 . 3004	55. 1 55. 1 54. 7 54. 7	4 4 4 4		8 8 10 10	2 2 2 2 2	9 9 7 7	
44 establishments	{1910 {1911	138 140	. 2963 . 3056	56.3 56.2	4 4	7 7	39 37	22 31	48 48	18 13
57 establishments	{1911 {1912	157 149	.2889 .2956	56.3 55.5		7 12	46 61	38 30	45 39	21 7
10 establishments	1907 1908 1909 1910	50 47 49 54	.3144 .3075 .3065 .3089	54. 8 54. 5 54. 5 54. 4			38 35 37 42	5 10 10 10	7 2 2 2	
31 establishments	{1910 1911	143 129	.2735 .2770	56.6 56.5		ļ	48 40	29 34	46 39	20 16
36 establishments	{1911 {1912	146 161	.2784 .2861	56. 6 56. 4	 	2	43 56	43 34	39 48	21 21

TABLE I.—AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912—Continued.

BOOT AND SHOE MANUFACTURING—Continued.

NUMBER-Continued.

		Num-	Aver-	Aver- age nom-	Emp	Employees whose nominal full-time working hours per week were—					
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.	
Fitting or stitching department.											
Backstay stitchers, female:			1		l						
16 establishments	1907 1908 1909 1910	81 78 91 95	\$0.1708 .1858 .1770 .1793	56. 6 56. 5 56. 3 56. 2			15 13 21 16	18 23 25 25	48• 42 45 54		
49 establishments	{1910 {1911	307 299	.1765 .1802	56. 6 56. 6	1	32 28	35 36	88 79	84 99	67 56	
67 establishments	{1911 {1912	392 378	.1854 .1893	56. 5 55. 2	···ii	28 8	69 203	110 41	121 97	64 18	
26 establishments	(1911 (1912	55	.1572	56.4		5	9	12	26	3	
Buttonhole makers, female:		70	.1831	55. 9		6	28	2	34		
33 establishments	${1911 \atop 1912}$	108 168	.1757	56.3 55.4		$\frac{2}{17}$	29 79	23 8	48 64	6	
Closers-on, female:	(1907	104	.2003			17	25	34	28		
18 establishments	1907 1908 1909 1910	104 100 101 95	.1901 .2072 .1979	55. 3 55. 1 55. 1 55. 0		20 19 23	21 19 19	41 45 34	18 18 18 19		
49 establishments	$\substack{\{1910\\1911}$	262 277	.1784 .1776	57.1 57.1	1 1	23 5	34 36	57 89	60 72	87 74	
65 establishmentsLining makers, female:	{1911 {1912	350 331	.1796 .1865	56. 9 54. 9	15	5 16	62 178	108 36	88 71	87 15	
19 establishments	1907 1908 1909 1910	124 112 122 154	.1754 .1654 .1730 .1634	56. 2 56. 1 56. 0 55. 9			24 24 28 33	44 42 46 55	56 46 48 66		
53 establishments	{1910 {1911	585 576	.1639 .1619	56. 5 56. 5	2 3	88 81	76 75	145 162	141 154	133 101	
72 establishments Tip stitchers, female:	{1911 1912	721 706	.1656 .1709	56. 5 55. 0	21	81 39	136 373	190 85	189 161	125 27	
36 establishments	/1911	134	. 2049	55.8		10	38	32	49	5	
Top stitchers or undertrimmers, fe- male:	1912	137	.2157	55. 2	•••••	12	68	17	40	• • • • • • • • • • • • • • • • • • • •	
17 establishments	1907 1908 1909 1910	151 144 156 164	.1849 .1898 .1957 .2002	56.3 56.3 56.3 56.0			30 31 31 32	45 41 47 49	76 72 78 83		
53 establishments	{1910 {1911	721 742	.1884 .1915	56. 9 56. 8	3 4	64 63	111 109	148 169	192 232	203 165	
73 establishments	{1911 {1912	911 950	.1941 .1978	56. 7 54. 9	29	63 81	183 521	212 80	268 212	185 27	
13 establishments	1907 1908 1909 1910	167 99 150 134	.3175 .2869 .2867 .2941	54. 9 55. 2 54. 6 54. 5		7 18 58 48	119 41 51 46	9 15 21 18	32 25 20 22		
33 establishments	{1910 {1911	263 249	. 2927 . 3034	55. 5 55. 7		48 21	67 69	63 81	57 53	28 25	
51 establishments	$\begin{cases} 1911 \\ 1912 \end{cases}$	343 435	.3147 .3100	55. 5 54. 9	15	21 56	138 199	94 57	61 93	29 15	

TABLE I.—AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912—Continued.

BOOT AND SHOE MANUFACTURING—Continued.

NUMBER-Continued.

		Num-	Aver-	Aver- age nom-		loyees rking l				
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Fitting or stitching department—Con.			1							
Vampers, female: 22 establishments	1907 1908 1909 1910	351 321 391 366	\$0. 2463 . 2424 . 2526 . 2570	55. 7 55. 9 55. 5 55. 5	4 3 5 6	54 18 77 39	56 60 66 67	105 119 123 129	132 121 120 125	
53 establishments	{1910 1911	863 909	.2378 .2382	56. 9 56. 7	20 26	39 45	125 138	206 229	241 268	232 203
71 establishments	${1911 \atop 1912}$	1,124 1,019	. 2384 . 2334	56. 5 55. 1	21 15	45 66	191 546	291 107	315 237	261 48
Lasting department.									!	
Assemblers, for pulling-over machine, male:										_
17 establishments Bed-machine operators, male:	{1911 {1912	218 228	.2739 .2645	55. 4 54. 8	31		93 102	69 37	49 47	11
15 establishments	1907 1908 1909 1910	246 300 307 300	.3497 .3336 .3424 .3214	54. 7 54. 8 54. 8 55. 0		54 23 31 15	126 194 189 169	22 31 34 36	52 53 80	
35 establishments	(1910 (1911	513 568	.3108 .3229	56. 4 56. 1		15 26	169 172	77 159	153 113	99 98
54 establishments	{1911 {1912	793 1,004	.3210	56. 1 55. 5		26 99	263 438	201 151	183 218	120 98
6 establishments	1907 1908 1909 1910	99 89 75 80	.3111 .3070 .3088 .3223	57. 1 56. 6 56. 7 56. 1				39 48 39 51	60 41 36 29	
33 establishments	{1910 1911	325 352	.3062 .3094	57. 4 57. 3	4 5		39 45	90 94	86 107	106 101
39 establishments Pullers-over, hand, male:	{1911 1912	477 478	.3164 .3242	57. 0 55. 8	26		94 184	137 86	112 97	134 85
13 establishments		345 330 366 384	.2558 .2490 .2867 .2763	56. 6 56. 2 55. 9			77 74 111 105	73 63 82 99	195 193 173 180	
35 establishments	{1910 1911	784 784	.2913 .3089	56. 4 56. 2	5 7	19 27	207 204	178 206	228 234	147 106
45 establishments Pullers-over, machine, male:	{1911 {1912	897 899	.3121 .3190	56.3 55.4	24	27 111	263 297	234 188	219 212	154 67
31 establishments	(1910 (1911	251 266	.3204 .3188	57. 4 56. 5		 	50 77	36 91	85 47	80 51
43 establishments	{1911 {1912	328 305	. 3253 . 3124	56. 1 55. 6	15	34	110 113	120 43	52 47	46 53

BOOT AND SHOE MANUFACTURING—Continued.

NUMBER-Continued.

			1	1			-			
		Num-	Aver-	Aver- age nom-				nomir per wee		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Bottoming department.										
Buffers, male:										
36 establishments	1911 1912	174 170	\$0.2940 .3068	55.8 55.8		5 5	51 52	49 48	67 58	2
Edge setters, male:	1.		ŀ			ľ		l		
18 establishments	1907 1908 1909	134 142 150	.3999 .3509 .3806	56.0 56.2 56.1			31 29 35	50 48 53	53 65 62	
	(1910 (1910	163 560	.3852	55. 9 56. 3	3	72	34 97	58 142	71 146	100
54 establishments	1911	573	.3800	56.3	4	60	113	148	147	101
68 establishments	{1911 {1912	722 698	.3800 .3892	56.3 55.8		60 52	191 257	170 149	177 142	124 98
Edge trimmers, male:	f1907	283	. 4043	55, 3		46	93	67	77	ļ
23 establishments	1908 1909	302 287	.3863	55. 1 55. 2		48 46	113 93	79 83	62 65	
	(1910	305	. 4010	55.0		58	97	83	67	
55 establishments	${1910 \atop 1911}$	573 615	.3818 .3899	56. 4 56. 2	3 4	58 55	117 139	137 175	137 140	121 102
71 establishments	{1911 {1912	765 751	.3890 .3855	56. 1 55. 9		55 51	220 264	200 146	174 192	116 98
Goodyear stitchers, male:	(1907	215	. 4034	55, 3		23	93	45	54	
21 establishments	1908	214 221	. 3759	55.1		21 26	92 76	59	42 53	
21 0000022222202202020202020202020202020	1909 1910	221	.3944 .3875	55.3 55.2		20 21	77	66 70	56	
45 establishments	{1910 1911	366 398	.3739 .3879	56.3 56.0	3	21 28	88 106	96 118	89 81	69 62
61 establishments	(1911 1912	529 562	.3868 .3847	55. 9 55. 9		28 38	184 221	133 103	110 105	74 95
Goodyear welters, male:	1 1				•••••	90	, '			80
44 4 3 33 3	(1907 1908	67 70	. 4087 . 4087	55. 9 56. 0			22 23 27	19 18	26 29	
14 establishments	1909 1910	74 81	. 4435 . 4222	55. 7 55. 6		· · · · · ·	27 29	21 20	26 32	
45 establishments	{1910 {1911	275 289	. 4373 . 4637	56, 2 56, 0	$\frac{2}{2}$	19 27	79 78	62 79	61 52	52 51
60 establishments	(1911 1912	392 411	. 4520 . 4544	56, 0 55, 8		27 40	132 162	93 68	77 84	63 57
Heel breasters, male:	11911	76	.2906	56.1		2	20	20	31	3
35 establishments	1912	77	.3017	55. 7		8	23	19	23	4
Heel burnishers, male:	ſ1911	106	.3062	55.6		2	42	27	34	1
33 establishments Heelers, male:	1912	108	.3127	55. 4	•••••	5	45	25	30	3
31 establishments	${1911 \atop 1912}$	115 124	. 4034 . 3906	55. 8 55. 7		10 8	33 46	26 25	44 39	6
Heel scourers, male:	1 · 1									
35 establishments	(1911 (1912	125 154	.2908	54. 8 55. 5		7 15	44 59	30 24	42 52	2 4
Heel-seat nailers, male:	r1911	43	. 2987	55.8			17	10	15	1
28 establishments	1912	43	2706	55.8			19	9	13	2
Heel sluggers male:	${1911 \atop 1912}$				1	ì				

BOOT AND SHOE MANUFACTURING—Continued.

NUMBER—Concluded.

		Num-	Aver-	Aver- age nom-				nomir per wee		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	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 1908 1909 1910	99 84 82 91	\$0. 4382 . 4387 . 4465 . 4430	55. 1 55. 2 55. 3 55. 2		25 15 12 17	24 22 22 22 21	29 29 28 31	21 18 20 22	
55 establishments	{1910 {1911	189 193	. 4096 . 4152	56. 6 56. 5	1 1	17 16	27 29	54 59	50 52	40 36
71 establishmentsLevelers, male:	${1911 \atop 1912}$	246 239	.4154 .4148	56. 5 56. 0		16 18	47 70	80 56	60 63	43 32
36 establishments	{1911 {1912	102 102	.2968 .3090	55. 8 55. 7		7 7	32 37	23 22	37 30	3 6
5 establishments	1907 1903 1909 1910	34 25 28 26	. 2880 . 3113 . 2737 . 2787	55. 2 55. 3 55. 7 55. 2		14 9 9 10		11 9 8 7	9 7 11 9	
28 establishments	(1910 (1911	95 107	. 2897 . 2900	57. 1 56. 7	1 1	10 13	5 7	24 29	30 43	25 14
30 establishments	{1911 1912	129 128	. 2956 . 2854	56. 5 56. 3		13 3	9 24	49 40	43 50	15 11
15 establishments	[1907 1908 1909 1910	48 49 54 56	.3874 .3683 .4342 .4115	56. 0 56. 0 55. 8 55, 5			13 13 18 19	15 16 16 16	20 20 20 21	
44 establishments	{1910 1911	165 167	. 4056 . 4375	56. 7 56. 5	1 1		41 39	40 59	44 33	39 35
60 establishments	${1911 \atop 1912}$	221 248	. 4364 . 4388	56. 3 55. 9		2 23	65 88	68 50	43 50	43 37
Finishing department.				}						
Treers or ironers, hand, male: 17 establishments	(1907 1908 1909 1910	381 364 377 444	.3047 .2941 .2925 .2876	54. 7 54. 5 54. 6 54. 5		107 107 105 173	153 132 124 110	72 102 113 114	49 23 35 47	
44 establishments	{1910 {1911	832 786	. 2594 . 2602	55. 9 56. 1		173 100	140 156	225 250	150 141	144 139
63 establishments Treers or ironers, hand, female:	{1911 1912	1,006 1,076	.2668 .2618	56, 0 55, 9		100 115	265 334	311 239	181 239	149 149
8 establishments	{1910 1911	74 70	.1432	57. 8 57. 7			22 23	•••••	32 25	20 22
11 establishments	(1911 (1912	85 105	.1446 .1539	58. 1 54. 3		₁₁	23 67	13	25 14	37

BOOT AND SHOE MANUFACTURING—Continued.

PER CENT.

		1 1316	CERT	•						
		Num-	Aver-	Average nom-				nomi per we		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	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 Cutters, vamp and whole shoe, hand, male:	{1911 {1912	115 128	\$0. 2701 . 2800	55.4 54.8	13. 9 15. 6	6. 1 9. 4	23. 5 33. 6	14. 8 10. 9	39. 1 26. 6	2. 6 3. 9
20 establishments	1907 1908 1909 1910	919 907 907 852	.3250 .3323 .3399 .3448	54. 9 54. 8 54. 7 54. 7	1. 2 . 7 1. 5 1. 5	17. 1 19. 3 17. 5 20. 7	37. 3 36. 5 38. 1 32. 6	27. 4 31. 2 31. 5 34. 2	17. 0 12. 3 11. 2 11. 0	
48 establishments	{1910 1911	1,650 1,602	.3188	56.3 56.2	.8 .9	10.7 9.9	24. 5 26. 5	23. 9 24. 8	19.3 19.4	20.7 18.5
64 establishments Cutters, vamp and whole shoe, machine, male:	{1911 {1912	2,066 1,906	.3127 .3222	56. 2 55. 0	11.4	7.6 8.5	28.5 37.8	28. 4 14. 3	18. 6 16. 9	16.8 11.1
17 establishments	{1910 1911	235 226	.3013 .3000	57. 8 57. 2			5. 5 6. 6	29. 8 33. 2	41.7 45.1	23, 0 15, 0
20 establishments	$_{1912}^{1911}$	270 300	.3126 .3186	57.0 55.5	9.7	8.0	21.9 37.7	25.6	32. 2 28. 3	20. 4 16. 3
12 establishments	{1910 {1911	74 79	. 2878 . 3139	54.7 54.7			66. 2 65. 8	17. 6 26. 6	16. 2 7. 6	
28 establishments	{1911 {1912	136 146	. 2921 . 2885	54. 8 54. 6		6.8	67.6 68.5	17.6 7.5	14. 7 16. 4	7
13 establishments	1907 1908 1909 1910	74 70 79 85	. 1875 . 1918 . 1914 . 1954	56. 1 56. 5 56. 3 56. 0			10.8 10.0 13.9 9.4	50. 0 38. 6 39. 2 41. 2	39. 2 51. 4 46. 8 49. 4	
49 establishments	{1910 {1911	338 314	.1749 .1757	57. 0 57. 3	.3	8.9 8.0	11.8 8.0	24.0 26.8	25. 4 29. 9	29.6 26.8
60 establishments	{1911 {1912	374 345	. 1758 . 1914	57. 0 55. 1	2.6	6. 7 7. 5	8.8 45.8	30. 2 14. 5	28. 9 26. 4	25. 4 3. 2
Sole-leather department.	i				-					
Channelers, insole and outsole, male: 10 establishments	(1907 1908 1909 1910	23 23 23 23	. 2829 . 2962 . 3057 . 3004	55. 1 55. 1 54. 7 54. 7	17. 4 17. 4 17. 4 17. 4		34. 8 34. 8 43. 5 43. 5	8.7 8.7 8.7 8.7	39. 1 39. 1 30. 4 30. 4	
44 establishments	{1910 1911	138 140	. 2963 . 3056	56.3 56.2	2.9 2.9	5. 1 5. 0	28.3 26.4	15. 9 22. 1	34.8 34.3	13. 0 9. 3
57 establishments	{1911 1912	157 149	. 2889 . 2956	56.3 55.5		4.5 8.1	29.3 40.9	24. 2 20. 1	28. 7 26. 2	13. 4 4. 7
10 establishments	1907 1908 1909 1910	50 47 49 54	.3144 .3075 .3065 .3089	54. 8 54. 5 54. 5 54. 4			76.0 74.5 75.5 77.8	10.0 21.3 20.4 18.5	14. 0 4. 3 4. 1 3. 7	
31 establishments	{1910 1911	14 3 129	. 2735 . 2770	56.6 56.5			33.6 31.0	20.3 26.4	32, 2 30, 2	14. 0 12. 4
36 establishments	{1911 1912	146 161	. 2784 . 2861	56.6 56.4			29. 5 34. 8	29. 5 21. 1	26.7 29.8	14. 4 13. 0

BOOT AND SHOE MANUFACTURING—Continued.

PER CENT-Continued.

		Num-	Aver-	Aver- age nom-				nomir per wee		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Fitting or stitching department.										
Backstay stitchers, female:										
16 establishments	1907 1908 1909 1910	81 78 91 95	\$0.1708 .1858 .1770 .1793	56. 6 56. 5 56. 3 56. 2			18, 5 16, 7 23, 1 16, 8	22. 2 29. 5 27. 5 26. 3	59. 3 53. 8 49. 5 56. 8	
49 establishments	{1910 {1911	307 299	.1765 .1802	56. 6 56. 6	0.3	10. 4 9. 4	11. 4 12. 0	28. 7 26. 4	27. 4 33. 1	21. 8 18. 7
67 establishments	{1911 {1912	392 378	. 1854 . 1893	56. 5 55. 2	2.9	7.1 2.1	17.6 53.7	28. 1 10. 8	30. 9 25. 7	16.3 4.8
26 establishments	{1911 {1912	55 70	. 1572	56.4 55.9		9.1 8.6	16. 4 40. 0	21.8 2.9	47.3 48.6	5.5
Buttonhole makers, female: 33 establishments	∫1911	108	. 1757	56.3		1.9	26.9	21.3	44.4	5.6
Closers-on, female:	11912	168	. 1801	55.4		10.1	47.0	4.8	38, 1	
18 establishments	1907 1908 1909 1910	104 100 101 95	. 2003 . 1901 . 2072 . 1979	55.3 55.1 55.1 55.0		16.3 20.0 18.8 24.2	24. 0 21. 0 18. 8 20. 0	32. 7 41. 0 44. 6 35. 8	26. 9 18. 0 17. 8 20. 0	
49 establishments	{1910 1911	262 277	.1784 .1776	57.1 57.1	.4 .4	8.8 1.8	13.0 13.0	21. 8 32. 1	22. 9 26. 0	33. 2 26. 7
65 establishments		350 331	.1796 .1865	56.9 54.9	4.5	1.4 4.8	17.7 53.8	30.9 10.9	25. 1 21. 5	24.9 4.5
19 establishments	1907 1908 1909 1910	124 112 122 154	.1754 .1654 .1730 .1634	56. 2 56. 1 56. 0 55. 9			19. 4 21. 4 23. 0 21. 4	35.5 37.5 37.7 35.7	45. 2 41. 1 39. 3 42. 9	
53 establishments	{1910 1911	585 576	. 1639 . 1619	56. 5 56. 5	.3	15.0 14.1	13.0 13.0	24.8 28.1	24.1 26.7	22.7 17.5
72 establishments	{1911 1912	721 706	.1656 .1709	56. 5 55. 0	3,0	11. 2 5. 5	18.9 52.8	26. 4 12. 0	26. 2 22. 8	17.3 3.8
Tip stitchers, female: 36 establishments	ſ1911	134	. 2049	55.8	 	7.5	28.4	23.9	36.6	3.7
Top stitchers or undertrimmers, female:	11912	137	. 2157	55.2		8,8	49.6	12, 4	29. 2	
17 establishments	1907 1908 1909 1910	151 144 156 164	. 1849 . 1898 . 1957 . 2002	56.3 56.3 56.3 56.0			19.9 21.5 19.9 19.5	29. 8 28. 5 30. 1 29. 9	50. 3 50. 0 50. 0 50. 6	
53 establishments	{1910 {1911	721 742	. 1884 . 1915	56.9 56.8	.4 .5	8.9 8.5	15.4 14.7	20. 5 22. 8	26.6 31.3	28. 2 22. 2
73 establishments Vampers, male:	{1911 {1912	911 950	.1941 .1978	56.7 54.9	3.1	6.9 8.5	20. 1 54. 8	23.3 8.4	29. 4 22. 3	20.3 2.8
13 establishments	1907 1908 1909 1910	167 99 150 134	.3175 .2869 .2867 .2941	54.9 55.2 54.6 54.5		4.1 18.2 38.7 35.8	71.3 41.4 34.0 34.3	5. 4 15. 2 14. 0 13. 4	19. 2 25. 3 13. 3 16. 4	
33 establishments	{1910 1911	263 249	. 2927 . 3034	55. 5 55. 7	ļ	18.3 8.4	25. 5 27. 7	24.0 32.5	21.7 21.3	10.6 10.0
51 establishments	{1911 {1912	343 435	.3147 .3100	55. 5 54. 9	3.4	6. 1 12. 9	40. 2 45. 7	27. 4 13. 1	17.8 21.4	8.5 3.4

BOOT AND SHOE MANUFACTURING—Continued.

PER CENT-Continued.

	T. E.	CEN	1-01	ımueu	•					
		Num-	Aver-	Average nom-				nomit per we		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Fitting or stitching department—Con.										
Vampers, female:	(1007	0			١	۱.,				
22 establishments	1907 1908 1909 1910	351 321 391 366	\$0. 2463 . 2424 . 2526 . 2570	55.7 55.9 55.5 55.5	1.1 .9 1.3 1.6	15. 4 5. 6 19. 7 10. 7	16.0 18.7 16.9 18.3	29. 9 37. 1 31. 5 35. 2	37. 6 37. 7 30. 7 34. 2	
53 establishments	{1910 {1911	863 909	. 2378 . 2382	56. 9 56. 7	2.3 2.9	4.5 5.0	14.5 15.2	23. 9 25. 2	27. 9 29. 5	26. 9 22. 3
71 establishmenta	{1911 {1912	1,124 1,019	. 2384 . 2334	56.5 55.1	1.9 1.5	4.0 6.5	17.0 53.6	25. 9 10. 5	28. 0 23. 3	23. 2 4. 7
Lasting department.										
Assemblers, for pulling-over machine, male:										
17 establishments	{1911 1912	218 228	. 2739 . 2645	55. 4 54. 8	13.6		42.7 44.7	31.7 16.2	22. 5 20. 6	3.2 4.8
Bed-machine operators, male:	(1907	246	. 3497	54.7	20.0	22.0	51.2	8.9	17.9	1.0
15 establishments	1908 1909 1910	300 307 300	.3336 .3424 .3214	54. 8 54. 8 55. 0		7.7 10.1 5.0	64. 7 61. 6 56. 3	10.3 11.1 12.0	17.3 17.3 26.7	
35 establishments	{1910 {1911	513 568	.3108 .3229	56. 4 56. 1		2.9 4.6	32.9 30.3	15.0 28.0	29.8 19.9	19.3 17.3
54 establishments	{1911 {1912	793 1,004	.3210 .3042	56. 1 55. 5		3.3 9.9	33. 2 43. 6	25.3 15.0	23.1 21.7	15.1 9.8
6 establishments	(1907 1908 1909 1910	99 89 75 80	.3111 .3070 .3088 .3223	57. 1 56. 6 56. 7 56. 1				39. 4 53. 9 52. 0 63. 8	60.6 46.1 48.0 36.3	
33 establishments	{1910 {1911	325 252	.3062 .3094	57.4 57.3	1.2 1.4		12.0 12.8	27.7 26.7	26. 5 30. 4	$\frac{32.6}{28.7}$
39 establishments	{1911 {1912	477 478	.3164 .3242	57. 0 55. 8	5. 4		19.7 38.5	28.7 18.0	$23.5 \\ 20.3$	28. 1 17. 8
13 establishments	1907 1908 1909 1910	345 330 366 384	. 2558 . 2490 . 2867 . 2763	56. 6 56. 6 56. 2 55. 9			22.3 22.4 30.3 27.3	21. 2 19. 1 22. 4 25. 8	56. 5 58. 5 47. 3 46. 9	
35 establishments	${}^{1910}_{1911}$	784 784	. 2913 . 3089	56. 4 56. 2	.6 .9	2. 4 3. 4	26. 4 26. 0	22. 7 26. 3	29.1 29.8	18.7 13.5
45 establishments		897 899	.3121 .3190	56. 3 55. 4	2.7	3.0 12.3	29.3 33.0	26.1 20.9	24. 4 23. 6	17.2 7.5
21 actablishments	{1910 {1911	251 266	.3204 .3188	57. 4 56. 5			19. 9 28. 9	14.3 34.2	33. 17. 7	$\frac{31.9}{19.2}$
43 establishments Bottoming department.	{1911 {1912	328 305	. 3253 . 3124	56. 1 55. 6	4.9	·ii. i	33.5 37.0	36. 6 14. 1	15. 9 15. 4	14.0 17.4
Buffers, male: 36 establishments	{1911 {1912	174 170	. 2940 . 3068	55.8 55.8		2.9 2.9	29.3 30.6	28. 2 28. 2	38. 5 34. 1	1.1 4.1

BOOT AND SHOE MANUFACTURING—Continued.

PER CENT—Continued.

		Num-	Aver-	Aver- age nom-	Emp wo	loyees rking l	whose nours p	nomir oer wee	al full- k were	time
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Bottoming department—Continued.										
Edge setters, male:	İ									
18 establishments	1907 1908 1909 1910	134 142 150 163	\$0.3999 .3509 .3806 .3852	56. 0 56. 2 56. 1 55. 9			23.1 20.4 23.3 20.9	37.3 33.8 35.3 35.6	39.6 45.8 41.3 43.6	
54 establishments	{1910 {1911	560 573	. 3733 . 3800	56. 3 56. 3	0.5 .7	12.9 10.5	17.3 19.7	25. 4 25. 8	26.1 25.7	17.9 17.6
68 establishments Edge trimmers, male:		722 698	.3800 .3892	56.3 55.8		8.3 7.4	26.5 36.8	23. 5 21. 3	24.5 20.3	17.2 14.0
23 establishments	1907 1908 1909 1910	283 302 287 305	. 4043 . 3863 . 3975 . 4010	55.3 55.1 55.2 55.0		16.3 15.9 16.0 19.0	32. 9 37. 4 32. 4 31. 8	23.7 26.2 28.9 27.2	27. 2 20. 5 22. 6 22. 0	
55 establishments	{1910 1911	573 615	.3818 .3899	56. 4 56. 2	.5 .7	10.1 8.9	20. 4 22. 6	23. 9 28. 5	23.9 22.8	21.1 16.6
71 establishments	{1911 191 2	765 751	. 3890 . 3855	56. 1 55. 9		7. 2 6. 8	28.8 35.2	26. 1 19. 4	22.7 25.6	15. 2 13. 0
21 establishments	1907 1908 1909 1910	215 214 221 224	. 4034 . 3759 . 3944 . 3875	55. 3 55. 3 55. 2		10.7 9.8 11.8 9.4	43.3 43.0 34.4 34.4	20.9 27.6 29.9 31.3	25. 1 19. 6 24. 0 25. 0	
45 establishments	{1910 {1911	366 398	. 3739 . 3879	56.3 56.0	.8 .8	5.7 7.0	24.0 26.6	26. 2 29. 6	24.3 20.4	18. 9 15. 6
61 establishments	{1911 1912	529 562	.3868 .3847	55. 9 55. 9		5.3 6.8	34.8 39.3	25. 1 18. 3	20.8 18.7	14.0 16.9
14 establishments	1907 1908 1909 1910	67 70 72 81	. 4087 . 4087 . 4435 . 4222	55. 9 56. 0 55. 7 55. 6			32. 8 32. 9 36. 5 35. 8	28. 4 25. 7 28. 4 24. 7	38. 8 41. 4 35. 1 39. 5	
45 establishments	{1910 1511	275 289	. 4373 . 4637	56. 2 56. 0	.7 .7	6.9 9.3	28.7 27.0	22.5 27.3	22. 2 18. 0	18.9 17.6
60 establishments	(1911 (1912	392 411	. 4520 . 4544	56.0 55.8		6.9 9.7	33.7 39.4	23.7 16.5	19.6 20.4	16.1 13.9
35 establishments	{1911 1912	76 77	. 2906 . 3017	56. 1 55. 7		2.6 10.4	26.3 29.9	26.3 24.7	40.8 29.9	3.9 5.2
33 establishments	{1911 {1912	106 108	. 3062 . 3127	55. 6 55. 4		1.9 4.6	39.6 41.7	25. 5 23. 1	32.1 27.8	.9 2,8
31 establishments. Heel scourers, male:	{1911 {1912	115 124	. 4034 . 3906	55. 8 55. 7		8.7 6.5	28.7 37.1	22. 6 20. 2	38.3 31.5	1.7 4.8
35 establishments	{1911 {1912	125 154	. 2908 . 2940	54. 8 55. 5		5.6 9.7	35. 2 38. 3	24.0 15.6	33.6 33.8	1.6 2.6
28 establishments	{ 1911 { 1912	43 43	.2987	55. 8 55. 8			39.5 44.2	23.3 20.9	34.9 30.2	2.3 4.7
34 establishments	${}^{1911}_{1912}$	77 79	.2848	55. 9 55. 8	ļ::::::	l:::::	35.1 39.2	24.7 21.5	36. 4 34. 2	3.9 5.1

BOOT AND SHOE MANUFACTURING—Continued.

PER CENT-Concluded.

		Num-	Aver-	Average				nomir per we		
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	inal full- time hours per week.	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 1908 1909 1910	99 84 82 91	\$0. 4382 . 4387 . 4465 . 4430	55. 1 55. 2 55. 3 55. 2		25.3 17.9 14.6 18.7	24. 2 26. 2 26. 8 23. 1	29. 3 34. 5 34. 1 34. 1	21. 2 21. 4 24. 4 24. 2	
55 establishments	{1910 1911	189 193	. 4096 . 4152	56. 6 56. 5	0.5 .5	9.0 8.3	14.3 15.0	28. 6 30. 6	26. 5 26. 9	21. 2 18. 7
71 establishments Levelers, male:		246 239	.4154 .4148	56. 5 56. 0		6. 5 7. 5	19.1 29.3	32. 5 23. 4	24. 4 26. 4	17.5 13.4
36 establishments	{1911 1912	102 102	. 2968 . 3090	55. 8 55. 7		6. 9 6. 9	31.4 36.3	22. 5 21. 6	36.3 29.4	2. 9 5. 9
5 establishments	1907 1908 1909 1910	34 25 28 26	. 2880 . 3113 . 2737 . 2787	55. 2 55. 3 55. 7 55. 2		41. 2 36. 0 32. 1 38. 5		32, 4 36, 0 28, 6 26, 9	26. 5 28. 0 39. 3 34. 6	
28 establishments	${1910 \atop 1911}$	95 107	. 2897 . 2900	57.1 56.7	1. 1 . 9	10.5 12.1	5.3 6.5	25.3 27.1	31.6 40.2	26.3 13.1
30 establishments		129 128	. 2956 . 2854	56. 5 56. 3		10.1 2.3	7.0 18.8	38.0 31.3	33.3 39.1	11.6 8.6
15 establishments	1907 1908 1909 1910	48 49 54 56	.3874 .3683 .4342 .4115	56. 0 56. 0 55. 8 55. 5			27. 1 26. 5 33. 3 33. 9	31. 2 32. 7 29. 6 28. 6	41.7 40.8 37.0 37.5	
44 establishments	{1910 1911	165 167	. 4056 . 4375	56.7 56.5	.6 .6		24. 8 23. 4	24. 2 35. 3	26.7 19.8	23.6 21.0
60 establishments	{1911 {1912	221 248	. 4364 . 4388	56.3 55.9		.9 9.3	29. 4 35. 5	30.8 20.2	19. 5 20. 2	19.5 14.9
Finishing department.										
Treers or ironers, hand, male: 17 establishments	1907 1908 1909 1910	381 364 377 444	.3047 .2941 .2925 .2876	54. 7 54. 5 54. 6 54. 5		28. 1 29. 4 27. 9 39. 0	40. 2 6. 3 32. 9 24. 8	18. 9 28. 0 30. 0 25. 7	12.9 6.3 9.3 10.6	
44 establishments	{1910 {1911	832 786	. 2594 . 2602	55. 9 56. 1		20.8 12.7	16.8 19.8	27. 0 31. 8	18. 0 17. 9	17.3 17.7
63 establishments	{1911 1912	1,006 1,076	. 2668	56. 0 55. 9		9. 9 10. 7	26.3 31.0	30. 9 22. 2	18. 0 22. 2	14.8 13.8
8 establishments	{1910 1911	74 70	.1432	57.8 57.7			29. 7 32. 9		43. 2 35. 7	27.0 31.4
11 establishments	$_{1912}^{1911}$	85 105	. 1446 . 1539	58. 1 54. 3		10.5	27. 1 63. 8	12. 4	29. 4 13. 3	43.5

BOOT AND SHOE MANUFACTURING—Continued.

CUTTING DEPARTMENT.

	Num-	i	A ver-	Aver-	Emp wo	loyees rking	whose hours	nomi per we	nal full ek wer	l-time re—
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi-	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Cutters, lining, cloth, male.	_									
1911. Massachusetts	1.	58	\$ 0. 2984	53. 3	16	7	21	12	2	
Other States	14 17	57	. 2413	57.6	10		6	5	43	3
Total	31	115	. 2701	55.4	16	7	27	17	45	3
1912.										
MassachusettsOther States	14 17	70 58	. 3059 . 2488	53. 2 56. 8	20	12	27 16	9 5	34	3
Total	31	128	. 2800	54.8	20	12	43	14	34	5
Cutters, vamp and whole shoe, hand, male.										
1910.							1			
Massachusetts	14 6	752 193	. 3414	54.3 60.0	13	176	323	228	12	193
New Hampshire	$\check{2}$	27	. 2179	57.4		,		5	22	
New York Ohio Other States	9 4 13	205 137 336	.3586 .2921 .2969	56. 1 59. 9 57. 2			71 	118	70 40 175	20 97 32
Total	48	1,650	.3188	56.3	13	176	405	395	319	342
1911.									<u>_</u>	
Massachusetts	22 4	967	. 3337	54, 4 59, 8		158	450	337	22 29	148
Missouri New Hampshire	2	177 30	. 2258	57.4				6	24	
New York	11 5	$\frac{267}{206}$. 3395	55. 5 59. 9			128	90	25 54	24 152
Other States	20	419	. 2742	57.2			11	154	230	24
Total	64	2,066	. 3127	56, 2		158	589	587	384	348
1912.			• ,							
Massachusetts	22	812	.3400	53.1	217	100	428	54		13
Missouri	4 2	118 32	. 3042 . 24 24	59. 4 58. 0			9		$\frac{15}{32}$	94
New York	11	296 186	. 3467	54.6		62	160 112	24	19	31 74
OhioOther States	5 20	462	. 3241 . 2847	56.3 56.8			112	194	257	
Total	64	1,906	. 3222	55.0	217	162	720	272	323	212
Cutters, vamp and whole shoe, machine, male.										-
1910.										
Massachusetts	4	53	. 3323	55.2				51	2	
Missouri New Hampshire	3 2	28 52	. 2690 . 2342	60. 0 56. 9				19	33	28
New Hampshire	3	28	. 4172	55. 9			13		15	
Other States	5	74	. 2594	38.7			• • • • • •		48	26
Total	17	235	. 3013	57.8			13	70	98	54
							•			

BOOT AND SHOE MANUFACTURING—Continued.

CUTTING DEPARTMENT-Continued.

		# DEP.	Aver-	Aver-	Emp	loyees	whose hours	nomin per we	nal ful ek wer	l-time
Occupation, year, and State.	Num- ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Cutters, vamp and whole shoe, machine, male—Concluded.										
1911.						ĺ				
Massachusetts	8 3 2 4 3	79 55 54 35 47	\$0.3589 .2536 .2944 .4007 .2590	54. 6 59. 7 57. 1 55. 0 59. 0			42 17	34 17 18	3 16 37 31	39
Total	20	270	. 3126	57.0			59	69	87	55
1912.										
Massachusetts	8 3 2 4 3	95 50 63 52 40	.3571 .2579 .3019 .3736 .2576	52.8 57.7 57.3 53.2 59.2	29	24	66 19 28		63	31
Total	20	300	. 3186	55. 5	29	24	113		85	49
Skivers, upper, machine, male.		-								
1910.										i i
Massachusetts Other States	7 5	58 16	. 2754 . 3331	54. 2 56. 8			49	9	12	
Total	12	74	. 2878	54.7			49	13	12	
1911.										
MassachusettsOther States	16 12	104 32	. 2975 . 2747	54. 2 56. 9			92	10 14	18	
Total	28	136	. 2921	54.8			92	24	20	<u> </u>
1912.										
MassachusettsOther States	16 12	110 36	. 2954 . 2675	54. 1 56. 1		10	100	9 2	24	1
Total	28	146	. 2885	54.6		10	100	11	24	1
Skivers, upper, machine, female.										
1910.										
Massachusetts Missouri New Hampshire New York. Ohio Other States	12 8 6 6 4 13	106 58 42 32 20 80	. 1812 . 1591 . 1794 . 1931 . 1794 . 1671	54.6 60.0 57.1 56.6 59.9 57.4	1	28 2	25 13	49 2 3 27	3 40 6 37	58 14 14 14
Total	49	338	. 1749	57.0	1	30	40	81	86	100
1911.										
Massachusetts Missouri New Hampshire New York Ohio Other States	16 5 6 8 5 20	107 52 48 38 32 97	. 1969 . 1551 . 1716 . 1925 . 1661 . 1622	54. 9 59. 9 57. 1 56. 2 59. 9 57. 2		24 1	12 19 2	66 4 5	5 6 44	46 13 25 11
Total	60	374	. 1758	57.0		25	33	113	108	95
								·;		===

BOOT AND SHOE MANUFACTURING—Continued.

CUTTING DEPARTMENT—Concluded.

Occupation, year, and State.	Num- ber of estab- lish- ments.	Num- ber of em- ployees.	Average rate of wages per hour.	Average nominal full-time hours	Over 48 and	loyees rking 51 and under	whose hours	Over 54 and	al full ek wer 57 and under	-time e—
				week.	under 51.	54.		under 57.	60.	
Skivers, upper, machine, female—Concluded.	!									
1912.	1			į						
Massachusetts	16	96	\$0.2028	53.5	9	20	67			
Missouri	5	31 48	. 1779 . 1827	54.0 57.3			31		48	
New York	8	43	. 2173	55.3		6	24	1	ĭ	11
OhioOther States	5 20	35 92	. 1696	54.0 56.4			35 1	49	42	
Total	60	345	. 1914	55.1	9	26	158	50	91	11
sc	LE-L	EATH:	ER DE	PART	MEN	т.	'	·		
Channelers, insole and outsole, male.										
1910.										
Massachusetts	11	50	\$0.3427	53.9	4	7	29	10		
New York	9 24	22 66	. 2993	56.6 58.1			8 2	3 9	6 42	5 13
Other States	ļ		·							
Total	44	138	. 2963	56.3	4	7	39	22	48	18
1911.		1				_				
Massachusetts New York	17 10	59 26	.3146	54.4 56.1		7	33 11	18	1 3	5
Other States	30	26 72	. 2645	58.0			2	13	41	16
Total	57	157	. 2889	56.3		7	46	38	45	21
1912.										
Massachusetts	17	60	. 3105	54.4		5	38	16		1
New York	10	25	. 3038	54.3		7	12	12	1	3
Other States	30	64	. 2784	56.9			11	12	38	3
Total			1							
	57	149	. 2956	55. 5		12	61	30	39	7
Cutters, outsole, male.	57	149	. 2956	55. 5		12	61	30	39	7
1910.						12			==	7
1910. Massachusetts.	10	60	. 3023	54.6			40	30	3	7
1910.						12			==	7
1910. Massachusetts. Missouri	10 3	60 29	. 3023	54.6 59.2			40	17	3 22	7
1910. Massachusetts. Missouri. Other States	10 3 18	60 29 54	. 3023 . 3086 . 2228	54.6 59.2 57.5			40	17	3 22 21	7 13
1910. Massachusetts	10 3 18 31	60 29 54 143	. 3023 . 3086 . 2228 . 2735	54. 6 59. 2 57. 5 56. 6			40	17	3 22 21 46	7 13 20
1910. Massachusetts. Missouri. Other States. Total. 1911. Massachusetts. Missouri.	10 3 18 31 12 32	60 29 54 143	. 3023 . 3086 . 2228 . 2735	54.6 59.2 57.5 56.6 54.8 59.2			40 8 48 36	17 12 29 27	3 22 21 46	7 13 20
1910. Massachusetts. Missouri Other States Total 1911. Massachusetts. Missouri Other States	10 3 18 31 12 3 21	60 29 54 143 65 26 55	. 3023 . 3086 . 2228 . 2735 . 2974 . 3066 . 2425	54. 6 59. 2 57. 5 56. 6 54. 8 59. 2 57. 4			40 8 48 36 7	17 12 29 27 16	3 22 21 46 2 20 17	7 13 20 6 15
1910. Massachusetts. Missouri Other States Total 1911. Massachusetts. Missouri Other States Total Total	10 3 18 31 12 32	60 29 54 143	. 3023 . 3086 . 2228 . 2735	54.6 59.2 57.5 56.6 54.8 59.2			40 8 48 36	17 12 29 27	3 22 21 46	7 13 20
1910. Massachusetts. Missouri Other States Total 1911. Massachusetts. Missouri Other States Total 1912.	10 3 18 31 12 3 21 36	60 29 54 143 65 26 55 146	. 3023 . 3086 . 2228 . 2735 . 2974 . 3066 . 2425 . 2784	54. 6 59. 2 57. 5 56. 6 54. 8 59. 2 57. 4 56. 6			40 8 48 36 7 43	17 12 29 27 16 43	3 22 21 46 20 17 39	7 13 20 6 15
1910. Massachusetts. Missouri Other States Total 1911. Massachusetts Missouri Other States Total 1912. Massachusetts. Missouri	10 3 18 31 12 3 21 36	60 29 54 143 65 26 55 146	. 3023 . 3086 . 2228 . 2735 . 2974 . 3066 . 2425 . 2784	54.6 59.2 57.5 56.6 54.8 59.2 57.4 56.6			40 8 48 36 7 43	17 12 29 27 16 43	3 22 21 46 2 20 17 39	7 13 20 6 15 21
1910. Massachusetts. Missouri. Other States. 1911. Massachusetts. Missouri. Other States. Total. 1912. Massachusetts.	10 3 18 31 12 3 21 36	60 29 54 143 65 26 55 146	. 3023 . 3086 . 2228 . 2735 . 2974 . 3066 . 2425 . 2784	54.6 59.2 57.5 56.6 54.8 59.2 57.4 56.6			40 8 48 36 7 43	17 12 29 27 16 43	3 22 21 46 2 20 17 39	7 13 20 6 15 21

BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT.

	Num-	Num-	Aver-	Aver- age nomi-	Emp	loyees orking	whose hours	nomii per we	nal ful ek wer	l-time
Occupation, year, and State.	ber of estab- lish- ments.	ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	and	. 54.	Over 54 and under 57.	57 and under 60.	60.
Backstay stitchers, female.										
Massachusetts Missouri New Hampshire New York Ohio Other States	14 8 6 6 4 11	118 30 54 32 24 49	\$0. 1968 . 1657 . 1671 . 1577 . 1423 . 1737	54.7 58.8 57.1 56.9 59.9 57.7	1	28	9 3	61 7 5 2 13	5 49 4 7 19	23 13 17 14
Total	49	307	. 1765	56.6	1	32	35	88	84	67
Massachusetts. Missouri New Hampshire. New York. Ohio. Other States.	21 8 6 8 5 19	154 24 63 43 31 77	. 2109 . 1631 . 1745 . 1718 . 1539 . 1704	54.8 59.4 57.0 56.1 59.9 57.4		21	52 16	70 2 8 3	11 4 55 2 8 41	18 15 23 8
Total	67	392	. 1854	56.5		28	69	110	121	64
1912.										
Massachusetts	21 8 6 8 5 19	138 25 58 51 27 79	. 2116 . 1708 . 1647 . 1719 . 1739 . 1906	53. 7 54. 0 57. 2 56. 2 54. 0 56. 4	11	4	123 25 26 27 2	41	58 3	18
Total	67	378	. 1893	55.2	11	8	203	41	97	18
Buttonhole makers, female.										
1911.										
MassachusettsOther States	13 20	38 70	. 2102 . 1570	54.8 57.1		2	19 10	14 9	3 45	6
Total	33	108	. 1757	56.3		2	29	23	48	6
1912.										
MassachusettsOther States	13 20	60 108	. 2113 . 1628	53.9 56.3		17	43 36	8	64	- • • • • • • • • • • • • • • • • • • •
Total	33	168	. 1801	55.4		17	79	8	64	
Closers-on, female.										
1910.										
Massachusetts. Missouri New Hampshire New York Ohio Other States.	11 7 6 8 3 14	75 44 27 44 19 53	. 2112 . 1595 . 1830 . 1747 . 1670 . 1525	54. 4 60. 0 57. 0 56. 5 59. 9 58. 0	1	23	18	35 5 4 13	22 12 3 22	10 16 17
Total	49	262	. 1784	57.1	1	23	34	57	60	87

BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT-Continued.

	Num-	NT	Aver-	Aver- age	Emp wo	loyees orki n g	whose hours	nomii per we	nal full ek wer	l-time e—
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Closers-on, female—Concluded.										
1911.			ĺ		l			l		
Massachusetts Missouri New Hampshire New York Ohio Other States	18 7 6 11 3 20	107 44 29 63 35 72	\$0.2107 .1628 .1675 .1732 .1573 .1649	54.8 59.7 56.9 55.9 59.9 57.8		5	29 32 1	71 6 13	2 12 23 5 6 40	3: 1: 2: 1:
Total	65	350	. 1796	56.9		5	62	108	88	8
1912.										
Massachusetts	18 7 6 11 3 20	103 27 24 69 28 80	. 2070 . 1644 . 1879 . 1839 . 1774 . 1727	53.7 54.0 57.5 54.5 54.0 56.7	8	3 13	93 27 29 28 1	2 34	24 2 2 45	1.
Total	65	331	. 1865	54.9	15	16	178	36	71	1
Lining makers, femate.										
1910.					ļ			}		
Massachusetts	14 7 6 9 4 13	211 75 60 93 30 116	. 1870 . 1262 . 1489 . 1693 . 1387 . 1563	54. 3 60. 0 56. 8 56. 5 59. 8 57. 2	2	80	43 29 4	81 14 8 42	5 22 13 55	7 2 1
Total	53	585	. 1639	56. 5	2	88	76	145	141	13
1911.								ł		İ
Massachusetts Missouri New Hampshire New York Ohio Other States	$\begin{array}{c} 22 \\ 7 \\ 6 \\ 11 \\ 5 \\ 21 \end{array}$	269 66 46 109 58 173	. 1932 . 1267 . 1539 . 1644 . 1480 . 1473	54. 4 59. 7 57. 0 56. 3 59. 8 57. 2		4	89 42 5	958 27 60	8 20 38 5 22 96	3 3 3 1;
Total	72	721	. 1656	56. 5		81	136	190	189	12
1912.										
Massachusetts Missouri New Hampshire New York Ohio Other States	$\begin{array}{c} 22 \\ 7 \\ 6 \\ 11 \\ 5 \\ 21 \end{array}$	236 - 57 - 73 - 95 - 71 - 174	. 1938 . 1528 . 1302 . 1661 . 1738 . 1643	53. 7 54. 0 57. 3 54. 9 54. 0 56. 5	13 8	18 21	205 57 34 71 6	2 83	73 3 3	2
Total	72	706	. 1709	55.0	21	39	373	85	161	2
Tip stitchers, female.			=				=	-		
1911.					1			1		
Massachusetts	15 21	66 68	. 2298	54. 4 57. 2		10	35 3	19 13	2 47	
Other States										

BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT-Continued.

	Num-		Aver-	Aver- age				nomii per we		
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Tip stitchers, female—Concluded.							}			
1912.										
MassachusettsOther States	15 21	69 68	\$0.2383 .1927	54. 0 56. 4		12	54 14	3 14	40	
Total	36	137	. 2157	55. 2		12	68	17	40	
Top stitchers or undertrimmers, female.										
1910.										
Massachusetts Missouri	15 8	254 116	. 2067 . 1774	54. 6 60. 0	3	64	79	93	15	110
New Hampshire New York	6	80 65	. 1690 . 1876	57. 0 57. 0			27	9 5	71 7	20
OhioOther States	4 14	56 150	. 1639 . 1858	59. 8 57. 5			5	41	19 80	37 24
Total	53	721	. 1884	56. 9	3	64	111	148	192	203
1911.										
Massachusetts	22 8	344 111	. 2202	54. 6 59. 3		63	133	131 12	17 23	76
New Hampshire. New York Ohio	6 11	92 88	.1753	56. 9 56. 5			47	14	23 78 9	28
OhioOther States	5 21	86 190	. 1588	59. 9 57. 6			3	51	26 115	60
Total	73	911	. 1941	56.7		63	183	212	268	185
1912.										
Massachusetts	22 8	378 88	. 2156	53.7 54.0	24	63	291 88			ļ
Missouri	6	106	. 1640	57. 2 54. 9	5	18		····i	106	27
OhioOther States	5 21	114 78 186	. 1854	54. 9 54. 0 56. 7			61 78 3	₇₉ .	104	
Total	73	950	. 1978	54.9	29	81	521	80	212	27
Vampers, male.										
1910.										
Massachusetts	10	134	.3152	54. 1		48	61	25 7		
New Hampshire	5 5	33 35	. 2365	56. 6 56. 2				16	26 19	
Other States	13	61	. 2683	57.9			6	15	12	28
Total	33	263	. 2927	55. 5		48	67	63	57	28
Massachusetts	17	186	. 3388	54. 2		21	133	29	3	
New Hampshire	6 8	47 36	. 2482	56.7 55.6			199	9	38	
Other States	20	36 74	. 2920	57.8			5	34 22	18 18	29
Total	51	343	.3147	55.5		21	138	94	61	29
		,								

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BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT-Concluded.

	Num-	NT	Aver-	Aver- age	Emp wo	loyees rking l	whose hours j	nomir per we	al full k wer	-time
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Vampers, male—Concluded.										
1912.										
Massachusetts	17 6 8 20	277 54 38 66	\$0.3254 .2401 .3325 .2899	53. 9 57. 2 54. 6 57. 2	15	40 16	191 4 4	27 7 23	54 11 28	11
Total	51	435	.3100	54.9	15	56	199	57	93	18
Vampers, female.		400	.0100				100	===	====	
1910.										
Massachusetts	15 8 6	287 120 117	. 2681 . 2226 . 2242	54. 5 60. 0 57. 1	6	39	94	141 	7 	120
New York Ohio Other States	6 4 14	94 74 171	.2448 .2035 .2179	56. 4 59. 8 57. 5	14		27 4	5 50	10 27 90	38 47 27
Total	53	863	. 2378	56.9	20	39	125	206	241	233
1911.								ļ		
Massachusetts. Missouri New Hampshire. New York Ohio. Other States	22 8 6 9 5 21	385 127 134 130 140 208	. 2759 . 2403 . 2120 . 2349 . 2033 . 2105	54. 8 59. 3 57. 0 55. 6 59. 9 57. 4	21	45	133 55 3	191 15 14 5	16 18 120 11 35 115	38 102 24
Total	71	1, 124	. 2384	56.5	21	45	191	291	315	26
1912.										
Massachusetts	22 8 6 9 5 21	309 105 100 141 118 246	. 2466 . 2322 . 2138 . 2506 . 2174 . 2233	53. 7 54. 0 57. 2 55. 6 54. 0 56. 8	14 1	43 23	252 105 68 118 3	106	100	48
Total	71	1,019	. 2334	55. 1	15	66	546	107	237	4
	LAS'	ring :	DEPA	rtme	NT.	1	!	1	•	<u>. </u>
Assemblers, for pulling-over machine, male.										
1911.					}					
MassachusettsOther States	8	148 70	\$0. 2932 . 2332	54. 6 57. 2			78 15	68 1	2 47	
Total	17	218	. 2739	55. 4			93	69	49	

Assemblers, for pulling-over machine, male.									
1911.									
MassachusettsOther States	9	148 70	\$0.2932 .2332	54. 6 57. 2		 78 15	68 1	2 47	. 7
Total	17	218	. 2739	55. 4		 93	69	49	7
1912.									
MassachusettsOther States	9 8	148 80	. 2807 . 2346	53. 6 56. 9	31	 78 24	36 1	47	3 8
Total	17	228	.2645	54.8	31	 102	37	47	11

BOOT AND SHOE MANUFACTURING—Continued.

LASTING DEPARTMENT—Continued.

			Aver-	Aver-	Emp	loyees orking	whose hours	nomi per we	nal ful ek wer	I-time
Occupation, year, and State.	Num- ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Bed-machine operators, male.										
1910.										
Massachusetts	7	207	\$0.3429	54.2		15	161	31		ļ <u>.</u>
Missouri New Hampshire	7 7 3 5	41 67	. 2924 . 2464	60.0 56.9			•••••	5	62	41
New York	5	73	. 3286	57.9			4	5	45	ig
OhioOther States	3 10	42 83	. 2983	59.8 56.9	 		4	36	17 29	25
			 -					 -		
Total	35	513	.3108	56.4		15	169	77	153	99
1911.										
Massachusetts	14	331	. 3523	54.3		26	246	46	13	<u></u>
Missouri New Hampshire	6 3	50 72	. 3068 . 2465	58. 7 56. 6			[13 14	58	37
New York	9	96	.3442	56.5			14	52	15	15
OhioOther States	5 17	$\begin{array}{c} 72 \\ 172 \end{array}$. 2977	59. 9 56. 9			3	76	17 80	55 13
	l			l				-		
Total	54	793	. 3210	56.1		26	263	201	183	120
1912.	!									
Massachusetts	14	470 54	. 3054	54.3 59.6		58	339	60	19	13 35
New Hampshire	$\begin{bmatrix} 6\\3 \end{bmatrix}$	91	. 2403	57.2					91	l
New Hampshire New York Ohio	9	131	. 3458	54.7 56.6		41	46	20	11	13 37
Other States	5 17	87 171	.3093	56.9			50 3	71	97	31
Total	54	1,004	. 3042	55. 5		99	438	151	218	98
Hand-method lasting machine operators, male.										
1910.										
Massachusetts	8	114	.3481	. 55. 3	4		19	78	13	ļ
Missouri	8 8	75	. 2746	60.0						75
New Hampshire	5 3	58 26	. 2521 . 3427	57. 1 55. 4			20	10	48	6
Missouri New Hampshire New York Ohio	3	21	. 3239	59. 9					6	15
Other States	6	31	. 2875	58. 8			• • • • • •	2	19	10
Total	33	325	. 3062	57.4	4		39	90	86	106
1911.										
Massachusetts	12	204	. 3682	55.0			76	115	13	
Missouri	7	85	. 2884	59.8					18	67
New Hampshire New York	4 3	59 35	. 2222 . 3226	57. 2 55. 6		•••••	····i8	10 9	49	8
Ohio	5	48	. 2870	59.9					5	43
Other States	8	46	. 2855	58.8	•••••	- -	•••••	3	27	16
Total	39	477	. 3164	57.0			94	137	112	134
1912.										
Massachusetts	12	221	. 3473	54.1	26		116	72	7	
Missouri New Hampshire	7 4	73 60	. 2808 . 2633	58.8			14			59
New York	3	46	. 3529	57. 5 55. 9			···· <u>25</u>	8	60	13
Ohio.	5	42	. 3476	55. 9			29			13
Other States	8	36	.3078	57.6			••••	6	30	
Total	39	478	. 3242	55.8	26		184	86	97	85
NA OED					====					

BOOT AND SHOE MANUFACTURING—Continued.

LASTING DEPARTMENT-Concluded.

DAS	, I I I C	F 17151 2	XIVI MI							
	Num-	Num-	Aver-	Aver- age nomi-				nomir per we		
Occupation, year, and State.	ber of estab- lish- ments.	ber of em- ployees.	rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Pullers-over, hand, male.										
1910.										
Massachusetts	11	341	\$0.3227	54.6	5	19	187	110	20	
Missouri New Hampshire	5 5	57 152	.3074	60.0 56.8		•••••		18	134	5
New York	4	42	. 3233	57.7			2	10	30	
OhioOther States	2 8	70 122	. 2594 . 2868	59. 9 56. 9			···i8	40	10 34	60
Total	35	784	. 2913	56.4	5	19	207	178	228	147
1911.										
Massachusetts	12	359	. 3483	54.5		27	216	99	17	
Missouri New Hampshire New York	4	47	. 3206	57.1				27		20
New Hampshire	2 7	65 76	. 2495	57. 0 56. 4	- <i>-</i>		···· <u>28</u>	14	65 34	
Ошо	5	133	. 2869	60.0				. 	13	120
Other States	15	217	. 2829	56.6			19	94	90	14
Total	45	897	.3121	56.3		27	263	234	219	154
1912.					ĺ				,	
Massachusetts	12	429	. 3283	54.0	24	111	216	59	19	
Missouri New Hampshire	4	40	. 2754	59.4					25	18
New York	2 7	70 73	. 2620	57.0 54.2		• • • • •	59	12	70 2	
Ohio	! 5	65	. 3232	58.8			13			5
Other States	15	222	. 3202	56.4			9	117	96	
Total	45	899	. 3190	55.4	24	111	297	188	212	67
Pullers-over, machine, male.										
1910.					ļ					
Massachusetts	7 7	75	. 3264	54.7			41	33	1	
Missouri New York	7	33 73	.3719	60.0 57.4			9		54	3: 10
Other States	13	70	.2694	59.0			ļ	3	30	3
Total	31	251	. 3204	57.4			50	36	85	8
1911.		===-=		 -					_	_
Massachusetts	13	150	.3499	54.5	ĺ		93	54	3	
Missouri	7	28	. 2820	59.6				1	6	2
New York Other States	6 17	75 75	.3476 .2700	55. 8 58. 3			17	52 13	43	1
Total	43	328	.3253	56.1			110	120	52	4
1912.	70	328	. 3203	30.1			110	120	- 52	
Massachusetts	13	140	.3036	54.1	15		89	30	3	;
Missouri	7	37	. 2993	59.1			5		2	3
New York	6	60	. 3594	54.8		34	12	ļ;	2	1
Other States	43	305	. 2962	57. 4 55. 6			7	13	40	
			.3124		15	34	113	43	47	5

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT.

_										
-	Num-		Aver-	Aver-	Emp wo	loyees rking	whose hours	e nomi per we	nal ful ek we	l-time re—
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Buffers, male.										
Massachusetts	16 4 16	92 42 40	\$0.3128 .2276 .3209	54. 7 57. 1 56. 7		5	47	33 16	7 42 18	
Total	36	174	. 2940	55. 8		5	51	49	67	2
1912.					_					
Massachusetts. New Hampshire. Other States.	16 4 16	89 39 42	.3306 .2489 .3101	54. 9 57. 0 56. 5		5	45 7	32 16	39 15	4
Total	36	170	. 3068	55. 8	·····	5	52	48	58	7
Edge setters, male.										
1910.									ļ	
Massachusetts. Missouri New Hampshire. New York Ohio Ohio Othor States	15 8 6 7 4 14	238 54 67 64 35 102	.4165 .3605 .2877 .3726 .3542 .3426	54. 4 59. 2 56. 9 57. 2 59. 8 57. 1	3	72	79 15 3	75 9 9 7 	58 26 11 42	45 16 24 15
Total	54	560	. 3733	56.3	3	72	97	142	146	100
1911.										
Massachusetts Missouri. New Hampshire. New York. Ohio. Other States.	22 7 6 9 5 19	324 . 56 74 78 59 131	. 4209 . 3483 . 2758 . 4086 . 3297 . 3569	54.4 59.9 56.9 56.2 59.9 57.3		60	158 30	90 10 25 45	16 8 64 7 11 71	48 16 48 12
Total	68	722	. 3800	56.3		60	191	170	177	124
1912.										
Massachusetts Missouri. New Hampshire New York Ohio Other States	22 7 6 9 5 19	295 52 70 94 62 125	. 4218 . 3445 . 3026 . 4104 . 3614 . 3768	54. 5 59. 5 57. 2 54. 7 57. 1 56. 7		32 20	168 4 52 30 3	83 9 57	7 70 65	5 48 13 32
Total	68	698	. 3892	55.8		52	257	149	142	98
Edge trimmers, male.										
1910.										
Massachusetts Missouri. New Hampshire. New York. Ohio Other States.	15 8 6 8 4 14	255 61 70 68 39 80	.4038 .3495 .3155 .4342 .3349 .3723	54. 4 60. 0 56. 8 57. 0 59. 9 57. 2	3	58	98 16 3	85 12 11 29	58 23 9 36	61 18 30 12
Total	55	573	.3818	56.4	3	58	117	137	137	121

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT—Continued.

	Num-		Aver-	Aver- age	Emp wo	loyees rking l	whose hours j	nomii per we	nal full ek were	-ti m e
Occupation, year, and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Edge trimmers, male—Concluded.		:								
1911.										
Massachusetts	22	367	\$0.4179	54.5		55	184	113	15	
Missouri	7 6	54 84	.3311	59.9 56.8		• • • • • •		16	68 68	4
New Hampshire New York	10	91	.4202	56.1			34	31	7	1
Unio	5	52	. 3819	59.9					11	4
Other States	21	117	.3682	57.3			2	40	65	1
Total	71	765	. 3890	56.1		55	220	200	174	11
1912.										
Massachusetts	22	332	.3946	54.6		30	190	96	8	
Missouri	7	48	.3391	59.3			6	90		4
New Hampshire	6	97	.3283	57.4					97	l . .
New YorkOhio	10	92	.4178	55.3		21	41	6	5]
Other States	5 21	53 129	.3917	57.3 57.1			$\frac{24}{3}$	44	82	2
										
Total	71	751	. 3855	55.9		51	264	146	192	
Goodyear stitchers, male.			ļ							
1910.										
Massachusetts	14	158	.4012	54.4	3	21	80	49	5	
Missouri	6	34	.3232	60.0				;;-		3
New Hampshire	3 6	49. 39	.2756	56.6 57.6			4	10	39 19	·····j
Ohio	4	25	.3026	59.9					7	
Other States	12	61	. 4065	56.5			4	31	19	
Total	45	366	. 3739	56.3	3	21	88	96	89	
1911.										
Massachusetts	20	258	. 4101	54.4		28	165	56	9	
Missouri	6	33	.3705							
	3			59.1				6		
New Hampshire		58	. 2650	59.1 56.5				6 14	44	
New Hampshire New York		58 55	. 2650	59.1 56.5 56.7		•••••	14	6	 44 8	• • • •
New Hampshire New YorkOhio	8 5	58 55 39	. 2650 . 4064 . 3494	59. 1 56. 5 56. 7 59. 9				6 14 20	44 8 9	• • • • •
New Hampshire. New York. Ohio. Other States.	8 5 19	58 55 39 86	. 2650 . 4064 . 3494 . 4087	59. 1 56. 5 56. 7 59. 9 56. 8			5	6 14 20 37	44 8 9 40	
New Hampshire. New York. Ohio. Other States. Total	8 5	58 55 39	. 2650 . 4064 . 3494	59. 1 56. 5 56. 7 59. 9		28		6 14 20	44 8 9	
New Hampshire New York Ohio Other States Total. 1912.	8 5 19 61	58 55 39 86 529	. 2650 . 4061 . 3494 . 4087	59.1 56.5 56.7 59.9 56.8 55.9		28	184	37 133	44 8 9 40	
New Hampshire. New York. Ohio. Other States. Total. 1912. Massachusetts.	8 5 19 61	58 55 39 86 529	. 2650 . 4061 . 3494 . 4087 . 3868	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9			5	6 14 20 37	44 8 9 40 110	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri	8 5 19 61	58 55 39 86 529	. 2650 . 4061 . 3494 . 4087	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9		28	184	37 133	44 8 9 40 110	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York	8 5 19 61 20 6 3 8	58 55 39 86 529 245 52 43 69	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4		28	184 166	37 133	44 8 9 40 110	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri. New Hampshire New York Ohio	8 5 19 61 20 6 3 8 5	58 55 39 86 529 245 52 43 69 52	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2465 . 4479 . 2961	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4		28	184 166 25 26	14 20 37 133 47 10	110 5 6 43	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York	8 5 19 61 20 6 3 8 5 19	58 55 39 86 529 245 52 43 69	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4		28	184 166	37 133 47	44 8 9 40 110	4
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri. New Hampshire New York Ohio	8 5 19 61 20 6 3 8 5	58 55 39 86 529 245 52 43 69 52	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2465 . 4479 . 2961	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4		28	184 166 25 26	14 20 37 133 47 10	110 5 6 43	4
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri. New Hampshire New York Ohio Other States	8 5 19 61 20 6 3 8 5 19	58 55 39 86 529 245 52 43 69 52 101	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4 57. 0 56. 6		28 21 17	184 166 25 26 4	14 20 37 133 47 10	44 8 9 40 110 5 6 43 	3
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total.	8 5 19 61 20 6 3 8 5 19	58 55 39 86 529 245 52 43 69 52 101	. 2650 . 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4 57. 0 56. 6		28 21 17	184 166 25 26 4	14 20 37 133 47 10	44 8 9 40 110 5 6 43 	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total. Goodyear welters, male. 1910. Massachusetts.	8 5 19 61 20 6 6 3 8 5 19 61 61	58 55 39 86 529 245 52 43 69 52 101 562	. 2650 4064 . 3494 . 4087 . 3868 . 3889 . 3486 . 2865 . 4479 . 2961 . 4129 . 3847	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4 57. 0 56. 6		28 21 17	184 166 25 26 4	14 20 37 133 47 10	44 8 9 40 110 5 6 43 	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total. Goodyear welters, male. 1910. Massachusetts.	8 5 19 61 20 6 3 8 5 19 61 61 12 6	58 55 39 86 529 245 52 43 69 52 101 562	. 2650 4064 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129 . 3847	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 57. 3 57. 0 56. 6 55. 9		28 21 17 	5 184 166 25 26 4 221	16 14 20 37 133 47 10 46 103	110 5 6 43 51 105	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total. Goodyear wellers, male. 1910. Massachusetts. Missouri New Hampshire	8 5 19 61 20 6 3 8 5 19 61 12 6 6 3	58 55 39 86 529 245 52 43 69 52 101 562	. 2650 4061 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129 . 3847 . 4583 . 3333	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4 57. 0 56. 6 55. 9		28 21 17 38	184 166 25 26 4 221	10 10 10 24 24	44 8 9 40 110 5 6 43 51 105 4	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total. Goodyear welters, male. 1910. Massachusetts. Missouri New Hampshire New York Ohio	8 5 19 61 20 6 3 8 5 19 61 61 12 6	58 55 39 86 529 245 52 43 69 52 101 562	. 2650 4061 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129 . 3847 . 4583 . 3335 . 4075	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 57. 3 57. 0 56. 6 55. 9		28 21 17 	5 184 166 25 26 4 221	147 133 47 10 103 24 8 5	110 5 6 43 51 105	
New Hampshire New York Ohio Other States Total. 1912. Massachusetts. Missouri New Hampshire New York Ohio Other States Total. Goodyear welters, male. 1910. Massachusetts. Missouri New Hampshire New Hampshire New Hampshire New Hampshire New Hampshire New Hampshire New York	8 5 19 61 20 6 3 8 5 19 61 12 6 3 7 7	58 55 39 86 529 245 52 43 69 52 101 562	. 2650 4061 . 3494 . 4087 . 3868 . 3989 . 3486 . 2865 . 4479 . 2961 . 4129 . 3847 . 4583 . 3333	59. 1 56. 5 56. 7 59. 9 56. 8 55. 9 54. 4 59. 9 57. 3 55. 4 57. 0 56. 5 56. 3		28 21 17 38	184 166 25 26 4 221	10 10 10 24 24	110 5 6 43 51 105	

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT-Continued.

	Num-	Num-	Aver- age	Aver- age nomi-	Empl work	loyees cing h	whose ours]	nomir per we	al fulle ek we	-time re
Occupation, year, and State.	ber of estab- lish- ments.	ber of em- ployees.	rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Goodyear welters, male—Concld.										
1911.										
Massachusetts	18 6 3 9 5 19	179 30 33 45 32 73	\$0.4989 .4696 .3313 .4492 .3691 .4226	54.3 59.2 56.5 56.1 59.9 57.2		27	119 ii 2	28 5 9 23 28	5 24 5 6 37	25 26 26
Total	60	392	. 4520	56.0		27	132	93	77	63
1912.										
Massachusetts. Missouri. New Hampshire. New York. Ohio. Other States.	18 6 3 9 5 19	192 39 31 40 35 74	.4767 .4481 .3723 .5218 .3823 .4319	54.4 59.8 57.3 54.8 56.9 56.7		30	126 15 18 3	28 	4 6 31 5	33 33 17
Total	60	411	. 4544	55.8		40	162	68	84	57
Heel breasters, male.					-					
1911.		1	i							
MassachusettsOther States	16 19	38 38	.3353 .2559	54.8 57.4		2	18 2	15 5	3 28	
Total	35	76	. 2906	56.1		2	20	20	31	
1912. MassachusettsOther States	16 19	44 33	.3196 .2777	54.7 57.0		8	19 4	14 .5	2 21	
Total	35	77	.3017	55.7		8	23	19	23	
Heel burnishers, male.									-	
1911. Massachusetts	16	66	.3298	54.6		2	38	23	3	
Other States	17	40	.2674	57.1			4	4	31	-
Total	33	106	.3062	55.6		2	42	27	34	
1912. Massachusetts	16	69	.3357	54.7		5	39	21	2 28	
Other States	17	39	.2720	56.8			6	25	<u> </u>	
Total	33	108	.3127	55.4		5	45	25	30	
Heelers, male.										
1911. Massachusetts Other States	14 17	65 50	. 4435	54.7 57.2		10	29 4	20 6	6 38	ļ
Total	31	115	.4034	55.8		10	33	26	44	
1912.			. 1001	- 00.8	-			-		-
MassachusettsOther States	14 17	69 55	.4079	54. 9 56. 8		8	36 10	19 6	3 36	
	1	1	1	1	1	1	1	. 1	1	

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT-Continued.

	Num-		Aver-	Aver-					nal full eek we	
Occupation, year, and State.	ber of estab- lish- ments,	Num- ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Heel scourers, male.										
1911.										
MassachusettsOther States	15 20	76 49	\$0.3060 .2671	54. 7 55. 0		7	38 6	25 5	6 36	<u>.</u>
Total	35	125	. 2908	54.8		7	44	30	42	2
1912.										
MassachusettsOther States	15 20	89 65	.3134 .2675	54. 5 56. 8		15	50 9	19 5	3 49	2 2
Total	35	154	. 2940	55. 5		15	59	24	52	4
Heel sluggers, male.										
1911.				į						
MassachusettsOther States	15 19	44 33	.3401 .2112	54.8 57.3			25 2	16 3	3 25	3
Total	34	77	. 2848	55.9			27	19	28	3
1912.				Ì				i		
MassachusettsOther States	15 19	45 34	.3241 .2452	54.9 57.0			27 4	14 3	2 25	2 2
Total	34	79	. 2901	55.8			31	17	27	4
Heel trimmers or shavers, male.										
1910.	!									
Massachusetts New York Other States	15 8 32	27	. 4555 . 4890 . 3536	54. 5 56. 6 58. 0	1	17	20 6 1	27 6 21	· 3 11 36	4 36
Total	55	189	. 4096	56.6	1	17	27	54	50	40
1911.				-						
Massachusetts New York	22 10 39	29	. 4533 . 4816 . 3658	54. 7 55. 9 58. 1		16	37 9 1	42 14 24	6 3 51	3 40
Total	71	246	. 4154	56, 5		16	47	80	60	43
1912.	-	-			-			-		
Massachusetts	22 10 39	31	. 4417 . 4705 . 3801	54. 7 55. 0 57. 3		11 7	44 13 13	28 4 24	3 3 57	3 4 25
Total	71	-!	. 4148	56.0	-	18	70	56	-	32
Levelers, male.		-		-	-		ļ	 	-	1
1911.										
MassachusettsOther States	10			54. 6 57. 1		. 7	27	16		
Total	36	102	.2968	55. 8	-	7	32	23	37	

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT-Concluded.

	Num-	Num-	Aver-	Aver- age					nal full ek we	
Occupation, year, and State.	ber of estab- lish- ments.	ber of em- ployees.	age rate of wages per hour.	nomi- nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Levelers, male—Concluded.										
1912.										
MassachusettsOther States	$\begin{array}{c} 16 \\ 20 \end{array}$	53 49	\$0.3338 .2773	54.8 56.7		7	26 11	16 6	2 28	2
Total	36	102	.3090	55.7		7	37	22	30	-
McKay sewers, male.										
1910.							}			
MassachusettsOther States	7 21	38 57	. 3272 . 2647	54. 9 58. 5	1	10	5	23 1	4 26	<u>2</u>
Total	28	95	. 2897	57.1	1	10	5	24	30	25
1911.										
MassachusettsOther States	9 21	59 70	. 3450 . 2540	55.0 57.8		13	9	43 6	3 40	15
Total	30	129	. 2956	56. 5		13	9	49	43	15
1912.										
MassachusettsOther States	9 21	47 81	. 2997 . 2770	55. 0 57. 0		3	8 16	34 6	2 48	11
Total	30	128	. 2854	56.3		3	24	40	50	11
Rough rounders, male.										
1910.										
Massachusetts New York Other States	12 7 25	57 29 79	.4671 .4171 .3571	54. 6 57. 2 58. 0	1		35 3 3	19 6 15	2 14 28	33
Total	44	165	. 4056	56.7	1		41	40	44	39
1911.										
Massachusetts New YorkOther States	18 9 33	88 28 105	. 4781 . 4627 . 3945	54. 6 56. 1 57. 8		2	59 4 2	21 18 29	6 2 35	4 39
Total	60	221	. 4364	56.3		2	65	68	43	43
1912.										
Massachusetts	18 9 33	98 35 115	. 4747 . 4663 . 3999	54. 5 54. 9 57. 3		11 12	61 10 17	22 5 23	2 3 45	2 8 30
Total	60	248	. 4388	55.9		23		50	50	37

BOOT AND SHOE MANUFACTURING—Continued.

FINISHING DEPARTMENT.

	Num-	Num-	Aver-	Aver- age nomi-	Emp wo	loyees rking l	whose nours p	nomir er we	al full- ek wer	time
Occupation, year, and State.	ber of estab- lish- ments.	ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
Treers or ironers, hand, male.										
1910.					ĺ					
Massachusetts. Missouri New Hampshire New York Ohio	13 8 6 5 2	448 92 99 51 25	\$0. 2834 . 2339 . 1893 . 2158 . 1962	54. 2 60. 0 56. 8 58. 3 60. 0		173	140	135 24 4	75 31	92 16 25
Other States	10	117	.2791	56.8				62	44	1
Total	44	832	. 2594	55.9		173	140	225	150	14
1911.										
Massachusetts	19 7 6 8 5	539 92 98 71 45 161	. 2935 . 2304 . 1995 . 2054 . 2043 . 2839	54. 4 59. 9 56. 8 57. 4 59. 9 56. 9		100	255 10	184 24 27 76	11 74 10 10 76	8: 24 35
Total	63	1,006	. 2668	56. 0		100	265	311	181	149
1912.					-					
Massachusetts	19 7 6 8 5 18	542 89 134 59 60 192	. 2852 . 2164 . 1935 . 2679 . 2112 . 2787	54. 3 59. 8 57. 7 55. 5 58. 7 56. 7		94 21	305 3 13 13	143 7 89	134 2 103	80 10 47
Total	63	1,076	. 2618	55.9		115	334	239	239	14
Treers or ironers, hand, female.										
1910. New York	3 2 3	22 32 20	. 1997 . 1194 . 1190	54. 0 59. 7 59. 0	 		22		22 10	1. 1
Total	8	74	. 1432	57.8			22		32	2
1911.										
New YorkOhioOther States	4 2 5	23 39 23	. 1942 . 1287 . 1218	54. 0 59. 8 59. 3			23		17 8	2 1
Total	11	85	. 1446	58.1			23		25	3
1912. New York Ohio Other States	4 2 5	29 33 43	. 1651 . 1591 . 1423	52. 9 54. 0 55. 6		.,	18 33 16	13	14	
			-l	- <u>-</u>	-	ļ	ļ	-		

BOOT AND SHOE MANUFACTURING—Continued.

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

CUTTING DEPARTMENT.

		N	Aver-	Aver- age nomi-	Emp wo	oloyees orking l	whose hours I	nomir oer wee	nal full ek were	-time e—
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	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: 14 establishments	{1911 {1912	58 70	\$0.2984 .3059	53.3 53.2	16 20	7 12	21 27	12 9	2	<u>ż</u>
CUTTERS, VAMP AND WHOLE SHOE, HAND, MALE.										
Massachusetts: 14 establishments	{1910 {1911	752 712	.3414 .3405	54.3 54.2	13 14	176 158	323 333	228 196	12 11	
22 establishments	{1911 {1912	967 812	.3337 .3400	54. 4 53. 1	217	158 100	450 428	337 54	22	13
Missouri: 6 establishments	{1910 {1911	193 177	. 2594 . 2844	60. 0 59. 9					29	193 148
4 establishments	{1911 {1912	177 118	. 2844 . 3042	59. 8 59. 4			9		29 15	148 94
New Hampshire: 2 establishments	{1910 {1911	27 30	. 2179 . 2258	57. 4 57. 4			• • • • • •	5 6	22 24	
2 establishments	$^{\{1911}_{1912}$	30 32	. 2258 . 2424	57. 4 58. 0				6	24 32	
New York: 9 establishments	{1910 {1911	205 214	.3586 .3463	56.1 55.8			71 81	44 84	70 25	20 24
11 establishments	{1911 {1912	267 296	. 3395 . 3467	55. 5 54. 6		62	128 160	90 24	25 19	24 31
Ohio: 4 establishments	{1910 {1911	137 154	. 2921 . 2946	59. 9 59. 8					40 54	97 100
5 establishments	{1911 {1912	206 186	. 2944 . 3241	59. 9 56. 3			112		54	152 74
CUTTERS, VAMP AND WHOLE SHOE, MACHINE, MALE.										
Massachusetts: 4 establishments	{1910 {1911	53 34	.3323	55. 2 55. 4				51 31	2 3	
8 establishments	(1911 (1912	79 95	. 3589 . 3571	54. 6 52. 8	29		42 66	34	3	
Missouri: 3 establishments	{1910 {1911	28 34	. 2690 . 2901	60. 0 59. 5					16	28 18
3 establishments	1911 1912	55 50	. 2536 . 2579	59. 7 57. 7			19		16	39 31
New Hampshire: 2 establishments	{1910 {1911	52 54	. 2842 . 2944	56. 9 57. 1				19 17	33 37	
2 establishments	{1911 {1912	54 63	. 2944 . 3019	57. 1 57. 3				17	37 63	
New York: 3 establishments	{1910 {1911	28 33	. 4172 . 4110	55. 9 55. 1			13 15	18	15	.
4 establishments	${1911 \atop 1912}$	35 52	. 4007 . 3736	55. 0 53. 2		24	17 28	18		

BOOT AND SHOE MANUFACTURING-Continued.

CUTTING DEPARTMENT—Concluded.

Occupation, State, and number of establishments. Year. Number of employees. Number of		
establishments. Year. Year. Year. em- ployees. ployees. ployees. per hour. Year. Fate of wages full- Over 51 and hours		
week. 51. 54. 57.	57 and under 60.	60.
SKIVERS, UPPER, MACHINE, MALE.		
Massachusetts:		
7 establishments $\begin{cases} 1910 \\ 1911 \end{cases}$ 58 $\begin{cases} 80.2754 \\ 61 \end{cases}$ 54.2		
16 octoblishments	2	
1912 110 .2954 54.1 100 9 SKIVERS, UPPER, MACHINE, FEMALE.	• • • • • •	1
Massachusetts:		
10 establishments [1910 106 .1812 54.6 1 28 25 49	3	
(1011 107 1080 54 0 24 10 66	2 5	
16 establishments 1912 96 2028 53.5 9 20 67		
Missouri: 8 establishments. [1910 58 1591 60.0		58
(1311 58 11348 59.4 0	6	46
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6	46
New Hampshire: (1910 42 .1794 57.1 2	40	
6 establishments	44	
6 establishments $\begin{bmatrix} 1911 & 48 & .1716 & 57.1 & & 4 \\ 1912 & 48 & .1827 & 57.3 & & & 4 \end{bmatrix}$	44 48	
New York:	-0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		14 13
8 establishments		13
Ohio: (1912 45 .2175 55.5 6 24 1	1	11
4 establishments $\begin{cases} 1910 & 20 & .1794 & 59.9 \\ 1911 & 21 & .1670 & 59.8 \end{cases}$	6 7	14 14
5 establishments	7	25
SOLE-LEATHER DEPARTMENT.	!	,
CHANNELERS, INSOLE AND OUTSOLE, MALE.		
Messachusetts:		
11 at a blick ments	••••	
11 establishments	1	
11 establishments 1911 52 3449 54.0 4 7 28 13 17 establishments 1911 59 3146 54.4 7 33 18		1
11 establishments	6	5
11 establishments. 1911 52 .3449 54.0 4 7 28 13 17 establishments. 1911 59 .3146 54.4 7 33 18 16 New York:		1
1011 52 3449 54.0 4 7 28 13 17 18 18 17 19 19 19 19 19 19 19	3	5
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	3
11 establishments 1911 52 3449 54.0 4 7 28 13 17 establishments 1911 59 3146 54.4 7 33 18 1912 60 3105 54.4 5 38 16 1912 22 2993 56.6 8 7 7 10 establishments 1911 22 2993 56.4 7 7 7 10 establishments 1912 25 2980 56.1 11 7 7 12 2 1912 25 3038 54.3 7 12 2 12 12 13 14 15 15 15 15 15 15 15	1	3
11 establishments. 1911 52 3449 54.0 4 7 28 13 17 establishments. 1912 60 3105 54.4 5 38 16 1912 60 3105 54.4 5 38 16 1912 22 2993 56.6 8 3 3 38 38 38 38 38	3	3
11 establishments 1911 52 3449 54.0 4 7 28 13 17 establishments 1912 60 3105 54.4 7 33 18 19 19 19 19 19 19 19	3 2 2	8
11 establishments.	3 2	8
11 establishments 1911 52 3449 54.0 4 7 28 13 17 establishments 1912 60 3105 54.4 5 38 16 1912 60 3105 54.4 5 38 16 1912 60 3105 54.4 5 38 16 1912 22 2.3025 56.6 8 7 7 10 establishments 1911 22 3025 56.4 7 7 7 10 establishments 1912 25 3038 54.3 7 12 2 2 2 2 2 2 2 2	3 2 2	7

${\bf BOOT\ AND\ SHOE\ MANUFACTURING} - {\bf Continued.}$

FITTING OR STITCHING DEPARTMENT.

			Aver-	Aver- age nomi-	Emp	loyees orking	whose hours j	nomir per we	al fullek wer	time e—
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
BACKSTAY STITCHERS, FEMALE.										
Massachusetts: 14 establishments	{1910 {1911	118 101	\$0.1968 .2037	54.7 54.7	1	28 21	23 26	61 47	5 6	
21 establishments	{1911 1912	154 138	. 2109 . 2116	54.8 53.7	11	21 4	52 123	70	11	
8 establishments	{1910 1911	30 24	. 1657 . 1631	58.8 59.4				7 2	4	23 18
8 establishments New Hampshire:	(1911 (1912	24 25	. 1631 . 1708	59. 4 54. 0			25	2	4	18
6 establishments	{1910 1911	54 63	. 1671 . 1745	57. 1 57. 0		••••		5 8	49 55	
6 establishments New York:	{1911 1912	63 58	. 1745 . 1647	57.0 57.2				8	55 58	
6 establishments	{1910 1911	32 37	. 1577 . 1682	56. 9 56. 6		4 7	9 9	2 2	4 4	13 15
8 establishments	{1911 1912	43 51	. 1718 . 1719	56. 1 56. 2		7 4	16 26	3	2 3	15 18
4 establishments	${1910 \atop 1911}$	24 23	. 1423 . 1492	59. 9 59. 8					7 8	17 15
5 establishments	$^{1911}_{1912}$	31 27	. 1539 . 1739	59. 9 54. 0			27		8	23
BUTTONHOLE MAKERS, FEMALE.										
Massachusetts: 13 establishments	{1911 {1912	38 60	. 2102 . 2113	54. 8 53. 9		2 17	19 43	14	3	
CLOSERS-ON, FEMALE. Massachusetts:										
11 establishments	{1910 1911	75 78	. 2112 . 2103	54. 4 54. 8	1 1	23 5	15 16	35 55	1	
18 establishments	{1911 {1912	107 103	. 2107 . 2070	54. 8 53. 7	7	5 3	29 93	71	2	
7 establishments	{1910 {1911	44 44	. 1595 . 1628	60.0 59.7					12	44 32
7 establishments New Hampshire:	$_{1912}^{1911}$	44 27	. 1628 . 1644	59. 7 54. 0			27		12 	32
6 establishments	{1910 {1911	27 29	. 1830 . 1675	57. 0 56. 9				5 6	22 23	
6 establishments New York:	$^{1911}_{1912}$	29 24	. 1675 . 1879	56. 9 57. 5				6	23 24	
8 establishments	{1910 1911	44 47	. 1747 . 1667	56. 5 56. 4			18 19	4 12	12 3	10 13
11 establishments	{1911 1912	63 69	. 1732 . 1839	55. 9 54. 5	8	13	32 29	13 2	5 2	13 15
3 establishments		19 22	. 1670 . 1601	59. 9 59. 9					3 6	16 16
3 establishments r FRASER	${1911 \atop 1912}$	35 28	. 1573 . 1774	59. 9 54. 0			28		6	29
(1 1 5 1 1										

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BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT—Continued.

		N	Aver-	Aver- age nomi-					al full- ek wer	
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
LINING MAKERS, FEMALE.										
Massachusetts: 14 establishments	{1910 1911	211 199	\$0. 1870 . 1881	54.3 54.3	2 3	80 77	43 43	81 71	5 5	
22 establishments	${1911 \atop 1912}$	269 236	. 1932 . 1938	54. 4 53. 7	13	77 18	89 205	95	8	
7 establishments	{1910 1911	75 71	. 1262 . 1275	60. 0 59. 2				8	20	75 43
7 establishments New Hampshire:	{1911 1912	66 57	. 1267 . 1528	59.7 54.0		·····	57		20	46
6 establishments	{1910 1911	60 46	. 1489 . 1539	56. 8 57. 0				14 8	46 38	
6 establishments New York:	{1911 1912	46 73	. 1539 . 1302	57. 0 57. 3	 			8	38 73	
9 establishments	{1910 1911	93 91	. 1693 . 1615	56. 5 56. 7	ļ	8 4	29 27	8 24	22 5	26 31
11 establishments	{1911 1912	109 95	. 1644 . 1661	56. 3 54. 9	8	4 21	42 34	27 2	5 3	31 27
4 establishments	{1910 1911	30 37	. 1387 . 1442	59. 8 59. 7					13 22	17 15
5 establishments	{1911 1912	58 71	. 1480 . 1738	59.8 54.0			71		22	36
TIP STITCHERS, FEMALE. Massachusetts: 15 establishments TOP STITCHERS OR UNDERTRIMMERS, FEMALE.	{1911 1912	66 69	. 2298 . 2383	54. 4 54. 0		10 12	35 54	19 3	2	
Massachusetts: 15 establishments	{1910 {1911	254 252	. 2067 . 2196	54.6 54.5	3 4	64 63	79 80	93 94	15 11	
22 establishments	$^{\{1911}_{1912}$	344 378	. 2202 . 2156	54. 6 53. 7	24	63 63	133 291	131	17	
8 establishments	(1910 (1911	116 111	.1774 .1718	60. 0 59. 3				12	23	· 116 76
8 establishments New Hampshire:	${1911 \atop 1912}$	111 88	.1718 .1786	59.3 54.0		· · · · · ·	88	12 	23	76
6 establishments	{1910 {1911	80 92	. 1690 . 1753	57.0 56.9		· · · · · ·		9 14	71 78	
6 establishments New York:	{1911 {1912	92 106	. 1753 . 1640	56. 9 57. 2		- -		14	78 106	
6 establishments	{1910 {1911	65 67	. 1876	57. 0 57. 2			27 26	5 4	9	26 28
11 establishmentsOhio:	${1911 \atop 1912}$	88 114	. 2084	56. 5 54. 9	5	18	47 61	4 1	9 2	28 27
4 establishments	(1910 (1911	56 66	. 1639 . 1566	59. 8 59. 8	ļ				19 26	37 40
5 establishments	{1911 {1912	86 78	.1588	59. 9 54. 0	<u> </u>		78		26	60

BOOT AND SHOE MANUFACTURING—Continued.

FITTING OR STITCHING DEPARTMENT-Concluded.

		Num-	Aver-	Aver- age nomi-	Emp	loyees rking	whose hours I	nomir per wee	al fullek wer	-time e—
Occupation, State, and number of establishments.			age rate of wages per hour.	te of full-		51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
VAMPERS, MALE.										
Massachusetts:										
10 establishments	{1910 {1911	134 110	\$0.3152 .3259	54. 1 54. 2		48 21	61 64	25 25	 	
17 establishments	{1911 1912	186 277	.3388 .3254	54. 2 53. 9	15	21 40	133 191	29 27	3 4	
New Hampshire:	'	ľ	1	ł	10	***	191		_	ļ
5 establishments	(1910 (1911	33 47	. 2365 . 2482	56. 6 56. 7		•••••		9	26 38	
6 establishments	{1911 1912	47 54	. 2482 . 2401	56.7 57.2				9	38 54	
New York: 5 establishments	{1910 1911	35 32	.3019	56. 2 55. 6				16 30	19 2	
8 establishments	{1911 1912	36 38	.3238	55.6 54.6		16	4	34 7	2 11	
VAMPERS, FEMALE.										
Massachusetts:									ŀ	
15 establishments	{1910 {1911	287 299	.2681 .2759	54.5 54.7	6 5	39 45	94 106	141 134	7 9	
22 establishments	$^{1911}_{1912}$	385 309	. 2759 . 2466	54.8 53.7	14	45 43	133 252	191	16	
Missouri: 8 establishments	{1910 {1911	120 127	. 2226 . 2403	60.0 59.3				15	18	120 94
8 establishments	{1911 1912	127	. 2403	59.3				15	18	94
New Hampshire:	1 1	105	. 2322	54.0	• • • • • •		105			
6 establishments	$^{1910}_{1911}$	117 134	. 2242 . 2120	57.1 57.0			•••••	10 14	107 120	
6 establishments	(1911 1912	134 100	.2120 .2138	57.0 57.2				14	120 100	
New York:	(1910	94	. 2448	56.4	14		27	5	10	38
6 establishments	(1911	104	.2378	56.0	21		29	5	11	38
9 establishments	$^{1911}_{1912}$	130 141	. 2349 . 2506	55.6 55.6	21 1 1	23	55 68	5 1	11	38 48
Ohio: 4 establishments.	ſ1910	74	. 2035	59.8					27	47
T COMPLEMENTAL	(1911	82	. 1895	59.8		•••••			35	47
5 establishments	{1911 1912	140 118	.2033 .2174	59.9 54.0			118		35	105
L	AST	ING I	EPAR	TME	NT.					
ASSEMBLERS, FOR PULLING-OVER MACHINE, MALE.		-					·			
Massachusetts:										
9 actablichmente	${1911 \atop 1912}$	148 148	\$0.2932 .2807	54.6 53.6	31		78 78	68 36	2	3

BOOT AND SHOE MANUFACTURING-Continued.

LASTING DEPARTMENT-Continued.

	,									
		Num-	Aver-	Aver- age nomi-	Empl wo	loyees rking l	whose nours p	nomin er wee	al full- k were	time
Occupation, State, and number of establishments.	Year.	ber of em- ployees.	age rate of wages per hour.	nol	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
BED-MACHINE OPERATORS, MALE.										
Massachusetts: 7 establishments	{1910 {1911	207 226	\$0.3429 .3633	54.2 54.2		15 26	161 165	31 35		•••••
14 establishments Missouri:	$^{\{1911}_{1912}$	331 470	. 3523 . 3054	54.3 54.3		26 58	246 339	46 60	13	iš
7 establishments	{1910 {1911	41 53	.3024	60.0 58.8				13		41 40
6 establishments New Hampshire:	${1911 \atop 1912}$	50 54	.3068 .2778	58.7 59.6				13	19	37 35
3 establishments	${1910 \atop 1911}$	67 72	.2464	56.9 56.6			· · · · · ·	5 14	62 58	
3 establishments New York:	${ 1911 \atop 1912 }$	72 91	.2465 .2403	56.6 57.2				14	58 91	·····
5 establishments	${1910 \atop 1911}$	73 66	. 3286 . 3454	57.9 57.0			4 4	5 39	45 8	19 15
9 establishments	$^{1911}_{1912}$	96 131	.3442 .3458	56.5 54.7		<u>41</u>	14 46	52 20	15 11	15 13
3 establishments	${1910 \atop 1911}$	42 47	. 2983 . 3057	59.8 59.8					17 17	25 30
5 establishments	${ 1911 \atop 1912 }$	72 87	.2977 .3080	59. 9 56. 6			50		17	55 37
HAND-METHOD LASTING MACHINE OPERATORS, MALE.										
Massachusetts: 8 establishments	(1910 (1911	114 118	.3481	55.3 55.2	4 5		19 22	78 78	13 13	
12 establishments	${1911 \atop 1912}$	204 221	.3682 .3473	55.0 54.1	26		76 116	115 72	13 7	
Missouri: 8 establishments	{1910 {1911	75. 88	. 2746 . 2871	60.0 59.6				3	18	75 67
7 establishments New Hampshire:	$\left\{ \begin{matrix} 1911 \\ 1912 \end{matrix} \right.$	85 73	. 2884 . 2808	59.8 58.8			14		1,8	67 59
5 establishments		58 59	. 2521 . 2222	57.1 57.2				10 10	48 49	
4 establishments New York:	{1911 {1912	59 60	. 2222 . 2633	57.2 57.5				10	49 60	
3 establishments	/1910 /1911	26 31	.3427 .3478	55.4 55.5			20 23			6 8
3 establishments	{1911 {1912	35 46	. 3226 . 3529	55.6 55.9			18 25	9 8		8 13
3 establishments	${1910 \atop 1911}$	21 15	. 3239	59. 9 59. 8					6 5	15 10
5 establishments	{1911 {1912	48 42	. 2870 . 3476	59. 9 55. 9			29	ļ	5	43 13

BOOT AND SHOE MANUFACTURING—Continued.

LASTING DEPARTMENT—Concluded.

2 <u></u>		N	Aver-	Aver- age nomi-				nomi per we		
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
PULLERS-OVER, HAND, MALE.										
Massachusetts:	(1010	241	00 2007	-10	_ ا	10	107	110		1
11 establishments	(1910 (1911	341 333	\$0. 3227 . 3513	54.6 54.5	5 7.	19 27	187 183	110 99	20 17	· · · · · · ·
12 establishments	${1911 \atop 1912}$	359 429	. 3483 . 3283	54.5 54.0	24	27 111	216 216	99 59	17 19	-
5 establishments	{1910 {1911	57 53	. 3074 . 3216	60.0 57.5				27		57 26
4 establishments New Hampshire:	{1911 {1912	47 40	. 3206 . 2754	57. 1 59. 4				27	25	20 15
5 establishments	{1910 1911	152 125	. 2244 . 2235	56.8 57.1				18 1	134 124	-
2 establishments	${1911 \atop 1912}$	65 70	. 2495 . 2620	57.0 57.0				·	65 70	.
4 establishments	{1910 1911	42 45	. 3233 . 3268	57. 7 57. 9			2 2	10 9	30 34	
7 establishments	$^{1911}_{1912}$	76 73	. 3166 . 3355	56. 4 54. 2			28 59	14 12	34 2	
Ohio: 2 establishments	${1910 \atop 1911}$	70 79	. 2594 . 2830	59. 9 59. 9					10 13	60 66
5 establishments	$^{1911}_{1912}$	133 65	. 2869 . 3232	60.0 58.8			₁₃ .		13	120 52
PULLERS-OVER, MACHINE, MALE.										
Massachusetts: 7 establishments	{1910 {1911	75 105	. 3264 . 3311	54.7 54.5	•••••		41 65	33 39	1	· · · · · · ·
13 establishments Missouri:	{1911 {1912	150 140	. 3499 . 3036	54.5 54.1	15		93 89	54 30	3	<u>.</u>
7 establishments	{1910 {1911	33 28	.3719 .2820	60.0 59.6				i	6	33 21
7 establishments	$^{1911}_{1912}$	28 37	. 2820 . 2993	59.6 59.1			5	1	6 2	21 30
New York: 4 establishments	{1910 {1911	73 65	. 3400 . 3548	57. 4 56. 0			9 12	<u>47</u>	54	10 6
6 establishments	{1911 {1912	75 60	. 3476 . 3594	55.8 54.8		34	17 12	52	2	6 12
BO'	rto:	MING	DEPA	RTM:	ENT.	·	•	·	•	
BUFFERS, MALE.										
Massachusetts:	(1911	92	\$ 0. 3128	54.7		5	47	33	7	
16 establishments New Hampshire:	1912	89	. 3306	54. 9		5	45	32	4	3
4 octablishments	{1911 {1912	42 39	. 2276 . 2489	57. 1 57. 0					42 39	:

^{7446°—}Bull. 134—13——5

BOOT AND SHOE MANUFACTURING—Continued,

BOTTOMING DEPARTMENT-Continued.

		Num-	Aver-	Aver- age nomi-				nomin per we		
Occupation, State, and number of establishments.	Year.	ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
EDGE SETTERS, MALE.										
Massachusetts: 15 establishments	{1910 {1911	238 233	\$0. 4165 . 4211	54. 4 54. 3	3 4	72 60	79 92	75 70	9 7	
22 establishments	{1911 {1912	324 295	. 4209 . 4218	54. 4 54. 5		60 32	158 168	,90 83	16 7	 5
8 establishments	${1910 \atop 1911}$	54 63	. 3605 . 3568	59, 2 59, 3				9 7	8	45 48
7 establishments New Hampshire:	{1911 1912	56 52	. 3483 . 3445	59. 9 59. 5			4		8	48 48
6 establishments	{1910 1911	67 74	. 2877 . 2758	56. 9 56. 9				9 10	58 64	
6 establishments New York:	{1911 1912	74 70	. 2758 . 3026	56. 9 57. 2				10	64 70	.
7 establishments	{1910 1911	64 64	.3726 .4173	57. 2 56. 6		.	15 18	7 23	26 7	16 16
9 establishments	{1911 1912	78 94	.4086 .4104	56, 2 54, 7		20	30 52	25 9	7	16 13
4 establishments	{1910 1911	35 36	.3542 .3410	59.8 59.8					11 11	24 25
5 establishments EDGE TRIMMERS, MALE,	{1911 1912	59 62	. 3297 . 3614	59.9 57.1			30		11	48 32
Massachusetts:										
15 establishments	{1910 1911	255 268	.4038	54. 4 54. 4	3 4	58 55	98 115	85 86	11 8	
22 establishments Missouri:	{1911 {1912	367 332	.4179 .3946	54. 5 54. 6		55 30	184 190	113 96	15 8	8
8 establishments	{1910 1911	61 61	.3495 .3440	60.0 59.3				7	8	61 46
7 establishments New Hampshire:	{1911 {1912	54 48	.3311	59, 9 59, 3			6		8	46 42
6 establishments	${1910 \atop 1911}$	70 84	.3155 .2997	56. 8 56. 8				12 16	58 68	
6 establishments New York:	{1911 {1912	84 97	. 2997 . 3283	56. 8 57. 4				16	68 97	
8 establishments	{1910 1911	68 78	. 4342 . 4252	57. 0 56. 5	ļ		16 22	11 30	23 7	18 19
10 establishments	{1911 1912	91 92	. 4202 . 4178	56. 1 55. 3		21	34 41	31 6	7 5	19 19
4 establishments	{1910 1911	39 38	.3349 .3778	59. 9 59. 9					9 11	30 27
5 establishments	{1911 1912	52 53	.3819	59.9 57.3			24		11	41 29

BOOT AND SHOE MANUFACTURING-Continued.

BOTTOMING DEPARTMENT—Continued.

		7.7	Aver-	Aver- age nomi-	Emp	oloyees orking	whose hours	nomi per we	nal ful ek wer	l-time
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and umder 60.	60.
GOODYEAR STITCHERS, MALE.										
Massachusetts:	ſ1910	158	\$0. 4012	54.4	3	21	80	49	5	
14 establishments	(1911	178	. 4121	54.3	3	28	95	49	3	
20 establishments	${1911 \atop 1912}$	258 245	. 4101 . 3989	54. 4 54. 4	ļ	28 21	165 166	56 47	9 5	
Missouri:	∫1910	34	.3232	60.0			100	-	ľ	34
6 establishments	(1911	33	.3705	59. 1				6		27
6 establishments	{1911 {1912	33 52	.3705	59.1	ļ	ļ		6		27
New Hampshire:			.3486	59.9		ļ			6	46
3 establishments	{1910 {1911	49 58	. 2756 . 2650	56. 6 56. 5				10 14	39 44	
3 establishments	(1911	58	. 2650	56.5			ļ	14	44	
New York:	11912	43	. 2865	57.3		•••••			43	
6 establishments	${1910 \atop 1911}$	39 45	. 4259 . 4211	57. 6 57. 3			4 6	6 18	19 8	10 13
8 establishments	ſ1911	55	. 4064	56. 7			14	20	8	13
Ohio:	1912	69	. 4479	55. 4		17	25	10	 -	17
4 establishments	{1910 {1911	25 27	. 3026 . 3488	59. 9 59. 8					7 9	18 18
5 establishments	${1911 \atop 1912}$	39 52	. 3494 . 2961	59. 9 57. 0			26		9	30 26
GOODYEAR WELTERS, MALE.	(
Massachusetts:	ſ1910	111	. 4857	54. 3	9	19	62	24	4	
12 establishments	{1911	115	. 5199	54. 2	2 2	27	62	21	3	
18 establishments	{1911 {1912	179 192	. 4989 . 4767	54. 3 54. 4		27 30	119 126	28 28	5 4	4
Missouri:	(1910	24	. 4583	60.0	•	30	120	28	*	24
6 establishments	1911	30	. 4696	59. 2				5		25
6 establishments	{1911 {1912	30 39	. 4696 . 4481	59, 2 59, 8				5	6	25 33
New Hampshire:	` !			1						33
3 establishments	{1910 1911	31 33	. 3335 . 3313	56. 5 56. 5				8 9	23 24	
	(1911	33	. 3313	56.5				9	24	
New York:	1912	31	. 3723	57.3	•••••				31	•••••
7 establishments	${1910 \mid \atop 1911}$	40 41	. 4075 . 4497	56.3 56.1	• • • • • • • • • • • • • • • • • • •		15 14	5 16	16 5	4 6
9 establishments	J1911	45	. 4492	56.1			11	23	5	6
Ohio:	1912	40	. 5218	54.8		10	15	7	5	3
4 establishments	(1910 (1911	22 20	. 3773 . 3875	59. 9 59. 9					5 6	17 14
5 establishments	(1911	32	. 3691	59. 9					6	26
HEEL BREASTERS, MALE.	1912	35	. 3823	56. 9	•••••	•••••	18		•••••	17
Massachusetts:	}				İ					
16 establishments	$\{ 1911 \\ 1912 \\ $	38 44	.3353	54. 8 54. 7		2 8	18 19	15 14	3 2	_i
	f-015		.0190	0.31	• • • • • • • • •	0 1	TAI	14 1	2	1

BOOT AND SHOE MANUFACTURING—Continued.

BOTTOMING DEPARTMENT—Concluded.

			Aver-	Aver- age nomi-	Emp wo	loyees rking h	whose nours p	nomin er wee	al full- k were	time
Occupation, State, and number of establishments.	Year.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.
HEEL BURNISHERS, MALE.							-			
Massachusetts: 16 establishments	{1911 {1912	66 69	\$0.3298 .3357	54.6 54.7		2 5	38 39	23 21	3 2	2
HEELERS, MALE.										
Massachusetts: 14 establishments	{1911 1912	65 69	. 4435 . 4079	54.7 54.9		10 8	29 36	20 19	6 3	
HEEL SCOURERS, MALE.		1								
Massachusetts: 15 establishments	{1911 1912	76 89	. 3060 . 3134	54.7 54.5		7 15	38 50	25 19	6 3	2
HEEL SLUGGERS, MALE. Massachusetts:										
15 establishments	{1911 1912	44 45	.3401	54.8 54.9			25 27	16 14	3 2	
HEEL TRIMMERS OR SHAVERS, MALE.										
Massachusetts:									_	
15 establishments	${1910 \atop 1911}$	68 68	. 4555 . 4655	54.5 54.5	1	17 16	20 22	27 26	3	
22 establishments	{1911 {1912	101 89	. 4533	54.7 54.7		16 11	37 44	42 28	6 3	
New York: 8 establishments	(1910 (1911	27 25	. 4890 . 4750	56. 6 56. 1			6 6	6 13	11 3	
10 establishments	{1911 1912	29 31	. 4816 . 4705	55.9 55.0		7	9 13	14	3 3	
LEVELERS, MALE.	(1012	31	. 4100	33.0			10	7		1
Massachusetts: 16 establishments	(1911 1912	54 53	. 3353	54.6 54.8		7 7	27 26	16 16	4 2	
MCKAY SEWERS, MALE.	1									
Massachusetts: 7 establishments	(1910 (1911	38 44	.3272 .3485	54.9 54.7	1 1	10 13		23 27	4 3	
9 establishments	{1911 {19 1 2	59 47	. 3450 . 2997	55. 0 55. 0		13	8	43	3 2	
ROUGH ROUNDERS, MALE.	1								1	
Massachusetts: 12 establishments	{1910 {1911	57 57	. 4671 . 4700	54.6 54.6	1 1		35 35	19 18	2 3	
18 establishments	(1911 1912	88 98	. 4781 . 4747	54.6 54.5		2 11	59 61	21 22	6 2	ļ;
New York:	`			ì		1		}		
7 establishments	{1910 {1911	29 25	. 4171	57.2 56.3			3 2	6 17	14 2	1
9 establishments	{1911 1912	28 35	. 4627 . 4663	56.1 54.9		12	4 10	18 5	2 3	

BOOT AND SHOE MANUFACTURING-Concluded.

FINISHING DEPARTMENT.

		Num-	Aver-	Average nom-	Emp	loyees orking	s whose nominal full-tig hours per week were					
Occupation, State, and number of establishments.	Year.	I am of	age rate of wages per hour.	inal full- time hours per week.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.		
TREERS OR IRONERS, HAND, MALE.												
Massachusetts: 13 establishments	{1910 {1911	448 385	\$0.2834 .2900	54.2 54.3		173 100	140 156	135 129				
19 establishments	{1911 {1912	539 542	. 2935 . 2852	54.4 54.3		100 94	255 305	184 143				
Missouri: 8 establishments	{1910 1911	92 100	.2339 .2316	60.0 59.5				8	11	92 81		
7 establishments	(1911 (1912	92 89	. 2304 . 2164	59.9 59.8			3		11	. 81 86		
New Hampshire:	(1910	99	. 1893	56.8				24	75			
6 establishments	{i9ii	98	.1995	56.8				24	74			
6 establishments	${1911 \atop 1912}$	98 134	.1995	56.8 57.7				24	74 134			
New York: 5 establishments	/1910 \1911	51 59	. 2158 . 2118	58.3 58.0				4 25	31 10	16 24		
8 establishments	${1911 \atop 1912}$	71 59	. 2054 . 2679	57.4 55.5		21	10 13	27 7	10 2	24 16		
Ohio: 2 establishments	{1910 {1911	25 25	. 1962 . 2096	60.0 60.0						25 25		
5 establishments	{1911 {1912	45 60	. 2043 . 2112	59. 9 58. 7			13		10	35 47		
TREERS OR IRONERS, HAND, FEMALE.												
New York:	(1910	22	. 1997	54.0			90					
3 establishments	1910	23	. 1997	54.0 54.0			22 23					
4 establishments	{1911 {1912	23 29	. 1942 . 1651	54.0 52.9		ii	23 18					
Ohio: 2 establishments	{1910 {1911	32 24	.1194 .1170	59.7 59.6					22 17	10 7		
2 establishments	{1911 {1912	39 33	.1287 .1591	59.8 54.0			33		17	22		

HOSIERY AND KNIT GOODS MANUFACTURING.

GENERAL SUMMARY.

This study of wages and hours of labor in hosiery and knit goods manufacturing shows rates of wages per hour and nominal full-time hours of work per week for the years 1907 to 1912, inclusive, and in addition it summarizes data published in previous reports of the Bureau of Labor Statistics and thus furnishes a comparison for the 23-year period, 1890 to 1912, inclusive.

The present report and also previous reports show wages and hours of labor for each of the most important productive occupations in hosiery and knit goods manufacturing, but do not show data for all occupations in the industry. The occupations for which data are presented in this report are given in the table below. These occupations include a very large proportion of the total employees on productive work and more than half of the total employees engaged in productive and nonproductive work.

Comparing 1912 with certain other years the changes in nominal full-time hours per week, as shown by combining the principal occupations, were as follows:

1912 compared with 1	1890	7. 9 per cent decline.
1912 compared with 1	1895	7. 3 per cent decline.
1912 compared with 1	1900	5. 9 per cent decline.
	1905	
	1910	

The changes in nominal full-time hours per week for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF DECREASE IN NOMINAL FULL-TIME HOURS PER WEEK: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING.

	Per	Per cent lower in 1912 than in—								
Occupation.	1907	1908	1909	1910	1911					
Boarders, male. Buttonhole makers, underwear, female. Button sewers, underwear, female. Cutters, hand, underwear, male. Cutters, hand, underwear, female.	(2) (2)	3.9 (2) (2) (2) (2) 5.4	4.1 (2) (2) (2) (2) (2) 5.6	2.3 1.4 1.5 .7 3.0	2.3 1.6 1.7 (8)					
Finishers, underwear, female	4. 2 (2) (2)	3.3 3.9 (2) (2) 5.3	3. 5 4. 4 (3) (2) 5. 3	1.9 2.2 1.0 .8 2.0	1.7 2.0 1.0 .5 2.0					

¹ Previous investigations of wages and hours of labor in hosiery and knit goods 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; and Bulletin No. 77 (July, 1908), covering 1906 and 1907.

² No data.

⁸ No change.

PER CENT OF DECREASE IN NOMINAL FULL-TIME HOURS PER WEEK: 1912 COM-PARED WITH EACH OF THE 5 YEARS PRECEDING—Concluded.

	Per cent lower in 1912 than in—				
Occupation.	1907	1908	1909	1910	1911
Knitters, "lady hose," male. Knitters, "iady hose," female Knitters, rib, hosiery, male. Knitters, rib, hosiery, female. Knitters, web or tube, underwear, male.	(1)	(1) (1) (1) (1) (1) 4.1	(i) (i) (i) (i) 4.4	2.7 1.6 1.8 3.1 1.8	2.4 1.6 1.6 3.5 1.5
Knitters, web or tube, underwear, female Loopers, female Menders, fine, hosiery, female Menders, rough, hosiery, female Pressers, male	3.3	5. 9 3. 0 3. 5 2. 2 2. 2	6.1 3.0 3.3 2.4 2.0	3.4 1.8 2.8 .9 1.7	2.7 1.8 2.8 .9 1.5
Press hands, female Seamers, underwear, female. Welters, female. Winders, female	5.0 3.2 (1)	5.0 3.0 (¹) 5.0	5.0 3.2 (1) 4.8	1.6 .8 2.3 3.0	1.3 .8 2.3 2.5
Total	3.8	3.5	3.6	1.8	1.7

¹ No data.

Comparing 1912 with certain other years the changes in rates of wages per hour, as shown by combining the principal occupations, were as follows:

1912 compared with 1	1890	36. 1 per cent advance.
	1895	
	1900	
•	1905	_
	1910	

The changes in rates of wages per hour for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF INCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING.

Occupation.	Per cent higher (+) or lower (-) in 1912 than in-					
	1907	1908	1909	1910	1911	
Boarders, male. Buttonhole makers, underwear, female. Button sewers, underwear, female. Cutters, hand, underwear, male. Cutters, hand, underwear, female.		+16.9 (1) (1) (1) (1) + 1.9	+21.2 (1) (1) (1) (1) +10.5	+13.0 + 4.4 4 - 1.9 +11.4	+14.9 + 2.0 + .9 - 4.8 +10.1	
Finishers, underwear, female	(1)	$+5.7$ $+15.7$ $\binom{1}{1}$ $\binom{1}{1}$ $+3.0$		+ 3.4 + 1.7 + 4.2 +10.8 + 3.7	+ 3.7 + 2.4 + 3.2 + 7.6 + 2.1	
Knitters, "lady hose," male. Knitters, "lady hose," female. Knitters, rib, hosiery, male Knitters, rib, hosiery, female. Knitters, web or tube, underwear, male.	(1)	(1) (1) (1) (1) (1) +17.9	(1) (1) (1) (1) (1) +15.4	$ \begin{array}{r} + 8.3 \\ +15.9 \\ + 6.1 \\ +14.4 \\ +15.2 \end{array} $	$\begin{array}{c} + 7.9 \\ +14.6 \\ + 5.9 \\ - 2.2 \\ + 7.7 \end{array}$	

¹ No data.

PER CENT OF INCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912
COMPARED WITH EACH OF THE 5 YEARS PRECEDING—Concluded.

Occupation.	Per cent higher (+) or lower (-) in 1912 than in—				
	1907	1908	1909	1910	1911
Knitters, web or tube, underwear, female Loopers, female. Menders, fine, hosiery, female. Menders, rough, hosiery, female. Pressers, male	$\begin{array}{r r} + 4.9 \\6 \\ +17.8 \end{array}$		+ 9.5	$\begin{array}{r} -20.6 \\ + 6.0 \\ + 4.5 \\ + 7.4 \\ + 8.6 \end{array}$	$-16.4 \\ + 8.6 \\ + 2.8 \\ + 6.9 \\ + 3.8$
Press hands, female. Seamers, underwear, female. Welters, female. Winders, female.	+ 5.0	$^{+13.6}_{-3.1}$ $^{(1)}_{+.8}$	$+27.3$ -3.8 $(^{1})$ $+8.1$	+ 4.8 + 5.5 +17.1 + 9.7	$\begin{array}{r} + 5.1 \\ + 6.4 \\ +12.9 \\ + 7.6 \end{array}$
Total	+ 7.7	+ 7.5	+ 7.2	+ 6.1	+ 5.8

1 No data.

The next table shows for the industry the course of nominal fulltime hours per week and the rates of wages per hour during the 23vear period from 1890 to 1912. The occupations combined and the sex for which data are shown during 1890 to 1907 are boarders, male; finishers, underwear, female; knitters, male and female; loopers, female; menders, female; pressers, male and female; and ribbers, female. 1907 to 1910 the occupations, and the sex for which data are shown, are boarders, male; cutters, hand, underwear, female; finishers, underwear, female; folders, female; knitters, footers or toppers, female; knitters, web or tube, underwear, male and female; loopers, female; menders, fine, hosiery, female; menders, rough, hosiery, female; pressers, male; press hands, female; seamers, underwear, female; and winders, female. For 1910 to 1912 the occupations and the sex for which data are shown are boarders, male; buttonhole makers, underwear, female; button sewers, underwear, female; cutters, hand, underwear, male and female; finishers, underwear, female; folders, female; inspectors and menders, underwear, female; knitters, footers or toppers, hosiery, male and female; knitters, "lady hose," male and female; knitters, rib, hosiery, male and female; knitters, web or tube, underwear, male and female; loopers, female; menders, fine, hosiery, female; menders, rough, hosiery, female; pressers, male; press hands, female; seamers, underwear, female; welters, female; and winders, female.

Data are not given for knitters of full-fashioned hosiery because such knitters in many instances pay their own helpers, which makes it difficult to ascertain the net earnings of the knitters. An effort will be made to get such data for future reports.

The figures of the table are relative hours of labor and relative wages computed from the actual hours and wages in the establishments furnishing data. They also show the per cent of change from year to year as measured by the average from 1890 to 1899.

¹ Press hands, female, were classed as pressers in the earlier reports.

By nominal full-time hours per week is meant the usual full working time, such as prevails when there is no industrial depression or other unusual factor affecting the industry.

In combining the relatives for the principal occupations to determine the relatives for the industry shown in the table which follows, the relatives for each occupation were weighted according to the number of employees reported each year. This weighting causes the figures for 1890 to 1907 to differ slightly from those shown for the industry in Bulletin No. 77 (July, 1908), where the relative for the industry was a simple average of occupation relatives. Under these two methods, the difference in relative hours does not exceed 1 per cent in any of the 18 years, and the difference in relative wages does not exceed 1 per cent in 10 of the 18 years, the greatest difference being about 2.7 per cent. The base used in computing the relatives in this table is the average for the 10-year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN HOSIERY AND KNIT GOODS 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 nominal 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		133.7
1909	96.6	134.1
	24.2	105.5
1910	94.8	135.5
1911	94.7	135.8
1912	93.1	143.7

The table which follows shows, for each of the principal occupations in the industry, relative nominal full-time hours per week and relative rates of wages per hour during the 23-year period 1890 to 1912. As already indicated, changes in the occupations included have been made from time to time during the period covered. The base used for computing the relatives for each occupation, except as noted, is the average of the 10-year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912.

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

	Boarder	s, m ale.	Buttonho underwea		Button se derwear	wers, un-	Cutters, derwea	hand, un- r, male.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.		Relative nominal full-time hours per week.	Relative rate of wages per hour.
verage, 1890-1899	100.0	100.0						
1890	101.3	107.9						<i></i>
1891	101.3	100.3						. <i></i>
1892	101.3	90.3			•••••			
1893 1894	99. 7 98. 2	106. 8 91. 5						
1005	99. 4	110.8			1			
1895 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		. <i>.</i>		l		1
1901	99.2	116. 2			••			
1902	99. 2	107.8						
1903 1904	98. 2 98. 4	125. 4 123. 5						
1905	98.3	127.9						
1906	98. 4	132.6						
1907 1908	97.5 97.0	148.6 143.9						
1908	97. 2	138.8						
1010	95 4	148.9	1 100.0	1 100.0	1 100.0	1 100.0	1 100.0	1 100.
1910		140.0	- 100. 0		100.0		100.0	- 100.
1011	95.1	146.4	1 100.2	1 102.4	1 100.2	1 98.7	1 99.3	1 103
1911 1912	95. 4 93. 2	146. 4 168. 2	1 100. 2 1 98. 6	1 102. 4 1 104. 4	1 100. 2 1 98. 5	1 98.7	1 99.3	1 103. 1 98.
	93.2 Cutters,		1 98. 6 Finisher		1 98.5	1 98.7 1 99.6 , female.	Inspec	tors and
	93.2 Cutters,	168. 2	1 98. 6 Finisher	1 104. 4	1 98.5	1 99. 6	Inspec	tors and
1912	93. 2 Cutters, derwear	168. 2	1 98. 6 Finisher wear, 100. 0	1 104. 4 s, under- female.	1 98.5	1 99. 6	Inspec mende wear, f	tors anders, under
1912 verage, 1890-1899	93. 2 Cutters, derwear	168. 2	1 98. 6 Finisher wear, 100. 0 101. 3 101. 3	1 104. 4 s, under-female. 100. 0 106. 6 113. 2	1 98.5	1 99. 6	Inspec	tors anders, under
1912	93. 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 100. 0 101. 3 101. 3 101. 3	1 104. 4 s, under- female. 100. 0 106. 6 113. 2 105. 2	1 98.5	1 99. 6	Inspec mender wear, f	tors anders, under
rerage, 1890-1899 1890	93. 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 3	1 104. 4 s, under- female. 100. 0 106. 6 113. 2 105. 2 97. 4	1 98.5	1 99. 6	Inspec mende wear, f	tors anders, under
7erage, 1890-1899 1890 1891 1892 1893 1894	93. 2 Cutters, derwear	hand, un- , female.	198.6 Finisher wear, 100.0 101.3 101.3 101.3 101.3 101.9	1 104. 4 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4	1 98.5	1 99. 6	Inspec mender wear, f	tors anders, under
7erage, 1890-1899 1890 1891 1892 1893 1894 1895	93. 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 0 91. 3	1 104. 4 100. 0 106. 6 113. 2 105. 2 107. 4 92. 4 93. 4	1 98.5	1 99. 6	Inspec mender wear, f	tors anders, under
7erage, 1890-1899 1890 1891 1892 1893 1894 1895	93. 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 101. 3 101. 3 101. 3 101. 0 91. 3 101. 1 100. 8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9	1 98.5	1 99. 6	Inspec mender wear, f	tors anders, under
1912	93. 2 Cutters, derwear	hand, un- , female.	198.6 Finisher wear, 100.0 101.3 101.3 101.3 101.0 91.3 101.1 100.8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8	1 98.5	1 99. 6	Inspec mender wear, f	tors and tors and tors and tors and tors and tors and tors and tors and tors and tors are tors and tors and tors are tors and tors and tors are tors and tors are tors and tors are tors and tors are tors and tors are tors and tors are tors are tors and tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors.
7erage, 1890-1899 1890 1891 1892 1893 1894 1895	93. 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 101. 3 101. 3 101. 3 101. 0 91. 3 101. 1 100. 8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9	Folders	1 99. 6	Inspec mender wear, f	tors and tors and tors and tors and tors and tors and tors and tors and tors and tors are tors and tors and tors are tors and tors and tors are tors and tors are tors and tors are tors and tors are tors and tors are tors and tors are tors are tors and tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors are to tors.
rerage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899	93, 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 100. 8 100. 8 100. 6 100. 6	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
rerage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1900	93, 2 Cutters, derwear	hand, un- , female.	1 98.6 Finisher wear, 100.0 101.3 101.3 101.3 101.0 91.3 100.6 100.6 100.6 98.1 97.8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 99. 3 103. 4	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 101. 1 100. 8 100. 6 100. 6 98. 1 97. 8 98. 1 97. 8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 99. 3 103. 4 118. 7	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un- , female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 100. 6 100. 6 100. 6 100. 6 98. 1 97. 8 98. 1 96. 0	104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 99. 3 103. 4 118. 7 121. 3	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 101. 1 100. 8 100. 6 100. 6 98. 1 97. 8 98. 1 97. 8	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 99. 3 103. 4 118. 7 121. 3 119. 7	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 100. 6 100. 6 98. 1 96. 2 96. 2	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 100. 8 100. 6 98. 1 97. 8 98. 1 96. 0 96. 7	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 101. 1 100. 8 100. 6 100. 6 98. 1 97. 8 98. 1 96. 0 96. 7	104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7 128. 0 145. 8	1 98.5 Folders	1 99. 6 , female.	Inspec mender wear, f	tors ander emale.
1912	93, 2 Cutters, derwear	hand, un-, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 0 91. 3 100. 8 100. 6 98. 1 97. 8 98. 1 96. 0 96. 7	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7	Folders	1 99. 6	Inspec mender wear, f	tors ander emale.
1912. 1890. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900. 1901. 1902. 1904. 1905. 1906. 1907. 1908.	93, 2 Cutters, derwear 2 100, 0 2 98, 8 2 99, 0	168. 2 hand, un, female. 2 100. 0 2 109. 0 2 100. 5	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 1 100. 8 100. 6 100. 6 100. 6 100. 6 98. 1 97. 8 98. 1 96. 0 96. 7 96. 2 94. 4 95. 0 94. 8 95. 0	1 104. 4 s, under-female. 100. 0 106. 6 113. 2 105. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7 128. 0 137. 0 145. 8 139. 2 136. 6	1 98.5 Folders 2 100.0 2 99.7 2 100.2	1 99. 6 , female. 2 100. 0 2 96. 1 2 109. 2	Inspec mender wear, f	tors and tors are also and tors and tors and tors and tors and tors and tors and tors and tors and tors and tors and tors are also and tors and tors and tors and tors are also and tors and tors are also and tors and tors are also and tors are also and tors are also and to tors and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and to also and tors are also and tors are also and tors are also and to also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also and tors are also also and also also also also also also also also
1912	93, 2 Cutters, derwear	168. 2 hand, un, female.	1 98. 6 Finisher wear, 1 100. 0 101. 3 101. 3 101. 3 101. 3 101. 1 100. 8 100. 6 100. 6 98. 1 97. 8 98. 1 96. 0 96. 7 96. 2 94. 4 95. 0 94. 8	1 104. 4 100. 0 106. 6 113. 2 105. 2 97. 4 92. 4 100. 9 98. 8 100. 7 92. 3 103. 4 118. 7 121. 3 119. 7 128. 0 137. 0 145. 8 139. 2	1 98.5 Folders 2 100.0 2 99.7	1 99. 6 , female.	Inspec mender wear, f	

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.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912-Continued.

	Knitter	s,¹ male.	Knitters	,¹ female.	Knitters, toppers	footers or ,2 male.	Knitters, toppers,	footers or genale.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.
verage, 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				
189 2	102.8 100.5	99.8 113.4	100.6 100.5	99.0 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	l		į	
1900	98.7	90.9	99.3	91.5	ł]	1	
1901	98.7	92.3	99.6	103.1				
1902	98.7	95.7	99.3	112.4				
903	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			 	
906	99.0	126. 2	97.6	130.8				
907	96.9	128.1	97.1	135.5			3 100.0	3 100. 4
1908			[[3 100. 0 3 100. 0	³ 108. 0
909								3 108.0
							· 100.0	- 100.0
1910					4 100 0	4 100 0	ĺ	
					4 100. 0 4 99. 7	4 100.0 4 103.0	* 96. 6	3 107. 7
911					4 100. 0 4 99. 7 4 99. 2	4 100. 0 4 103. 0 4 110. 8	ĺ	3 107.7 3 109.4
1911	Knitter hose,"	s, "lady	Knitter	s, "lady	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912.	Knitter hose,"		Knitter hose," 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	4 103. 0 4 110. 8	3 96. 6 3 96. 6 3 94. 7	3 107. 7 3 109. 4 3 111. 7
1911	Knitter hose,"	s, "lady	Knitter hose, "2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912	Knitter hose,"	s, "lady	Knitter hose,'' 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912. rage, 1890-1899	Knitter hose,"	s, "lady	Knitter hose,'' 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
911. 912. age, 1890-1899 890. 891. 892. 893.	Knitter hose,''	s, "lady	Knitter hose,'' 2	s, ''lady' female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911 1912	Knitter hose,"	s, "lady	Knitter hose,'' 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912. rage, 1890-1899 1890 1891 1892 1893 1894	Knitter hose,"	s, "lady	Knitter hose,'' 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1891 1892 1893 1894 1895 1896	hose,"	s, "lady	Knitter hose," 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912. rage, 1890-1899. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898.	hose,"	s, "lady	Knitter hose,'' 2	s, "lady female.	4 99. 7 4 99. 2 Knitters.	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912. rage, 1890-1899. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898.	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1899	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1899 1899 1899 1899 1899 1899 1899	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1900	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1890 1891 1892 1893 1894 1895 1896 1897 1898 1898 1900 1900 1901 1902 1903 1904	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899. 1890. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1890. 1900. 1900. 1900. 1901. 1902. 1903. 1904.	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
1911. 1912. 1890. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900. 1901. 1902. 1903. 1904. 1905. 1906.	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 .1890 .1891 .1892 .1893 .1894 .1895 .1898 .1896 .1897 .1898 .1899 .1900 .1901 .1902 .1904 .1905 .1905	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 .1890 .1891 .1892 .1893 .1894 .1895 .1896 .1897 .1898 .1900 .1901 .1902 .1903 .1904 .1905 .1906 .1907	hose,"	s, "lady 2 male.	hose," ²	female.	4 99. 7 4 99. 2 Knitters, siery,	103.0 1110.8	3 96. 6 3 96. 6 3 94. 7 Knitters,	3 107. 7 3 109. 4 3 111. 7
rage, 1890-1899 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1901 1902 1903 1904 1905 1906 1907 1908 1909	hose,"	s, "lady 2 male.	hose,'' ²	female.	4 99. 7 4 99. 2 Knitters, siery,	rib, ho- male.	\$ 96. 6 \$ 96. 6 \$ 94. 7 Knitters, siery,2	3 107. 7 3 109. 4 3 111. 7 rib, ho- female.
1911 1912 1890 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1906 1907 1908 1909	hose,"	s, "lady 2 male.	hose,'' 2	4 100. 0	4 99. 7 4 99. 2 Knitters, siery,	rib, ho-male.	\$ 96.6 \$ 96.6 \$ 94.7 Knitters, siery,2	3 107. 7 3 109. 4 3 111. 7 rib, ho-female.
1911 1912	hose,"	s, "lady 2 male.	hose,'' ²	female.	4 99. 7 4 99. 2 Knitters, siery,	rib, ho- male.	\$ 96. 6 \$ 96. 6 \$ 94. 7 Knitters, siery,2	3 107. 7 3 109. 4 3 111. 7 rib, ho- female.

 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.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912-Continued.

	Knitters, tube, ur male.	, web or nderwear,1	Knitters, tube, ur female.	web or iderwear,1	Loopers	, female.	Menders	,² female.
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	Relative rate of wages per hour.
Average, 1890–1899					100, 0	100, 0	100.0	100.0
1890 1891 1892 1893 1894					101.9 102.0 102.0 101.6 91.5	99. 8 103. 3 100. 0 104. 2 95. 9	101.8 101.8 101.8 99.5 95.9	108. 9 105. 5 99. 6 100. 8 92. 4
1895 1896 1897 1898 1899					101, 3 99, 9 99, 9 99, 9 99, 9	106.7 117.4 91.0 93.3 88.5	99. 4 99. 7 100. 1 100. 2 99. 8	113, 4 97, 8 92, 1 95, 8 93, 8
1900 1901 1902 1903 1904					98. 3 98. 2 98. 2 98. 2 98. 1	80. 7 94. 3 92. 9 106. 1 93. 3	99. 2 98. 8 99. 0 98. 6 98. 6	104. 1 92. 3 112. 2 110. 5 106. 1
1905 1906 1907 1908 1909	1	³ 100. 0 ³ 95. 1 ³ 97. 1	3 100, 0 3 100, 2 3 100, 4	* 100.0 * 101.1 * 91.9	98. 4 97. 8 97. 0 96. 7 96. 7	99. 4 105. 5 110. 2 100. 5 108. 8	98. 2 98. 0 97. 4	113, 7 117, 2 122, 1
1910 1911 1912.	³ 97. 4 ³ 97. 1 ³ 95. 6	³ 97.3 ³ 104.1 ³ 112.1	* 97.6 * 96.9 * 94.3	3 103, 1 3 98, 0 3 81, 9	95, 5 95, 5 93, 8	109. 1 106. 4 115, 6		
	Menders siery,	, fine, ho- female.	Menders, siery,	rough, ho- female.	Presser	s, male.	Press han	ds, female
Average, 1890–1899					100.0	100. 0	100. 0	100, 0
1890 1891 1892 1893 1894					101. 1 101. 1 101. 1 100. 8 92. 3	107. 4 105. 2 92. 6 98. 9 94. 6	102. 4 102. 4 102. 4 99. 0 99. 0	110. 8 102. 3 101. 5 99. 8 109. 6
1895 1896 1897 1898 1899			1	1	100. 7 100. 7 100. 7 100. 7 100. 7	94. 4 100. 9 100. 8 103. 9 101. 4	99. 0 99. 0 99. 0 99. 0 99. 0	91. 4 105. 4 97. 9 88. 8 92. 9
1900 1901 1902 1903 1904					98.3 97.4 99.0 99.3 99.5	106. 6 103. 6 107. 1 116. 2 112. 9	99. 0 99. 0 99. 0 99. 0 97. 2	107. 1 104. 0 110. 3 100. 9 122. 3
1905 1906 1907 1908 1909	3 100.0	³ 100. 0 ³ 91. 6 ³ 90. 8	3 100. 0 3 99. 8 3 100. 0	3 100. 0 3 113. 7 3 115. 1	99. 6 99. 4 99. 6 99. 4 99. 2	120. 5 123. 7 137. 1 119. 9 123. 1	98. 5 98. 6 98. 5 98. 5 98. 5	131, 7 137, 6 135, 9 135, 3 120, 7

 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 menders for 1890 to 1907.

RELATIVE NOMINAL	FULL-TIME H	OURS PER	WEEK AND	RELATIVE	RATES OF
WAGES PER HOUR	IN THE PRIN	CIPAL OCC	UPATIONS IN	HOSIERY	AND KNIT
GOODS MANUFACTU	RING. 1890 TO	1912-Conclude	ed.		

	Ribbers, female.		Seamers, underwear, female.		Welters, female.		Winders, female.	
Year.	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	rate of	Relative nominal full-time hours per week.	Relative rate of wages per hour.	Relative nominal full-time hours per week.	rate of
Lverage, 1890–1899	100.0	100.0						
1890		100.5						
1891		112.3						
1892	100.0	103.1						
1893 1894		103.4 91.8						
	100.0			1 :				
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							
1902	100.0							
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
1908		(2)	1 99. 8				1 99. 8	1 115, 8
1909			1 100.0	1 109.2			1 99.6	1 108. 0
1910			1 97. 6	199.5	3 100. 0	3 100. O	1 97. 7	1 106. 4
1911			1 97.6	1 98. 7	3 100. O	3 103, 7	1 97. 2	1 108. 5
1912			1 96. 8	1 105.0	3 97. 7	3 117. 1	194.8	1 116. 7

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

The most significant facts concerning nominal full-time working hours per week and rates of wages per hour in each of the principal occupations of the industry are shown for 1907 to 1912, or for such of those years as data are available, in the table which follows.

The data for the several years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding records for past years and also owing to the great amount of work involved, data for 1907 to 1909 were secured from only a limited number of establishments. 1910 and 1911 were obtained from a larger number of establishments.

In 1912 data were gathered for the year 1912 from the establishments that furnished data for 1911, and at the same time some additional data relating to 1911 and 1912 were gathered from a few new establishments, the scope of the work being enlarged to include a greater number of establishments.

To permit a comparison of data from year to year the data for identical establishments are grouped together. A true comparison can be made, of course, only of data from the same establishments. Data for 1912 from new establishments are included in this tabulation only when it was possible to get like data for 1911 from the same establishments. The data are for the pay-roll period ending nearest May 15 each year, except for a very few establishments in which conditions in May were particularly abnormal.

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATES OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912.

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

[I lie constitution of opposite can break		p 01 , 0015 010		
Occupation, sex, and number of establishments.	Year.	Number of employees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Boarders, male:	(1907	203	58, 4	\$ 0. 2180
8 establishments	1908	210	58. 1	. 2111
	1909	220	58. 2	. 2037
	1910	237	57. 1	. 2186
33 establishments.	{ 1910	808	57.0	. 1926
	1911	862	57.0	. 1893
32 establishments	{ 1911	869	56. 9	. 1891
	1912	959	55. 6	. 2173
21 establishments	{ 1910	178	57. 8	. 1624
	1911	167	58. 0	. 1663
27 establishments	{ 1911	191	58.0	. 1640
	1912	194	57.1	. 1672
Button sewers, underwear, female:				
21 establishments	{ 1910	159	58. 1	. 1490
	1911	151	58. 3	. 1471
27 establishments	{ 1911	171	58. 2	. 1457
	1912	182	57. 2	. 1471
Cutters, hand, underwear, male: 12 establishments	{ 1910	130	59. 3	. 2168
	1911	123	58. 9	. 2236
18 establishments	{ 1911	138	58. 6	. 2265
	1912	162	58. 6	. 2156
Cutters, hand, underwear, female:	(1907	82	58.6	. 1441
4 establishments	1908	90	57. 9	. 1570
	1909	98	58. 0	. 1448
	1910	96	56. 5	. 1436
10 establishments.	{ 1910	182	56. 5	. 1374
	1911	154	56. 5	. 1391
14 establishments	{ 1911	161	56. 4	. 1387
	1912	192	54. 7	. 1527
Finishers, underwear, female:	Ι`	1		
5 establishments	1907	555	58. 7	. 1579
	1908	516	58. 6	. 1508
	1909	533	58. 7	. 1480
	1910	519	57. 8	. 1541
23 establishments.	{ 1910	1,443	57.9	. 1300
	1911	1,439	57.8	. 1497
27 establishments	{ 1911	1,533	57. 9	. 1479
	1912	1,715	56. 9	. 1533
Folders, female: 7 establishments	1907	170	58. 4	. 1424
	1908	165	58. 2	. 1369
	1909	134	58. 5	. 1556
	1910	137	57. 2	. 1557
45 establishments	{ 1910	626	57.8	. 1275
	1911	611	57.7	. 1267
51 establishments	{ 1911	653	57. 6	. 1283
	1912	730	56. 4	. 1314
Inspectors and menders, underwear, female:	1]		
22 establishments	1910	615	57.6	.1237
	1911	615	57.8	.1249
24 establishments	$\left\{\begin{array}{c} 1911 \\ 1912 \end{array}\right.$	658 624	57.6 57.0	. 1239 . 1278
Knitters, footers or toppers, male: 4 establishments	{ 1910	152	58. 2	. 1359
	1911	133	58. 0	. 1400
12 establishments	{ 1911	172	57.8	.1465
	1912	209	57.5	.1576

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATES OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN HOISERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912—Continued.

Occupation, sex, and number of establishments.		Year.	Number of employees.	Average nominal full-time hours per week.	Average rate of wages per hour.
Knitters, footers or toppers, female:		1007	1.5.	*0.1	80 100 1
3 establishments	}	1907 1908 1909 1910	154 175 145 116	58. 1 58. 1 58. 1 56. 1	\$0. 1234 . 1337 . 1332 . 1328
32 establishments	{	1910 1911	1,851 1,740	57. 5 57. 5	. 1213 . 1232
33 establishments	{	1911 1912	2, 174 2, 208	57. 2 56. 1	. 1348 . 1376
Knitters, "lady hose," male: 12 establishments		1910 1911	235 220	57.6 57.4	. 1746 • 1753
13 establishments		1911 1912	215 278	57. 4 56. 0	. 1757 . 1895
Knitters, "lady hose," female: 12 establishments	1	1910 1911	277 260	56. 2 56. 2	. 1540 . 1557
11 establishments	- 1	1911 1912	252 269	55.8 54.9	. 1615 . 1852
Knitters, rib, hosiery, male: 17 establishments	- 1	1910 1911	55	56.6	. 1992
21 establishments		1911 1911 1912	92	56. 5 57. 3	. 1892
Knitters, rib, hosiery, female: 14 establishments		1912 1910 1911	86 49	56. 4 57. 4	. 1299
13 establishments	- 1	1911 1911 1912	38 45	57.6 57.1	. 1520
Knitters, web or tube, underwear, male:	ŀ	1912 1907	52 101	55. 1 58. 5	. 1440 . 2194
4 establishments		1908 1909 1910	107 110 100	58. 3 58. 5 57. 0	. 2087 . 2131 . 2135
14 establishments		1910 1911	212 209	58. 0 58. 1	. 2012 . 2153
22 establishments		1911 1912	253 261	57. 9 57. 0	.2111 $.2273$
3 establishments		1907 1908 1909 1910	101 113 109 96	58. 3 58. 4 58. 5 56. 9	. 1433 . 1448 . 1316 . 1477
16 establishments	{	1910 1911	245 205	57. 4 57. 0	.1721 .1636
19 establishments		1911 1912	316 181	56. 9 55. 4	. 1618 . 1352
Loopers, female: 9 establishments		1907 1908 1909 1910	610 637 603 582	58. 4 58. 2 58. 2 57. 5	. 1403 . 1279 . 1385 . 1389
43 establishments.	{	1910 1911	2,013 1,904	57.3 57.3	.1326 .1293
44 establishments		1911 1912	2,089 2,262	57. 1 56. 1	. 1343 . 1459
8 establishments	.	1907 1908 1909 1910	112 132 115 110	58. 5 57. 9 57. 8 57. 5	. 1446 . 1324 . 1313 . 1375
30 establishments.	1	1910 1911	385 399	57. 2 57. 2	. 1320 . 1342
27 establishments		1911 1912	359 297	57. 2 55. 6	. 1344 . 1382
DACED			201	00.01	. 1002

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATES OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912—Concluded.

Occupation, sex, and number of establishments.	Year.	Number of employees.	A verage nominal full-time hours per week.	Average rate of wages per hour.
Menders, rough, hosiery, female:				
5 establishments	1907	147	58. 4	\$0, 1108
	1908	134	58. 3	. 1260
	1909	123	58. 4	. 1276
	1910	122	57. 5	. 1216
29 establishments	. { 1910	704	57. 0	. 1219
	1911	648	57. 0	. 1225
30 establishments Pressers, male:	{ 1911	728	56. 9	. 1318
	1912	681	56. 4	. 1409
7 establishments	1907	32	59. 3	. 1910
	1908	35	59. 2	. 1670
	1909	40	59. 1	. 1714
	1910	33	58. 9	. 1850
34 establishments	{ 1910	155	58. 0	. 1774
	1911	151	58. 0	. 1856
33 establishments Press hands, female:	{ 1911	151	57. 7	. 1874
	1912	157	56. 8	. 1946
2 establishments.	1907	100	58. 0	.1188
	1908	107	58. 0	.1182
	1909	115	58. 0	.1055
	1910	94	56. 0	.1281
13 establishments	{ 1910	207	57. 7	. 1186
	1911	208	57. 5	. 1183
12 establishments	{ 1911	196	56. 5	. 1140
	1912	206	55. 8	. 1198
5 establishments	1907	390	58. 6	. 1443
	1908	426	58. 5	. 1564
	1909	439	58. 6	. 1576
	1910	433	57. 2	. 1436
23 establishments	1910	1, 181	57. 8	. 1429
	1911	1, 197	58. 0	. 1417
27 establishments	{ 1911	1,280	58. 1	. 1411
	1912	1,265	57. 6	. 1501
23 establishments	{ 1910	250	57. 6	. 1205
	1911	282	57. 6	. 1250
23 establishments	{ 1911	288	57. 4	. 1272
	1912	303	56. 1	. 1437
6 establishments	1907	266	58. 8	. 1403
	1908	276	58. 7	. 1625
	1909	262	58. 6	. 1515
	1910	276	57. 5	. 1492
38 establishments.	{ 1910	1,020	58. 0	. 1292
	1911	960	57. 9	. 1318
45 establishments	{ 1911	1,001	57. 8	. 1302
	1912	982	56. 4	. 1400

EXPLANATION OF SCOPE AND METHOD.

This report on hosiery and knit goods 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, specialties, etc.

The number of establishments for which data concerning rates of wages per hour and nominal full-time hours of work per week were secured has varied considerably during the 23-year period, as follows:

1890 to 1903	8 identical establishments.
1903 and 1904	9 identical establishments.
1904 and 1905	22 identical establishments.
1905 and 1906	25 identical establishments.
1906 and 1907	30 identical establishments.
1907 to 1910	15 identical establishments.
1910 and 1911	62 identical establishments.
1911 and 1912	62 Identical establishments.

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of identical establishments included for the full period 1907 to 1910 was limited owing to the difficulty in finding establishments which had preserved complete records for those years.

In order that the data from year to year may be entirely comparable, it is necessary that information be secured from identical establishments; therefore when in 1911 the number of establishments was increased to 62 the Bureau secured data for 1910 also from all establishments added, thus providing for an exact comparison of the two years 1910 and 1911.

In selecting the establishments from which to secure data the Bureau undertook to represent all States in which hosiery and knit goods manufacturing is of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures, 1905. In selecting establishments in 1912 every State having 1,850 or more employees in the industry. and two having less than that number, according to the United States Census of Manufactures in 1905, is represented. The table which follows shows by States the number of employees in the hosiery and knit goods manufacturing industry, as given in the reports of the United States Census Office for 1910 and 1905; the total number on the pay roll in the establishments from which the Bureau secured data in 1912; and the number in the selected occupations and for whom data were secured in 1912. Data were secured from the pay roll ending nearest May 15, except for a very few establishments where conditions in May were particularly abnormal.

The census figures for 1910 were not available at the time the work for 1911 and 1912 was planned, and therefore the establishments selected, as already stated, were distributed by States according to the census of 1905. The relative importance, however, of the various States, as measured by the number of employees in this industry, did not change materially during the five years from 1905 to 1910.

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TOTAL NUMBER OF EMPLOYEES IN HOSIERY AND KNIT GOODS MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FROM WHICH DATA WERE SECURED IN 1912.

	Number of reported States Ce	employees by United usus Office.	Establishments furnishing infor- mation to the Bureau of Labor Statistics in 1912.			
State.			Number	Number of employees—		
	1910 1905	1905	of estab- lish- ments.	On pay roll.	For whom data were secured.	
New York Pennsylvania. Massachusetts Wisconsin	35, 613 38, 133 9, 935 4, 263	29, 251 28, 143 8, 110 4, 224	16 13 3 4	7, 167 6, 363 4, 864 1, 381	3, 336 3, 469 2, 705 864	
Connecticut Michigan North Carolina New Hampshire.	2,537 5,151	3, 594 3, 085 2, 944 2, 790	3 3 4 3	1,052 716 1,265 977	609 472 711 522	
Ohio Illinois. Georgia. Other States ¹	2,885	2, 490 2, 245 1, 935 14, 904	5 3 3 2	730 585 896 1,766	439 311 522 495	
Total.,	128, 708	103, 715	62	27,762	14, 455	

¹ Includes States having less than 3,200 employees (except as entered in detail) in 1910 and less than 1,850 in 1905.

According to both the census of 1905 and the census of 1910, more than 85 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 on the pay rolls of the establishments from which the Bureau secured the 1912 data was equal to 21.6 per cent of the total in the industry in 1910 as reported by the United States Census Office, and the number of employees for whom the Bureau secured detailed information in 1912 was equal to 11.2 per cent of the total in the industry in 1910.

All information included in this report was secured from pay rolls of the various establishments by agents of the Bureau of Labor Statistics.

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. Data were not taken from factories whose main products are sweaters, mittens, gloves, caps, mufflers, bathing suits, shawls, scarfs, or other specialties. Figures are shown for 19 occupations: Seven are common to the making of both hosiery and underwear; 5 pertain to hosiery making only, and 7 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.

Buttonhole makers, underwear, female

Button sewers, underwear, female. Cutters, hand, underwear, male. Cutters, hand, underwear, female.

Finishers, underwear, female.

Folders, female.

Inspectors and menders, underwear, female.

Knitters, footers or toppers, hosiery,

Knitters, footers or toppers, hosiery, female.

Knitters, "lady hose," male.

Knitters, "lady hose," female.

Knitters, rib, hosiery, male.

Knitters, rib, hosiery, female.

Knitters, web or tube, underwear, male.

Knitters, web or tube, underwear, female.

Loopers, female.

Menders, fine, hosiery, female.

Menders, rough, hosiery, female.

Pressers, male.

Press hands, female.

Seamers, underwear, female.

Welters, female.

Winders, female.

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

Of the 19 occupations reported, 12 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 the occupation occurs in the manufacture of both hosiery and underwear, it applies mainly to hosiery. Practically all hosiery is boarded, while comparatively little underwear is boarded. The hose boarder receives the hose damp from the dye house. 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 length, 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 length 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 at this operation.

FOLDERS.

The folder spreads the finished article on the worktable and folds it to the size desired for packing in a box. It is a hand operation. The work is usually done by women, who generally stand at their work. The folder in some factories may also inspect and pack.

INSPECTORS AND MENDERS, UNDERWEAR.

The occupations of inspecting and mending underwear are here combined, for the reason that in a considerable number of mills employees are engaged on both interchangeably. Inspecting in this case consists of looking the garment over for defects in work or for holes

in material, and cutting off threads or little pieces of material, such as tapes and bands, etc. The mending done on underwear is very similar to that on hosiery, except that no forms are used upon which to place the garment. All imperfections—holes in the material, etc.—are mended, so that the garment may be salable as a "first" and not as a "second." Mending is done by hand with a needle and yarn. Women are always employed at this work.

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.

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 and removes the pile of garments when sufficiently pressed and returns it to the press hand. This is heavy work and is 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 $3\frac{1}{2}$ pounds of yarn. The winding machine brushes out knots and the tension reveals weak spots in the yarn by breaking it. From 18 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.

EXPLANATION OF TABLES.

This report includes one general table covering the 6-year period, 1907 to 1912, and two general tables covering the 3-year period, 1910 to 1912, as follows:

Table I.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in the United States, by years, 1907 to 1912.

Table II.—Average rates of wages per hour and average and classi fied nominal full-time hours of work per week, in each year, by States, 1910 to 1912.

Table III.—Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each State, by years, 1910 to 1912.

Table I.—Average rates of wages per hour and average and classified nominal full-time hours of work per week in the United States, by years, 1907 to 1912 (pp. 91 to 97).—This table summarizes the data concerning rates of wages and nominal full-time hours of work secured from the whole number of establishments furnishing information. For each of the principal occupations—boarders; buttonhole makers, underwear; button sewers, underwear; cutters, hand, underwear; finishers, underwear; folders; inspectors and menders, underwear; knitters, footers or toppers, hosiery; knitters, "lady hose"; knitters, rib, hosiery; knitters, web or tube, underwear; loopers; menders, fine hosiery; menders, rough, hosiery; pressers; press hands; seamers, underwear; welters; and winders—data are shown, as far as available, for each of the six years, 1907 to 1912. Data are not shown for knitters of full-fashioned hosiery, for the reason given on page 72.

The first section of the table shows for each occupation the number of establishments from which data were secured, number of employees,

average rate of wages per hour, average nominal full-time hours per week, and number of employees under each classified number of nominal full-time working hours per week. The data as to time worked by individual employees paid on a piece basis were not sufficiently satisfactory in many establishments to warrant the presentation of classified rates of wages per hour. The second section of the table shows the per cent of employees under each classified number of nominal full-time working hours per week.

The data for years grouped together by brackets in the table are from identical establishments. As previously explained, exact comparison can be made from year to year only when the establishments compared are identical.

The relative nominal full-time hours per week and the relative rates of wages per hour for 1907 to 1912, shown on pages 74 to 77. are computed from the averages shown in this table. The method of computing the relatives can best be explained by using an illustration, thus: For male boarders the average nominal full-time hours per week in 8 establishments was 58.4 in 1907 and 58.1 in the same 8 establishments in 1908. The average in 1908 (58.1) was 99.49 per cent of the average (58.4) in 1907. Bulletin No. 77 (July, 1908) shows that, for nominal full-time hours per week for male boarders, the relative was 97.5 in 1907 (average for 1890-1899=100.0). average nominal full-time hours for 1908 were then reduced to a comparison with the base period (average for 1890 to 1899=100.0) by computing 99.49 per cent of 97.5, which is 97.0. The same method was followed in computing the relative rate of wages per hour; the average in 1908 (\$0.2111) was 96.83 per cent of the average in 1907 (\$0.2180); the relative (average for 1890-1899=100.0) for 1907 as shown in Bulletin No. 77 was 148.6; and 96.83 per cent of 148.6 is 143.9, or the relative rate of wages per hour in 1908 if the average for 1890 to 1899 is the base or 100.0. In computing for this occupation the relatives for 1911, comparison was made of the data for 33 identical establishments and in computing the relatives for 1912 comparison was made of the data from 32 identical establishments.

Table II.—Average rates of wages per hour and average and classified nominal full-time hours of work per week in each year, by States, 1910 to 1912 (pp. 98 to 106).—This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several States. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. Under each year, 1910 to 1912, or for such of those years as data are available, the data are shown for each of the States represented by any considerable number of employees. As only a limited amount of data was available for the years 1907 to 1909, a tabulation of such data by States was not deemed advisable.

Table III.—Average rates of wages per hour and average and classified nominal full-time hours of work per week in each State, by years, 1910 to 1912 (pp. 107 to 112).—This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the years 1910 to 1912. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. For each of the more important States in this industry the data are shown for each of the three years, 1910 to 1912, or for such of these years as data are available. As only a limited amount of data was available for the years 1907 to 1909, a tabulation of such data by States was not deemed advisable.

HOSIERY AND KNIT GOODS MANUFACTURING.

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

NUMBER.

		Num-	Aver-	Aver- age	En	nploye			ninal fo veek w	ıll-time ere—	work	ing
Occupation, sex, and number of establish- ments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	nom- inal full- time hours per week.	Un- der 48.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.	Over 60 and ander 63.
Boarders, male: 8 establishments	1907 1908 1909 1910	203 210 220 237	\$0. 2180 . 2111 . 2037 . 2186	58. 4 58. 1 58. 2 57. 1					127	168 196 206 96	35 14 14 14	
33 establishments	{1910 1911	808 862	. 1926 . 1893	57. 0 57. 0			5 5	29 38	397 428	239 239	138 152	
32 establishments	$^{1911}_{1912}$	869 959	. 1891 . 2173	56. 9 55. 6		2	7 4	38 307	435 454	266 66	123 126	ļ
Buttonhole makers underwear, female: 21 establishments	{1910 {1911	178 167	. 1624 . 1663	57. 8 58. 0		· · · · · · ·		6 5	77 65	29 27	56 61	10
27 establishments	{1911 {1912	191 194	. 1640 . 1672	58. 0 57. 1		4		5 4 5	72 44	30 24	75 77	9
Button sewers, under- wear, female: 21 establishments	{1910 {1911	159 151	. 1490 . 1471	58. 1 58. 3				2 4	65 52	26 25	58 59	8 11
27 establishments	{1911 {1912	171 182	. 1457 . 1471	58. 2 57. 2				4 38	57 38	28 26	71 75	11
Cutters, hand, under- wear, male: 12 establishments	{1910 {1911	130 123	. 2168 . 2236	59. 3 58. 9		•••••			32 37	15 14	56 58	27 14
18 establishments	{1911 1912	138 162	. 2265 . 2156	58. 6 58. 6					48 34	19 17	57 106	14
Cutters, hand, under- wear, female: 4 establishments	[1907 1908 1909 1910	82 90 98 96	. 1441 . 1570 . 1448 . 1436	58. 6 57. 9 58. 0 56. 5		•••••			7 7 83	59 75 79	23 8 12 13	
10 establishments	{1910 1911	182 154	. 1374 . 1391	56. 5 56. 5		•••••			144 122	19 14	19 18	
14 establishments	{1911 {1912	161 192	. 1387	56. 4 54. 7		···· · 7		118	129 45	14	18 22	
Finishers, underwear, female: 5 establishments	1907 1908 1909 1910	555 516 533 519	. 1579 . 1508 . 1480 . 1541	58. 7 58. 6 58. 7 57. 8		•••••			315	349 350 342	206 166 191 204	
23 establishments	{1910 {1911	1, 443 1, 439	. 1500 . 1497	57.9 57.8				23 28	599 615	263 252	509 511	49 33
27 establishments	{1911 {1912	1,533 1,715	.1479 .1533	57. 9 56. 9		50		28 468	627 301	295 313	550 583	33
Folders, female: 7 establishments	1907 1908 1909 1910	170 165 134 137	.1424 .1369 .1556 .1557	58. 4 58. 2 58. 5 57. 2					89	136 145 102 12	34 20 32 36	
45 establishments	{1910 {1911	626 611	. 1275 . 1267	57.8 57.7				8	255 259	148 149	184 179	31 16
51 establishments	{1911 {1 91 2	653 730	. 1283 . 1314	57. 6 56. 4	19		4 17	8 176	268 193	159 75	198 244	16

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

NUMBER-Continued.

			NUM	DER-	COM	nueu.		· · · · · · · · · · · · · · · · · · ·				
		Num-	Aver- age	Aver- age nom-	En	aploye	s who hour	se nom 's per v	inal fu veek w	ıll-time ere—	worki	ing
Occupation, sex, and number of establish- ments.	Year.	of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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.
Inspectors and menders, underwear, female: 22 establishments	{1910 1911	615 615	\$0.1237 .1249	57. 6 57. 8				11 23	275 263	90 86	212 221	27 22
24 establishments	(1911 \1912	658 624	.1239	57. 6 57. 0		16		$\frac{23}{171}$	266 111	106 99	$\frac{241}{227}$	22
Knitters, footers or top- pers, hosiery, male: 4 establishments	(1910 (1911	152 133	.1359	58. 2 58. 0					67 65		85 68	
12 establishments	{1911 {1912	172 209	.1465	57.8 57.5				38	77 41	41 48	54 82	
Knitters, footers or top- pers, hosiery, female: 3 establishments	1907 1908 1909 1910	154 175 145 116	. 1234 . 1337 . 1332 . 1328	58. 1 58. 1 58. 1 56. 1					112	145 166 136	9 9 9 4	
32 establishments	(1910 (1911	1, 851 1, 740	. 1213 . 1232	57.5 57.5			25 26	89 86	577 510	697 653	463 465	· · · · · · · ·
33 establishments	{1911 {1912	2,174 $2,208$. 1348	57. 2 56. 1	1		34 37	86 294	729 1, 114	925 532	400 231	
Knitters, "lady hose," male: 12 establishments	{1910 {1911	235 220	.1746 .1753	57. 6 57. 4				8 8	61 65	128 122	38 25	
· 13 establishments	{1911 1912	215 278	. 1757	57. 4 56. 0				8 86	67 110	115 55	25 27	
Knitters, "lady hose," female: 12 establishments	{1910 {1911	277 260	. 1540	56. 2 56. 2				47 49	111 104	96 82	23 25	
11 establishments	{1911 1912	252 269	. 1615 . 1852	55. 8 54. 9	 		10 10	49 63	104 183	82 5	7 8	
Knitters, rib, hosiery, male: 17 establishments	{1910 {1911	55 47	. 1992 . 1996	56. 6 56. 5				4 5	31 25	9	11 8	
21 establishments	{1911 1912	92 86	. 1892 . 2004	57. 3 56. 4				5 11	23 33	54 35	10 7	ļ <u>.</u>
Knitters, rib, hosiery, female: 14 establishments	{1910 {1911	49 38	. 1299 . 1520	57. 4 57. 6			1		17 12	18 13	13 12	
13 establishments	{1911 1912	45 52	.1473	57. 1 55. 1			3 13	i	12 30	23 4	7 4	
Knitters, web or tube, underwear, male: 4 establishments	(1907 1908 1909 1910	101 107 110 100	. 2194 . 2087 . 2131 . 2135	58. 5 58. 3 58. 5 57. 0					74	74 89 84	27 18 26 26	
14 establishments	{1910 {1911	212 209	. 2012	58. 0 58. 1					106 99	23 22	69 72	14 16
22 establishments	{1911 {1912	253 261	.2111	57. 9 57. 0	ļ	<u>ı</u>	ļ	16 74	105 58	26 24	90 104	16

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

NUMBER-Continued.

			NUM	BER-	-Cont	nued.						
		Num-	Aver-	Aver- age nom-	Eı	nploye			ninal fi week w		e work	ing
Occupation, sex, and number of establish- ments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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, web or tube, underwear, female: 3 establishments	1907 1908 1909 1910	101 113 109 96	\$0. 1433 . 1448 . 1316 . 1477	58. 3 58. 4 58. 5 56. 9					75	86 89 84	15 24 25 21	
16 establishments	{1910 1911	245 205	. 1721 . 1636	57. 4 57. 0			 		145 130	44 35	42 36	14 4
19 establishments	{1911 1912	216 181	. 1618 . 1352	56. 9 55. 4	.	14		3 77	138 35	35 27	36 28	4
Loopers, female: 9 establishments	1907 1908 1909 1910	610 637 603 582	.1403 .1279 .1385 .1389	58. 4 58. 2 58. 2 57. 5					202	446 539 507 277	164 98 96 103	
43 establishments	{1910 1911	2, 013 1, 904	. 1326 . 1293	57.3 57.3			5 7	48 66	800 734	759 722	401 375	
44 establishments	{1911 1912	2, 089 2, 262	. 1343 . 1459	57. 1 56. 1		12	. 13 . 12	66 486	769 1,021	924 413	317 318	
Menders, fine, hosiery, female: 8 establishments	1907 1908 1909 1910	112 132 115 110	. 1446 . 1324 . 1313 . 1375	58. 5 57. 9 57. 8 57. 5					22	80 130 113 87	32 2 2 2 1	
30 establishments	{1910 1911	385 399	. 1320 . 1342	57. 2 57. 2			5 5	14 15	136 156	181 155	49 68	
27 establishments	{1911 1912	359 297	. 1344	57. 2 55. 6			7 5	15 105	127 125	151 13	59 49	
Menders, rough, hosiery, female: 5 establishments	1907 1908 1909 1910	147 134 123 122	.1108 .1260 .1276 .1216	58. 4 58. 3 58. 4 57. 5					55	116 112 100 40	31 22 23 27	
20 establishments	{1910 {1911	704 648	. 1219 . 1225	57. 0 57. 0			6 5	25 23	357 325	145 147	171 148	
30 establishments	{1911 1912	728 681	. 1318 . 1409	56. 9 56. 4			14 12	23 114	332 273	252 174	107 108	
Pressers, male: 7 establishments	[1907 1908 1909 1910	32 35 40 33	.1910 .1670 .1714 .1850	59. 3 59. 2 59. 1 58. 9						12 16 19 18	20 19 21 15	
34 establishments	${1910 \atop 1911}$	155 151	. 1774 . 1856	58. 0 58. 0				2 2	49 48	39 36	60 60	5 5
33 establishments	{1911 {1912	151 157	. 1874 . 1946	57. 7 56. 8		6		2 10	61 75	29 10	54 55	5 1
Press hands, female: 2 establishments	(1907 11908 11909 11910	100 107 115 94	.1188 .1182 .1055 .1281	58. 0 58. 0 58. 0 56. 0					94	100 107 115		
13 establishments	{1910 1911	207 208	.1186 .1183	57. 7 57. 5				4 5	100 111	45 33	45 52	13 7
12 establishments	{1911 1912	196 206	. 1140 . 1198	56. 5 55. 8				5 95	108 49	22 12	54 50	7

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

NUMBER-Concluded.

		Num-	Aver- age	Aver- age nom-	En	nploye			inal fu veek w	ıll-time ere—	work	ing
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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.
Seamers, underwear, fe-	:											
male: 5 establishments	1907 1908 1909 1910	390 426 439 433	\$0.1443 .1564 .1576 .1436	58. 6 58. 5 58. 6 57. 2					298	269 323 307	121 103 132 135	
23 establishments		1, 181 1, 197	. 1429 . 1417	57. 8 58. 0				22 28	524 508	163 149	408 453	64 59
27 establishments	{1911 1912	1,280 1,265	. 1411 . 1501	58. 1 57. 6		14		28 330	514 162	170 205	509 554	59
Welters, female: 23 establishments	{1910 {1911	250 282	. 1205 . 1250	57. 6 57. 6				2 3	107 122	76 80	65 77	
23 establishments	{1911 {1912	288 303	. 1272 . 1437	57. 4 56. 1			₂	3 110	135 99	92 25	58 67	
Winders, female: 6 establishments	1907 1908 1909 1910	266 276 262 276	. 1403 . 1625 . 1515 . 1492	58. 8 58. 7 58. 6 57. 5					172	166 177 177	100 99 85 104	
38 establishments	{1910 {1911	1,020 960	. 1292 . 1318	58. 0 57. 9			1		411 411	243 217	$\frac{246}{254}$	119 77
45 establishments	{1911 {1912	1,001 982	. 1302 . 1400	57. 8 56. 4		15	2 2	12 265	408 311	250 115	$\frac{252}{274}$	77

PER CENT.

Boarders, male: 8 establishments	1907 1908 1909 1910	203 210 220 237	\$0. 2180 . 2111 . 2037 . 2186	58. 4 58. 1 58. 2 57. 1	 			53. 6	82. 8 93. 3 93. 6 40. 5	17. 2 6: 7 6. 4 5. 9	
33 establishments	{1910 {1911	808 862	. 1926 . 1893	57.0 57.0	 •••••	0.6 .6	3.6 4.4	49. 1 49. 7	29. 6 27. 7	17.1 17.6	
32 establishments Buttonhole makers, fe-	{1911 {1912	869 959	. 1891 . 2173	56. 9 55. 6	 0. 2	.8 .4	4. 4 32. 0	50. 1 47. 3	30. 6 6. 9	14. 2 13. 1	
male: 21 establishments	{1910 1911	178 167	. 1624 . 1663	57. 8 58. 0	 		3. 4 3. 0	43.3 38.9	16.3 16.2	31. 5 36. 5	5. 6 5. 4
27 establishments Button sewers, female:	{1911 1912	191 194	. 1640 . 1672	58.0 57.1	 2. 1		2. 6 23. 2	$37.7 \\ 22.7$	15. 7 12. 4	39.3 39.7	4.7
21 establishments	{1910 {1911	159 151	. 1490 . 1471	58. 1 58. 3	 		1.3 2.6	40. 9 34. 4	16. 4 16. 6	36. 5 39. 1	5. 0 7. 3
27 establishments Cutters, hand, under- wear, male:	{1911 {1912	171 182	. 1457 . 1471	58. 2 57. 2	 2.7		2.3 20.9	33.3 20.9	16. 4 14. 3	41.5 41.2	6. 4
12 establishments	{1910 1911	130 123	. 2168 . 2236	59.3 58.9	 			24.6 30.1	11.5 11.4	43. 1 47. 2	20.8 11.4
18 establishments	${1911 \atop 1912}$	138 162	. 2265	58. 6 58. 6	 		3. 1	34. 8 21. 0	13. 8 10. 5	41.3 65.4	10. 1

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

PER CENT-Continued.

		Num-	Aver-	Aver-	En	nploye	es who hour		inal fo veek w		work	ing
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	nom- inal full- time hours per week.	Un- der 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.
Cutters, hand, under- wear, female:												
4 establishments	1907 1908 1909 1910	90 98 96	\$0. 1441 . 1570 . 1448 . 1436	58. 6 57. 9 58. 0 56. 5					7.8 7.1 86.5	72 0 83.3 80.6	28 0 8 9 12. 2 13. 5	
10 establishments	{1910 1911	182 154	. 1374 . 1391	56. 5 56. 5					79. 1 79. 2	10. 4 9. 1	10. 4 11 7	
14 establishments Finishers, underwear, fe- male:	{1911 1912	161 192	. 1387 . 1527	56. 4 54. 7		3.6		61.5	80. 1 23. 4	8.7	11. 2 11. 5	
5 establishments	1907 1908 1909 1910	555 516 533 519	. 1579 . 1508 . 1480 . 1541	58.7 58.6 58.7 57.8					60.7	62.9 67.8 64.2	37. 1 32. 2 35. 8 39. 3	
23 establishments	{1910 1911	1, 443 1, 439	. 1500 . 1497	57. 9 57. 8				1.6 1.9	41.5 42.7	18. 2 17. 5	35. 3 35. 5	3. 4 2. 3
27 establishments Folders, female:	{1911 1912	1,533 1,715	. 1479 . 1533	57. 9 56. 9		2. 9		1.8 27.3	40.9 17.6	19. 2 18. 3	35. 9 34. 0	2. 2
7 establishments	1907 1908 1909 1910	170 165 134 137	. 1424 . 1369 . 1556 . 1557	58. 4 58. 2 58. 5 57. 2					65.0	80. 0 87. 9 76. 1 8. 8	20. 0 12. 1 23. 9 26. 3	
45 establishments	{1910 1911	626 611	. 1275 . 1267	57.8 57.7				1.3 1.3	40.7 42.4	23.6 24.4	29. 4 29. 3	5. 6 2. 6
51 establishments	${1911 \atop 1912}$	653 730	. 1283 . 1314	57.6 56.4	2.6	8	.6 2.3	1.2 24.1	41.0 26.4	24.3 10.3	30. 3 33. 4	2. 5
Inspectors and menders, underwear, female: 22 establishments	{1910 {1911	615 615	. 1237 . 1249	57.6 57.8				1.8 3.7	44.7 42.8	14.6 14.0	34. 5 35. 9	4. 4 3. 6
24 establishments Knitters, footers or top- pers, male:	{1911 1912	658 624	. 1239 . 1278	57.6 57.0		2.6		3.5 27.4	40. 4 17. 8	16. 1 15. 9	36. 6 36. 4	3.3
4 establishments	{1910 1911	152 133	. 1359 . 1400	58. 2 58. 0					44. 1 48. 9		55. 9 51. 1	
12 establishments	{1911 1912	172 209	. 1465 . 1576	57.8 57.5				18. 2	44. 8 19. 6	23.8 23.0	31. 4 39. 2	
Knitters, footers or top- pers, female: 3 establishments	1907 1908 1909 1910	154 175 145 116	. 1234 . 1337 . 1332 . 1328	58. 1 58. 1 58. 1 56. 1					96. 6	94. 2 94. 9 93. 8	5. 8 5. 1 6. 2 3. 4	
32 establishments	{1910 1911	1,851 1,740	. 1213 . 1232	57. ŏ 57. 5			1. 4 1. 5	4. 8 4. 9	31. 2 29. 3	37.7 37.5	25. 0 26. 7	
33 establishments Knitters, "lady hose," male:	{1911 1912	2, 174 2, 208	. 1348 . 1376	57. 2 56. 1			1.6 1.7	4. 0 13. 3	33. 5 50. 5	42. 5 24. 1	18. 4 10. 5	
12 establishments	{1910 1911	235 220	. 1746 . 1753	57. 6 57. 4				$\frac{3.4}{3.6}$	26.0 29.5	54. 5 55. 5	16. 2 11. 4	ļ
13 establishments	${1911 \atop 1912}$	215 278	. 1757 . 1895	57.4 56.0				3. 7 30. 9	31. 2 39. 6	53. 5 19. 8	11.6 9.7	

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

PER CENT-Continued.

		Num-	Aver- age	Aver- age nom-	Er	nploye		se non s pe r w		ıll-time ere—	e work	ing
Occupation, sex, and number of establish- ments.	Year.	of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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 {1911	277 260	\$0. 1540 . 1557	56. 2 56. 2				17.0 18.8	40.1 40.0	34.7 31.5	8.3 9.6	
11 establishments Knitters, rib, hosiery, male:	{1911 {1912	252 269	. 1615 . 1852	55. 8 54. 9			4.0 3.7	19. 4 23. 4	41. 3 68. 0	32. 5 1. 9	2.8 3.0	
17 establishments	{1910 1911	55 47	. 1992 . 1996	56. 6 56. 5				7.3 10.6	56. 4 53. 2	16. 4 19. 1	20.0 17.0	
21 establishments Knitters, rib, hosiery, female:	{1911 1912	92 86	. 1892 . 2004	57.3 56.4				5. 4 12. 8	25.0 38.4	58.7 40.7	10. 9 8. 1	
14 establishments	{1910 {1911	49 38	. 1299 . 1520	57. 4 57. 6			2.0 2.6		34.7 31.6	36.7 34.2	26. 5 31. 6	
13 establishments Knitters, web or tube, underwear, male:	{1911 1912	45 52	.1473 .1443	57. 1 55. 1			6. 7 25. 0	1.9	26. 7 57. 7	51.1 7.7	15. 6 7. 7	
4 establishments	1907 1908 1909 1910	101 107 110 100	. 2194 . 2087 . 2131 . 2135	58. 5 58. 3 58. 5 57. 0					74.0	73.3 83.2 76.4	26.7 16.8 23.6 26.0	
14 establishments	{1910 {1911	212 209	. 2012 . 2153	58. 0 58. 1					50.0 47.4	10.8 10.5	32. 5 34. 4	6.6 7.7
22 establishments	{1911 1912	253 261	.2111	57.9 57.0		0.4	 	6. 3 ·28. 4	41. 5 22. 2	10.3 9.2	35. 6 39. 8	6.3
Knitters, web or tube, underwear, female: 3 establishments	1907 1908 1909 1910	101 113 109 96	. 1433 . 1448 . 1316 . 1477	58. 3 58. 4 58. 5 56. 9					78.1	85. 1 78. 8 77. 1	14. 9 21. 2 22. 9 21. 9	
16 establishments	{1910 {1911	245 205	. 1721 . 1636	57.4 57.0				 	59. 2 63. 4	18.0 17.1	17.1 17.6	5.7 2.0
19 establishments	{1911 1912	216 181	. 1618 . 1352	56. 9 55. 4		7.7		1. 4 42. 5	63. 9 19. 3	16. 2 14. 9	16.7 15.5	1.9
Loopers, female: 9 establishments	1907 1908 1909 1910	610 637 603 582	.1403 .1279 .1385 .1389	58. 4 58. 2 58. 2 57. 5					34.7	73. 1 84. 6 84. 1 47. 6	26. 9 15. 4 15. 9 17. 7	
43 establishments	{1910 1911	2,013 1,904	. 1326 . 1293	57.3 57.3			.2	2. 4 3. 5	39.7 38.6	37.7 37.9	19.9 19.7	
44 establishments Menders, fine, hosiery, female:	{1911 1912	2, 089 2, 262	. 1343 . 1459	57. 1 56. 1			.6 .5	3. 2 21. 5	36. 8 45. 1	44. 2 18. 3	15. 2 14. 1	
8 establishments	1907 1908 1909 1910	112 132 115 110	. 1446 . 1324 . 1313 . 1375	58. 5 57. 9 57. 8 57. 5					20.0	71. 4 98. 5 98. 3 79. 1	28.6 1.5 1.7 .9	
30 establishments	{1910 1911	385 399	. 1320 . 1342	57. 2 57. 2			1.3	3.6 3.8	35.3 39.1	47. 0 38. 8	12.7 17.0	
27 establishments	{1911 1912	359 297	. 1344	57. 2 55. 6	<u> </u>		1.9	4. 2 35. 4	35. 4 42. 1	42. 1 4. 1	16. 4 16. 5	

HOISERY AND KNIT GOODS MANUFACTURING—Continued.

PER CENT-Concluded.

		Num-	Aver-	Aver- age nom-	Er	nploye	es who hour	se non s per v	ninal fu veek w	ıll-tim ere—	e work	ing
Occupation, sex, and number of establishments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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.
Menders, rough, hosiery, female: 5 establishments	(1907 1908 1909 1910	147 134 123 122	\$0.1108 .1260 .1276 .1216	58. 4 58. 3 58. 4 57. 5					45. 1	78. 9 83. 6 81. 3 32. 8	21. 1 16. 4 18. 7 22. 1	
29 establishments	(1910 (1911	704 648	. 1219	57. 0 57. 0			.9	3. 6 3. 5	50. 7 50. 2	20. 6 22. 7	24.3 22.8	
30 establishments Pressers, male:	${1911 \atop 1912}$	728 681	. 1318 . 1409	56. 9 56. 4			1.9 1.8	3. 2 16. 7	45. 6 40. 1	34. 6 25. 6	14. 7 15. 9	
7 establishments	[1907 1908 1909 1910	32 35 40 33	. 1910 . 1670 . 1714 . 1850	59. 3 59. 2 59. 1 58. 9						37.5 45.7 47.5 54.5	62. 5 54. 3 52. 5 45. 5	
34 establishments	{1910 1911	155 151	. 1774 . 1856	58. 0 58. 0				1.3 1.3	31.6 31.8	25. 2 23. 8	38.7 39.7	3. 2 3. 3
33 establishments Press hands, female:	{1911 1912	151 157	. 1874 . 1946	57.7 56.8		3.8		1.3 6.4	40. 4 47. 8	19. 2 6. 4	35. 8 35. 0	3. 3
2 establishments	1907 1908 1909 1910	100 107 115 94	.1188 .1182 .1055 .1281	58. 0 58. 0 58. 0 56. 0						100. 0 100. 0 100. 0		
13 establishments	{1910 1911	207 208	. 1186 . 1183	57. 7 57. 5				1.9 2.4	48. 3 53. 4	21.7 15.9	21.7 25.0	6. 3 3. 4
12 establishments	$^{1911}_{1912}$	196 206	. 1140 . 1198	56. 5 55. 8				2. 6 46. 1	55. 1 23. 8	11. 2 5. 8	27.6 24.3	3,6
Seamers, underwear, fe- male: 5 establishments	1907 1908 1909 1910	390 426 439 433	. 1443 . 1564 . 1576 . 1436	58. 6 58. 5 58. 6 57. 2					68.8	69. 0 75. 8 69. 9	31. 0 24. 2 30. 1 31. 2	
23 establishments	${1910 \atop 1911}$	1, 181 1, 197	. 1429 . 1417	57. 8 58. 0				1.9 2.3	44. 4 42. 4	13. 8 12. 4	34.5 37.8	5. 4 4. 9
27 establishments Welters, female:	{1911 {1912	$1,280 \\ 1,265$. 1411 . 1501	58. 1 57. 6		i		2. 2 26. 1	40. 2 12. 8	13.3 16.2	$\begin{array}{c} 39.8 \\ 43.8 \end{array}$	4.6
23 establishments	$_{1911}^{1910}$	250 282	. 1205 . 1250	57.6 57.6				. 8 1. 1	42. 8 43. 3	30. 4 28. 4	26. 0 27. 3	
23 establishments Winders, female:	{1911 1912	288 303	. 1272 . 1437	57. 4 56. 1				1. 0 36. 3	46. 9 32. 7	31. 9 8. 3	20. 1 22. 1	
6 establishments	1907 1908 1909 1910	266 276 262 276	. 1403 . 1625 . 1515 . 1492	58. 8 58. 7 58. 6 57. 5				; 	62. 3	62. 4 64. 1 67. 6	37. 6 35. 9 32. 4 37. 7	
38 establishments	{1910 {1911	1,020 960	. 1292 . 1318	58. 0 57. 9			.1		40.3 42.8	23. 8 22. 6	24. 1 26. 5	11. 7 8. 0
45 establishments	$\left\{ ^{1911}_{1912}\right.$	1,001 982	. 1302 . 1400	57.8 56.4		1.5	.2	1. 2 27. 0	40.8 31.7	25. 0 11. 7	25. 2 27. 9	7.7

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HOSIERY AND KNIT GOODS MANUFACTURING—Continued. BOARDERS, MALE.

	Num-		Aver-	Aver- age nomi-	En	aploye		se non s per w		ıll-time ere—	work	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Un- der 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.
1910.												
Georgia	3 3 4 8 2 13	41 223 81 213 49 201	\$0.1428 .1906 .1465 .2204 .2318 .1848	58.5 56.0 60.0 57.6 55.0 56.5			5	29	12 223 30 49 83	183	29 81 28	
Total	33	808	. 1926	57.0			5	29	397	239	138	
1911.										ļ		ļ
Georgia. Massachusetts North Carolina. Pennsylvania Wisconsin. Other States.	3 3 4 8 2 12	58 227 83 224 64 213	.1321 .1870 .1516 .2142 .2377 .1806	58. 5 56. 0 59. 5 57. 8 55. 0 55. 8			7	38	9 227 8 16 64 111	208	27 75 21	
Total	32	869	. 1891	56.9			7	38	435	266	123	
1912.				-	-							
Georgia Massachusetts. North Carolina. Pennsylvania Wisconsin. Other States Total.	3 3 4 8 2 12	62 273 89 280 69 186	.1456 .2164 .1669 .2492 .2589 .2032	58.5 54.0 59.7 55.2 55.0 55.9		2	4	273 34 307	5 280 69 92 454	39	84 15 126	
1004	32	300	, 2113	35.0		2	*	301	104] 00	120	
BUT	TONI	HOLE	MAKI	ers,	UND	ERW	EAR	: FE	MAL	E.		
1910.							1					
New YorkOther States	11 10	88 90	\$0. 1632 . 1616	59. 4 56. 3		 		6	14 63	14 15	50 6	10
Total	21	178	. 1624	57.8				6	77	29	56	10
1911.												
New YorkOther States	16 11	107 84	. 1658 . 1616	59.5 56.2				5	13 59	15 15	70 5	9
Total	27	191	.1640	58.0				5	72	30	75	9
1912.		!										
New YorkOther States	16 11	108 86	.1712 .1622	58.8 54.8		4		45	22 22	9 15	77	
Total	27	194	. 1672	57.1		4		45	44	24	77	

HOSIERY AND KNIT GOODS MANUFACTURING—Continued. BUTTON SEWERS, UNDERWEAR: FEMALE.

	Num-		Aver-	Aver- age nom-	Eı	nploye	es who	se non s per v	inal fu veek w	ıll-time ere—	work	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	inal full- time hours per week.	Un- der 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.
1910.					i							
New YorkOther States	11 10	82 77	\$0.1539 .1437	59.6 56.5				····· <u>2</u>	11 54	9	54 4	
Total	21	159	.1490	58.1				2	65	26	58	8
1911.												
New YorkOther States	16 11	102 69	.1461 .1452	59.6 56.4				4	12 45	11 17	68 3	1
Total	27	171	. 1457	58, 2				4	57	28	71	11
1912.												
New YorkOther States	16 11	111 71	. 1499 . 1427	58.7 54.8		5		38	26 12	10 16	75	
Total	27	182	. 1471	57.2		5		38	38	26	75	
1910.										<u> </u>		
New YorkOther States	9 3	126	\$0. 2118 . 3734	59.4 58.5					32	12	55 1	27
Total	12	130	. 2168	59.3					32	15	56	27
1911.												-
New YorkOther States	11 7	123 15	. 2236 . 2508	59.0 55.9					37 11	16 3	56 1	14
Total	18	138	. 2265	58.6					48	19	57	14
1912.												
New YorkOther States	11 7	140 22	. 2072 . 2283	59. 1 55. 5				5	22 12	13 4	105 1	
Total	18	162	. 2156	58.6				5	34	17	106	
•	FIN	ISHE	RS, U	NDE	RWE	AR:	FEM.	ALE.	·		·	·
1910.												
Connecticut New York Pennsylvania Other States	3 12 2 6	84 696 207 456	\$0.1625 .1632 .1340 .1347	56.6 59.5 56.6 56.2				23	41 68 97 393	39 109 110 5	4 470 35	49
			·	 						 		·

57.9

599 263 509

49

Total....

1,443

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HOSIERY AND KNIT GOODS MANUFACTURING—Continued. FINISHERS, UNDERWEAR: FEMALE—Concluded.

	Num-	Num-	Aver-	Aver- age nom-	En	aploye	es who hour	se non s per v	ninal fu veek w	ıll-time ere—	e work	ing
Year and State.	Der oi hor of	age rate of wages per hour.	inal full- time hours per week.	Un- der 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.	
1911.					,							
Connecticut	3 15 3 6	97 716 208 512	\$0.1644 .1590 .1365 .1340	56.6 59.6 56.5 56.2					51 41 101 434	39 141 107 8	7 501 42	33
Total	27	1,533	. 1479	57.9				28	627	295	550	33
1912.										- 1		
Connecticut New York Pennsylvania Other States	3 15 3 6	123 852 224 516	.1552 .1597 .1258 .1540	54.8 58.9 56.6 54.2		50		468	161 104 36	67 114 120 12	6 577	
Total	27	1,715	. 1533	56.9		50		468	301	313	583	

FOLDERS: FEMALE.

1910.												
Georgia	2 3 12 4 8 16	40 112 188 38 86 162	\$0.0951 .1597 .1235 .1197 .1364 .1149	60. 0 56. 0 59. 5 60. 0 57. 1 56. 5					112 18 34 91	53 48 47	40 86 38 4 16	31
Total	45	626	. 1275	57.8				8	255	148	184	31
1911.										·		
Georgia. Massachusetts New York North Carolina. Pennsylvania Other States.	3 16 4 9 16	59 123 184 50 95 142	.1093 .1408 .1302 .1085 .1356 .1251	58. 4 56. 0 59. 3 59. 9 57. 3 56. 3					11 123 21 1 31 81	19 45 61 34	29 102 49 3 15	16
Total	51	653	. 1283	57.6			4	8	268	159	198	16
1912.					-							
Georgia. Massachusetts New York North Carolina. Pennsylvania Other States	3 3 16 4 9 16	68 143 205 49 86 179	1009 1370 1427 1271 1360 1246	58.7 54.0 58.5 59.9 55.5 54.5		6		143	57 1 77 49	21 13 9 32	38 135 48 23	
Total	51	730	. 1314	56.4	19	6	17	176	193	75	244	

INSPECTORS AND MENDERS, UNDERWEAR: FEMALE.

1910.										
New YorkOther States		324 291	\$0.1288 .1180				65 210	46 44	186 26	27
Total	22	615	. 1237	57.6	 	 11	275	90	212	27

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

INSPECTORS AND MENDERS, UNDERWEAR: FEMALE—Continued.

	Num-	Num-	Aver-	Aver- age nom-	En	nploye			ninal fi week w	uIl-time ere	o work	ing
Year and State.	ber of estab- lish- ments.	ber of em- ployees.	age rate of wages per hour.	inal full- time hours per week.	Un- der 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.
1911.												
New York Other States	15 9	358 300	\$0.1298 .1168	59.3 56.3				23	55 211	66 40	$\begin{array}{c} 215 \\ 26 \end{array}$	22
Total	24	658	. 1239	57.6				23	266	106	241	22
1912.												
New York Other States	15 9	333 291	. 1296 . 1258	58.9 55.0		<u>16</u>		171	59 52	50 49	224 3	
Total	24	624	. 1278	57.0		16		171	111	99	227	

KNITTERS, FOOTERS OR TOPPERS, HOSIERY: FEMALE.

					,	,						
1910.												
Connecticut	3		\$0.1358	58.9					····	142	47	
Georgia	3	166 140	.0931	57.8					72	82	94 58	
Illinois Massachusetts	3	121	.1322	59.4 56.0					121	82	58	
Michigan	2	114	.1318	53.7			25	89				
New Hampshire	2	71	. 1431	58.0				ļ		71	 	
North Carolina	3	170	.0715	60.0							170	
Pennsylvania Wisconsin	7 2	601 165	. 1273	57.7 55.0			ļ		143 165	368	90	
Other States	4	114	. 1312	56.4					76	34	4	
Total	32	1,851	. 1213	57.5			25	89	577	697	463	
1911.												
Connecticut	2	106	. 1528	58.9						58	48	l
Georgia	3	107	. 1051	57.5					37	42	28	
Illinois	3	164	. 1034							78	86	
Massachusetts Michigan	3	84 112	. 1211	56.0 53.7		• • • • • •	26	86	84			
New Hampshire	3	114	. 1402	58.0						114		
North Carolina	3	160	.0832	59.2					25	114	135	
Pennsylvania	8	1,005	. 1503	57.3					311	591	103	
Wisconsin	2	175	. 1396	55.0					175	· · · · <u>· ·</u> ·		
Other States	5	147	. 1209	56.1		• • • • • •	8		97	42		
Total	34	2, 174	. 1348	57.2			34	86	729	925	400	
1912.												
Connecticut	2	116	. 1476	59.1						54	62	ļ
Georgia	3	127	.1161						54	46	27	
Illinois Massachusetts	3	144 152	. 1029 . 1353	59.0 54.0						101	43	
Michigan	2	127	. 1487				27					
New Hampshire	3	134	. 1371	58.0						134		
North Carolina	3	120	. 1027	59.1					21		99	
Pennsylvania	8	919	. 1470	55.7					722	197		
Wisconsin Other States	2 5	219 150	. 1474	55.0 54.7			····io	42	219 98			
		190	. 1300	34.7			10	42	98			
Total	34	2,208	. 1376	56.1			37	294	1,114	532	231	-
					·	<u> </u>						

HOSIERY AND KNIT GOODS MANUFACTURING—Continued. KNITTERS, "LADY HOSE": MALE.

	Num-		Aver-	A verage	Er	nploye	es who	se non s per v	ainal fu week w	ıll-time ere—	e work	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	rate of wages per hour.	inal full- time hours per week.	Un- der 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.
1910.												
New Hampshire Pennsylvania Other States	2 2 8	63 65 107	\$0. 1733 . 1843 . 1695	58.0 57.8 57.1				8	61	63 65	38	
Total	12	235	. 1746	57.6				8	61	128	38	
1911.												
New Hampshire Pennsylvania Other States	2 2 9	57 58 100	. 1810 . 1880 . 1666	58.0 57.9 56.7				8	67	57 58	25	
Total	13	215	. 1757	57.4				8	67	115	25	
1912.												
New Hampshire Pennsylvania Other States	2 2 9	55 90 133	. 1650 . 2193 . 1795	58.0 55.6 55.4				86	90 20	55	27	
Total	13	278	.1895	56.0				86	110	55	27	
				Anv	HO	3 TC ** *	FEM	FAT T	!			
1910.			s, L	ADY	нов	se":	FEM	ALE		<u> </u>	<u></u>	
1910. Pennsylvania Wisconsin. Other States.	2 2 8	91 91 95	\$0.1427 .1643 .1550	57.6 55.0 56.1	нов	SE":	FEM	47	91 20	91	23	
Pennsylvania Wisconsin	2 2	91	\$0.1427 .1643	57.6 55.0	нов	SE":	FEM		91		23 23	
Pennsylvania	2 2 2 8	91 91 95	\$0.1427 .1643 .1550	57.6 55.0 56.1	HOS	SE":	FEM	47	91 20	5		
Pennsylvania. Wisconsin Other States. Total	2 2 2 8	91 91 95	\$0.1427 .1643 .1550	57.6 55.0 56.1	HOS	SE'':	FEM	47	91 20	5		
Pennsylvania Wisconsin Other States Total 1911. Pennsylvania Wisconsin	2 2 8 12	91 91 95 277	\$0.1427 .1643 .1550 .1540	57. 6 55. 0 56. 1 56. 2 57. 7 55. 0	HOS	SE'':		47	91 20 111	96 77	23	
Pennsylvania Wisconsin Other States Total 1911. Pennsylvania Wisconsin Other States	2 2 8 12 3 2 6	91 91 95 277 77 80 95	\$0.1427 .1643 .1550 .1540 .1357 .1656 .1791	57.6 55.0 56.1 56.2 57.7 55.0 54.9	HOS	SE'':	10	47 47 49	91 20 111 80 24	5 96 77 5	23	
Pennsylvania. Wisconsin. Other States Total. 1911. Pennsylvania. Wisconsin. Other States Total	2 2 8 12 3 2 6	91 91 95 277 77 80 95	\$0.1427 .1643 .1550 .1540 .1357 .1656 .1791	57.6 55.0 56.1 56.2 57.7 55.0 54.9	HOS	SE'':	10	47 47 49	91 20 111 80 24 104	5 96 77 5	23	
Pennsylvania. Wisconsin. Other States. Total. 1911. Pennsylvania. Wisconsin. Other States. Total. 1912. Pennsylvania. Wisconsin.	2 2 8 12 3 2 6 11 3 2 2 11 3 2 2 11 3 2 2 1 1 1 1 1 1	91 91 95 277 77 80 95 252	\$0.1427 .1643 .1550 .1540 .1357 .1656 .1791 .1615	57. 6 55. 0 56. 1 56. 2 57. 7 55. 0 54. 9 55. 8	HOS	SE'':	10 10	47 47 49 49	91 20 111 80 24 104	5 96 77 5 82	7	
Pennsylvania Wisconsin Other States Total 1911. Pennsylvania Wisconsin Other States Total 1912. Pennsylvania Wisconsin Other States Total Total Total Total Total Total Total	2 2 8 8 12 3 2 6 11 3 2 6 6 11	91 91 95 277 77 80 95 252 86 97 86	\$0. 1427 .1643 .1550 .1540 .1357 .1656 .1791 .1615 .2045 .1729 .1796 .1852	57. 6 55. 0 56. 1 56. 2 57. 7 55. 0 54. 9 55. 8 55. 1 55. 0 54. 6 54. 9			10 10 10	47 47 49 49 49 63 63	80 24 104 86 97 183	5 96 77 5 82 5 5	7 7 8	
Pennsylvania Wisconsin Other States Total 1911. Pennsylvania Wisconsin Other States Total 1912. Pennsylvania Wisconsin Other States Total Total Total Total Total Total Total	2 2 8 8 12 3 2 6 11 3 2 6 6 11	91 91 95 277 80 95 252 86 97 86	\$0. 1427 .1643 .1550 .1540 .1357 .1656 .1791 .1615 .2045 .1729 .1796 .1852	57. 6 55. 0 56. 1 56. 2 57. 7 55. 0 54. 9 55. 8 55. 1 55. 0 54. 6 54. 9			10 10 10	47 47 49 49 49 63 63	80 24 104 86 97 183	5 96 77 5 82 5 5	7 7 8	

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HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

KNITTERS, WEB OR TUBE, UNDERWEAR: MALE-Concluded.

	Num-	N	Aver-	Average	Eı	nploye			ninal fr week w	ıll-time ere—	work	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	inal full- time hours per week.	Un- der 48.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	and	60.	Over 60 and under 63.
1911.												
New YorkOther States	14 8	122 131	\$0.2141 .2083	59. 9 56. 1				16	7 98	22 4	77 13	16
Total	22	253	. 2111	57.9				16	105	26	90	16
1912.												
New YorkOther States	14 8	142 119	. 2296 . 2245	59. 2 54. 4	 	<u>.</u>		74	18 40	20 4	104	
Total	22	261	. 2273	57.0		1		74	58	24	104	

LOOPERS: FEMALE.

		,	,		 ,		·				
1910.											
Connecticut	4 3 3 2 5	132 79 367 85 104	\$0. 1471 . 0959 . 1233 . 1557 . 1763	57. 9 59. 5 56. 0 58. 0 60. 0	 			32 8 367	70 85	30 71 104	
North Carolina Pennsylvania Wisconsin Other States	4 11 3 8	145 717 144 240	. 1004 . 1332 . 1501 . 1308	60.0 57.4 55.2 56.0				137 138 118	558 46	145 22 6 23	
Total	43	2,013	. 1326	57.3	 	5	48	800	759	401	
1911.					 						1
Connecticut	3 3 3 3	103 61 363 130 93	. 1632 . 1134 . 1172 . 1511 . 1686	57.9 58.9 56.0 58.0 59.0	 			22 2 363 18	52 28 130	29 31 75	
North Carolina Pennsylvania Wisconsin Other States	12 3 10	140 769 143 287	. 1073 . 1388 . 1455 . 1265	59. 5 57. 6 55. 2 55. 6			66	15 90 136 123	659 55	125 20 7 30	
Total	44	2,089	. 1343	57.1	 	13	66	769	924	317	
1912.											
Connecticut	3 3	90 75 404	. 1707 . 1364 . 1413	58.7 54.0	 			6	48 33	30 36	
New Hampshire New York	3	129 89	. 1429 . 1689	58. 0 58. 4				28	129	61	
North Carolina Pennsylvania Wisconsin	4 12 3	190 828 182	. 1224 . 1497 . 1602	59.6 55.6 55.0	 			16 688 182	140	174	
Other States	10	275	. 1362	55.8	 	12	82	101	63	17	
Total	44	2,262	. 1459	56.1	 12	12	486	1,021	413	318	

HOSIERY AND KNIT GOODS MANUFACTURING—Continued. MENDERS, FINE, HOSIERY: FEMALE.

	Num-	Num-	Aver-	Aver- age nom-	E	mploy	es who hour	se non s per v	ninal fo veek w	ıll-tim er e —	e work	ing
Year and State.	ber of estab- lish- ments.	ber of em- ployees.	age rate of wages per hour.	inal full- time hours per week.	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.
1910.												
Massachusetts Pennsylvania Other States	3 9 18	73 171 141	\$0. 1405 . 1409 . 1168	56.0 57.6 57.3			5	14	73 17 46	150 31	4 45	
Total	30	385	. 1320	57.2			5	14	136	181	49	
1911.												
Massachusetts		86 155 118	. 1247 . 1577 . 1108	56.0 57.7 57.4			 7	15	86 9 32	143 8	3 56	
Total	27	359	. 1344	57.2			7	15	127	151	59	
1912.												
Massachusetts Pennsylvania Other States	3 8 16	82 110 105	.1316 .1542 .1267	54.0 55.2 57.3			5	82 23	103 22	7 6	49	
Total	27	297	. 1382	55.6			5	105	125	13	49	
	MENI	DERS,	ROUG	G H , 1	HOS	ŒRY	: FE	MAL	Æ.		 	·
1910.									'			
Georgia	3 3	111	\$0.0822 .1197						17 111		48	
North Carolina Pennsylvania	2 4	68 75	. 1082 . 1372	57.1					24	49	68 2	
Wisconsin Other States	2 15	74 311	. 1288	55.0 56.8			6	25	74 131	96	53	
Total	29	704	. 1219	57.0			6	25	357	145	171	
1911.												
Georgia. Massachusetts. North Carolina Pennsylvania Wisconsin Other States.	3 3 2 7 2 13	65 107 62 138 79 277	. 1001 . 1176 . 1104 . 1686 . 1210 . 1343	59.4			14	23	11 107 8 4 79 123	27 132 93	27 54 2 24	

Total.....

1912.

Wisconsin... Other States...

Total.....

Georgia....

728

 $21\overline{1}$

681

30

3

3 2 7

13

30

. 1318

. 1074

. 1453 . 1064 . 1739

. 1327

. 1393

. 1409

56.9

58. 4 54. 0 59. 4 56. 2

55.0

56.5

56.4

23 332

87

27

14

12

12 | 114 | 273

252

56

10 29 33

102

62 89

107

54

21 |.....

108

HOSIERY AND KNIT GOODS MANUFACTURING-Continued. SEAMERS, UNDERWEAR: FEMALE.

	Num-		Aver-	Average	Eı	mploye	es who hour	se non s per v	ainai fu veek w	ıll-time ere—	work	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour	ima1	Un- der 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.
1910.												
New York	12 2 9	642 98 441	\$0. 1550 . 1311 . 1279	59. 4 56. 7 56. 1				22	103 42 379	89 56 18	386 22	64
Total	23	1, 181	. 1429	57.8				22	524	163	408	64
1911.												
New York	16 2 9	741 92 447	. 1494 . 1115 . 1333	59. 5 56. 3 56. 1				 28	87 51 376	111 41 18	484 25	59
Total	27	1, 280	. 1411	58. 1				28	514	170	509	59
1912.												
New York	16 2 9	770 97 398	. 1503 . 1287 . 1550	59. 1 59. 3 54. 2				330	86 49 27	134 48 23	550 4	
Total	27	1, 265	. 1501	57.6		14		330	162	205	554	
		,	WELT	ERS:	FEM	TALE).					<u>'</u>
1910.												
Massachusetts		98 76 76	\$0.1102 .1362 .1182	56. 0 58. 1 59. 3				<u>2</u>	98	76	65	
Total	23	250	. 1205	57.6				2	107	76	65	

1911.												
Massachusetts	2 7 14	113 92 83	.1172 .1405 .1259	56. 0 57. 7 58. 9				3	113 12 10	80 12	 58	
Total	23	288	. 1272	57.4				3	135	92	58	
1912.												
Massachusetts Pennsylvania Other States	2 7 14	106 95 102	. 1452 . 1560 . 1308	54. 0 55. 5 58. 8			2	106	89 10	6 19	67	
Total	23	303	. 1437	56.1			2	110	99	25	67	
			 	<u></u>	·	···		·			·	

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

WINDERS: FEMALE.

	Num-	3 7	Aver-	Aver- age nomi-		nploye	es who hour	se non s per v	ninal fu veek w	ıll-time ere—	worki	ing
Year and State.	ber of estab- lish- ments.	Num- ber of em- ployees.	age rate of wages per hour.	nal full- time hours per week.	Un- der	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.
1910.												
Connecticut. Massachusetts New York. Pennsylvania Other States	4 3 11 8 12	58 233 390 177 162	\$0. 1331 . 1249 . 1416 . 1225 . 1113	57.2 56.0 69.0 57.5 57.1					23 233 40 32 83	27 45 139 32	186 6 46	119
Total	38	1,020	. 1292	58.0			1		411	243	246	119
1911.		Í										
Connecticut	3 3 13 10 16	47 233 348 188 185	. 1310 . 1259 . 1465 . 1167 . 1185	57. 1 56. 0 60. 0 57. 6 56. 3				12	20 233 17 30 108	19 	213 5 26	77
Total	45	1,001	. 1302	57.8			2	12	408	250	252	77
1912.												
Connecticut	3 3 13 10 16	44 229 367 200 142	. 1379 . 1356 . 1518 . 1328 . 1276	55.8 54.0 58.4 55.7 56.3		15	2	229 36	109 157 45	18 16 43 38	242 242	
Total	45	982	. 1400	56.4		15	2	265	311	115	274	

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

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

		Num-	Aver-	Aver- age nomi-	Er	nploye			ninal fi veek w		e work	ing
Occupation, State, and number of establish- ments.	Year.	ber of em- ploy- ees.	age rate of wages per hour.	nal full- time hours per week.	Un- der 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.	ļ											
Georgia: 3 establishments	{1910 {1911	41 50	\$0.1428 .1304	58. 5 59. 1					12 9		29 41	-
3 establishments	{1911 1912	58 62	.1321 .1456	58.5 58.5	 				9 8	22 27	27 27	
Massachusetts: 3 establishments	{1910 1911	223 227	. 1906 . 1870	56.0 56.0					223 227			
3 establishments	{1911 1912	227 273	. 1870 . 2164	56.0 54.0				273	227			
North Carolina: 4 establishments	{1910 1911	81 85	. 1465 . 1494	60. 0 60. 0							81 85	
4 establishments	${1911 \atop 1912}$	83 89	. 1516 . 1669	59.5 59.7					8 5		75 84	
Pennsylvania: 8 establishments	{1910 1911	213 210	. 2204 . 2164	57.6 57.7					30 21	183 189		
8 establishments	${1911 \atop 1912}$	224 280	. 2142 . 2492	57.8 55.2					16 280	208		
Wisconsin: 2 establishments	${1910 \atop 1911}$	49 64	. 2318 . 2377	55.0 55.0			- · · · · · ·		49 64			
2 establishments	$^{1911}_{1912}$	64 69	. 2377 . 2589	55.0 55.0					64 69			
BUTTONHOLE MAKERS, UNDERWEAR, FEMALE.												
New York: 11 establishments	{1910 {1911	88 87	. 1632 . 1691	59. 4 59. 4					14 10	14 12	50 56	10 9
16 establishments	${1911 \atop 1912}$	107 108	. 1658 . 1712	59. 5 58. 8					13 22	15 9	70 77	9
BUTTON SEWERS, UNDER- WEAR, FEMALE.												
New York: 11 establishments	{1910 {1911	82 84	. 1539 . 1485	59.6 59.8					11 9	. 9	54 56	8 11
16 establishments	${1911 \atop 1912}$	102 111	. 1461 . 1499	59. 6 58. 7					12 26	11 10	68 75	11
CUTTERS, HAND, UNDER- WEAR, MALE.												
New York:	(1910	126	. 2118	59.4					32	12		977
9 establishments	(1911	119	. 2198	59.0					32 37	11	55 57	27 14
11 establishments	${1911 \atop 1912}$	123 140	. 2236 . 2072	59.0 59.1					37 22	16 13	56 105	14

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

		Num-	Aver-	Aver - age nomi-	Er	nploye			inal fr		e work	ing
Occupation, State, and number of establish- ments.	Year.	ber of em- ploy- ees.	rate of wages per hour.	nal full- time hours per week.	Un- der 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.				i								
Connecticut: 3 establishments	{191 0 {1911	84 97	\$0. 1625 . 1644	56.6 56.6					41 51	39 39	4 7	
3 establishments	$_{1912}^{1911}$	97 123	. 1644 . 1552	56.6 54.8		50			51 	39 67	7 6	
New York: 12 establishments	{1910 {1911	696 633	. 1632 . 1643	59.5 59.7					68 40	109 98	470 462	49 33
15 establishments Pennsylvania:	$^{1911}_{1912}$	716 852	. 1590 . 1597	59. 6 58. 9					41 161	141 114	501 577	33
2 establishments	{1910 {1911	207 197	. 1340 . 1365	56. 6 56. 6					97 90	110 107		
3 establishments		208 224	. 1365 . 1258	56. 5 56. 6					101 104	107 120		•••••
FOLDERS, FEMALE.								ļ				
Georgia: 2 establishments	{1910 {1911	40 40	. 0951 . 1095	60.0 58.6	 				11		40 29	
3 establishments	$^{1911}_{1912}$	59 68	. 1093 . 1009	58. 4 58. 7					11 9	19 21	29 38	
Massachusetts: 3 establishments	{1910 1911	112 123	. 1597 . 1408	56.0 56.0					112 123		 -	
3 establishments	$^{1911}_{1912}$	123 143	. 1408 . 1370	56.0 54.0				143	123		 	
12 establishments	{1910 {1911	188 153	. 1235 . 1260	59.5 59.4					18 12	53 42	86 83	31 16
16 establishments North Carolina:	${1911 \atop 1912}$	184 205	.1302	59.3 58.5					21 57	45 13	102 135	16
4 establishments	{1910 1911	38 58	.1197 .1050	60.0 59.4					9		38 49	
4 establishments Pennsylvania:	{1911 1912	50 49	. 1085 . 1271	59. 9 59. 9					1		49 48	:
8 establishments	{1910 1911	86 87	. 1364 . 1351	57. 1 57. 6					34 23	48 61	3	
9 establishments	{1911 1912	95 86	. 1356 . 1360	57.3 55.5			ļ		31 77	61 9	3	
INSPECTORS AND MEND- ERS, UNDERWEAR, FE- MALE.												
New York:	(1910	324	.1288	59.2					65	46	186	27
12 establishments	(1911	312	. 1324	59.2					49	46	195	27 22 22
15 establishments	${1911 \atop 1912}$	358 333	.1298 .1296	59.3 58.9	1	1	1	J	55	66 50	215 224	22

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

		Num- ber	Aver- age	Aver - age nomi-	Er	nploye			ninal fu veek w	ıll-time ere—	e work	ing
Occupation, State, and number of establishments.	Year.	of em- ploy- ees.	rate of wages per hour.	nal full- time hours per week.	Un- der 48.	Over 48 and under 51.	51 and under 54.	54.	Over 54 and under 57.	57 and under 60.	60.	Over 60 and unde 63.
KNITTERS, FOOTERS OR TOP- PERS, HOSIERY, FEMALE.												
Connecticut: 3 establishments	(1910 (1911	189 179	\$0.1358 .1405	58. 9 59. 0	••••					142 131	47 48	ļ
2 establishments Georgia:	${1911 \atop 1912}$	106 116	. 1528 . 1476	58. 9 59. 1						58 54	48 62	-
3 establishments	(1910 (1911	166 81	. 0931 . 0957	57.8 57.7					72 37		94 44	
3 establishments Illinois:	$^{1911}_{1912}$	107 127	. 1051 . 1161	57.5 57.1					37 54	42 46	28 27	
3 establishments	{1910 1911	140 149	.1097 .1068	59. 4 59. 5						82 78	58 71	
3 establishments Massachusetts:	{1911 {1912	164 144	.1034 .1029	59. 5 59. 0						78 101	86 43	
3 establishments	{1910 1911	121 84	.1322 .1211	56. 0 56. 0					121 84			
3 establishments Michigan:	{1911 1912	84 152	. 1211 . 1353	56. 0 54. 0				152	84			
2 establishments	{1910 1911	114 112	. 1318	53.7 53.7		•••••	25 26	89 86	•••••	•••••	· · · · · ·	
2 establishments New Hampshire:	{1911 1912	112 127	.1414 .1487	53.7 53.7	· • • • • • • • • • • • • • • • • • • •		26 27	86 100				
2 establishments	{1910 1911	71 96	.1431 .1421	58. 0 58. 0						71 96		
3 establishments North Carolina:	${1911 \atop 1912}$	114 134	. 1402 . 1371	58. 0 58. 0	·•···					114 134		
3 establishments	{1910 {1911	170 196	.0715	60. 0 60. 0		 					170 196	
3 establishments Pennsylvania:	{1911 1912	160 120	. 0832 . 1027	59. 2 59. 1				•••••	25 21		135 99	
7 establishments	{1910 {1911	601 543	.1273	57. 7 57. 7				•••••	143 134	368 306	90 103	
8 establishments Wisconsin:	(1911 (1912	1,005 919	.1503	57.3 55.7					311 722	591 197	103	
2 establishments	(1910 (1911	165 175	.1414	55. 0 55. 0		•••••			165 175			
2 establishments	(1911 (1912	175 219	.1396 .1474	55.0 55.0		•••••			175 219		•••••	
KNITTERS, "LADY HOSE," MALE.		1										
New Hampshire: 2 establishments	(1910 (1911	63 64	.1733 .1770	58.0 58.0						63 64		
2 establishments	{1911 {1912	57 55	. 1810 . 1650	58.0 58.0					ļ	57 55		ļ

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

Occupation, State, and number of establishments.	Year.	Num- ber of em- ploy- ees.	Average rate of wages per hour.	Average nominal full-time hours per week.	Employees whose nominal full-time working hours per week were—								
					Un- der 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," MALE—concluded.													
Pennsylvania: 2 establishments	{1910 {1911	65 58	\$0.1843 .1880	57.8 57.8						65 58			
2 establishments	/1911 \1912	58 90	.1880 .2193	57.9 55.6					90	58			
KNITTERS, "LADY HOSE," FEMALE.	ľ		i.										
Pennsylvania: 2 establishments	{1910 {1911	91 77	. 1427 . 1357	57. 6 57. 7					••••	91. 77			
3 establishments	(1911 (1912	77 86	. 1357 . 2045	57.7 55.1					86	77			
Wisconsin: 2 establishments	{1910 {1911	91 80	. 1643 . 1656	55.0 55.0					91 80		 		
2 establishments	${1911 \atop 1912}$	80 97	. 1656 . 1729	55. 0 55. 0					80 97	 	 		
KNITTERS, WEB OR TUBE, UNDERWEAR, MALE.													
New York: 9 establishments	{1910 {1911	103 100	. 2129 . 2179	59. 7 59. 3					9 7	19 18	61 59	14 16	
14 establishments	{1911 1912	122 142	. 2141	59. 9 59. 2					7 18	22 20	77 104	16	
LOOPERS, FEMALE.													
Connecticut: 4 establishments	{1910 {1911	132 127	. 1471 . 1551	57. 9 58. 1					32 22	70 76	30 29		
3 establishments Georgia:	${1911 \atop 1912}$	103 90	.1632 .1707	57. 9 57. 6	 	12			22	52 48	29 30		
3 establishments	{1910 1911	79 64	. 0959 . 0817	59. 5 59. 8					8 2		71 62		
3 establishments	/1911 /1912	61 75	. 1134 . 1364	58. 9 58. 7					2 6	28 33	31 36		
Massachusetts: 3 establishments	{1910 {1911	367 363	.1233 .1172	56. 0 56. 0					367 363				
3 establishments	{1911 1912	363 404	.1172 .1413	56.0 54.0				404	363				
New Hampshire: 2 establishments	{1910 {1911	85 93	. 1557 . 1533	58. 0 58. 0						85 93			
3 establishments	{1911 {1912	130 129	.1511 .1429	58. 0 58. 0						130 129			
New York: 5 establishments	{1910 1911	104 100	.1763 .1683	60. 0 60. 0							104 100		
3 establishments	{1911 1912	93 89	.1686	59.0 58.4	 	ļ	ļ		18 28		75 61		

HOSIERY AND KNIT GOODS MANUFACTURING—Continued.

Occupation, State, and number of establish- ments.	Year.	Num- ber of em- ploy- ees.	Average rate of wages per hour.	Aver- age nom- inal full- time hours per week.	Employees whose nominal full-time working hours per week were—								
					Un- der 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.	
LOOPERS, FEMALE—con- cluded.													
North Carolina: 4 establishments	{1910 {1911	145 133	\$0.1004 .1069	\$60. 0 60. 0							145 133		
4 establishments	{1911 {1912	140 190	.1073 .1224	59. 5 59. 6					15 16		125 174		
Pennsylvania: 11 establishments	{1910 {1911	717 616	.1332 .1283	57.4 57.5					137 98	558 498	22 20		
12 establishments Wisconsin:	{1911 {1912	769 828	.1388 .1497	57. 6 55. 6					90 688	659 140	20		
3 establishments	{1910 {1911	144 143	. 1501 . 1455	55. 2 55. 2					138 136		6 7		
3 establishments MENDERS, FINE, HOSIERY, FEMALE.	{1911 1912	143 182	.1455 .1602	55. 2 55. 0					136 182		7		
Massachusetts: 3 establishments	{1910 {1911	73 86	.1405 .1247	56. 0 56. 0					73 86				
3 establishments Pennsylvania:		86 82	.1247 .1316	56. 0 54. 0				82	86	·····	<u>-</u>		
9 establishments	{1910 {1911	171 163	.1409 .1521	57.6 57.6					17 20	150 140	3		
8 establishments MENDERS, ROUGH, HO- SIERY, FEMALE.	{1911 {1912	155 110	.1577 .1542	57.7 55.2					103	143 7	3		
Georgia: 3 establishments	{1910 {1911	65 46	.0822	58. 7 58. 8					17 11		48 35		
3 establishments Massachusetts:	${1911 \atop 1912}$	65 72	.1001 .1074	58.3 58.4					11 10	27 29	27 33		
3 establishments	(1910 (1911	111 107	.1197 .1176	56. 0 56. 0			····		111 107				
3 establishments North Carolina:	(1911 (1912	107 87	.1176 .1453	56. 0 54. 0				87	107				
2 establishments	{1910 {1911	68 69	.1082	60.0 60.0				 			68 69		
2 establishments Pennsylvania:	{1911 {1912	62 61	.1104	59. 4 59. 4					8 7		54 54		
4 establishments	{1910 {1911	75 52	.1372	57.1 57.8					24 4	49 46	2 2		
7 establishments Wisconsin:	{1911 1912	138 158	.1686	58.0 56.2					102	132 56	2		
2 establishments	{1910 {1911	74 79	.1288	55. 0 55. 0			 		74 79				
2 establishments	${1911 \atop 1912}$	79 92	1210	55.0 55.0	 	ļ	ļ	J	79 92	ļ:	J::	J	

HOSIERY AND KNIT GOODS MANUFACTURING—Concluded.

Occupation, State, and number of establish- ments.	Year.	Num- ber of em- ploy- ees.	Average rate of wages per hour.	Average nominal full-time hours per week.	Employees whose nominal full-time working hours per week were—									
					Un- der 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.		
SEAMERS, UNDERWEAR, FEMALE.														
New York: 12 establishments	{1910 {1911	642 658	\$0.1550 .1517	59. 4 59. 5					103 81	89 90	386 428	64 59		
16 establishments Pennsylvania:	{1911 {1912	741 770	. 1494 . 1503	59. 5 59. 1					87 86	111 134	484 550	59		
2 establishments	(1910 (1911	98	.1311	56. 7 56. 3					42 51	56 41				
2 establishments	${1911 \choose 1912}$	92 97	.1115 .1287	56.3 59.3					51 49	41 48				
WELTERS, FEMALE.														
Massachusetts: 2 establishments	(1910 (1911	98 113	.1102 .1172	56.0 56.0					98 113					
2 establishments Pennsylvania:	{1911 {1912	113 106	.1172 .1452	56. 0 54. 0				106	113					
6 establishments	{1910 {1911	76 80	.1362 .1411	58.1 58.1						76 80				
7 establishments	{1911 1912	92 95	. 1405 . 1560	57. 7 55. 5					12 89	80 6				
WINDERS, FEMALE.						1					į			
Connecticut: 4 establishments	{1910 {1911	58 53	.1331	57. 2 57. 3					23 20	27 25	8			
3 establishments Massachusetts:	{1911 {1912	47 44	.1310 .1379	57.1 55.8		15			20	19 18	8 11			
3 establishments	{1910 1911	233 233	.1249 .1259	56.0 56.0					233 233					
3 establishments New York:	(1911 (1912	233 229	. 1259 . 1356	56. 0 54. 0				229	233					
11 establishments	{1910 1911	390 352	.1416 .1478	60. 0 59. 9			ļ		40 39	45 31	186 205	11 7		
13 establishments Pennsylvania:	{1911 1912		.1465 .1518	60.0 58.4					17 109	41 16	213 242	7		
8 establishments	{1910 1911	177 166	.1225 .1189	57.5 57.5		-			32 30	139 131	6 5			
10 establishments	1911 1912		.1167	57.6 55.7	ļ				30 157	153 43	5			