

U. S. DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

BULLETIN OF THE UNITED STATES } . . . { WHOLE  
BUREAU OF LABOR STATISTICS } . . . { NUMBER 183

MISCELLANEOUS SERIES: No. 12

REGULARITY OF EMPLOYMENT  
IN THE WOMEN'S READY-TO-  
WEAR GARMENT INDUSTRIES



OCTOBER, 1915

WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1916



## CONTENTS.

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	Page.
Introduction.....	7-10
Scope of inquiry.....	10-13
Growth of industry.....	13-17
Labor supply.....	17, 18
Description of occupations.....	18-20
Classification of industries.....	20-22
Regularity of employment.....	22-73
New York City.....	22-44
Growth of women's ready-to-wear garment industries.....	22, 23
Seasonal fluctuations of employment.....	23-44
Summary.....	23-27
Cloak, suit, and skirt industry.....	28-30
Dress and waist industry.....	31-34
Children's and misses' dress industry.....	34-36
Women's muslin-underwear industry.....	37-39
House-dress and kimono industry.....	39-42
Women's custom-tailoring industry.....	42-44
Chicago.....	44-59
Growth of women's ready-to-wear garment industries.....	44, 45
Seasonal fluctuations of employment.....	45-59
Summary.....	45-47
Cloak and suit industry.....	48-50
Dress and waist industry.....	50-53
Skirts, and dresses and skirts.....	53-55
House-dress and kimono industry.....	56, 57
Petticoats.....	58, 59
Cleveland.....	59-65
Growth of women's ready-to-wear garment industries.....	59
Seasonal fluctuations of employment.....	60-65
Summary.....	60, 61
Cloak, suit, and skirt industry.....	62-64
Dress and waist industry.....	64, 65
Boston.....	66-73
Growth of women's ready-to-wear garment industries.....	66
Seasonal fluctuations of employment.....	66-73
Summary.....	66-68
Cloak, suit, and skirt industry.....	68-71
Dress and waist industry.....	71-73

	Page.
Causes of seasonal fluctuations.....	74-94
Primary cause.....	74
Contributory causes.....	74-90
Changes of styles.....	76, 77
Degree of specialization.....	77-84
Cloak, suit, and skirt industry.....	78-80
Dress and waist industry.....	80-82
House-dress and kimono industry.....	82-84
Method of production.....	84-87
Quality of product.....	87-90
Related factors.....	91, 92
Summary.....	92-94
Regularization of employment.....	94-108
Seasonal fluctuations of employment in one Chicago establishment manu- facturing more than eight lines of women's garments.....	94-97
Actual dovetailing of allied occupations in the dress and waist industry in Chicago.....	97-104
Seasonal fluctuations of employment in two establishments manufacturing men's ready-to-wear clothing.....	104-106
Other examples of dovetailing.....	107, 108
Appendix A.—Earnings and regularity of employment in certain branches of the women's ready-to-wear garment industry in New York, Boston, and Cleveland.....	109-135
Introduction.....	109-111
Muslin-underwear industry, New York City.....	112-122
Summary.....	112-114
Constancy of employment in different occupations.....	114-116
Average earnings per week.....	116, 117
Total earnings for the year.....	117
Weekly and hourly wages.....	118-120
Earnings per hour.....	120, 121
Overtime worked.....	121, 122
Dress and waist industry, Boston, Mass.....	122-129
Summary.....	122-124
Constancy of employment in different occupations.....	124
Average earnings per week.....	125, 126
Total earnings for the year.....	126
Weeks worked during the year.....	127-129
Cloak, suit, and skirt industry, Cleveland, Ohio.....	129-135
Summary.....	129-131
Constancy of employment in different occupations.....	131
Average earnings per week.....	131
Total earnings during period covered.....	132-134
Weeks worked during the year.....	134, 135
Appendix B.—General tables.....	135-151

LIST OF CHARTS.

	Page.
Chart No. 1.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 6 principal industries manufacturing women's ready-to-wear garments—New York City.....	Facing 28
Chart No. 2.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 75 establishments in the cloak, suit, and skirt industry and in 10 large and 10 small establishments—New York City.....	30
Chart No. 3.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 260 establishments in the dress and waist industry and in selected large and small establishments—New York City...	34
Chart No. 4.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 117 establishments in the children's and misses' dress industry and in 5 large and 5 small establishments—New York City.....	36
Chart No. 5.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 30 establishments in women's muslin-underwear industry and in 5 large and 5 small establishments—New York City...	39
Chart No. 6.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 13 establishments in the house-dress and kimono industry and in 3 large and 3 small establishments—New York City..	42
Chart No. 7.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 4 establishments in the women's custom-tailoring industry—New York City.....	44
Chart No. 8.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 6 principal industries manufacturing women's ready-to-wear garments—Chicago.....	Facing 47
Chart No. 9.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 14 establishments in the cloak and suit industry and in 5 large and 5 small establishments—Chicago.....	50
Chart No. 10.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 10 establishments in the dress and waist industry and in selected large and small establishments—Chicago.....	53
Chart No. 11.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 2 establishments manufacturing skirts only—Chicago.....	54
Chart No. 12.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 3 establishments manufacturing dresses and skirts—Chicago.....	55
Chart No. 13.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 3 establishments manufacturing house dresses and kimonos—Chicago.....	57
Chart No. 14.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 3 establishments manufacturing petticoats—Chicago.....	59
Chart No. 15.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 2 principal industries manufacturing women's ready-to-wear garments—Cleveland.....	61
Chart No. 16.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 18 establishments in the cloak, suit, and skirt industry and in selected large and small establishments—Cleveland.....	64
Chart No. 17.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 6 establishments manufacturing dresses and waists—Cleveland.....	65

	Page.
Chart No. 18.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 2 principal industries manufacturing women's ready-to-wear garments—Boston.....	68
Chart No. 19.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 10 establishments in the cloak, suit, and skirt industry and in 1 large and 1 small establishment—Boston.....	71
Chart No. 20.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 20 establishments in the dress and waist industry and in 3 large and in 3 small establishments—Boston.....	73
Chart No. 21.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the cloak, suit, and skirt industry: 75 establishments, New York; 14 establishments, Chicago; 18 establishments, Cleveland; and 10 establishments, Boston.....	80
Chart No. 22.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the dress and waist industry: 260 establishments, New York; 10 establishments, Chicago; 6 establishments, Cleveland; and 20 establishments, Boston.....	82
Chart No. 23.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the house-dress and kimono industry: 13 establishments, New York, and 3 establishments, Chicago.....	84
Chart No. 24.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the children's and misses' garment industry: 2 inside and 2 outside shops—New York City.....	87
Chart No. 25.—Seasonal fluctuations of employment as shown by biweekly pay rolls for all productive labor in the house-dress and kimono industry: 1 high-grade shop and 1 low-grade shop—New York City.....	89
Chart No. 26.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the dress and waist industry: 6 high-grade and 6 low-grade shops—New York City.....	90
Chart No. 27.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in 1 establishment manufacturing more than eight lines of women's ready-to-wear garments—Chicago.....	97
Chart No. 28.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in establishments manufacturing dresses, waists, and petticoats: Shop No. 1—Chicago.....	100
Chart No. 29.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in establishments manufacturing dresses, waists, and petticoats: Shop No. 2—Chicago.....	102
Chart No. 30.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in establishments manufacturing dresses, waists, and petticoats: Shop No. 3—Chicago.....	104
Chart No. 31.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the men's clothing industry: 1 large establishment, Chicago, and 1 large establishment, Cleveland.....	106
Chart No. 32.—Seasonal fluctuations of employment as shown by weekly pay rolls for all productive labor in the women's custom-tailoring and women's muslin-underwear industries—New York City.....	114
Chart No. 33.—Number of employees working each classified number of weeks, May, 1913, to April, 1914, in 5 establishments in the dress and waist industry—Boston.....	127
Chart No. 34.—Number of employees earning each classified amount during the year, May, 1913, to April, 1914, in 5 establishments in the dress and waist industry—Boston.....	128

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

WHOLE NO. 183.

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## REGULARITY OF EMPLOYMENT IN THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES.

### INTRODUCTION.

This study was undertaken by the Bureau of Labor Statistics in cooperation with the United States Commission on Industrial Relations and is part of a series of studies of problems of unemployment carried on by the commission.

The question of unemployment lies, in a great measure, at the root of many of our modern social problems. The First Annual Report of the United States Commission on Industrial Relations, 1914, mentions unemployment and insecurity of employment as one of the main causes of the existing industrial unrest. The ill effects of uncertain and irregular employment need not be emphasized. The worker and his family both suffer from periods of feverish overwork, alternating with underemployment or no employment at all.

Unemployment, on account of its chronic recurrence, has particularly grave consequences in the women's garment industries. In these trades the workers find their means of livelihood periodically interrupted through no fault of their own. Recent studies by this bureau<sup>1</sup> of regularity of employment in the dress and waist, and cloak, suit, and skirt industries of New York City, revealed the fact that only one-half of the number of workers actually employed during the busiest seasons of the year were found employed in the respective industries during the dull seasons.

The amount of employment found in the cloak, suit, and skirt industry of New York during one of the dullest weeks of the year was only 43 per cent of the average week, and slightly over one-fourth of the busiest week of the year. In the cloak and suit industry

<sup>1</sup> Bulletin No. 146, Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City, and Bulletin No. 147, Wages and regularity of employment in the cloak, suit, and skirt industry, with plans for apprenticeship for cutters and the education of workers in the industry.

of Chicago the pay rolls during the dullest week were less than one-half of the average week, and only one-third of the amount paid out during the busiest week. With some modifications, similar fluctuations of employment have been found in the other branches of the women's garment industries.

The meaning of this irregularity of employment in these trades becomes more apparent when the so-called seasonal demand for workers is compared with the number that could actually do the work had it been distributed evenly throughout the year.

Calculations based upon the aggregate of regular and overtime hours actually worked in the course of one year by 4,858 week workers in 16 of the principal week-work occupations of the cloak, suit, and skirt industry of New York show that 4,481 male workers were required to perform the work that under an even distribution through 52 weeks per year, 50 hours per week less usual holidays, could have been performed by 1,151 workers, slightly over one-fourth of those actually utilized. Three hundred and seventy-seven female workers were required to do the work that under the above-mentioned conditions of even distribution could have been performed by less than one-third of them, 110.<sup>1</sup>

The result of the existing irregular distribution of employment throughout the year was that out of the total required to man these trades about one-tenth, approximately 6,000 individuals, were utilized for less than 10 weeks, and that less than one-fifth of those actually required in the course of the year had more or less permanent employment for 40 to 52 weeks.

This inquiry relates to employment as measured by the amount of the pay roll from week to week rather than with numbers of employed individuals. It is not customary in these trades to discharge workers to any large extent as the dull seasons come on. Instead, most of the workers are retained, and the amount of work available is distributed equally among them. Hence, the number of workers employed is not as good an indication as the pay-roll figures of the actual amount of employment at any specified period of the year.

The matter of regularization of employment in these trades has so far received but scant attention on the part of manufacturers or of their organizations. Individual employers, when first interviewed, stated that for the most part their own business showed very little irregularity in employment in the course of a year, and that, generally speaking, employment in the garment trades is as regular as it could possibly be under the existing circumstances. They were of the opinion that the chief cause of the fluctuations of employment lies in the whim of the ultimate consumer, and the fickleness of styles, and that hence the only way to regularize em-

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<sup>1</sup> Bulletin No. 147, pp. 34-39.

ployment is to educate the desires and tastes of the ultimate consumer. Some of them maintained, furthermore, that they can do little or nothing to regularize employment in their establishments, "because we are at the absolute mercy of the retailer and department stores," and the latter refuse to place their orders in any considerable quantity sufficiently in advance of delivery. Some of them also maintain that unemployment in recent years has been aggravated by the emphatic insistence of labor organizations upon the carrying out of the principle of equal distribution of work during the dull seasons.

The matter of regularization of employment in these trades is of vital interest to all concerned. It is of importance to the manufacturer because the more regular the manufacturing the better the distribution of the overhead expense, an item amounting generally to about 10 per cent of the total sales. Seasonality in employment, again, means that wages in many instances during the height of the season have to be high enough to support workers in comparative idleness during slack periods, a decided factor in increasing cost of production and an additional expense to the ultimate consumer.

To the worker the matter of regularization of employment is of a still more vital significance. He is interested in a steady income. The rate of compensation and hours per week are important enough; it is still more important for him, however, to have steady employment. It is obvious that in the course of the year, at a rate of \$20 per week, with 40 working weeks, he can earn more money than, say, at \$22.50 per week with only 30 working weeks.

In spite of the tremendous advances made in late years in the women's garment industries in matters relating to conditions of work, elimination of excessive overtime, shortening of the regular hours of labor, and raising rates of weekly earnings, the matter of unemployment at the present time seems to be more acute than ever. Somehow or other, in spite of all the advances made and reforms introduced, the cardinal problem—the matter of more steady employment—still remains unsolved. Contrary to his custom of former times, however, the cloak maker of to-day refuses to resign himself to what once seemed to be inevitable. Shorter hours, better treatment, and better weekly pay, he says, have not been accompanied by a lengthening of the working season.

That considerable relief from the unemployment prevalent in these trades has been secured by providing opportunities for the systematic dovetailing of occupations in some of the allied branches of these trades can be seen from the experience of some manufacturers in matters of dovetailing, described on pages 97 to 104 of this report. Dovetailing, as it was found in the establishments referred to, consisted in utilizing the existing working organizations of these

establishments during the dull seasons of the year for the manufacture of garments of a relatively simpler variety (petticoats, in one instance, in establishments specializing usually on dresses and waists) than the line ordinarily manufactured, articles to the manufacture of which a garment worker of average experience can easily adjust himself at short notice, and garments that can be manufactured in considerable quantities regardless of their seasonal demand; that is, in advance of sales.

One of the primary obstacles to dovetailing is the particular specialization called for in skilled trades. In some of these the transition from one to another similar occupation is often very difficult. A worker on light shoes can seldom turn out a well-finished pair of heavy ones; leather binders may take up cloth work, but cloth work can not be done in a leather shop.

The majority of workers in the women's ready-to-wear garment trades, however, are not highly skilled; they could more properly be classified as semiskilled; these trades would, therefore, lack the primary obstacle to dovetailing mentioned above.

Other obstacles to dovetailing as a remedy against seasonality in employment are: (1) Reluctance on the part of manufacturers, who firmly believe in specialization as the only method of achieving success in their business, and who, as a result of that, know relatively little about materials, styles, marketing, or method of manufacture in other lines; and (2) reluctance on the part of workers, who generally hesitate to accept the relatively smaller rates of pay that usually prevail in trades where simpler garments are manufactured, particularly for stock.

It was suggested by some employers that dovetailing could probably be materially assisted by industrial training of a general or technical character which would increase the adaptability of the worker and counteract the restrictive tendencies of too great specialization. Apropos of this latter suggestion it might be stated that recently a comprehensive study of the dress and waist industry in New York has been made for the purposes of vocational education, and that at the present time plans are being put forward to establish an independent school for this industry through a commission representing the employers, the employees, and the public. In Boston a plan has been proposed whereby the heads of the educational departments of the State and city are to cooperate with persons engaged in the dress and waist industry.

### SCOPE OF INQUIRY.

The purpose of this inquiry was to ascertain, if possible: (1) The degrees of relative regularity of employment—that is, the changes in the amounts of employment in each specific industry at different

points of the year; (2) the causes, fundamental and contributory, of seasonal changes of employment; and (3) the existence in any of the industries of systematic methods for the regularization of employment.

The information presented here is based upon data secured from employers' pay rolls showing the actual amounts of wages paid out to employees engaged in all productive occupations from week to week for a period of 52 consecutive weeks, or one full year. It was not deemed advisable to secure in each instance the weekly numbers of employees engaged in these occupations for the reason that in these industries, as shown in Bulletins No. 146 and No. 147 of this bureau, steadiness of employment is measured much more accurately by earnings than by number of employees. This is chiefly due to the custom prevailing in these industries of the equal distribution of work during the slack periods; that is, when dull seasons arrive the larger part of the surplusage of workers instead of being discharged are retained on part time.

In the majority of instances the period covered by this inquiry consisted of 52 consecutive weeks, beginning with the first week of August, 1912, or thereabouts, and ending with the last week of July, 1913. As far as could be ascertained, this period represented a year of normal activity in the allied branches of the women's garment trades of the country. The above-mentioned period has been adhered to in all of the industries covered in each locality, except in the dress and waist industry in New York, for which the period covered was the calendar year 1912; the dress and waist industry of Cleveland and Boston, for which the period covered was from May, 1913, through April, 1914; and the women's muslin-underwear industry of New York, for which the period covered was from March, 1913, through February, 1914. For purposes of comparison, however, the data for the 52 weeks of the year have been arranged in the same order throughout in the tables and charts, beginning with August and ending with July.

The scope of the inquiry was extensive as well as intensive, and included four out of the five so-called centers of manufacture of women's ready-to-wear garments, the cities of New York, Chicago, Cleveland, and Boston. It was found necessary to omit Philadelphia on account of serious interruptions in the activity of the industry there due to aggravated labor disputes. The field thus covered, as shown elsewhere in this report, embraced approximately 76 per cent of the entire industry of the country. In the four cities mentioned, pay-roll data were secured for more than 500 establishments, representing approximately 150,000 workers and 17 different groups of manufacturers.

Seasonal fluctuations of employment throughout this report are shown in terms of percentages of the average weekly pay roll. To obtain this the annual total of the pay roll of a single establishment or of an entire group was divided by 52 in order to obtain the pay roll of the average week, which was then taken as the unit of measurement—100 per cent—and specific amounts indicating expenditures for all productive labor for individual pay-roll weeks were then reduced to a percentage of this unit.

The influence of the scale of production—size of the establishment—upon seasonal fluctuations of employment is shown throughout this report by comparisons, graphic and otherwise, of fluctuations of employment in representative groups of large and small shops. Specific groupings made were based upon the sizes of annual pay rolls of individual establishments, an equal number of shops having been selected from the top and the bottom of the series of establishment schedules representing each industry. It is believed that this method of presentation does not show extreme conditions for the reason that very frequently the size of the largest establishment in the "small" group closely resembled the size of the smallest establishment in the "large" group.

This report, in each instance, deals with representative groups of shops rather than with single establishments, it being obvious that the seasonal fluctuations of employment of the industry at large would thus be more accurately shown.

Table 1 shows the extent of the inquiry by comparing the wages paid by the establishments covered with the total wages paid in the industry according to the United States Census of Manufactures of 1909.

TABLE 1.—EXTENT OF INQUIRY AS SHOWN BY TOTAL WAGES PAID OUT ACCORDING TO UNITED STATES CENSUS OF MANUFACTURES OF 1909, AND TOTALS ON ESTABLISHMENT SCHEDULES SECURED.

City.	Total wages. <sup>1</sup>	Paid out by firms covered.	
		Amount.	Per cent of total wages.
New York.....	\$53,517,000	\$17,253,000	32.2
Chicago.....	2,996,000	1,842,000	61.5
Cleveland.....	2,903,000	2,148,000	74.0
Boston.....	1,649,000	770,000	46.6
Total.....	61,065,000	22,013,000	36.0

<sup>1</sup> Figures taken from the Thirteenth Census of the United States, Vol. IX—New York, p. 887; Chicago, p. 297; Cleveland, p. 993; Boston, p. 537.

The extent of this inquiry thus comprises about 74 per cent of the trade in Cleveland, 61.5 per cent of the trade in Chicago, 46.6 per cent of the Boston trade, and 32.2 per cent of the trade in New York City.

In Table 2 the number of establishments covered by the inquiry and the amount of their pay rolls are shown by specific industries for each city.

TABLE 2.—NUMBER OF ESTABLISHMENTS AND COMBINED PAY ROLLS OF SPECIFIC INDUSTRIES COVERED BY THIS INQUIRY.

[The total shown in this table is somewhat smaller than that shown in Table 1 of this report, because a number of the establishments covered could not be classified under any of the industries here specified.]

City and industry.	Number of establishments.	Combined pay roll, 1912-13.
<b>NEW YORK.</b>		
Cloaks, suits, and skirts.....	75	\$4,907,514
Dresses and waists.....	260	9,302,124
Women's muslin underwear.....	30	1,471,354
Children's and misses' dresses.....	17	622,783
House dresses and kimonos.....	13	333,056
Custom tailoring.....	4	357,100
<b>CHICAGO.</b>		
Cloaks, suits, and skirts.....	14	914,403
Dresses and waists.....	10	337,337
Dresses and skirts.....	3	66,430
Skirts only.....	2	96,305
House dresses and kimonos.....	3	77,733
Petticoats.....	3	45,410
<b>CLEVELAND.</b>		
Cloaks, suits, and skirts.....	18	1,843,295
Dresses and waists.....	6	304,700
<b>BOSTON.</b>		
Cloaks, suits, and skirts.....	10	354,970
Dresses and waists.....	20	414,859
<b>Total.....</b>	<b>483</b>	<b>21,440,463</b>

## GROWTH OF INDUSTRY.

The manufacture of women's ready-to-wear clothing as an industry of any importance had its beginning in the early sixties, being confined almost entirely to cloaks. In the beginning of the eighties an additional branch of the industry, known as "ladies' suits," was established. The manufacture of ready-to-wear dresses and waists came into existence only in the middle of the nineties. Since then not only suits and cloaks and dresses and waists, but also house dresses, wrappers, kimonos, skirts, children's and infants' wear, and all the different articles which are included under the collective name of lingerie, have been put on the market ready made.

At first only the cheaper grades were manufactured, but before long expensive material was made up into ready-to-wear garments. At the present time all kinds of garments, under, outer, and street garments, varying in price from the cheapest to the most expensive, can be bought at a moment's notice.

The census of 1859 was the first in which data concerning the manufacture of women's ready-to-wear garments were given separately. The small extent of the industry at that time and its growth since then are shown in the following table:

TABLE 3.—GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRY, 1859 TO 1909.

[Figures for 1909 taken from the Thirteenth Census of the United States, Vol. VIII, Manufactures, p. 399; figures for other years taken from the Twelfth Census of the United States, Vol. IX, p. 283.]

Year.	Number of establishments.	Wage earners, average number.	Wages.	Cost of materials.	Value of products.
1859.....	188	5,739	\$1,193,032	\$3,323,335	\$7,181,039
1869.....	1,847	11,696	2,513,956	6,337,978	12,900,583
1879.....	562	25,192	6,661,005	19,559,227	32,004,794
1889.....	1,224	39,149	15,428,272	34,277,219	68,164,019
1899.....	2,701	83,739	32,586,101	84,704,592	159,339,539
1909.....	4,558	153,743	73,568,261	208,788,226	384,751,649

## Per cent of increase by decades.

1869.....	832.4	103.8	110.7	105.8	79.6
1879.....	109.6	115.4	165.0	186.0	148.1
1889.....	117.8	55.4	131.6	75.2	113.0
1899.....	120.7	113.9	111.2	147.1	133.8
1909.....	68.8	33.6	141.1	146.5	141.4

<sup>1</sup> Decrease.

With the exception of the number of establishments in the decade ending 1879, the industry shows a marked growth in every particular listed for each decennial period. By 1909 the number of establishments was more than twenty-four times as large as in 1859, the number of wage earners more than twenty-six times as great, and the total amount of wages paid was more than sixty-five times as great. The cost of the materials used had increased more than sixty-two fold and the value of the products over fifty-three fold.

The rate of increase was greatest during the decade 1889-1899. During this period the figures representing each item were more than doubled. In 1899 the industry employed almost 45,000 more wage earners than in 1889, the cost of the materials used had increased by more than \$50,000,000, and the value of the products was over \$90,000,000 greater than at the earlier date.

Along with the growth of the industry seems to have gone a process of concentration. The following table, computed from the figures in Table 3, illustrates this tendency with regard to wage earners and output:

TABLE 4.—AVERAGE NUMBER OF EMPLOYEES AND AVERAGE VALUE OF PRODUCT PER SHOP, 1859 TO 1909.

Year.	Number of shops.	Average number of employees per shop.	Average value of product per shop.
1859.....	188	31	\$38,192
1869.....	1,847	6	6,985
1879.....	562	45	56,947
1889.....	1,224	32	55,690
1899.....	2,701	31	58,252
1909.....	4,558	34	84,412

It will be noticed that the 188 shops reported by the census of 1859 must either have been reasonably large or have included some decidedly large establishments, since the average number of employees was 31 and the value of the output averaged very nearly \$40,000. During the next decade there seems to have been a mushroom growth of very small shops, so that in 1869 the average number of wage earners per shop had sunk to 6 and the average output to \$7,000. Many of these small shops probably went under in the hard times of the early seventies; others perhaps realized the economy of large-scale production. At any rate, by 1879 the number of shops was less than one-third of what it had been 10 years earlier, while the average number of employees was seven and a half times greater and the value of the output was more than eight times as great. Since then, while the average number of employees per shop has kept close to 30, the value of the average output has increased by over \$27,000. The same tendency toward concentration is evidenced by the fact shown in the preceding table, that while in the decade 1899-1909 the number of establishments increased by 68.8 per cent, the average number of wage earners increased by 83.6 per cent and the total value of the product by 141.4 per cent.

From the standpoint of the present study, the peculiar importance of this tendency lies in the fact, brought out in the following pages, that large-scale production tends to regularize employment. In every branch of the industry the large establishments showed less violent fluctuations of employment than the small. It is true that the scale of production is only one factor in the complex problem, but since it is a constant and an important factor, the tendency toward concentration shown by the industry as a whole is significant and hopeful.

The United States Census of Manufactures of 1909 (Vols. VIII and IX) names, consecutively, the States of New York, Pennsylvania, Ohio, Illinois, and Massachusetts as the principal centers in the manufacturing of women's wear.

The combined value of the output of the United States in women's wear, according to figures of the census of 1909, was estimated at \$384,751,649. The following table gives the specific places of manufacturing, showing the total value of the output and percentage that the production of each constitutes of the output of the country at large.

TABLE 5.—VALUE AND PER CENT OF TOTAL OUTPUT OF WOMEN'S WEAR IN FIVE PRINCIPAL MANUFACTURING CENTERS.

[Figures taken from Thirteenth Census of the United States, Vol. VIII, p. 91.]

City.	Value of out-put.	Per cent of total output.
New York.....	\$266,477,000	69.3
Philadelphia <sup>1</sup> .....	30,130,000	7.8
Chicago.....	15,677,000	4.1
Cleveland.....	12,789,000	3.3
Boston.....	7,842,000	2.0
Total (five cities).....	332,915,000	86.5

<sup>1</sup> In the present investigation the city of Philadelphia was omitted, leaving the total output of cities covered 78.7 per cent of the total production of the United States.

The following table, based upon the same census report as the preceding one, throws some light upon the differences in the character of the women's garment industries of the four manufacturing centers of this country, as indicated by the proportion of the expenditures for materials, wages, and salaries.

TABLE 6.—RELATIVE IMPORTANCE OF EXPENDITURES FOR MATERIALS, WAGES, AND SALARIES IN FOUR PRINCIPAL CENTERS MANUFACTURING WOMEN'S READY-TO-WEAR GARMENTS COVERED BY THIS REPORT.

[Figures taken from Thirteenth Census of the United States, Vol. IX—New York, p. 859; Chicago, p. 286; Cleveland, p. 977; and Boston, p. 523.]

City.	Actual amount and per cent of total expended on—							
	Materials.		Wages.		Salaries.		Total.	
	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
New York.....	\$144,845,000	68.5	\$53,518,000	25.3	\$13,099,000	6.2	\$211,462,000	100.0
Chicago.....	8,658,000	68.9	2,997,000	23.8	915,000	7.3	12,570,000	100.0
Cleveland.....	6,496,000	61.7	2,963,000	27.6	1,126,000	10.7	10,525,000	100.0
Boston.....	4,306,000	67.9	1,649,000	28.0	383,000	6.0	6,338,000	100.0

From the amounts and percentages showing the costs of the materials it may be inferred that approximately materials of the same degree of expensiveness are used in the manufacturing of New York City, Chicago, and Boston. The industries of Cleveland appear to have used somewhat cheaper fabrics. This may be inferred from the fact that while the percentages expended on materials in New York, Chicago, and Boston were 68.5, 68.9, and 67.9, respectively, the percentage expended on the same item in Cleveland was only 61.7. This corroborates the generalization made in the body of this report that, proportionately speaking, the Cleveland industries manufacture somewhat cheaper grades of garments and therefore are enabled to do more manufacturing in advance of sales, a fact explaining to some extent the somewhat greater regularity of employment in that city.

The city of Cleveland also stands first in the percentage expended on wages. This could naturally be expected in view of the fact that the cheaper the materials used the relatively larger the cost of labor per specific unit of production.

That competitive conditions tend to equalize the cost of production in the different manufacturing centers can be seen from the fact that the principal items entering into the cost of production vary to only a relatively small degree, from about 1 to 7 per cent.

## LABOR SUPPLY.

A study made by the United States Immigration Commission<sup>1</sup> in 1910 of 19,502 employees in the men's and women's clothing industries of the principal centers of the country revealed that 72.2 per cent of them were of foreign birth. Of these the southern and eastern Europeans were represented in the greatest numbers by the Russian Hebrews (18.6 per cent), Southern Italians (14.4 per cent), and the Hebrews other than Russian (7.1 per cent). Of the races of the old immigration from Great Britain and northern Europe, the Germans appeared in by far the greatest numbers, their 3.4 per cent being followed by 0.4 per cent of the Irish and 0.3 per cent of the Swedes.

Of the 28,484 female workers actually found in the dress and waist industry of New York during the month of March, 1913,<sup>2</sup> over 56 per cent were Hebrew, over 34 per cent Italian, and less than 7 per cent native born.

According to one of the reports of the joint board of sanitary control of the cloak, suit, and skirt industry of New York,<sup>3</sup> 23 per cent of all the workers in the cloak and suit industry and 77 per cent of the workers in the dress and waist industry are women. It is estimated by officials of the respective employers' associations that the percentage of women in the children's dresses, muslin-underwear, and house-dress industries is considerably over 90.

A study of 100 pressers and 100 cutters of the cloak and suit industry of New York revealed the fact that all of the former and 79 per cent of the latter were foreign born.<sup>4</sup> All of the pressers and at least 82 per cent of the cutters were Hebrews.

From a strictly industrial standpoint a fact of great import relative to those workers is that an exceedingly small proportion of them have had any training or experience while abroad for the industrial occupations in which they have found employment in this country.

<sup>1</sup> Abstract Report Immigration Commission, Vol. I, pp. 305, 332, 333.

<sup>2</sup> Joint Board of Sanitary Control of the Cloak, Suit, and Skirt Industry, special report, May, 1913.

<sup>3</sup> *Idem*, p. 7.

<sup>4</sup> Bulletin No. 147, p. 145.

It was found upon examination of the previously mentioned cutters and pressers that none of the latter and only 5 per cent of the former had learned their trades before coming to this country. Every one of the pressers and 90 per cent of the cutters learned their trades in this country while "on the job."

Although in a general way the seasonal activities of the various branches of the women's ready-to-wear garment industries appear to coincide, specific variations in individual industries seem to be considerable; the busy seasons of one frequently overlap the dull seasons of the other or others. It would be interesting, therefore, to know to what extent workers actually secure temporary employment in allied trades when the dull period of their own trade commences, and, furthermore, what use the employees are making of their frequent and rather long periods of idleness.

When the inquiry described in Bulletin No. 147 of this bureau was carried on, the agents made an effort to secure some information bearing on the questions mentioned. Although the information secured at that time can not by any means be considered conclusive, it is believed that the results give an approximately correct idea of the existing conditions so far as the male workers in the cloak and suit industry are concerned. Interviews with people whose familiarity with the lives of cloak makers extends years back would seem to indicate that the information secured, in spite of its incompleteness, is somewhat typical.

Of a total of 68 male workers—cutters and pressers—51, or 75 per cent, reported that they spent their unemployment periods in comparative idleness.

Of the remainder, of the cutters, 3 at different intervals secured employment cutting raincoats, 3 became salesmen in retail stores, 1 got a position as cutter on shirt waists, 1 helped his father, 1 secured a clerical position in an office, and 1 temporarily became a traveling salesman. Of the pressers, 2 at different times secured temporary employment in contractors' shops, 2 were engaged in peddling, 1 secured a position in a retail store, 1 worked at "odd" jobs, and 1 found temporary employment in doing part pressing.

This summary of individual experiences, incomplete as it is, seems to indicate that while the great bulk of the male workers in these occupations spend their unemployment periods in comparative idleness, some of the cutters and a few of the pressers do find temporary employment in allied and other trades.

## DESCRIPTION OF OCCUPATIONS.

From the point of view of the amount of skill required, most of the occupations may properly be classified among the semiskilled. Adaptable inexperienced individuals of working age have a fair earn-

ing capacity the moment they enter the industry, and may become very proficient workers in any of the occupations within a comparatively short period of time, a year or less at most.

The following are brief descriptions of some of the principal occupations common to all of the industries discussed in this report:

*Cutting.*—In all of these industries cutting is done almost exclusively by men, and consists of marking, laying up, and cutting textiles in accordance with specific patterns. It is the most skilled and responsible of all the occupations for the reason that upon the quality of the cutting depends not only the fit and appearance of the garment, but also, to a considerable extent, its cost, inasmuch as the ability of the cutter to lay out economically his pattern determines the amount of cloth that is consumed. Cutting is the only occupation of the garment trades in which an apprenticeship is required.

*Sample making.*—Sample making is done by men and women, and consists of making samples of new garments from models furnished by the designer. This work calls for tailors (males, usually, in the cloak and suit industry) and operators (usually females, in the other industries) of rather exceptional ability and skill. Sample making occupies a small number of workers for a short time at the beginning of each season, the makers of samples being recruited temporarily from among the more expert tailors and operators.

*Operating.*—Operating is done by men and women, and consists of sewing the parts of the garment together, by machine, as they come from the cutting department. In most instances it is one of the least skilled occupations, manned to a considerable extent by inexperienced, recently arrived immigrants. Except in the cloak and suit industry, where the greater part of the operating is done by men, the operators in these industries are predominantly female.

*Basting.*—In the cloak, suit, and skirt industry, and in the dress and waist industry, basting is done mostly by females, and consists of roughly sewing together by hand ("basting") the partly finished garment, for the purpose of placing it, at times, on a dummy figure or living model, so that careful examination may be made by the tailor or sample maker of the character of the work at various stages of manufacture. In the cloak and suit industry approximately two-thirds, and in the other industries almost all of these workers, are women.

*Finishing.*—Finishing consists of doing most of the sewing on the garment that has to be done by hand. So-called plain finishers sew on hooks and eyes, buttons and belts; they also baste bottoms on skirts. Any girl who can use a needle can easily adapt herself to this work. In all of the industries except that of cloaks and suits, in which some male finishers may be found; the work is done almost exclusively by females.

*Pressing.*—Pressing is done by males and females and consists of pressing out with a hot press or iron the seams and various parts of the garment after they have been put together by the operators, except in the case of the part presser, who is required to press out pieces, such as sleeves, pockets, collars, cuffs, belts, etc. The under presser presses the garment before it is lined, and the upper presser, the most skilled of the three, presses the finished garment, shaping and molding it, to some extent, into the finished product. In the cloak and suit industry where the irons used, as well as the textiles, are rather heavy, pressing is done almost exclusively by men. In the other industries the ironing or pressing is done mostly by women.

*Buttonhole making.*—In all of these industries buttonhole making is done by men mostly, and consists of making buttonholes by special buttonhole machines. The skill of the buttonhole maker, aside from operating the machine and correctness in spacing properly the buttonholes on the garments, consists also in the ability to do the necessary repairing of the machine, which is subject to frequent breakdowns.

*Cleaning.*—In all of these industries cleaning is done by young, inexperienced girls exclusively. It forms the lowest step in the industrial ladder of these industries, and consists of cutting off with scissors (by hand) loose threads and, at times, of sponging and removing spots from the finished garment.

*Examining.*—In all of these industries examining is done mostly by females, and consists in inspecting the garments after they have been completed by the workers, in order to see that they fit the figure and that the measurements at the waistline are correct; also to see that the corresponding parts match and that there is no flaw in the work of the different individuals who made them.

## CLASSIFICATION OF INDUSTRIES.

There is a decided cleavage between the different branches of the women's ready-to-wear garment trades. The belief has often been expressed by prominent manufacturers, as well as by the officers of the various employers' associations, that the most economical way to manufacture women's garments is to "specialize," by which term is usually meant to confine activities of individual manufacturing establishments to the production of definitely limited lines of clothing, the prevailing groupings as they exist at present being: (1) Cloaks, suits, and skirts; (2) dresses and waists; (3) misses' and children's dresses; (4) muslin underwear; (5) house dresses, wrappers, and kimonos, etc. These lines of demarcation seem to be particularly prominent in New York City, where the following separate and distinct employers' associations exist: Cloak, Suit, and Skirt Manufacturers' Association, Dress and Waist Manufacturers' Association, Misses' and Juniors' Dress Manufacturers' Association, Muslin

Underwear (cotton garments) Manufacturers' Association, and House Dresses, Kimonos, and Wrappers Manufacturers' Association.

The women's ready-to-wear garment industries—the aggregate of allied needle trades commonly known as the ladies' garment trades—thus embrace a number of specialized industries, the most important of which are engaged in the manufacture of (1) cloaks, suits, and skirts; (2) dresses and waists; (3) misses' and children's dresses; (4) muslin underwear; (5) house dresses, wrappers, and kimonos; and (6) petticoats.

The following is a brief description of the materials used, as well as of the kinds of garments manufactured in each of the industries mentioned:

*Cloaks, suits, and skirts.*—The manufacturing of cloaks, suits, and skirts, while covering a wide range of "models" or "styles," can rightfully be considered as having a limited field of production in women's wear. The range of garments produced by most manufacturers includes cloaks, suits, skirts, and one-piece woolen or worsted dresses, and, to a very limited extent, linen suits and skirts. The fabrics used include serge, worsted, chevots, pongee, linen, voile, taffeta, whipcord, broadcloth, tweed, rough woolens, homespuns, silk, satin, velvet, crêpe, and velours.

*Dresses and waists.*—The manufacturing of dresses and waists probably covers the widest range of garments made in the allied industries, inasmuch as it embraces many styles and qualities of waists, as well as the widest possible range of dresses imaginable. While the one-piece dress probably predominates, the products of this industry, in so far as dresses are concerned, also include a tremendous number of styles manufactured for evening wear or for outdoor and the so-called sporting uses. The fabrics used cover such materials as lawn, crêpe, voile, flannel, pongee, taffeta, satin, meteors, moiré, chiffon, batiste, gingham, silk serge, velours, and other fine fabrics.

*Misses' and children's dresses.*—The manufacturing of misses' and children's dresses is the latest addition to the ready-made garment industry, and probably the least developed. The industry is restricted to the manufacture of one-piece dresses, skirts, waists, and blouses for children and misses. To a very limited extent children's and misses' cloaks and reefers are produced. The fabrics used include woolen, worsted, cotton crêpe, silk crêpe, percale, gingham, lawn, serge, flannelette, foulard, blanket cloth, ratine, eponge, and piqué.

*Muslin underwear.*—The range of garments in the undermuslin industry includes undershirts, combinations, drawers, corset covers, nightgowns, and brassières, made of the following textiles: Cotton, cambric, nainsook, silk, chiffon, crêpe de chine, and crêpe cloth.

*House dresses and kimonos.*—The manufacturers of house dresses and kimonos also produce so-called dressing sacks and many styles and grades of aprons for misses and women. The range of styles and quality of kimonos include the inexpensive garment as well as the most expensive manufactured. The fabrics used in this product consist of gingham, calicos, cotton crêpe, silk crêpe, percale, lawn, ratine, piqué, eponge, blanket cloth, flannelettes, foulards, serge, and cashmere.

## REGULARITY OF EMPLOYMENT.

### NEW YORK CITY.

#### GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES.

The growth of the women's ready-to-wear garment industries in New York City during the decade ending in 1909 is indicated in the following table taken from the United States Census, and showing for each of the years 1899, 1904, and 1909 the number of establishments, the average number of wage earners, the total capital invested, the outlay for wages and for materials, and the total value of products:

TABLE 7.—GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES IN NEW YORK CITY, 1899 TO 1909.

[Figures taken from Thirteenth Census of the United States, Vol. IX, p. 859.]

Census.	Number of establishments.	Wage earners, average number.	Capital.	Wages.	Cost of materials.	Value of products.
1899.....	1,607	44,715	\$27,389,000	\$20,929,000	\$54,639,000	\$102,712,000
1904.....	2,140	70,089	43,804,000	34,551,000	89,092,000	168,419,000
1909.....	2,995	94,258	80,762,000	53,518,000	144,845,000	266,477,000

During the census decade 1899 to 1909 the women's garment industries of New York City increased as follows: Number of establishments, 86 per cent; average number of wage earners, 111 per cent; wages, 156 per cent; value of products, 159 per cent; cost of materials, 165 per cent; capital, 195 per cent.

Proportionately speaking, the city of New York during this decade had the greatest percentage of increase in the number of establishments, 86, as compared with 39, 35, and 24 for the cities of Boston, Chicago, and Cleveland, respectively.

On the basis of the total estimated value of its output as compared with the rest of the industries of the State, the manufacture of women's wear ranks first. The value of the manufactured articles, according to the census of 1909, constituted 8.1 per cent of the total output of all the industries of the State. The allied women's clothing trades

furnished employment to 9.8 per cent of all the industrial wage earners of the State.<sup>1</sup>

These figures assume a greater significance when the importance of the State of New York as a manufacturing center is considered; as brought out clearly by the census of manufactures of 1909, on the basis of the total value of output in specific industries, the State of New York ranked first in 104, or two-fifths of the entire number, of the industries specified and reported upon by the Bureau of the Census.<sup>2</sup> More than one-half of the total number of establishments of the country engaged in the manufacture of women's wear, and considerably more than one-half of the total number of workers, and of the total capital, were located in the city of New York. The same census records that in 1909 there were in the business of manufacturing women's garments in that city 2,995 establishments, employing about 95,000 workers.<sup>3</sup> It is estimated that at the present time the number of establishments is far above 3,000 and the number of workers far in excess of 100,000. Of the latter number it is believed that over 50,000 are engaged in the manufacturing of cloaks, suits, and skirts, and more than 30,000 in the manufacture of dresses and waists, the remaining workers being more or less evenly distributed among the industries manufacturing children's dresses, muslin underwear, and house dresses and kimonos.

Except for the cloak, suit, and skirt industry, in which two-thirds of the total number of establishments in 1912 employed less than 25 workers<sup>4</sup> each, there is no information available on the prevailing scale of production in specific branches of the allied industries. As a matter of close observation, however, and in view of the fact that relatively small amounts of capital are called for in the establishment of garment factories, it is believed that there exist in each of the branches of these industries unusually large numbers of very small establishments.

### SEASONAL FLUCTUATIONS OF EMPLOYMENT.

#### SUMMARY.

Table 9 and Chart No. 1 accompanying it show seasonal fluctuations of employment in the leading women's ready-to-wear garment industries of New York City. They also show, for purposes of comparison, the seasonal fluctuations of employment in a representative number of establishments in the women's custom-tailoring industry. It must be borne in mind, however, that the last-named industry bears an insignificant relation to the women's ready-to-wear garment

<sup>1</sup> Thirteenth Census of the United States, Vol. IX, p. 801.

<sup>2</sup> *Idem*, Vol. VIII, p. 69.

<sup>3</sup> *Idem*, Vol. IX, p. 359.

<sup>4</sup> Joint Board of Sanitary Control of the Cloak, Suit, and Skirt Industry, Bul. 5, January, 1912.

trades. It represents an industry where custom work prevails, in which no part of the output is manufactured in advance of the sale; in fact, an industry where each garment is individualized, is a style by itself. For this reason no garment of this industry is manufactured in advance of sale. The primary reason for introducing information as to this industry into this report—a report dealing wholly with ready-to-wear garments—was to show, in a comparative way, and as clearly as possible, the influence of manufacturing in advance of sales upon seasonal fluctuations of employment.

A glance at the chart shows that the highest degree of irregularity is found in the custom-tailoring industry, and that next to this stands the cloak, suit, and skirt industry. It is less easy to assign the four other industries to their relative positions. There is no one satisfactory measure of irregularity by which the standing of an industry may be determined. The range of variation from the average pay roll is one measure of irregularity, but not a sufficient one, since the low point touched may last for only a short time. The number of weeks during which a variation of at least a specified number of points from the average endures is another measure, but this also is not wholly satisfactory, since it gives no indication of how far beyond the specified number of points the irregularity may go. Still another measure might be found in the frequency of violent fluctuations. Table 9 shows, for instance, that in the cloak, suit, and skirt industry in New York City the pay roll for week 13 stood at 92.5 per cent, which was a fall of 33.5 points from the week before. In the dress and waist industry a fall of almost the same degree was spread over weeks 11 to 15. Evidently, in the latter case the dislocation was much less violent, and a considerable portion of the workers displaced had from 1 to 3 weeks' more employment than if the change had been made within a single week.

No one of these standards is wholly satisfactory, but perhaps a combination of the three gives as close a measure of the relative irregularity of the different industries as can at present be obtained. The following table, derived from the pay-roll figures given in Table 9, shows the results of testing the different industries by each of these standards.

TABLE 8.—IRREGULARITY OF EMPLOYMENT IN WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES OF NEW YORK, AS MEASURED BY THREE DIFFERENT STANDARDS.

[This table is based on data shown in Table 9, the range of variation being percentages of the average weekly pay roll for the year.]

Industry.	Variation for year.			Number of weeks in which pay roll varied by at least 20 points from average.			Number of weeks in which a variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
Cloaks, suits, and skirts.....	43.2	164.4	121.2	19	19	38	8
Dresses and waists.....	52.6	137.2	84.6	8	9	17	2
Women's muslin underwear.....	70.9	119.8	48.9	3	-----	3	3
Children's and misses' dresses.....	53.7	127.3	73.6	6	7	13	3
House dresses and kimonos.....	45.3	139.9	94.6	7	13	20	5
Custom tailoring.....	12.3	195.5	183.2	23	20	43	10

It is evident that the relative irregularity of a given trade differs considerably according to the particular measure applied. Thus the manufacture of dresses and waists, which stands fourth in range of variation, stands sixth in number of sudden and violent fluctuations. Arranging the six industries, therefore, in the order of their irregularity by each standard, and averaging their numerical positions in each of these three categories, the following grouping is obtained, which probably represents, as nearly as can be ascertained from the data available, their comparative irregularity, beginning with the most irregular:

1. Custom tailoring.
2. Cloaks, suits, and skirts.
3. House dresses and kimonos.
4. Dresses and waists.
5. Children's and misses' dresses.
6. Women's muslin underwear.

In regard to this ranking, it must be said that the position of the house-dress and kimono industry is rather doubtful. During the year covered there was a strike in this industry lasting from weeks 23 to 29, inclusive. Naturally for these weeks the pay rolls reflect highly abnormal conditions, so that it seems fairer to omit the whole period of the strike. This period, however, includes what would normally be the dullest season of the industry, when the pay roll would reach its lowest point for the year. Hence the omission may be unduly favorable to the industry. Possibly an offset to this is secured by reckoning the difference between the pay rolls of week 22 and week 30 as occurring in a single week, but it is impossible to say how far this is compensatory.

Making all due allowance for this uncertainty, the regularity of employment in these industries seems to coincide surprisingly with the amount of skill that specific industries call for; the greater the skill required the more irregular the fluctuations in the employment in the course of the year. This is probably connected with another factor—cost of material; the greater the skill required in an industry the more expensive, as a rule, are the materials used. And these two factors combined have much to do with a fundamental cause of irregularity—the inability to manufacture in advance of sales. Of course, the more a manufacturer must pay for labor and material, the more serious becomes the question of tying up money in goods which may never be sold. In custom tailoring, where the highest degree of skill is required, and where, as a rule, the most expensive materials are required, the risk of loss is too serious to be undertaken; nothing is made until a definite order is received for it, and irregularity of employment reaches its highest pitch. In relatively unskilled industries, in which cheaper materials are used, such as the manufacture of muslin underwear, it is safe to make up goods to some extent before an order has been received for them, and the greater regularity which this gives to employment in the industry is reflected in its pay rolls.

Turning from the question of relative irregularity to the general characteristics of the industries considered, the pay-roll data show that each has two busy and two dull seasons, the busy periods occurring in the spring and fall and the dull in winter and summer. Custom tailoring differs from the other industries considered in that the pay roll reaches its highest point in the fall busy season. It, however, is introduced only for purposes of comparison, and its conditions are not indicative of those prevailing in the other lines of manufacture considered.

Among the ready-to-wear garment industries in each case the highest pay-roll point, which means the greatest amount of employment, is found at the peak of the spring busy season.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 27

TABLE 9.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN 6 OF THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES, NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

[This table is based on data from 75 establishments in the cloak, suit, and skirt industry, 260 establishments in the dress and waist industry, 30 establishments in the women's muslim-underwear industry, 117 establishments in the children's and misses' dress industry, 14 establishments in the house-dress and kimono industry, and 4 establishments in the custom-tailoring industry.]

(Average weekly pay roll for the year—100.)

Month.	Week No.	Per cent of average weekly pay roll in the —					
		Cloak, suit, and skirt industry.	Dress and waist industry. <sup>1</sup>	Women's muslim-underwear industry. <sup>2</sup>	Children's and misses' dress industry.	House-dress and kimono industry.	Custom-tailoring industry.
August.....	1	103.6	64.5	81.8	73.0	90.4	12.3
	2	114.7	77.7	80.1	82.1	90.6	17.3
	3	126.5	89.1	87.2	85.5	94.6	20.4
	4	135.4	99.4	91.2	92.3	87.9	29.7
September.....	5	133.4	109.5	93.2	95.9	94.9	34.6
	6	107.3	107.3	91.6	97.6	87.7	48.7
	7	127.9	95.3	102.3	94.6	81.2	92.3
	8	133.5	110.4	104.3	106.4	84.6	134.6
October.....	9	130.3	120.7	105.3	107.3	100.6	146.8
	10	137.2	119.9	77.4	100.3	94.8	179.2
	11	141.7	123.5	94.1	102.4	101.8	195.4
	12	126.0	121.1	102.3	99.3	99.9	186.1
	13	92.5	112.9	100.7	98.5	113.2	195.5
November.....	14	66.7	105.2	109.2	101.4	101.3	159.4
	15	67.0	92.6	109.5	98.9	92.7	150.0
	16	59.3	93.8	114.9	98.3	94.9	139.0
	17	45.4	90.6	114.8	92.5	99.3	120.3
December.....	18	45.7	83.4	104.0	87.5	92.2	109.7
	19	43.2	90.8	108.3	94.3	96.2	100.0
	20	50.1	94.5	109.2	101.4	94.6	88.6
	21	55.1	95.3	105.3	98.1	96.1	81.9
January.....	22	61.1	84.3	86.2	81.4	82.8	67.8
	23	87.5	72.9	78.9	89.5	98.5	52.9
	24	99.6	85.9	91.6	102.2	63.9	63.5
	25	119.7	92.5	96.4	109.7	51.6	71.3
	26	131.9	101.0	102.5	110.5	47.9	75.1
February.....	27	139.5	107.5	101.1	116.7	45.3	78.1
	28	134.6	113.2	100.5	119.3	46.8	75.9
	29	154.9	119.1	96.4	123.0	64.1	54.7
	30	164.4	124.1	101.0	126.4	120.4	62.9
March.....	31	161.7	134.5	94.7	125.3	104.5	90.3
	32	161.2	136.9	105.4	127.3	136.0	124.4
	33	152.5	137.2	108.6	99.5	125.6	141.3
	34	142.9	137.1	111.7	123.3	137.8	149.3
April.....	35	125.3	132.5	112.6	124.5	128.5	170.3
	36	109.0	108.8	115.1	116.6	131.2	184.2
	37	87.5	112.5	118.1	120.9	139.9	178.6
	38	69.3	116.3	119.3	117.4	133.4	170.3
May.....	39	66.2	113.8	99.3	114.4	119.9	160.1
	40	65.7	107.6	90.5	115.2	110.1	145.7
	41	65.1	108.8	109.7	111.5	115.5	141.9
	42	58.0	99.6	116.6	111.3	121.5	117.4
	43	50.6	98.3	117.8	105.5	120.9	111.9
June.....	44	57.4	87.7	107.3	95.9	128.4	73.9
	45	59.2	93.6	112.0	87.8	123.4	82.1
	46	73.9	94.7	102.9	81.9	121.9	72.1
	47	84.9	89.2	99.8	74.6	107.4	70.5
July.....	48	73.6	79.0	92.3	77.1	112.7	54.3
	49	88.7	59.0	70.9	53.7	80.0	34.5
	50	98.5	53.3	84.1	60.6	81.4	30.8
	51	106.0	52.6	85.4	78.6	92.9	28.5
	52	106.6	58.9	83.5	83.1	115.9	21.1

<sup>1</sup> Data for the first 21 week numbers are for August, 1912, through December, 1912; for the last 31 week numbers, for January, 1912, through July, 1912.

<sup>2</sup> Data for the first 30 week numbers are for August, 1913, through February, 1914; for the last 22 week numbers, for March, 1913, through July, 1913.

## CLOAK, SUIT, AND SKIRT INDUSTRY.

Fluctuations of employment in this industry are more marked than in any other industry manufacturing women's ready-to-wear garments. Pay-roll data for all productive labor in 75 shops with a total annual pay roll for productive labor of about \$5,000,000 indicate that the year is made up of two busy seasons and two dull seasons, one busy season lasting about 14 weeks, from the end of July to the latter part of October, and another 12 weeks, from the latter part of January to the middle of April, and one dull season lasting 12 weeks, from the end of October to the latter part of January and another of 14 weeks, from the middle of April to the latter part of July. The pay roll for the busiest week in the year (the last week in February) was over 280 per cent greater than for the dullest (the second week in December).

Aside from showing seasonal fluctuations of employment in the industry at large, Table 11 and the chart accompanying it show also relative differences in the fluctuations of employment in representative groups of large and small shops. The following table summarizes the differences in range briefly:

TABLE 10.—SIZES OF PAY ROLLS AT SIGNIFICANT POINTS OF THE YEAR IN LARGE AND SMALL SHOPS OF THE CLOAK, SUIT, AND SKIRT INDUSTRY OF NEW YORK CITY SHOWN IN PERCENTAGES OF AVERAGE WEEKLY PAY ROLLS FOR THE YEAR.

Size of establishment.	Per cent of average weekly pay roll at—			
	Busiest point, fall, 1912.	Dullest point, winter, 1912-13.	Busiest point, spring, 1913.	Dullest point, summer, 1913.
Small shops.....	165.5	34.8	158.1	61.8
Large shops.....	138.5	52.4	160.6	53.2
All shops.....	141.7	43.2	164.4	50.6

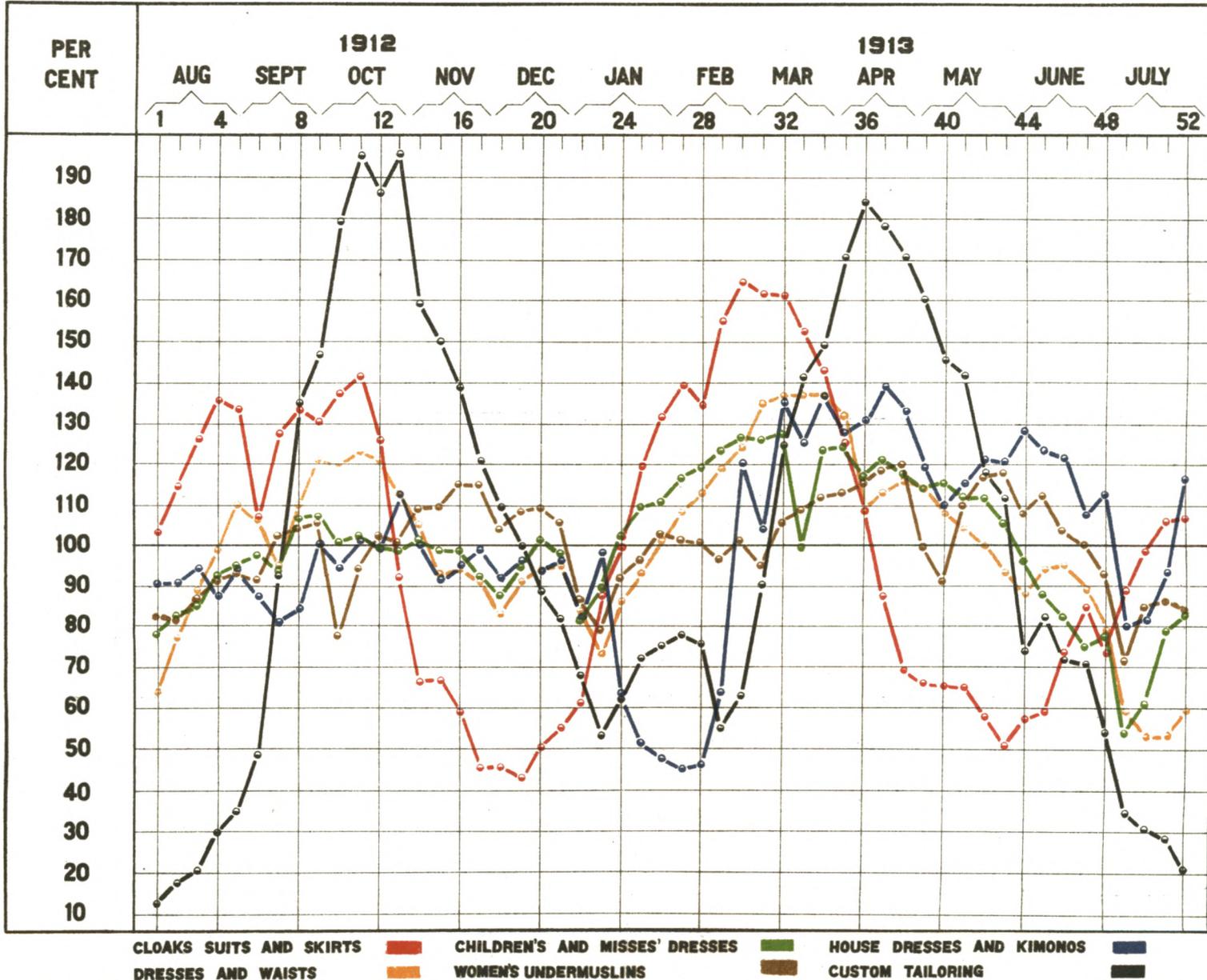
It will be noticed that the difference here shown is considerable, the range of variation being 130.7 points for the small shops against 108.2 for the large. In regard to the length of time during which the pay roll varied from the average by at least 20 per cent, Table 11 shows that the two groups are precisely alike; in each the pay roll stood at least 20 per cent below the average for 16 weeks and at least 20 per cent above for 17 weeks. In the matter of sudden fluctuations the group of small shops makes a less favorable showing, a change in the pay roll of at least 20 points in a single week having occurred 12 times in the group of small shops and only 7 times in the large group. On the other hand, the fluctuations in the large shops are occasionally more violent than any found in the small shops. Thus in week 6 the pay roll of the large shops falls from 137 to 106.4, a fall of 30.6, and in week 37 it shows a fall of 31.5, while the greatest variation in one week shown in the pay roll of the small shops is a fall of 28.9 in week 14. Nevertheless, it seems evident that employment is considerably more regular in the large than in the small shops.

# CHART NO. 1

## WOMEN'S GARMENT TRADES - NEW YORK CITY

SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLL  
FOR ALL PRODUCTIVE LABOR

AVERAGE WEEKLY PAY ROLL FOR THE YEAR = 100



CLOAKS SUITS AND SKIRTS  
DRESSES AND WAISTS

CHILDREN'S AND MISSES' DRESSES  
WOMEN'S UNDERMUSLINS

HOUSE DRESSES AND KIMONOS  
CUSTOM TAILORING

CUSTOM TAILORING

A question at once arises as to how far these groups are representative of the large and small shops in the industry. The combined annual pay rolls of the "large" and "small" groups were \$2,083,692 and \$173,675, respectively, the corresponding average for each group being \$208,369 and \$17,367. The average for "all shops" group was \$65,433. It is thought that while \$208,369 represents fairly well the average large shop of the industry, the average of \$17,367 represents only the small shop of the organized part of the trade; that is, of the membership of the Cloak, Suit, and Skirt Manufacturers' Protective Association, from which all of the schedules upon which this report is based have been secured. It is certain that the so-called small shop here discussed does not represent the very small business, usually associated with the New York garment trades, operated and owned frequently by an associated group of members of the same family. Consequently the comparison here made is probably unduly favorable to the small shop.

TABLE 11.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 75 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

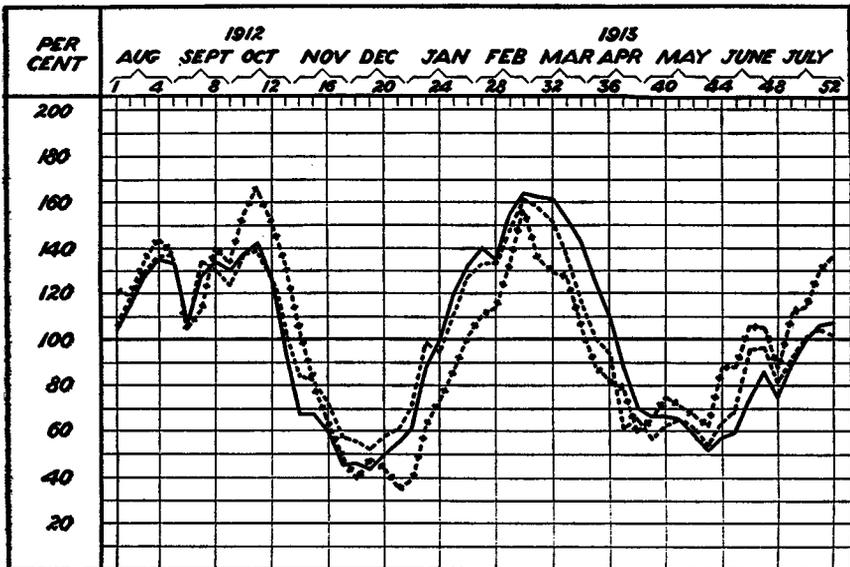
(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (75).		Large shops (10).		Small shops (10).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$97,807	103.6	\$42,159	105.2	\$4,032	120.7
	2	108,263	114.7	47,306	118.1	3,972	118.9
	3	119,427	126.5	51,458	128.4	4,468	133.8
	4	127,736	135.4	54,463	135.9	4,817	144.2
September.....	5	125,940	133.4	54,885	137.0	4,554	136.4
	6	101,237	107.3	42,642	106.4	3,507	105.0
	7	120,705	127.9	53,767	134.2	3,777	113.1
	8	126,015	133.5	52,142	130.1	4,677	140.0
October.....	9	122,968	130.3	49,174	122.7	4,437	132.8
	10	129,446	137.2	54,980	137.2	5,119	153.3
	11	133,683	141.7	55,501	138.5	5,528	165.5
	12	118,942	126.0	50,964	127.2	5,039	150.9
	13	87,283	92.5	40,871	102.0	4,411	132.1
November.....	14	62,907	66.7	33,128	82.7	3,447	103.2
	15	62,264	67.0	32,724	81.7	2,713	81.2
	16	55,968	59.3	28,984	72.3	2,098	62.8
	17	42,838	45.4	22,971	57.3	1,638	49.0
December.....	18	43,109	45.7	22,200	55.4	1,290	38.6
	19	40,741	43.2	20,988	52.4	1,592	47.7
	20	47,271	50.1	23,146	57.8	1,445	43.3
	21	52,042	55.1	24,229	60.5	1,161	34.8
January.....	22	57,654	61.1	28,531	71.2	1,290	38.9
	23	82,565	87.5	39,848	99.4	2,114	63.3
	24	94,001	99.6	37,610	93.9	2,486	74.4
	25	113,005	119.7	44,605	111.5	2,920	87.4
	26	124,495	131.9	50,840	126.9	3,420	102.4
February.....	27	131,623	139.5	53,258	132.9	3,707	111.0
	28	127,052	134.6	53,701	134.0	3,811	114.1
	29	146,148	154.9	59,840	149.3	4,489	134.4
	30	155,148	164.4	64,371	160.6	5,282	158.1

TABLE 11.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 75 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (75).		Large shops (10).		Small shops (10).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
March.....	31	\$152,640	161.7	\$63,432	158.3	\$4,513	135.1
	32	152,119	161.2	60,293	150.5	4,320	129.3
	33	143,904	152.5	54,648	136.4	4,230	126.6
	34	134,834	142.9	46,145	115.2	3,516	105.3
April.....	35	118,227	125.3	40,068	100.0	2,932	87.8
	36	102,869	109.0	37,160	92.7	2,720	81.4
	37	82,540	87.5	24,521	61.2	2,042	79.1
	38	65,845	69.8	26,086	65.1	2,002	59.9
May.....	39	62,501	66.2	22,570	56.3	2,158	64.6
	40	62,030	65.7	24,824	61.9	2,494	74.7
	41	61,475	65.1	25,831	64.5	2,369	70.9
	42	54,695	58.0	24,234	60.5	2,228	66.7
	43	47,798	50.6	21,303	53.2	2,064	61.8
June.....	44	54,125	57.4	25,768	64.3	2,939	88.0
	45	55,904	59.2	27,723	69.2	2,926	87.6
	46	69,745	73.9	37,896	94.6	3,538	105.9
	47	80,141	84.9	38,402	95.8	3,514	105.2
	July.....	48	69,495	73.6	32,241	80.5	2,913
49		83,725	88.7	36,491	91.1	3,748	112.2
50		92,937	98.5	40,135	100.2	3,865	113.9
51		100,041	106.0	42,012	104.8	4,326	129.5
52		100,586	106.6	40,563	101.2	4,528	135.6
Total.....			4,907,514		2,083,692		173,675
Average.....		94,375	100.0	40,071	100.0	3,340	100.0

CHART NO. 2.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 75 ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY AND IN 10 LARGE AND 10 SMALL ESTABLISHMENTS—NEW YORK CITY.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS--.

## DRESS AND WAIST INDUSTRY.

The figures presented in this section are based upon pay rolls secured from 260 establishments, the combined pay rolls of which amounted to more than \$9,000,000. The period of investigation for this industry was the year 1912—that is, from January 1, 1912, to December 31, 1912. For purposes of comparison, however, it was deemed necessary to rearrange the data for the 52 weeks' pay rolls, beginning with August and running in calendar order to the end of the year and then from January to the end of July, as the bulk of the information for the rest of the industries has been secured for that period. Thus the percentages of the average weekly pay roll of the dress and waist industry shown in the tables and charts of this report covered the following period: August 3, 1912, to December 31, 1912, and from January 1, 1912, to August 2, 1912. In this investigation, the details of which will be found in Bulletin No. 146, of this bureau, almost the entire dress and waist industry of New York City was covered.

Table 12 and Chart No. 3, following, show that the seasons in this industry, as in the case of the cloak, suit, and skirt industry of New York City, consisted mainly of four periods, two dull ones and two busy ones. The first busy season began about the middle of September, reached its highest point by the middle of October, and then began to decline. The longest dull period of the year, lasting from about the second week of November to about the first week of February, then ensued. By the middle of February began the second busy season, the busier of the two, lasting until well into May. The last of May and the months of June, July, and August constituted the second dull period of the year, the duller of the two. During the latter period the pay rolls for all productive labor for the entire industry fell to only 52.6 per cent of the average of the year.

It is interesting to compare for each group of shops the figures for the dulllest and the busiest weeks of the year. In the group of large shops the lowest point appears in the third week of July, when the pay roll stands at 44.3 per cent of its average for the year, and the highest point is found in the second week of March, when the pay roll reaches 146.4 per cent of the average. In the group of small shops the low point, 51.6 per cent, and the high point, 157.5 per cent, occur one week later than in the large shops. While the low point of the large shops is lower and the high point of the small shops is higher than the corresponding point for the other group, the relation between the extremes is almost identical. In each group the pay roll at its highest point is about three times as large as at its lowest; that is, in both groups the amount of work to be found at the dulllest season of the year is only one-third of that at the busiest season. For the industry as a whole the fluctuation is not quite so pronounced, the

weekly pay roll ranging from 52.6 per cent to 137.2 per cent of the weekly average for the year.

In Table 12 and Chart No. 3 are also shown the relative differences in the seasonal fluctuations of employment in representative groups of large and small shops of the industry. The combined pay rolls of the large and small groups for the year were \$1,489,290 and \$84,442, respectively, the corresponding average for each group being \$148,929 and \$8,444. As the inquiry into this industry was very thorough and included almost all of the shops of the industry, it is believed that the group averages mentioned, \$150,000 for the large shops and \$8,400 for the small shops, are typical.

On the whole, as an inspection of Chart No. 3 will reveal, it appears that employment in the large shops of the industry was more regularly distributed about the "normal"—the average for the year. The range of variation is much the same for the two groups, 102 for the large and 105 for the small shops, but the length of time during which the pay roll varied from the average by at least 20 points was only 15 weeks for the large shops against 24 for the small. Also, a fluctuation of at least 20 points in a single week occurred only once in the large shops, but nine times in the small. Several of these fluctuations were particularly violent, the greatest being a fall of 42 points in week 7. The difference in regularity between the two groups appears to be more pronounced in this industry than in the manufacture of cloaks and suits.

TABLE 12.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 260 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO DECEMBER, 1912, INCLUSIVE, AND FOR JANUARY, 1912, TO JULY, 1912, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops. <sup>1</sup>		Large shops.		Small shops.	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$115,379	64.5	\$20,693	72.2	\$1,073	66.1
	2	138,336	77.7	23,032	80.4	1,381	85.0
	3	159,322	89.1	25,333	88.4	1,587	97.7
	4	177,802	99.4	27,495	96.0	1,793	110.4
September.....	5	195,967	109.5	29,453	102.8	2,066	127.2
	6	191,971	107.3	29,133	101.7	2,284	140.6
	7	170,519	95.3	25,273	88.2	1,595	98.2
	8	197,465	110.4	27,155	94.8	2,094	128.9
October.....	9	215,996	120.7	30,558	106.7	2,124	130.8
	10	215,151	119.0	31,145	108.7	2,190	134.9
	11	220,809	123.5	30,314	105.8	2,255	138.9
	12	216,626	121.1	29,884	104.3	1,988	122.4
	13	202,148	112.9	28,003	97.8	1,609	99.1
November.....	14	188,115	105.2	28,355	99.0	1,307	80.5
	15	165,736	92.6	26,711	93.2	1,060	65.9
	16	167,753	93.8	26,968	93.8	1,338	82.4
	17	162,302	90.6	25,432	88.8	1,397	85.4

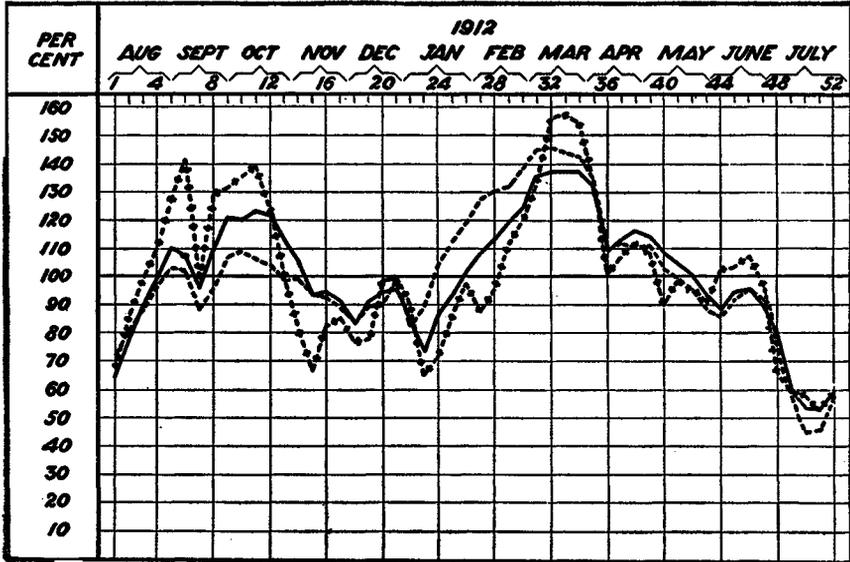
<sup>1</sup> Bulletin No. 146, p. 160.

TABLE 12.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 260 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO DECEMBER, 1912, INCLUSIVE, AND FOR JANUARY, 1912, TO JULY, 1912, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops. <sup>1</sup>		Large shops.		Small shops.	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
December .....	18	\$149,128	83.4	\$23,728	82.8	\$1,230	75.7
	19	162,455	90.8	25,474	88.9	1,242	78.5
	20	169,000	94.5	25,821	90.1	1,585	97.6
	21	170,462	95.3	26,011	97.8	1,600	98.5
January .....	22	150,827	84.3	23,535	82.2	1,463	90.1
	23	130,484	72.9	25,314	88.4	1,033	63.9
	24	153,598	85.9	29,789	104.0	1,152	73.9
	25	165,549	92.5	32,141	112.2	1,395	86.0
	26	180,673	101.0	34,176	119.3	1,571	96.7
February .....	27	192,382	107.5	36,306	126.7	1,420	87.4
	28	202,506	113.2	37,245	130.0	1,536	94.6
	29	212,972	119.1	37,829	132.1	1,797	110.6
	30	221,929	124.1	39,484	137.8	1,951	120.1
March .....	31	240,614	134.5	41,685	145.5	2,160	133.0
	32	244,981	136.9	41,932	146.4	2,526	155.6
	33	245,494	137.2	41,191	143.8	2,557	157.5
	34	245,177	137.1	40,731	142.2	2,502	154.1
April .....	35	236,951	132.5	38,498	134.4	2,162	133.1
	36	194,583	108.8	31,261	109.1	1,647	101.4
	37	201,271	112.5	32,181	112.3	1,744	107.4
	38	203,053	116.3	31,571	110.2	1,812	111.6
May .....	39	203,595	113.8	31,640	110.5	1,773	109.2
	40	192,435	107.6	29,110	101.6	1,465	90.2
	41	185,635	103.8	28,487	99.4	1,585	97.6
	42	178,117	99.6	27,141	94.7	1,548	95.3
	43	166,905	93.3	25,298	88.3	1,467	90.3
June .....	44	156,263	87.7	24,252	84.7	1,663	102.5
	45	167,384	93.6	26,457	92.4	1,671	103.0
	46	169,487	94.7	27,212	95.0	1,744	107.4
	47	159,534	89.2	26,138	91.2	1,541	94.9
July .....	48	141,406	79.0	22,009	76.8	1,079	66.4
	49	105,559	59.0	16,538	57.7	959	59.1
	50	95,279	53.3	12,679	44.3	920	56.7
	51	94,149	52.6	13,000	45.4	838	51.6
	52	105,290	58.9	16,589	57.9	959	59.1
Total .....		9,302,124		1,489,290		84,442	
Average .....		178,887	100.0	28,640	100.0	1,624	100.0

<sup>1</sup> Bulletin No. 146, p. 160.

CHART NO. 3.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 200 ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY AND IN SELECTED LARGE AND SMALL ESTABLISHMENTS—NEW YORK CITY.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS---

#### CHILDREN'S AND MISSES' DRESS INDUSTRY.

In point of general seasonal tendencies the children's and misses' dress industry is not different from the cloak and suit industry and the dress and waist industry.

Table 13 and the accompanying chart show that for the industry as a whole the year consists of two busy and two dull seasons. The first busy season, occurring in September and October, is followed by a dull season which lasts through December. In January the second busy season begins, reaches its highest points in the latter part of February, March, and early April, falls off during May, and is followed by the second dull season, which lasts until the renewal of the fall activity in September.<sup>1</sup>

The table and chart show also the fluctuations of employment in five representative large shops and in an equal number of small shops. The aggregate annual pay roll of the five small shops was \$67,389, and of the five large shops \$363,681. The respective average annual pay rolls were \$13,477 and \$72,736. Comparing the curves representing the seasonal fluctuations of the two groups, it appears

<sup>1</sup> The sudden decline in the curve showing the seasonal movement of employment in this industry during the thirty-third week (middle of March) is of no seasonal origin. It is due chiefly to the general strike in the industry that took place during this week and which resulted in the signing of a protocol agreement between the unions and employers, given in Appendix C, Bulletin of the U. S. Bureau of Labor Statistics, No. 145.

that on the whole employment is somewhat steadier in the large than in the small shops. The length of time during which employment rises above 100 per cent is almost the same for both groups, 26 weeks for the large shops and 27 for the small, but in general the high points of employment are higher and the low points lower in the small than in the large shops. The range for the large shops is from 55.4 per cent to 135 per cent, and for the small shops from 33.7 per cent to 139.1 per cent.

It will be noticed that in the small shops the fall busy season began and closed earlier and was distinctly shorter than in the large shops. On the other hand, their spring season began earlier and lasted longer than that of the large shops.

TABLE 13.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 117 REPRESENTATIVE ESTABLISHMENTS IN THE CHILDREN'S AND MISSES' DRESS INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

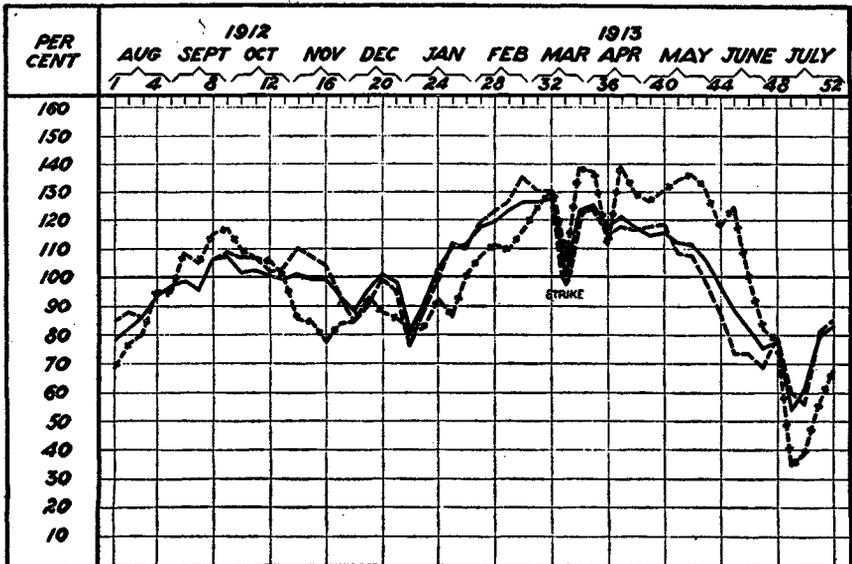
(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (117).		Large shops (5).		Small shops (5).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$9,341	78.0	\$5,968	85.3	\$883	68.1
	2	9,835	82.1	6,164	88.1	978	75.5
	3	10,238	85.5	6,040	86.4	1,032	79.6
	4	11,119	92.8	6,467	92.5	1,230	94.9
September.....	5	11,491	95.9	6,764	96.7	1,222	94.3
	6	11,684	97.6	6,866	98.2	1,397	107.8
	7	11,333	94.6	6,660	95.2	1,366	106.4
	8	12,744	106.4	7,419	106.1	1,492	115.1
October.....	9	12,845	107.3	7,627	109.1	1,515	116.9
	10	12,077	100.8	7,491	107.1	1,415	109.2
	11	12,263	102.4	7,506	107.3	1,367	105.5
	12	11,950	99.8	7,026	100.5	1,359	104.9
	13	11,795	98.5	7,186	102.7	1,292	99.7
November.....	14	12,143	101.4	7,676	109.8	1,106	85.3
	15	11,839	98.9	7,495	107.2	1,085	83.7
	16	11,831	98.8	7,262	103.8	1,002	77.3
	17	11,077	92.5	6,515	93.2	1,092	84.3
December.....	18	10,483	87.5	5,962	85.2	1,103	85.1
	19	11,357	94.8	6,302	90.1	1,194	92.1
	20	12,140	101.4	6,947	99.3	1,123	86.7
	21	11,746	98.1	6,621	94.7	1,096	84.6
January.....	22	9,753	81.4	5,278	75.5	1,047	80.8
	23	10,722	89.5	6,157	88.0	1,058	81.6
	24	12,235	102.2	6,889	98.5	1,190	91.8
	25	13,133	109.7	7,831	112.0	1,115	86.0
	26	13,230	110.5	7,673	109.7	1,300	100.3
February.....	27	13,975	116.7	8,343	119.3	1,332	106.6
	28	14,293	119.3	8,585	122.7	1,444	111.4
	29	14,726	123.0	8,805	125.9	1,414	109.1
	30	15,141	126.4	9,445	135.0	1,509	116.4
March.....	31	15,066	125.8	9,082	129.9	1,596	123.2
	32	15,248	127.3	9,115	130.3	1,680	129.6
	33	11,922	99.5	6,767	96.8	1,343	103.6
	34	14,769	123.3	8,524	121.9	1,789	138.1
April.....	35	14,910	124.5	8,639	123.5	1,770	136.6
	36	13,959	116.6	8,004	114.4	1,439	111.1
	37	14,483	120.9	8,185	117.0	1,802	139.6
	38	14,062	117.4	8,101	115.8	1,667	128.0

TABLE 13.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 117 REPRESENTATIVE ESTABLISHMENTS IN THE CHILDREN'S AND MISSES' DRESS INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (117).		Large shops (5).		Small shops (5).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
May.....	39	\$13,699	114.4	\$3,196	117.2	\$1,637	126.3
	40	13,794	115.2	3,226	117.6	1,679	129.6
	41	13,350	111.5	7,550	108.0	1,736	134.0
	42	13,325	111.3	7,486	107.0	1,758	135.7
	43	12,635	105.5	6,801	97.2	1,703	131.4
June.....	44	11,480	95.9	6,031	86.2	1,511	116.6
	45	10,515	87.8	5,121	73.2	1,602	123.6
	46	9,804	81.9	5,073	72.5	1,277	98.5
	47	8,931	74.6	4,729	67.6	1,056	81.5
July.....	48	9,237	77.1	5,532	79.1	993	76.6
	49	6,433	53.7	4,089	58.5	437	33.7
	50	7,255	60.6	3,878	55.4	504	38.9
	51	9,413	78.6	5,671	81.1	730	56.3
	52	9,954	83.1	5,911	84.5	872	67.3
Total.....		622,783		363,631		67,389	
Average.....		11,977	100.0	6,994	100.0	1,296	100.0

CHART No. 4.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 117 ESTABLISHMENTS IN THE CHILDREN'S AND MISSES' DRESS INDUSTRY AND IN 5 LARGE AND 5 SMALL ESTABLISHMENTS—NEW YORK CITY.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS-- SMALL ESTABLISHMENTS--

## WOMEN'S MUSLIN-UNDERWEAR INDUSTRY.

As in the instances of the dress and waist industries of Cleveland, Boston, and New York City, the period of investigation of the women's muslin-underwear industry of New York City was different from the period during which most of the inquiries described in this report were made, namely, from August of one year through July of the next. The period for the muslin-underwear industry was from March, 1913, to February, 1914. For purposes of presenting the data in a comparative way, however, it was deemed necessary to rearrange the material secured in the August to July order. The amounts of the pay rolls as well as the percentages of the average weekly pay roll given in this section are therefore for the period from August 3, 1913, to February 28, 1914, and from March 5, 1913, to August 2, 1913.

Table 14 and the accompanying chart show that although in general tendencies seasonal fluctuations of employment in the muslin-underwear industry follow the fluctuations of employment in the other branches of the women's-garment industries of New York City, unemployment due to seasonality seems to have been a far less grave problem in this industry. This can probably be accounted for by the fact that a greater part of its product is manufactured in advance of sales, for "stock"—a factor making possible a relatively even distribution of work throughout the year.

The busy and dull seasons in this industry were as follows: The first busy season, lasting from about the beginning of October to about the end of December, was followed by a somewhat slacker period of about two months; this comparatively dull period was followed by the second busy season of the year, extending over a period of about three and a half months, when business again began to decline, reaching its lowest ebb during the months of July and August. The difference between the highest and lowest pay rolls of the year, in terms of the average weekly pay roll were: Highest 119.8 per cent (week 38), lowest, 70.9 per cent (week 49), the difference between the size of the pay rolls at the busiest point of the year and the pay rolls at the lowest point having been a little less than one-half of the average weekly pay roll for the year.<sup>1</sup>

The table and chart also show that in this, as in the industries already considered, employment is steadier in the large than in the small shops. The range of pay-roll variation is half as large again in the small as in the large shops—96.7 points against 64—while the period during which employment varies by at least 20 points from the average is only five weeks in the large against 24 weeks in the small shops. Moreover, sudden and violent fluctuations are much more numerous in the small shops. A further evidence of the greater

<sup>1</sup> The sudden drop in the pay roll during the weeks 22 to 24, in the month of January, was not caused by any seasonal changes. It is to be attributed to the general strike in the industry which resulted in the signing of the collective agreement described in Appendix D, Bulletin of the U. S. Bureau of Labor Statistics, No. 145.

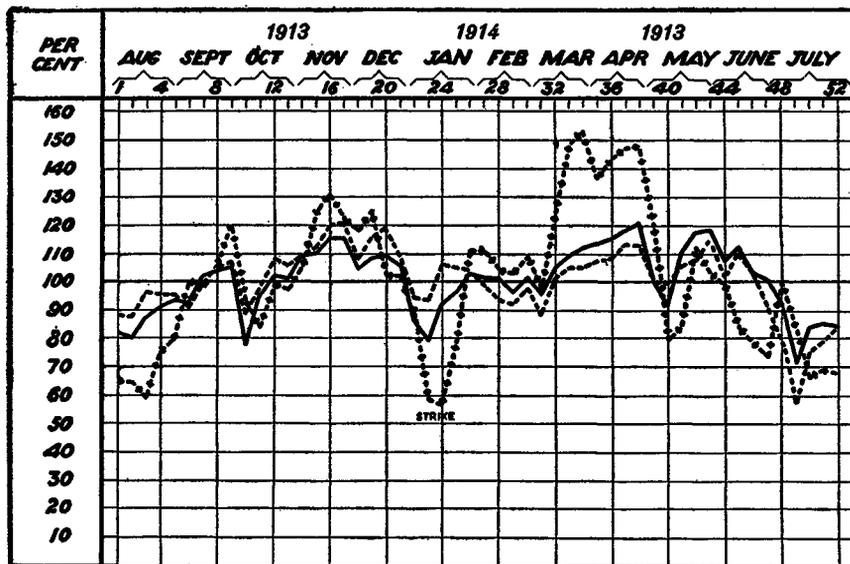
stability of employment in the large shops is given by the pay-roll fluctuations during the strike period, weeks 22 to 24. Both groups are affected, but the small shops show a far more extreme depression than the large ones.

TABLE 14.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 30 REPRESENTATIVE ESTABLISHMENTS IN THE WOMEN'S MUSLIN-UNDERWEAR INDUSTRY OF NEW YORK CITY, AUG. 3, 1913, TO FEB. 28, 1914, AND MAR. 5, 1913, TO AUG. 2, 1913.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (30).		Large shops (5).		Small shops (5).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$23,148	81.8	\$9,664	88.3	\$323	65.3
	2	22,676	80.1	9,527	87.1	801	63.5
	3	24,678	87.2	10,536	96.3	746	59.2
	4	25,797	91.2	10,353	94.6	946	75.0
September.....	5	26,378	93.2	10,404	95.1	1,009	80.0
	6	25,917	91.6	9,986	91.3	1,259	99.8
	7	28,953	102.3	10,890	99.2	1,239	98.2
	8	29,502	104.3	11,460	104.7	1,333	106.7
October.....	9	29,806	105.3	11,706	107.0	1,507	119.5
	10	21,911	77.4	9,787	89.4	1,169	92.7
	11	26,635	94.1	10,572	96.6	1,055	83.7
	12	28,939	102.3	11,833	108.1	1,251	99.2
November.....	13	28,499	100.7	11,575	105.8	1,228	97.4
	14	30,910	109.2	11,943	109.1	1,328	105.3
	15	31,000	109.5	12,199	111.5	1,571	124.6
	16	32,507	114.9	13,116	119.9	1,647	130.6
December.....	17	32,476	114.8	13,217	120.8	1,538	122.0
	18	29,430	104.0	11,839	108.2	1,493	118.4
	19	30,641	108.3	12,687	115.9	1,575	124.9
	20	30,911	109.2	12,991	118.7	1,291	102.4
January.....	21	29,804	105.3	11,901	108.8	1,281	101.6
	22	24,385	86.2	10,263	93.8	1,111	88.1
	23	22,332	78.9	10,176	93.0	735	58.3
	24	25,932	91.6	11,573	105.8	711	56.4
February.....	25	27,286	96.4	11,457	104.6	1,016	80.6
	26	28,999	102.5	11,329	103.5	1,397	110.8
	27	28,698	101.1	10,638	97.7	1,393	110.5
	28	28,432	100.5	10,197	93.2	1,315	104.3
March.....	29	27,282	96.4	10,036	91.7	1,294	102.6
	30	28,584	101.0	10,581	96.7	1,374	109.0
	31	26,804	94.7	9,609	87.8	1,219	96.7
	32	29,836	105.4	11,072	101.2	1,567	124.3
April.....	33	30,728	108.6	11,529	105.3	1,864	147.8
	34	31,596	111.7	11,517	105.2	1,931	153.1
	35	31,853	112.6	11,670	106.6	1,711	135.7
	36	32,553	115.1	11,776	107.6	1,804	143.0
May.....	37	33,431	118.1	12,341	112.8	1,859	147.4
	38	33,832	119.8	12,373	113.1	1,865	147.9
	39	28,090	99.3	10,858	99.2	1,496	118.6
	40	25,604	90.5	10,878	99.4	998	79.0
June.....	41	31,043	109.7	11,447	104.6	1,057	83.8
	42	33,006	116.6	11,754	107.4	1,408	111.5
	43	33,345	117.8	12,607	115.2	1,315	103.4
	44	30,363	107.3	11,088	101.3	1,240	98.3
July.....	45	31,704	112.0	12,047	110.1	1,050	83.3
	46	29,129	102.9	11,244	102.7	980	77.7
	47	28,241	99.8	9,956	91.0	923	73.2
	48	26,113	92.3	8,518	77.8	1,260	99.9
Total.....	49	20,054	70.9	6,215	56.8	1,053	83.5
	50	23,800	84.1	8,164	74.6	834	66.1
	51	24,178	85.4	8,671	79.2	873	69.2
	52	23,638	83.5	9,234	84.4	841	66.7
Total.....		1,471,354		569,024		65,580	
Average.....		28,295	100.0	10,943	100.0	1,261	100.0

CHART No. 5.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 30 ESTABLISHMENTS IN THE WOMEN'S MUSLIN-UNDERWEAR INDUSTRY AND IN 5 LARGE AND 5 SMALL ESTABLISHMENTS—NEW YORK CITY.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS--o-

HOUSE-DRESS AND KIMONO INDUSTRY.

This industry represents the least skilled branch of the women's garment industries. The materials used for making house dresses and kimonos are cheap, and the workmanship is usually of a low quality. For this reason the bulk of the operating on wrappers, house dresses, and kimonos is usually done in contractors' shops without any direct supervision on the part of the manufacturers.

Although numerous efforts were made, it appeared to be impossible to secure information with reference to seasonal fluctuations of employment from contractors. None of the many contractors visited appeared to have any semblance of records for 52 consecutive weeks. Therefore, the information for this section of the report had to be secured from those manufacturers of house dresses and kimonos who have the operating done under their immediate supervision in so-called inside shops. It is natural to suppose that the primary reason why these manufacturers have their operating done inside is the fact that they, more than the average manufacturer in this line, are interested in the quality of the workmanship. Apparently the line of house dresses and kimonos manufactured by them is of a higher grade.

From the data secured from these inside shops Table 15 and the accompanying chart were constructed. An examination of these

shows that the period of most intense activity in this industry during the year under investigation occurred during weeks 30 to 48, during the months of March, April, May, and June. During this period the pay roll for the industry at large was in each instance higher than the average pay roll for the year, the point of maximum intensity having been 140 per cent of the average weekly pay roll. In but two instances during this period did it fall below 110 per cent of the average. The fall busy period of this industry does not seem to have been very pronounced. It extended from weeks 10 to about 18, the months of October and November. During this period the activity of the industry was just about "normal"; that is, the pay rolls for each of these weeks fluctuated about the average for the year. The dullest period of the industry included the months of July, August, and part of September.

The sudden drop of the pay rolls during weeks 23 to 29, in the months of January and the first part of February, is not seasonal in character, but was due chiefly to a general strike which took place in the entire industry during this period. This fact must be discounted in the examination of the table and chart showing seasonal fluctuations of employment. The probabilities are that had this strike not taken place the curve representing the fluctuations of employment on and about this period as shown in the chart would have appeared somewhat more regular.

As to relative regularity of employment in large and in small shops, it is difficult to make any definite statement. The chart and table show that the small shops had the wider range of variation, from 48.7 per cent to 143.9 per cent, against a variation from 74.6 per cent to 154.5 per cent in the large shops, the strike period being omitted from consideration in both cases. On the other hand, employment was below the normal for a longer period in the large than in the small shops, and violent fluctuations were more frequent. Perhaps the most that can be said is that in the matter of irregularity of employment there is not much to choose between the two groups.

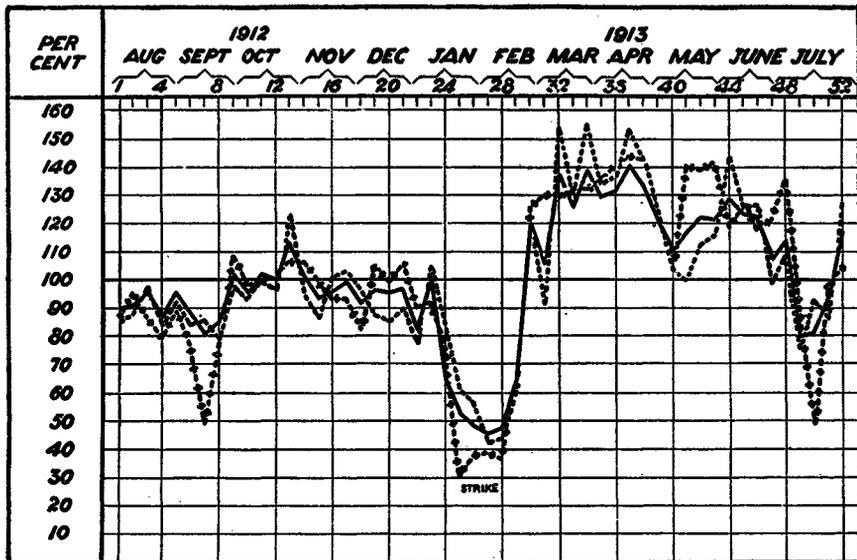
## REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 41

TABLE 15.—SEASONAL FLUCTUATIONS OF EMPLOYMENT, AS SHOWN BY WEEKLY PAY ROLLS, FOR ALL PRODUCTIVE LABOR IN 13 REPRESENTATIVE ESTABLISHMENTS IN THE HOUSE-DRESS AND KIMONO INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amounts and per cent of average weekly pay roll in—					
		All shops (13).		Large shops (3).		Small shops (3).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$5,702	90.4	\$2,716	85.1	\$496	86.1
	2	5,805	90.6	2,797	87.7	535	94.8
	3	6,058	94.6	3,072	96.3	437	86.3
	4	5,632	87.9	2,683	84.1	446	79.0
September.....	5	6,076	94.9	2,945	92.3	502	89.0
	6	5,620	87.7	2,679	84.0	429	76.0
	7	5,199	81.2	2,729	85.5	275	48.7
	8	5,417	84.6	2,521	79.0	436	77.3
October.....	9	6,446	100.6	3,109	97.4	615	109.0
	10	6,071	94.8	2,981	93.4	551	97.7
	11	6,520	101.8	3,172	99.4	561	99.4
	12	6,400	99.9	3,071	96.3	575	101.9
	13	7,252	113.2	3,911	122.6	595	105.5
November.....	14	6,486	101.3	3,044	95.4	598	106.0
	15	5,639	92.7	2,736	85.8	557	98.7
	16	6,078	94.9	3,214	100.7	527	93.4
	17	6,362	99.3	3,293	103.2	526	93.2
December.....	18	5,906	92.2	3,067	96.1	461	81.7
	19	6,184	96.2	2,775	87.0	592	104.9
	20	6,059	94.6	2,720	85.3	559	99.1
	21	6,158	96.1	2,571	90.0	598	106.0
January.....	22	5,302	82.8	2,456	77.0	507	89.9
	23	6,309	98.5	3,350	105.0	517	91.6
	24	4,094	63.9	1,964	61.6	407	72.1
	25	3,306	51.6	1,839	60.8	172	30.5
	26	3,069	47.9	1,772	55.5	207	36.7
	February.....	27	2,901	45.3	1,328	41.6	214
28		3,000	46.8	1,361	42.7	204	36.2
29		4,108	64.1	1,958	61.4	387	65.0
30		7,709	120.4	3,837	120.3	709	125.7
March.....	31	6,093	104.5	2,907	91.1	734	130.1
	32	8,713	136.0	4,910	153.9	725	128.5
	33	8,047	125.6	4,157	130.3	750	132.9
	34	8,823	137.8	4,928	154.5	743	131.7
April.....	35	8,229	128.5	4,273	133.9	762	135.1
	36	8,405	131.2	4,343	136.1	775	137.4
	37	8,963	139.9	4,882	153.0	812	143.9
	38	8,544	133.4	4,530	142.0	803	142.3
May.....	39	7,680	119.9	3,908	122.5	675	119.6
	40	7,054	110.1	3,300	103.4	597	105.8
	41	7,399	115.5	3,146	98.6	792	140.4
	42	7,782	121.5	3,566	111.8	781	138.4
	43	7,745	120.9	3,663	114.8	796	141.1
June.....	44	8,224	128.4	4,596	144.1	665	117.9
	45	7,902	123.4	4,000	125.4	713	126.4
	46	7,908	121.9	4,003	125.5	658	116.6
	47	6,878	107.4	3,126	98.0	684	121.2
July.....	48	7,219	112.7	3,457	108.4	762	135.1
	49	5,127	80.0	2,379	74.6	479	84.9
	50	5,212	81.4	2,942	92.2	275	48.7
	51	5,950	92.9	2,754	86.3	554	98.2
	52	7,421	115.9	4,060	127.3	586	103.9
Total.....		333,056		165,901		29,336	
Average.....		6,405	100.0	3,190	100.0	564	100.0

CHART No. 6.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 13 ESTABLISHMENTS IN THE HOUSE-DRESS AND KIMONO INDUSTRY AND IN 3 LARGE AND 3 SMALL ESTABLISHMENTS—NEW YORK CITY.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS--

#### WOMEN'S CUSTOM-TAILORING INDUSTRY.<sup>1</sup>

Although this report concerns itself chiefly with the women's ready-to-wear garment industries, it was deemed advisable, for purposes of comparison, to secure information for a representative number of establishments in the women's custom-tailoring industry. The figures in Table 16 and Chart No. 7 accompanying it represent pay rolls for all productive labor of four more or less representative large establishments manufacturing women's high-grade garments—cloaks, suits, dresses, gowns, wraps, etc.—to order. In these establishments individual customers have the privilege of selecting not only the materials and designs, but also the specific fitter, cutter, and tailors. These establishments are to this country what certain celebrated dressmakers of Paris are to France, and are turning out women's clothing of the most expensive variety and are also to a certain extent creators of models.

It is believed that this industry, from the point of view of seasonal fluctuations of employment, is very extreme; that is, in no allied industry are seasonal fluctuations of employment so great, pay rolls at the busiest point so large, and the pay rolls at the lowest point so small.

<sup>1</sup> The garments usually made by custom tailors are of the highest grade in women's wear and include cloaks, suits, opera cloaks, evening gowns, waists, and dresses. The materials used are of the most expensive varieties and include serge, worsted, chevots, pongee, linen, voile, taffeta, whipcord, broadcloth, tweed, silk, satin crêpe, velvet, velours, and furs.

The information secured shows that the seasonal fluctuations of employment in this industry for the year under consideration were as follows: The first busy period began about the third week in September and lasted until the middle of December. The climax of this season occurred in October, when the pay rolls of the establishments covered reached 195 per cent of the average weekly pay roll twice. With November work began to decline from these high points, and by the second week in December it had become normal, the pay roll standing at exactly the average. The curve then sinks below the normal and remains below for 12 weeks. With the beginning of March the second busy season commences. This lasts 13 weeks. Both the rise and the fall are a trifle more gradual than in the first busy season, and the highest point reached is not quite so high, 184.2 per cent of the average weekly pay roll against 195.5 per cent reached in October. The lowest point for the whole year is reached in the first week of August, its pay roll being only 12.3 per cent of the average.<sup>1</sup> This gives a range of variation of 183.2 for the year, from 12.3 per cent to 195.5 per cent. In other words, the volume of employment at the busiest point of the season was very nearly sixteen times as great as at the dullest. If the pay roll for the first week of August be taken as the standard, the pay roll for the last week of October is represented by 1,589 per cent, an increase enormously greater than is found in any of the industries heretofore considered.

TABLE 16.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 4 REPRESENTATIVE ESTABLISHMENTS IN THE WOMEN'S CUSTOM-TAILORING INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

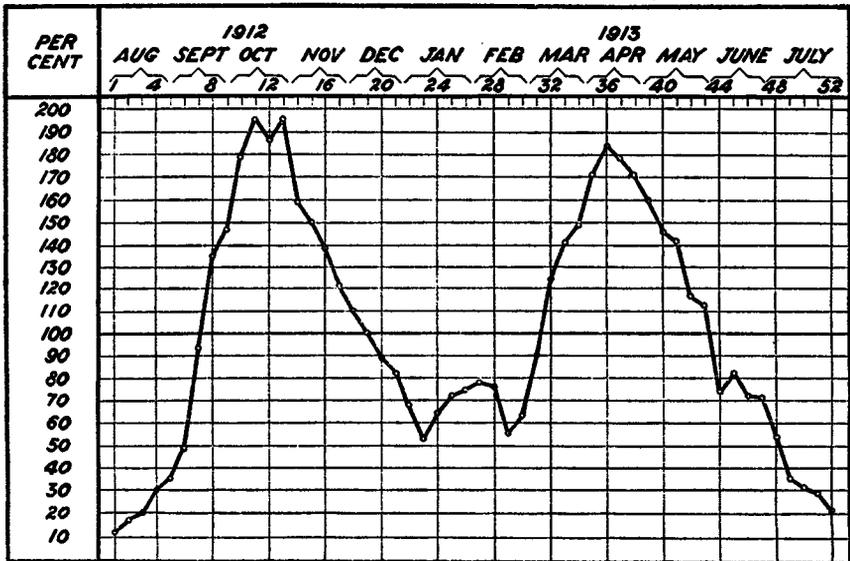
Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
August.....	1	\$842	12.3	January.....	22	\$4,656	67.8
	2	1,189	17.3		23	3,635	52.9
	3	1,402	20.4		24	4,359	63.5
	4	2,041	29.7		25	4,982	71.8
September.....	5	2,377	34.6	26	5,157	75.1	
	6	3,342	48.7	February.....	27	5,361	78.1
	7	6,371	92.8		28	5,210	75.9
	8	9,246	134.6		29	3,754	54.7
October.....	9	10,080	146.8		30	4,318	62.9
	10	12,306	179.2	March.....	31	6,203	90.3
	11	13,418	195.4		32	8,541	124.4
	12	12,779	186.1		33	9,706	141.3
	13	13,424	195.5		34	10,251	149.3
November.....	14	10,949	159.4	April.....	35	11,727	170.8
	15	10,297	150.0		36	12,652	184.2
	16	9,548	139.0		37	12,262	178.6
	17	8,298	120.8		38	11,732	170.8
December.....	18	7,533	109.7	May.....	39	10,997	160.1
	19	6,871	100.0		40	10,004	145.7
	20	6,087	88.6		41	9,742	141.9
	21	5,625	81.9		42	8,061	117.4
					43	7,687	111.9

<sup>1</sup> During this dull season some of the establishments shut down for a number of weeks.

TABLE 16.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 4 REPRESENTATIVE ESTABLISHMENTS IN THE WOMEN'S CUSTOM-TAILORING INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
June.....	44	\$5,076	73.9	July (concluded).....	50	\$2,118	30.8
	45	5,639	82.1		51	1,557	28.5
	46	4,948	72.1		52	1,449	21.1
	47	4,844	70.5				
July.....	48	3,728	54.3	Total.....		357,100	
	49	2,369	34.5	Average.....		6,867	100.0

CHART No. 7.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 4 ESTABLISHMENTS IN THE WOMEN'S CUSTOM-TAILORING INDUSTRY—NEW YORK CITY.



## CHICAGO.

### GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES.

The following table shows the growth of these industries during the last census decade:

TABLE 17.—GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES IN CHICAGO, 1899 TO 1909.

[Figures taken from Thirteenth Census of the United States, Vol. IX, p. 286.]

Census.	Number of establishments.	Wage earners, average number.	Capital.	Wages.	Cost of materials.	Value of products.
1899.....	151	3,988	\$2,793,000	\$1,400,000	\$4,685,000	\$9,208,000
1904.....	174	4,308	3,304,000	2,083,000	6,011,000	11,637,000
1909.....	204	5,615	5,193,000	2,997,000	8,658,000	15,677,000

The rate of increase for the different items was as follows: Number of establishments, 35 per cent; average number of wage earners, 41 per cent; value of products, 70 per cent; capital, 86 per cent; cost of materials, 85 per cent; and wages, 114 per cent. By comparison with the table on page 14, it will be seen that in each instance the rate of increase for the industry in Chicago was less than for the industry as a whole, the minimum difference being found in the rate of increase of wages. The tendency toward concentration appears rather strongly, the increase in number of establishments and in average number of wage earners being relatively much less than in the other items.

### SEASONAL FLUCTUATIONS OF EMPLOYMENT.

#### SUMMARY.

Table 18 and the chart accompanying it show seasonal fluctuations of employment in the leading women's garment industries in the city of Chicago.

In order to form some judgment as to the relative regularity of employment in these industries, the same tests were applied as in the case of the New York industries—the range of variation above and below the average weekly pay roll, the length of time a specified divergence exists and the frequency of sudden and violent fluctuations. Bringing together these details for the different industries, the following table is obtained:

TABLE 18.—IRREGULARITY OF EMPLOYMENT IN WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES OF CHICAGO, AS MEASURED BY THREE DIFFERENT STANDARDS.

[This table is based on data shown in Table 19, the range of variation being percentages of the average weekly pay roll for the year.]

Industry.	Variation for year.			Number of weeks in which pay roll varied by at least 20 points from average.			Number of weeks in which a variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
Cloaks and suits.....	38.5	145.2	106.7	14	16	30	6
Dresses and waists.....	69.8	127.8	58.0	5	8	13	.....
Dresses and skirts.....	69.5	134.9	65.4	8	5	13	2
Skirts only.....	50.3	141.0	90.7	11	6	17	2
House dresses and kimonos.....	58.8	130.5	73.7	4	8	12	6
Petticoats.....	68.0	132.7	64.7	9	10	19	3

Averaging the numerical position of each industry under these different details gives the following order, beginning with the most irregular:

1. Cloaks and suits.
2. Skirts.
3. House dresses and kimonos; petticoats.
4. Dresses and skirts.
5. Dresses and waists.

This presents some variations from the ranking for the New York industries (see p. 25). In Chicago, as in New York, the manufacture of cloaks and suits shows more irregularity of employment than any of the other industries dealing with ready-made garments. But the manufacture of dresses and waists, which in New York stands fourth in irregularity, is in Chicago the most regular of the six considered. The house-dress and kimono industry holds the same rank in both cities. The other lines of manufacture are hardly comparable. No absolute explanation can be given for the greater steadiness of the dress and waist industry in Chicago as compared with New York, but it is probably due to the greater importance of the industry in New York and the comprehensive character of the investigation made there. In the clothing trades there is a great tendency toward small shops, in which, as has been already demonstrated, employment is less regular than in the large. Naturally the more conspicuous an industry is, the more likely it is to attract the man who can put in only a little capital, if, as is the case in the clothing trade, he can thereby gain a foothold in it. Therefore, in New York, where the manufacture of dresses and waists is immensely more important than in Chicago, the small shops with their extreme fluctuations in regularity of employment are probably correspondingly more numerous. The average annual pay roll per shop of those investigated was, in New York, \$35,777, in Chicago, \$33,734. This is not a wide difference, but while it is evident that in Chicago this average can not conceal many divergences, the data given for New York<sup>1</sup> shows that the divergences in each direction were numerous and extreme. A number of the shops investigated employed only a few workers relatively, i. e., were small shops, and this brings up the degree of irregularity for the whole trade.

Table 19 and Chart No. 8 show that the industries in Chicago have the same four seasons, two busy and two dull, that were found in the clothing trades studied in New York. In general, the spring busy season represented the greatest and the winter dull season the smallest amount of employment. In the manufacture of cloaks and suits, the highest point of the pay roll is reached in October and in the manufacture of skirts in July. In all these industries the variation in amount of employment at different seasons is pronounced. In the manufacture of dresses and waists, where the variation is small, the difference between the highest and lowest points of the pay roll nevertheless amounts to more than half the average weekly pay roll, and in the cloak and suit industry it amounts to more than the whole average weekly pay roll.

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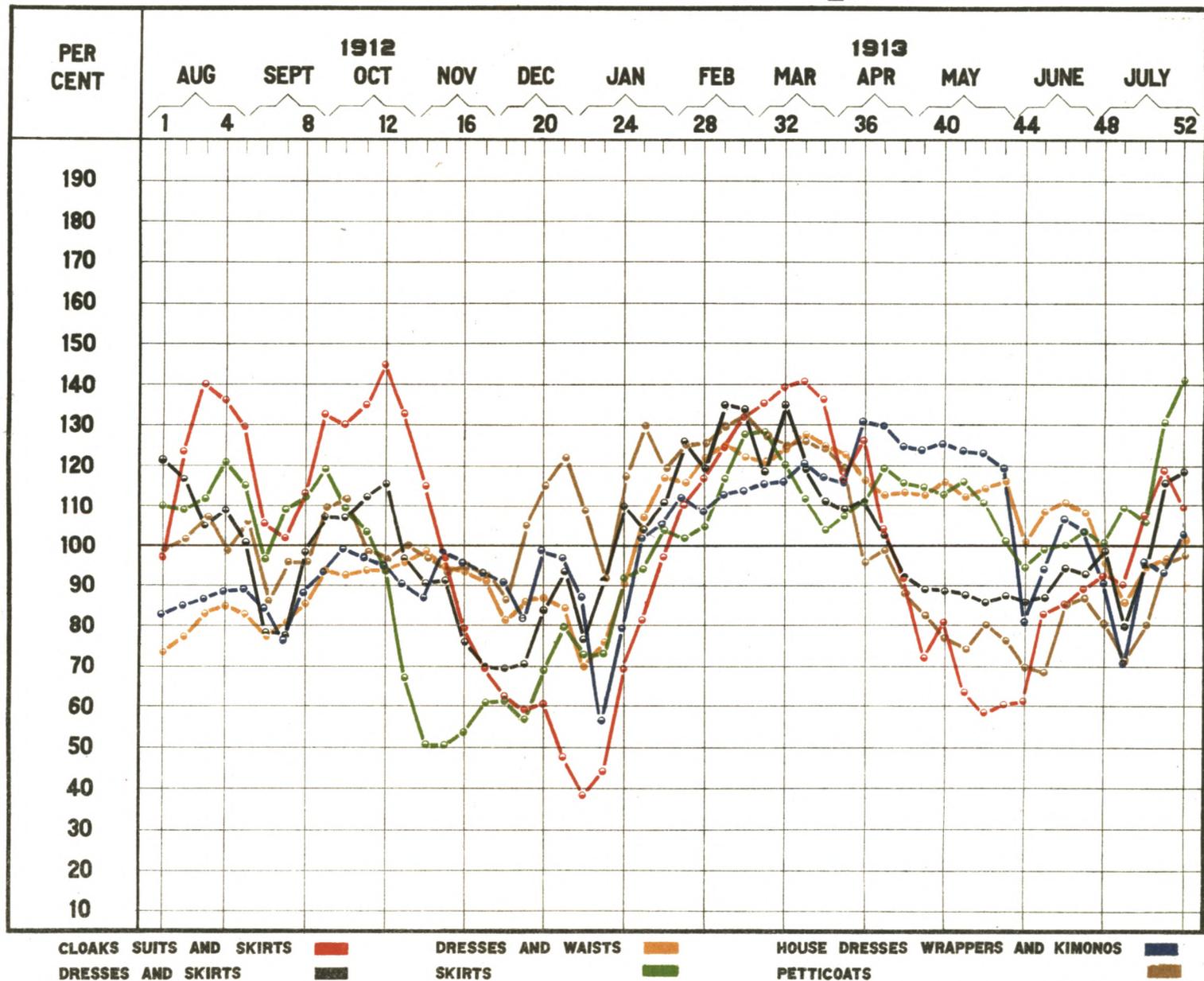
<sup>1</sup> See Bulletin No. 146.

# CHART NO. 8

## WOMEN'S GARMENT TRADES - CHICAGO

SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS  
FOR ALL PRODUCTIVE LABOR

AVERAGE WEEKLY PAY ROLL FOR THE YEAR = 100



CLOAKS SUITS AND SKIRTS  
DRESSES AND SKIRTS

DRESSES AND WAISTS  
SKIRTS

HOUSE DRESSES WRAPPERS AND KIMONOS  
PETTICOATS

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 47

TABLE 19.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN 6 OF THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES, CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

[This table is based on data from 14 establishments in the cloak and suit industry, 10 establishments in the dress and waist industry, 3 establishments in the dress and skirt industry, 2 establishments in the skirt industry, 3 establishments in the house-dress and kimono industry, and 3 establishments in the petticoat industry.]

(Average weekly pay roll for the year=100.)

Month.	Week No.	Per cent of average weekly pay roll in the—					
		Cloak and suit industry.	Dress and waist industry.	Dress and skirt industry.	Skirt industry.	House-dress and kimono industry.	Petticoat industry.
August.....	1	97.4	73.1	121.6	110.0	83.1	98.1
	2	123.9	77.2	116.9	109.1	85.1	101.6
	3	140.5	82.8	105.0	111.7	87.0	107.0
	4	136.3	84.6	109.0	120.8	89.0	98.4
September.....	5	130.0	82.7	100.6	114.5	89.5	105.8
	6	106.0	77.1	78.0	96.5	84.1	85.1
	7	102.1	80.7	77.4	109.1	76.6	95.3
	8	113.8	85.2	98.5	112.3	88.5	95.3
October.....	9	133.0	93.7	107.5	119.3	93.6	109.5
	10	130.4	92.4	109.7	109.7	99.5	111.0
	11	135.4	93.9	112.3	103.2	97.1	98.0
	12	145.2	93.5	115.4	93.2	93.9	95.9
	13	132.8	95.7	98.3	67.5	90.3	99.9
November.....	14	115.4	98.4	90.4	50.7	87.1	96.8
	15	97.3	94.4	91.1	50.3	97.5	94.0
	16	79.6	93.2	75.9	53.6	96.0	94.9
	17	70.0	90.6	70.8	60.7	93.1	92.8
December.....	18	62.6	81.0	69.5	61.2	91.0	85.8
	19	59.7	85.8	70.8	57.0	81.7	104.2
	20	60.3	86.5	83.4	69.2	99.0	114.3
	21	48.1	84.0	93.2	79.5	97.1	122.0
January.....	22	38.5	69.8	76.7	73.0	87.2	108.2
	23	44.1	75.8	91.3	73.0	56.8	91.2
	24	69.6	90.1	109.9	91.2	79.8	116.4
	25	81.3	106.7	108.3	94.1	102.0	129.5
	26	97.3	116.7	110.4	103.7	104.3	118.9
February.....	27	110.2	115.4	125.2	101.8	112.0	124.5
	28	117.1	121.8	119.6	104.5	108.4	124.7
	29	124.8	124.7	134.6	116.6	112.8	129.2
	30	132.0	122.0	133.6	127.8	113.8	132.7
March.....	31	135.1	120.8	118.6	128.2	115.3	127.1
	32	139.6	123.9	134.9	120.3	116.0	124.6
	33	140.9	127.8	119.1	111.7	120.3	125.9
	34	136.1	124.9	111.0	103.7	117.1	123.7
April.....	35	116.7	122.5	109.1	107.7	115.8	118.5
	36	126.2	116.1	110.1	111.0	130.5	95.1
	37	104.1	112.4	102.8	119.6	129.4	98.6
	38	92.3	112.9	92.7	115.7	124.5	87.6
May.....	39	72.3	112.1	89.1	114.3	123.9	81.9
	40	80.9	115.4	88.5	112.8	125.0	76.7
	41	63.6	112.1	87.6	115.7	123.5	73.8
	42	58.8	114.1	85.2	110.5	122.8	79.6
	43	60.5	115.8	87.3	101.0	119.5	75.7
June.....	44	61.3	100.3	86.1	94.3	81.2	69.2
	45	83.0	108.1	88.8	99.1	94.0	68.0
	46	85.5	110.3	94.3	100.0	106.8	84.5
	47	89.3	107.8	92.6	103.3	103.1	86.1
July.....	48	92.8	95.2	98.4	100.2	90.7	79.9
	49	90.4	85.5	79.8	109.2	70.7	70.3
	50	107.8	94.7	95.6	105.5	95.2	79.5
	51	119.2	96.5	115.2	130.2	93.2	95.7
	52	109.5	101.0	118.6	141.0	102.9	96.8

## CLOAK AND SUIT INDUSTRY.

Next in importance to the cities of New York and Cleveland in the output of cloaks is the city of Chicago. In this inquiry the pay rolls of 14 representative establishments, amounting to about \$1,000,000, were secured. The combined value of the annual output of these establishments is estimated at considerably over \$4,000,000.

The fluctuations of employment in the cloak and suit industry of Chicago are similar to those of the cloak, suit, and skirt industry of New York, Table 20 and the chart accompanying it showing two periods of intense activity separated from each other by relatively long periods of inactivity. The first period of intense activity for the year under inquiry began in the early part of August and lasted until about the first week of November. At the busiest point of this season the combined pay rolls of the establishments exceeded the average for the year by a little less than one-half, viz, 45.2 per cent of the average. This period of intense activity was followed by the dullest period of the year, lasting from about the beginning of November until about the middle of January, the point of lowest activity, as registered by the pay rolls, having occurred in the first week in January. Manufacturing for the coming fall during the spring of 1913 began about the middle of January and reached its maximum point in the middle of March, when the pay rolls mounted to a little over 140 per cent of the average. This busy spring season was then followed by the second dull season of the year, lasting from about the middle of April until the end of July.

For purposes of showing the relative regularity of employment in the large and small shops of the industry, the pay rolls of five large and of an equal number of small shops were combined. The total annual pay roll of the five large establishments aggregated \$677,632, the average for the group having been about \$135,000, as against a total of \$89,617, with an average of about \$17,900, the respective figures for the group of small establishments.

The results obtained, as shown in Table 20 and Chart No. 9, indicate that during the months of August to December, 1912, relatively larger amounts of employment were available in the larger shops of the industry. On the other hand, the small shops seem to have had relatively larger amounts of employment during the spring and early summer of 1913, the aggregated pay rolls of the five small establishments during the late part of March and the first part of April having mounted to an altitude of 189 per cent of the average, as against 145 per cent of the average for the large establishments during the second week of March, the highest amount of employment found in the large shops at this part of the year.

The range of variation was 149.6 for the small shops, as against 120.2 for the large; the number of weeks in which employment varied by at least 20 points from the normal was 28 in the small shops, 34

in the large, and the number of times a variation of at least 20 points within a single week occurred was for the small shops 12 and for the large shops 7. In two of these three items the large shops make a distinctly better showing than the small. Employment does not show so wide a range of variation, nor are violent fluctuations so frequent. On the whole, therefore, it appears safe to say that employment was more regular throughout the year in the large than in the small shops of the industry.

TABLE 20.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 14 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK AND SUIT INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

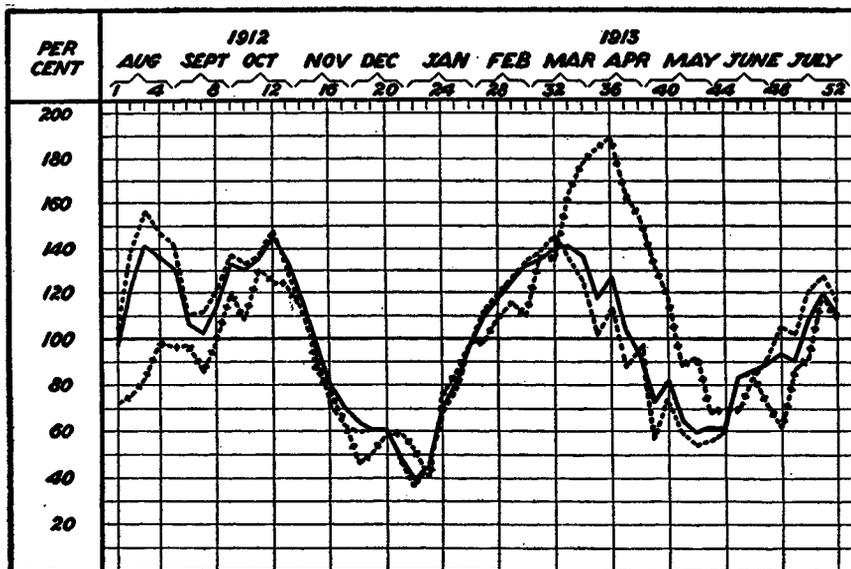
(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay rolls in—					
		All shops (14).		Large shops (5).		Small shops (5).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$17,124	97.4	\$13,602	104.4	\$1,247	72.4
	2	21,786	123.9	17,876	137.2	1,288	74.7
	3	24,706	140.5	20,372	156.3	1,427	82.3
	4	23,966	136.3	19,153	147.0	1,692	98.2
September.....	5	22,855	130.0	18,520	142.1	1,644	95.9
	6	18,641	106.0	14,389	110.4	1,677	97.3
	7	17,949	102.1	14,401	110.5	1,471	85.4
	8	20,005	113.8	15,778	121.1	1,710	99.2
October.....	9	23,393	133.0	17,861	137.1	2,064	119.8
	10	22,936	130.4	17,376	133.3	1,860	107.9
	11	23,807	135.4	17,675	135.6	2,234	129.6
	12	25,533	145.2	19,247	147.7	2,129	123.5
	13	23,347	132.8	16,964	130.2	2,141	124.2
November.....	14	20,288	115.4	14,528	111.5	1,948	113.0
	15	17,116	97.3	12,214	93.7	1,495	86.7
	16	13,994	79.6	9,281	71.2	1,334	77.4
	17	12,311	70.0	8,067	61.9	1,085	63.0
December.....	18	11,001	62.6	7,700	59.1	790	45.8
	19	10,502	59.7	7,770	59.6	857	49.7
	20	10,600	60.3	7,814	60.0	1,004	58.3
	21	8,450	48.1	6,111	46.9	1,014	53.8
	22	6,763	38.5	4,710	36.1	894	51.9
January.....	23	7,748	44.1	5,955	45.7	685	39.7
	24	12,243	69.6	8,853	68.0	1,285	74.6
	25	14,289	81.3	10,266	78.3	1,449	84.1
	26	17,105	97.3	12,621	96.9	1,689	98.0
	27	19,376	110.2	14,574	111.8	1,691	98.1
February.....	28	20,588	117.1	15,560	119.4	1,575	108.8
	29	21,939	124.8	16,452	126.3	1,986	115.2
	30	23,205	132.0	17,578	134.9	1,889	109.6
	31	23,752	135.1	18,030	138.4	2,549	136.3
March.....	32	24,541	139.6	18,952	145.4	2,327	135.0
	33	24,770	140.9	17,533	134.5	2,822	163.7
	34	23,931	136.1	16,342	125.4	3,043	176.6
	35	20,513	116.7	13,183	101.2	3,170	183.9
April.....	36	22,187	126.2	14,763	113.3	3,262	189.3
	37	18,308	104.1	11,371	87.3	2,824	163.9
	38	16,237	92.3	9,844	75.5	2,633	152.3
	39	12,705	72.3	7,262	55.7	2,280	132.3
May.....	40	14,224	80.9	9,685	74.3	2,033	113.0
	41	11,190	63.6	7,663	58.3	1,515	87.9
	42	10,346	58.8	6,833	52.3	1,566	90.9
	43	10,646	60.5	7,157	54.9	1,176	68.2

TABLE 20.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 14 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK AND SUIT INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay rolls in—					
		All shops (14).		Large shops (5).		Small shops (5).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
June.....	44	\$10,777	61.3	\$7,740	59.4	\$1,200	69.6
	45	14,590	83.0	10,971	84.2	1,182	68.6
	46	15,033	85.5	11,035	84.7	1,434	83.2
	47	15,696	89.3	11,841	90.9	1,218	70.7
July.....	48	16,322	92.8	13,685	105.0	1,048	60.8
	49	15,895	90.4	13,286	102.0	1,481	85.9
	50	13,953	107.8	15,582	119.6	1,574	91.3
	51	20,962	119.2	16,485	126.5	2,054	119.2
	52	19,259	109.5	15,071	115.7	1,872	108.6
Total.....		914,403		677,632		89,617	
Average.....		17,585	100.0	13,031	100.0	1,723	100.0

CHART No. 9.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 14 ESTABLISHMENTS IN THE CLOAK AND SUIT INDUSTRY AND IN 5 LARGE AND 5 SMALL ESTABLISHMENTS—CHICAGO.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS--  
DRESS AND WAIST INDUSTRY.

Information was secured from 10 representative establishments manufacturing dresses and waists, the total combined pay rolls of which were considerably over \$300,000. The seasons of the year in the dress and waist industry of Chicago were to a certain extent like those in the coat and suit industry in the same city, although the

fluctuations from week to week were not so marked; that is, the pay rolls in the busy seasons, as compared with the average for the year, were not as large and the pay rolls of the dull seasons not as low. Employment in the dress and waist industry was more equally distributed about the average week.

The fall busy season, in which manufacturing was done for the coming spring, began late in September and lasted well into November. The spring busy season was much longer, beginning in January and lasting through June, and also much busier, the payroll remaining above the average for the whole period, whereas in the fall busy season it never quite reached the average. The busiest week of the year occurred in the middle of March (week 33), when the combined pay rolls of the 10 firms amounted to 127.8 per cent of the average. The lowest points of the year, holiday weeks excluded, occurred during week 18, at the beginning of December, when the pay rolls fell to 81 per cent of the average; during the first two weeks of August, when the pay rolls were still lower, 73.1 and 77.2 per cent of the average; and during week 6, when the pay roll was 77.1 per cent of the average.

From August until December the pay rolls of the small shops show a considerably greater percentage of employment than prevailed in the large. During 6 consecutive weeks of this time, while the pay rolls of the large shops ranged from 15 to 23 points below normal, those of the small shops ranged from 6 to 27 points above it. From about the beginning of December until the second week in February, the position is reversed, the large shops showing a greater percentage of their normal pay roll. Then for some 7 weeks the small shops take the lead, after which their pay rolls show a progressive diminution of employment, whereas in the large shops the busiest point of the season is not reached until nearly two months later (week 43). By the beginning of June the pay roll had sunk to 84 per cent of the normal in the small shops, but in the large shops it remained at over 100 per cent until the first week in July.

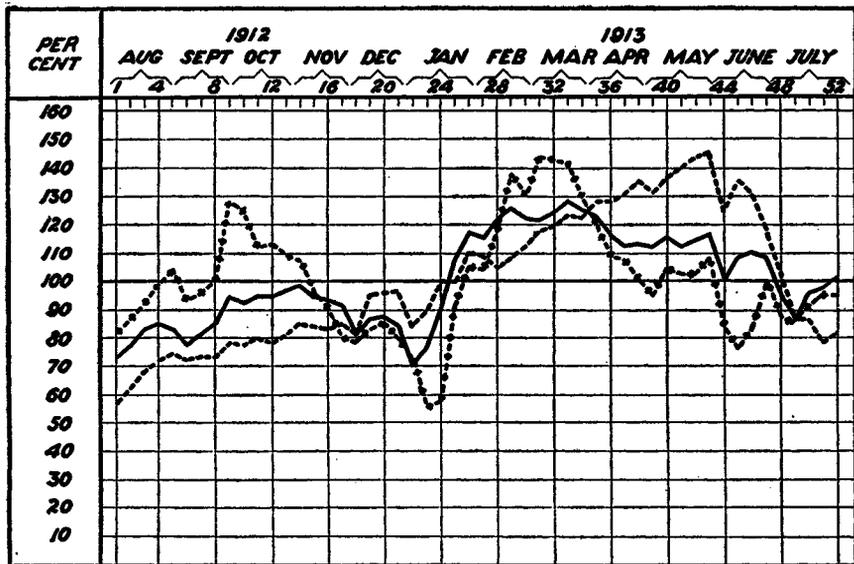
In regard to regularity of employment, the two groups of shops show a curious similarity. The range of variation is almost the same, 88.1 for the large and 88.7 for the small. The percentage of employment varied from the normal by at least 20 per cent for a longer period in the large than in the small shops, 26 weeks against 14, but, on the other hand, sudden and violent fluctuations were more frequent in the small shops. On the whole, employment seems to have been rather more regular in the large shops, but the difference is not marked.

TABLE 21.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 10 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops.		Large shops.		Small shops.	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$4,744	73.1	\$1,331	56.9	\$643	82.2
	2	5,010	77.2	1,453	62.1	683	87.4
	3	5,375	82.8	1,695	68.2	720	92.1
	4	5,489	84.6	1,678	71.8	772	98.7
September.....	5	5,367	82.7	1,734	74.2	811	103.7
	6	5,091	77.1	1,692	72.4	723	92.5
	7	5,239	80.7	1,714	73.3	740	94.6
	8	5,527	85.2	1,699	72.7	780	99.8
October.....	9	6,082	93.7	1,820	77.8	999	127.8
	10	5,998	92.4	1,797	76.9	974	124.6
	11	6,095	93.9	1,878	80.3	878	112.3
	12	6,066	93.5	1,832	78.4	881	112.7
	13	6,209	95.7	1,898	81.1	852	109.0
November.....	14	6,383	98.4	1,979	84.6	835	106.8
	15	6,123	94.4	1,965	84.0	739	94.5
	16	6,049	93.2	1,935	82.8	708	90.5
	17	5,880	90.6	1,984	84.9	626	80.1
December.....	18	5,256	81.0	1,886	80.7	613	78.4
	19	5,564	85.8	2,221	95.0	649	83.0
	20	5,615	86.5	2,223	95.1	664	84.9
	21	5,451	84.0	2,236	95.6	620	79.3
January.....	22	4,598	69.8	1,963	84.0	561	71.7
	23	4,916	75.8	2,090	89.4	431	55.1
	24	5,844	90.1	2,334	99.8	446	57.0
	25	6,921	106.7	2,319	99.2	714	91.3
	26	7,570	116.7	2,562	109.6	821	105.0
February.....	27	7,490	115.4	2,540	108.6	816	104.4
	28	7,903	121.8	2,436	104.2	916	117.2
	29	8,088	124.7	2,522	107.9	1,079	138.0
	30	7,918	122.0	2,625	112.3	1,016	129.9
March.....	31	7,838	120.8	2,725	116.5	1,124	143.8
	32	8,040	123.9	2,778	118.8	1,118	143.0
	33	8,294	127.8	2,886	123.4	1,100	140.7
	34	8,106	124.9	2,860	122.3	1,009	129.0
April.....	35	7,947	122.5	2,981	127.5	935	119.6
	36	7,533	116.1	2,993	128.0	847	108.3
	37	7,290	112.4	3,029	129.5	839	107.3
	38	7,317	112.9	3,163	135.3	785	100.4
May.....	39	7,272	112.1	3,054	130.6	737	94.3
	40	7,490	115.4	3,177	135.9	814	104.1
	41	7,272	112.1	3,260	139.4	799	102.2
	42	7,390	114.1	3,342	142.9	794	101.5
	43	7,419	115.8	3,390	145.0	847	108.3
June.....	44	6,507	100.3	2,906	124.3	657	84.0
	45	7,012	108.1	3,147	134.6	590	75.5
	46	7,158	110.3	3,047	130.3	651	83.3
	47	6,991	107.8	2,768	118.4	772	98.7
July.....	48	6,174	95.2	2,379	101.7	679	86.8
	49	5,550	85.5	2,001	85.6	656	83.9
	50	6,142	94.7	2,011	86.0	712	91.1
	51	6,260	96.5	1,825	78.1	743	95.0
	52	6,555	101.0	1,916	81.9	745	95.3
Total.....		337,337		121,579		40,663	
Average.....		6,487	100.0	2,338	100.0	782	100.0

CHART No. 10.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 10 ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY AND IN SELECTED LARGE AND SMALL ESTABLISHMENTS—CHICAGO.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS--

SKIRTS, AND DRESSES AND SKIRTS.

The annual pay rolls of two establishments of medium size manufacturing skirts exclusively were secured. Table 22 and Chart No. 11 accompanying it show that, although the general tendencies of the seasons in skirts are very similar to those in cloaks and suits, employment in these two shops was somewhat more regular than in the 14 establishments manufacturing cloaks and suits; that is, as compared with the average week of the year, the pay rolls in establishments making skirts exclusively, during the busy periods do not mount as high and during dull periods do not fall as low as in the cloak and suit industry. Employment, generally speaking, appears to have been somewhat more regularly distributed throughout the year, the reason for this difference apparently having been the fact that in the manufacture of skirts, to a somewhat greater extent than in coats and suits, manufacturing is done in advance of the sales.

The same, as shown in Table 23 and the chart accompanying it, was apparently true of establishments in which the manufacturing of skirts was combined with the manufacturing of dresses.

TABLE 22.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 2 REPRESENTATIVE ESTABLISHMENTS IN THE SKIRT INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
August.....	1	\$2,040	110.0	March.....	31	\$2,376	128.2
	2	2,022	109.1		32	2,231	120.3
	3	2,071	111.7		33	2,070	111.7
	4	2,240	120.8		34	1,923	103.7
September.....	5	2,123	114.5	April.....	35	1,996	107.7
	6	1,789	96.5		36	2,057	111.6
	7	2,022	109.1		37	2,217	119.6
	8	2,082	112.3		38	2,144	115.7
October.....	9	2,211	119.3	May.....	39	2,119	114.3
	10	2,034	109.7		40	2,092	112.3
	11	1,914	103.2		41	2,144	115.7
	12	1,727	93.2		42	2,048	110.5
	13	1,251	67.5		43	1,872	101.0
November.....	14	940	50.7	June.....	44	1,749	94.3
	15	933	50.3		45	1,837	99.1
	16	993	53.6		46	1,853	100.0
	17	1,126	60.7		47	1,915	103.3
December.....	18	1,135	61.2	July.....	48	1,858	100.2
	19	1,056	57.0		49	2,025	109.2
	20	1,233	69.2		50	1,955	105.5
	21	1,473	79.5		51	2,413	130.2
January.....	22	1,354	73.0	52	2,613	141.0	
	23	1,354	73.0	Total.....	96,395	.....	
	24	1,690	91.2				
	25	1,745	94.1				
	26	1,922	103.7				
27	1,888	101.8					
February.....	28	1,938	104.5	Average.....	1,854	100.0	
	29	2,162	116.6				
	30	2,370	127.8				

CHART NO. 11.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 2 ESTABLISHMENTS MANUFACTURING SKIRTS ONLY—CHICAGO.

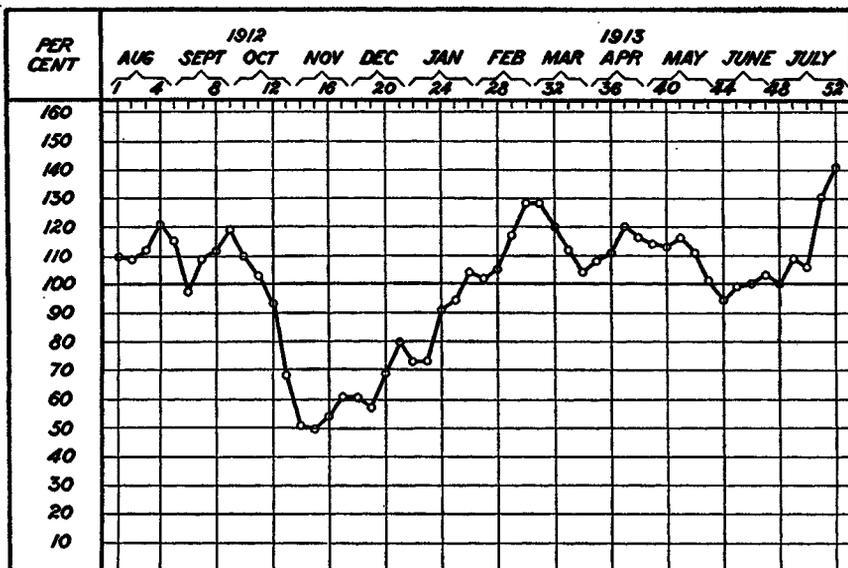
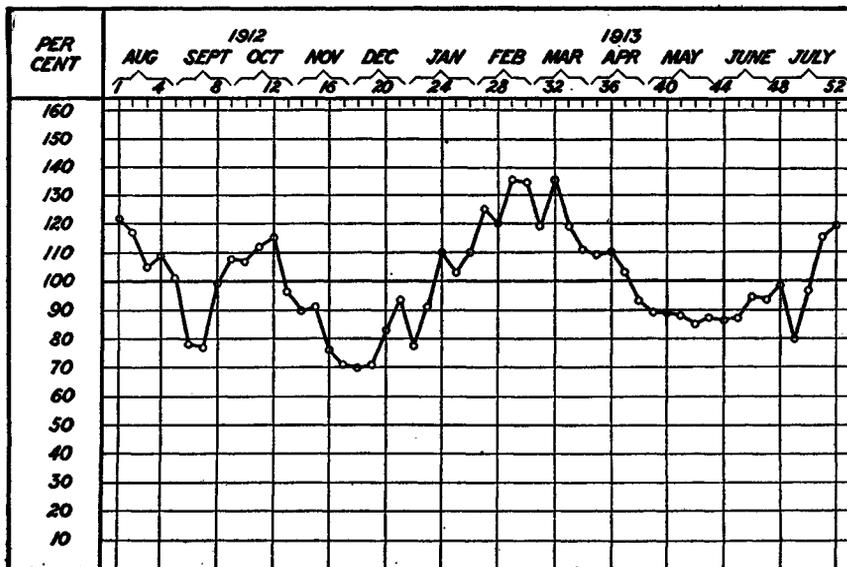


TABLE 23.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND SKIRT INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
August.....	1	\$1,554	121.6	March.....	31	\$1,515	118.6
	2	1,493	118.9		32	1,723	134.9
	3	1,342	105.0		33	1,521	119.1
	4	1,332	109.0		34	1,418	111.0
September.....	5	1,235	100.6	April.....	35	1,394	109.1
	6	997	78.0		36	1,407	110.1
	7	989	77.4		37	1,313	102.8
	8	1,258	98.5		38	1,184	92.7
October.....	9	1,373	107.5	May.....	39	1,133	89.1
	10	1,368	107.1		40	1,131	88.5
	11	1,435	112.3		41	1,119	87.6
	12	1,474	115.4		42	1,089	85.2
November.....	13	1,230	96.3	June.....	43	1,116	87.3
	14	1,155	90.4		44	1,100	86.1
	15	1,164	91.1		45	1,109	86.8
	16	970	75.9		46	1,205	94.3
December.....	17	905	70.8	July.....	47	1,183	92.6
	18	888	69.5		48	1,257	98.4
	19	905	70.8		49	1,020	79.8
	20	1,065	83.4		50	1,221	95.6
January.....	21	1,191	93.2	Total.....	51	1,472	115.2
	22	930	76.7		52	1,515	118.6
	23	1,167	91.3		Average.....	66,430	.....
	24	1,416	109.9			1,278	100.0
February.....	25	1,320	103.3				
	26	1,411	110.4				
	27	1,599	125.2				
	28	1,523	119.6				
	29	1,719	134.6				
	30	1,707	133.6				

CHART No. 12.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 ESTABLISHMENTS MANUFACTURING DRESSES AND SKIRTS—CHICAGO.



## HOUSE-DRESS AND KIMONO INDUSTRY.

As the United States Census of Manufactures does not classify women's ready-to-wear garment industries into specialized branches, such as cloaks and suits, dresses and waists, children's and misses' dresses, etc., it was difficult to tell the precise proportion of each specialized industry that is located in specific cities. It is known, however, from personal observation and interviews with representative manufacturers, that the house-dress and kimono industry, unlike the industries of cloaks and suits and dresses and waists, is scattered throughout the country. There appears to be no specific center of manufacturing for these garments. It was the opinion of competent informants that the city of New York, without doubt the most important women's garment center of the country, produced only between 15 and 20 per cent of the total output of house dresses and kimonos.

The extent of manufacturing of house dresses and kimonos in the city of Chicago, in terms of figures, is unknown. It was stated, however, by officers of the Chicago Women's Garment Manufacturers' Association that it probably is not over 10 per cent of the total output of the United States.

In this inquiry pay-roll data was secured from three representative, relatively large establishments, the owners of which are members of the Chicago Women's Garment Manufacturers' Association.

Table 24 and the chart accompanying it show that, with the exception of the Christmas and Fourth of July weeks, employment, measured in terms of the average week for the year, seldom fell below 80 per cent, and only in two instances exceeded 125 per cent, showing that the range of variation was only one-fourth of the "normal" (the average) in either direction. This relative regularity of employment, the employers maintained, should be ascribed chiefly to the fact that in this industry, more than in any other branch of the women's wear industries, manufacturing is done "for stock," in advance of sales.

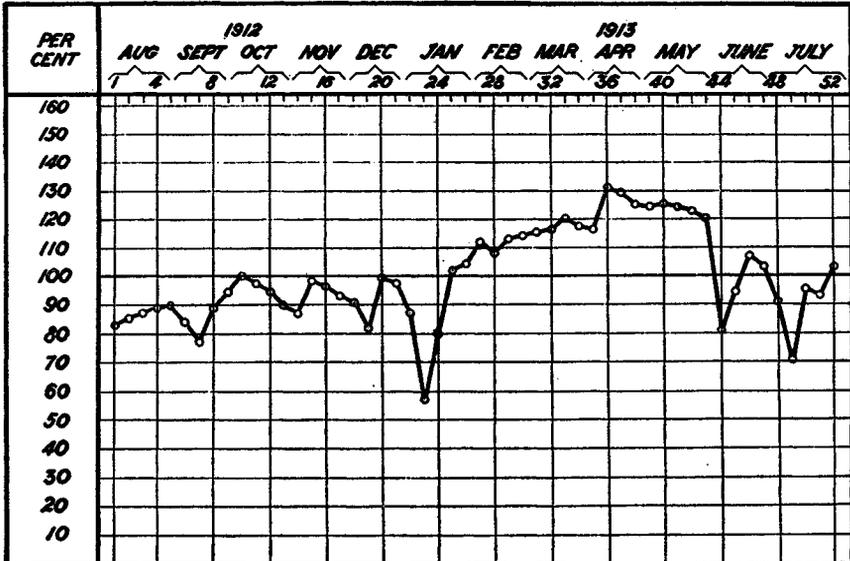
REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 57

TABLE 24.—SEASONAL FLUCTUATIONS OF EMPLOYMENT, AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 REPRESENTATIVE ESTABLISHMENTS IN THE HOUSE-DRESS AND KIMONO INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
August.....	1	\$1,342	83.1	March.....	31	\$1,724	115.3
	2	1,273	85.1		32	1,734	116.0
	3	1,300	87.0		33	1,799	120.3
	4	1,330	89.0		34	1,751	117.1
September.....	5	1,338	89.5	April.....	35	1,731	115.8
	6	1,257	84.1		36	1,951	130.5
	7	1,145	76.6		37	1,934	129.4
	8	1,323	88.5		38	1,861	124.5
October.....	9	1,399	93.6	May.....	39	1,853	123.9
	10	1,457	99.5		40	1,869	125.0
	11	1,452	97.1		41	1,846	123.5
	12	1,404	93.9		42	1,886	122.8
November.....	13	1,350	90.3	43	1,786	119.5	
	14	1,302	87.1	June.....	44	1,214	81.2
	15	1,458	97.5		45	1,405	94.0
	16	1,436	96.0		46	1,597	106.8
17	1,392	93.1	47		1,542	103.1	
December.....	18	1,360	91.0	July.....	48	1,356	90.7
	19	1,222	81.7		49	1,075	70.7
	20	1,490	99.0		50	1,423	95.2
	21	1,451	97.1		51	1,393	93.2
January.....	22	1,304	87.2	52	1,538	102.9	
	23	849	56.8	Total.....	77,733		.....
	24	1,193	79.8		Average.....	1,495	
	25	1,525	102.0				
February.....	26	1,560	104.3				
	27	1,674	112.0				
	28	1,621	108.4				
	29	1,687	112.8				
	30	1,701	113.8				

CHART NO. 13.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 ESTABLISHMENTS MANUFACTURING HOUSE DRESSES AND KIMONOS—CHICAGO.



## PETTICOATS.

No establishment manufacturing petticoats exclusively was found. The information showing the seasons in the manufacture of petticoats was secured from three establishments in which the manufacturing of petticoats is, to a certain extent, used as a means of equalizing employment during the slack periods in the dress and waist industry.

This information, which is shown in Table 25 and Chart No. 14, would seem to indicate that although, in a very vague way, the usual two busy and two dull periods of the women's garment trades can be discerned in the manufacture of petticoats, employment as compared with the pay roll for the average week is fairly equally distributed throughout the year.

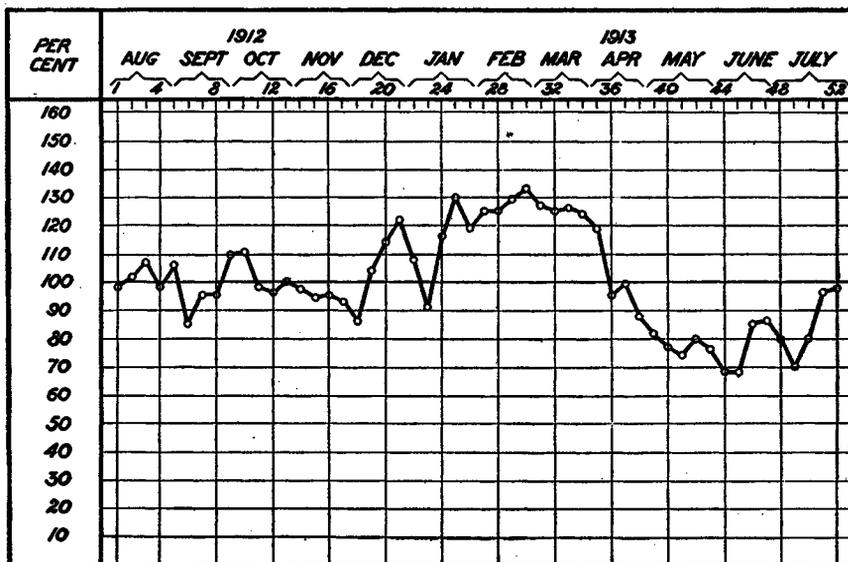
In the course of the year under inquiry the pay rolls for the petticoat departments of the establishments concerned, holiday weeks excepted, were one-third above the average during the busiest week, number 30, in February, and about two-thirds of the average during the dullest weeks of the year.

TABLE 25.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 REPRESENTATIVE ESTABLISHMENTS IN THE PETTICOAT INDUSTRY OF CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.			
		Amount.	Per cent.			Amount.	Per cent.		
August.....	1	\$887	98.1	March.....	31	\$1,110	127.1		
	2	887	101.6		32	1,088	124.6		
	3	934	107.0		33	1,099	125.9		
	4	859	98.4		34	1,080	123.7		
September.....	5	924	105.8	April.....	35	1,085	118.5		
	6	743	85.1		36	830	95.1		
	7	832	95.3		37	861	98.6		
	8	832	95.3		38	765	87.6		
October.....	9	966	109.5	May.....	39	715	81.9		
	10	969	111.0		40	670	76.7		
	11	864	98.0		41	644	73.8		
	12	837	95.9		42	695	79.6		
	13	872	99.9		43	661	75.7		
November.....	14	845	96.8	June.....	44	604	69.2		
	15	821	94.0		45	594	68.0		
	16	829	94.9		46	738	84.5		
	17	810	92.8		47	752	86.1		
December.....	18	749	85.8	July.....	48	698	79.9		
	19	910	104.2		49	614	70.3		
	20	998	114.3		50	694	79.5		
	21	1,065	122.0		51	836	95.7		
					52	845	96.8		
January.....	22	945	108.2	Total.....	45,410	.....	.....		
	23	796	91.2		Average.....	873	100.0	.....	
	24	1,016	116.4						
	25	1,131	129.5						
	26	1,038	118.9						
	February.....	27	1,087			124.5			
28		1,089	124.7						
29		1,128	129.2						
30		1,169	132.7						

CHART No. 14.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 3 ESTABLISHMENTS MANUFACTURING PETTICOATS—CHICAGO.



**CLEVELAND.**

**GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES.**

The following table giving statistics of the establishments engaged in the manufacture of women's ready-to-wear garments in Cleveland indicates the growth of that industry during the decade, 1899 to 1909:

TABLE 26.—GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES IN CLEVELAND, 1899 TO 1909.

[Figures from Thirteenth Census of the United States, Vol. IX, p. 977.]

Census.	Number of establishments.	Wage earners, average number.	Capital.	Wages.	Cost of materials.	Value of products.
1899.....	77	2,362	\$1,598,000	\$342,000	\$2,445,000	\$4,213,000
1904.....	78	3,394	2,533,000	1,682,000	3,786,000	7,428,000
1909.....	96	5,418	4,941,000	2,903,000	6,496,000	12,789,000

During the census decade 1899 to 1909 the women's garment industries of Cleveland increased as follows: Number of establishments, 25 per cent; average number of wage earners, 129 per cent; cost of materials, 166 per cent; value of products, 204 per cent; capital, 209 per cent; wages, 245 per cent. It is interesting to note that the per cent of increase in the number of establishments was relatively small, in spite of the fact that the value of the output had trebled.

## SEASONAL FLUCTUATIONS OF EMPLOYMENT.

## SUMMARY.

Table 28 and the accompanying chart show the fluctuations of employment in the cloak, suit, and skirt and in the dress and waist industries of Cleveland during the year covered. These industries resemble those already studied in New York in that for each the year consists of two busy seasons separated from each other by periods of comparative dullness, but differ in the greater regularity of employment they offer. The relative regularity, as shown by the three tests already discussed, is as follows:

TABLE 27.—COMPARATIVE REGULARITY OF EMPLOYMENT IN CLOAK, SUIT, AND SKIRT INDUSTRY AND DRESS AND WAIST INDUSTRY, NEW YORK CITY AND CLEVELAND.

Items.	New York.		Cleveland.	
	Cloak, suit, and skirt industry.	Dress and waist industry.	Cloak, suit, and skirt industry.	Dress and waist industry.
Range of variation in per cent of average weekly pay roll for the year...	121.2	84.6	74.1	67.4
Number of weeks showing variation of at least 20 points above or below average.....	38	17	21	9
Number of sudden and violent fluctuations (20 per cent or over in 1 week)	8	2	2	1

The greater steadiness of employment in the Cleveland industries is apparent. One cause for this has already been discussed, the degree of specialization in New York, which makes for greater irregularity. Another important cause is the difference in the method of disposing of the manufactured product. New York City is, as far as women's garments are concerned, what is technically called a "buying" market; that is, the goods are sold on the premises of the manufacturer to buyers who come for the purpose of purchasing. Cleveland, on the other hand, is a "selling" market; that is, the goods are disposed of by traveling salesmen who secure orders from buyers outside the city. These salesmen make every effort to secure orders as far in advance of the season as possible, a method that diminishes the manufacturer's risk and tends to regularize production.

As between the two industries, the differences are much greater in New York than in Cleveland, but in both cases the manufacture of dresses and waists shows greater regularity than that of cloaks and suits. Chart No. 15 shows that while in Cleveland the range of variation does not differ greatly, employment is on the whole more evenly distributed about the average in the manufacture of dresses and waists. Sudden and violent fluctuations were not in this city characteristic of either industry.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 61

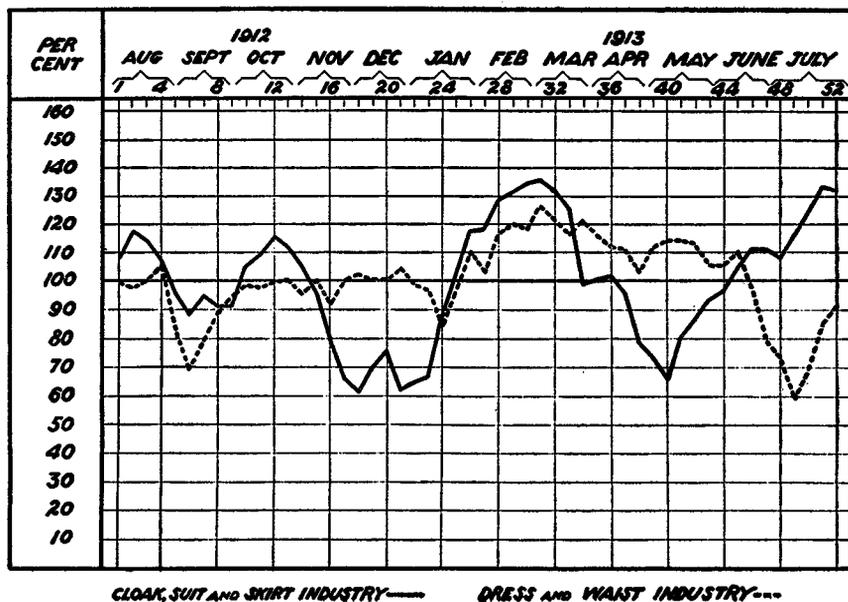
TABLE 28.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN 2 OF THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES, CLEVELAND, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

[This table is based on data from 18 establishments in the cloak, suit, and skirt industry and 6 establishments in the dress and waist industry.]

(Average weekly pay roll for the year—100.)

Month.	Week No.	Per cent of average weekly pay roll in the—		Month.	Week No.	Per cent of average weekly pay roll in the—	
		Cloak, suit, and skirt industry.	Dress and waist industry.			Cloak, suit, and skirt industry.	Dress and waist industry.
August.....	1	107.8	98.6	February.....	27	118.1	103.4
	2	116.8	97.2		28	128.1	116.4
	3	114.4	100.0		29	131.1	119.5
	4	107.4	105.1		30	133.9	118.3
September.....	5	94.8	83.2	March.....	31	135.0	125.9
	6	87.9	69.3		32	132.1	120.9
	7	94.4	78.7		33	125.4	116.3
	8	90.8	88.6		34	98.3	120.5
October.....	9	90.9	94.0	April.....	35	99.7	115.7
	10	104.5	97.8		36	100.8	112.4
	11	109.1	96.9		37	94.5	111.3
	12	114.5	98.6		38	78.4	102.6
	13	112.2	100.1		May.....	39	72.7
November.....	14	105.0	95.4	40		64.8	113.5
	15	94.9	100.2	41		79.9	113.5
	16	78.8	91.5	42		85.5	113.3
	17	65.4	99.7	43	92.5	105.2	
December.....	18	60.9	102.3	June.....	44	95.5	104.7
	19	69.4	99.8		45	104.4	109.5
	20	74.9	100.4		46	111.3	97.1
	21	62.3	104.1		47	110.5	78.7
	22	63.5	98.0		July.....	48	108.2
23	65.7	96.1	49	116.0		58.5	
24	87.2	83.7	50	122.6		68.5	
25	103.4	102.6	51	133.3		85.3	
26	117.2	109.6	52	132.4		90.6	

CHART No. 15.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 2 PRINCIPAL INDUSTRIES MANUFACTURING WOMEN'S READY-TO-WEAR GARMENTS—CLEVELAND.



## CLOAK, SUIT, AND SKIRT INDUSTRY.

In this investigation the pay rolls for all productive labor were secured from 18 establishments, the total output of which is estimated to have constituted approximately 85 per cent of the total output of cloaks, suits, and skirts of the city of Cleveland.

There were two periods of great activity in the cloak, suit, and skirt industry at Cleveland during the year of inquiry. The first of these began about the end of July, 1912, and lasted until about the end of August. This was followed by a period of about one month of "subnormal" activity. In the beginning of October a busy season, lasting until the beginning of November, followed. The period of lowest activity occurred between weeks 15 and 25, from the middle of November to about the middle of January. This dull period was followed by the most intense activity of the year, the so-called spring season, lasting from about the middle of January to about the end of March.

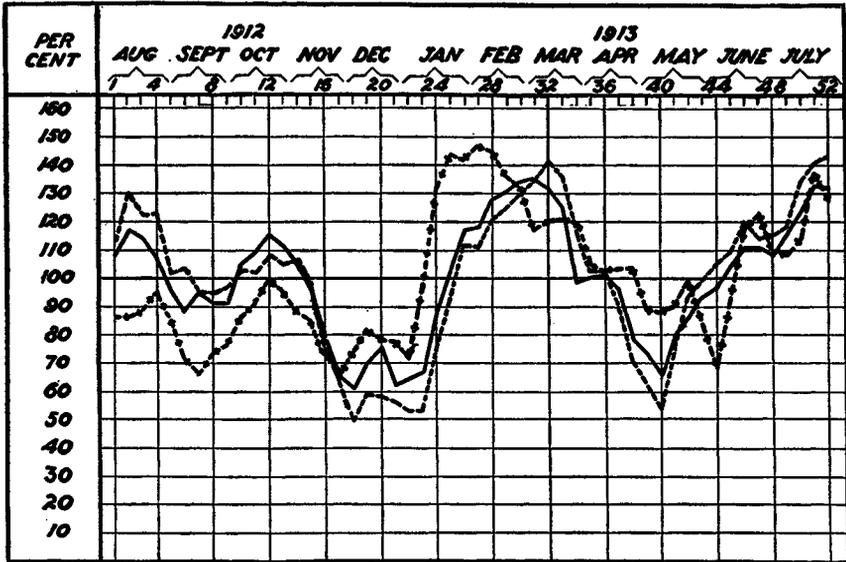
The comparison of fluctuations of employment in representative groups of large and small shops, as shown in Table 29 and Chart No. 16, seems to reveal the absence of the usual fall busy season in the smaller shops of the industry, the total pay rolls of which at no point during the months of August to December, 1912, reached the so-called normal, the average of the year. During the same period the pay rolls of the large shops, in most instances, show amounts of employment considerably in excess of their average for the year. The spring busy season of 1913 commenced about two weeks earlier in the small shops, but terminated proportionately sooner, there appearing little variation in the relative amounts of employment found in each of the groups of shops during this season.

TABLE 29.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 18 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY OF CLEVELAND, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops.		Large shops.		Small shops.	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$38,205	107.8	\$28,840	113.1	\$1,949	86.4
	2	41,408	116.8	33,027	129.5	1,941	86.1
	3	40,564	114.4	31,224	122.4	1,979	87.7
	4	38,081	107.4	31,267	122.6	2,109	93.5
September.....	5	33,601	94.8	26,056	102.2	1,919	85.1
	6	31,162	87.9	26,510	104.0	1,595	70.7
	7	33,467	94.4	23,954	94.0	1,425	66.3
	8	32,178	90.8	23,895	93.7	1,639	72.7
October.....	9	32,230	90.9	24,581	96.4	1,710	75.8
	10	37,059	104.5	26,244	102.9	1,944	86.2
	11	38,671	109.1	25,967	101.8	2,052	91.0
	12	40,572	114.5	27,579	108.2	2,227	98.7
	13	39,755	112.2	26,877	105.4	2,134	94.6
November.....	14	37,222	105.0	27,033	106.0	1,986	88.1
	15	33,651	94.9	24,604	96.5	1,912	84.8
	16	27,928	78.8	19,444	76.3	1,720	76.3
	17	23,169	65.4	16,404	64.3	1,477	65.5
December.....	18	21,573	60.9	12,437	48.8	1,651	73.2
	19	24,617	69.4	14,931	58.6	1,850	82.0
	20	26,550	74.9	14,838	58.2	1,759	78.0
	21	22,074	62.3	14,351	56.3	1,725	76.5
January.....	22	22,515	63.5	13,462	52.8	1,613	71.5
	23	23,310	65.7	13,468	52.8	2,170	96.2
	24	30,920	87.2	19,060	74.7	2,074	131.9
	25	36,667	103.4	23,701	92.9	3,236	143.5
	26	41,552	117.2	28,430	111.5	3,211	142.4
February.....	27	41,853	118.1	28,301	111.0	3,307	146.6
	28	45,417	128.1	30,746	120.6	3,265	144.8
	29	46,487	131.1	31,848	124.9	3,070	136.1
	30	47,471	133.9	33,208	130.2	2,989	132.5
March.....	31	47,874	135.0	34,273	134.4	2,633	116.7
	32	46,814	132.1	36,097	141.6	2,716	120.4
	33	44,462	125.4	34,595	135.7	2,720	120.6
	34	34,837	98.3	29,148	114.3	2,672	118.5
April.....	35	35,358	99.7	25,897	101.6	2,355	104.4
	36	35,722	100.8	26,096	102.3	2,209	101.9
	37	33,493	94.5	22,965	90.1	2,311	102.5
	38	27,800	78.4	18,055	70.8	2,315	102.6
May.....	39	25,769	72.7	15,757	61.8	2,004	88.9
	40	22,964	64.8	13,824	54.2	1,978	87.7
	41	28,342	79.9	19,111	74.9	2,033	90.1
	42	30,312	85.5	23,784	93.3	2,221	93.5
	43	32,930	92.5	23,777	93.2	1,888	83.7
June.....	44	33,856	95.5	26,761	104.9	1,536	68.1
	45	37,021	104.4	27,715	108.7	2,107	93.4
	46	39,468	111.3	30,513	119.7	2,671	118.4
	47	39,191	110.5	29,013	113.8	2,775	123.0
July.....	48	38,376	108.2	29,320	115.0	2,465	109.3
	49	41,123	118.0	29,962	117.5	2,433	107.9
	50	43,467	122.6	34,193	134.1	2,573	114.1
	51	47,268	133.3	36,056	141.4	3,099	137.4
	52	46,919	132.4	36,750	144.1	2,863	126.9
Total.....		1,843,295		1,325,949		117,275	
Average.....		35,448	100.0	25,499	100.0	2,255	100.0

CHART No. 16.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 18 ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY AND IN SELECTED LARGE AND SMALL ESTABLISHMENTS—CLEVELAND.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS---

DRESS AND WAIST INDUSTRY.

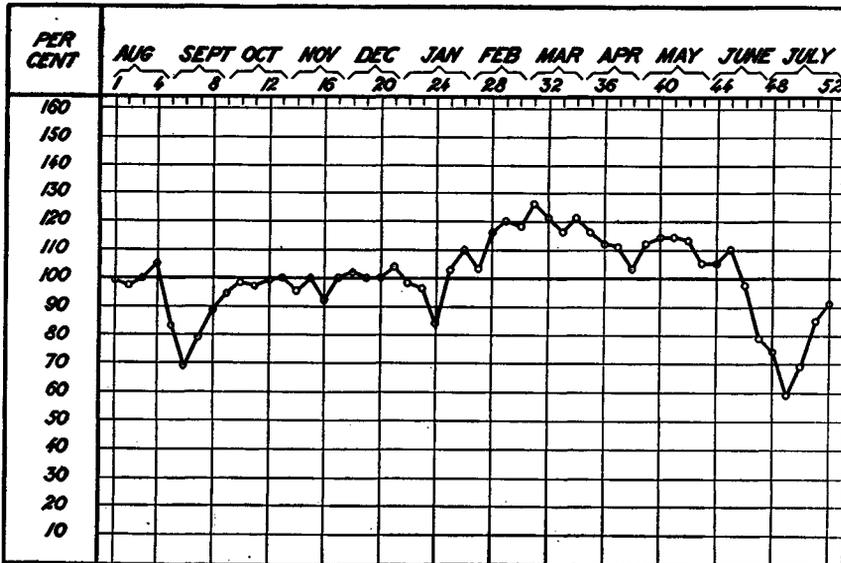
The period covered in this industry, for reasons explained elsewhere, was from May, 1913, through April, 1914. For purposes of comparison this information has been arranged to show changes in employment for one year of 52 weeks from August, 1913, through April, 1914, and from May, 1913, through July, 1913, pay-roll data having been secured from six representative establishments engaged in the manufacturing of dresses and waists. The total pay roll of these shops amounted to over \$300,000, and the value of their total output was estimated at considerably over three-fourths of a million dollars.

Table 30 and chart accompanying it show that fluctuations of employment in the dress and waist industry of Cleveland seem to have been considerably less pronounced than in any of the similar industries in the cities of New York and Chicago. The point of most intense activity in the dress and waist industry of Cleveland during the year of inquiry occurred between weeks 25 and 46, during the months of February, March, April, May, and June. The least amount of employment was found in the months of July and September, the respective sizes of the pay rolls in terms of percentage of the average for the year having been: 125.9 per cent during week 31, early in March, and the busiest of the entire year, and 58.5 during the second week of July, the duldest of the year.

TABLE 30.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 6 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF CLEVELAND, MAY, 1913, TO APRIL, 1914, INCLUSIVE.  
(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll.		Month.	Week No.	Weekly amount and per cent of average weekly pay roll.	
		Amount.	Per cent.			Amount.	Per cent.
August.....	1	\$5,776	98.6	March.....	31	\$7,381	125.9
	2	5,698	97.2		32	7,084	120.9
	3	5,823	100.0		33	6,816	116.3
	4	6,160	105.1		34	7,060	120.5
September.....	5	4,876	83.2	April.....	35	6,781	115.7
	6	4,060	69.3		36	6,587	112.4
	7	4,614	78.7		37	6,520	111.3
	8	5,193	88.6		38	6,016	102.6
October.....	9	5,510	94.0	May.....	39	6,571	112.1
	10	5,734	97.8		40	6,650	113.5
	11	5,681	96.9		41	6,650	113.5
	12	5,779	98.6		42	6,639	113.3
	13	5,868	100.1		43	6,167	105.2
November.....	14	5,590	95.4	June.....	44	6,138	104.7
	15	5,873	100.2		45	6,415	109.5
	16	5,364	91.5		46	5,693	97.1
	17	5,845	99.7		47	4,613	78.7
December.....	18	5,998	102.3	July.....	48	4,312	73.6
	19	5,848	99.8		49	3,426	58.5
	20	5,886	100.4		50	4,017	68.5
	21	6,101	104.1		51	4,999	85.3
	22	5,743	98.0		52	5,309	90.6
January.....	23	5,632	96.1	Total.....	304,700		.....
	24	4,906	83.7		Average.....	5,860	
	25	6,015	102.6				
	26	6,426	109.6				
February.....	27	6,061	103.4				
	28	6,819	116.4				
	29	7,005	119.5				
	30	6,933	118.3				

CHART NO. 17.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 6 ESTABLISHMENTS MANUFACTURING DRESSES AND WAISTS—CLEVELAND.



## BOSTON.

## GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES.

The increase in number of establishments and wage earners and in total capital invested, wages paid, cost of materials, and value of products in the women's garment industries of Boston is shown for the period 1899 to 1909 in the following table:

TABLE 31.—GROWTH OF WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES IN BOSTON, 1899 TO 1909.

[Figures taken from Thirteenth Census of the United States, Vol. IX, p. 523.]

Census.	Number of establishments.	Wage earners, average number.	Capital.	Wages.	Cost of materials.	Value of products.
1899.....	88	1,760	\$731,000	\$625,000	\$1,764,000	\$3,258,000
1904.....	99	2,733	1,668,000	1,073,000	3,147,000	5,705,000
1909.....	122	3,540	2,409,000	1,649,000	4,306,000	7,842,000

During the census decade 1899 to 1909 the women's garment industries of Boston increased as follows: Number of establishments, 39 per cent; average number of wage earners, 101 per cent; value of products, 141 per cent; cost of materials, 144 per cent; wages, 164 per cent; capital, 230 per cent.

## SEASONAL FLUCTUATIONS OF EMPLOYMENT.

## SUMMARY.

In this section information is presented for the largest part of the industries of cloaks, suits and skirts, and dresses and waists of the city of Boston, information of the seasonal fluctuations of employment having been secured from 10 representative establishments manufacturing cloaks, suits, and skirts, and 20 establishments manufacturing dresses and waists. An examination of Chart No. 18, representing the two industries, shows that employment is far more regular in establishments manufacturing dresses and waists than in those manufacturing cloaks, suits, and skirts.

TABLE 32.—SIZES OF PAY ROLLS AT SIGNIFICANT POINTS OF THE YEAR IN TWO OF THE WOMEN'S GARMENT INDUSTRIES OF BOSTON, SHOWN IN PERCENTAGES OF AVERAGE WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR FOR THE YEAR.

[Data for cloak, suit, and skirt industry are for August, 1912, to July, 1913, inclusive; for dress and waist industry, for May, 1913, to April, 1914, inclusive.]

Industry.	Per cent of average weekly pay roll at—			
	Busiest point, fall, 1912.	Dullest point, winter, 1912-13.	Busiest point, spring, 1913.	Dullest point, summer, 1913.
Cloaks, suits, and skirts.....	134.5	155.6	146.6	178.8
Dresses and waists.....	114.9	74.5	120.0	74.5

<sup>1</sup> The sudden drop in the pay rolls during weeks 31 and 32, March, 1913, was not of seasonal origin, but was due chiefly to a general strike that took place in the industry of that city during that period.

<sup>2</sup> Holiday weeks omitted from consideration.

The largest amounts of employment in the two industries of Boston were found during the spring, when the respective pay rolls of the cloak and suit and of the dress and waist industries, in terms of the average for the year, amounted to 146.6 and 120, respectively.

The smallest amount of employment was found in the cloak and suit industry during the winter of 1912-13, with pay rolls slightly over half of the average, and in the dress and waist industry during the summer of 1913, with pay rolls about three-fourths of the average.

Applying the usual tests, it appears that employment was considerably more irregular in the cloak and suit industry than in the dress and waist industry. In the cloak and suit industry the range of variation was 91, the number of weeks during which employment varied by at least 20 points from the normal was 26, and a variation of at least 20 points in a single week occurred four times during the year. For the dress and waist industry the figures for these same items are, respectively, 45.5, 5, and 1. The difference is so marked that a mere inspection of the chart gives conclusive evidence of the greater regularity of the dress and waist pay roll.

TABLE 33.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN 2 OF THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRIES, BOSTON, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

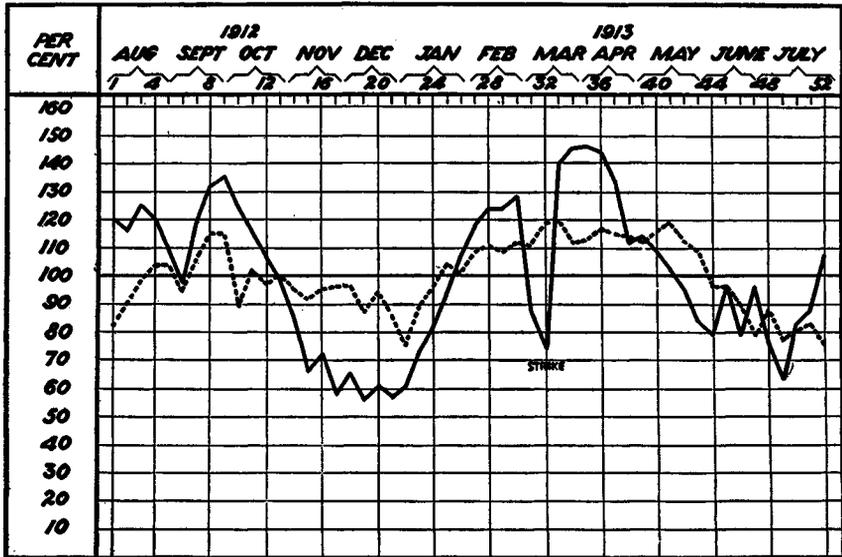
[This table is based on data from 10 establishments in the cloak, suit, and skirt industry and 20 establishments in the dress and waist industry.]

(Average weekly pay roll for the year—100.)

Month.	Week No.	Per cent of average weekly pay roll in the—		Month.	Week No.	Per cent of average weekly pay roll in the—	
		Cloak, suit, and skirt industry.	Dress and waist industry. <sup>1</sup>			Cloak, suit, and skirt industry.	Dress and waist industry. <sup>1</sup>
August.....	1	119.6	82.1	February.....	27	117.8	109.0
	2	116.4	90.4		28	123.6	111.3
	3	125.0	97.9		29	124.0	109.4
	4	119.7	103.5		30	127.5	111.6
September.....	5	110.0	103.5	March.....	31	87.7	110.7
	6	97.4	95.0		32	73.5	118.9
	7	118.8	106.0		33	139.5	120.0
	8	131.7	114.9		34	146.3	112.4
October.....	9	134.5	114.6	April.....	35	146.6	113.1
	10	125.4	89.8		36	145.0	116.6
	11	116.1	102.2		37	133.6	115.3
	12	106.1	97.4		38	112.3	113.6
	13	93.6	100.4	May.....	39	113.5	113.0
November.....	14	84.6	94.7		40	108.9	115.8
	15	65.6	92.1		41	102.1	118.8
	16	71.5	94.6		42	95.1	112.7
	17	53.1	96.4	43	83.5	109.2	
December.....	18	64.7	95.8	June.....	44	79.1	96.1
	19	55.6	87.4		45	95.5	96.2
	20	60.6	93.8		46	73.8	90.3
	21	56.9	85.7		47	95.7	79.4
	January.....	22	61.1	74.5	July.....	48	75.8
23		73.2	88.7	49		63.2	77.3
24		82.4	96.1	50		82.6	80.6
25		93.2	104.4	51		88.1	83.2
26		106.6	101.2	52		107.6	74.5

<sup>1</sup> Data are for August, 1913, to April, 1914, and for May, 1913, to July, 1913, inclusive.

CHART No. 18.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 2 PRINCIPAL INDUSTRIES MANUFACTURING WOMEN'S READY-TO-WEAR GARMENTS—BOSTON.



CLOAK, SUIT, AND SKIRT INDUSTRY— DRESS AND WAIST INDUSTRY---

CLOAK, SUIT, AND SKIRT INDUSTRY.

In the following table and the chart accompanying it are shown seasonal fluctuations in pay rolls for all productive labor of 10 representative establishments with total pay rolls for all productive labor of \$354,970.

As usual, there are to be found four main seasonal periods in this industry. The first busy season for the industry at large began on or about the last week of July, and lasted approximately 12 weeks. This was followed by a relatively short dull season, from the last week in October to the fourth week in January. Then the spring season, the busiest one of all, arrived. It lasted for over three months, until about the third week in May. The second dull season, lasting for about 10 weeks, then ensued.

The busiest week of the year was the first week in April; 146.6 per cent of the average pay roll was paid out to the workers in that week; the dullest week was the second in December; only 55.6 per cent of the average pay roll was paid out during this week. The sudden drop of the pay roll during weeks 31 and 32 was abnormal. It was due chiefly to the general strike in the industry which occurred at that time and which resulted in the so-called protocol agreement of March 8, 1913, described in Appendix E, Bulletin of the United States Bureau of Labor Statistics, No. 145.

For the reason that the manufacturers, anticipating the approaching crisis, worked their establishments at top speed just prior to the

strike period, the curve designed to show employment (Chart 19) indicates rather early activity during the spring season of the year 1913. For an identical reason the length of the spring season appears to be somewhat greater than usual. It may thus reasonably be inferred that, had this strike not taken place, the fluctuations in this curve would have appeared somewhat less violent during weeks 25 to 40, or from the fourth week in January to the second in May. Taken as a whole, however, it is believed the occurrence of the strike mentioned affected very little the general tendencies of the movement of the season in the industry. As can be seen, the seasonal fluctuations of the cloak, suit, and skirt industry of Boston, where the strike occurred, are very much like those in the same industry in New York City, where no strike occurred during the year under investigation.

On the same table and chart are also shown the fluctuations of employment as they appeared in one representative large shop and one small shop. The small shop shows the greater degree of irregularity. The range of pay-roll variation is greater, the period during which the pay roll varies from the average by at least 20 points is longer, and sudden violent fluctuations are more frequent in the small than in the large shop.

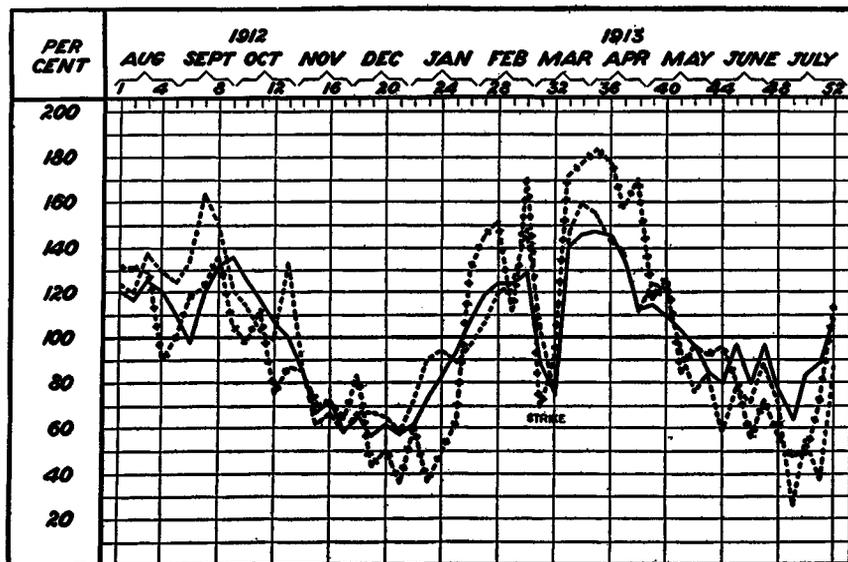
The table and chart also show in striking fashion how, when a number of shops are considered, the irregularities of one offset those of another and bring about a degree of regularity wholly wanting in the individual shop. Taking the 10 shops together, the variation from one week to another is relatively small. During the year there is a range of 91 points, but this is covered by gradual movements. Omitting the period of weeks, 30-33, during which a strike caused abnormal conditions, there are only two occasions, week 7 and week 38, when the pay roll varied by as much as 20 points from the pay roll of the preceding week, but in the two single shops far more extreme variations are frequent. Thus, in the large shop the pay roll for week 13 is 34 points higher than for the preceding, and 44 points higher than for the following week. In week 49 there is a fall of 46 points. This may possibly be due to the interruption of work on July 4, but there is no explanation for the rise of 50 points in week 52. In the small shop, variations of 30 to 40 points are almost common. In week 30 there is a variation of practically 60 points. In week 26 the pay roll is more than double that of the preceding week, rising from 62.8 per cent of the average pay roll to 129.6 per cent. The irregularity of the small shop as compared with the large and of the individual shop as compared with the group appears plainly in this table and chart.

TABLE 34.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 10 REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY OF BOSTON, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay rolls in—					
		All shops (10).		Large shop (1).		Small shop (1).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August .....	1	\$8,161	119.6	\$1,201	123.2	\$318	131.3
	2	7,943	116.4	1,156	118.6	318	131.3
	3	8,530	125.0	1,339	137.4	312	128.8
	4	8,168	119.7	1,259	129.2	218	90.0
September.....	5	7,507	110.0	1,211	124.2	241	99.5
	6	6,650	97.4	1,293	132.7	286	118.1
	7	8,111	118.8	1,589	163.0	296	122.2
	8	8,988	131.7	1,450	148.8	329	135.8
October.....	9	9,181	134.5	1,165	119.5	256	105.7
	10	8,563	125.4	1,107	113.6	234	96.6
	11	7,925	116.1	990	101.6	270	111.5
	12	7,240	106.1	955	98.0	181	74.7
	13	6,734	98.6	1,291	132.5	210	86.7
November.....	14	5,776	84.6	858	88.0	205	84.6
	15	4,481	65.6	594	60.9	170	70.2
	16	4,880	71.5	643	66.0	172	71.0
	17	3,968	58.1	567	58.2	156	64.4
December.....	18	4,414	64.7	641	65.8	202	83.4
	19	3,794	55.6	641	65.8	104	42.9
	20	4,137	60.6	619	63.5	119	49.5
	21	3,886	56.9	565	58.0	88	36.3
January.....	22	4,173	61.1	706	72.4	148	61.1
	23	5,000	73.2	877	90.0	86	35.5
	24	5,628	82.4	913	93.7	118	48.7
	25	6,360	93.2	861	88.3	152	62.8
	26	7,277	106.6	930	95.4	314	129.6
February.....	27	8,041	117.8	1,023	105.5	352	145.3
	28	8,438	123.6	1,160	119.0	368	151.9
	29	8,464	124.0	1,199	123.0	269	111.1
	30	8,704	127.5	1,443	148.0	414	170.9
March.....	31	5,987	87.7	1,012	103.8	168	69.4
	32	5,016	73.5	708	72.6	222	91.7
	33	9,526	139.5	1,446	148.4	417	172.2
	34	9,984	146.3	1,546	158.6	430	177.5
April.....	35	10,008	146.6	1,509	154.8	442	182.5
	36	9,896	145.0	1,396	143.2	429	177.1
	37	9,121	133.6	1,344	137.9	390	156.9
	38	7,664	112.3	1,077	110.5	411	169.7
May.....	39	7,747	113.5	1,213	124.4	280	115.6
	40	7,431	108.9	1,183	121.4	305	125.9
	41	6,973	102.1	923	94.7	204	84.2
	42	6,492	95.1	730	74.9	231	95.4
	43	5,703	83.5	806	82.7	223	92.1
June.....	44	5,402	79.1	567	58.2	229	94.5
	45	6,519	95.5	753	77.3	193	79.7
	46	5,377	78.8	691	70.9	133	54.9
	47	6,536	95.7	853	87.5	175	72.3
July.....	48	5,159	75.8	696	71.4	136	56.2
	49	4,315	63.2	246	25.2	116	47.9
	50	5,636	82.6	524	53.8	118	48.7
	51	6,013	88.1	360	36.9	171	70.6
	52	7,343	107.6	850	87.2	275	113.5
Total.....		354,970		50,684		12,594	
Average.....		6,826	100.0	975	100.0	243	100.0

CHART No. 19.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 10 ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY AND IN 1 LARGE AND 1 SMALL ESTABLISHMENT—BOSTON.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENT --- SMALL ESTABLISHMENT ---

DRESS AND WAIST INDUSTRY.

Information was secured from 20 representative establishments with a total pay roll for all productive labor of \$414,859. The period covered by this inquiry, for reasons explained elsewhere, was from May, 1913, through April, 1914. For purposes of comparison the information secured was arranged to show changes of employment for one year of 52 weeks from August, 1913, to April, 1914, and from May, 1913, to July, 1913, inclusive.

Seasonal fluctuations of employment in this industry in Boston appear to have been less violent than in the cloak, suit, and skirt industry of the same city. The period of lowest activity occurred between weeks 12 and 23, during the months of November, December, and January. The periods of intense activity were not as marked as in the cloak, suit, and skirt industry. The highest point of employment during the year under investigation occurred in the thirty-third week, the middle of March, just after the general strike, when the pay rolls mounted to 120 per cent of the average. The points of lowest activity of the year occurred during the twenty-second and fifty-second weeks—that is, the last week of July and the week between Christmas and New Year's.

For purposes of showing the influence of the scale of production upon fluctuations of employment, the pay rolls of three representative

large establishments and three small ones are shown in the same chart. The generalization, with reference to the same question, made in previous sections of this report dealing with the cloak, suit, and skirt industry appears also to apply to this industry, viz, in a general way employment appears to have been more regular in shops where manufacturing was done on a large scale than in the small shops.

The range of variation in the small shops is decidedly greater, 102.8 against 83.5 in the large; the duration of pronounced under and over employment is greater, and the sudden fluctuations are more violent. No fluctuation in the pay roll of the large shops, for instance, compares with that of week 13 for the small shop, which varies by 50 points from the pay roll of week 12, while week 23 shows an even greater difference.

TABLE 25.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 20 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF BOSTON, AUGUST, 1913, TO APRIL, 1914, AND MAY, 1913, TO JULY, 1913, INCLUSIVE.

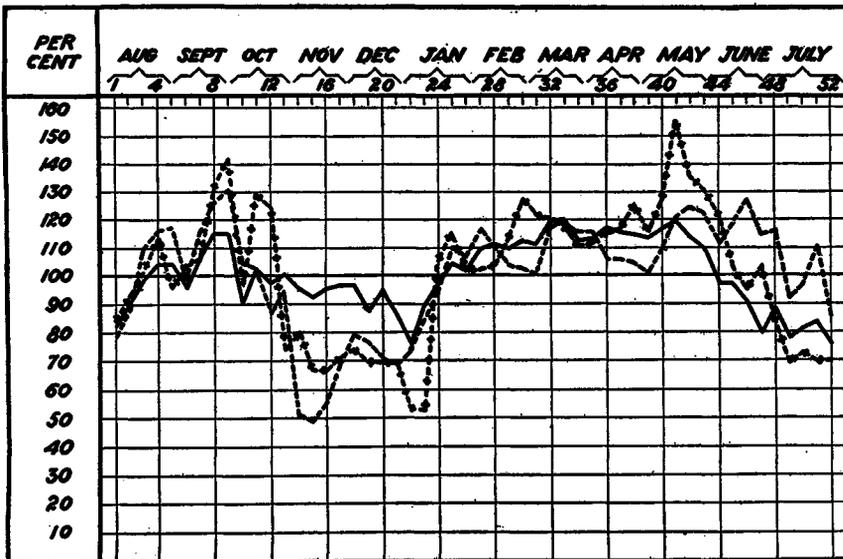
(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (20).		Large shops (3).		Small shops (3).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$6,549	82.1	\$1,621	77.9	\$391	83.7
	2	7,215	90.4	1,844	88.6	430	92.1
	3	7,810	97.9	2,288	109.9	470	100.7
	4	8,260	103.5	2,416	116.1	528	113.1
September.....	5	8,257	103.5	2,426	116.6	445	95.3
	6	7,680	95.0	2,045	98.3	474	101.5
	7	8,456	106.0	2,404	115.5	493	105.6
	8	9,170	114.9	2,621	125.9	616	131.9
October.....	9	9,139	114.6	2,730	131.2	662	141.8
	10	7,168	89.8	2,161	103.8	441	94.5
	11	8,152	102.2	2,116	101.7	602	128.9
	12	7,767	97.4	1,788	85.9	579	124.0
	13	8,006	100.4	1,945	93.5	345	73.9
November.....	14	7,559	94.7	1,061	51.0	372	79.7
	15	7,344	92.1	992	47.7	309	66.2
	16	7,548	94.6	1,137	54.6	309	66.2
	17	7,692	96.4	1,444	69.4	331	70.9
December.....	18	7,646	95.8	1,636	78.6	347	74.3
	19	6,974	87.4	1,585	78.2	323	69.2
	20	7,485	93.8	1,449	69.6	320	68.5
	21	6,834	85.7	1,416	68.0	324	69.4
	22	5,945	74.5	1,528	73.4	247	52.9
January.....	23	7,080	88.7	1,832	88.0	242	51.8
	24	7,663	96.1	1,960	94.2	483	104.5
	25	8,326	104.4	2,201	110.1	537	115.0
	26	8,073	101.2	2,198	105.6	475	101.7
	27	8,696	109.0	2,407	115.7	475	101.7
February.....	28	8,876	111.3	2,275	109.3	480	102.8
	29	8,729	109.4	2,143	103.0	526	112.7
	30	8,907	111.6	2,127	102.2	593	127.0
	31	8,832	110.7	2,085	100.2	566	121.2
March.....	32	9,486	118.9	2,435	117.0	561	120.2
	33	9,577	120.0	2,486	119.4	550	117.8
	34	8,966	112.4	2,390	114.8	513	109.9

TABLE 35.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 20 REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF BOSTON, AUGUST, 1913, TO APRIL, 1914, AND MAY, 1913, TO JULY, 1913, INCLUSIVE.—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—					
		All shops (20).		Large shops (3).		Small shops (3).	
		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
April.....	35	\$9,026	113.1	\$2,392	114.9	\$518	110.9
	36	9,301	116.6	2,194	105.4	537	115.0
	37	9,196	115.3	2,182	104.9	542	116.1
	38	9,062	113.6	2,164	104.0	583	124.9
May.....	39	9,018	113.0	2,073	99.6	537	115.0
	40	9,235	115.8	2,263	108.7	591	126.6
	41	9,479	118.8	2,438	120.0	722	154.6
	42	8,960	112.7	2,588	124.4	628	134.5
	43	8,710	109.2	2,537	121.9	604	129.4
June.....	44	7,669	96.1	2,306	110.8	558	119.5
	45	7,676	96.2	2,453	117.9	476	101.9
	46	7,203	90.3	2,618	125.8	440	94.2
	47	6,331	79.4	2,367	113.7	483	103.4
July.....	48	7,015	87.9	2,386	114.7	392	84.0
	49	6,166	77.3	1,809	91.3	320	68.5
	50	6,433	80.6	1,966	94.5	339	72.6
	51	6,638	83.2	2,280	103.6	321	68.8
	52	5,944	74.5	1,768	85.0	326	69.8
Total.....		414,859		108,215		24,281	
Average.....		7,978	100.0	2,081	100.0	467	100.0

CHART No. 20.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 20 ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY AND IN 3 LARGE AND IN 3 SMALL ESTABLISHMENTS—BOSTON.



ALL ESTABLISHMENTS— LARGE ESTABLISHMENTS--- SMALL ESTABLISHMENTS---

## CAUSES OF SEASONAL FLUCTUATIONS.<sup>1</sup>

### PRIMARY CAUSE.

The fundamental factor in determining the nature of seasonal fluctuations of employment in these industries is the change in weather due to the ordinary climatic conditions of the country. That this cause exercises a predominating influence can be seen from a cursory inspection of the charts showing movement of employment in the branches of the women's garment trades. Curves indicating such movements of employment in the different industrial groups discussed throughout this study clearly show that there are, in general, two periods of intense activity in the women's garment trades of the country, one in the fall and one in the spring, attributable almost entirely to the changes in weather conditions, during which time the making up of heavy fabrics is undertaken for cold weather and light-weight fabrics for summer wear.

### CONTRIBUTORY CAUSES.

Specific degrees of variation in seasonal amounts of employment can be traced to a certain extent to numerous causes, changes in weather conditions, primarily, and, secondarily, to (1) changes in styles (inasmuch as these determine the amount of manufacturing that can without risk be done in advance of sales), (2) degree of specialization, (3) scale of production, (4) the method of production (whether the articles are manufactured on the premises of the firm or in contractors' shops), and (5) quality of the goods.

*Changes in styles.*—The information presented in this report would tend to indicate that the prevailing popular opinion with reference to the direct influence of constant changes in styles upon seasonal fluctuations of employment in these industries is rather overestimated.

That changes in styles do not have as predominating an influence as is popularly ascribed to them can be seen from the fact (shown in Table 50 and chart accompanying it) that although the number of styles in the manufacture of overcoats and suits in the men's clothing trades are far less numerous than in the manufacture of cloaks, suits and skirts in the women's garment trades—in fact, less than one-third—curves showing seasonal changes in employment in the above-mentioned industries look surprisingly alike.

The indirect influence of changes in styles upon seasonal fluctuations of employment, however, appears to be very powerful, inasmuch as the possibility of such changes limits to a great extent the amount

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<sup>1</sup> By seasonal fluctuations, as distinguished from cyclical and casual fluctuations, in this report, are meant fluctuations in employment recurring with some regularity within one year, from month to month.

of manufacturing that can without risk be done in advance of sales, a factor very potent in regularizing employment.

*Degree of specialization.*—By specialization, as commonly understood in these trades, is meant confining the activities of individual manufacturing establishments to the manufacture of one specific, somewhat broad, line of wearing apparel, such as cloaks, suits and skirts, or dresses and waists.

This sort of specialization appears to be most prevalent in the larger centers of manufacturing, particularly in New York City, where the employers' as well as the employees' organizations seem to follow this line of cleavage. Curves showing fluctuations of employment in the same industries (cloaks, suits, and skirts, or dresses and waists), for instance, in New York, Chicago, Cleveland, and Boston, seem to indicate that the higher the degree of this sort of specialization the more violent the fluctuations of employment in the course of the year.

*Scale of production.*—That the scale of production—size of the establishment—seems to exercise considerable influence upon the minor fluctuations in the amounts of employment is shown repeatedly in this report by comparisons of seasonal fluctuations of employment in representative groups of small and large shops of the same industry. Employment in most instances appears to have been more regularly distributed about the average in establishments where the manufacturing was done on a relatively large scale. One of the reasons for this fact was apparently the circumstance that the importance of fixed charges—rental, cost of clerical and selling force, designing, insurance, depreciation, etc.—items of expense usually said to amount to at least 10 per cent of the total value of the output, was more keenly appreciated in the larger establishments, where the management, as a rule, appears to be far more efficient, and where the records showing the actual conditions of the business at any moment of the year are usually more detailed. Hence the conscious endeavor on the part of the larger manufacturers to distribute the work as evenly as the circumstances of the trade will permit.

*Method of production.*—Persistent efforts to secure a representative amount of pay-roll data to show seasonal fluctuations of employment in "outside" or contractors' shops were of no avail. After visits were made to more than 40 such establishments it was found that the contractors kept no permanent records for any considerable length of time, and in paying off their help generally used what they call "memorandum slips"; that is, the payments due the individual workers were recorded on separate slips of paper, which, after pay day, were usually destroyed.

After diligent search, however, complete annual pay-roll records were secured from two relatively large outside establishments engaged

in the manufacturing of misses' and children's dresses. These were then combined and compared with the combined inside pay rolls of the two firms that controlled the outside shops. The results, although by no means conclusive, show the relative differences in seasonal fluctuations of employment in inside and outside shops controlled by the same firms.

Employment appears to have been more regular in shops where manufacturing was done under the immediate supervision of the manufacturer, in "inside" shops. The greater irregularity of employment in "outside" or contractors' shops can probably be explained by the smaller scale of production and the less efficient management usually prevailing in such establishments. A contributory cause of irregularity of employment in "outside" shops is the placing of "reorders" for inexpensive garments by employers who control these "outside" shops in order to regularize employment in their "inside" establishments. At busy points of the year employers, instead of overtaxing the capacity of their inside shops and going to the trouble of looking for new help and extra space accommodations, prefer to have the surplusage of their orders manufactured in their outside shops.

The results here presented were subsequently verified by numerous personal interviews with representative manufacturers in each of the industries as well as by personal observation by the agents of the bureau. The prevailing opinion of manufacturers and their contractors, as well as of workers, seems to be that generally employment is considerably less regular in the outside shops.

*Quality of product.*—The quality of the goods manufactured, as shown in Tables 43, 44, and 45 and charts accompanying them, also appears to have exercised some influence over minor seasonal fluctuations of employment, employment appearing to have been somewhat more regular in establishments manufacturing the cheaper grades of goods. The explanation of this phenomenon lies probably in the fact that the cheaper the grade of goods manufactured the greater the amount which can be manufactured in advance of sales, a factor making greatly for regularity of employment.

These different causes of unemployment here briefly outlined will be discussed at greater length in the following pages.

#### CHANGES OF STYLES.

As stated in the previous section of this report, the influence of changes in styles upon seasonal fluctuations of employment, although indirect, is very powerful, inasmuch as the possibility of constant changes in styles limits the amount of manufacturing that can without serious pecuniary risk be done in advance of sales, a factor apparently

very conducive to a more or less even distribution of employment throughout the year.

It is practically impossible to measure the extent to which changes of style are responsible for irregularity of employment. A comparison of the employment curves of two industries, one subject to pronounced changes of fashion and the other but little affected by such changes, suggests itself as one way of testing the importance of this cause. Such a comparison is easily made by referring to the table and chart given for six industries in New York (p. 27). Of the ready-to-wear garment industries, the manufacture of cloaks, suits, and skirts and of dresses and waists are both strongly affected by changes of styles, while in the manufacture of women's muslin underwear styles and their changes are of relatively little importance. The difference in steadiness of employment between the muslin-underwear industry and either of the others is very marked. In the cloak, suit, and skirt industry the range of pay-roll variation is two and a half times as great, the number of weeks showing at least a 20 per cent variation from the average more than 12 times as many, and the sudden and violent fluctuations more than twice as numerous in the cloak, suit, and skirt industry as in the manufacture of muslin underwear.

If these differences could be ascribed solely to the effect of changes of style, a tolerable estimate of the importance of this factor could be obtained, but obviously other considerations must be taken into account. Cost of material, skill required in making, degree of specialization practiced, methods of selling, these, as well as changes in style, affect regularity of employment, and in all these the two industries do or may differ. All that can be said with certainty is that there is a wide difference in the fluctuations of employment in the two industries, and that part of the difference is due to the difference in importance of changes in style.

#### DEGREE OF SPECIALIZATION.

By specialization, as commonly understood in these industries, is meant the confining of manufacturing of individual firms to one rather broad line of garments, such as cloaks and suits, or dresses and waists, or muslin underwear, or house dresses and kimonos. The nature of this specialization is more fully described on page 20 of this report.

The four garment manufacturing centers covered by this inquiry, with reference to degrees of specialization, as far as it could be ascertained by interviews with representative employers and personal observation by agents of the bureau, from the more to the less specialized, can be grouped as follows:

TABLE 36.—RANK OF CITIES IN SPECIFIED INDUSTRIES.

Industry.	Cities in specified industries ranking—			
	First.	Second.	Thrd.	Fourth.
Cloaks, suits, and skirts.....	New York.....	Cleveland.....	Chicago.....	Boston.
Dresses and waists.....	do.....	Chicago.....	Boston.....	Cleveland.
House dresses and kimonos.....	do.....	do.....	.....	.....

Tables 11, 12, 15, 20, 21, 24, 29, 30, 34, and 35, and charts accompanying them show seasonal fluctuations of employment in the cloak, suit and skirt, and dress and waist industries of New York, Chicago, Cleveland, and Boston, and in the house-dress and kimono industries of New York and Chicago.

## CLOAK, SUIT, AND SKIRT INDUSTRY.

With reference to relative regularity of employment in this branch of the women's ready-to-wear garment trades, the four lines shown on Chart No. 21 would seem to indicate that the greater the degree of specialization the more marked the fluctuations of employment throughout the year. Employment, as shown in terms of percentages of the average weekly pay rolls for the specific industry in each one of the cities, is less regular in New York than in Cleveland, somewhat more regular in Chicago than in Cleveland, and somewhat more regular in Boston than in either New York, Chicago, or Cleveland.

The differences in regularity of employment in the cloak, suit, and skirt industry in the four principal manufacturing centers are brought out more clearly by the following table, in which the three tests already used are applied to the industry in each of the four cities in turn:

TABLE 37.—COMPARATIVE REGULARITY OF EMPLOYMENT IN THE CLOAK, SUIT, AND SKIRT INDUSTRY IN DIFFERENT CITIES.

City.	Variation for year.			Number of weeks in which pay roll varied by at least 20 points from average.			Number of weeks in which a variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
New York.....	43.2	164.4	121.2	19	19	38	8
Chicago.....	38.5	145.2	106.7	14	16	30	6
Boston.....	55.6	146.6	91.0	<sup>1</sup> 13	12	<sup>1</sup> 25	12
Cleveland.....	60.9	135.0	74.1	12	9	21	2

<sup>1</sup> Strike weeks omitted.

The greater irregularity in the trade in New York is very marked. In every particular it stands first. Cleveland should stand next if specialization were the only cause of irregularity, but Cleveland has two steadying factors—the cheaper quality of the goods manufactured and the method of selling goods (p. 60). These, or other factors not disclosed in this investigation, so far offset the effect of

specialization that Cleveland, which stands second in degree of specialization, is fourth in degree of irregularity. Chicago and Boston hold, relatively to New York and to each other, the same position as in regard to specialization. The charts and pay-roll data for the cloak, suit, and skirt industry presented in the following pages show the situation in greater detail.

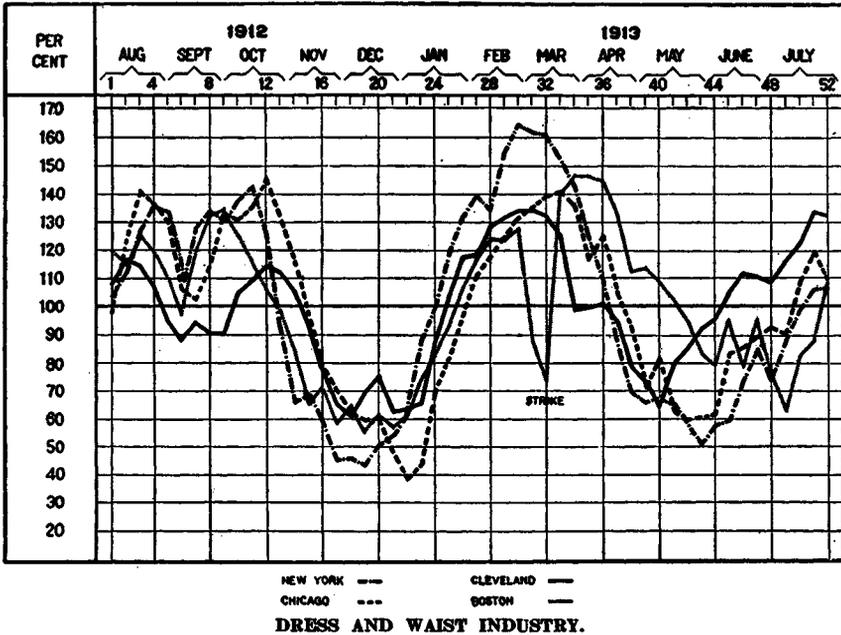
TABLE 38.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN THE CLOAK, SUIT, AND SKIRT INDUSTRY OF 4 CITIES, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

[This table is based on data from 75 establishments in New York City, 14 establishments in Chicago, 18 establishments in Cleveland, and 10 establishments in Boston.]

(Average weekly pay roll for the year=100.)

Month.	Week No.	Per cent of average weekly pay roll in—			
		New York.	Chicago.	Cleveland.	Boston.
August.....	1	103.6	97.4	107.8	119.6
	2	114.7	123.9	116.8	116.4
	3	126.5	140.5	114.4	125.0
	4	135.4	136.3	107.4	119.7
September.....	5	133.4	130.0	94.8	110.0
	6	107.3	106.0	87.9	97.4
	7	127.9	102.1	94.4	118.8
	8	133.5	113.8	90.8	131.7
October.....	9	130.3	133.0	90.9	134.5
	10	137.2	130.4	104.5	125.4
	11	141.7	135.4	109.1	116.1
	12	126.0	145.2	114.5	106.1
	13	92.5	132.8	112.2	98.6
November.....	14	66.7	115.4	105.0	84.6
	15	67.0	97.3	94.9	65.6
	16	59.3	79.6	78.8	71.5
	17	45.4	70.0	65.4	58.1
December.....	18	45.7	62.6	60.9	64.7
	19	43.2	59.7	64.4	55.6
	20	50.1	60.3	74.9	60.6
	21	55.1	48.1	62.3	56.9
January.....	22	61.1	38.5	63.5	61.1
	23	87.5	44.1	65.7	73.2
	24	99.6	69.6	87.2	82.4
	25	119.7	81.3	103.4	93.2
	26	131.9	97.3	117.2	106.6
February.....	27	139.5	110.2	118.1	117.8
	28	134.6	117.1	128.1	123.6
	29	154.9	124.8	131.1	124.0
	30	164.4	132.0	133.9	127.5
March.....	31	161.7	135.1	135.0	87.7
	32	161.2	139.6	132.1	73.5
	33	152.5	140.9	125.4	139.5
	34	142.9	136.1	98.3	146.3
April.....	35	125.3	116.7	99.7	146.6
	36	109.0	126.2	100.8	145.0
	37	87.5	104.1	94.5	133.6
	38	69.8	92.3	78.4	112.3
May.....	39	66.2	72.3	72.7	113.5
	40	65.7	80.9	64.8	108.9
	41	65.1	63.6	79.9	102.1
	42	58.0	58.8	85.5	95.1
	43	50.6	60.5	92.5	83.5
June.....	44	57.4	61.3	95.5	79.1
	45	59.2	83.0	104.4	95.5
	46	73.9	85.5	111.3	78.8
	47	84.9	89.3	110.5	95.7
July.....	48	73.6	92.8	108.2	75.8
	49	88.7	90.4	116.0	63.2
	50	98.5	107.8	122.6	82.6
	51	106.0	119.2	133.3	88.1
	52	106.6	109.5	132.4	107.6

CHART No. 21.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE CLOAK, SUIT, AND SKIRT INDUSTRY: 75 ESTABLISHMENTS, NEW YORK; 14 ESTABLISHMENTS, CHICAGO; 18 ESTABLISHMENTS, CLEVELAND; AND 10 ESTABLISHMENTS, BOSTON.



NEW YORK --- CLEVELAND ---  
CHICAGO --- BOSTON ---

DRESS AND WAIST INDUSTRY.

Table 40 and chart accompanying it show seasonal fluctuations of employment in the dress and waist industry in New York, Chicago, Cleveland, and Boston. Though, in general, the tendencies of the seasons seem to be the same, employment taken as a whole seems to have been less regular in New York than in Chicago and more regular in Boston than in either New York or Chicago. Regularity of employment in the dress and waist industry in the city of Cleveland seems to be somewhat less than in the same industry in the city of Boston. As specialization in the dress and waist industry in New York is greater than in either Chicago or Cleveland, the point made that specialization makes seasonal changes more marked seems to hold true also of the dress and waist industry.

The different degrees of irregularity of employment in the dress and waist industry in the four principal cities are shown more clearly in the following table:

TABLE 39.—COMPARATIVE REGULARITY OF EMPLOYMENT IN DRESS AND WAIST INDUSTRY IN FOUR CITIES.

City.	Variation for year.			Number of weeks in which payroll varied by at least 20 points from average.			Number of weeks in which a variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
New York.....	52.6	137.2	84.6	8	9	17	2
Cleveland.....	58.5	125.9	67.4	6	3	9	1
Chicago.....	69.8	127.8	58.0	5	8	13	.....
Boston.....	74.5	120.0	45.5	4	1	5	1

The greater irregularity of the industry in New York is evident. The pay roll falls lower and rises higher than in the other cities, the number of weeks in which there are variations of at least 20 per cent from the pay-roll average is markedly greater, and sudden and violent fluctuations, though rare, are less so than in Cleveland and Boston, while in Chicago they do not appear at all.

TABLE 40.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY OF FOUR CITIES, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

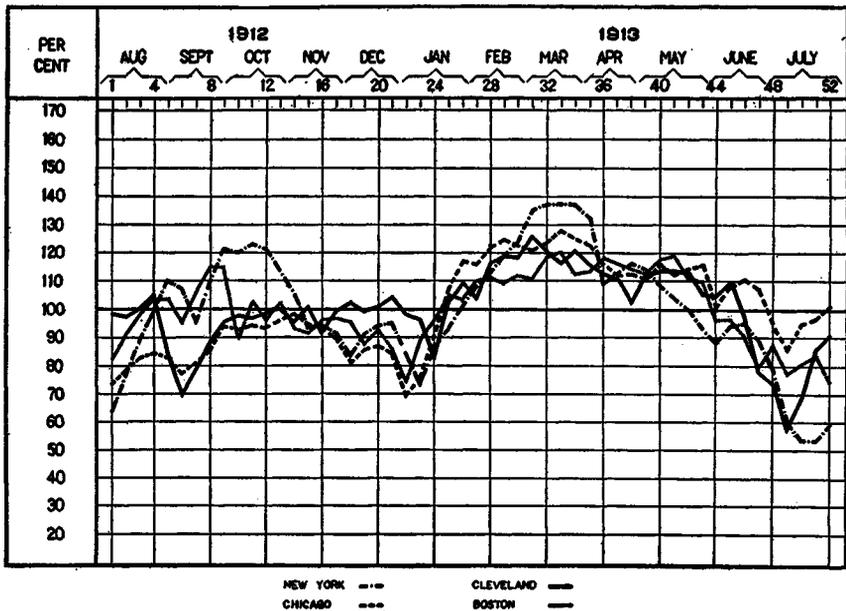
[This table is based on data from 260 establishments in New York City, 10 establishments in Chicago, 6 establishments in Cleveland, and 20 establishments in Boston.]

(Average weekly pay roll for the year=100.)

Month.	Week No.	Per cent of average weekly pay rolls in—			
		New York.	Chicago.	Cleveland. <sup>1</sup>	Boston. <sup>1</sup>
August.....	1	64.5	73.1	98.6	82.1
	2	77.7	77.2	97.2	93.4
	3	89.1	82.8	100.0	97.9
	4	99.4	84.6	105.1	103.5
September.....	5	109.5	82.7	83.2	103.5
	6	107.3	77.1	69.3	95.0
	7	95.3	80.7	78.7	106.0
	8	110.4	85.2	88.6	114.9
October.....	9	120.7	93.7	94.0	114.6
	10	119.9	92.4	97.8	89.8
	11	123.5	93.9	96.9	102.2
	12	121.1	93.5	98.6	97.4
	13	112.9	95.7	100.1	100.4
November.....	14	105.2	98.4	95.4	94.7
	15	92.6	94.4	100.2	92.1
	16	93.8	93.2	91.5	94.6
	17	90.6	90.6	99.7	96.4
December.....	18	83.4	81.0	102.3	95.8
	19	90.8	85.8	99.8	87.4
	20	94.5	86.5	100.4	93.8
	21	95.3	84.0	104.1	85.7
January.....	22	84.3	69.8	98.0	74.5
	23	72.9	75.8	96.1	83.7
	24	85.9	90.1	83.7	96.1
	25	92.5	106.7	102.6	104.4
	26	101.0	116.7	109.6	101.2
February.....	27	107.5	115.4	103.4	109.0
	28	113.2	121.8	116.4	111.3
	29	119.1	124.7	119.5	109.4
	30	124.1	122.0	118.3	111.6
March.....	31	134.5	120.8	125.9	110.7
	32	136.9	123.9	120.9	118.9
	33	137.2	127.8	116.3	120.0
	34	137.1	124.9	120.5	112.4
April.....	35	132.5	122.5	115.7	113.1
	36	106.8	116.1	112.4	116.6
	37	112.5	112.4	111.3	115.3
	38	116.3	112.9	102.6	113.6
May.....	39	113.8	112.1	112.1	113.0
	40	107.6	115.4	113.5	115.8
	41	103.8	112.1	113.5	113.8
	42	99.6	114.1	113.3	112.7
	43	93.3	115.8	105.2	109.2
June.....	44	87.7	100.3	104.7	96.1
	45	93.6	108.1	109.5	96.2
	46	94.7	110.3	97.1	90.3
	47	89.2	107.8	78.7	79.4
July.....	48	79.0	95.2	73.6	87.9
	49	59.0	85.5	58.5	77.3
	50	53.3	94.7	68.5	80.6
	51	52.6	96.5	85.3	83.2
	52	58.9	101.0	90.6	74.5

<sup>1</sup> Data are for August, 1913, to April, 1914, and for May, 1913, to July, 1913, inclusive.

CHART NO. 22.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE DRESS AND WAIST INDUSTRY: 260 ESTABLISHMENTS, NEW YORK; 10 ESTABLISHMENTS, CHICAGO; 6 ESTABLISHMENTS, CLEVELAND; AND 20 ESTABLISHMENTS, BOSTON.



#### HOUSE-DRESS AND KIMONO INDUSTRY.

In Table 42 and chart accompanying it are represented seasonal fluctuations of employment in establishments manufacturing house dresses and kimonos in New York City and Chicago.

Applying to this industry the tests of irregularity used for the others, the following table is obtained:

TABLE 41.—COMPARATIVE REGULARITY OF EMPLOYMENT IN HOUSE-DRESS AND KIMONO INDUSTRY IN NEW YORK CITY AND CHICAGO.

City.	Variation for year.			Number of weeks in which pay roll varied by at least 20 points from average.			Number of weeks in which a variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
New York.....	180.0	139.9	59.9	11	13	114	24
Chicago.....	70.7	130.5	59.8	8	8	111	24

<sup>1</sup> Strike weeks omitted.  
<sup>2</sup> Four if change between last week preceding and first week following strike be counted and holiday week be omitted.  
<sup>3</sup> Holiday week omitted.

This shows very little difference in irregularity between the two cities. It must be borne in mind, however, that the strike weeks omitted from consideration in New York covered a portion of what

would normally be the winter dull season. Omitting them may, therefore, have lessened the range of variation and have given the industry in New York an appearance of greater steadiness than it deserves. It is evident from the pay-roll figures given that during the spring season the New York industry fluctuated considerably more than that of Chicago, although the fluctuations were by no means so extreme as in some of the other industries covered.

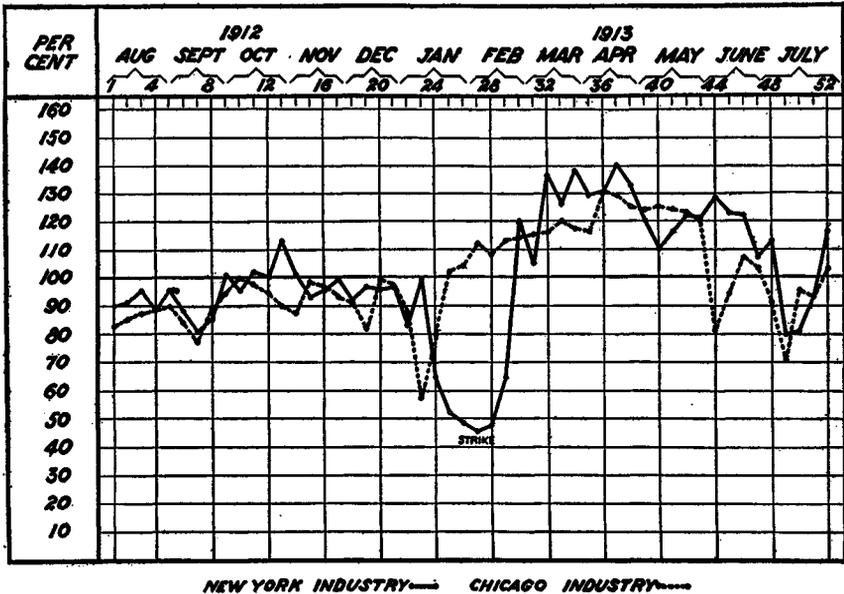
TABLE 42.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN THE HOUSE-DRESS AND KIMONO INDUSTRY OF NEW YORK AND CHICAGO, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

[This table is based on data from 13 establishments in New York and 3 establishments in Chicago.]

(Average weekly pay roll for the year=100.)

Month.	Week No.	Per cent of average weekly pay roll in—		Month.	Week No.	Per cent of average weekly pay roll in—	
		New York.	Chicago.			New York.	Chicago.
August.....	1	90.4	83.1	February.....	27	45.3	112.0
	2	90.6	85.1		28	46.8	108.4
	3	94.6	87.0		29	64.1	112.8
	4	87.9	89.0		30	120.4	113.8
September.....	5	94.9	89.5	March.....	31	104.5	115.3
	6	87.7	84.1		32	136.0	116.0
	7	81.2	76.6		33	125.6	120.3
8	84.6	88.5	34		137.8	117.1	
October.....	9	100.6	93.6	April.....	35	128.5	115.8
	10	94.8	99.5		36	131.2	130.5
	11	101.8	97.1		37	139.9	129.4
	12	99.9	93.9		38	133.4	124.5
November.....	13	113.2	90.3	May.....	39	119.9	123.9
	14	101.3	87.1		40	110.1	125.0
	15	92.7	97.5		41	115.5	125.5
	16	94.9	96.0		42	121.5	122.8
December.....	17	99.3	93.1	43	120.9	119.5	
	18	92.2	91.0	June.....	44	128.4	81.2
	19	96.2	81.7		45	123.4	94.0
	20	94.6	99.0		46	121.9	106.8
21	96.1	97.1	47		107.4	103.1	
January.....	22	82.8	87.2	July.....	48	112.7	90.7
	23	98.5	56.8		49	80.0	70.7
	24	63.9	79.8		50	81.4	95.2
	25	51.6	102.0		51	92.9	93.2
	26	47.9	104.3		52	115.9	102.9

CHART No. 23.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE HOUSE-DRESS AND KIMONO INDUSTRY: 13 ESTABLISHMENTS, NEW YORK, AND 3 ESTABLISHMENTS, CHICAGO.



#### METHOD OF PRODUCTION.

The term "method of production" is used in this report to differentiate between production carried on in so-called "inside" and "outside" shops. By an "outside" shop in the garment industries is usually meant an establishment manufacturing garments without the immediate supervision of the manufacturer who received the order and who owns the materials and accessories from which the garments are made, as distinguished from an "inside" shop, an ordinary manufacturing establishment owned by a manufacturer and operated under his immediate supervision. "Outside" shops are otherwise known as "contractors'" shops. To the manufacturer the "outside" shop offers a number of advantages. It relieves him of the necessity of organizing a manufacturing department, giving him freedom to devote himself almost exclusively to the commercial aspect of his business—the buying of raw material and the sale of the finished product. This is particularly of great advantage to the small manufacturer, who is thus able to go into business with a small capital, being obliged to pay less rent and getting along without any technical training in the manufacturing branch of the industry. The "outside" shop also affords to the individual manufacturer a very elastic system of manufacture—he has no extensive shop organization to maintain when work is dull and no heavy fixed charges. If he maintains shops of both kinds it also gives him an opportunity to regularize the employ-

ment in his "inside" shop by leaving the contractor without work in dull periods and throwing to him the work which the "inside" shop can not cope with in the rush seasons.

It is but natural to expect that manufacturers would be more interested in their "inside" than in their "outside" shops, for the reason that in the "inside" shops the whole burden of fixed charges rests upon themselves, while in the "outside" shops the matter concerns almost entirely the contractor. This view seems to be confirmed by an examination of Table 43 and Chart No. 24. Employment in the two "outside" shops during the year was decidedly less regular. The point of lowest activity in the "outside" shops is occasionally below one-third of the average for the year, as compared with about one-half of the average for the "inside" shops. The same results are apparent when a comparison is made of the points of highest activity. While the pay rolls of the "inside" shops were never higher than 144 per cent of the average, the pay rolls of the "outside" shops frequently mounted as high as 190 per cent of the average. At one point, following the general strike in the industry in March, 1913, the pay roll mounted to over 210 per cent of the average.

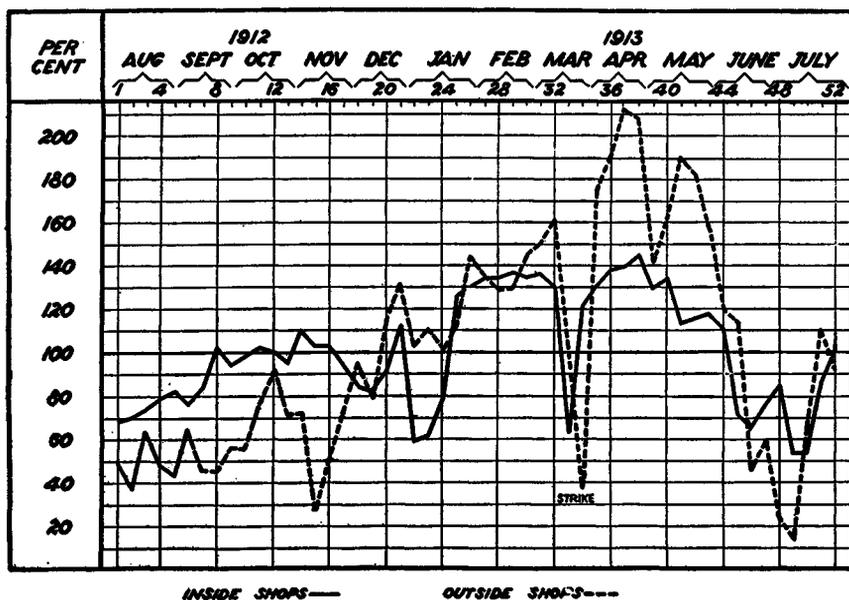
The results, as shown here, were verified to some extent by interviews with representative manufacturers, contractors, and workers in each of the specialized industries, almost all of the informants substantially agreeing that employment is considerably less regular in "outside" shops.

TABLE 43.—SEASONAL FLUCTUATIONS OF EMPLOYMENT IN 2 INSIDE AND IN 2 OUTSIDE SHOPS, AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS IN THE CHILDREN'S AND MISSES' DRESS INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		2 inside shops.		2 outside shops.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$1,458	67.5	\$891	48.6
	2	1,507	69.8	762	37.4
	3	1,602	74.2	1,306	64.1
	4	1,716	79.4	967	47.5
September.....	5	1,771	82.0	869	42.6
	6	1,646	76.2	1,328	65.2
	7	1,817	84.1	924	45.3
	8	2,199	101.8	915	44.9
October.....	9	2,039	94.4	1,131	55.5
	10	2,113	97.8	1,113	54.6
	11	2,207	102.2	1,543	75.7
	12	2,152	99.6	1,851	90.8
	13	2,055	95.1	1,451	71.2
November.....	14	2,367	109.6	1,462	71.8
	15	2,213	102.7	548	26.9
	16	2,231	103.3	1,020	50.1
	17	2,033	94.1	1,489	73.1
December.....	18	1,817	84.1	1,931	94.8
	19	1,780	82.4	1,560	76.6
	20	1,954	90.5	2,349	115.3
	21	2,416	111.9	2,666	130.8
January.....	22	1,268	58.7	2,090	102.6
	23	1,336	61.9	2,248	110.3
	24	1,683	77.9	2,050	100.6
	25	2,718	125.8	2,264	111.1
	26	2,813	130.2	2,931	143.8
February.....	27	2,887	133.7	2,748	134.9
	28	2,888	133.7	2,615	123.3
	29	2,945	136.4	2,635	123.3
	30	2,897	134.1	2,963	145.4
March.....	31	2,932	135.7	3,051	149.7
	32	2,808	130.0	3,293	161.6
	33	1,350	62.5	2,061	101.1
	34	2,606	120.7	746	36.6
April.....	35	2,806	129.9	3,529	173.2
	36	2,080	103.0	3,884	190.6
	37	2,995	138.7	4,349	213.4
	38	3,117	144.3	4,246	208.4
May.....	39	2,779	128.7	2,879	141.3
	40	2,874	133.1	3,301	162.0
	41	2,448	113.3	3,870	189.9
	42	2,486	115.1	3,714	182.3
	43	2,520	116.7	3,198	156.9
June.....	44	2,376	110.0	2,432	119.4
	45	1,537	71.2	2,302	113.0
	46	1,399	64.8	921	45.2
	47	1,630	75.5	1,205	59.1
July.....	48	1,831	84.8	479	23.5
	49	1,139	52.7	280	13.7
	50	1,150	53.2	1,351	66.3
	51	1,857	86.0	2,244	110.1
	52	2,161	100.1	1,899	93.2
	Total.....		112,314		105,954
Average.....		2,160	100.0	2,083	100.0

CHART No. 24.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE CHILDREN'S AND MISSES' GARMENT INDUSTRY: 2 INSIDE AND 2 OUTSIDE SHOPS—NEW YORK CITY.



**QUALITY OF PRODUCT.**

In Table 45 and chart accompanying it figures are given for two shops of a concern which manufactures silk kimonos. In the low-grade department of the concern silk kimonos of a cheap quality are produced, the selling price of which is from \$5 to \$50 per dozen. The other department of the same concern manufactures an article of a much higher quality, the selling price of which is usually from \$10 to \$100 apiece.

A comparison of the seasonal movements of the pay rolls of the two departments seems to indicate that the higher the grade of goods manufactured the more marked the seasonal changes. This seems but natural, in view of the fact that the cheaper an article the more safely it can be manufactured in advance of sale, a factor very conducive to a more equal distribution of employment from week to week throughout the year.

In Table 46 and accompanying chart are shown the influence of the quality of the goods manufactured upon seasonal fluctuations of employment in six shops manufacturing cheap waists and a similar number manufacturing waists of a better quality.

The results, as can be seen from the table and chart, although not as pronounced as in the shops manufacturing kimonos just discussed, show a decided difference in seasonal fluctuations between pay rolls for six high-grade and six low-grade shops, employment having been

more regular in establishments manufacturing cheaper grades of goods.

Applying the tests for irregularity to these two sets of pay-roll figures, the following table is obtained. The differences shown here are too pronounced to need discussion.

TABLE 44.—COMPARATIVE REGULARITY OF EMPLOYMENT IN ESTABLISHMENTS MAKING HIGH-GRADE AND LOW-GRADE KIMONOS, AND DRESSES AND WAISTS, NEW YORK CITY.

	Variation for year.			Number of weeks in which pay roll varied by at least 20 points from average.			Number of weeks in which variation of at least 20 points occurred.
	Low point.	High point.	Range.	Below.	Above.	Total.	
<b>Kimonos (biweekly pay roll):</b>							
High grade.....	20.2	141.6	121.4	5	9	14	9
Low grade.....	59.6	127.5	67.9	3	4	7	2
<b>Dresses and waists (weekly pay roll):</b>							
High grade.....	60.5	147.0	86.5	15	13	28	3
Low grade.....	45.9	127.1	81.2	9	8	17	3

TABLE 45.—SEASONAL FLUCTUATIONS OF EMPLOYMENT IN HIGH-GRADE AND IN LOW-GRADE SHOPS AS SHOWN BY BIWEEKLY PAY ROLL FOR ALL PRODUCTIVE LABOR IN AN ESTABLISHMENT MAKING KIMONOS, NEW YORK CITY, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average biweekly pay roll for the year=100.)

Month.	Pay roll No.	Biweekly amount and per cent of average biweekly pay roll in—			
		1 high-grade shop.		1 low-grade shop.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$598	99.1	\$950	99.5
	2	734	121.7	884	92.5
September.....	3	782	129.6	991	103.7
	4	854	141.6	1,000	104.7
October.....	5	555	92.0	998	104.5
	6	748	124.0	898	94.0
November.....	7	757	125.5	877	91.8
	8	667	110.6	899	94.1
December.....	9	527	89.0	877	91.8
	10	497	82.4	848	88.8
January.....	11	327	54.2	835	87.4
	12	352	58.0	900	93.9
February.....	13	122	20.2	569	59.6
	14	661	109.6	908	95.1
	15	696	113.7	856	89.6
March.....	16	717	118.8	902	94.4
	17	762	126.3	1,038	108.7
April.....	18	724	120.0	1,151	120.5
	19	767	127.1	1,178	123.3
May.....	20	724	120.0	1,115	116.7
	21	717	118.8	1,218	127.5
June.....	22	663	109.9	1,069	111.9
	23	682	113.0	1,089	114.0
July.....	24	575	95.3	1,167	122.2
	25	327	54.2	1,126	117.9
	26	171	28.3	733	76.7
<b>Total.....</b>		<b>15,686</b>		<b>24,836</b>	
<b>Average.....</b>		<b>603</b>	<b>100.0</b>	<b>955</b>	<b>100.0</b>

CHART No. 25.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY BIWEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE HOUSE-DRESS AND KIMONO INDUSTRY: 1 HIGH-GRADE SHOP AND 1 LOW-GRADE SHOP—NEW YORK CITY.

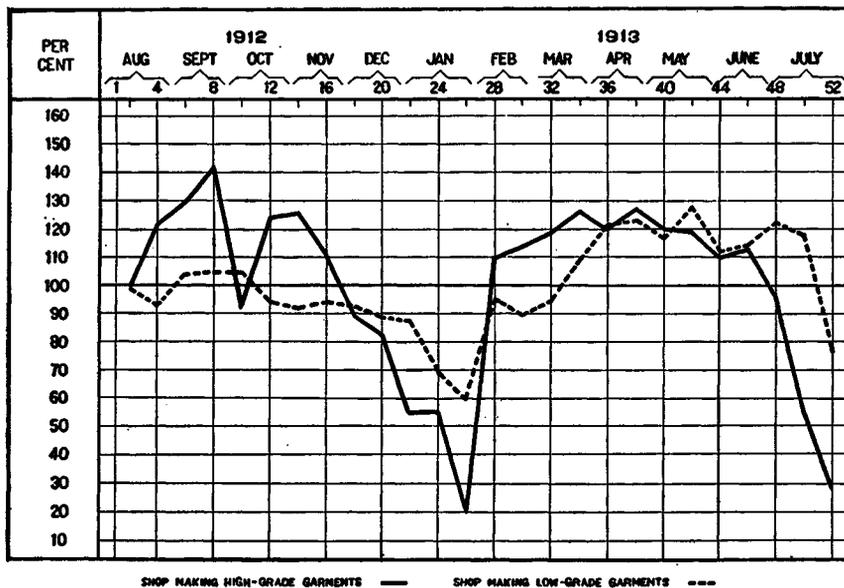


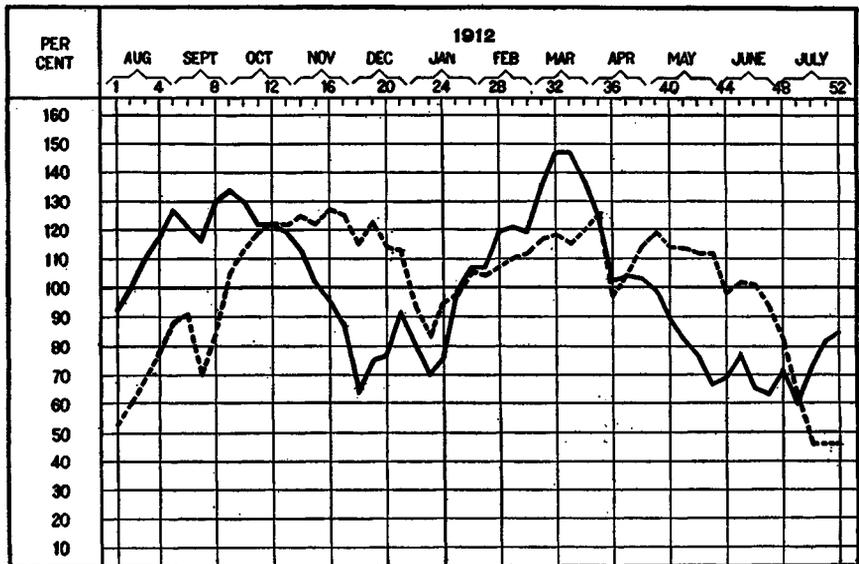
TABLE 46.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 6 HIGH-GRADE AND 6 LOW-GRADE SHOPS IN THE DRESS AND WAIST INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO DECEMBER, 1912, AND JANUARY, 1912, TO JULY, 1912, INCLUSIVE.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		6 high-grade shops.		6 low-grade shops.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$6,216	92.2	\$6,018	52.6
	2	6,742	100.1	6,917	60.5
	3	7,405	109.9	7,915	69.2
	4	7,878	116.9	8,905	77.9
September.....	5	8,582	127.4	10,044	87.8
	6	8,183	121.5	10,389	90.9
	7	7,345	116.4	8,049	70.4
	8	8,764	130.1	9,584	83.8
October.....	9	9,043	134.2	11,956	104.6
	10	8,777	130.3	12,930	113.1
	11	8,217	122.0	13,633	119.2
	12	8,195	121.6	13,940	121.9
	13	8,017	119.0	13,881	121.4
November.....	14	7,588	112.6	14,256	124.7
	15	6,863	101.9	13,907	121.6
	16	6,386	94.8	14,528	127.1
	17	5,858	87.0	14,291	125.0
December.....	18	4,284	63.6	13,159	115.1
	19	5,062	75.1	13,927	121.8
	20	5,199	77.2	13,040	114.0
	21	6,149	91.3	12,867	112.5
January.....	22	5,360	79.6	10,596	92.7
	23	4,701	69.8	9,616	84.1
	24	5,107	75.8	10,752	94.0
	25	6,647	98.7	11,333	99.1
	26	7,181	106.6	12,112	105.9

TABLE 46.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN 6 HIGH-GRADE AND 6 LOW-GRADE SHOPS IN THE DRESS AND WAIST INDUSTRY OF NEW YORK CITY, AUGUST, 1912, TO DECEMBER, 1912, AND JANUARY, 1912, TO JULY, 1912, INCLUSIVE—Concluded.

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		6 high-grade shops.		6 low-grade shops.	
		Amount.	Per cent.	Amount.	Per cent.
February.....	27	\$7,216	107.1	\$11,847	103.6
	28	7,999	118.7	12,204	103.7
	29	8,114	120.4	12,548	119.7
	30	8,050	119.5	12,768	111.7
March.....	31	9,185	136.3	13,411	117.3
	32	9,907	147.0	13,497	118.0
	33	9,885	146.7	13,129	114.8
	34	9,216	136.8	13,701	119.8
April.....	35	8,332	123.7	14,260	124.7
	36	6,846	101.6	11,092	97.0
	37	7,030	104.3	11,944	104.5
	38	6,963	103.2	13,002	113.7
May.....	39	6,659	98.8	13,604	119.0
	40	6,024	89.4	13,083	114.4
	41	5,525	82.0	13,066	114.3
	42	5,117	76.0	12,848	112.4
	43	4,467	66.3	12,768	111.7
June.....	44	4,676	69.4	11,151	97.5
	45	5,218	77.5	11,664	102.0
	46	4,364	64.8	11,504	100.6
	47	4,253	63.1	10,646	93.1
July.....	48	4,804	71.3	9,322	81.5
	49	4,073	60.5	7,154	62.6
	50	4,927	73.1	5,275	46.1
	51	5,496	81.6	5,250	45.9
	52	5,738	85.2	5,270	46.1
Total.....		350,323		594,553	
Average.....		6,737	100.0	11,434	100.0

CHART NO. 26.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE DRESS AND WAIST INDUSTRY: 6 HIGH-GRADE AND 6 LOW-GRADE SHOPS—NEW YORK CITY.



SIX SHOPS MAKING HIGH-GRADE GARMENTS ——— SIX SHOPS MAKING LOW-GRADE GARMENTS - - -

### RELATED FACTORS.

Both rate of wages and length of the working-day have a relation to the problem of irregular employment in the garment-making trades, but the opinion of students as to the nature of this relation has changed of late years. For some time it was supposed that irregularity was an inherent characteristic of garment-making trades, and that therefore efforts to modify it were necessarily fruitless. Under these circumstances, the most effective way of meeting the situation seemed to lie in the effort to secure for the worker so high a wage that during the busy seasons he could make enough to support himself through the long periods of idleness due to no fault of his own. The main emphasis, therefore, was laid on the attempt to secure better wages.

Since 1910 this attempt may be considered to have succeeded, but its success has increased the original difficulty. If the skill required be taken into consideration, the weekly rates of wages in these trades seem fairly high. As an illustration, one may take the occupation of presser in the cloak, suit, and skirt industry in New York or Boston. During the year 1913, pressers received by agreement \$22.50 per week, a relatively high rate in view of the fact that an adaptable man of working age may become a proficient presser in less than one year. An ordinary operator (and an adaptable recently-arrived immigrant may become such an operator in less than a year) may earn, during the busy seasons, in a week of 50 hours a wage of from \$30 to \$35.

These relatively high wages, however, did not insure the worker a satisfactory annual income, since they immediately attracted new workers in great numbers, thus increasing unduly the supply of labor, which was already too large. But the oversupply of labor tends directly to increase irregularity of employment. Without the existence of large reserves of workers ready to be utilized for very short periods at any time throughout the year, the recurrence of the great rush seasons would be practically impossible. The situation approaches a vicious circle; irregular employment justifies high wages, high wages increase the oversupply of workers, and the oversupply of workers increases irregularity of employment.

As to the relation in these trades between the hours of labor and irregularity of employment, experience has shown that the view of its nature generally accepted some years ago is untenable. The prevailing hours were formerly rather excessive, usually 60 or 70 per week. It was maintained that a considerable part of the unemployment in existence at certain points of the year could be accounted for by a more or less chaotic distribution of work during the rush seasons, that as a result, while many of the workers were employed 60

and 70 hours per week, others remained idle, and consequently, one of the ways to relieve the gravity of unemployment would be to reduce the number of weekly hours of labor. This view was held by the United States Industrial Commission of 1900. It says, "The effort of labor organizations in these occupations to reduce the hours of labor to eight per day and to reduce overtime, provided they are successful, will result in the extension of the period of employment through a large part of the year."<sup>1</sup>

The influence of the factors just mentioned—method of distribution of work, hours of labor, etc.—upon seasonal fluctuations of employment in these industries at the present moment would seem to be rather negligible in view of the fact that the 50-hour week, and elimination of excessive hours of overtime, as well as the principle of equal distribution of work have been introduced almost universally into these trades and that, in spite of these changes, as revealed by a recent study of this bureau<sup>2</sup> unemployed garment workers may still be found at the points of most intense activity during the year in the garment trades of New York.

### SUMMARY.

This discussion has dealt with six factors which influence regularity of work in the garment trades—seasonal changes, changes in style, degree of specialization required, quality of product, scale of production, and method of production, i. e., whether in an inside or an outside shop. It is evident that these factors differ considerably both in the extent to which they affect regularity of employment and in the degree to which they can be controlled. Seasonal changes, for instance, are absolutely beyond control and as the industry is now managed affect employment strongly, but this influence is by no means inherent and inevitable. If seasonal changes were the only variable factor it would be entirely possible for a manufacturer to determine by experiment what volume of custom he could secure and handle, and then to distribute this work through the year, making up his goods in advance of sales, and employing no more workers than he could keep steadily occupied.

Four of the other factors fall into two groups, scale and method of production forming one, and specialization of work and quality of product the second. The first two seem inevitably connected with fluctuations of employment; it is difficult to see how small-scale production can possibly be made as steady as large, while one of the important reasons for the existence of the outside shop is that it may take the overflow, in times of pressure, from the inside shop, a condition which naturally makes employment in the outside shop irregular

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<sup>1</sup> Report of U. S. Industrial Commission, vol. 19, p. 751.

<sup>2</sup> Bulletin No. 147, p. 12.

to the highest degree. The outside shop does not seem a necessity; many manufacturers dispense with it altogether, and its abolition would tend to regularize employment in the trade.

The other two factors, specialization and quality of product, like the seasonal changes, do not seem inevitably productive of irregularity. It seems indisputable that the greater the specialization practiced by a given manufacturer, and the better the quality of the goods he turns out, the greater is the irregularity of his pay-roll figures. Yet except in so far as specialization limits his volume of business, the irregularity ascribed to these factors seems to hark back to another cause, the risk involved in putting high-priced labor and expensive material into garments which if not sold at once may be rendered almost worthless by a change of styles. In other words, the fickleness of fashion and the unsalability of a garment that is out of style seem the real explanation of the irregularity of which these two factors are the superficial causes.

This would make changes of style the most important cause of fluctuations of employment in the garment trade, the cause on which all the others really depend. This is the view of many of the manufacturers, who say that it is useless to attempt to regularize employment, since it is impossible to know beforehand what can safely be made up. The whim of the customer determines what will sell, and since no mortal can tell beforehand what style will strike the popular fancy, goods of any value can not be made up in advance and the year must consist of alternate rush and slack seasons.

On closer inspection, however, it seems doubtful whether fashion is as uncontrollable and incalculable an element as the manufacturers profess to believe. Fundamentally, which is more responsible for changes of fashion, the demand of the public or the competition of the manufacturers? Each manufacturer is bidding frantically against all the others for the favor of the buying public. Each is racking his brains to introduce some novelty which may make his line, instead of his rival's, the hit of the season. Each is doing all that in him lies to create and foster the widest caprice, the greatest fickleness on the purchaser's part. Undoubtedly the customer does not wish to buy this fall an exact replica of last fall's suit or dress, but a much narrower range of variation than is offered would meet her needs. If all the manufacturers devoted the same effort to pushing standard lines with moderate variations from year to year that they now give to introducing novelties, it is impossible to say how far irregularity of employment would be reduced, but it is evident that the situation would be changed materially for the better.

In fact, viewing the whole question of unemployment in the garment-making trades, it seems probable that the present highly undesirable situation has developed more because no pains were taken

to prevent it than from any inherent necessity. To a considerable extent the employers have risen from the ranks of the workers. Each is intent on getting the most trade with the least risk possible; each accepts the conditions of the industry as he has known it. Rush seasons alternating with dull seasons are the natural order to him, and unless he is a rather unusual man the idea of modifying this order does not occur to him. A few, but only a few, were found who had deliberately tried to regularize employment within their establishments. The methods adopted and the degree of success attained are set forth in the following pages.

### REGULARIZATION OF EMPLOYMENT.

In the course of this investigation two methods of diminishing seasonal fluctuations of employment were found in use, though neither was extensively employed. The first consisted of manufacturing more than one line of goods, the articles produced being so selected that the dull season of one coincided with the busy season of another. Two conspicuous examples of this were found, one a mail-order house which manufactured eight or more lines of articles for women's wear, and the other a dress and waist making establishment, in which the manufacture of petticoats was used to regularize employment, a considerable part of the force being transferred from one line to the other as the dull or busy season required. Two other establishments were found in which these same two lines of manufacture were carried on, but in these the main purpose was to keep the plant busy, and little or no effort was made to transfer workers from one line to the other.

The second method, found in an establishment manufacturing men's garments, consisted of an attempt to secure orders as far in advance of delivery as possible, combined with the introduction and pushing of a standard garment which could be made up during the dull season.

The working of these different methods will be described in some detail.

### SEASONAL FLUCTUATIONS OF EMPLOYMENT IN ONE CHICAGO ESTABLISHMENT MANUFACTURING MORE THAN EIGHT LINES OF WOMEN'S GARMENTS.

Information was secured from a Chicago establishment which presents a unique situation, for the reason that its entire product is disposed of by its principal owner, who is the proprietor of a large mail-order house in that city. Thus, this establishment finds itself in a position where to a significant degree it may influence the demands of its buyers. This establishment manufactures eight distinct lines of garments as follows: House dresses, dressing sacks, wrappers, kimonos, aprons, maternity dresses, petticoats, women's sanitary appliances, millinery, and garters. The annual pay roll amounted to about \$200,000, with a total output estimated at approximately \$750,000.

Table 47 and the chart accompanying it show the seasonal fluctuations of employment in this establishment in two different ways: (a) In terms of percentage of the average weekly pay roll for all productive labor for the year, and (b) in terms of percentages of the average weekly number of workers for the year.

Employment in this establishment, as is the case in most of the establishments manufacturing women's garments, is more steady than earnings. This is due to the fact that, when the dull seasons approach, the surplusage of workers instead of being discharged are retained on part time. Thus, in week 28, the middle of February, when the pay roll amounted to only 70 per cent of the average, the number of workers was much higher, 90 per cent of the average. On the other hand, in the busy seasons the percentage of the normal pay roll usually increases more rapidly than the percentage of the number of employees, which is pretty good evidence that during the dull seasons at least the workers are underemployed, so that a considerable increase in the output is possible without a corresponding increase in the number of workers. Thus, in weeks 16 and 17, when the pay roll percentages rose to about 114 and 111, the percentage of workers did not rise even to the normal.

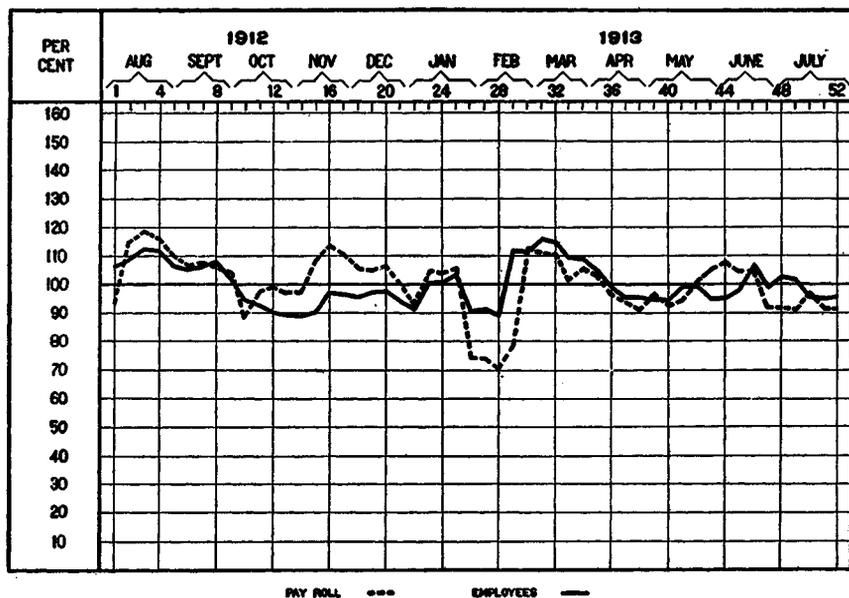
Employment in this establishment is rather evenly distributed throughout the year. The chart shows how closely the pay-roll line keeps in the main to the average for the year. At its highest point, in week 3, it is less than 20 points above the average. During the winter dull season it shows a greater variation downward, sinking in week 28 to 71 per cent of the normal. This is very unusual. In general the pay roll does not vary by more than 10 per cent from the average, and for over three-fourths of the year its variation is even less.

TABLE 47.—SEASONAL FLUCTUATIONS OF EMPLOYMENT, AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR AND NUMBER OF WORKERS, IN ONE CHICAGO ESTABLISHMENT MAKING MORE THAN EIGHT LINES OF WOMEN'S GARMENTS, AUGUST, 1912, TO JULY, 1913, INCLUSIVE.

(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly pay roll.		Workers.	
		Amount.	Per cent of average.	Number.	Per cent of average.
August.....	1	\$3,444	93.9	477	106.4
	2	4,196	114.4	486	108.4
	3	4,363	118.7	503	112.2
	4	4,282	116.7	501	111.8
September.....	5	4,042	110.2	477	106.4
	6	3,925	107.0	472	105.3
	7	3,948	107.6	478	106.6
	8	3,924	107.0	484	108.0
October.....	9	3,822	104.2	458	102.2
	10	3,247	85.5	423	94.4
	11	3,591	97.9	415	92.6
	12	3,631	99.0	404	90.1
November.....	13	3,576	97.5	402	89.7
	14	3,580	97.6	401	89.4
	15	3,972	108.3	408	90.3
	16	4,162	113.5	435	97.0
December.....	17	4,066	110.8	433	96.6
	18	3,877	105.7	430	95.9
	19	3,856	105.1	437	97.5
	20	3,899	106.3	438	97.7
January.....	21	3,671	100.1	423	94.4
	22	3,381	92.2	411	91.7
	23	3,842	104.7	449	100.2
	24	3,811	103.9	451	100.6
February.....	25	3,837	105.4	463	103.8
	26	2,724	74.3	407	90.8
	27	2,721	74.2	409	91.2
	28	2,586	70.5	401	89.4
March.....	29	2,877	78.4	501	111.8
	30	4,143	112.9	500	111.5
	31	4,063	110.8	519	115.8
	32	4,058	110.6	515	114.9
April.....	33	3,731	101.7	490	109.3
	34	3,861	105.2	489	109.1
	35	3,770	102.8	471	105.1
	36	3,548	96.7	445	99.3
May.....	37	3,446	93.9	430	95.9
	38	3,336	90.9	428	95.5
	39	3,526	96.1	426	95.0
	40	3,411	93.0	424	94.6
June.....	41	3,463	94.4	444	99.0
	42	3,701	100.9	445	99.3
	43	3,873	105.6	425	94.8
	44	3,960	107.9	427	95.2
July.....	45	3,850	104.9	439	97.9
	46	3,885	105.9	478	106.6
	47	3,372	91.9	443	98.8
	48	3,363	91.7	459	102.4
Total.....	49	3,334	90.9	457	101.9
	50	3,529	96.2	430	95.9
	51	3,348	91.3	426	95.0
	52	3,321	90.5	430	95.9
Total.....		190,765		23,314	
Average.....		3,669	100.0	448	100.0

CHART No. 27.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN ONE ESTABLISHMENT MANUFACTURING MORE THAN EIGHT LINES OF WOMEN'S READY-TO-WEAR GARMENTS—CHICAGO.



#### ACTUAL DOVETAILING OF ALLIED OCCUPATIONS IN THE DRESS AND WAIST INDUSTRY IN CHICAGO.

The experiences of some of the manufacturers described in this section apparently would tend to show that seasonal unemployment in establishments manufacturing dresses and waists could be reduced by conscious endeavors on the part of manufacturers to dovetail their work during dull seasons on dresses and waists with the manufacturing of petticoats. Although, taken by itself, the seasonal fluctuations of employment in petticoat shops (shown on p. 59 of this report) also present considerable fluctuations at different points of the year, the dull seasons in the manufacture of dresses and waists seem, at least as far as the establishments here described are concerned, to coincide with periods of fairly intense activity in the manufacture of petticoats. The possibility of dovetailing the seasons in the two mentioned lines becomes still more apparent when the fact that most of the petticoats are manufactured in advance of sales is taken into consideration.

Tables 48, 49, and 50 and the charts accompanying them give the pay rolls of three different establishments in which this dovetailing has been actually accomplished with a fair degree of success.

Establishment No. 1 stands high in repute among the dress and waist manufacturers of the city of Chicago, and is a relatively young concern, in the process of constant growth. In this establishment the

working forces of the dress and waist and petticoat departments are interchangeable; that is, the same workers are engaged in manufacturing petticoats when the season for the manufacture of dresses and waists is at its lowest ebb. Some measure of the effect of this dovetailing is found by comparing the pay roll of the dress and waist department with that of the two departments combined. The pay roll stands at or above 100 per cent in the dress and waist department for 23 weeks, against 32 weeks in the combined departments, a fact which seems to show that for the majority of the employees the addition of the petticoats department has lengthened the period of full-time work by something over two months. In other words, as a result of this dovetailing the number of working weeks in the course of a year was considerably larger and the fixed charges per unit of production were not as high as they would have been had the plant, machinery, and clerical force been idle for some weeks longer. This dovetailing of allied occupations, it would seem, has been of great benefit to the owners of the establishment as well as to their employees.

In the two other establishments, Nos. 2 and 3, the dovetailing is on an entirely different basis. In both the effort is to avoid irregular working for the plant rather than irregular employment for the workers. The dovetailing practiced has reduced considerably the burden of fixed charges to the employers, but has been of little advantage to the employees on account of a lack of interchangeability in the working organizations of the two allied departments. In these establishments only a limited number of the dress and waist operators are allowed to work on petticoats during the dull seasons in the dress and waist line.

Interchangeability between the working organizations of the two specified departments, the employers say, can not be effected for two reasons: (a) Operators on dresses and waists, they say, are not willing to work for smaller wages, which naturally are paid for work of an inferior quality, on petticoats; (b) in some instances, dress and waist operators are not competent to work on petticoats.

An examination of these objections through numerous interviews with employers would seem to indicate that although the reason mentioned under the first heading—unwillingness of worker to work for smaller pay—is of considerable significance; the second reason—the incompetency of dress and waist operators to work on petticoats—is not valid. Most of the employers seem to be of the opinion that with some preparation, that is, with some time given for the necessary adjustment, operators on dresses and waists can become thoroughly proficient in operating on petticoats. This is the opinion of the owner of establishment No. 1, where this adjustment has been successfully accomplished.

TABLE 48.—REGULARIZATION OF EMPLOYMENT IN A SEASONAL INDUSTRY BY COMBINING THE MANUFACTURE OF PRODUCTS WHERE THE BUSY SEASON FOR ONE PRODUCT CORRESPONDS WITH THE DULL SEASON OF ANOTHER—SHOP NO. 1.

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		Dress and waist department.		Petticoat department.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$363	100.5	\$273	107.0
	2	342	94.6	302	118.4
	3	317	87.7	315	123.5
	4	337	93.3	295	115.6
September.....	5	309	85.5	316	123.9
	6	264	73.1	266	104.3
	7	295	81.6	313	122.7
	8	324	89.7	287	112.5
October.....	9	427	118.2	291	114.1
	10	409	113.2	291	114.1
	11	352	97.4	246	96.4
	12	369	102.1	247	96.8
	13	354	98.0	276	108.2
November.....	14	357	98.8	319	125.0
	15	323	89.4	321	125.8
	16	335	92.7	327	128.2
	17	301	83.3	326	127.8
December.....	18	304	84.1	281	110.1
	19	314	86.9	346	135.6
	20	359	99.4	355	139.2
	21	286	79.1	316	123.9
January.....	22	223	61.7	282	110.5
	23	<sup>1</sup> 69	<sup>1</sup> 19.1	<sup>1</sup> 32	<sup>1</sup> 12.5
	24	<sup>1</sup> 51	<sup>1</sup> 14.1	<sup>1</sup> 46	<sup>1</sup> 18.0
	25	298	82.5	314	123.1
	26	360	99.6	322	126.2
	27	345	95.5	329	129.0
February.....	28	389	107.7	366	143.5
	29	466	129.0	383	150.1
	30	408	112.9	336	131.7
	31	495	137.0	365	143.1
March.....	32	466	129.0	348	136.4
	33	440	121.8	319	125.0
	34	436	120.7	344	134.8
	35	430	119.0	329	129.0
April.....	36	416	115.1	232	90.9
	37	411	113.7	215	84.3
	38	435	120.4	202	79.2
	39	461	127.6	166	65.1
May.....	40	522	144.5	109	42.7
	41	515	142.5	124	48.6
	42	526	145.6	152	59.6
	43	486	134.5	143	56.0
	44	333	92.2	117	45.9
June.....	45	264	73.1	70	27.4
	46	312	86.3	148	58.0
	47	378	104.6	198	77.6
	48	345	95.5	188	73.7
July.....	49	349	96.6	163	63.9
	50	363	100.5	173	67.8
	51	405	112.1	222	87.0
	52	352	97.4	220	86.2
	Total.....		18,790		13,266
Average.....		361	100.0	255	100.0

<sup>1</sup> Holiday.

CHART No. 28.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN ESTABLISHMENTS MANUFACTURING DRESSES, WAISTS, AND PETTICOATS: SHOP NO. 1—CHICAGO.

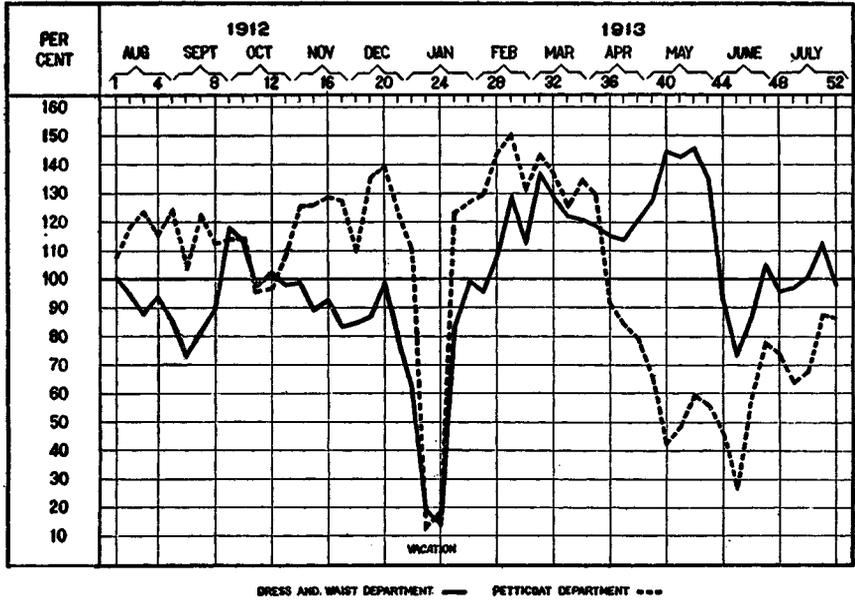
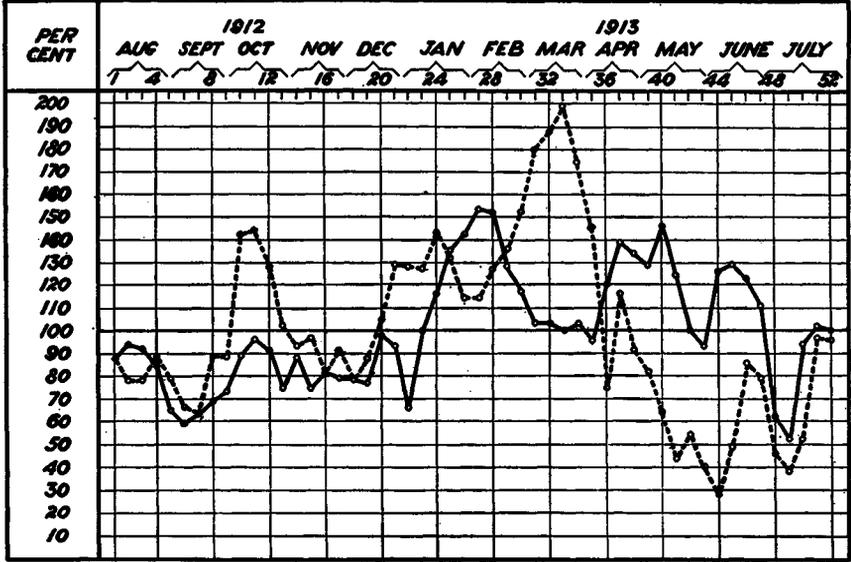


TABLE 49.—REGULARIZATION OF EMPLOYMENT IN A SEASONAL INDUSTRY BY COMBINING THE MANUFACTURE OF PRODUCTS WHERE THE BUSY SEASON FOR ONE PRODUCT CORRESPONDS WITH THE DULL SEASON OF ANOTHER—SHOP NO. 2

(Average weekly pay roll for the year=100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		Dress and waist department.		Petticoat department.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$502	88.2	\$137	87.5
	2	536	94.2	122	77.9
	3	525	92.3	122	77.9
	4	475	83.5	139	88.8
September.....	5	387	64.5	123	78.6
	6	334	58.7	105	67.1
	7	360	63.3	116	74.1
	8	394	69.3	140	89.4
October.....	9	416	73.1	140	89.4
	10	505	88.8	222	141.8
	11	546	96.0	226	144.4
	12	515	90.5	200	127.8
	13	425	74.7	160	102.2
November.....	14	500	87.9	145	92.6
	15	429	75.4	152	97.1
	16	463	81.4	126	80.5
	17	449	78.9	142	90.7
December.....	18	446	78.4	122	77.9
	19	435	76.5	138	88.2
	20	558	98.1	164	104.8
	21	527	92.6	202	129.1
January.....	22	375	65.9	200	127.8
	23	566	99.5	198	126.5
	24	662	116.4	223	142.5
	25	770	135.4	206	131.6
	26	810	142.4	178	113.7
February.....	27	868	152.6	178	113.7
	28	866	152.2	198	126.5
	29	727	127.8	212	135.5
	30	664	116.7	238	152.1
March.....	31	583	102.5	281	179.5
	32	587	103.2	294	187.8
	33	566	99.5	311	198.7
	34	584	102.7	273	174.4
April.....	35	540	94.9	227	145.0
	36	680	119.5	117	74.8
	37	790	138.9	181	115.6
	38	764	134.3	142	90.7
May.....	39	735	129.2	129	82.4
	40	829	145.7	100	63.9
	41	705	123.9	69	44.1
	42	563	99.0	85	54.3
	43	530	93.2	62	39.6
June.....	44	715	125.7	43	27.5
	45	735	129.2	76	48.6
	46	701	123.2	134	85.6
	47	629	110.6	124	79.2
July.....	48	351	61.7	72	46.0
	49	293	51.5	60	38.3
	50	535	94.0	82	52.4
	51	580	102.0	152	97.1
	52	570	100.2	150	95.8
Total.....		29,580		8,138	
Average.....		569	100.0	157	100.0

CHART No. 29.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN ESTABLISHMENTS MANUFACTURING DRESSES, WAISTS, AND PETTICOATS: SHOP NO. 2—CHICAGO.



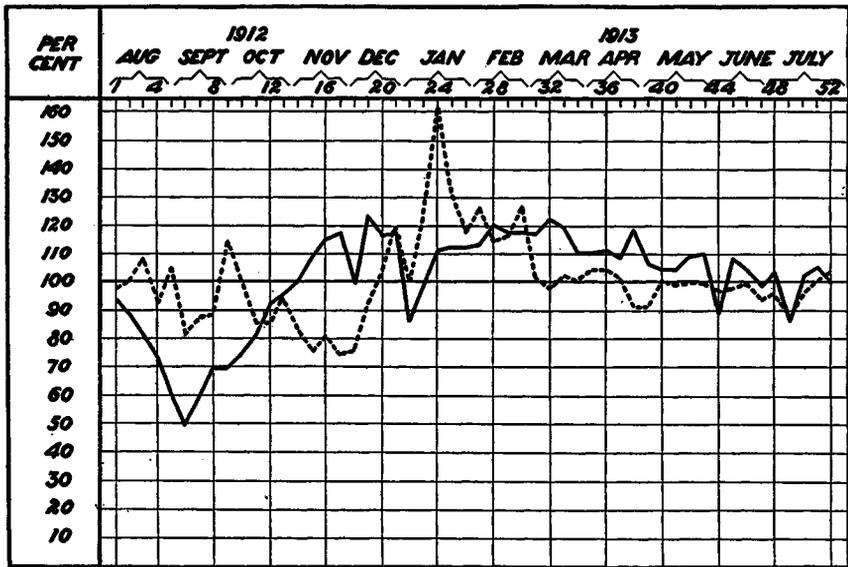
DRESS AND WAIST DEPARTMENT — PAY ROLL - \$ 28680.  
 PETTICOAT DEPARTMENT --- PAY ROLL - \$ 8138.

TABLE 50.—REGULARIZATION OF EMPLOYMENT IN A SEASONAL INDUSTRY BY COMBINING THE MANUFACTURE OF PRODUCTS WHERE THE BUSY SEASON FOR ONE PRODUCT CORRESPONDS WITH THE DULL SEASON OF ANOTHER—SHOP NO. 3.

(Average weekly pay roll for the year—100.)

Month.	Week No.	Weekly amount and per cent of average weekly pay roll in—			
		Dress and waist department.		Petticoat department.	
		Amount.	Per cent.	Amount.	Per cent.
August.....	1	\$2,031	93.4	\$447	96.8
	2	1,908	87.7	463	100.3
	3	1,759	80.9	497	107.6
	4	1,583	72.8	425	92.1
September.....	5	1,310	60.2	485	105.0
	6	1,062	48.3	372	80.6
	7	1,265	58.2	403	87.3
	8	1,499	68.9	405	87.7
October.....	9	1,498	68.9	525	113.7
	10	1,608	73.9	456	98.8
	11	1,753	80.6	392	84.9
	12	2,007	92.3	390	84.5
	13	2,068	95.1	436	94.4
November.....	14	2,164	99.5	381	82.5
	15	2,367	108.8	348	75.4
	16	2,510	115.4	376	81.4
	17	2,553	117.4	342	74.1
December.....	18	2,137	98.3	346	74.9
	19	2,676	123.0	426	92.3
	20	2,532	116.4	479	103.7
	21	2,547	117.1	547	118.5
January.....	22	1,864	85.7	463	100.3
	23	2,122	97.6	566	122.6
	24	2,404	110.5	747	161.8
	25	2,430	111.7	611	132.3
	26	2,481	111.8	538	116.5
February.....	27	2,464	113.3	580	125.6
	28	2,616	120.3	525	113.7
	29	2,533	116.5	533	115.4
	30	2,537	116.6	585	126.7
March.....	31	2,528	116.2	464	100.5
	32	2,644	121.6	446	96.6
	33	2,597	119.4	469	101.6
	34	2,399	110.3	463	100.3
April.....	35	2,390	109.9	479	103.7
	36	2,408	110.7	481	104.2
	37	2,354	108.2	465	100.7
	38	2,560	117.7	421	91.2
May.....	39	2,314	106.4	420	91.0
	40	2,265	104.1	461	99.8
	41	2,259	103.9	451	97.7
	42	2,371	109.0	458	99.2
	43	2,396	110.2	456	98.8
June.....	44	1,925	88.5	444	96.2
	45	2,342	107.7	448	97.0
	46	2,256	103.7	456	98.8
	47	2,141	98.4	430	93.1
July.....	48	2,229	102.5	438	94.9
	49	1,833	84.3	391	84.7
	50	2,220	102.1	439	95.1
	51	2,274	104.6	462	100.1
	52	2,160	99.3	475	102.9
Total.....		113,103		24,006	
Average.....		2,175	100.0	462	100.0

CHART No. 30.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN ESTABLISHMENTS MANUFACTURING DRESSES, WAISTS, AND PETTICOATS: SHOP NO. 3—CHICAGO.



DRESS AND WAIST DEPARTMENT— PETTICOAT DEPARTMENT--

SEASONAL FLUCTUATIONS OF EMPLOYMENT IN TWO ESTABLISHMENTS MANUFACTURING MEN'S READY-TO-WEAR CLOTHING.

In Table 51 and chart accompanying it are shown seasonal fluctuations of employment in two representative establishments manufacturing ready-to-wear men's clothing, located in the cities of Chicago and Cleveland, respectively. The object of introducing this information into this report is to show another way in which regularization of employment has actually been effected.

As can readily be seen from an examination of Chart No. 31, employment in the establishment of the Cleveland firm is considerably more regular than employment in the establishment of the Chicago firm.

As compared with its pay roll for the average week of the year of May 1, 1913, to April 30, 1914, the pay roll of the busiest week in the establishment of Chicago (week 40, 131.1 per cent of the average) was proportionately larger than the pay roll of the Cleveland firm during its busiest week (week 14, 113.8 per cent). At the same time the pay rolls of the Cleveland firm during the dull seasons seldom fell as far below their average as did the pay rolls of the Chicago firm. Employment in the Cleveland establishment was far more regularly distributed about the average.

The facts with reference to the situation in the establishment in Cleveland, as related by the owners and manager of the firm, were as

follows: Regularization of employment has been accomplished through a conscious effort on the part of the firm, the members of which realize clearly the wastefulness and inefficiency resulting from irregularity of employment. At first an effort was made to "make salesmen understand that delivery dates should not be fixed without the consent of the superintendent in charge of manufacturing." "We can not promise too quick delivery," the salesmen were told. The salesmen kicked, a number of customers were lost, but the efficiency resulting from a more steadily employed working force reduced the cost of production and put the firm on a footing in which, to a certain degree, it could well afford to pay little attention to the amount of trade thus lost. The quality of the output improved and the amount of it increased.

The actual regularization of employment in the establishment of this firm is a part of the general scheme of scientific management and efficiency.

Besides refusing to turn out orders on too short a notice, a purely negative feature in the operation of its plant, the firm employed positive means to stabilize employment, and to have its people employed as regularly as possible.

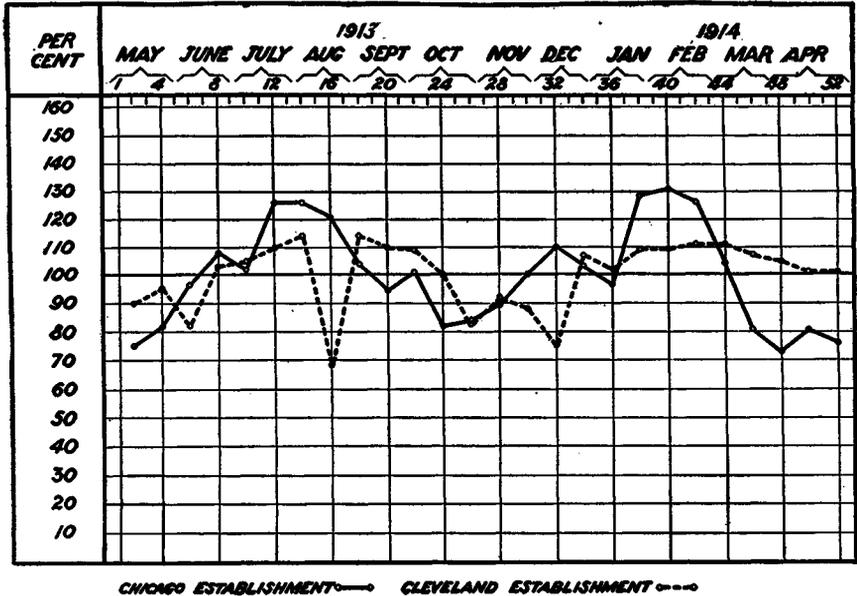
The owners of the firm decided upon filling up the gaps created by the dull seasons by the manufacture of some staple article, a garment that could be manufactured in advance of sales. The so-called stabilizer of employment in this establishment is a popular priced blue serge suit of two different weights, No. —, of light weight, for summer wear, and No. —, of heavier weight, for winter wear. Before the arrival of the dull seasons of the year the firm conducts an aggressive advertising campaign for the blue serges just mentioned. Then, as soon as the busy periods are over, cutting and operating upon the blue serges begins. For six weeks in the fall and about eight weeks in the summer the entire factory force of the firm is engaged in working on them. The manufacture of these suits occurs exactly at the slackest point of the normal business year of the clothing trades. Without this stabilizer the owners of the firm maintain that their people would have to go idle at least two or three months during the year.

TABLE 51.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY BIWEEKLY PAYROLLS FOR ALL PRODUCTIVE LABOR IN REPRESENTATIVE ESTABLISHMENTS MANUFACTURING MEN'S CLOTHING IN CHICAGO AND CLEVELAND, MAY, 1913, TO APRIL, 1914, INCLUSIVE.

(Average biweekly pay roll for the year=100.)

Month.	Pay roll No.	Per cent of average biweekly pay-roll.		Month.	Pay roll No.	Per cent of average biweekly pay roll.	
		Chicago.	Cleveland.			Chicago.	Cleveland.
May.....	1	75.0	89.6	December.....	16	109.9	74.6
	2	81.6	95.3		17	108.1	107.1
June.....	3	96.4	82.4	January.....	18	95.5	102.1
	4	107.6	108.2		19	127.7	108.8
July.....	5	102.4	105.3	February.....	20	130.9	109.4
	6	126.2	109.5		21	128.4	111.0
	7	128.1	113.8		22	103.5	110.6
August.....	8	120.9	67.7	March.....	23	80.6	107.1
	9	104.4	113.8		24	73.4	104.9
September.....	10	94.2	110.3	April.....	25	81.0	101.0
	11	101.2	108.6		26	76.4	100.7
October.....	12	82.4	100.1				
	13	83.7	83.1				
November.....	14	89.3	92.0				
	15	100.1	88.0				

CHART No. 31.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY BIWEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE MEN'S CLOTHING INDUSTRY: 1 LARGE ESTABLISHMENT, CHICAGO, AND 1 LARGE ESTABLISHMENT, CLEVELAND.



## OTHER EXAMPLES OF DOVETAILING.

Dovetailing is taking place in many seasonal trades. Examples of how this has been done in England are given in "Seasonal Trades," a work by various authors under the editorship of Sidney Webb:

The amount of actual unemployment among the seasonal and casual workers depends upon the opportunities for sandwiching or dovetailing occupations or jobs. The professional casual of the unskilled class, well known to foremen, and with a highly developed talent for piecing together scraps from everywhere, may have, on the whole, fairly regular employment, while the highly skilled artisan, specialized in his own trade, may be for six months or more without work. A large amount of dovetailing takes place among seasonal workers. Many regular waiters, gas workers, go to the brickfields in the summer, while others work at deal-carrying, dock labor and building work. Some even act as bricklayers' laborers, or go house painting or decorating in the summer. The women who work at india-rubber works in the winter go to laundries in the summer. Workers in piano manufacturing, which is slack in winter, spend the summer as cabinetmakers, an allied trade which is active then. The "sandwich man" often goes to the country in the summer picking peas, hops, and fruit. Other transitions are from pattern making to carpentering, from instrument making to electrical work, from military harness making to bootmaking. Match girls go to the jam factories and hop fields in the slack months. Boatmen who work at boating at Brighton for about five months of the year are sometimes employed as fish-hawkers in the winter or as at Scarborough go "stoning" for the county council.

The dovetailing of industrial with agricultural occupations did much to mitigate the evil effects of the industrial revolution by supplementing industrial employment. This form of dovetailing is still prevalent on the Continent. In northern Russia it has done much to alleviate the condition of the peasants, while in Belgium it is widespread. There the "half and half" laborers—half agricultural, half industrial—work in the sugar factories at certain periods, harvesting at others, going to the collieries in winter to resume work in the fields in the spring.<sup>1</sup>

To a limited extent, there is an interchange of workers in the occupation of clothing cutters in New York and Chicago. Cutters in the cloak industry find employment quite frequently during the dull season of that industry in the dress and waist industry, while cutters in the dress and waist industry, in lesser numbers, enter the cloak industry when work on dresses and waists is lacking.

Buttonhole makers, also, are accustomed to supplement their earnings by seeking employment in the alternating busy seasons of the allied industries, or in other words, when the dull season is approaching in the cloak, suit, and skirt industry, the buttonhole makers in this industry seek employment in the men's clothing industry, trade-

<sup>1</sup> Seasonal Trades by various authors, edited by Sidney Webb, London, 1912, pp. 46, 47.

unions accepting and exchanging the card of the worker in the ladies' garment trades for the union card in the men's clothing trades.

Apropos, the following is an interesting description of dovetailing actually taking place in two somewhat allied industries—in the making of fancy feathers and artificial flowers:

Nearly half of the 174 flower makers interviewed had worked on fancy or ostrich feathers during their careers. Ability to turn to this trade is the solution of the seasonal problem most often urged by employers and workers. The close connection between these two industries has already been described. The manufacture of ostrich feathers usually stands as a separate industry with a longer season of work, but fancy feather making and the manufacture of artificial flowers are twin trades whose seasons for the most part do not overlap but rather fit into one another, making it possible for workers to turn from one to the other. Of the 114 flower shops investigated, 54 manufactured also fancy feathers. This number is not a fixed one, for flower factories may add feather departments, and vice versa, or the flower or feather department of a millinery supply house may be discontinued without involving any great change of policy on the part of the firm. From the point of view of the workers, however, opinions differ as to the feasibility of thus combining the two occupations.

A large Broadway flower and feather factory employing 100 girls is an example of the combination of the two occupations, since the same workers are taught both. The forewoman said that the flower season begins in October and ends in May, and the feather season is nominally from May to October. Usually, however, there is a month or two between seasons, so that the workers who combine the two trades can not count on more than 10 months of employment in the year. This statement was borne out by the testimony of a worker who had learned the flower trade 15 years ago and who is now employed alternately in flower making and fancy feather making. She has advanced to the position of forewoman and designer in both trades. She said that the flower season lasts from September to May, that there is very little occupation in it in June, and that then the fancy feather season starts, lasting until Thanksgiving Day, thus overlapping a little with the autumn season in flower making. Thus, although June is dull, and the autumn flower season uncertain, the worker who understands both flower and feather making will have a much longer period of employment than would be possible if she had learned only flower making.<sup>1</sup>

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<sup>1</sup> Russell Sage Foundation. *Artificial Flower Makers*, by Mary Van Kleeck, pp. 52-54, inclusive.

**APPENDIX A.—EARNINGS AND REGULARITY OF EMPLOYMENT IN CERTAIN BRANCHES OF THE WOMEN'S READY-TO-WEAR GARMENT INDUSTRY IN NEW YORK, BOSTON, AND CLEVELAND.**

**INTRODUCTION.**

The extent to which the wage workers dependent upon certain branches of the women's ready-to-wear garment industry are steadily employed throughout the year has also been made the subject of a statistical inquiry, the results of which are presented in the detailed tables of this report. The purpose of the inquiry has been twofold: (1) To determine the extent to which employment in specified occupations is continuous; or, stated conversely, to determine what may be briefly designated the incidence of unemployment in these occupations; and, (2) by relating wage rates to time worked, to determine actual earnings of individual workers. The data presented relative to weeks worked and wages earned during a specified period, generally of 12 months, have been taken from the pay rolls of selected shops representing several branches of the women's ready-to-wear garment industry, the establishments covered including two muslin-underwear factories located in New York City, five dress and waist factories located in Boston, and two cloak, suit, and skirt factories located in Cleveland. The 3,454 workers employed in these factories during some portion of the period covered were distributed by cities as follows:

New York City.....	1, 150
Boston.....	778
Cleveland.....	1, 526
Total.....	<u>3, 454</u>

Restriction of the inquiry to selected shops has been necessary, partly because in the case of many shops accurate data are not available, and partly because the nature of the inquiry itself, which undertook to secure and to tabulate data in full detail for individual workers, imposed limitations. While an extension of the scope of the inquiry to cover a longer period, and to include other shops, might have increased the value of the data as a basis for determining more accurately the extent to which conditions of employment as regards constancy vary from year to year and from shop to shop, the basis of the present inquiry seems sufficiently broad to indicate with approximate accuracy conditions which tend to prevail permanently and generally.

Statistics of seasonal fluctuations in employment, showing changes in the number employed each week throughout the year in the several branches of the women's ready-to-wear garment industry indicate that as regards a large proportion of the working force, employment in these industries is not constant; that, on the contrary, the number of workers who find employment in the industries for a portion of the year only constitutes a very considerable proportion of the total number of workers who are in some degree dependent as wage earners upon these industries.

Statistics showing fluctuations from week to week in the number of the aggregate working force do not, however, indicate accurately, and may not indicate even approximately, the degree of constancy or inconstancy of employment as regards individual workers, since such data do not take into account the changing personnel of the working force, but take account only of changes in the aggregate number employed. While any fluctuation in the aggregate number employed necessarily implies a degree of inconstancy of employment for individual workers sufficient to account for that fluctuation, the inconstancy of employment itself may obviously exceed to any degree the amount indicated by changes in the aggregate number employed. Any degree of inconstancy of employment is entirely consistent with the maintenance of the number of the working force unchanged from week to week. In any given shop, for example, it is entirely conceivable that each week a certain number of workers should either voluntarily leave or be discharged and new workers be taken on to fill the vacancies. In such a case, while the total number employed might remain unchanged throughout the year, it might nevertheless be true that no worker, or only a few workers, would be retained on the pay roll for so long a period as one year.

As regards the individual workers, constancy of employment obviously can not be determined from statistics showing seasonal fluctuation. Neither can it be determined from statistics showing weeks worked by individual workers during a year in any one or in any given number of selected shops, or even in all the shops of any given, industrial character. While the pay roll of any manufacturing establishment for any year may be a complete record of employment within that establishment, it obviously can not be taken as a complete record of employment for any of the workers who may have been employed in the establishment during the year, except in the case of those who have been employed therein during the full 52 weeks. As regards all employees who have worked in the given shop less than 52 weeks, the record of their employment for the year as a whole is incomplete. Some of these workers may have entered the industry for the first time during the year; some may have died during the year or have suffered permanent or temporary disability

from sickness, accident, or old age; some may have found employment in the same or in some other occupation in another shop, located in the same or in some other community, either immediately upon leaving the given shop or after a more or less prolonged period of unemployment; and, finally, some may have remained unemployed. None of these factors can be accurately determined from available shop records for any large group of workers.

These indeterminable factors must be borne in mind in analyzing the data of employment for individual workers when those data are found on the pay-roll records of selected shops; and since, as regards a large proportion of the working force, the pay-roll record is an incomplete record of employment for the individual workers covered by the data, it is important to determine precisely what the significance of such data is.

Obviously the general significance of such data depends entirely upon the extent to which the conditions of employment in the selected shops fairly represent the conditions prevailing generally and permanently in the industry—the extent, in other words, to which the selected shops may be regarded as typical representative shops—and the period covered as a normal period. In both these respects the data presented in this report may be accepted as being significant, and it may be fairly assumed that the conditions shown to obtain in the selected shops in the given year do, in fact, obtain more or less generally throughout the industry in other shops and in other years. On this assumption the data acquire an important though clearly a somewhat indefinite significance.

Where, for example, the data show that a large proportion of the workers have been employed for a portion of the year only, the condition reflected may be seasonal fluctuation in employment; but it is not necessarily that, since the same proportion might result from a tendency on the part of certain workers to float from shop to shop, or from a general instability of employment extending throughout the year.

The classification of the workers according to the number of weeks worked during the year covered, indicates with approximate accuracy what may be termed the shop expectation of continuous employment. or, conversely, the frequency of the occurrence of unemployment. As regards the duration of unemployment in the case of individual workers dropped from the pay roll, no data are available, but that some time will be lost in seeking new employment seems inevitable, the amount of unemployment tending to increase roughly in proportion as the shop expectation of employment decreases.

## MUSLIN-UNDERWEAR INDUSTRY, NEW YORK CITY.

## SUMMARY.

Data relating to weeks employed, hours worked of regular and over time, and earnings during a specified year for employees in 32 occupations of the muslin-underwear industry were taken from the pay rolls of two New York establishments—designated in this report as Shop No. 1 and Shop No. 2, respectively. In the manufacturing processes Shop No. 1 employed 614 and Shop No. 2 536 workers during the year (March, 1913, through February, 1914), giving a total of 1,150 workers for the two establishments. After a survey of some 30 manufacturing establishments in the industry these two shops were selected as being representative of the better grade of shops as regards opportunity provided by the industry for steady employment of workers throughout the year. While conditions of employment undoubtedly vary from shop to shop throughout the industry, the extent to which the industry provides workers with steady employment is determined by characteristics of the trade which affect all shops in common, and the conditions of employment shown to prevail in the two selected shops are, with due allowance for shop variations, typical of the industry as a whole.

In the aggregate the 1,150 workers entered upon the pay rolls of these two shops at some time during the year covered by the inquiry worked 31,517 weeks, or an average per worker of 27.4 weeks for the year.

This average, however, while it indicates accurately the amount of employment provided by these shops for the working force as a whole, does not indicate a usual or common period of employment for individual workers. Only 8 of the 1,150 workers were employed exactly 27 weeks, and only 118 from 21 to 33 weeks. If the workers be classified according to weeks worked, it will be found that the average given above represents not a usual period of employment, but rather a combination of relatively short with relatively long periods. This will be apparent from the summary Table 52 following, which groups the workers according as they were employed 13 weeks or less, 14 to 26, 27 to 39, and 40 to 52 weeks, the last group being subdivided to show separately those employed 40 to 46 and 47 to 52 weeks.

TABLE 52.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF WEEKS AND AVERAGE WEEKS WORKED, IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Weeks employed.	Number.	Per cent.	Average weeks worked.
1 to 13 weeks.....	424	36.9	5.3
14 to 26 weeks.....	163	14.2	19.5
27 to 39 weeks.....	96	8.3	33.1
40 to 52 weeks.....	467	40.6	49.0
40 to 46 weeks.....	85	7.2	43.2
47 to 52 weeks.....	384	33.4	50.3
Total.....	1,150	100.0	27.4

Of the total number of workers, it will be noted, 424, or nearly two-fifths (36.9 per cent), were retained on the pay roll not over 13 weeks, the average period of employment for these workers being 5.3 weeks; 467, or two-fifths (40.6 per cent) of the workers were employed 40 to 52 weeks, or for an average of 49 weeks; the remaining 259—of whom 163 were employed 14 to 26 weeks, and 96, 27 to 39 weeks—constitute a little over one-fifth (22.5 per cent) of the total number.

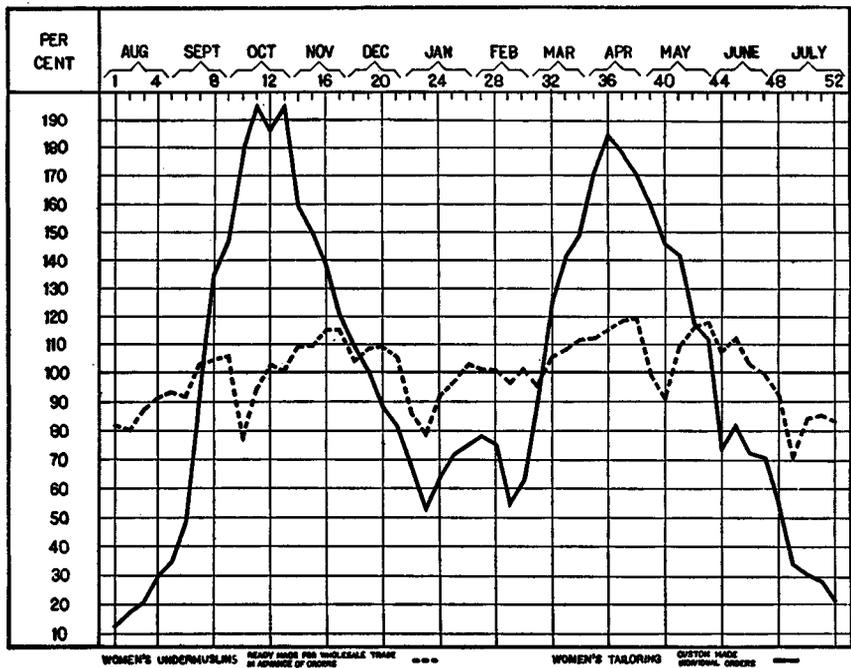
If employment for 47 to 52 weeks in a year be regarded as permanent employment, it would appear that permanent employment was provided for one-third of the working force, the number employed 47 to 52 weeks being 384, or 33.4 per cent of the total number. For more than one-half (51 per cent) of the working force the period of employment did not in any case exceed 26 weeks and the average duration of employment for the 587 workers employed 1 to 26 weeks was in fact only 9.3 weeks. The data indicate that for at least one-half of the working force employment in the industry is unstable.

In the general tables on pages 136 and 137 the number and the percentage employed under 5 weeks, 5 to 9 weeks, and by 5-week periods covering the year are shown and the data for the two shops combined are made the basis of the chart on page 114. Table 53, following, summarizes the totals included in these tables, which also give detail for occupational groups considered in a following section.

TABLE 53.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF WEEKS IN EACH OF 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, AND TO MARCH, 1914, INCLUSIVE.

Weeks worked.	Workers employed specified number of weeks.					
	Number.			Per cent.		
	Shop No. 1.	Shop No. 2.	Total.	Shop No. 1.	Shop No. 2.	Total.
Under 5 weeks.....	103	112	215	16.8	20.9	18.7
5 to 9 weeks.....	55	77	132	9.0	14.4	11.5
10 to 14 weeks.....	52	41	93	8.5	7.7	8.1
15 to 19 weeks.....	47	25	72	7.7	4.7	6.3
20 to 24 weeks.....	23	31	54	3.7	5.8	4.7
25 to 29 weeks.....	23	20	46	4.2	3.7	4.0
30 to 34 weeks.....	17	17	34	2.8	3.2	3.0
35 to 39 weeks.....	25	12	37	4.1	2.2	3.2
40 to 44 weeks.....	33	21	54	5.4	3.9	4.7
45 to 49 weeks.....	85	43	128	13.8	8.0	11.1
50 to 52 weeks.....	148	137	285	24.1	25.5	24.8
Total.....	614	536	1,150	100.0	100.0	100.0

CHART No. 32.—SEASONAL FLUCTUATIONS OF EMPLOYMENT AS SHOWN BY WEEKLY PAY ROLLS FOR ALL PRODUCTIVE LABOR IN THE WOMEN'S CUSTOM-TAILORING AND WOMEN'S MUSLIN-UNDERWEAR INDUSTRIES—NEW YORK CITY.



CONSTANCY OF EMPLOYMENT IN DIFFERENT OCCUPATIONS.

As has been stated, the 1,150 workers covered by the inquiry represent 32 occupations in the muslin-underwear industry. These occupational groups range in size from 2 to 273 workers. It will be obvious that comparatively little significance attaches to the

average duration of employment shown for the smaller occupational groups, since in the case of these groups the average might be materially affected by the inclusion of a larger number of workers had the inquiry been more extensive. For the larger groups, however, the average has occupational significance. Some such significance certainly attaches, for example, to the average duration of employment of 6.1 weeks shown for 19 pressers, folders, as also to the average of 12.9 weeks shown for 44 layers-up, of 13.5 weeks for 17 markers, and of 14.2 weeks for 44 operators not classified. In Table 54, following, the average number of weeks worked is shown for the 32 occupational groups, the occupations being ranged in order with reference to the average shown.

TABLE 54.—AVERAGE WEEKS WORKED BY EMPLOYEES IN SPECIFIED OCCUPATIONS IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Occupation.	Number of workers.	Average weeks worked.
1. Slopers .....	3	51.3
2. Operators, special machines .....	4	51.0
3. Operators, sample .....	5	47.0
4. Operators, high-class .....	9	44.9
5. Lace runners .....	19	42.3
6. Operators, scallops .....	4	42.2
7. Ruffle setters .....	6	41.5
8. Operators, princess .....	23	41.3
9. Scallop cutters .....	4	39.7
10. Operators, zigzag .....	21	39.0
11. Operators, chemise .....	10	38.1
12. Operators, drawers .....	42	37.6
13. Operators, corset-cover combination .....	34	36.8
14. Button sewers .....	3	36.3
15. Embroiderers .....	2	34.0
16. Trimmers .....	48	33.7
17. Hemstitchers .....	3	33.0
18. Cutters .....	29	32.7
19. Examiners .....	88	31.0
20. Tuckers .....	30	30.6
21. Operators, embroidery .....	22	29.7
22. Operators, skirts .....	86	29.6
23. Pressers .....	78	28.0
24. Button-hole makers .....	16	27.2
25. Operators, gowns .....	273	24.9
26. Ribboners .....	88	23.3
27. Operators, fancy work .....	10	20.0
28. Hemmers .....	66	19.0
29. Operators, not classified .....	44	14.2
30. Markers .....	17	13.5
31. Layers up .....	44	12.9
32. Pressers, folders .....	19	6.1
Total .....	1,150	27.4

In the general tables on pages 136 and 137 the workers in each occupational group in each shop are distributed according to number of weeks worked, the number and the percentage of workers in each occupation who worked less than 5 weeks, 5 to 9 weeks, etc., being shown separately for each shop.

The factors determining constancy of employment in the different occupations are not simple. In the case of certain unskilled employments which yield low rates of wages, the proportion of workers who

drift from shop to shop is undoubtedly large; while in the case of more skilled work the seasonal activity of the trade may affect the several occupations unequally, the demand for work in certain lines being relatively more seasonal than it is in others.

AVERAGE EARNINGS PER WEEK.

In Table 55, following, the 1,150 workers are classified according to average earnings per week worked. Of the total number 54.9 per cent, or more than one-half, earned on the average from \$5 to \$9.99 per week worked, 18.3 per cent earned less than \$5, and 26.8 per cent earned \$10 or more.

TABLE 55.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT PER WEEK WORKED IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Average amount earned per week worked.	Workers whose earnings averaged specified amount per week worked.			
	Shop No. 1.	Shop No. 2.	Total, two shops.	
			Number.	Per cent.
Under \$1.....	3	4	7	0.6
\$1 to \$1.99.....	12	7	19	1.7
\$2 to \$2.99.....	13	17	30	2.6
\$3 to \$3.99.....	22	28	50	4.3
\$4 to \$4.99.....	64	41	105	9.1
\$5 to \$5.99.....	76	52	128	11.1
\$6 to \$6.99.....	52	58	110	9.6
\$7 to \$7.99.....	74	74	148	12.9
\$8 to \$8.99.....	67	64	131	11.4
\$9 to \$9.99.....	67	47	114	9.9
\$10 to \$10.99.....	56	42	98	8.5
\$11 to \$11.99.....	49	28	77	6.7
\$12 to \$12.99.....	22	34	56	4.9
\$13 to \$13.99.....	14	11	25	2.2
\$14 to \$14.99.....	10	12	22	1.9
\$15 to \$19.99.....	10	13	23	2.0
\$20 and over.....	3	4	7	.6
Total.....	614	536	1,150	100.0

Of the 211 workers who earned on the average less than \$5 per week, a large proportion were employed for a few weeks only—146, or more than two-thirds of them, being employed 1 to 5 weeks, and only 33, or less than one-sixth, for a longer period than 13 weeks. These workers are classified, according to weeks worked, in Table 56, following. By comparison with foregoing tables it may be seen that as a group they are much less steadily employed than are workers whose average earnings are greater. It has been shown, for example, that 63.1 per cent of the total number of workers were employed for a longer period than 13 weeks; the corresponding percentage for workers earning less than \$5 is 15.6 per cent.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 117

TABLE 56.—NUMBER AND PER CENT OF EMPLOYEES EARNING LESS THAN \$5 PER WEEK WHO WORKED EACH SPECIFIED NUMBER OF WEEKS, IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Weeks worked.	Workers earning on the average less than \$5 per week who worked each specified number of weeks.			
	Shop No. 1.	Shop No. 2.	Total, two shops.	
			Number.	Per cent.
1 to 13 weeks.....	89	89	178	84.4
1 week.....	40	20	60	28.4
2 weeks.....	12	20	32	15.2
3 weeks.....	10	8	18	8.5
4 weeks.....	7	13	20	9.5
5 weeks.....	4	12	16	7.6
6 weeks.....	2	2	4	1.9
7 weeks.....	3	6	9	4.3
8 weeks.....	2	2	4	1.9
9 weeks.....	1	3	4	1.9
10 weeks.....	2	1	3	1.4
11 weeks.....	2	1	3	1.4
12 weeks.....	4	.....	4	1.9
13 weeks.....	.....	1	1	.5
14 to 26 weeks.....	10	8	18	8.5
27 to 39 weeks.....	8	.....	8	3.8
40 to 52 weeks.....	7	.....	7	3.3
Total.....	114	97	211	100.0

TOTAL EARNINGS FOR THE YEAR.

Of the 1,150 workers entered upon the pay roll of the two shops, 304, or 26.4 per cent, earned less than \$50 during the year; 266, or 23.1 per cent, earned from \$50 to \$199; 374, or 32.5 per cent, earned from \$200 to \$499; and 206, or 17.9 per cent, earned \$500 or more. The total earnings of individual workers are shown in the general table on pages 138 to 141. In summary Table 57 below, the workers in all occupations combined are classified according to amounts earned.

TABLE 57.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT DURING THE YEAR IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Amounts earned during the year.	Workers who earned specified amounts during the year.			
	Shop No. 1.	Shop No. 2.	Total, two shops.	
			Number.	Per cent.
Under \$50.....	141	163	304	26.4
\$50 to \$99.....	56	55	111	9.6
\$100 to \$149.....	57	35	92	8.0
\$150 to \$199.....	33	30	63	5.5
\$200 to \$249.....	32	17	49	4.2
\$250 to \$299.....	29	24	53	4.6
\$300 to \$349.....	41	32	73	6.3
\$350 to \$399.....	34	31	65	5.7
\$400 to \$449.....	43	26	69	6.0
\$450 to \$499.....	37	28	65	5.7
\$500 to \$599.....	78	42	118	10.3
\$600 to \$699.....	26	33	59	5.1
\$700 to \$799.....	3	13	16	1.4
\$800 to \$899.....	1	2	3	.3
\$900 to \$999.....	2	1	3	.3
\$1,000 and over.....	3	4	7	.6
Total.....	614	536	1,150	100.0

## WEEKLY AND HOURLY WAGES.

These two establishments were among those which paid the highest wages or piece prices. Both had agreements with the International Ladies' Garment Workers' Union. The pay rolls were examined for 12 months, from April, 1913, to March, 1914, and a record was made of the number of weeks worked by each direct labor employee and of the amount of wages that each one received each week. The data are shown in condensed form in the following tables:

TABLE 58.—NUMBER OF EMPLOYEES, AVERAGE WEEKS WORKED DURING YEAR, AVERAGE ACTUAL WEEKLY EARNINGS DURING WEEKS WORKED, AVERAGE RATE PER HOUR, AND NUMBER WORKING EACH CLASSIFIED NUMBER OF WEEKS, BY OCCUPATIONS, IN 2 ESTABLISHMENTS IN NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Occupation.	Shop No.	Number of employees.	Average weeks worked during year.	Average earnings during weeks worked.		Employees working each classified number of weeks during year.					
				Per week.	Per hour.	Under 10.	10 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 weeks and over.
Layers up.....	1	41	12.32	\$6.23	\$0.136	25	7	4	2	.....	3
	2	3	20.33	6.82	.146	1	1	.....	1	.....	.....
Cutters.....	1	17	32.12	18.46	.385	3	3	1	1	5	4
	2	12	33.58	16.94	.356	4	.....	1	.....	1	6
Cutters, scallop.....	1	4	39.75	7.34	.157	1	.....	.....	.....	1	2
Slopers.....	2	3	51.33	8.29	.176	.....	.....	.....	.....	.....	3
Operators, chemises.....	1	10	38.10	9.09	.219	1	1	1	.....	1	6
Operators, corset covers and combinations.....	1	34	36.79	9.31	.225	2	8	1	4	7	12
Operators, drawers.....	1	42	37.64	7.40	.182	3	8	1	2	16	12
Operators, nightgowns.....	1	71	33.77	10.24	.241	9	14	7	5	14	22
	2	202	21.84	9.15	.....	89	24	22	4	27	36
Operators, princess slips.....	1	23	41.26	10.68	.264	1	2	1	2	10	7
Operators, skirts.....	1	28	34.68	8.81	.204	5	4	2	1	5	11
	2	58	27.19	10.34	.....	18	8	2	8	6	16
Operators, zigzag.....	1	21	39.00	9.71	.221	1	3	1	2	7	7
Operators, tuckers.....	1	9	33.33	9.24	.218	1	2	1	.....	3	2
	2	21	29.38	12.06	.....	5	1	6	1	5	3
Operators, lace runners.....	1	9	38.44	9.97	.235	.....	2	.....	1	5	1
	2	10	45.79	11.09	.....	1	.....	.....	.....	1	8
Operators, embroidery.....	1	22	29.74	9.73	.226	5	4	2	1	3	7
Operators, scallops.....	1	4	42.25	10.42	.236	.....	.....	1	1	.....	2
Operators, ruffle setters.....	1	6	41.50	11.54	.278	.....	1	.....	.....	3	2
Operators, hemstitchers.....	1	3	33.00	10.76	.260	1	.....	.....	.....	2	.....
Operators, hemmers.....	1	2	27.50	7.75	.175	.....	1	.....	.....	1	.....
	2	64	18.72	9.70	.....	28	16	5	.....	5	10
Operators, buttonholes.....	1	5	34.20	8.53	.177	1	1	.....	.....	.....	3
	2	11	24.00	7.46	.158	4	1	2	1	.....	3
Operators, button sewers.....	1	3	36.33	6.11	.132	1	.....	.....	.....	1	1
Operators, special machines.....	1	4	51.25	10.85	.205	.....	.....	.....	.....	.....	4
Operators, fancywork.....	1	3	46.33	10.59	.251	.....	.....	.....	.....	2	1
	2	7	8.71	10.99	.....	5	1	1	.....	.....	5
Operators, high class.....	2	9	44.89	13.62	.....	.....	1	.....	1	2	5
Operators, samples.....	1	5	47.00	9.99	.213	.....	1	.....	.....	.....	4
Operators, not classified.....	1	44	14.16	8.03	.188	23	9	6	1	3	2
Markers.....	1	17	13.47	4.67	.103	9	4	1	3	.....	.....
Embroiderers.....	1	2	34.00	8.16	.181	.....	.....	1	.....	1	.....
Ribboners.....	1	46	22.98	8.27	.185	21	2	5	1	8	9
	2	42	23.71	9.29	.....	15	7	5	1	4	10
Trimmers.....	1	16	32.94	8.04	.170	.....	1	7	5	3	3
	2	32	34.09	8.30	.176	7	3	1	4	2	15
Examiners.....	1	43	29.65	7.27	.159	8	10	1	6	8	10
	2	45	32.24	8.02	.174	11	2	5	7	5	15
Pressers.....	1	61	24.61	8.94	.206	21	10	3	6	12	9
	2	17	40.24	11.52	.....	1	1	1	2	5	7
Folders.....	1	19	6.05	5.18	.127	16	2	1	.....	.....	.....
Total.....	1	614	28.80	8.77	.201	158	100	48	42	120	146
	2	536	25.80	9.66	1.193	189	66	51	30	63	137
Aggregate.....	.....	1,150	27.41	9.18	.....	347	166	99	72	183	283

<sup>1</sup> For only employees in the following occupations, all of whom were time workers: Layers up, cutters, slopers, buttonhole workers, trimmers, and examiners.

TABLE 59.—NUMBER OF EMPLOYEES, AVERAGE WEEKS WORKED DURING YEAR, AVERAGE WEEKLY EARNINGS COMPUTED ON FULL-TIME (50 HOUR) BASIS, AVERAGE ACTUAL EARNINGS DURING WEEKS WORKED, AVERAGE RATES PER HOUR AND NUMBER EMPLOYED AT EACH CLASSIFIED HOURLY RATE, BY OCCUPATIONS, IN 1 ESTABLISHMENT IN NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Occupations.	Number of employees.	Average weeks worked during year.	Average full-time weekly earnings.	Average earnings during weeks worked.		Employees receiving each classified rate of wages per hour.										
				Per week.	Per hour.	10 and under 12 cents.	12 and under 14 cents.	14 and under 16 cents.	16 and under 18 cents.	18 and under 20 cents.	20 and under 25 cents.	25 and under 30 cents.	30 cents and over.			
Layers up.....	41	12.32	\$6.80	\$6.23	\$0.136	14	20	2	4	1						
Cutters.....	17	32.12	19.25	18.46	.385								1	2	14	
Cutters, scallop.....	4	39.75	7.85	7.34	.157		1	2		1						
Operators, chemises.....	10	38.10	10.95	9.09	.219		1	2		1	3	3				
Operators, corset covers and combinations.....	34	36.79	11.25	9.31	.225	2	1	4	4	1	11	11				
Operators, drawers.....	42	37.64	9.10	7.40	.182	15	3	10	7	4	11	2				
Operators, night-gowns.....	71	33.77	12.05	10.24	.241	2	2	2	8	4	23	21	9			
Operators, princess slips.....	23	41.26	13.20	10.68	.264	2	1	1		1	4	7	7			
Operators, skirts.....	28	34.68	10.20	8.81	.204	2	3	4	2	2	11	4				
Operators, zigzag.....	21	39.00	11.05	9.71	.221	1		1	3		10	6				
Operators, tuckers.....	9	33.33	10.90	9.24	.218		1	1	1	1	3	2				
Operators, lace runners.....	9	38.44	11.75	9.97	.235		1		1	1	2	2	2			
Operators, embroidery.....	22	29.74	11.30	9.73	.226	13			3	2	8	6				
Operators, scallops.....	4	42.25	11.80	10.42	.236					1	3					
Operators, ruffie setters.....	6	41.50	13.90	11.54	.278							2	2	2		
Operators, hemstitchers.....	3	33.00	13.00	10.76	.260							1	2			
Operators, hemmers.....	2	27.50	8.75	7.75	.175				1		1					
Operators, button-holes.....	5	34.20	8.85	8.53	.177		1		2	2						
Operators, button sewers.....	3	36.33	6.60	6.11	.132	1		2								
Operators, special machines.....	4	51.25	10.25	10.85	.205						2	1	1			
Operators, fancy-work.....	3	46.33	12.55	10.59	.251						2	1				
Operators, samples.....	5	47.00	10.65	9.99	.213						5					
Operators, not classified.....	44	14.16	9.40	8.03	.188	12	6	3	3	5	11	2	2			
Markers.....	17	13.47	5.15	4.67	.103	16	1									
Embroiderers.....	2	34.00	9.05	8.16	.181			1			1					
Ribboners.....	46	22.98	9.25	8.27	.185	49	5	3	10	7	11	1				
Trimmers.....	16	32.94	8.50	8.04	.170	5		1	1	4	4	1				
Examiners.....	43	29.65	7.95	7.27	.169	4	4	6	23	6						
Pressers.....	61	24.61	10.30	8.94	.206	10	12	5	7	8	10	8	1			
Folders.....	19	6.05	6.35	5.18	.127	5	12	1			1					
Total.....	614	28.80	10.09	8.77	.201	93	75	51	80	52	141	84	38			

<sup>1</sup> Including 1 at less than 10 cents per hour.  
<sup>2</sup> Including 2 at less than 10 cents per hour.  
<sup>3</sup> Including 5 at less than 10 cents per hour.

<sup>4</sup> Including 3 at less than 10 cents per hour.  
<sup>5</sup> Including 20 at less than 10 cents per hour.

In both shops the regular working time was 50 hours a week. During the 12 months there were 614 employees on direct labor in Shop No. 1 and 536 in Shop No. 2, but many of them worked for only a short period, in some cases for a week or less. In both shops the total number of weeks that the employees in each direct

labor occupation worked was recorded, and, by dividing the total number of weeks by the number of employees, the average number of weeks worked during the year was found.

In both shops the total amount paid in wages to employees in each direct labor operation was recorded, and, by dividing this amount by the total number of weeks worked, the average earnings per week during the weeks worked were found. It should be understood, however, that the average earnings during the weeks worked, as shown in Table 58, were not the average earnings on a full-time basis, but the average of the actual weekly earnings of the direct labor employees, many of whom did not work six days in each week that they worked.

In Table 59 the average earnings per hour during the time worked are shown for the direct labor employees in Shop No. 1. The average earnings per hour were not available for employees in Shop No. 2, except for a few occupations in which there was time work, the employees in other occupations working on piece rates, and no record of the time they worked was kept.

In Table 58 the number of direct labor employees in both establishments are classified according to the number of weeks that they worked during the year. From the aggregate of Table 58 it will be seen that the 1,150 employees in the two establishments worked on an average of 27.41 weeks, and the average of their actual weekly earnings was \$9.18. Further details regarding Shop No. 1 are shown in Table 59, such details for Shop No. 2 not being presented because in the case of the latter establishment the average earnings per hour were obtainable for employees in only a few occupations.

From the footing to Table 59 it will be seen that the average weekly earnings, computed on a full-time basis (50 hours), of the 614 direct labor employees in Shop No. 1 were \$10.09, while their average actual earnings were \$8.77 per week. The average rate of earnings per hour was 20.1 cents, as appears in both tables.

#### EARNINGS PER HOUR.

Data for hours worked were obtained for 720 workers. In Table 60, following, these workers are classified according to their average earnings per hour.

TABLE 60.—NUMBER OF EMPLOYEES REPORTING SPECIFIED EARNINGS PER HOUR IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Average earnings per hour.	Workers earning specified amount per hour.	Average earnings per hour.	Workers earning specified amount per hour.
Under 8 cents.....	3	22 and under 23 cents.....	25
8 and under 9 cents.....	6	23 and under 24 cents.....	31
9 and under 10 cents.....	11	24 and under 25 cents.....	30
10 and under 11 cents.....	63	25 and under 26 cents.....	25
11 and under 12 cents.....	19	26 and under 27 cents.....	18
12 and under 13 cents.....	62	27 and under 28 cents.....	14
13 and under 14 cents.....	28	28 and under 29 cents.....	17
14 and under 15 cents.....	35	29 and under 30 cents.....	13
15 and under 16 cents.....	38	30 and under 35 cents.....	29
16 and under 17 cents.....	63	35 and under 40 cents.....	11
17 and under 18 cents.....	43	40 and under 45 cents.....	2
18 and under 19 cents.....	41	45 and under 50 cents.....	3
19 and under 20 cents.....	28	50 cents and over.....	2
20 and under 21 cents.....	31		
21 and under 22 cents.....	29	Total.....	720

While the foregoing table indicates a wide range of variation in the earning capacity of workers, it may be noted that nearly three-fifths (420) of the total number earned on the average from 10 to 20 cents an hour, another fifth (146) earning from 20 to 25 cents. The proportion earning 25 cents or more was 18.6 per cent, and the proportion earning less than 10 cents, 2.8 per cent. These proportions are shown more clearly in the following summary Table 61, which combines the workers into larger wage groups.

TABLE 61.—NUMBER AND PER CENT OF EMPLOYEES REPORTING EACH CLASSIFIED AMOUNT OF EARNINGS PER HOUR IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE.

Average earnings per hour.	Workers earning specified amount per hour.	
	Number.	Per cent.
Under 10 cents.....	20	2.8
10 and under 15 cents.....	207	28.7
15 and under 20 cents.....	213	29.6
20 and under 25 cents.....	146	20.3
25 and under 30 cents.....	87	12.1
30 cents and over.....	47	6.5
Total.....	720	100.0

## OVERTIME WORKED.

Generally, in the case of the occupational groups for which data are available, the amount of overtime worked does not amount to so much as 1 per cent of the total time worked. In Table 62 following, the totals for occupational groups shown in the general table are brought together. In Shop No. 1, for which the data are complete, the 614 employees worked in the aggregate 762,059½ hours, the

amount of overtime being 4,461½ hours, or 0.6 per cent of the total time worked. This is equivalent approximately to 1 hour of overtime for 169 hours of regular time.

TABLE 62.—HOURS OF REGULAR TIME AND OF OVERTIME WORKED BY EMPLOYEES IN 2 MUSLIN-UNDERWEAR ESTABLISHMENTS, NEW YORK CITY, APRIL, 1913, TO MARCH, 1914, INCLUSIVE, BY OCCUPATIONAL GROUPS.

Occupation.	Hours worked.			
	Shop No. 1.		Shop No. 2.	
	Regular time.	Overtime.	Regular time.	Overtime.
1. Cutters.....	26,031	141½	19,069	99
2. Scallop cutters.....	7,377	56		
3. Layers up.....	22,885½	208	2,843	14
4. Operators, chemise.....	15,791			
5. Operators, drawers.....	64,089½	89½		
6. Operators, embroidery.....	27,898	145		
7. Operators, fancywork.....	5,849			
8. Operators, nightgowns.....	101,455½	47		
9. Operators, corset covers.....	51,727½	21		
10. Operators, princess slips.....	38,376	3½		
11. Operators, samples.....	10,955			
12. Operators, scallops.....	7,377½	96½		
13. Operators, skirts.....	41,841	40½		
14. Operators, special machines.....	8,609½	24½		
15. Operators, zigzag.....	35,845½	203		
16. Operators, not classified.....	25,592½	81		
17. Embroiderers.....	3,053	6½		
18. Ribboners.....	44,939	22½		
19. Pressers.....	63,963½	1,226½		
20. Pressers, folders.....	4,614	64		
21. Trimmers.....	24,001	397	51,293½	41½
22. Examiners.....	57,953	477	66,806	11½
23. Buttonhole makers.....	8,066	132	12,483½	2
24. Button sewers.....	4,950	73		
25. Ruffle setters.....	10,238	29		
26. Markers.....	10,219	109		
27. Hemstitchers.....	4,083	15		
28. Hemmers.....	2,404	31		
29. Lace runners.....	14,673			
30. Tuckers.....	12,687	18		
31. Operators, high class.....			7,252½	2
32. Slopers.....				
Alloccupations.....	757,597½	4,461½	2 159,747½	2 170

1 Data not available.

2 Owing to the incompleteness of data received from Shop No. 2, this total is not representative.

### DRESS AND WAIST INDUSTRY, BOSTON, MASS.

#### SUMMARY.

Data for the dress and waist industry were taken from the pay rolls of five shops located in Boston, which, during the year 1913-14, employed for the whole or for some portion of the year respectively, 95, 139, 107, 262, and 175, workers in the manufacturing processes. Of these 778 workers, 70 were males and 708 were females. Tables 63 and 64 following, which summarize the detail for these workers, correspond in form to those covering the New York data, and are to be interpreted similarly.

Of the workers in the five shops 4 males and 98 females worked only one week, while 7 males and only 1 female worked 52 weeks.

The aggregate working time of the 778 workers was 13,271 weeks, which gives an average per worker of 17.1 weeks. The average for the males is markedly higher than that for the females, being 27.8 as compared with 16. In the case of the males the aggregate number of weeks worked is equivalent approximately to full time (52 weeks) for 38 workers, and in the case of females to full time for 218 workers—the actual weeks worked by the 778 workers being equivalent to full time (52 weeks) for 255 workers. While the data do not enable one to determine even approximately the amount of time actually lost during the year, they indicate that, as regards individual shops, employment for a large proportion of the workers is inconstant. This will be apparent from the summary Table 63, following, which classifies the workers as employed, 1 to 13, 14 to 26, 27 to 39, and 40 to 52 weeks:

TABLE 63.—NUMBER AND PER CENT OF EMPLOYEES OF EACH SEX WORKING EACH CLASSIFIED NUMBER OF WEEKS AND AVERAGE WEEKS WORKED, IN 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Weeks employed.	Workers employed specified number of weeks.				Average weeks worked.	
	Number.		Per cent.		Males.	Females.
	Males.	Females.	Males.	Females.		
1 to 13 weeks.....	26	451	37.1	63.7	6.7	4.5
14 to 26 weeks.....	3	64	11.4	9.0	17.5	19.4
27 to 39 weeks.....	3	62	11.4	8.8	34.4	31.5
40 to 52 weeks.....	28	131	40.0	18.5	48.6	46.6
40 to 46 weeks.....	3	56	11.4	7.9	44.0	43.5
47 to 52 weeks.....	20	75	28.6	10.6	50.4	49.0
Total.....	70	708	100.0	100.0	27.8	16.0

Of the 708 females, 451, or 63.7 per cent, worked 1 to 13 weeks during the year, the average number of weeks worked for this group of workers being only 4.5. Less than one-fifth of the females, 18.5 per cent, worked 40 weeks or more. Twenty males and 75 females, constituting, respectively, 28.6 and 10.6 per cent of the total number of males and females, were employed 47 weeks or more, and these percentages may be taken as indicating approximately the proportion of the working force which is steadily employed throughout the year. Nearly three-fourths of the females, 515, or 72.7 per cent, are classified as working 1 to 26 weeks. The average number of weeks worked by this group was only 6.3.

The totals for individual shops classifying the workers as employed under 5 weeks, 5 to 9 weeks, and by five-week periods covering the year are shown in Table 64, following:

TABLE 64.—NUMBER OF EMPLOYEES OF EACH SEX WORKING EACH CLASSIFIED NUMBER OF WEEKS IN EACH OF 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Weeks worked.	Workers employed specified number of weeks.													
	Shop No. 1.		Shop No. 2.		Shop No. 3.		Shop No. 4.		Shop No. 5.		Total, five shops.			
											Number.		Per cent.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Under 5 weeks.	23	38	6	11	124	3	75	9	271	12.9	38.3			
5 to 9 weeks.	14	22	2	11	47	4	23	8	117	11.4	16.5			
10 to 14 weeks.	1	3	21	4	19	2	11	10	67	14.3	9.5			
15 to 19 weeks.	2	5	3	6	13	2	5	5	31	7.1	4.7			
20 to 24 weeks.	4	1	1	3	5	1	9	1	22	1.4	3.1			
25 to 29 weeks.	13	4	1	4	6	5	2	2	32	2.8	4.5			
30 to 34 weeks.	5	2	3	3	7	5	4	2	22	5.7	3.1			
35 to 39 weeks.	1	2	1	3	1	5	3	15	4.3	2.1				
40 to 44 weeks.	9	6	3	5	10	7	5	37	7.1	5.2				
45 to 49 weeks.	1	14	5	13	1	24	7	9	65	12.9	9.2			
50 to 52 weeks.	1	8	9	6	1	4	10	14	29	20.0	4.1			
Total....	4	91	14	125	37	70	2	260	13	162	70	708	100.0	100.0

CONSTANCY OF EMPLOYMENT IN DIFFERENT OCCUPATIONS.

Thirteen occupational groups are distinguished in the general tables. In Table 65 following, the number of workers in each group and the average number of weeks worked by males and females are given, the occupations being arranged in order with reference to average weeks worked for both sexes combined. The highest average, 34.6 weeks, is for the small group, "machine operators." The averages are lowest for the two largest groups, being 15.2 weeks for the 382 female waist operators and 13.1 weeks for the 192 female finishers.

TABLE 65.—AVERAGE WEEKS WORKED BY EMPLOYEES OF EACH SEX IN SPECIFIED OCCUPATIONS IN 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Occupation.	Number.			Average weeks worked.		
	Male.	Female.	Total.	Male.	Female.	Total.
Machine operators.....	3	2	5	30.7	40.5	34.6
Sample makers.....	7	7	14	31.0	31.0	31.0
Folders.....	7	7	14	29.0	29.0	29.0
Pressers.....	16	16	32	30.8	25.6	28.2
Cutters.....	29	29	58	27.7	27.7	27.7
Hemstitchers.....	6	6	12	24.8	24.8	24.8
Drapers.....	19	19	38	24.4	24.4	24.4
Slopers.....	9	9	18	23.4	23.4	23.4
Operators, skirts.....	22	31	53	25.5	20.4	22.4
Examiners.....	11	11	22	21.0	21.0	21.0
Operators, petticoats.....	26	26	52	15.5	15.5	15.5
Operators, waists.....	382	382	764	15.2	15.2	15.2
Finishers.....	192	192	384	13.1	13.1	13.1
Total.....	70	708	778	27.8	16.0	17.1

AVERAGE EARNINGS PER WEEK.

The classification of workers according to average earnings per week, in Table 66 following, shows that nearly two-fifths, 39.9 per cent, of the females earned on the average from \$3 to \$5.99 per week worked, while only 1.4 per cent of the males earned less than \$6 and none less than \$5 per week. Of the females, approximately one-tenth, 10.7 per cent, earned \$10 or more, only 5 of the 708 earning as much as \$14, while of the males, nearly one-half, 47.1 per cent, were earning \$15 or more.

TABLE 66.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT PER WEEK WORKED IN 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Amount of average earnings per week worked.	Employees whose earnings averaged specified amount per week worked.													
	Shop No. 1.		Shop No. 2.		Shop No. 3.		Shop No. 4.		Shop No. 5.		Total, five shops.			
											Number.		Per cent.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Under \$1.														
\$1 to \$1.99				3				1					1	0.1
\$2 to \$2.99				5				31			10		44	6.2
\$3 to \$3.99		4		9				38			20		69	9.7
\$4 to \$4.99		6		18				40			15		74	10.5
\$5 to \$5.99		10		24				41			31		107	15.1
\$6 to \$6.99		21		8	1			23			23	1	101	14.3
\$7 to \$7.99		12		1	10			23			7		59	8.3
\$8 to \$8.99		7		13	1			11	3		15	4	81	11.4
\$9 to \$9.99		15		7	14			25	4		12	4	85	12.0
\$10 to \$10.99		8		13	1			11	3		7	6	55	7.8
\$11 to \$11.99	1	3	2	14	7			7	2		5	3	41	5.8
\$12 to \$12.99		4	1	1	1			4	1		4	3	31	4.3
\$13 to \$13.99	1	1	3	3	3			4			4	4	17	2.4
\$14 to \$14.99			2	2	1			3			5	6	13	1.8
\$15 to \$15.99			2	2	2			2	2		4	3	10	1.4
\$16 to \$16.99			2	3	3			2			1	5	3	4.1
\$17 to \$17.99			3	3	19	2			1		25	2	35	4.9
\$18 to \$18.99			1	4	4		2				7		10	1.4
\$19 to \$19.99				1							1		1	0.1
\$20 to \$20.99														
\$21 to \$21.99														
\$22 to \$22.99														
\$23 to \$23.99														
\$24 to \$24.99														
\$25 to \$25.99														
Total	4	91	14	125	37	70	2	260	13	162	70	708	100.0	100.0

More than three-fourths of the 295 workers earning less than \$5 per week worked were employed not over 5 weeks, nearly one-half of them only 1 or 2 weeks, during the year. As was shown to be true in the case of the New York shops, the proportion employed for a few weeks only is much higher among workers earning less than \$5 than it is for workers earning higher wages. Number of weeks worked by workers earning on the average less than \$5 is shown in Table 67, following:

TABLE 67.—NUMBER AND PER CENT OF EMPLOYEES EARNING LESS THAN \$5 PER WEEK WHO WORKED EACH SPECIFIED NUMBER OF WEEKS, IN 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Weeks worked.	Workers earning on the average less than \$5 per week—number working specified number of weeks.						
	Shop No. 1.	Shop No. 2.	Shop No. 3.	Shop No. 4.	Shop No. 5.	Total, five shops.	
						Number.	Per cent.
1 to 13 weeks.....	20	35	7	146	73	281	95.3
1 week.....	6	4	4	38	21	73	24.7
2 weeks.....	5	10	1	32	26	74	25.1
3 weeks.....	2	5	.....	21	12	40	13.6
4 weeks.....	3	2	.....	17	4	26	8.8
5 weeks.....	1	6	.....	13	3	23	7.8
6 weeks.....	2	1	.....	8	1	12	4.0
7 weeks.....	1	2	1	4	1	9	3.0
8 weeks.....	.....	.....	.....	2	1	3	1.0
9 weeks.....	.....	.....	.....	.....	.....	2	.7
10 weeks.....	.....	2	1	5	1	9	3.1
11 weeks.....	.....	3	.....	.....	2	5	1.7
12 weeks.....	.....	.....	.....	1	1	2	.7
13 weeks.....	.....	.....	.....	3	.....	3	1.0
14 to 26 weeks.....	.....	.....	1	3	3	7	2.4
27 to 39 weeks.....	.....	.....	.....	2	3	5	1.7
40 to 52 weeks.....	.....	.....	2	.....	.....	2	.7
Total.....	20	35	10	151	79	295	100.0

TOTAL EARNINGS FOR THE YEAR.

Of the females 51.7 per cent earned less than \$50 during the year. This large proportion is, of course, accounted for by the large proportion who were employed for a few weeks only. Only 7 of the females earned as much as \$600 and none earned as much as \$800. Thirteen of the 70 males earned \$800 or more, 4 of them earning \$1,000 or more. The classification of workers according to total amount earned during the year follows, Table 68:

TABLE 68.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT DURING THE YEAR, IN 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Amounts earned during the year.	Workers earning on the average less than \$5 per week—number working specified number of weeks.										Total, five shops.			
	Shop No. 1.		Shop No. 2.		Shop No. 3.		Shop No. 4.		Shop No. 5.		Number.		Per cent.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Under \$50.....	34	.....	58	6	13	.....	170	5	91	11	366	15.7	51.7	
\$50 to \$99.....	13	3	18	1	14	.....	24	2	22	6	91	8.6	12.8	
\$100 to \$149.....	7	1	12	1	9	.....	11	2	8	4	47	5.7	6.6	
\$150 to \$199.....	1	10	.....	5	3	.....	6	1	7	8	26	11.4	3.7	
\$200 to \$249.....	7	.....	3	1	8	.....	7	1	7	2	32	2.9	4.5	
\$250 to \$299.....	2	1	5	.....	5	.....	12	.....	5	1	29	1.5	4.1	
\$300 to \$349.....	3	.....	9	.....	1	.....	8	.....	6	.....	27	.....	3.8	
\$350 to \$399.....	6	2	5	2	9	.....	4	1	4	5	28	7.1	4.0	
\$400 to \$449.....	1	4	6	2	3	.....	6	.....	4	3	23	4.3	3.2	
\$450 to \$499.....	2	.....	3	.....	2	.....	4	1	3	1	14	1.5	2.0	
\$500 to \$599.....	3	2	2	3	3	.....	6	.....	4	5	18	7.1	2.5	
\$600 to \$699.....	.....	1	2	3	.....	.....	2	.....	1	4	5	5.7	.7	
\$700 to \$799.....	1	.....	2	6	.....	.....	.....	.....	.....	7	2	10.0	.3	
\$800 to \$899.....	.....	1	3	.....	.....	.....	.....	.....	.....	4	.....	5.7	.....	
\$900 to \$999.....	1	.....	2	.....	.....	1	.....	.....	.....	5	.....	7.1	.....	
\$1,000 and over.....	.....	1	2	.....	.....	1	.....	.....	.....	4	.....	5.7	.....	
Total.....	4	91	14	125	37	70	2	260	13	162	70	708	100.0	100.0

WEEKS WORKED DURING THE YEAR.

In the diagram below the workers in the five shops are classified according to weeks worked, the data for this diagram being given in Table 64, page 124. The diagram on page 128 classifies the workers according to total amount earned during the year, the data for this diagram being given in Table 68, on page 126.

CHART No. 33.—NUMBER OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF WEEKS, MAY, 1913, TO APRIL, 1914, IN 5 ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY—BOSTON.

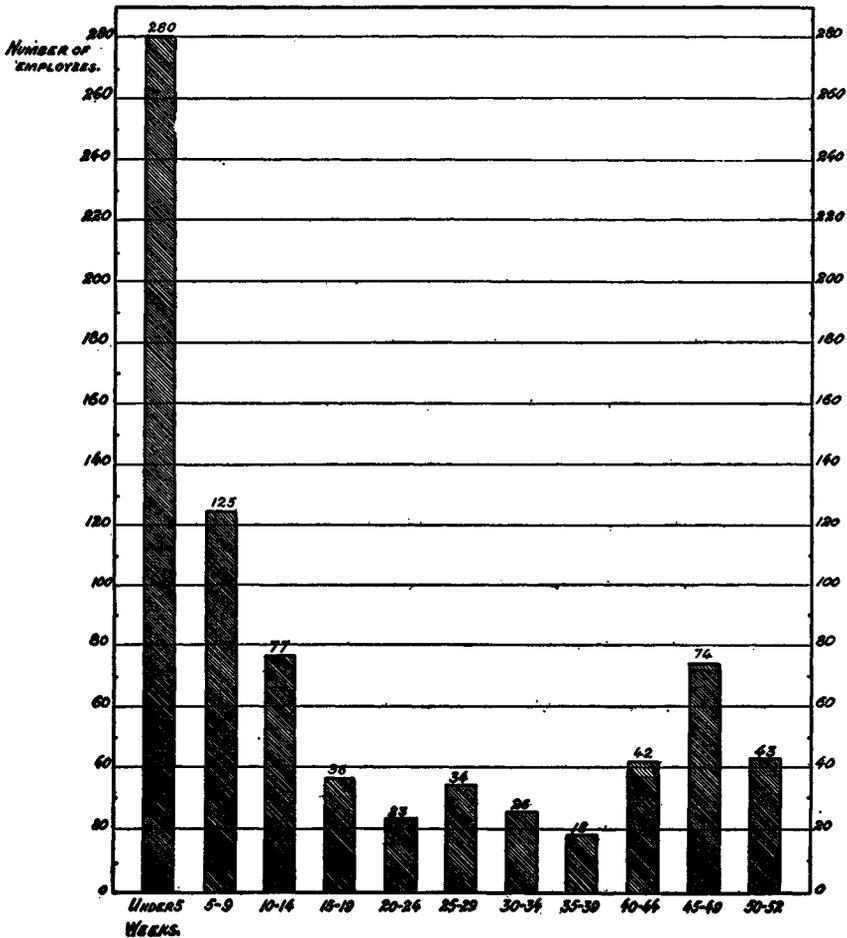


CHART NO. 34.—NUMBER OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT DURING THE YEAR, MAY, 1913, TO APRIL, 1914, IN 5 ESTABLISHMENTS IN THE DRESS AND WAIST INDUSTRY—BOSTON.

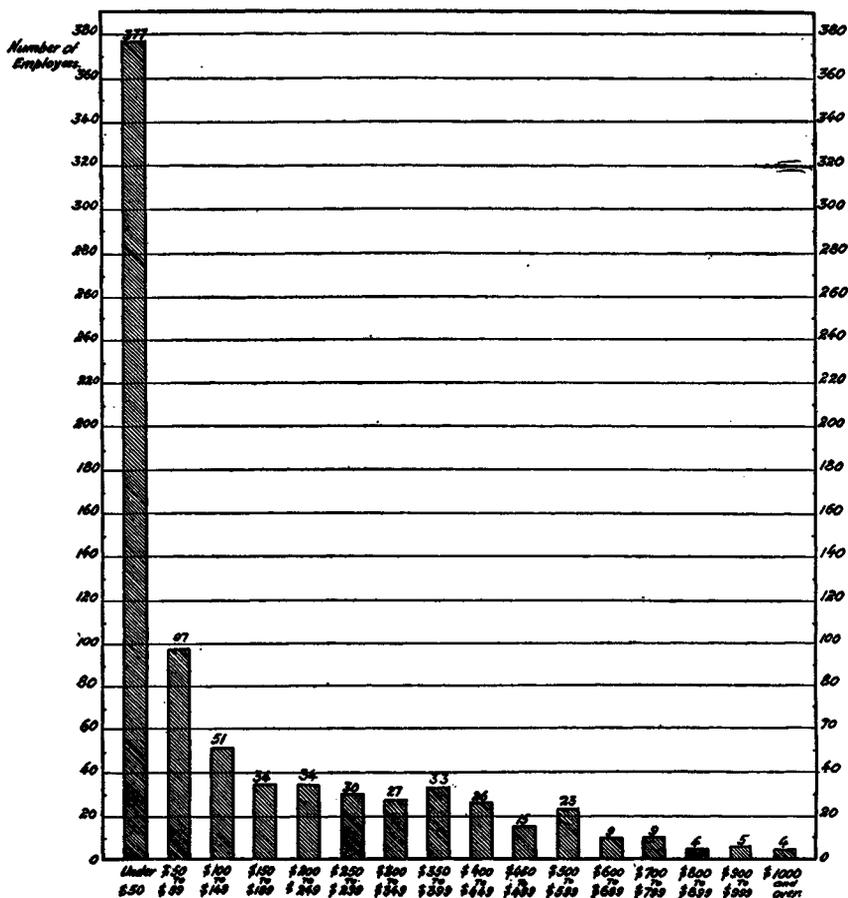


TABLE 69.—NUMBER OF EMPLOYEES WORKING EACH SPECIFIED NUMBER OF WEEKS, IN EACH OF 5 DRESS AND WAIST ESTABLISHMENTS, BOSTON, MASS., MAY, 1913, TO APRIL, 1914, INCLUSIVE.

Weeks worked.	Employees who worked specified number of weeks.							
	Shop No. 1.	Shop No. 2.	Shop No. 3.	Shop No. 4.	Shop No. 5.	Total, five shops.		
						Males.	Fe-males.	Both sexes.
1 week	10	11	11	41	29	4	98	102
2 weeks	5	14	4	38	28	2	85	87
3 weeks	2	9	1	28	13	1	50	51
4 weeks	6	4	1	21	8	2	38	40
5 weeks	2	11	5	15	7	3	37	40
6 weeks	5	6	2	15	5	2	33	33
7 weeks	2	5	3	8	7	2	23	25
8 weeks	5	2	1	4	5	3	14	17
9 weeks			2	5	3		10	10
10 weeks		5	7	5	6	4	22	26
11 weeks	3	14		3	4	1	23	24
12 weeks	2	2	1	3	2	1	9	16
13 weeks	1	3		7	1	3	9	12
14 weeks	3		1	1	4	1	4	5
15 weeks		1	1	3	4	3	6	9
16 weeks		3	2	2	2	1	6	7
17 weeks		1	2	3	2	1	7	7
18 weeks			3	3	1		7	8
19 weeks			1	2			5	5
20 weeks	2	1			2		5	5
21 weeks				1	3		4	4
22 weeks	1		2		3	1	5	6
23 weeks			2	1	1		4	4
24 weeks	1			3			4	4
25 weeks	2		1	1			4	4
26 weeks	2			1	1	1	3	4
27 weeks	3	3	3	2	2	1	12	13
28 weeks	1						1	1
29 weeks	5	2		2	3		12	12
30 weeks	1		1		2		4	4
31 weeks	2		1	3			6	6
32 weeks				1	3		4	4
33 weeks	1	1	2	3		3	4	7
34 weeks	1	2	2				4	5
35 weeks	1	1	1			1	3	3
36 weeks		2		1			3	3
37 weeks		1	1		2		4	4
38 weeks	2		2		1	2	3	5
39 weeks		1			2	1	2	3
40 weeks		1	1	3	1		6	6
41 weeks		1			1		2	2
42 weeks	4	2	2	1	2	1	10	11
43 weeks	3	1	4	3	1	3	9	12
44 weeks	2	3	1	3	2	1	10	11
45 weeks	3	1		6	1	1	10	11
46 weeks	2	1	4	1	3	2	9	11
47 weeks		4	4	6	1	1	14	15
48 weeks	2	4	4	5		1	14	15
49 weeks	1	5	6	7	3	4	18	22
50 weeks		6	6	2	4	4	14	18
51 weeks	2	5	3	2	5	3	14	17
52 weeks			6	1	1	7	1	8
Total	95	139	107	262	175	70	703	778

CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO.

SUMMARY.

Two shops located in Cleveland, Ohio, were selected as being representative of the cloak, suit, and skirt industry, and data relating to the employment of 1,526 workers were secured, similar in character to the data secured in New York and Boston, but not entirely comparable. In the case of one of the two shops, data regarding

weeks worked and earnings during the year were obtained for four occupational groups embracing 669 workers. Data relating to earnings and to weeks worked on the other hand were also obtained for 857 individual workers employed in one shop, but were available covering a period of 10 months only. The data are presented not as being entirely comparable with the data for the New York and Boston shops, but rather as a record of employment for a very considerable number of workers during a period of 10 or 12 months.

The classification according to weeks worked for 857 workers in Shop No. 1 is given in Table 77, page 135, and is summarized in Tables 70 and 71 following.

TABLE 70.—NUMBER AND PER CENT OF EMPLOYEES OF EACH SEX WORKING EACH CLASSIFIED NUMBER OF WEEKS AND AVERAGE WEEKS WORKED, IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS, 1913-14.

Weeks employed.	Workers employed specified number of weeks.						Average weeks worked per worker.		
	Number.			Per cent.					
	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.
1 to 13 weeks.....	54	123	177	17.4	22.5	20.7	7.2	8.5	8.1
14 to 26 weeks.....	81	154	235	26.1	28.2	27.4	18.1	17.6	17.8
27 to 39 weeks.....	76	172	248	24.5	31.4	28.9	36.5	35.2	35.6
40 to 44 weeks.....	99	98	197	31.9	17.9	23.0	40.6	40.6	40.6
Total.....	310	547	857	100.0	100.0	100.0	27.9	25.2	26.2

TABLE 71.—NUMBER AND PER CENT OF EMPLOYEES OF EACH SEX WORKING EACH CLASSIFIED NUMBER OF WEEKS IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS, 1913-14.

Weeks employed.	Number.			Per cent.		
	Male.	Female.	Both sexes.	Male.	Female.	Both sexes.
Under 5 weeks.....	19	25	44	6.1	4.6	5.1
5 to 9 weeks.....	16	37	53	5.1	6.7	6.1
10 to 14 weeks.....	30	76	106	9.7	13.9	12.4
15 to 19 weeks.....	44	99	143	14.2	18.1	16.7
20 to 24 weeks.....	24	36	60	7.7	6.6	7.0
25 to 29 weeks.....	6	16	22	2.0	2.9	2.6
30 to 34 weeks.....	10	43	53	3.2	7.9	6.2
35 to 39 weeks.....	62	117	179	20.0	21.4	20.9
40 to 44 weeks.....	99	98	197	31.9	17.9	23.0
Total.....	310	547	857	100.0	100.0	100.0

During the period of 10 months covered by the inquiry the 310 males worked on the average 27.9 weeks, and the 547 females 25.2 weeks. Approximately one-fifth (20.7 per cent) of the workers were employed 1 to 13 weeks, the average number of weeks worked by this group of workers being 8.1; 27.4 per cent worked 14 to 26 weeks, or an average of 17.8 weeks per worker; 28.9 per cent worked 27 to 39 weeks, or an average of 35.6 weeks per worker, and 23 per cent

worked 40 to 44 weeks, or an average of 40.6 weeks per worker. While these percentages, since they represent a period of 10 months only, are not entirely comparable with corresponding percentages shown for the Boston and the New York shops, the proportion of workers employed for a few weeks only would seem, as in the case of the Cleveland shop, somewhat smaller.

CONSTANCY OF EMPLOYMENT IN DIFFERENT OCCUPATIONS.

In Table 72, following, the number of workers, males and females, is given for 39 occupational groups, together with the average weeks worked per worker in each group. As in a similar table for Boston and New York, the occupational groups are arranged according to the average number of weeks worked. For the largest single group shown in the table—i. e., 206 female jacket finishers—the average weeks worked was 21.9, and for the second largest group—i. e., 106 female jacket operators—the average weeks worked was 29.4, the average for 70 male jacket operators being practically the same, 29.3. It must be borne in mind that these averages do not represent a full year, but a period of 10 months only.

TABLE 72.—AVERAGE WEEKS WORKED BY EMPLOYEES IN SPECIFIED OCCUPATIONS IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS, 1913-14.

Occupation.	Number of workers.		Average weeks worked.
	Males.	Females.	
1. Skirt presser.....		1	42.0
2. Head cutters.....	2		41.0
3. Skirt graders.....		2	40.0
4. Sample maker.....		1	40.0
5. Sample pressers.....	3		39.3
6. Skirt basters.....		2	39.0
7. Skirt makers.....		2	39.0
8. Repair busheling.....	2		37.0
9. Skirt operators.....	23		36.7
10. Jacket operators, working foremen.....	11		35.6
11. Trimmers on embroidery.....		9	34.2
12. Pattern cutters.....	8		32.1
13. Labels.....		7	31.3
14. Button sewers.....		15	31.3
15. Sample makers.....	19		30.4
16. Examiners.....	19		30.3
17. Sample finishers.....		8	30.1
18. Jacket operators.....		106	29.4
19. Jacket operators.....	70		29.3
20. Button making.....		5	29.0
21. Skirt operators.....		75	27.8
22. Jacket pressers.....	22		27.5
23. Cloth cutters.....	49		27.0
24. Skirt finishers.....		5	26.4
25. Pressers.....	26		25.8
26. Trimmers.....		22	24.6
27. Button making.....	4		24.2
28. Jacket basters.....		20	24.1
29. Buttons, buttonholes, etc.....		25	21.9
30. Jacket finishers.....		206	21.9
31. Assorters.....		16	21.7
32. Lining cutters.....	37		20.7
33. Trimmers on.....		3	20.3
34. Trimmers on embroidery.....	2		16.5
35. Finishers.....		10	16.4
36. Buttons, buttonholes, etc.....	7		14.9
37. Repair busheling.....		7	14.8
38. Trimmers.....	4		14.2
39. Skirt pressers.....	2		13.0
All occupations:			
Males.....	310		27.9
Females.....		547	25.2

## AVERAGE EARNINGS PER WEEK.

For the same group of workers average earnings per week are shown in Table 73. None of the 857 workers earned on the average less than \$5 per week, and only 11 of them earned less than \$6. Of the 547 females 111, or more than one-fifth (20.3 per cent), earned \$8 to \$8.99 per week; 176, or nearly one-third (32.2 per cent), earned on the average \$10 or more; and 186, or a little over one-third (34 per cent), of the total number of females employed earned \$5 to \$7.99. Of the 310 males, approximately one-fifth—i. e., 63, or 20.3 per cent—earned \$25 or more per week worked; nearly one-half—i. e., 150, or 48.4 per cent—earned \$15 to \$24.99; 69, or 22.3 per cent, earned \$10 to \$14.99; and 28, or 9 per cent, earned less than \$10.

TABLE 73.—NUMBER AND PER CENT OF EMPLOYEES OF EACH SEX EARNING EACH CLASSIFIED AMOUNT PER WEEK WORKED IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS, 1913-14.

Average amount earned per week worked.	Workers whose earnings averaged specified amount per week worked.				
	Number.			Per cent.	
	Males.	Females.	Both sexes.	Males.	Females.
Under \$5.					
\$5 to \$5.99	1	10	11	0.3	1.8
\$6 to \$6.99	2	80	82	.6	14.6
\$7 to \$7.99	3	96	99	.9	17.5
\$8 to \$8.99	9	111	120	2.9	20.3
\$9 to \$9.99	13	74	87	4.1	13.5
\$10 to \$10.99	12	69	75	3.9	11.5
\$11 to \$11.99	8	35	43	2.6	6.4
\$12 to \$12.99	10	27	37	3.2	4.9
\$13 to \$13.99	17	17	34	5.4	3.1
\$14 to \$14.99	22	12	34	7.1	2.1
\$15 to \$15.99	15	5	20	4.8	.9
\$16 to \$16.99	19	8	27	6.1	1.4
\$17 to \$17.99	18	3	21	5.8	.5
\$18 to \$18.99	10	2	12	3.2	.3
\$19 to \$19.99	19	1	20	6.1	.1
\$20 to \$20.99	17		17	5.4	
\$21 to \$21.99	13		13	4.1	
\$22 to \$22.99	16	1	17	5.1	.1
\$23 to \$23.99	10	1	11	3.2	.1
\$24 to \$24.99	13		13	4.1	
\$25 to \$25.99	19		19	6.1	
\$26 to \$26.99	21	1	22	6.7	.1
\$27 to \$27.99	10		10	3.2	
\$28 to \$28.99	1		1	.3	
\$29 to \$29.99	4		4	1.3	
\$30 to \$34.99	7		7	2.2	
\$35 and over	1		1	.3	
Total	310	547	857	100.0	100.0

## TOTAL EARNINGS DURING PERIOD COVERED.

In Table 74 the 669 workers in Cleveland Shop No. 2 are classified in four occupational groups, according to total earnings during a period of 12 months, 1913-14. For this group of workers, who are entirely distinct from the group of 857 workers covered by the foregoing tables, data were available for a full year, as regards

aggregate earnings of workers. In Table 75 a similar tabulation is given for total earnings of 423 workers during a period of 10 months, in the same occupational groups, but in another shop, Shop No. 1. These 423 workers (242 males and 181 females) constitute a portion of the 857 workers for whom weeks worked and average earnings per week have been shown in Tables 72 and 73. Of the 178 male operators, classified in Table 74, 69, or 38.8 per cent, earned during the year \$1,000 or more. For this occupational group in Table 75, as well as in Table 74, the proportion earning \$1,000 or more is relatively high, as compared with the corresponding proportion for cutters and for pressers. Since the period covered in the case of Table 74 is a full year, and in the case of Table 75, 10 months, the data as regards total earnings are not entirely comparable. It may be noted that of the 394 female operators covered by the two tables, only 13 earned less than \$50 during 10 or 12 months covered by the data, while 58 of them earned \$500 or more.

TABLE 74.—NUMBER AND PER CENT OF EMPLOYEES IN SELECTED OCCUPATIONS EARNING EACH CLASSIFIED AMOUNT DURING THE YEAR IN ESTABLISHMENT NO. 2, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, YEAR, 1913-14.

Amount earned during the year.	Workers who earned specified amounts during the year.						
	Males.				Female operators.		
	Cutters.	Pressers.	Opera-tors.	Total.		Number.	Per cent.
				Number.	Per cent.		
Under \$50.....	6	.....	6	12	2.6	7	3.3
\$50 to \$99.....	8	2	3	13	2.8	16	7.5
\$100 to \$149.....	4	3	5	12	2.6	26	12.2
\$150 to \$199.....	12	14	2	28	6.1	18	8.4
\$200 to \$249.....	6	6	2	14	3.1	16	7.5
\$250 to \$299.....	12	9	3	24	5.3	21	9.9
\$300 to \$349.....	5	9	4	18	3.9	22	10.3
\$350 to \$399.....	5	2	2	9	2.0	20	9.4
\$400 to \$449.....	7	3	4	14	3.1	14	6.6
\$450 to \$499.....	6	5	3	14	3.1	20	9.4
\$500 to \$599.....	6	11	15	32	7.0	18	8.4
\$600 to \$699.....	10	15	15	40	8.8	11	5.2
\$700 to \$799.....	9	26	4	39	8.6	3	1.4
\$800 to \$899.....	19	21	16	56	12.3	1	.5
\$900 to \$999.....	7	10	25	42	9.2	.....	.....
\$1,000 and over.....	18	2	69	89	19.5	.....	.....
Total.....	140	138	178	456	100.0	213	100.0

TABLE 75.—NUMBER AND PER CENT OF EMPLOYEES IN SELECTED OCCUPATIONS EARNING EACH CLASSIFIED AMOUNT IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS, 1913-14.

Amount earned during 10 months.	Workers who earned specified amounts during 10 months.						
	Males.				Female operators.		
	Cutters.	Pressers.	Operators.	Total.		Number.	Per cent.
				Number.	Per cent.		
Under \$50.....	6		6	12	5.0	6	3.3
\$50 to \$99.....	3	2	3	13	5.4	12	6.6
\$100 to \$149.....	4	1	3	8	3.3	25	13.8
\$150 to \$199.....	10	8	2	20	8.3	15	8.3
\$200 to \$249.....	3	3	2	8	3.3	15	8.3
\$250 to \$299.....	9	6	2	17	7.0	20	11.0
\$300 to \$349.....	5	8	4	17	7.0	20	11.0
\$350 to \$399.....	3	1	2	6	2.5	17	9.4
\$400 to \$449.....	4	1	3	8	3.3	10	5.5
\$450 to \$499.....	5	2	1	8	3.3	16	8.8
\$500 to \$599.....	5	8	10	23	9.5	13	7.2
\$600 to \$699.....	3	7	9	24	9.9	11	6.1
\$700 to \$799.....	3	3	2	13	5.4	1	.6
\$800 to \$899.....	13	1	7	21	8.7		
\$900 to \$999.....	1		15	16	6.6		
\$1,000 and over.....	4	2	22	28	11.6		
Total.....	96	53	93	242	100.0	181	100.0

#### WEEKS WORKED DURING THE YEAR.

In Table 76 the number of employees working each classified number of weeks is shown for the four occupational groups for which data relating to earnings are given in Tables 74 and 75 and in Table 77 the number of employees working each number of weeks from 1 to 44 is given in detail for the establishment reporting for 10 months.

TABLE 76.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF WEEKS IN EACH OF 2 CLOAK, SUIT, AND SKIRT ESTABLISHMENTS, CLEVELAND, OHIO.<sup>1</sup>

Weeks worked.	Workers employed specified number of weeks. <sup>1</sup>							
	Cutters—males.		Pressers—males.		Operators—males.		Operators—females.	
	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.
	Under 5 weeks.....	8	8			7	7	6
5 to 9 weeks.....	10	11	3	4	2	3	3	8
10 to 14 weeks.....	7	11	8	15	7	7	24	26
15 to 19 weeks.....	15	17	10	16	7	9	22	24
20 to 24 weeks.....	9	11	4	6	5	7	9	11
25 to 29 weeks.....	4	9	1	4	1	2	4	5
30 to 34 weeks.....	1	4	2	5	4	7	22	24
35 to 39 weeks.....	14	14	15	18	18	22	55	60
40 to 44 weeks.....	28	28	10	19	42	45	36	39
45 to 49 weeks.....		1		19		18		7
50 to 52 weeks.....		28		32		51		3
Total.....	96	140	53	138	93	178	181	213

<sup>1</sup> During a period of 10 months, 1913-14, in the case of Shop No. 1, and 12 months ended 1913-14, in the case of Shop No. 2.

TABLE 76.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF WEEKS IN EACH OF 2 CLOAK, SUIT, AND SKIRT ESTABLISHMENTS, CLEVELAND, OHIO—Concluded.

Per cent.

Weeks worked.	Workers employed specified number of weeks. <sup>1</sup>							
	Cutters—males.		Pressers—males.		Operators—Males.		Operators—females.	
	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.	Shop No. 1.	Shop No. 2.
Under 5 weeks.....	8.3	5.7	.....	.....	7.5	3.9	3.3	2.8
5 to 9 weeks.....	10.4	7.9	5.7	2.9	2.1	1.7	1.7	3.8
10 to 14 weeks.....	7.3	7.9	15.1	10.9	7.5	3.9	13.3	12.2
15 to 19 weeks.....	15.6	12.1	18.9	11.6	7.5	5.1	12.1	11.3
20 to 24 weeks.....	9.4	7.9	7.5	4.3	5.4	3.9	5.0	5.2
25 to 29 weeks.....	4.2	6.4	1.9	2.9	1.1	1.1	2.2	2.3
30 to 34 weeks.....	1.0	2.9	3.8	3.6	4.3	3.9	12.1	11.3
35 to 39 weeks.....	14.6	10.0	28.3	13.0	19.4	12.4	30.4	23.2
40 to 44 weeks.....	29.2	20.0	18.9	13.8	45.2	25.3	19.9	18.3
45 to 49 weeks.....	.....	.....	.....	13.8	.....	10.1	.....	3.3
50 to 52 weeks.....	.....	18.6	.....	23.2	.....	28.6	.....	1.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> See note on p. 134.

TABLE 77.—NUMBER OF EMPLOYEES OF EACH SEX WORKING EACH SPECIFIED NUMBER OF WEEKS IN ESTABLISHMENT NO. 1, CLOAK, SUIT, AND SKIRT INDUSTRY, CLEVELAND, OHIO, 10 MONTHS ENDED, 1914.

Weeks employed.	Workers employed specified number of weeks.			Weeks employed.	Workers employed specified number of weeks.		
	Males.	Fe-males.	Both sexes.		Males.	Fe-males.	Both sexes.
1 week.....	3	3	6	24 weeks.....	8	7	15
2 weeks.....	5	6	11	25 weeks.....	1	3	4
3 weeks.....	5	11	16	26 weeks.....	1	1	2
4 weeks.....	6	5	11	27 weeks.....	1	5	6
5 weeks.....	2	5	7	28 weeks.....	1	5	6
6 weeks.....	3	2	5	29 weeks.....	2	2	4
7 weeks.....	6	15	21	30 weeks.....	3	7	10
8 weeks.....	2	7	9	31 weeks.....	2	2	4
9 weeks.....	3	8	11	32 weeks.....	1	11	12
10 weeks.....	3	14	17	33 weeks.....	2	6	8
11 weeks.....	5	12	17	34 weeks.....	2	17	19
12 weeks.....	4	22	26	35 weeks.....	7	11	18
13 weeks.....	7	13	20	36 weeks.....	4	41	45
14 weeks.....	11	15	26	37 weeks.....	11	27	38
15 weeks.....	11	41	52	38 weeks.....	14	19	33
16 weeks.....	7	14	21	39 weeks.....	26	19	45
17 weeks.....	16	31	47	40 weeks.....	43	56	99
18 weeks.....	8	6	14	41 weeks.....	51	25	76
19 weeks.....	2	7	9	42 weeks.....	4	16	20
20 weeks.....	5	7	12	43 weeks.....	1	.....	1
21 weeks.....	4	8	12	44 weeks.....	.....	1	1
22 weeks.....	3	6	9	Total.....	310	547	857
23 weeks.....	4	8	12				

APPENDIX B.—GENERAL TABLES.

The following tables present in more detailed form the information relating to time worked and annual earnings shown in the preceding text. They show by occupations the number and per cent of employees working each classified number of weeks and the number and per cent earning each classified amount during the periods covered in the various establishments considered. The figures are based on details obtained directly from the pay rolls and relating to individual employees.

TABLE 78.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED  
2 ESTABLISHMENTS, MUSLIN.

## ESTABLISHMENT NO. 1.

Marginal number.	Occupation.	Total number employed.	Number and per cent of employees who worked each classified number of weeks.							
			Under 5		5 to 9		10 to 14		15 to 19	
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	Cutters.....	17	.....	.....	3	17.6	1	5.9	2	11.8
2	Scallop cutters.....	4	.....	.....	1	25.0	.....	.....	.....	.....
3	Layers up.....	41	18	43.9	7	17.1	4	9.8	3	7.3
4	Operators, chemises.....	10	.....	.....	1	10.0	1	10.0	.....	.....
5	Operators, drawers.....	42	1	2.4	2	4.8	5	11.9	3	7.1
6	Operators, embroidery.....	22	3	13.6	2	9.1	2	9.1	2	9.1
7	Operators, fancy work.....	3	.....	.....	.....	.....	.....	.....	.....	.....
8	Operators, nightgowns.....	71	4	5.6	5	7.0	4	5.6	10	14.1
9	Operators, corset covers.....	34	.....	.....	2	5.9	4	11.8	4	11.8
10	Operators, princess slips.....	23	1	4.3	.....	.....	2	8.7	.....	.....
11	Operators, samples.....	5	.....	.....	.....	.....	.....	.....	.....	.....
12	Operators, scallops.....	4	.....	.....	.....	.....	.....	.....	.....	.....
13	Operators, skirts.....	28	4	14.3	1	3.6	1	3.6	3	10.7
14	Operators, special machines.....	4	.....	.....	.....	.....	.....	.....	.....	.....
15	Operators, zigzag.....	21	1	4.8	.....	.....	2	9.5	1	4.8
16	Operators, not classified.....	44	15	34.1	8	18.2	8	18.2	1	2.3
17	Embroiderers.....	2	.....	.....	.....	.....	.....	.....	.....	.....
18	Ribboners.....	46	16	34.8	5	10.9	2	4.3	.....	.....
19	Pressers.....	61	16	26.2	5	8.2	4	6.6	6	9.8
20	Pressers, folders.....	19	11	57.9	5	26.3	.....	.....	2	10.5
21	Trimmers.....	16	.....	.....	.....	.....	.....	.....	1	6.3
22	Examiners.....	43	7	16.3	1	2.3	7	16.3	3	7.0
23	Buttonhole makers.....	5	.....	.....	1	20.0	1	20.0	.....	.....
24	Button sewers.....	3	.....	.....	1	33.3	.....	.....	.....	.....
25	Ruffle setters.....	6	.....	.....	.....	.....	1	16.7	.....	.....
26	Markers.....	17	5	29.4	4	23.5	.....	.....	4	23.5
27	Hemstitchers.....	3	1	33.3	.....	.....	.....	.....	.....	.....
28	Hemmers.....	2	.....	.....	.....	.....	1	50.0	.....	.....
29	Lace runners.....	9	.....	.....	.....	.....	1	11.1	1	11.1
30	Tuckers.....	9	.....	.....	1	11.1	1	11.1	1	11.1
	Total.....	614	103	16.8	55	9.0	52	8.5	47	7.7

## ESTABLISHMENT NO. 2.

1	Cutters.....	12	2	16.7	2	16.7	.....	.....	.....	.....
2	Layers up.....	3	1	33.3	3	100.0	.....	.....	1	33.3
3	Operators, fancy work.....	7	2	28.6	3	42.8	.....	.....	1	14.3
4	Operators, nightgowns.....	202	48	23.8	41	20.3	18	8.9	6	3.0
5	Operators, skirts.....	58	11	19.0	7	12.1	4	6.9	4	6.9
6	Ribboners.....	42	11	26.2	4	9.5	5	11.9	2	4.8
7	Pressers.....	17	1	5.9	.....	.....	.....	.....	1	5.9
8	Trimmers.....	32	4	12.5	3	9.4	2	6.2	1	3.1
9	Examiners.....	45	7	15.5	4	8.9	.....	.....	2	4.4
10	Buttonhole makers.....	11	4	36.4	.....	.....	1	9.1	.....	.....
11	Hemmers.....	64	18	28.1	10	15.6	10	15.6	6	9.4
12	Lace runners.....	10	1	10.0	.....	.....	.....	.....	.....	.....
13	Tuckers.....	21	2	9.5	3	14.3	1	4.8	.....	.....
14	Operators, high class.....	9	.....	.....	.....	.....	.....	.....	1	11.1
15	Slopers.....	3	.....	.....	.....	.....	.....	.....	.....	.....
	Total.....	536	112	20.9	77	14.4	41	7.7	25	4.7

## SUMMARY, ESTABLISHMENTS NO. 1 AND NO. 2.

1	Cutters.....	29	2	6.9	5	17.2	1	3.5	2	6.9
2	Operators.....	587	90	15.3	72	12.3	51	8.7	36	6.2
3	Ribboners.....	88	27	30.7	9	10.2	7	8.0	2	2.3
4	Pressers.....	97	28	28.9	10	10.3	4	4.1	9	9.3
5	Trimmers.....	48	4	8.3	3	6.2	2	4.2	2	4.2
6	Examiners.....	88	14	15.9	5	5.7	7	8.0	5	5.7
7	Hemmers.....	66	18	27.3	10	15.2	11	16.7	6	9.1
8	Lace runners.....	19	1	5.3	.....	.....	1	5.3	1	5.3
9	Tuckers.....	30	2	6.7	4	13.3	2	6.7	1	3.3
10	Other occupations.....	98	29	29.6	14	14.3	7	7.1	8	8.2
	Total.....	1,150	215	18.7	132	11.5	93	8.1	72	6.3

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 137

NUMBER OF WEEKS, APRIL, 1913, TO MARCH, 1914, INCLUSIVE, BY OCCUPATIONS—  
UNDERWEAR INDUSTRY, NEW YORK CITY.

ESTABLISHMENT NO. 1.

Number and per cent of employees who worked each classified number of weeks.														
20 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 52		Marginal number.
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	
		1	5.9			1	5.9	4	23.5	1	5.9	4	23.5	1
1	2.4	3	7.3	2	4.9					1	25.0	2	50.0	2
1	10.0							1	10.0			3	7.3	3
		1	2.4			2	4.8			14	33.3	6	60.0	4
1	4.5	1	4.5	1	4.5			2	4.8	3	13.6	12	28.6	5
4	5.6	3	4.2	1	1.4	4	5.6	1	33.3	1	33.3	7	31.8	6
1	2.9			1	4.3	1	11.8	2	2.8	12	17.0	22	31.0	7
		1	4.3			1	4.3	1	4.3	7	20.6	12	35.3	8
		1	20.0							9	39.1	7	30.4	9
		1	25.0			1	25.0					4	80.0	10
		2	7.1			1	3.6	1	3.6	4	14.3	2	50.0	11
				2	9.5			1	4.8	6	28.6	4	100.0	12
3	6.8	3	6.8			1	2.3	2	4.5	1	2.3	7	33.3	13
3	6.5	1	50.0					1	50.0			2	4.5	14
1	1.6	2	4.3	1	2.2			4	8.7	4	8.7	2	4.5	15
6	37.5	1	3.3	3	4.9	3	4.9	7	11.5	5	8.2	9	19.6	16
1	2.3	1	5.3	2	12.5	1	6.3	1	6.3	1	6.3	9	19.6	17
		1	6.3	1	2.3	5	11.6	1	2.3	7	16.3	10	23.3	18
										1	33.3	3	60.0	19
		1	5.9	2	11.8	1	5.9	1	16.7	2	33.3	1	33.3	20
												2	33.3	21
												2	66.7	22
				1	11.1			1	50.0			1	11.1	23
1	11.1							1	11.1	4	44.4	1	11.1	24
								1	11.1	2	22.2	2	22.2	25
23	3.7	26	4.2	17	2.8	25	4.1	33	5.4	85	13.8	148	24.1	26

ESTABLISHMENT NO. 2.

		1	8.3					1	33.3	1	8.3	6	50.0	1
1	14.3													2
14	6.9	8	4.0	3	1.5	1	0.5	7	3.5	20	9.9	36	17.8	3
1	1.7	1	1.7	8	13.8			3	5.2	3	5.2	16	27.6	4
4	9.5	1	2.4			1	2.4	2	4.8	2	4.8	10	23.8	5
		1	5.9	2	11.8			3	17.6	2	11.8	7	41.2	6
1	3.1			2	6.2	2	6.2	2	6.2			15	46.9	7
3	6.7	2	4.4	2	4.4	5	11.1	1	2.2	4	8.9	15	33.3	8
1	9.1	1	9.1			1	9.1					3	27.3	9
3	4.7	2	3.1					1	1.6	4	6.3	10	15.6	10
										1	10.0	8	80.0	11
3	14.3	3	14.3			1	4.8	1	4.8	4	19.0	3	14.3	12
						1	11.1			2	22.2	5	55.6	13
												3	100.0	14
31	5.8	20	3.7	17	3.2	12	2.4	21	3.9	43	8.0	137	25.5	15

SUMMARY, ESTABLISHMENTS NO. 1 AND NO. 2.

		2	6.9			1	3.5	4	13.8	2	6.9	10	34.5	1
26	4.4	23	3.9	16	2.7	16	2.7	21	3.6	82	14.0	154	26.2	2
7	8.0	3	3.4	1	1.1	1	1.1	6	6.8	6	6.8	19	21.6	3
1	1.0	4	4.1	5	5.2	3	3.1	10	10.3	7	7.2	16	16.5	4
7	14.6	1	2.1	4	8.3	3	6.2	3	6.2	1	2.1	18	37.5	5
4	4.5	2	2.3	3	3.4	10	11.4	2	2.3	11	12.5	25	28.4	6
3	4.5	2	3.0					2	3.0	4	6.1	10	15.2	7
				1	5.3			1	5.3	5	26.3	9	47.4	8
4	13.3	3	10.0			1	3.3	2	6.7	6	20.0	5	16.7	9
2	2.0	6	6.1	4	4.1	2	2.0	3	3.1	4	4.1	19	19.4	10
54	4.7	46	4.0	34	3.0	37	3.2	54	4.7	128	11.1	285	24.8	

TABLE 79.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED TIONS—2 ESTABLISHMENTS, MUSLIN-

## ESTABLISHMENT NO. 1.

Marginal number.	Occupation.	Total number employed.	Number and per cent of employees who earned during the year in this shop—										
			Under \$50		\$50 to \$99		\$100 to \$149		\$150 to \$199		\$200 to \$249		
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
1	Cutters.....	17			3	17.6						1	5.9
2	Scallop cutters.....	4	1	25.0									
3	Layers up.....	41	25	60.8	6	14.6	3	7.4	2	4.9	2	4.9	
4	Operators, chemises.....	10			1	10.0	2	20.0					
5	Operators, drawers.....	42	4	9.5	4	9.5	1	2.4	3	7.1	7	16.7	
6	Operators, embroidery.....	22	5	22.7	1	4.5	2	9.1	1	4.5	2	9.1	
7	Operators, fancy work.....	3											
8	Operators, nightgowns.....	71	5	7.0	3	4.2	11	15.5	6	8.5	4	5.6	
9	Operators, corset covers.....	34	1	2.9	6	17.6	2	5.9	1	2.9	2	5.9	
10	Operators, princess slips.....	23	1	4.3	1	4.3	1	4.3			1	4.3	
11	Operators, samples.....	5											
12	Operators, scallops.....	4									1	25.0	
13	Operators, skirts.....	28	5	17.9	2	7.1	2	7.1	1	3.6			
14	Operators, special machines.....	4											
15	Operators, zigzag.....	21	1	4.8			2	9.5	1	4.8			
16	Operators, not classified.....	44	19	43.2	8	18.2	7	15.9	2	4.5	2	4.5	
17	Embroiderers.....	2											
18	Ribboners.....	46	20	43.5	2	4.3	4	8.7	1	2.2	1	2.2	
19	Pressers.....	61	19	31.1	5	8.2	4	6.6	5	8.2	4	6.6	
20	Pressers, folders.....	19	16	84.2			3	15.8					
21	Trimmers.....	16			1	6.3	3	18.8	2	12.5	3	18.8	
22	Examiners.....	43	8	18.6	6	14.0	4	9.3	4	9.3			
23	Buttonhole makers.....	5			2	40.0							
24	Button sewers.....	3			1	33.3							
25	Ruffle setters.....	6					1	16.7					
26	Markers.....	17	9	53.0	3	17.6	3	17.6	2	11.8			
27	Hemstitchers.....	3	1	33.3									
28	Hemmers.....	2			1	50.0							
29	Lace runners.....	9					1	11.0			2	22.2	
30	Tuckers.....	9	1	11.1			1	11.1	2	22.2			
	Total.....	614	141	23.0	56	9.1	57	9.3	33	5.4	32	5.2	

## ESTABLISHMENT NO. 2.

1	Cutters.....	12	1	8.3	2	16.7	1	8.3					
2	Layers up.....	3	1	33.3	1	33.3							
3	Operators, fancy work.....	7	3	42.8	2	28.6	1	14.3					
4	Operators, nightgowns.....	202	79	39.1	24	11.9	12	5.9	11	5.4	9	4.4	
5	Operators, skirts.....	58	16	27.6	6	10.3	2	3.5	2	3.5	5	8.6	
6	Ribboners.....	42	12	28.6	6	14.3	2	4.8	3	7.1	3	7.1	
7	Pressers.....	17	1	5.9	1	5.9			1	5.9			
8	Trimmers.....	32	7	21.9	2	6.2	2	6.2	2	6.2			
9	Examiners.....	45	9	20.0	2	4.4	3	6.7	4	8.9			
10	Buttonhole makers.....	11	4	36.4	1	9.1	1	9.1	1	9.1			
11	Hemmers.....	64	27	42.2	7	10.9	9	14.1	4	6.3			
12	Lace runners.....	10	1	10.0									
13	Tuckers.....	21	2	9.5	1	4.8	2	9.5	1	4.8			
14	Operators, high class.....	9							1	11.1			
15	Slopers.....	3											
	Total.....	536	163	30.4	55	10.3	35	6.5	30	5.6	17	3.2	

<sup>1</sup> Of these, 1, or 5.9 per cent of the total, receives \$300 to \$399; 2, or 11.8 per cent, \$300 to \$999, and 3, or 17.6 per cent, \$1,000 and over.

<sup>2</sup> \$700 to \$799.

<sup>3</sup> Of these, 3, or 0.5 per cent of the total, receive \$700 to \$799; 1, or 0.16 per cent, \$300 to \$399; 2, or 0.3 per cent, \$300 to \$999, and 3, or 0.5 per cent, \$1,000 and over.

<sup>4</sup> Of these, 1, or 8.3 per cent of the total, receives \$300 to \$999, and 2, or 16.7 per cent, \$1,000 and over.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 139

AMOUNT DURING THE YEAR, APRIL, 1913, TO MARCH, 1914, INCLUSIVE, BY OCCUPA-  
UNDERWEAR INDUSTRY, NEW YORK CITY.

ESTABLISHMENT NO. 1.

Number and per cent of employees who earned during the year in this shop—																Marginal number.				
\$250 to \$299		\$300 to \$349		\$350 to \$399		\$400 to \$449		\$450 to \$499		\$500 to \$599		\$600 to \$699		\$700 and over.						
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.					
1	5.9	1	5.9					1	5.9			1	5.9	3	17.6	1	35.3	1		
1	25.0			1	25.0					1	25.0							2		
		1	2.4			1	2.4			1	2.4							3		
		1	10.0			1	10.0			1	10.0			3	30.0			4		
3	7.1	7	16.7			3	7.1	4	9.5	2	4.8			4	9.5			5		
1	4.5			2	9.1	1	4.5	1	4.5	1	4.5			4	18.2	2	9.1	6		
				1	33.3					2	66.7							7		
3	4.2	3	4.2	3	4.2	6	8.5	6	8.5	11	15.5	10	14.1					8		
1	2.9	2	5.9	3	8.8	2	5.9	4	11.8	9	26.5	1	2.9					9		
1	4.3	1	4.3	2	8.7	2	8.7	1	4.3	6	26.1	6	26.1					10		
		1	20.0					2	40.0	2	40.0			2	40.0			11		
				1	25.0					2	50.0			2	50.0			12		
3	10.7	2	7.1	1	3.6	2	7.1	4	14.3	6	21.4			6	21.4			13		
										3	75.0			1	25.0			14		
																			15	
2	9.5	3	14.1	2	9.5	2	9.5	1	4.8	6	28.6	1	4.8					16		
		1	2.3	1	2.3	3	6.8	1	2.3										17	
1	50.0	1	50.0																18	
3	6.5	2	4.3	1	2.2	4	8.7	7	15.2	1	2.2								19	
3	4.9	3	4.9	3	4.9	6	9.8	1	1.6	5	8.2	2	3.3	1	1.6				20	
																				21
2	12.5	1	6.3			2	12.5	1	6.3	1	6.3								22	
3	7.0	6	14.0	8	18.6	3	7.0	1	2.3										23	
								1	20.0	2	40.0									24
								1	16.7											25
																				26
																				27
																				28
1	11.1	1	11.1	1	11.1					2	22.2									29
		1	11.1			1	11.1			3	33.3									30
29	4.7	41	6.7	34	5.5	43	7.0	37	6.0	76	12.4	26	4.2	1	1.5					

ESTABLISHMENT NO. 2.

				1	33.3	3	25.0			2	16.7							4	3	25.0	1
1	14.3																				2
4	6.9	11	5.4	9	4.4	7	3.5	7	3.5	17	8.4	10	4.9	5	2	1.0				3	
1	2.4	4	3.5	3	5.2	2	3.5	2	4.8	5	8.6	3	13.8	3	6.3	5.2				4	
2	11.8	1	5.9			2	4.8	5	11.9	3	7.1	1	2.4							5	
		7	21.9	2	6.2	3	9.4	2	11.8	2	11.8	3	17.6	7	2	11.8				6	
																					7
6	13.3	3	6.7	7	15.5	6	13.3	4	8.9	1	2.2									8	
1	9.1			1	9.1	1	9.1			1	9.1									9	
1	1.6	1	1.6	3	4.7	1	1.6	2	3.1	2	3.1	6	9.4	1	1.6					10	
				2	20.0	1	10.0	1	10.0	1	10.0	1	10.0	2	3	30.0				11	
4	19.0	2	9.5							2	9.5	4	19.0	1	4.8	2	9.5				12
																					13
																					14
																					15
24	4.5	32	6.0	31	5.7	26	4.9	28	5.2	42	7.8	33	6.1	20	3.7						

<sup>5</sup> Of these, 1, or 0.5 per cent of the total, receives \$700 to \$799, and 1, \$800 to \$899.  
<sup>6</sup> Of these, 2, or 3.5 per cent of the total, receive \$700 to \$799, and 1, or 1.7 per cent, \$1,000 and over.  
<sup>7</sup> Of these, 1, or 5.9 per cent of the total, receives \$700 to \$799 and 1, \$1,000 and over.  
<sup>8</sup> Of these, 2, or 22.2 per cent of the total, receives \$700 to \$799, and 1, or 11.1 per cent, \$800 to \$899.  
<sup>9</sup> Of these, 13, or 2.4 per cent of the total, receive \$700 to \$799; 2, or 0.37 per cent, \$800 to \$899; 1, or 0.18 per cent, \$900 to \$999, and 4, or 0.74 per cent, \$1,000 and over.

TABLE 79.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED TIONS—2 ESTABLISHMENTS, MUSLIN-UNDERWEAR SUMMARY, ESTABLISHMENTS NOS. 1 AND 2.

Marginal number.	Occupation.	Total number employed.	Number and per cent of employees who earned during the year in this shop—									
			Under \$50		\$50 to \$99		\$100 to \$149		\$150 to \$199		\$200 to \$249	
			Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
1	Cutters.....	29	1	3.4	5	17.2	1	3.4	.....	.....	1	3.4
2	Operators.....	587	139	23.7	58	9.9	45	7.7	29	4.9	33	5.6
3	Ribboners.....	88	32	36.4	8	9.1	6	6.8	4	4.5	4	4.5
4	Pressers.....	97	36	37.1	6	6.2	7	7.2	6	6.2	4	4.1
5	Trimmers.....	48	7	14.6	3	6.2	5	10.4	4	8.3	3	6.2
6	Examiners.....	88	17	19.3	8	19.1	7	8.0	8	9.1	.....	.....
7	Hammers.....	66	27	40.9	8	2.1	9	13.6	4	6.1	.....	.....
8	Lace runners.....	19	1	5.3	.....	.....	1	5.3	.....	.....	2	10.5
9	Tuckers.....	30	3	10.0	1	3.3	3	10.0	3	10.0	.....	.....
10	Other occupations.....	98	41	41.8	14	14.3	8	8.2	5	5.1	2	2.0
	Total.....	1,150	304	26.4	111	9.7	92	8.0	63	5.5	49	4.3

<sup>1</sup> Of these, 1, or 3.5 per cent of the total, receives \$300 to \$399; 3, or 10.3 per cent, \$900 to \$999, and 5, or 17.2 per cent, \$1,000 and over.

<sup>2</sup> Of these, 5, or 0.9 per cent of the total, receive \$700 to \$799; 2, or 0.3 per cent, \$800 to \$899, and 1, or 0.17 per cent, \$1,000 and over.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 141

AMOUNT DURING THE YEAR, APRIL, 1913, TO MARCH, 1914, INCLUSIVE, BY OCCUPATION, NEW YORK CITY—Concluded.

SUMMARY, ESTABLISHMENTS NOS. 1 AND 2.

Number and per cent of employees who earned during the year in this shop—																Marginal number.	
\$250 to \$299		\$300 to \$349		\$350 to \$399		\$400 to \$449		\$450 to \$499		\$500 to \$599		\$600 to \$699		\$700 and over.			
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.		
1	3.4	1	3.4	3	10.3	1	3.4	2	6.9	1	3.4	3	10.3	1	3.4	1	3.4
23	3.9	34	5.8	32	5.5	32	5.5	30	5.1	32	14.0	42	7.0	38	1.4	2	2
4	4.5	6	6.8	1	1.1	6	6.8	12	13.6	4	4.5	1	1.1	.....	.....	3	3
5	5.2	4	4.1	3	3.1	8	8.2	3	3.1	7	7.2	5	5.2	3	3.1	4	4
2	4.2	8	16.7	2	4.2	5	10.4	3	6.2	5	10.4	.....	.....	4	1	2.1	5
9	10.2	9	10.2	15	17.0	9	10.2	5	5.7	1	1.1	.....	.....	.....	.....	6	6
1	1.5	2	3.0	3	4.5	1	1.5	2	3.0	2	3.0	6	9.1	4	1.5	7	7
1	5.3	1	5.3	3	15.8	1	5.3	1	5.3	3	15.8	1	5.3	4	21.1	8	8
4	13.3	3	10.0	.....	.....	1	3.3	2	6.7	7	23.3	1	3.3	2	6.7	9	9
3	3.1	5	5.1	3	3.1	5	5.1	5	5.1	6	6.1	.....	.....	1	1.0	10	10
53	4.6	73	6.3	65	5.7	69	6.0	65	5.7	118	10.3	59	5.1	5	29	2.6	

<sup>1</sup> Of these, 2, or 2.1 per cent of the total, receive \$700 to \$799 and 1, or 1 per cent, \$1,000 and over.  
<sup>2</sup> Receive \$700 to \$799.  
<sup>3</sup> Of these, 16, or 1.4 per cent of the total, receive \$700 to \$799; 3, or 0.3 per cent, \$800 to \$899; 3, or 0.3 per cent, \$900 to \$999; and 7, or 0.6 per cent, \$1,000 and over.

TABLE 80.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED ESTABLISHMENTS, DRESS AND

## ESTABLISHMENT NO. 1.

Marginal number.	Occupation.	Total number employed.	Sex.	Number and per cent of employees who worked each classified number of weeks.							
				Under 5		5 to 9		10 to 14		15 to 19	
				Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
1	Cutters.....	4	M.					1	25.0		
2	Slopers.....										
3	Sample makers.....	2	F.								
4	Operators, waists.....	51	F.	8	15.7	7	13.7	8	15.7		
5	Operators, skirts.....										
6	Operators, petticoats.....										
7	Operators, special machines.....										
8	Drapers.....										
9	Hemstitchers.....										
10	Finishers.....	34	F.	15	44.1	7	20.6	3	8.8	2	5.9
11	Examiners.....	1	F.								
12	Pressers.....	1	F.								
13	Folders.....	2	F.								
	Total.....	95		23	24.2	14	14.7	12	12.6	2	2.1

## ESTABLISHMENT NO. 2.

1	Cutters.....	5	M.					1	20.0		
2	Slopers.....										
3	Sample makers.....	2	F.								
4	Operators, waists.....	41	F.	7	17.1	7	17.1	7	17.1	3	7.3
5	Operators, skirts.....	17	F.	7	41.2	1	5.9	2	11.8	2	11.8
6	Operators, petticoats.....										
7	Operators, special machines.....										
8	Drapers.....	13	F.	5	38.5	2	15.4				
9	Hemstitchers.....										
10	Finishers.....	52	F.	16	30.8	15	28.8	12	23.1		
11	Examiners.....										
12	Pressers.....	9	M.			2	22.2	2	22.2		
13	Folders.....										
	Total.....	139		35	25.2	27	19.4	24	17.3	5	3.6

## ESTABLISHMENT NO. 3.

1	Cutters.....	5	M.							1	20.0
2	Slopers.....										
3	Sample makers.....										
4	Operators, waists.....	23	F.	4	17.4			2	8.7	1	4.3
5	Operators, skirts.....	7	F.	1	14.3	5	71.4			1	14.3
		22	M.	4	18.2	2	9.1	4	18.2	1	4.5
6	Operators, petticoats.....										
7	Operators, special machines.....	3	M.			1	33.3				
8	Drapers.....	4	F.			1	25.0				
9	Hemstitchers.....										
10	Finishers.....	36	F.	6	16.7	4	11.1	3	8.3	5	13.9
11	Examiners.....										
12	Pressers.....	7	M.	2	28.6						
13	Folders.....										
	Total.....	107		17	15.9	13	12.1	9	8.4	9	8.4

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 143

NUMBER OF WEEKS, MAY, 1913, TO APRIL, 1914, INCLUSIVE, BY OCCUPATIONS—5 WAIST INDUSTRY, BOSTON.

ESTABLISHMENT NO. 1.

Number and per cent of employees who worked each classified number of weeks.														Marginal number.
20 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 52		
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	
						1	25.0			1	25.0	1	25.0	1
1	2.0	11	21.6	3	5.9	2	3.9	6	11.8	5	50.0	1	50.0	2
														3
														4
														5
														6
														7
														8
														9
2	5.9	1	2.9	2	5.9			2	5.9					10
								1	100.0					11
1	50.0	1	50.0							1	100.0			12
														13
4	4.2	13	13.7	5	5.3	3	3.2	9	9.5	8	8.4	2	2.1	

ESTABLISHMENT NO. 2.

		1	20.0					1	20.0			2	40.0	1
		1	50.0									1	50.0	2
		1	5.9	1	5.9	4	9.8	2	4.9	11	28.8			3
										3	17.6			4
														5
1	7.7	1	7.7	1	7.7			1	7.7			2	15.4	6
		1	1.9					3	5.8			5	9.6	7
				1	11.1	1	11.1	1	11.1	1	11.1	1	11.1	8
														9
1	.7	5	3.6	3	2.2	5	3.6	8	5.8	15	10.8	11	7.9	10
														11
														12
														13

ESTABLISHMENT NO. 3.

										3	60.0	1	20.0	1
		1	4.3	3	13.0			2	8.7	8	34.8	2	8.7	2
1	4.5			1	4.5	1	4.5	3	13.6			5	22.7	3
				1	33.3							1	33.3	4
						1	25.0	1	25.0			1	25.0	5
3	8.3	3	8.3			2	5.6	2	5.6	5	13.9	3	8.3	6
				1	14.3					2	28.6	2	28.6	7
														8
4	3.7	4	3.7	6	5.6	4	3.7	8	7.5	18	16.8	15	14.0	9
														10
														11
														12
														13

TABLE 80.—NUMBER AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED ESTABLISHMENTS, DRESS AND WAIST

## ESTABLISHMENT NO. 4.

Marginal number.	Occupation.	Total number employed.	Sex.	Number and per cent of employees who worked each classified number of weeks.									
				Under 5		5 to 9		10 to 14		15 to 19			
				Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.		
1	Cutters.....	2	M.										
2	Slopers.....	9	F.	1	11.1	1	11.1	2	22.2	1	11.1		
3	Sample makers.....												
4	Operators, waists.....	225	F.	117	52.0	42	18.7	17	7.6	9	4.0		
5	Operators, skirts.....												
6	Operators, petticoats.....												
7	Operators, special machines.....	2	F.										
8	Drapers.....												
9	Hemstitchers.....	4	F.	2	50.0								
10	Finishers.....												
11	Examiners.....	4	F.			1	25.0			1	25.0		
12	Pressers.....	11	F.	3	27.3	3	27.3					1	9.1
13	Folders.....	5	F.	1	20.0					1	20.0		
	Total.....	262		124	47.3	47	17.9	19	7.3	13	5.0		

## ESTABLISHMENT NO. 5.

1	Cutters.....	13	M.	3	23.1	4	30.8	2	15.4	2	15.4		
2	Slopers.....												
3	Sample makers.....	3	F.	1	33.3	1	33.3						
4	Operators, waists.....	42	F.	22	52.4	6	14.3	2	4.8	1	2.4		
5	Operators, skirts.....	7	F.										
6	Operators, petticoats.....	26	F.	4	15.4	8	30.8	3	11.5	2	7.7		
7	Operators, special machines.....												
8	Drapers.....	2	F.										
9	Hemstitchers.....	2	F.			1	50.0						
10	Finishers.....	70	F.	45	64.3	7	10.0	6	8.6	1	1.4		
11	Examiners.....	6	F.	3	50.0					1	16.7		
12	Pressers.....	4	F.										
13	Folders.....												
	Total.....	175		78	44.6	27	15.4	13	7.4	7	4.0		

## SUMMARY, ESTABLISHMENTS NOS. 1 TO 5.

1	Cutters.....	29	M.	3	10.3	4	13.8	4	13.8	3	10.3		
2	Slopers.....	9	F.	1	11.1	1	11.1	2	22.2	1	11.1		
3	Sample makers.....	7	F.	1	14.3	1	14.3						
4	Operators, waists.....	382	F.	153	41.4	62	16.2	36	9.4	14	3.7		
5	Operators, skirts.....	31	F.	8	25.8	7	22.6	2	6.5	2	6.5		
6	Operators, petticoats.....	22	M.	4	18.2	1	4.5	4	18.2	2	9.1		
7	Operators, special machines.....	26	F.	4	15.4	8	30.7	3	11.5	2	7.7		
8	Drapers.....	2	F.										
9	Hemstitchers.....	3	M.			1	33.3						
10	Finishers.....	19	F.	5	26.3	3	15.8						
11	Examiners.....	6	F.	2	33.3	1	16.7						
12	Pressers.....	192	F.	85	44.3	30	15.6	24	12.5	8	4.2		
13	Folders.....	11	F.	3	27.3	1	9.1			2	18.2		
	Total.....	16	F.	3	18.8	3	18.8			1	6.3		
	Total.....	16	M.	2	12.5	2	12.5	2	12.5				
	Total.....	7	F.	1	14.3					1	14.3		
	Total.....	778		280	36.0	125	16.1	77	9.9	36	4.6		

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 145

NUMBER OF WEEKS, MAY, 1913, TO APRIL, 1914, INCLUSIVE, BY OCCUPATIONS—5 INDUSTRY, BOSTON—Concluded.

ESTABLISHMENT NO. 4.

Number and per cent of employees who worked each classified number of weeks.														Marginal number.
20 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 52		
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	
										1	50.0	1	50.0	1
1	11.1							1	11.1	2	22.2			2
4	1.8	5	2.2	6	2.7	1	0.4	4	1.8	16	7.1	4	1.8	3
				1	50.0					1	50.0			4
														5
										1	25.0			6
										1	25.0			7
		1	9.1					1	25.0	1	25.0			8
								1	9.1	2	18.2			9
								2	40.0	1	20.0			10
														11
5	1.9	6	2.3	7	2.7	1	.4	10	3.8	25	9.5	5	1.9	12
														13

ESTABLISHMENT NO. 5.

		1	7.7							1	7.7			1
1	2.4	1	2.4	1	33.3									2
4	15.4	2	7.7	1	14.3	2	4.8	1	2.4	4	9.5	1	2.4	3
						1	14.3			3	42.9	2	28.6	4
						1	3.8					2	7.7	5
										2	100.0			6
2	2.9	1	1.4	2	2.9	1	1.4	1	1.4			1	50.0	7
1	16.7	1	16.7									4	5.7	8
1	25.0													9
								3	75.0					10
														11
9	5.1	6	3.4	5	2.9	5	2.9	7	4.0	8	4.6	10	5.7	12
														13

SUMMARY, ESTABLISHMENTS NOS. 1 TO 5.

1	11.1	2	6.9			1	3.4	1	3.4	6	20.7	5	17.2	1
		1	14.3	1	14.3			1	11.1	2	22.2			2
6	1.6	18	4.7	13	3.4	9	2.4	15	3.9	44	11.5	7	1.8	3
		1	3.2	2	6.5	1	3.2			1	14.3	2	28.6	4
1	4.5			1	4.5	1	4.5	3	13.6	6	19.4	2	6.5	5
4	15.4	2	7.7			1	3.8					5	22.7	6
				1	50.0							2	7.7	7
				1	33.3					1	50.0			8
1	5.3	1	5.3	1	5.3	1	5.3	4	21.1			1	33.3	9
				1	16.7			1	16.7	1	16.7	1	16.7	10
7	3.6	6	3.1	4	2.1	3	1.6	8	4.2	5	2.6	12	6.2	11
1	9.1	1	9.1					2	18.2	1	9.1			12
1	6.3	1	6.3					4	25.0	3	18.8			13
				2	12.5	1	6.3	1	6.3	3	18.8	3	18.8	
1	14.3	1	14.3					2	28.6	1	14.3			
23	3.0	34	4.4	26	3.3	18	2.3	42	5.4	74	9.5	43	5.5	

TABLE 81.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED TIONS—5 ESTABLISHMENTS, DRESS

ESTABLISHMENT NO. 1.

Marginal No.	Occupation.	Total number employed.	Sex.	Number and per cent of employees who earned during the year in this shop—									
				Under \$50		\$50 to \$99		\$100 to \$149		\$150 to \$199		\$200 to \$249	
				Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
1	Cutters.....	4	M.							1	25.0		
2	Slopers.....												
3	Sample makers.....	2	F.										
4	Operators, waists.....	51	F.	12	23.5	9	17.6	3	5.9	7	13.7	6	11.8
5	Operators, skirts.....												
6	Operators, petticoats.....												
7	Operators, special machines.....												
8	Drapers.....												
9	Hamstitchers.....												
10	Finishers.....	34	F.	22	64.7	4	11.8	3	8.8	2	5.9	1	2.9
11	Examiners.....	1	F.										
12	Pressers.....	1	F.										
13	Folders.....	2	F.					1	50.0	1	50.0		
	Total.....	95		34	35.8	13	13.7	7	7.4	11	11.6	7	7.4

ESTABLISHMENT NO. 2.

1	Cutters.....	5	M.			1	20.0						
2	Slopers.....												
3	Sample makers.....	2	F.										
4	Operators, waists.....	41	F.	9	22.0	9	22.0	6	14.6			2	4.9
5	Operators, skirts.....	17	F.	8	47.1			4	23.5				
6	Operators, petticoats.....												
7	Operators, special machines.....												
8	Drapers.....	13	F.	6	46.2	1	7.7	1	7.7			1	7.7
9	Hamstitchers.....												
10	Finishers.....	52	F.	35	67.3	8	15.4	1	1.9				
11	Examiners.....												
12	Pressers.....	9	M.			2	22.2	1	11.1	1	11.1		
13	Folders.....												
	Total.....	139		58	41.7	21	15.1	13	9.4	1	.7	3	2.2

ESTABLISHMENT NO. 3.

1	Cutters.....	5	M.										
2	Slopers.....												
3	Sample makers.....												
4	Operators, waists.....	23	F.	4	17.4	1	4.3	2	8.7			2	8.7
5	Operators, skirts.....	7	F.	1	14.3	6	85.7						
6	Operators, petticoats.....	22	M.	4	18.2	1	4.5	1	4.5	4	18.2	1	4.5
7	Operators, special machines.....	3	M.							1	33.3		
8	Drapers.....	4	F.			1	25.0					1	25.0
9	Hamstitchers.....												
10	Finishers.....	36	F.	8	22.2	6	16.7	7	19.4	3	8.3	5	13.9
11	Examiners.....												
12	Pressers.....	7	M.	2	28.6								
13	Folders.....												
	Total.....	107		19	17.8	15	14.0	10	9.3	8	7.5	9	8.4

<sup>1</sup> Of these, 1 received \$700 to \$799, and 1, \$900 to \$999.

<sup>2</sup> Of these, 1, or 20 per cent of the total, received \$300 to \$399, and 1, \$900 to \$999.

<sup>3</sup> Each of these received \$700 to \$799.

<sup>4</sup> Received \$1,000 and over.

<sup>5</sup> Of these, 2, or 1.4 per cent of the total, received \$700 to \$799, and there was 1, or 0.7 per cent, in each of the groups \$300 to \$399, \$900 to \$999, and \$1,000 and over.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 147

AMOUNT DURING THE YEAR, MAY, 1913, TO APRIL, 1914, INCLUSIVE, BY OCCUPA- AND WAIST INDUSTRY, BOSTON.

ESTABLISHMENT NO. 1.

Number and per cent of employees who earned during the year in this shop—														Marginal number.		
\$250 to \$299		\$300 to \$349		\$350 to \$399		\$400 to \$449		\$450 to \$499		\$500 to \$599		\$600 to \$699			\$700 to \$799	
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.		Num-ber.	Per-cent.
						1	25.0							1	50.0	1
																2
1	2.0	2	3.9	5	9.8	3	5.9	2	3.9	1	2.0					3
																4
																5
																6
																7
																8
1	2.9	1	2.9													9
																10
				1	100.0	1	100.0									11
																12
																13
2	2.1	3	3.2	6	6.3	5	5.3	2	2.1	3	3.2			2	2.1	

ESTABLISHMENT NO. 2.

1	20.0			1	20.0									2	40.0	1
		1	50.0									1	50.0			2
1	2.4	6	14.6	1	2.4	4	9.8	3	7.3			1	5.9	2	11.8	3
1	5.9			1	5.9											4
																5
																6
		1	7.7	1	7.7					2	15.4					7
																8
3	5.8	1	1.9	2	3.8	2	3.8									9
																10
				1	11.1											11
										2	22.2	1	11.1	4	11.1	12
																13
6	4.3	9	6.5	7	5.0	6	4.3	3	2.2	4	2.9	3	2.2	5	3.6	

ESTABLISHMENT NO. 3.

				1	20.0									4	80.0	1
																2
3	13.0			5	21.7	2	8.7	2	8.7	2	8.7					3
				1	4.5	2	9.1			1	4.5	3	13.6	7	18.2	4
														2	66.7	5
																6
																7
1	25.0			1	25.0											8
																9
1	2.8	1	2.8	3	8.3	1	2.8			1	2.8					10
																11
										2	28.6			9	42.8	12
																13
5	4.7	1	.9	11	10.3	5	4.7	2	1.9	6	5.6	3	2.8	10	13	12.2

6 Of these, 2, or 40 per cent of the total, received \$300 to \$399; 1, \$900 to \$999; and 1, \$1,000 and over.  
 7 Of these, 2, or 9.1 per cent of the total, received \$700 to \$799; 1, \$800 to \$899; and 1, \$1,000 and over.  
 8 Each of these received \$700 to \$799.  
 9 Of these, 2, or 28.6 per cent of the total, received \$700 to \$799; and 1, or 14.3 per cent, \$900 to \$999.  
 10 Of these, 6, or 5.6 per cent of the total, received \$700 to \$799; 3, or 2.8 per cent, \$800 to \$899; 2, or 1.9 per cent, \$900 to \$999; and 2, or 1.9 per cent, \$1,000 and over.

TABLE 81.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED TIONS—5 ESTABLISHMENTS, DRESS AND ESTABLISHMENT NO. 4.

Mar- ginal No.	Occupation.	Total num- ber em- ployed.	Sex.	Number and per cent of employees who earned during the year in this shop—																
				Under \$50		\$50 to \$99		\$100 to \$149		\$150 to \$199		\$200 to \$249								
				Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.							
1	Cutters.....	2	M.																	
2	Slopers.....	9	F.	2	22.2	3	33.3													
3	Sample makers.....																			
4	Operators, waists.....	225	F.	159	70.7	19	8.4	9	4.0	6	2.7	5	2.2							
5	Operators, skirts.....																			
6	Operators, petticoats.....																			
7	Operators, special machines.....	2	F.																	
8	Drapers.....																			
9	Hemstitchers.....	4	F.	2	50.0															
10	Finishers.....																			
11	Examiners.....	4	F.	1	25.0	1	25.0													
12	Pressers.....	11	F.	5	45.5	1	9.1	1	9.1			1	9.1							
13	Folders.....	5	F.	1	20.0			1	20.0											
	Total.....	282		170	64.9	24	9.2	11	4.2	6	2.3	7	2.7							

## ESTABLISHMENT NO. 5.

1	Cutters.....	13	M.	5	38.5	2	15.4	2	15.4	1	7.7	1	7.7							
2	Slopers.....																			
3	Sample makers.....	3	F.	2	66.7															
4	Operators, waists.....	42	F.	24	57.1	6	14.3	1	2.4	3	7.1									
5	Operators, skirts.....	7	F.																	
6	Operators, petticoats.....	26	F.	7	26.9	9	34.6	3	11.5	1	3.8	3	11.5							
7	Operators, special machines.....																			
8	Drapers.....	2	F.																	
9	Hemstitchers.....	2	F.	1	50.0															
10	Finishers.....	70	F.	54	77.1	5	7.1	2	2.9	2	2.9	3	4.3							
11	Examiners.....	6	F.	3	50.0			2	33.3	1	16.7									
12	Pressers.....	4	F.			1	25.0					2	50.0							
13	Folders.....	4	F.																	
	Total.....	175		96	54.9	23	13.1	10	5.7	8	4.6	9	5.1							

## SUMMARY, ESTABLISHMENTS NOS. 1 TO 5.

1	Cutters.....	29	M.	5	17.2	3	10.3	2	6.9	2	6.9	1	3.4							
2	Slopers.....	9	F.	2	22.2	3	33.3													
3	Sample makers.....	7	F.	2	28.6															
4	Operators, waists.....	382	F.	208	54.5	44	11.5	21	5.5	16	4.2	15	3.9							
5	Operators, skirts.....	31	F.	9	29.0	6	19.4	4	12.9											
6	Operators, petticoats.....	22	M.	4	18.2	1	4.5	1	4.5	4	18.2	1	4.5							
7	Operators, special machines.....	26	F.	7	26.9	9	34.6	3	11.5	1	3.8	3	11.5							
8	Drapers.....	2	F.																	
9	Hemstitchers.....	19	F.	6	31.6	2	10.5	1	5.3			2	10.5							
10	Finishers.....	6	F.	3	50.0															
11	Examiners.....	192	F.	119	62.0	24	12.5	13	6.8	7	3.6	8	4.2							
12	Pressers.....	11	F.	4	36.4	1	9.1	2	18.2	1	9.1									
13	Folders.....	16	F.	5	31.3	2	12.5	1	6.3			3	18.8							
	Total.....	16	M.	2	12.5	2	12.5	1	6.3	1	6.3									
	Total.....	7	F.	1	14.3			2	28.6	1	14.3	1	14.3							
	Total.....	778		377	48.5	97	12.5	51	6.6	34	4.4	34	4.4							

<sup>1</sup> Each of these receive \$1,000 and over.

<sup>2</sup> Of these, 1, or 3.4 per cent of the total, received \$700 to \$799; and there were 3, or 10.3 per cent of the total, in each of the groups \$800 to \$899, \$900 to \$999, and \$1,000 and over.

<sup>3</sup> Each of these received \$700 to \$799.

<sup>4</sup> Of these, 2, or 9.1 per cent of the total, received \$700 to \$799, and there was 1, or 4.5 per cent, in each of the groups, \$800 to \$899, and \$1,000 and over.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 149

AMOUNT DURING THE YEAR, MAY, 1913, TO APRIL, 1914, INCLUSIVE; BY OCCUPA-WAIST INDUSTRY, BOSTON—Concluded.

ESTABLISHMENT NO. 4.

Number and per cent of employees who earned during the year in this shop—														Marginal number.		
\$250 to \$299		\$300 to \$349		\$350 to \$399		\$400 to \$449		\$450 to \$499		\$500 to \$599		\$600 to \$699			\$700 to \$799	
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	
1	11.1	2	22.2	1	11.1									12	100.0	1
8	3.6	3	1.3	2	.9	4	1.8	3	1.3	5	2.2	2	0.9			2
1	50.0			1	50.0											3
1	25.0						1	25.0								4
1	25.0						1	25.0								5
		1	9.1	1	9.1			1	9.1							6
		1	20.0	1	20.0											7
12	4.6	7	2.7	6	2.3	6	2.3	4	1.5	5	1.9	2	.8	12	.8	8

ESTABLISHMENT NO. 5.

				1	7.7			1	7.7								1
1	33.3																2
1	2.4	1	2.4	2	4.8	1	2.4			2	4.8	1	2.4				3
		1	14.3	2	28.6	2	28.6	2	28.6								4
		2	7.7					1	3.8								5
										2	100.0						6
		1	50.0														7
2	2.9	1	1.4				1	1.4									8
1	25.0																9
																	10
5	2.9	6	3.4	5	2.9	4	2.3	4	2.3	4	2.3	1	.6				11

SUMMARY, ESTABLISHMENTS NOS. 1 TO 5.

1	3.4			3	10.3	1	3.4	1	3.4						*10	34.5	1
1	11.1	2	22.2	1	11.1												2
1	14.3	1	14.3							2	28.6	1	14.3				3
14	3.7	12	3.1	15	3.9	14	3.7	10	2.6	10	2.6	3	.8				4
1	3.2	1	3.2	3	9.7	2	6.5	2	6.5			1	3.2		*2	6.5	5
				1	4.5	2	9.1			1	4.5	3	13.6		*4	18.2	6
1	50.0	2	7.7					1	3.8						*2	66.7	7
		1	50.0														8
1	5.3	1	5.3	2	10.5					4	21.1						9
1	16.7	1	16.7			1	16.7										10
7	3.6	4	2.1	5	2.6	4	2.1					1	.5				11
1	9.1					2	18.2										12
1	6.3	1	6.3	2	12.5			1	6.3								13
		1	14.3	1	6.3					4	25.0	1	6.3		*4	25.0	
										1	14.3						
30	3.9	27	3.5	33	4.2	26	3.3	15	1.9	23	3.0	9	1.2	*22		2.8	

\* Of these, 2, or 12.5 per cent of the total, received \$700 to \$799, and there was 1, or 6.3 per cent, in each of the groups, \$800 to \$999, and \$1,000 and over.

\* Of these, 9, or 1.2 per cent of the total, received \$700 to \$799; 4, or 0.5 per cent, \$800 to \$899; 4, or 0.5 per cent, \$900 to \$999; and 5, or 0.6 per cent, \$1,000 and over.

TABLE 82.—NUMBER AND PER CENT OF EMPLOYEES IN SELECTED OCCUPATIONS  
MENTS, CLOAK, SUIT, AND SKIRT

## ESTABLISHMENT NO. 1: DATA

Marginal number.	Occupation.	Total number employed.	Number and per cent of employees who worked each classified number of weeks.							
			Under 5		5 to 9		10 to 14		15 to 19	
			Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
1	Cutters, male.....	96	8	8.33	10	10.42	7	7.29	15	15.63
2	Pressers, male.....	53	.....	.....	3	5.66	8	15.09	10	18.87
3	Operators, male.....	93	7	7.53	2	2.15	7	7.53	7	7.53
4	Operators, female.....	181	6	3.31	3	1.66	24	13.26	22	12.15
	Total.....	423	21	4.96	18	4.26	46	10.87	54	12.77

## ESTABLISHMENT NO. 2: DATA

1	Cutters, male.....	140	8	5.71	11	7.86	11	7.86	17	12.14
2	Pressers, male.....	138	.....	.....	4	2.90	15	10.87	16	11.59
3	Operators, male.....	178	7	3.93	3	1.69	7	3.93	9	5.06
4	Operators, female.....	213	6	2.82	8	3.76	26	12.21	24	11.27
	Total.....	669	21	3.14	26	3.89	59	8.82	66	9.87

TABLE 83.—NUMBER AND PER CENT OF EMPLOYEES IN SELECTED OCCUPATIONS  
CLOAK, SUIT, AND SKIRT IN

## ESTABLISHMENT NO. 1: DATA

Marginal number.	Occupation.	Total number employed.	Number and per cent who earned during the 10 months in this shop—									
			Under \$50		\$50 to \$99		\$100 to \$149		\$150 to \$199		\$200 to \$249	
			Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
1	Cutters, male.....	96	6	6.25	8	8.33	4	4.17	10	10.42	3	3.13
2	Pressers, male.....	53	.....	.....	2	3.77	1	1.89	3	5.66	3	5.66
3	Operators, male.....	93	6	6.45	3	3.23	3	3.23	2	2.15	2	2.15
4	Operators, female.....	181	6	3.31	12	6.62	26	13.81	15	8.29	15	8.29
	Total.....	423	18	4.26	25	5.91	33	7.80	35	8.27	23	5.44

## ESTABLISHMENT NO. 2: DATA

1	Cutters, male.....	140	6	4.29	8	5.71	4	2.86	12	8.57	6	4.29
2	Pressers, male.....	138	.....	.....	2	1.45	3	2.17	14	10.14	6	4.35
3	Operators, male.....	178	6	3.37	3	1.69	5	2.81	2	1.12	2	1.12
4	Operators, female.....	213	7	3.29	16	7.51	26	12.21	18	8.45	16	7.51
	Total.....	669	19	2.84	29	4.33	38	5.68	46	6.88	30	4.48

<sup>1</sup> Of these, 8, or 8.33 per cent, received \$700 to \$799; 13, or 13.53 per cent, received \$800 to \$899; 1, or 1.04 per cent, received \$900 to \$999, and 4, or 4.17 per cent, received \$1,000 and over.

<sup>2</sup> Of these, 3, or 5.66 per cent, received \$700 to \$799; 1, or 1.89 per cent, received \$800 to \$899; and 2, or 3.77 per cent, received \$1,000 and over.

<sup>3</sup> Of these, 2, or 2.15 per cent, received \$700 to \$799; 7, or 7.52 per cent, received \$800 to \$899; 15, or 16.13 per cent, received \$900 to \$999, and 22, or 23.66 per cent, received \$1,000 and over.

<sup>4</sup> Received \$700 to \$799.

<sup>5</sup> Of these, 14, or 3.31 per cent, received \$700 to \$799; 21, or 4.96 per cent, received \$800 to \$899; 16, or 3.78 per cent, received \$900 to \$999, and 23, or 6.62 per cent, received \$1,000 and over.

REGULARITY OF EMPLOYMENT—WOMEN'S GARMENT INDUSTRIES. 151

WORKING EACH CLASSIFIED NUMBER OF WEEKS, BY OCCUPATIONS—2 ESTABLISH-  
INDUSTRY, CLEVELAND, OHIO.

FOR 10 MONTHS, 1913-14.

Number and per cent of employees who worked each classified number of weeks.														Marginal number.
20 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 52		
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	
9	9.38	4	4.17	1	1.04	14	14.58	28	29.17	.....	.....	.....	.....	1
4	7.55	1	1.89	2	3.77	15	28.30	10	18.87	.....	.....	.....	.....	2
5	5.38	1	1.08	4	4.30	18	19.36	42	45.18	.....	.....	.....	.....	3
9	4.97	4	2.21	22	12.15	55	30.39	36	19.89	.....	.....	.....	.....	4
27	6.38	10	2.36	29	6.86	102	24.11	116	27.42	.....	.....	.....	.....	

FOR 12 MONTHS, 1913-14.

11	7.86	9	6.43	4	2.86	14	10.00	28	20.00	1	0.71	26	18.57	1
6	4.35	4	2.90	5	3.62	18	13.04	19	13.77	19	13.77	32	23.19	2
7	3.93	2	1.12	7	3.93	22	12.36	45	25.28	18	10.11	51	28.65	3
11	5.16	5	2.35	24	11.27	60	28.17	39	18.31	7	3.29	3	1.41	4
35	5.23	20	2.99	40	5.98	114	17.04	131	19.58	45	6.73	112	16.74	

EARNING EACH CLASSIFIED AMOUNT. BY OCCUPATIONS—2 ESTABLISHMENTS,  
DUSTRY, CLEVELAND, OHIO.

FOR 10 MONTHS, 1913-14.

Number and per cent who earned during the 10 months in this shop—														Marginal number.		
\$250 to \$299		\$300 to \$349		\$350 to \$399		\$400 to \$449		\$450 to \$499		\$500 to \$599		\$600 to \$699			\$700 and over.	
Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.		Num-ber.	Per-cent.
9	9.38	5	5.21	3	3.13	4	4.17	5	5.21	5	5.21	8	8.33	126	27.08	
6	11.32	8	15.09	1	1.89	1	1.89	2	3.77	8	15.09	7	13.21	26	11.32	
2	2.15	4	4.30	2	2.15	3	3.23	1	1.08	10	10.75	9	9.68	246	49.46	
20	11.05	20	11.05	17	9.39	10	5.62	16	8.84	13	7.18	11	6.06	41	.55	
37	8.75	37	8.75	23	5.44	18	4.26	24	5.67	36	8.51	35	8.27	79	18.67	

FOR 12 MONTHS, 1913-14.

12	8.57	5	3.57	5	3.57	7	5.00	6	4.29	6	4.29	10	7.14	653	37.86
9	0.52	9	6.52	2	1.45	3	2.17	5	3.62	11	7.97	15	10.87	759	42.75
3	1.09	4	2.25	2	1.12	4	2.25	3	1.66	15	8.43	15	8.43	114	64.04
21	9.86	22	10.33	20	9.39	14	6.57	20	9.39	18	8.46	11	5.16	4	1.87
45	6.73	40	5.98	29	4.33	28	4.19	34	5.08	51	7.47	51	7.02	230	34.38

<sup>1</sup> Of these, 9, or 6.43 per cent of the total, received \$700 to \$799; 19, or 13.57 per cent, received \$800 to \$899; 7, or 5 per cent, received \$900 to \$999, and 18, or 12.86 per cent, received \$1,000 and over.

<sup>2</sup> Of these, 26, or 18.84 per cent of the total, received \$700 to \$799; 21, or 15.22 per cent, received \$800 to \$899; 10, or 7.25 per cent, received \$900 to \$999, and 2, or 1.45 per cent, received \$1,000 and over.

<sup>3</sup> Of these, 4, or 2.25 per cent of the total, received \$700 to \$799; 16, or 8.99 per cent, received \$800 to \$899; 25, or 14.04 per cent, received \$900 to \$999, and 69, or 38.76 per cent, received \$1,000 and over.

<sup>4</sup> Of these, 3, or 1.41 per cent of the total, received \$700 to \$799, and 1, or 0.46 per cent, received \$800 to \$899.

<sup>5</sup> Of these, 42, or 8.28 per cent of the total, received \$700 to \$799; 57, or 8.52 per cent, received \$800 to \$899; 42, or 6.28 per cent, received \$900 to \$999, and 39, or 13.30 per cent, received \$1,000 and over.



# INDEX.

	Page.
Basting, description of occupation.....	19
<b>Boston:</b>	
Cloak, suit, and skirt industry, seasonal fluctuations in.....	68-71
Dress and waist industry, earnings of employees in.....	125, 126, 146-149
Dress and waist industry, seasonal fluctuations in.....	71-73
Dress and waist industry, weeks worked by employees in.....	123, 124, 129, 142-145
Establishments and total pay roll covered in present inquiry, by industries.....	13
Growth of women's ready-to-wear garment industries.....	66
Output of women's wear, value of.....	16
Rank of city in specified industries.....	78
Regularity of employment.....	66-73
Regularity of employment and earnings, dress and waist industry.....	122-129
Seasonal fluctuations of employment.....	66-73
Busy seasons and dull seasons. ( <i>See</i> Seasonal fluctuations of employment.)	
Buttonhole making, description of occupation.....	20
Capital, wages, cost of material, etc. ( <i>See</i> Growth of women's ready-to-wear garment industries.)	
Causes of seasonal fluctuations of employment.....	74-94
Changes in style, and seasonal fluctuations of employment.....	74-77
<b>Chicago:</b>	
Cloak and suit industry, seasonal fluctuations of employment in.....	48-50
Dress and skirt industry, seasonal fluctuations of employment in.....	65
Dress and waist industry, dovetailing of allied occupations.....	97-104
Dress and waist industry, seasonal fluctuations of employment in.....	50-53
Establishments and total pay roll covered in present inquiry, by industries.....	13
Growth of women's ready-to-wear garment industries.....	44, 45
House-dress and kimono industry, seasonal fluctuations of employment in.....	56, 57
Men's ready-to-wear clothing industry, seasonal fluctuations of employment in.....	106
Output of women's wear, value of.....	16
Petticoat industry, seasonal fluctuations of employment in.....	58, 59
Rank of city in specified industries.....	78
Regularity of employment.....	44-59
Seasonal fluctuations of employment.....	45-59
Seasonal fluctuations, 1 establishment making more than 8 lines of women's garments.....	94-97
Skirt, and dress and skirt industries, seasonal fluctuations of employment in.....	53-55
Women's ready-to-wear garment industries, seasonal fluctuations of employment in.....	47
<b>Children's and misses' dresses:</b>	
Fabrics used.....	21
Seasonal fluctuations of employment in industry, New York City.....	34-36, 86, 87
Cleaning, description of occupation.....	20
<b>Cleveland:</b>	
Cloak, suit, and skirt industry, earnings of employees in.....	132-134, 150, 151
Cloak, suit, and skirt industry, seasonal fluctuations of employment in.....	62-64
Cloak, suit, and skirt industry, weeks worked by employees in.....	120, 131, 134, 135, 150-151
Dress and waist industry, seasonal fluctuations of employment in.....	64, 65
Establishments and total pay roll covered in present inquiry, by industries.....	13
Growth of women's ready-to-wear garment industries.....	59
Men's ready-to-wear clothing industry, seasonal fluctuations of employment in.....	106
Output of women's wear, value of.....	16
Rank of city in specified industries.....	78
Regularity of employment.....	59-65
Regularity of employment and earnings, cloak, suit, and skirt industry.....	129-135
Seasonal fluctuations of employment.....	60-65
<b>Cloak, suit, and skirt industry:</b>	
Constancy of employment in different occupations, Cleveland.....	131
Earnings of employees, Cleveland.....	132-134, 150, 151
Fabrics used.....	21
Regularity of employment and earnings, summary, Cleveland.....	129-131
Seasonal fluctuations of employment in, Boston.....	68, 71
Seasonal fluctuations of employment in, Cleveland.....	62-64
Seasonal fluctuations of employment in, New York City.....	28-30
Specialization, degree of, and seasonal fluctuations.....	78-80
Weeks worked by employees, Cleveland.....	130, 131, 134, 135, 150, 151
<b>Constancy of employment in different occupations:</b>	
Cloak, suit, and skirt industry, Cleveland.....	131
Dress and waist industry, Boston.....	124
Muslin-underwear industry, New York City.....	114-116
<b>Cost of material, wages, product, etc. (<i>See</i> Growth of women's ready-to-wear garment industries.)</b>	
Custom-tailoring industry, women's, seasonal fluctuations of employment in, New York City.....	42-44
Dovetailing of occupations.....	9, 10, 97-104, 107, 108
<b>Dress and waist industry:</b>	
Constancy of employment in different occupations, Boston.....	124
Dovetailing of allied occupations, Chicago.....	97-104
Earnings of employees, Boston.....	125, 126, 146-149
Fabrics used.....	21
High-grade and low-grade shops, seasonal fluctuations of employment in, New York City.....	89, 90
Regularity of employment and earnings, summary, Boston.....	122-124

Dress and waist industry—Concluded.	Page.
Seasonal fluctuations of employment, Boston	71-73
Seasonal fluctuations of employment, Chicago	50-53
Seasonal fluctuations of employment, Cleveland	64, 65
Seasonal fluctuations of employment, New York City	31-34
Specialization, degree of, and seasonal fluctuations	80-82
Weeks worked by employees, Boston	126, 124, 127-129, 142-145
Dresses, misses' and children's. (See Children's and misses' dresses.)	
Dull seasons and busy seasons. (See Seasonal fluctuations of employment.)	
Earnings:	
Amounts per year, classified, cloak, suit, and skirt industry, Cleveland	133, 134, 150, 151
Amounts per year, classified, dress and waist industry, Boston	126, 146-149
Amounts per year, classified, muslin-underwear industry, New York City	117, 138-141
Average per hour, muslin-underwear industry, New York City	118, 119, 121
Average per week, cloak, suit, and skirt industry, Cleveland	125, 126
Average per week, dress and waist industry, Boston	116-120
Average per week, muslin-underwear industry, New York City	129-135
Regularity of employment and, cloak, suit, and skirt industry, Cleveland	122-129
Regularity of employment and, dress and waist industry, Boston	112-122
Regularity of employment and, muslin-underwear industry, New York City	20
Examining, description of occupation	21, 22
Fabrics used, women's ready-to-wear industries	19
Finishing, description of occupation	
Growth of women's ready-to-wear garment industries:	
Boston	66
Chicago	44, 45
Cleveland	59
New York City	22, 23
United States	15-17
High-grade and low-grade shops, seasonal fluctuations of employment in:	
Dress and waist industry, New York City	88-90
House-dress and kimono industry, New York City	89
House-dress and kimono industry:	
Fabrics used	22
Seasonal fluctuations of employment, Chicago	39-42
Seasonal fluctuations of employment, New York City	56, 57
Specialization, degree of, and seasonal fluctuations, New York City and Chicago	82-84
Industries covered by present inquiry, rank of specified cities in	73
Industries, establishments, and combined pay rolls covered by present inquiry	18
Industries, women's ready-to-wear garment, classification of	20-22
Inside and outside shops, seasonal fluctuations of employment in, children's and misses' dresses,	
New York City	86, 87
Kimono industry, high-grade and low-grade shops, seasonal fluctuations in, New York City	88, 83
Kimonos and house dresses. (See House dress and kimono industry.)	
Labor supply of industries of present study	17, 18
Large and small shops, seasonal fluctuations in:	
Children's and misses' dress industry, New York City	34-36
Cloak and suit industry, Chicago	48-50
Cloak, suit, and skirt industry, Boston	69-71
Cloak, suit, and skirt industry, Cleveland	62-64
Cloak, suit, and skirt industry, New York City	28-30
Dress and waist industry, Boston	71-73
Dress and waist industry, Chicago	51, 53
Dress and waist industry, New York City	31-34
House-dress and kimono industry, New York City	40-42
Men's clothing industry, Chicago and Cleveland	104-106
Muslin-underwear industry, New York City	37-39
Materials and fabrics used, women's ready-to-wear industries	21, 22
Men's ready-to-wear clothing, seasonal fluctuations in, Chicago and Cleveland	104-106
Misses' and children's dresses. (See Children's and misses' dresses.)	
Muslin-underwear industry:	
Constancy of employment in different occupations, New York City	114-116
Earnings and regularity of employment in, New York City	112-122
Earnings per hour, week, and year, New York City	116-121, 138-141
Fabrics used	21
Overtime worked, New York City	121, 122
Regularity of employment and earnings, summary, New York City	112-114
Seasonal fluctuations of employment in, New York City	37-39
Weeks worked by employees in, New York City	113-115, 136, 137
New York City:	
Children's and misses' dress industry, inside and outside shops, seasonal fluctuations in	86, 87
Children's and misses' dress industry, seasonal fluctuations in	34-36
Cloak, suit, and skirt industry, seasonal fluctuations in	28-30
Custom-tailoring industry, women's, seasonal fluctuations in	42-44
Dress and waist industry, high-grade and low-grade shops, seasonal fluctuations in	89, 90
Dress and waist industry, seasonal fluctuations in	31-34
Establishments and total pay roll covered in present inquiry, by industries	13
Growth of women's ready-to-wear garment industries	22, 23
House-dress and kimono industry, seasonal fluctuations of employment in	39-42
Kimono industry, high-grade and low-grade shops, seasonal fluctuations of employment in	83
Muslin-underwear industry, earnings of employees	116-121, 138-141
Muslin-underwear industry, overtime worked	121, 122
Muslin-underwear industry, seasonal fluctuations in	37-39
Muslin-underwear industry, weeks worked by employees	112-115, 136, 137
Output of women's wear, value and per cent of	16
Rank of city in specified industries	73
Regularity of employment	22-44
Regularity of employment and earnings, muslin-underwear industry	112-122
Seasonal fluctuations of employment, summary	23-27

Occupations:	Page.
Cloak, suit, and skirt industry, earnings of workers, Cleveland.....	150, 151
Cloak, suit, and skirt industry, weeks worked by employees, Cleveland.....	150, 151
Description of.....	18-20
Dovetailing of.....	9, 10, 97-104, 107, 108
Dress and waist industry, earnings per year, Boston.....	146-149
Dress and waist industry, weeks worked by employees, Boston.....	122, 124, 127-129, 142-145
Muslin-underwear industry, earnings per year, New York City.....	138-141
Muslin-underwear industry, weeks worked by employees, New York City.....	112, 115, 118, 119, 136, 137
Operating, description of occupation.....	9
Output or production of women's wear, value of, 5 cities.....	16
Overtime worked, muslin-underwear industry, New York City.....	121, 122
Petticoat industry, seasonal fluctuations of employment, Chicago.....	58, 59
Pressing, description of occupation.....	20
Product, quality of, and seasonal fluctuations of employment.....	76, 87-90
Product, value of, wages, capital, etc. (See Growth of women's ready-to-wear garment industries.)	
Production, method of, and seasonal fluctuations of employment.....	75, 76, 84-87
Production or output of women's wear, value of, 5 cities.....	16
Regularity of employment.....	22-73
Boston.....	66-73
Chicago.....	44-59
Cleveland.....	59-65
New York City.....	22-44
Regularity of employment and earnings. (See Earnings.)	
Regularization of employment.....	94-108
Dovetailing of allied occupations, dress and waist industry, Chicago.....	97-104
Dovetailing of occupations, other examples of.....	107, 108
Men's ready-to-wear garments, Chicago and Cleveland.....	104-106
Women's garments, Chicago.....	94-97
Sample making, description of occupation.....	19
Scope of present inquiry.....	10-13
Seasonal fluctuations of employment:	
Boston, summary.....	66-71
Cause, primary.....	74
Causes of.....	74-94
Causes of, contributory.....	74-90
Causes of, summary.....	92-94
Changes in styles, as a cause of.....	74-77
Chicago and Cleveland, 2 establishments making men's ready-to-wear garments.....	104-106
Chicago, 1 establishment making more than 8 lines of women's garments.....	94-97
Chicago, summary.....	45-47
Children's and misses' dress industry, New York City.....	34-36
Cleveland, summary.....	60, 61
Cloak and suit industry, Chicago.....	48-50
Cloak, suit, and skirt industry, Boston.....	68-71
Cloak, suit, and skirt industry, Cleveland.....	62-64
Cloak, suit, and skirt industry, New York City.....	28-34
Custom-tailoring industry, women's, New York City.....	42-44
Dress and waist industry, Boston.....	71-73
Dress and waist industry, Chicago.....	50-53
Dress and waist industry, Cleveland.....	64, 65
Dress and waist industry, New York City.....	31-34
House-dress and kimono industry, Chicago.....	56, 57
House-dress and kimono industry, New York City.....	39-42
Method of production, a contributory cause.....	75, 76, 84-87
Muslin-underwear industry, New York City.....	37-39
New York City, summary.....	23-27
Petticoat industry, Chicago.....	58, 59
Quality of product, a contributory cause.....	76, 87-90
Related factors.....	91, 92
Skirt, and dress and skirt industry, Chicago.....	53-55
Specialization, degree of, a contributory cause.....	75, 77-84
Shops. (See High-grade and low-grade shops; Inside and outside shops; Large and small shops.)	
Skirt, and dress and skirt industries, seasonal fluctuations of employment in, Chicago.....	53-55
Slack seasons and busy seasons. (See Seasonal fluctuations of employment.)	
Specialization, degree of, and seasonal fluctuations of employment.....	75, 77-84
Cloak, suit, and skirt industry.....	75-80
Dress and waist industry.....	80-82
House-dress and kimono industry.....	82-84
Styles, changes in, cause of seasonal fluctuations.....	74-77
Wages. (See Earnings.)	
Wages, capital, etc. (See Growth of women's ready-to-wear garment industries.)	
Waists and dresses. (See Dress and waist industry.)	
Weeks worked by employees:	
Cloak, suit, and skirt industry, Cleveland.....	130, 131, 134, 135, 150, 151
Dress and waist industry, Boston.....	122, 124, 127-129, 142-145
Muslin-underwear industry New York City.....	112-115, 136, 137