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UNITED STATES DEPARTMENT OF LABOR
WOMEN'S BUREAU
Bulletin No. 109

THE EMPLOYMENT OF WOMEN
IN THE SEWING TRADES
OF CONNECTICUT

HOURS AND EARNINGS
EMPLOYMENT FLUCTUATION
HOME WORK

SL

UNITED STATES DEPARTMENT OF LABOR
FRANCES PERKINS, Secretary
WOMEN'S BUREAU
MARY ANDERSON, Director



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OF CONNECTICUT

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EMPLOYMENT FLUCTUATION
HOME WORK

By
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THE
TREATMENT OF WOMEN
IN THE
TEXTILE
INDUSTRY
OF
CONNECTICUT
BY
JAMES W. FAY
1914



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LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, February 28, 1935.

MADAM: I have the honor to transmit a report on the various phases of women's employment in the sewing trades of Connecticut.

A preliminary report on factory hours and earnings was made shortly after the survey, but, owing to pressure of more urgent work, the other findings have not been prepared for publication until now.

Three subjects discussed here—home work, employment fluctuation, and year's earnings—have advanced instead of losing place in public interest. An unusual type of data in the home-work report is a comparison of the factory and home-work pay rolls of 4 establishments, week by week for periods ranging from 7 months to a year. The report on the lighting of clothing factories is a contribution to the scanty literature on that subject.

I appreciate greatly the courteous cooperation extended by employers, workers, and various State agencies in the course of this study.

The survey was conducted by Caroline Manning, industrial supervisor, and the report has been written by Miss Manning and Harriet A. Byrne, assistant editor.

Respectfully submitted.

MARY ANDERSON, *Director.*

HON. FRANCES PERKINS,
Secretary of Labor.

THE EMPLOYMENT OF WOMEN IN THE SEWING TRADES OF CONNECTICUT

Part I.—INTRODUCTION

At the request of Governor Cross, a study of the economic status of women engaged in the manufacture of wearing apparel in the State of Connecticut was made in the fall of 1931 by the Women's Bureau of the United States Department of Labor. The preliminary report of the findings as to earnings and hours, with its testimony as to the migration of industry from adjoining States and the employment of girls under 20 at starvation wages, marked the beginning of the public indignation against sweatshops that spread so rapidly in the months that followed.

Certain other information secured in the survey—notably year's earnings, fluctuation in employment and earnings, industrial home work (with pay-roll as well as home-interview data), and lighting conditions in the factories—is presented in the pages following. Because of the constant rise in the past 2 years in the level of public intelligence where economics and labor matters are concerned, each of these types of information is of greater interest in 1935 than at the time of survey. And in each of them the data, secured through the courtesy of employers and workers, constitute valuable material of an uncommon sort.

SUMMARY

Time of survey: September 1931 to January 1932.

FACTORY WORKERS

Firms included in the study, 106.

Median of the week's earnings (7,631 women):

All industries, \$12.35; highest median (neckties and cravats), \$16.15; lowest (men's shirts), \$9.65.

Actual week's earnings (7,631 women):

Less than \$10, 33 percent (8 percent, less than \$5); \$15 and over, 33 percent.

Median of the year's earnings (513 women), \$670.

Scheduled weekly hours (7,631 women):

Under 48, 32 percent; 48 and under 52, 61 percent; 52 and over, 6 percent.

Hours worked (4,812 women):

Less than 40, 24 percent; less than 48, 62 percent; 52 and over, 14 percent.

PERSONAL INFORMATION

Age (4,638 women):

Under 20 years, 32 percent; 20 and under 40, 49 percent; 40 and over, 19 percent.

Marital status (4,604 women):

Single, 56 percent; married, 34 percent; other, 10 percent.

Nativity (4,756 women):

Native born, 69 percent; foreign, 31 percent.

Time with the firm (4,736 women):

Less than 1 year, 29 percent; less than 5 years, 74 percent; 10 year or more, 12 percent.

Home interviews with factory workers under 21 years old, 44.

HOME WORKERS

Interviews with home workers, 144.

Type of work done (144 women):

Garters, 37; neckties, 32; embroidery, 28; ribbon ornaments, 17; other, 30.

Average hourly earnings (126 women):

Earnings and hours worked on 209 home-work jobs produced these averages—

Of 173 cases of individual earnings, 100 averaged less than 15 cents an hour, 19 of them less than 5 cents. Only 31 paid 30 cents or more.

Of 36 cases of group earnings, 8 averaged less than 15 cents an hour; only 13 paid 30 cents or more.

Pay-roll data:

Week's earnings were reported for 315 women home workers and year's earnings for 68.

Total factory labor cost and total home-work labor cost, in most cases week by week, for periods of 7 to 12 months, were supplied by 4 firms.

LIGHTING OF FACTORIES

Number of factories surveyed, 32.

Readings taken by foot-candle meter, 935.

Very large proportions of the readings were below the least amount of light approved by authorities.

Part II.—WOMEN EMPLOYED IN FACTORIES

At the time of the survey, Connecticut, though it surpassed all other States in the number of wage earners in felt-hat factories and stood second in the making of corsets, was outranked by several States in most lines of clothing manufacture. When 1931 census figures became available, it was found, however, that in some industries the number of wage earners had increased considerably between 1929 and 1931; in the shirt industry, for example, by 21 percent, in men's furnishing goods by 58 percent, and in women's clothing by 14 percent. In some branches of the sewing trades there had been practically no change in numbers.¹

SCOPE

A total of 106 firms furnished the pay-roll data for hours and wages that form the basis of the report on women in factories. Two-thirds of the firms were in cities on Long Island Sound, in Stamford, Norwalk, Bridgeport, Milford, New Haven, and New London, and almost three-fourths of the employees worked in these cities.

The 10,009 employees of the 106 establishments comprised between 60 and 65 percent of the State's wage earners in the clothing industries—about 60 percent if based on the 1929 figures of the census of manufactures and 64 percent if based on the 1930 census of occupations. The representation of women was especially good, those employed in the factories surveyed constituting more than 80 percent of the State's total as reported by the census of occupations.

The depression had hit all these plants, some harder than others, but the consensus of opinion in the garment factories seemed to be that in the very early fall of 1931 the plants had operated fairly well for a few weeks, although the season had been very much shorter than usual. In rare cases had there been any overtime, and some persons stated that even their best weeks had been on an undertime basis, with numbers employed also far below normal. With these conditions in mind, an especial effort was made by the agents of the Women's Bureau to select as representative data as possible, and the pay-roll records taken were for the week recommended by the firm as having been normal or as nearly full time as any. The date of the week thus selected varied slightly from firm to firm, but the great majority were in September and a few in October.

The firms included in the report have been classified along rather broad lines according to the type of products manufactured. Numbers employed in men's suits and trousers and in women's coats were so small and scattering that for discussion these have been combined and called "tailored garments." Furthermore, to have a representative number, workers on children's dresses, play suits, and underwear form another group. Included in "women's dresses" are silk and wool dresses and silk blouses, and "women's underwear" covers one or two

¹ U. S. Bureau of the Census. Fifteenth Census, 1930: Manufactures, 1929, vol. II, pp. 291, 356-403; *ibid.*, Census of Manufactures: 1931, Wearing Apparel.

firms manufacturing cotton house dresses and aprons. In the last group, men's furnishings, are several smaller establishments making men's overalls, pajamas, athletic underwear, bathrobes, collars, and handkerchiefs. With garters are grouped other types of elastic supporters, and with corsets are classed other allied garments. The manufacture of hats covers both felt and straw products, but felt hats predominate.

TABLE 1.—Number of establishments visited and number of men and women they employed, by branch of industry

Branch of industry	Number of establishments	Number and sex of employees				
		Total	Men	Women		
				Total	Under 16 years	16 years and over
Total.....	1 106	10, 009	2, 234	7, 775	144	7, 631
Tailored garments.....	12	721	200	521	4	517
Children's apparel.....	12	820	43	777	29	748
Women's dresses.....	30	1, 760	232	1, 528	26	1, 502
Women's underwear.....	9	1, 083	103	980	24	956
Corsets.....	6	1, 415	269	1, 146	2	1, 144
Garters.....	5	259	38	221	5	216
Men's shirts.....	8	1, 252	89	1, 163	32	1, 131
Neckties and cravats.....	5	581	55	526	-----	526
Hats.....	6	1, 584	1, 137	447	-----	447
Men's furnishings.....	14	534	68	466	22	444

¹ Details exceed total, as 1 firm had both a hat and a necktie department.

From table 1 it is apparent that with the exception of the hat factories these were chiefly woman-employing plants, more than three-fourths of the wage earners being women. In hat factories men were employed in large numbers in making the felts and shaping the hats, while women were engaged chiefly in trimming. Women predominated even in the tailoring establishments, where men are often in the majority, but their numbers bulked most heavily in dress, underwear, corset, and shirt factories. More than three-fifths of the women were in these four groups. Less than 10 percent in each case were in establishments making garters, hats, neckties, men's furnishings, or tailored garments.

There was a great range in the size of plants; in some there were no more than 20 employees and in others there were several hundred. While the average size of the factories was about 95 employees for the group as a whole, this figure varied widely with the different branches of the industry. In the dress factories the average was just below 60, but in the corset factories it was well over 200 and in the hat factories it was over 250.

STANDARD HOURS

In normal busy times only 16 of these firms had a standard work-day as short as 8 hours. The customary full-time standard for over half the firms was 9 hours or more, two firms reporting a 10-hour day. The standard for the working week also was long. Over 60 firms, or about three-fifths, reported the normal week as more than 48 hours, and 10 had a standard of more than 50 hours.

During the week studied almost two-fifths of the women whose hours worked were reported had been employed 48 hours or more.

That these standards for work hours in Connecticut were longer than those prevailing in the same industry elsewhere may be seen by reference to reports by the United States Bureau of Labor Statistics. In a bulletin, *Trade Agreements in 1927*, this authority makes the statement that the 44-hour week is practically the rule in several trades, and clothing is noted specially.² In the 1931 *Handbook of Labor Statistics* the average full-time hours in 212 representative firms making men's clothing are shown to have been 44.3 in 1930.³ These firms represented 12 large cities and two groups of smaller cities, one group in Pennsylvania and one in New Jersey. Furthermore, the 1929 report of the *Statistics of Labor for Massachusetts* shows that the 42-hour and 44-hour week prevailed in the men's clothing and ladies' garment factories in that State as a result of oral or written agreements.⁴ In tailoring establishments in western Massachusetts the standard was 48 hours.

HOURS WORKED

For more than one-third of the women for whom records of earnings were available in the survey, there was no record of the number of hours worked during the week for which the pay roll was copied. In many plants there was no record of hours for those paid on a piece-work basis, the only time record available being for those paid by the hour. Not only did the completeness of pay-roll records vary from plant to plant, but some branches of the industry had better office records than others. In corset, garter, hat, and necktie factories hours were reported more generally than in the other types of plants. For example, a correlation of hours and earnings could be made for less than one-fourth of the employees in the shirt factories, for less than two-fifths of those in men's furnishings, and for only about one-half of those in children's apparel and women's underwear.

However, records of time worked were available for nearly 5,000 women, almost half of whom worked 44 and less than 52 hours. At the two extremes below and above these points are found many hundred women who had worked unmistakably undertime periods and a few hundred who had worked longer than normal. Over 1,000 women, but less than a fourth of the total, worked less than 40 hours during the week, many of them much less than 40 hours, and this group undoubtedly is representative of the undertime unusual for this season of the year and due in large part to the depression. Every branch of the industry had a group of undertime workers. It is surprising to find at the other extreme that 665 women worked as long as 52 hours or more, in some cases excessively long hours, and in a few cases work had continued even through 7 days of the week. The dress factories were outstandingly responsible for such long hours.

As stated before, an effort was made to select for pay-roll study what had been a busy week in the early fall, a season that year after year shows peak employment. By this uniform policy of selecting for each firm a week showing good production, conditions as nearly normal as possible are described here.

² U. S. Bureau of Labor Statistics. *Trade Agreements in 1927*. Bul. 468, pp. 3-4.

³ *Ibid.* *Handbook of Labor Statistics*, 1931 edition. Bul. 541, p. 789.

⁴ Massachusetts Department of Labor and Industries. *Time Rates of Wages and Hours of Labor in Massachusetts, 1929*, pp. 4, 20-21. (Pt. II of the annual report on the statistics of labor for the year ending Nov. 30, 1929.)

EARNINGS

Owing largely to the method of payment, piecework prevailing and hourly rates being common, there appears in table 2 a consistent rise in earnings as the number of hours worked during the week increases. This is true not only for the total group but in each industry group where a comparison is possible. For example, the median for those employed in women's dress factories increases steadily from \$4.70 for women working less than 36 hours to \$16.70 for those working more than 55, most of the employees being paid by the hour. For the largest groups of women in the three classes that together cover 40 and less than 52 hours, the medians of the week's earnings ranged from \$13.60 to \$14.10—not high, to say the least, for although half the women in each group were earning more than the specified median, the other half were earning less. And these three hour groups may in all fairness be regarded as representative of the best conditions prevailing in the wearing-apparel industries in Connecticut in the fall season of 1931.

TABLE 2.—Median week's earnings and hours worked, by branch of industry

[Median not computed where number is less than 50]

Branch of industry	Median week's earnings of 7,631 women									Hours not reported
	Total	Hours worked							Over 55	
		Total reported	Less than 36	36, less than 40	40, less than 44	44, less than 48	48, less than 52	52 to 55		
Total:										
Women	7,631	4,812	830	316	697	1,120	1,184	450	215	2,819
Median	\$12.35	\$12.95	\$8.45	\$11.45	\$13.60	\$13.80	\$14.10	\$15.00	\$16.35	\$11.30
Tailored garments:										
Women	517	329	32	11	19	47	93	109	18	188
Median	\$13.20	\$13.30					\$8.20	\$15.40		\$13.05
Children's apparel:										
Women	748	395	44	12	30	93	160	39	17	353
Median	\$11.15	\$10.05				\$9.70	\$12.30			\$12.55
Women's dresses:										
Women	1,502	1,098	140	42	91	192	308	157	168	404
Median	\$14.50	\$14.15	\$4.70		\$13.55	\$15.15	\$15.75	\$16.40	\$16.90	\$15.50
Women's underwear:										
Women	956	498	86	26	22	65	289	8	2	458
Median	\$9.75	\$10.85	\$4.75			\$10.30	\$12.50			\$8.65
Corsets:										
Women	1,144	1,046	151	100	370	243	181	1		98
Median	\$13.90	\$14.10	\$9.60	\$11.85	\$14.55	\$15.70	\$15.85			\$11.65
Garters:										
Women	216	203	29	18	25	119	8	4		13
Median	\$13.65	\$13.55				\$14.40				
Men's shirts:										
Women	1,131	257	37	24	40	116	21	14	5	874
Median	\$9.65	\$9.50				\$10.75				\$9.75
Neckties and cravats:										
Women	526	443	109	27	49	159	61	38		83
Median	\$16.15	\$15.60	\$12.85			\$14.10	\$20.20			\$18.70
Hats:										
Women	447	369	177	53	31	78	19	7	4	78
Median	\$14.75	\$13.85	\$11.60	\$14.50		\$20.35				\$16.85
Men's furnishings:										
Women	444	174	25	3	20	8	44	73	1	270
Median	\$10.05	\$7.35						\$11.10		\$11.15

The amounts of the medians vary with the different branches of the trade. In tailored garments and women's dresses—each, and especially the latter, with outstandingly long hours—the highest medians fall in the groups working 52 hours or more, but the highest medians in these groups are much less than the \$20.35 for employees in hat factories working 44 and less than 48 hours or the \$20.20 for necktie employees working 48 and less than 52 hours. And, when the difference in time worked is taken into consideration, the median \$16.90 for over 55 hours in dresses is not enough in excess of the \$15.85 for the corset group with the highest hours (48 and less than 52) to compensate for the difference in hour standards.

These two lines of employment—dresses and corsets—afford an interesting example of differences in hour standards. In corsets the largest group of women worked 40 and under 44 hours and had median earnings of \$14.55. In dresses the largest number were in the group 8 hours longer than this, yet their median was only \$1.20 higher. Each of the longer-hour groups shows this striking difference.

The medians for the most representative groups, working 44 and less than 52 hours, were decidedly lower in other branches than in the two just discussed: Garters, \$14.40 for the 44–48-hour group; women's underwear, \$12.50 for the 48–52-hour group; children's apparel \$12.30 for the 48–52-hour group; and men's shirts, \$10.75 for the 44–48-hour group.

Table 2 shows also the median of the earnings of all the women involved in the study, regardless of how long they worked during the week. Of the total number, almost 8,000 women, half had earned less and half had earned more than \$12.35. Dividing the group into those for whom hours worked during the week were reported and those for whom they were not reported, the medians are respectively \$12.95 and \$11.30. At first glance, the lower median in hours not reported is surprising, as in 6 of the 9 branches of industry with medians in both columns the figure for hours not reported is larger than that for hours reported. The total is, of course, overweighted by the largest groups—shirts and women's underwear—where the wages are low.

In two branches of the sewing trades listed—men's shirts and furnishings—the median for the total reporting hours worked was below \$10 and in children's apparel it barely exceeded \$10. The median for the necktie workers was highest (\$15.60) and there was only about \$1.50 difference between this and the medians next highest, that is, in women's dresses (\$14.15) and in corsets (\$14.10).

Table 3 correlates the hours worked and the median earnings by the occupations of the women instead of the products on which they were employed.

Power sewing-machine operators rank first in point of numbers, constituting more than three-fifths of all the workers. Hand sewers rank next, with over a thousand women. Hand sewing includes an occasional baster but is chiefly the finishing operations, such as tailoring, embroidery, and sewing on buttons. Trimming in hat factories and slip stitching in necktie establishments are distinctive and important hand-sewing jobs. Pressers or ironers also are numerically important. In most cases they used hand irons, but occasionally on heavy garments and wool dresses they were operating power presses. The few colored women found during the survey were practically all employed in the pressing departments.

WOMEN IN THE SEWING TRADES OF CONNECTICUT

TABLE 3.—Median week's earnings and hours worked, by occupation

[Median not computed where number is less than 50]

Occupation	Median week's earnings of 7,631 women									
	Total	Hours worked								Hours not reported
		Total re-reported	Less than 36	36, less than 40	40, less than 44	44, less than 48	48, less than 52	52 to 55	Over 55	
Total:										
Women.....	7,631	4,812	830	316	697	1,120	1,184	450	215	2,819
Median.....	\$12.35	\$12.95	\$8.45	\$11.45	\$13.60	\$13.80	\$14.10	\$15.00	\$16.35	\$11.30
Power sewing-machine operator:										
Women.....	4,735	2,677	451	142	435	511	831	256	51	2,058
Median.....	\$13.00	\$13.90	\$9.60	\$11.60	\$14.35	\$15.05	\$14.60	\$15.95	\$17.70	\$11.80
Other power-machine operator:										
Women.....	63	61	3	6	11	29	5	5	2	2
Median.....	\$13.55	\$13.45	-----	-----	-----	-----	-----	-----	-----	-----
Hand sewer:										
Women.....	1,056	818	192	67	70	204	95	99	91	238
Median.....	\$12.65	\$12.60	\$8.80	\$11.10	\$12.90	\$15.35	\$12.95	\$14.30	\$16.90	\$12.80
Cleaner:										
Women.....	327	196	29	3	15	38	49	31	31	131
Median.....	\$7.70	\$7.95	-----	-----	-----	-----	-----	-----	-----	\$7.20
Miscellaneous hand worker:										
Women.....	210	183	39	25	22	56	33	3	5	27
Median.....	\$11.55	\$11.50	-----	-----	-----	\$10.70	-----	-----	-----	-----
Examiner:										
Women.....	320	239	34	19	56	35	67	20	8	81
Median.....	\$11.30	\$12.50	-----	-----	\$12.45	-----	\$12.45	-----	-----	\$7.15
Presser:										
Women.....	440	214	28	18	28	53	49	16	22	226
Median.....	\$11.65	\$13.30	-----	-----	-----	\$14.10	-----	-----	-----	\$10.15
Packer:										
Women.....	176	147	14	11	15	70	24	13	-----	29
Median.....	\$11.65	\$11.95	-----	-----	-----	\$12.40	-----	-----	-----	-----
Other: ¹										
Women.....	57	54	5	1	6	19	13	6	4	3
Median.....	\$17.50	\$17.65	-----	-----	-----	-----	-----	-----	-----	-----
Occupation not reported:										
Women.....	247	223	35	24	39	105	18	1	1	24
Median.....	\$9.45	\$9.70	-----	-----	-----	\$10.85	-----	-----	-----	-----

¹ Includes forelady, instructor, stock clerk, sample maker, etc.

The term cleaners, as used in the garment trades, refers to the workers who clip the threads, trim uneven edges, and give the final touches after sewing is finished, preparatory to pressing and packing. Floor girls sort and match stock—they are called stock chasers in one or two plants—and make themselves generally useful in keeping the work moving. So frequently did the work of cleaners and floor girls overlap that they have been put in the same category here. The term packers covers the usual types of jobs found in the packing departments, such as pin and fold, stamp, wrap and box. The group "other machine operators" covers a small number of women usually running power pinking machines or small presses for eyeleting or cutting or shaping operations. The minor jobs classified as other hand work comprise turning collars and belts, ripping, stringing buckles, hand pinking, marking, cutting lace—what might well be called odd jobs.

In the last occupational group, numerically unimportant and called "other," are supervisors, foreladies, instructors, sample makers, fitters, and stock clerks.

The line of demarcation is not always clearly defined among the more unskilled jobs; inspectors, examiners, or sorters may perform some of the work done by cleaners, and cleaners may assist in minor packing operations, but in the classification for this table an effort was made to follow the grouping in practice in each plant and in case of very general workers to allocate them according to their major type of work.

Regarding 40 and less than 52 hours as the most normal and representative, the highest median here is found to be the \$15.35 for hand sewers, followed by \$15.05 for power-machine sewers, and \$14.10 for pressers, all working 44 and under 48 hours. The high ranking of these hand sewers probably is influenced by the rates paid trimmers in hat factories and slipstitchers in necktie factories as well as those employed on dresses.

It is evident from the table that the largest groups of women with long hours were sewers, either power-machine operators or hand sewers. Proportionately, the final operations of hand sewing, cleaning, and pressing show extensive overtime, many women working as much as 60 or 65 hours. Two women had worked more than 70 hours in the week recorded. And such overtime was practiced in spite of the fact that the maximum hours allowed by law were 10 daily and 55 weekly. Connecticut had then a much lower standard than those of Massachusetts, where a 9-hour day and a 48-hour week had been established by law, and New York, which had an 8-hour day and a 48-hour week. That the higher medians do not always accompany the longer hours is shown by comparing the 44-and-under-48-hour group with the one next higher in the power-machine sewing and hand sewing. In the latter the difference in the medians in favor of those working the shorter hours is as much as \$2.40. The median of the pressers also shows a decline. Unpublished figures give a median of \$12.85 for those working 48 and under 52 hours, considerably lower than the \$14.10 for those working 44 and under 48 hours.

DISTRIBUTION OF WEEK'S EARNINGS

In the preceding pages week's earnings in the various branches of the industry are given in the form of medians, so that the important relation of hours worked may be shown. To acquaint the reader with the actual amounts paid to the workers and to make clear the large proportion of women who were paid less than \$10 (33.1 percent), and the small proportion paid \$20 or more (12 percent), the earnings distribution is shown by branch of industry in table 4.

Of the 569 women with earnings of less than \$5, two-fifths were paid even less than \$3. Men's furnishings, with one of the lowest medians, had paid practically one-half its women less than \$10 and had paid not far from one-fifth (about 18 percent) less than \$5. Men's shirts and women's underwear had paid more than half their women less than \$10. In children's apparel, women's underwear, and men's furnishings, more than 5 percent of the women had been paid even less than \$3. Women's dresses, hats, and neckties and cravats made the best showing as regards amounts of \$25 and over, having paid at least \$25 to 6.9 percent, 8.1 percent, and 11.6 percent, respectively, of their women employees.

The extent to which a shortening of hours was responsible for low earnings may be seen in table 5, which gives earnings and hours worked for 4,812 women in all branches of the industry combined.

This table includes 307 of the 569 women who had earned less than \$5. Almost four-fifths (78.8 percent) of this group had worked less than 40 hours, but 11.4 percent had worked 48 hours or more, 1 woman exceeding 55 hours.

Details not given in the table show that 4 women who had worked 50 and less than 54 hours had earned \$2 and under \$3 for the week. These women were employed in men's furnishings establishments.

TABLE 4.—*Earnings distribution, by branch of industry*

Earnings group	7,631 women with week's earnings reported										
	Total	Tailored garments	Children's apparel	Women's dresses	Women's underwear	Corsets	Garters	Men's shirts	Neckties and cravats	Hats	Men's furnishings
Number of women.....	7,631	517	748	1,502	956	1,144	216	1,131	526	447	444
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median earnings.....	\$12.35	\$13.20	\$11.15	\$14.50	\$9.75	\$13.90	\$13.65	\$9.65	\$16.15	\$14.75	\$10.05
Less than \$5:											
Number.....	569	19	76	114	125	18	1	118	10	9	79
Percent.....	7.5	3.7	10.2	7.6	13.1	1.6	0.5	10.4	1.9	2.0	17.8
\$5, less than \$10:											
Number.....	1,958	128	232	272	372	200	23	485	57	48	141
Percent.....	25.7	24.8	31.0	18.1	38.9	17.5	10.6	42.9	10.8	10.7	31.8
\$10, less than \$15:											
Number.....	2,613	181	257	405	317	459	111	414	155	172	142
Percent.....	34.2	35.0	34.4	27.0	33.2	40.1	51.4	36.6	29.5	38.5	32.0
\$15, less than \$20:											
Number.....	1,574	136	127	398	100	343	50	100	150	112	58
Percent.....	20.6	26.3	17.0	26.5	10.5	30.0	23.1	8.8	28.5	25.1	13.1
\$20, less than \$25:											
Number.....	675	43	46	209	36	113	29	14	93	70	22
Percent.....	8.8	8.3	6.1	13.9	3.8	9.9	13.4	1.2	17.7	15.7	5.0
\$25, less than \$30:											
Number.....	181	10	8	73	6	9	2	---	47	24	2
Percent.....	2.4	1.9	1.1	4.9	0.6	0.8	0.9	---	8.9	5.4	0.5
\$30, less than \$35:											
Number.....	47	---	2	21	---	2	---	---	14	8	---
Percent.....	0.6	---	0.3	1.4	---	0.2	---	---	2.7	1.8	---
\$35, less than \$40:											
Number.....	11	---	---	8	---	---	---	---	---	3	---
Percent.....	0.1	---	---	0.5	---	---	---	---	---	0.7	---
\$40 and more:											
Number.....	3	---	---	2	---	---	---	---	---	1	---
Percent.....	(¹)	---	---	0.1	---	---	---	---	---	0.2	---

¹ Less than 0.05 percent.

Eight who had worked 48 hours or longer, also in men's furnishings, had earned \$3 and less than \$4. Of the 23 who had worked 48 hours or more and had received \$4 and under \$5, 9 were in men's furnishings firms, 8 in women's dress factories, and the remainder in scattering branches of the trade.

TABLE 5.—*Earnings distribution, by hours worked*

Earnings group	4,812 women with hours worked reported							
	All women	Less than 36 hours	36, less than 40 hours	40, less than 44 hours	44, less than 48 hours	48, less than 52 hours	52, including 55 hours	Over 55 hours
Total	4,812	830	316	697	1,120	1,184	450	215
Percent distribution	100.0	17.2	6.6	14.5	23.3	24.6	9.4	4.5
Median earnings	\$12.95	\$8.45	\$11.45	\$13.60	\$13.80	\$14.10	\$15.00	\$16.35
Less than \$5:								
Number	307	235	7	22	8	15	19	1
Percent distribution	100.0	76.5	2.3	7.2	2.6	4.9	6.2	0.3
\$5, less than \$10:								
Number	1,077	263	97	128	208	260	84	37
Percent distribution	100.0	24.4	9.0	11.9	19.3	24.1	7.8	3.4
\$10, less than \$15:								
Number	1,690	255	138	287	447	391	122	50
Percent distribution	100.0	15.1	8.2	17.0	26.4	23.1	7.2	3.0
\$15, less than \$20:								
Number	1,084	65	52	198	266	310	106	87
Percent distribution	100.0	6.0	4.8	18.3	24.5	28.6	9.8	8.0
\$20, less than \$25:								
Number	489	12	16	50	154	161	70	26
Percent distribution	100.0	2.5	3.3	10.2	31.5	32.9	14.3	5.3
\$25, less than \$30:								
Number	132		5	6	36	37	37	11
Percent distribution	100.0		3.8	4.5	27.3	28.0	28.0	8.3
\$30, less than \$35:								
Number	30		1	5		10	12	2
Percent distribution	(1)							
\$35, less than \$40:								
Number	3			1	1			1
Percent distribution	(1)							

¹ Not computed; base less than 50.

A decline in earnings in the shirt industry of Connecticut between 1931 and 1933 is noted in the report of a Government survey of the shirt industry in a number of States in 1933, as follows:

* * * Between the autumn of 1931 and the early summer of 1933, when the present study was made, a period of 1½ years, a striking decline took place in the earnings of women shirt workers in Connecticut. The earlier survey [by the Women's Bureau] showed median weekly earnings of \$9.65 and the later survey a median of \$7.70. During this period the percentage of women workers earning less than \$6 a week increased from 16 to 28; the percentage earning less than \$10 a week rose from 53 to 74; the percentage earning \$12 or more was 29 in 1931 but only 13 in 1933. The 1933 earnings include wage increases of 5 percent granted by several factories in agreements reached with the Amalgamated Clothing Workers.⁵

YEAR'S EARNINGS

As indications of the standards of living that women workers must set up for themselves are the amounts contained in their weekly pay envelopes. Of even greater concern to these women and to all interested in their welfare are figures showing earnings for a longer period, preferably a year. Year's earnings are not, as some persons assume, 52 times the week's earnings, for in most cases deductions are made for lost time due to any cause.

Earnings for the year from the fall of 1930 to the fall of 1931 were ascertained for 513 women in this study whose names appeared at both the first and the last of the 52-week period, and for 89 women

⁵ U. S. Department of Labor. Labor in the Shirt Industry in June 1933. Mimeographed. p. 21.

in the necktie industry whose 52-week record was for the calendar year 1930. The latter have been tabulated separately. Employers helped in the selection of these workers. The women included represent the most dependable among the workers, probably favored for that reason and at slack times given what little work there was. In some plants there were no employees who could be included in such a group.

The median of the year's earnings of these 513 women was \$670, the largest group, 106, earning \$600 and under \$700. As many as 85 were in the group next above, \$700 and under \$800, and 70 were in the group below, \$500 and under \$600. Fifty-four women earned \$1,000 and over, but 53 had earnings below \$400.

TABLE 6.—Year's earnings, by number of weeks worked

Year's earnings	Women with year's earnings reported	485 women with weeks worked reported					
		Total	Less than 40 weeks	40, less than 44 weeks	44, less than 48 weeks	48, less than 52 weeks	52 weeks
Total.....	513	485	61	37	71	230	86
Percent distribution.....		100.00	12.6	7.6	14.6	47.4	17.7
Median earnings.....	\$670	\$665	\$405	(1)	\$655	\$690	\$775
Less than \$300.....	18	18	13	-----	1	4	-----
\$300, less than \$400.....	35	35	17	4	7	6	1
\$400, less than \$500.....	63	61	11	5	16	24	5
\$500, less than \$600.....	70	67	9	12	7	31	8
\$600, less than \$700.....	106	101	6	9	12	55	19
\$700, less than \$800.....	85	80	4	1	14	49	12
\$800, less than \$900.....	47	47	-----	2	7	24	14
\$900, less than \$1,000.....	35	29	-----	3	6	15	5
\$1,000, less than \$1,100.....	22	19	-----	1	-----	13	9
\$1,100, less than \$1,200.....	17	15	1	-----	-----	5	9
\$1,200 and more.....	15	13	-----	-----	1	4	8

¹ Not computed; base less than 50.

Of the 485 women with year's earnings and weeks worked reported, 65.2 percent—almost two-thirds—had worked in at least 48 weeks.

The range of earnings was from less than \$300 to \$1,200 and more. The medians varied with time worked from \$405 for the 61 women who had worked less than 40 weeks, to \$710 for the 316 who had worked 48 weeks or more. The 86 women who had worked in each of the 52 weeks had a median of \$775, more than 30 percent having averaged from \$75 to \$100 or more a month.

Unpublished figures show that the corset, the necktie and cravat, and the dress industry, with between 50 and 85 women who worked at least 44 weeks, had medians of \$730 to \$790, while for 52 women so reported in the tailored garment industry the median was only \$660.

For the 89 women in the necktie trade whose 52-week earnings were for the year 1930, average hourly earnings have been computed; the range was from 24 to 68 cents, with a median of 49 cents. Only 14 women had average hourly earnings of less than 40 cents; for 33 the average was 40 to 49 cents, and for 34 it was 50 to 59 cents. Eight averaged 60 cents or more.

For these women the weeks worked were not reported, but 85 of them were known to have been on the pay roll at the beginning and the end of the year. The median of the average weekly earnings of this group of women, based on 52 weeks, was the high figure of \$19.50.

Of the 485 women with number of weeks worked reported, more than one-sixth (17.7 percent) had lost no full weeks. Of the 399 who had lost some time, almost two-fifths had lost not more than 2 weeks. Three-tenths had lost from 3 to 6 weeks; a little more than one-eighth from 7 to 10 weeks; 4.8 percent from 11 to 14 weeks; and 7.5 percent from 15 to 18 weeks. As many as 5.5 percent had lost at least 19 weeks, 4 of them 35 weeks and more.

The largest proportion of any group of women who lost no full weeks from work was that of the women making corsets. Almost one-half of these reported no weeks lost. More than one-third of those working on women's underwear and on men's furnishings had lost no time, also. Proportions of women working on other products who lost no time were less than these.

Of the 48 women who worked on neckties and cravats and who had lost some weeks during the year, 19 had been unemployed for 5 to 8 weeks. In the other groups, proportions of women who lost as much time as this ranged from one-third of those working on men's furnishings to about 1 in 15 of those working on men's shirts.

Eighteen of the 99 women making women's dresses had been out of work for 9 to 12 weeks. Fourteen of the 31 women employed on men's shirts had lost 16 weeks or more.

FLUCTUATION OF EMPLOYMENT AND OF EARNINGS

Data were available in 14 firms regarding the numbers of women employed and the amounts paid to them, week by week, in a period of 1 year or approximately a year. In addition to these, data regarding home-work and factory labor costs were secured from four factories (see part III).

The per capita weekly earnings have been computed for each of the three branches of the needle trades for which data regarding employment and earnings were available, namely, women's dresses, children's apparel, and men's furnishings. With the weekly average for the year as a base, the indexes of employment and earnings for each week have been computed.

Women's dresses

The seven women's dress firms reporting employment and pay rolls for 52 weeks had a weekly average of 374 women workers. The pay rolls yielded per capita earnings that averaged, for the 52 weeks, \$14.71. It is the fluctuation in employment and per capita earnings that is illustrated in the accompanying chart.

Reference to the chart shows that employment was steadiest in March and April, and that it fell precipitately during two periods of the year: (1) From an index of 121 (representing 453 women) in the week of September 27 to 63 (235 women) in that of November 15; and (2) from an index of 133 (representing 499 women) in the week of May 9 to 44 (163 women) in that of July 18.

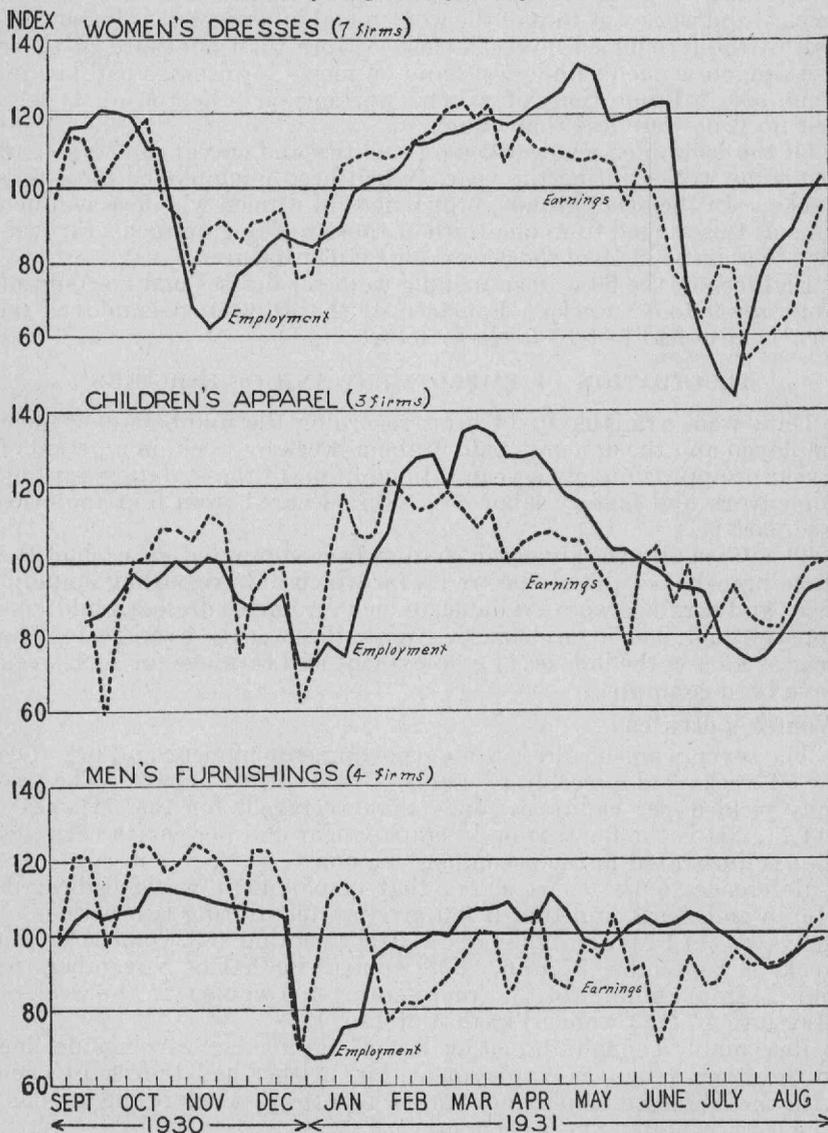
Reasonably enough, in neither lay-off did average earnings decline to the same extent as employment, but neither had they kept pace with the increased employment in the months just before the lay-offs. The lag is especially noticeable in April, May, and two-thirds of June, when average earnings were declining though employment was well maintained on the whole. The chart shows clearly the seasonality of the industry and the greater fluctuation in earnings than in employment.

Children's apparel

Fluctuation in employment in the three children's apparel firms that supplied numbers of women and amounts of pay rolls for 50 weeks was somewhat less than the fluctuation in the women's dress factories

FLUCTUATION IN EMPLOYMENT AND IN PER CAPITA WEEKLY EARNINGS, 14 FIRMS SUPPLYING A YEAR'S FIGURES

[Average for the year = 100]



just described. The women employees averaged 102 in number and the per capita weekly earnings averaged \$11.22.

Employment was steadiest from the second week in October to the week of November 22.

The chart shows no very drastic lay-offs in the three firms combined. Employment was lowest at the close of 1930, but it picked up about the end of January, and the increase to the peak on March 21 was practically unbroken. This was followed by a gradual decline, to a low in July about the same as that at the beginning of the year.

Average earnings fluctuated more violently than did those in the women's dress factories. They reached a maximum in the first week of February but were on the decline 6 weeks later when employment was at a maximum. For 27 weeks, at various times, the earnings index was the higher.

Men's furnishings

In the miscellaneous group of men's furnishings four establishments supplied women's employment and pay-roll figures for 52 weeks. The women averaged 119 in number and their per capita weekly earnings averaged \$13.02.

Employment was steadiest from the middle of October through the week of December 20, there being only slight reductions in the force until Christmas week, when one-third of the women lost their employment. It picked up again in January and was above average by the middle of March. It declined in midsummer but was almost average when the 52-week record closed, August 29.

Per capita earnings generally were well above the year's average up to the close of 1930 but were considerably below average in most weeks of 1931. Their fluctuation was much greater than that of employment.

MIGRATION OF INDUSTRY

Everywhere there was considerable interest expressed in the movement of factories from other districts into Connecticut. Quoting from a pamphlet issued by the Connecticut Chamber of Commerce in 1929 on the migration of industry:⁶ "The most frequently occurring reason for plant location in this region was advantageous labor conditions. Available factory building was second in rank and was the most important factor affecting relocation to this area. Practically 86 percent of the movement to this region was from the Middle Atlantic States. The principal trend was from New York State to Connecticut." However, this relocation of factories had about ceased during the depression of 1931, according to officials of the New Haven Chamber of Commerce, who said migration was practically at a standstill.

In this connection it was stated by one manager that the labor cost in the Connecticut city in which he was operating was 20 percent below the cost in New York City. Even allowing for the expense of shipping and of premises and overhead, the advantage still was 10 or 12 percent.

Few of the firms supplying records for this survey were recent arrivals in Connecticut, and a tabulation has been made of three that had located in the State in 1931. These are concerns too small for the drawing of general conclusions, and they are not typical of the average plant visited during the survey, but they are described here as illustrating a tendency in so-called "runaway shops" to exploit the very young to the disadvantage of the mature woman wage earner dependent for a living on the same type of job. In these factories,

⁶ Connecticut Chamber of Commerce. *The Migration of Industry*. An address by William J. Barrett delivered at thirtieth annual meeting at Hartford, May 23, 1929.

only 2 of the 105 employees reporting age were as much as 20 years old; one-sixth were not yet 16 and the majority were 16 and under 18, altogether a very youthful group of wage earners, to say the least. More than three-fourths of the 102 for whom the hours worked were reported had worked at least 40 hours, one-half had worked as long as 50 hours. The majority were operating power-sewing machines, by no means a child's job. The median of the week's earnings fell between \$4 and \$5 for the total group for whom hours worked were reported, and for those who had worked more than 48 hours it fell between \$5 and \$6, shockingly low wages even when allowance is made for the youth and inexperience of the workers.

The manager of one of these firms was somewhat apologetic for his low wage scale and stated that, when business warranted, it was his purpose to work up to a \$10 to \$12 wage for girls.

CONTRACT SHOPS

Fifty-seven of the factories in this survey were described as contract shops; that is, the materials were not owned by the manager of the plant in which they were being made into garments. Almost invariably the materials were cut by the owner in New York and sent to the Connecticut contractor for making up, the latter shipping back the finished articles and having no responsibility for their sale.

Most of the contract shops were operating on a hand-to-mouth scale. Frequently one of the partners spent his time hustling for contracts among the New York firms while the other partner pushed production in the factory. One day they might be making up one style and the next day a style quite different. Many dress factories were making daily shipments to meet the exacting demands of New York jobbers. The contracts, especially in dresses, were limited in number and invariably were rush orders. One week there might be so many orders that the entire plant worked overtime, and the next week there might be no orders and the shop would be practically closed.

TABLE 7.—*Number of contract shops and number of regular factories, by branch of industry*

Branch of industry	Total	Contract shops	Regular factories
Total.....	106	57	49
Tailored garments.....	12	10	2
Children's apparel.....	12	5	7
Women's dresses.....	30	26	4
Women's underwear.....	9	2	7
Corsets.....	6	—	6
Garters.....	5	1	4
Men's shirts.....	8	6	2
Neckties and cravats.....	5	—	5
Hats.....	6	—	6
Men's furnishings.....	14	7	7

¹ Details exceed total, as 1 firm had both a hat and a necktie department.

No contract shops were making corsets, neckties, or hats; but, in contrast to these, 26 of the 30 dress factories were contract shops, as were a majority of the tailoring and shirt establishments. There were almost 900 more women employed in regular factories than in contract shops. Hours worked during the week were reported in

more cases of regular factories than of contract shops, though in both types of plants the hours of a large proportion of the workers were not obtained. That the trend of wages was higher in regular factories than in contract shops is indicated by the following:

Type of firm	Number of firms	Worked less than 40 hours		Worked 40 hours or more		Hours not reported	
		Number of women	Median earnings	Number of women	Median earnings	Number of women	Median earnings
All firms.....	106	1, 146	\$9. 65	3, 666	\$14. 05	2, 819	\$11. 30
Regular factory.....	49	854	10. 95	2, 089	14. 75	1, 306	10. 80
Contract shop.....	57	292	5. 80	1, 577	12. 75	1, 513	11. 70

Only for the women whose hours worked were not reported were the median earnings in contract shops higher than those in regular factories. Where the hours were less than 40, the median for regular factories was more than \$5 higher than that for contract shops; where the hours were as much as 40, the difference was \$2.

TABLE 8.—Median of week's earnings of women who worked 40 hours and longer in contract shops and in regular factories, by branch of industry

Branch of industry	Total		Contract shops		Regular factories	
	Number of women	Median earnings	Number of women	Median earnings	Number of women	Median earnings
Total.....	3, 666	\$14. 05	1, 577	\$12. 75	2, 089	\$14. 75
Tailored garments... ..	286	13. 75	226	12. 65	60	15. 20
Children's apparel.....	339	10. 85	237	10. 65	102	11. 10
Women's dresses.....	916	15. 60	835	15. 55	81	16. 15
Women's underwear.....	386	12. 00	25	(¹)	361	12. 05
Corsets.....	795	15. 25	-----	-----	795	15. 25
Garters.....	156	14. 15	-----	-----	156	14. 15
Men's shirts.....	196	10. 20	194	10. 15	2	(¹)
Neckties and cravats.....	307	16. 80	-----	-----	307	16. 80
Hats.....	139	19. 65	-----	-----	139	19. 65
Men's furnishings.....	146	8. 65	60	5. 65	86	11. 90

¹ Not computed; base less than 50.

An analysis of the table showing the earnings of women who worked as much as 40 hours in the various branches of the sewing trades makes it clear that in the four branches in which comparisons are possible the medians in the regular factories are higher than those in the contract shops. Median earnings in regular factories making men's furnishings were twice as high as in contract shops. Tailoring paid very much better in the regular factories than in the shops, but in children's apparel and women's dresses the advantage was not great. While 4 of the 5 medians computed for contract shops were far below \$15, 5 of the 9 computed for regular factories were between \$15 and \$20. Medians were highest in hat, necktie, and dress factories and lowest in children's apparel, men's furnishings, and women's underwear.

Not only was the general trend of wages better in the regular factories than in the contract shops, but there was a better standard of hours in the regular factories. More than two-thirds of the women who worked 52 hours or longer were employed in making tailored garments and women's dresses, where shops predominated. Further,

of the 450 women who worked from 52 to 55 hours during the week, 310, or 68.9 percent, were employed in contract shops; and of the 215 who worked more than 55 hours, practically four-fifths (78.6 percent) were in such shops.

METHOD OF PAYMENT

In all branches of the industry but dresses and garters the majority of the employees, varying from 60 to 95 percent, were paid on a piecework basis, and even in garters the timework and piecework systems were in vogue in practically a 50-50 ratio.

The average dress shop was a small affair, usually occupying an obscure loft in a business block. Over three-fifths of the women employed in these shops were paid on a time-rate basis, largely by the hour. In no other branch of the industry was there anything like so high a percentage of time workers. The contractors said it was almost necessary to pay on a time basis, as styles changed so often that it would take all one person's time to adjust rates. The managers themselves were too busy rushing the work through to be bothered with piece rates, and they felt that it would be a waste of time and money to attempt to keep such rates adjusted fairly. On the whole, they thought hourly rates satisfactory; the girls were satisfied, and the quality of the work was better than where the piecework method of payment was used.

In greatest contrast to the prevalence of time rates in the dress shops was the piece-rate system in shirt factories, where the pay of 95 percent of the women depended solely on their output. In the latter case the greater standardization of the product made it possible to establish a scale of prices for the various operations and qualities that could be maintained for months at a time. Furthermore, in the shirt factories, as in some other clothing plants, each operator performed only one operation; one girl did nothing but close the side seams, another set in sleeves, and so on until the garment was completed.

The division of labor just described, called "section work", was not the practice throughout the women's dress factories. In some of these it was customary for many of the most skilled operators to stitch the entire dress. Copying the pattern dress, these women made the complete garment, from the first closing seam to the finishing stitching. During the fall a two-piece woolen dress, jacket and skirt, was a common style in several of the shops, and an experienced operator was reported to have stitched up seven such garments a day. The rate for stitching was 40 to 45 cents a dress. Such garments were wholesaling at \$6.75 apiece and the retail price was frequently \$10.75. Exclusive of cutting, the labor cost of making this style garment was from 54 to 59 cents: 40 to 45 cents—depending on style—for stitching, 8 cents for finishing, and 6 cents for pressing.

In a shop making cheap dresses for children—a model that retailed at about a dollar—the rate for sewing was just over 11 cents and that for pressing was less than 2 cents.

AGES OF WOMEN

Almost 4,800 women reported their ages on the personal information cards distributed in the factory at the time of the inspection. On the whole they were a very young group, more than one-half being not

yet 25 and more than one-third being less than 20. Practically 1 in 5 were not yet 18, and as many as 155 (3.2 percent) were less than 16. The women under 18 considerably outnumbered those who were 40 or more.

TABLE 9.—Age distribution, by occupation

Occupation	4,793 women who reported age						
	Number reporting	Under 16 years	16, under 18 years	18, under 20 years	20, under 25 years	25, under 40 years	40 years and over
Total—Number	4,793	155	793	708	945	1,324	868
Percent	100.0	3.2	16.5	14.8	19.7	27.6	18.1
Power sewing-machine operator	2,929	2.0	16.2	15.8	21.6	28.6	15.7
Other power-machine operator	51		7.8	25.5	25.5	15.7	25.5
Hand sewer	702	3.0	11.3	9.3	18.7	30.6	27.2
Cleaner	165	17.6	35.8	9.1	9.7	11.5	16.4
Miscellaneous hand worker	190	4.7	22.1	19.5	15.8	14.2	23.7
Examiner	259	7.7	21.6	12.0	14.3	19.3	25.1
Presser	276	1.8	13.0	13.0	14.9	40.2	17.0
Packer	136	8.1	27.9	25.7	16.2	14.0	8.1
Other ¹	66		4.5	12.1	25.8	45.5	12.1
Occupation not reported	² 19						

¹ Includes forelady, instructor, stock clerk, sample maker, etc.
² Percents not computed; base less than 50.

The youngest group were the cleaners (a most unskilled job), more than half of whom were under 18. Among the examiners or inspectors nearly three-tenths were not yet 18. Most of the girls engaged in packing operations also were young, three-fifths being under 20 years. It is surprising to find these young girls in the more skilled jobs also; yet 100 (14.2 percent) of the hand sewers and 533 (18.2 percent) of the sewing-machine operators were under 18, as many as 58 of the latter being less than 16.

However, a large proportion of the sewing-machine operators (44 percent) were at least 25, as were more than half (58 percent) of the hand-sewing group, another skilled operation. Naturally, the majority of those in supervisory positions were in these older groups.

Irrespective of the number of hours worked during the week, wages increased consistently as the ages of the women increased up to 40 years.

Age	Number of women with age and earnings reported	Median of the week's earnings	Age	Number of women with age and earnings reported	Median of the week's earnings
Under 16 years	112	\$6.15	20, under 25 years	830	\$14.55
16, under 18 years	663	9.40	25, under 40 years	1,145	14.75
18, under 20 years	613	12.35	40 years and over	758	13.65

Although, as a whole, women 25 and under 40 years of age had somewhat the highest median, in some of the industry subdivisions the median for women not yet 25 was higher than that of the older women, and in garters the highest median was for the oldest group, followed closely by the figure for the group 20 and under 25. In men's shirts the peak median (\$11.75) was that of women of 18 and

under 20 years, though that for 25 and under 40 was only 5 cents less; in three other branches of the industry, namely, children's apparel, women's underwear, and neckties, the peaks were reached by the group 20 and under 25 years of age. However, women who were employed on the products paying the higher wage scale did not reach the peak until the 25-and-under-40-year group, the only exception being those in neckties, whose medians for 20 and under 25 years and 25 and under 40 years were alike.

Minors under 16.—It is customary for the Women's Bureau to confine its surveys to women at least 16 years of age, and in the first establishments visited in Connecticut this policy of omitting data on minors was followed. Later, however, when considerable local interest was evinced in the problems of this youngest group of employees, records were taken for them wherever available. As a consequence of this change in method, the number under 16 years in the tables reporting age probably gives an incomplete picture of the employment of minors in the plants visited.

Altogether 155 girls reported their ages as under 16 years. More than nine-tenths of these were in factories making women's dresses and underwear, children's apparel, and men's shirts and furnishings. In hat and necktie factories none under 16 years of age were reported. Approximately one-third of these girls were in New Haven establishments, one-fourth were in Bridgeport or Milford, and one-fifth were in Stamford, the rest being scattered in various other localities.

Records of the State board of education showed that more work certificates were issued to children 14 and 15 years of age in the New Haven area than in any other district in the State. In 1931, 354 such permits were issued for factory work in New Haven, exclusive of messenger and clerical jobs in manufacturing establishments. In spite of the increasing number of adults out of work in 1931, the number of certificates issued was almost as large as in 1930. It was officially stated that New Haven had the heaviest certification of girls in the State, due to their employment in the local shirt factories. Official inspection records emphasized this statement, for almost one-fifth of the several hundred employees in some of the leading shirt factories in New Haven had been found in recent inspections to be not yet 16 years of age.

MARITAL STATUS

Of the 4,604 women who reported as to marital status, considerably more than one-half (56.2 percent) were single. Over one-third (34.1 percent) were married, and about one-tenth (9.7 percent) were widowed, separated, or divorced.

In corsets, where the largest group of the women reporting marital status were employed, well over one-half were or had been married; men's shirts, employing the next largest group of women, had the smallest proportion so reported, not quite one-fourth.

Consistent with this, 36 percent and 8.5 percent, respectively, of the women in these two branches of the industry were at least 40 years of age.

Of 99 firms reporting, 77 stated that they had no policy in regard to the employment of married women, 14 said that they employed and retained them, and 3 that they preferred them, while only 5 preferred single workers.

TIME WITH THE FIRM

Due to the fact that more than three-tenths (31.6 percent) of the firms included in the study had been less than 3 years in the State, for some women the length of time they had been with the firm was short.

Practically three-tenths (29.3 percent) of the 4,736 women who reported the time with the present firm had been there less than a year. A similar proportion (28.3 percent) had been employed by the same firm for 1 and less than 3 years, and exactly one-sixth for 3 and less than 5 years. About one-fourth (25.8 percent) had been with the firm 5 years or longer. Four percent of the whole group had worked as long as 20 years for the one employer. Two women, both in the corset industry, had worked 52 and 55 years, respectively.

The firms making men's furnishings and neckties and cravats, with 59.9 percent and 46.8 percent, respectively, had the largest proportions of women who had been employed less than a year. On the other hand, more than one-half of the women making corsets and hats, and about one-third of those making garters, had been as long as 5 years with one firm.

NATIVITY AND COUNTRY OF BIRTH

A total of 4,756 women reported their color and nativity. More than two-thirds of these (68.6 percent) were native born. Almost one-half (48.7 percent) of the 1,485 foreign-born white were from Italy. Next in rank were the 13.7 percent from what was formerly Austria-Hungary; the next, 7.4 percent, were from the British Isles, by far the largest part from Ireland. The only other group numbering as many as 100 were from Poland.

NATIVITY OF DRESS-SHOP WORKERS

Since almost half of the more than 600 women in the dress shops who reported nativity were born in the old country, the great majority in Italy, tabulations have been made contrasting the jobs, the earnings, and the ages of the native American with the foreign-born women. The foreign born were for the most part carrying the double burden of home making and wage earning, for almost four-fifths were married or widowed. In contrast to these were the native American employees, only about one-fourth of whom were married or widowed. But this difference is what might be expected when their ages are taken into consideration; the Americans were a much younger group, almost half of them not yet 20, whereas over three-fourths of the foreign women were 25 or more and almost one-fourth were as much as 40.

Only two foreign-born women were engaged in such unskilled jobs as cleaners and floor girls in the dress shops. For the most part they were operating power-sewing machines or were sewing by hand. Machine operating was the job of women mainly in the prime of life, 20 and under 40 years old. And above 40 years the proportion of hand sewers was greater than that of machine operators.

A different situation prevailed among the American hand sewers. About two-thirds of them were less than 20 years old, while only one-eighth of the foreign-born hand sewers were so young. On the

whole, in both hand and machine jobs, the foreign women were older than the American women.

Earnings differed decidedly with the two types of job. The median of the foreign-born machine operators for the week was \$17.25, and this was about \$4 higher than the median of the hand sewers. The much younger native women, whether machine or hand sewers, averaged less than the foreign women. For machine operating their median was more than a dollar below that of the foreign born, and in hand sewing the difference was \$3.

HOME VISITS TO YOUNG WORKERS

Since the proportion of young girls was unusually large, a few of them (44) were visited in their homes to inquire somewhat into their industrial adjustments. Matters of special interest to those sponsoring the survey and to educational leaders were facts regarding—

1. The age at which they left school, as well as their present age.
2. How many jobs they had held and the duration of their industrial history.
3. What their earnings had been.
4. What their schooling had been.
5. What vocational opportunities there were.

Upon interviewing these young women their outlook was found to be very narrow, because of their youth and inexperience. They had had practically no contact with the outside world—only that in the small field in which they were employed.

At the time of interview they were from 16 to 21 years old, but at the time of leaving school, and invariably they had left school to go to work, 33 of them had been only 14, 4 had been 13, and the remaining 7 had been 15 to 17.

Only 6 of the 44 had attended high school at all. Twenty-five reported the eighth as the last grade attended, 5 had gone no higher than the sixth, and 8 no higher than the seventh.

Twenty-six had begun work at least 3 years before, but only 5 as much as 5 years before. Only 3 had been working less than 2 years. The depression can hardly be blamed for these young people having left school for work.

Although this group was made up of such young workers, three-fourths of them reported their first job as power-machine operating.

As already noted, most jobs in the sewing trades were paid on a piece-rate basis. Of the 44 girls reporting method of pay on their first job, 23 were paid by the piece. Furthermore, more than two-fifths of those paid on a timework basis at first were changed shortly after to a piecework basis, 8 after only 2 weeks and 1 after 4 weeks.

Some of these young women had changed jobs several times during their short work histories. In some cases the changes were advances within the firm or in a new firm, while in other cases they were only new jobs with no advancement. For example:

One girl had worked as cleaner for 8 months at \$6 a week, and then she became a machine operator in the same firm. This job she had held for 2 years; her maximum earnings were \$14.

Another girl had worked at sewing labels in pajamas by machine, for which she was paid \$3 a week to start and never made more than \$4.50. She stayed here only 1 month, when she secured a job in another factory at sewing top facings on shirts. At this work she

had made as much as \$15, but it was not possible to do so at the time of interview.

A third girl had held three jobs. Her first was sewing on buttons, at which she worked only 2 weeks and received only \$1 a week. She left that factory to take a job sewing labels, for which she was paid only \$1.30 for her week's work. She left after this week's experience and returned to the first factory, where she secured a job running a zig-zag machine. When interviewed she had held this job for a year and a half, usually making from \$5 to \$6 a week, the highest being \$10.

Of the 44 girls, 9 had had one job, 19 two, and 16 three or more.

The three case stories following illustrate the industrial histories of some of the girls who had had three jobs.

Anna, the daughter of an Italian father, was 18 years old at the time of interview. She was in the seventh grade when she left school to go to work at the age of 14.

Her first job was hand work in a dress factory, for which she was paid \$5 a week on a time rate. After 1 year there her wages were raised to \$7. She worked 1½ years for this firm. The next job she secured was also in a clothing factory, where she stitched by machine. Anna remained there for 1 year, leaving because of an "argument over machine with boss." Her job at time of interview was sewing on buttons by machine in a shirt factory. She had held this job for 2 years. During the first year she had been paid a piece rate of 3¼ cents a dozen shirts for sewing the buttons on fronts and cuffs, while for the last year the rate has been cut to 2¼ cents.

Anna's attitude toward possibilities for advancement was not an optimistic one. She said, "If I could learn a new job by watching and break myself in on it I might do better, but they never teach you a new job, you just keep the same one."

In commenting on advances in wages, she said, "I've made as high as \$13, but \$7, \$8, or \$9 is usual."

As to her job preference, Anna said: "My mother needed my help. Times were bad with us, so I took anything I could get. I didn't know anyone to advise me. Now I couldn't leave, for I couldn't get a job anywhere else."

Another girl of Italian parentage, aged 16, had left school at 14 to begin work. During the next 2 years she held 3 jobs with 3 different firms.

Her first job was that of cleaner in a shirt factory, a job she held for 2 or 3 months and for which her pay was \$3.50 a week. After this she secured a job as a hand sewer finishing dresses, where she worked for 7 months. She left there because she was given no opportunity to make a complete dress, but was given only parts on which to work. Her job at time of interview was making complete dresses by machine. She had been employed here for 15 months on a piecework basis. When she worked a full week, approximately 9 hours daily and practically as long on Saturday, she could make \$14 to \$16 a week. But these full weeks lasted only about 2 months of the year. At the time of interview she was making much less money, only \$3 or \$4 a week, working on only 3 days and for shorter hours. The range of earnings per child's dress as she made them was from 10 to 27 cents, depending on the style.

There were 9 in her family, normally 3 wage earners and 6 non wage earners. Of the 3 normal wage earners, her father and a brother aged 14 were unemployed and she herself had only part-time employment.

Rose, also the daughter of an Italian father, 18 years old at time of interview, had left school at 14 while in the eighth grade. Her first work, a machine job, consisted of tacking and button-sewing on men's underwear. Her first wage was \$4.50, on a piecework basis. She held the job for 5 or 6 months, until the factory shut down.

Her next job was another power-machine operation, buttonholing in a dress factory, at \$10 a week on a time basis. This job she held for 1 year, when she was laid off.

The job she held at time of visit was also a machine operation, cuff-turning in a shirt factory. This job she had held for 1½ years. She was paid on a piecework basis here, and working an 8-hour day on 5 days and 4 hours on Saturday she made \$8 to \$9 a week. She said she often had to wait for work.

Rose was not at all optimistic about work in a shirt factory. She realized that

the best jobs went to employees who had been there a long time and felt that she had no chance. She would like to be a stenographer or secretary and had been attending night school 2 years. There were 9 in the family, 4 normally employed and 5 not. None of the four normal wage earners had a full-time job at time of interview.

All but two of the young women reported their first week's earnings, \$3, \$4, and \$5 being the most common. In addition, all but two reported their maximum earnings in their entire work period. In some cases these represented earnings received only once. The highest maximum among the 16 who had begun work less than 3 years before was \$17, and the highest among the 26 who had worked for 3 years or more was \$20.

Many of these young women reported cuts in the rate of pay for the piecework on which they were engaged. One 16-year-old girl reported receiving 5 cents a dozen at first for stitching and trimming bands on collars. This rate was cut to $4\frac{1}{2}$ cents, then to $3\frac{3}{4}$ cents, and later to $2\frac{1}{4}$ cents, or a cut of more than 50 percent in rate. The girl said: "After 6 or 8 months at piecework, I could make \$12 to \$14 a week, but that was at $4\frac{1}{2}$ or 5 cents a dozen. I couldn't do it now, the way rates are."

This girl's older sister reported a cut in rate from $3\frac{1}{2}$ cents to $2\frac{1}{4}$ cents a dozen for top-stitching of collars. She had made as much as \$16 but was not doing so at time of interview.

A girl of 18 who had worked 4 years in one factory reported that 2 weeks before the interview the rate of pay for stitching shirt collars had been reduced from 2 cents to 1 cent a dozen.

The rate of pay for sewing on buttons by machine was low. One woman reported a rate of $2\frac{3}{4}$ cents for sewing buttons on a dozen shirt fronts, and 1 cent for 1 dozen shirt cuffs. On this piecework basis she made \$7 to \$8 a week if working full time.

One indication why these girls went to work so young is the size of the families of which they were members. Of the 38 families represented by the group of 44 girls, 20 were composed of 8 or more persons, 13 of 5 to 7, and only 5 of 4 or fewer. In these 38 families there were 285 persons, or an average of 7.5 per family. More than one-half of the 285 were not wage earners. Of the 137 who in normal times were wage earners, almost one-third were the 44 young women under discussion. More than one-fifth of the 137 normal wage earners were unemployed at time of interview, and of the 107 who had jobs almost three-fourths were employed only part time.

The following case story gives the work history of a member of a large family:

Mary, the daughter of an Italian-born father, was 16 years old. She had left school at 14, having completed the seventh grade, and had gone to work, her first job being as cleaner in a shirt factory. This was piecework, and her wage for a full week's work was \$5.

After 5 months there, work became slack, so she got a job as a machine operator in another factory, setting bands on shirts. She had been there nearly 2 years at time of interview. This was piecework, and the rate paid was $4\frac{1}{2}$ cents per dozen, later reduced 10 percent. Mary could do 50 to 60 dozen bands a day, for which, since the cut, she was paid \$2 to \$2.45 a day, working 9 hours. Work was so slack at time of visit that she had only 2 or 3 days' work a week.

When asked as to her job preference she said, "Band setting is a better job; it pays better than cleaning and is more interesting."

Mary is one of a family of 13, 4 of whom are normally employed, and 9 non wage earners, all but 1 of the latter under 16 years of age. None of the four normal wage earners was regularly employed at time of interview.

Part III.—INDUSTRIAL HOME WORK

In this special study of home work information of four types was secured, as follows:

1. Visits were made to the homes of 144 women who were engaged in this work or had done it during the previous year, to secure first-hand data regarding the conditions under which home work was carried on. The work done by these women was representative of all types of home work given out by firms included in the pay-roll study. Women were visited in New Haven and adjacent towns, in Bridgeport, and in Milford, more in proportion in the first named than in the others.

2. From firm records were secured 1 week's earnings for 315 women.

3. Also from firm records were copied the earnings of 68 women for as many weeks during the previous year as they had been supplied with work, constituting year's earnings as far as these nine establishments were concerned.

4. Four firms made available their 1931 or 1930-31 records of factory labor cost and of home-work labor cost, showing the relation between these.

As mentioned before, of the 106 firms included in the study, 57 were contract and 49 were regular factories. Of the 57 contract firms, 11 reported that they had given out home work during the previous year. Seven of these firms had made women's dresses; 2, children's apparel; 1, garters; and 1, men's furnishings.

Of the 49 regular factories, 17 had given out home work. Four of these firms made neckties and cravats and 4 made children's apparel; 3 made garters; 2 made women's underwear; 2 women's dresses; 1 made tailored garments, and 1 men's shirts.

DATA SECURED IN HOME INTERVIEWS

Of the 144 home workers who were visited, 37 worked on garters and related products. Work on neckties was reported by 32 women, and work on embroidering women's or children's dresses by 28. Seventeen made ribbon ornaments, and the remaining 30 did various kinds of work, including beading, stitching, and finishing dresses, tailoring, cutting lace medallions, corset work, and other jobs.

The women who reported work on garters had help on this home work from 100 other members of their families, most of these children. In only 8 of the cases was no help given by other members of the family, and in a couple of these help was received from persons other than members of the family. The work on garters required no skill. It consisted chiefly of stringing the buckles, clasps, and so forth on the various parts of the garter, and sewing the fasteners in place by machine. In some cases stringing and sewing were done by one person. Some of the workers did nothing but clip threads, while others only bunched the finished product.

Rates and earnings

The rates of pay for home work on garters varied with the size and type of garter. The following are statements of the pay received for such work and estimates by the women of the amounts earned per hour.

Work stringing and sewing men's garters was reported by one woman as paying \$1.10 for a double gross—in other words, 144 pairs. Six hours were required to do this many, average earnings being about 18 cents an hour.

Another woman who had no help from anyone worked on women's adjustable garters, doing everything from stringing to putting in boxes. For this she was paid \$2.25 for 5 double gross, and it took her 2 days of 6 hours each to do 1 double gross, or 3¾ cents an hour. She also worked on arm bands, for which she received \$1.50 for 5 double gross. She could finish 1 double gross in a day of 6½ hours, with average hourly earnings of 4¾ cents.

Work on round garters, consisting of putting on metal tips, pounding them in, putting on hook and eye and slide, fastening together, and putting on card, was reported by another woman; for this the pay was \$2.50 for 5 double gross. To finish this number required 3 days of 9½ hours each, making her hourly pay about 8¾ cents.

Sewing buttons and clasps on women's hose supporters paid one woman only 40 cents a double gross. She reported spending 4½ hours on 1 double gross, with average hourly earnings of 8⅞ cents.

In a family of 9, the husband, daughter of 16, three younger boys, and the woman's mother all helped in stringing children's supporters, for which the pay was 40 cents a double gross. It took 5½ hours for the woman and her 6 helpers to do 5 double gross, or 36⅞ cents an hour for the group.

In a family of 7, mother and 3 daughters worked at stringing women's supporters. They received 5 cents for a double gross, and it took half an hour for one person to do this many, with average hourly earnings of 10 cents.

These cases of home work on garters show the great variation, as might be expected, in the average hourly earnings for the different operations engaged in.

On account of the skill required, work on neckties was done almost exclusively by the women. Only 5 adults and 2 children (members of the family) were reported as assisting in this work. Jobs in which they helped were not the stitching, but pinning, cutting, padding, putting in lining, and pressing the ties. In other cases husbands and children were reported as doing the housework while mothers worked on neckties.

In one case, performing all the operations, from pinning and sewing to attaching the label and pressing, was paid for at the rate of \$1.08 a dozen. It took one woman 2 hours to complete 1 dozen. These average hourly earnings of 54 cents were very high as compared with those on other products. A rate of 45 cents a dozen was reported by one woman for the making operations only, and in this case the woman took 2½ hours to complete one dozen. For this work the average hourly earnings were only one-third of those just mentioned, or 18 cents. Skilled workmanship, possibly a finer article, and higher wage standards on the part of the employer no doubt were responsible for the earnings of the first woman.

Because of the skill required, only 2 of the 28 women embroidering dresses (both women's and children's) had any help from other members of the family, one assistant being an adult, the other a child.

One woman was paid 35 cents a dozen for embroidering children's dresses. This consisted of blanket stitching and embroidering a design on the collar and cuffs. It took her 2 hours to complete the work on 3 dresses, that is, 3 collars and 6 cuffs, at about 4½ cents an hour.

Another woman worked on two kinds of embroidery. She smocked the fronts of children's wash dresses, for which she received 75 cents a dozen. It took her half an hour to finish 1 dress, making her average hourly earnings for this work about 12½ cents. Her other work consisted of embroidering wool jersey dresses on front, back, neck, and sleeves. For this she received 35 cents a dozen, and as it took her half an hour to a dress her average hourly earnings were 5½ cents. This woman's story illustrates the inequalities in piece rates for home work. She could do 2 dresses an hour in each case, but the pay for one kind was 35 cents a dozen and for the other it was 75 cents—even the higher amount being much too little.

From the variety of rates in the 12 cases just cited, the impossibility of tabulating rates is apparent. Average hourly earnings, as computed from statements by the women, are shown in table 10.

Of the 101 women reporting rates, output, and hours worked for their own work alone, 26 were necktie workers, 23 were dress embroiderers, and 23 made garters. No other industry had anything like so many, ribbon ornaments ranking next with only 8 women reporting. These 101 women reported figures for 173 home-work jobs.

Almost one-fourth of the cases reported by women who had worked alone—40 of the 173—were work that yielded average hourly earnings of 5 and less than 10 cents; in 17 cases the work was embroidering dresses and in 10 it was making garters. In practically the same number of cases (41) earnings averaged 10 and less than 15 cents, dresses and garters again having the largest numbers.

In one-fifth of all the cases the work had yielded at least 25 cents an hour, the maximum—1 case only—60 and under 70 cents. All but 3 of these 34 cases were in necktie work.

Eleven of the 19 cases of individual earnings of less than 5 cents an hour were embroidering dresses, 5 were ribbon ornaments, and 3 were garter work.

Nineteen of the 32 women reporting information as to work done by groups were garter workers. No other work approached garters as a group industry, neckties following with only 4 cases and ribbon ornaments with 3. Half the group earnings (36 cases reported) were above and half were below 25 cents an hour, the maximum being 70 cents or more for stitching dresses and the second highest 50 and under 60 cents for work on garters.

Of all the 139 cases of earnings, individual and group, that averaged less than 20 cents an hour, 38 were in the garter industry and 45 in the embroidering of dresses. Of the 44 cases of earnings that averaged 30 cents or more, 34 were in the necktie industry and 5 (group work only) were in garters.

TABLE 10.—Average hourly earnings of home workers, according to whether individual or group earnings and by branch of industry—home-interview data

Average hourly earnings (cents)	All industries		Garters and related products		Corsets		Neckties		Children's and women's dresses					Tailoring	Ribbon ornaments		Cutting lace medallions		Other		
	1 woman	More than 1 person ¹	1 woman	More than 1 person	1 woman	1 woman	More than 1 person	Embroidering	Beading ¹		Stitching	Finishing		1 woman	1 woman	More than 1 person	1 woman	More than 1 person	1 woman		
									1 woman	More than 1 person		1 woman	More than 1 person								
	Total ²	101	32	23	19	4	26	4	23	4	1	2	5	1	4	8	3	2	2	2	
Less than 5.....	19	1	3	1				³ 11													
5, less than 10.....	40	3	10	3	3			17	1			1	1		⁴ 5						
10, less than 15.....	41	4	8	3	4			14				1		3	4			1			
15, less than 20.....	24	7	6	7	2	2		3	3			3		6	3	1		3			
20, less than 25.....	15	3	5	3		3		3	1			5						2			
25, less than 30.....	3	5		2			1	3		1		2								1	
30, less than 35.....	11	5		1		11	3					1							1		
35, less than 40.....	5	3		1		3	2							1						1	
40, less than 45.....	2	2		2		2															
45, less than 50.....	3					3															
50, less than 60.....	9	1		1		9															
60, less than 70.....	1					1															
70 and more.....		2									2										
Not reporting.....	18		1		2		5	1		3		6		4		2					
Total number of women.....	⁵ 144		37		4		32	28		4		3		9		4		17		4	

¹ Includes 2 women who beaded bags.² Details aggregate more than total, since 1 woman may report several rates.³ 4 at less than 3 cents, 3 of them at less than 2.⁴ 3 at less than 3 cents.⁵ Total number of interviewed persons. 7 women reported both individual and group earnings.

Case stories

The following case stories from the schedules give clear pictures of home and industrial conditions as they existed at the time the study was made.

No. 1.—Times are bad in the R. family. There are seven to feed and the rent to pay, not to mention an unpaid doctor's bill of \$300. Though 5 of them normally are wage earners, 1 of the sons is practically the sole support of the family, for the 2 girls have work only irregularly and the father and other son are without jobs. The 17-year old daughter who acted as spokesman for the family was thoroughly discouraged and saw nothing to look forward to.

They are all trying to eke out the son's wages and make enough for bread and macaroni by doing home work, stringing garters, a simple operation that consists of slipping the metal parts of the garter onto stiff elastic that is in the proper lengths when received. The buckles and tapes are delivered two or three times a week—and daily, when the factory is busiest—in cartons holding 30 gross. Picture this family—father, mother, two daughters in their teens, and a son of 12—seated round the kitchen table and for hours at a stretch, day after day, week after week, threading the elastic through the metal attachments. The rate of pay is 6 cents a gross, cut recently from 8 cents, and they reckon that it takes one person an hour to finish a gross. To earn these 6 pennies 144 pairs must be strung, which means handling 288 garters—that is, 12½ seconds to a garter.

A complete record of this family's earnings kept by the contractor delivering the material showed that he had sent them some work every week of the previous year and the combined earnings of the five garter stringers had averaged about \$13 a week. For 22 weeks they had earned less than \$10 (sometimes as little as \$3 and \$4), for 10 weeks their combined efforts had brought \$10 and under \$15, for another 10 weeks earnings had been as much as \$15 and under \$20, and for the remaining 10 they had been \$20 and over. Almost 100,000 garters have been assembled to make as much as \$20, not to mention the 66 hours per worker required for such an accomplishment at the rate estimated by the family.

No. 2.—A younger family of nine members in which the husband, the only wage earner, is now out of work, also is stringing garters to keep the wolf from the door. Garter stringing is the order of the day from 3:30 in the afternoon, when the four school children come home, until 8 or 9 in the evening, or until the carton is finished. All the family except the three babies are supposed to devote themselves diligently to the job, but the mother complained because the boys get sleepy and sometimes refuse to work.

No. 3.—A few years ago, before Mrs. D. came to this country, she was a waitress in Italy, but now she spends her days in caring for her four young children and a despondent husband—despondent, like so many others, because working one or two days a week will never support a family and pay off the mortgage on their nice little home. Each year, when the busy season for neckties comes around, Mrs. D. assumes some of the wage-earning responsibilities. She sends her washing to the laundry; her husband does the sweeping and scrubbing; and for a few weeks her main job is running her needle in and out of the pretty silk cravats that are sent her from the factory nearby. She does all the pinning and folding at night so as to have daylight for the closer work of sewing, for it takes an hour and a quarter to sew a dozen ties. While the work lasts she makes good money, she says, for usually she is paid 71 cents a dozen, and the factory truck leaves bundles of work at her door often three times a week. In the height of the season she has done as many as 30 dozen ties a week (\$21.30). Nothing interferes with her sewing schedule.

Her complaint is that the season is too short; a few weeks in the spring and another short period in the fall is all she can count on. She enjoys the work, which she learned to do as a girl in the old country. She explained that while some of the women had to work 2 weeks at the factory before they were allowed to have work at home, her training in the factory lasted only 1 day.

No. 4.—Around the corner from the D. home is another home worker, a Lithuanian widow, who for 10 years struggled to support her family by doing washing and ironing. She is older and less active now, yet feels she must still do her bit, so she too slipstitches neckties. She is very much slower than Mrs. D., and does not enjoy the work. Holding up her large, strong hands, she says in her broken English, "My hands not made for sewing." She is fortunate in having three

daughters who help her in the evening so that she won't be discouraged when she sees the weekly check that occasionally amounts to \$12, \$13, or \$14.

No. 5.—A group of three ambitious, clever sisters drifted into dress factories when they arrived in New York and one of the three became a forelady within 7 years. Now instead of making dresses in the shops they have electric sewing machines in their home, where they combine household duties and wage-earning responsibilities.

Two or 3 years ago, when business was good, they had all the work they could do for 7 or 8 months of the year, but the season last spring was only 6 weeks long and in the fall it was even shorter. Not only are they feeling the depression, but they deplore the fact that dress patterns are becoming increasingly complicated, requiring much more time to make, yet rates have not been raised correspondingly. "They are cheaper than ever but there is more work on them than ever before" is their comment. "Dresses are too cheap now, but we pay for them just the same."

They have organized their work so that when the manufacturer sends them the bundles of dresses already cut, they divide the operations so that each sister may do the kind of work in which she is most expert. They do only machine stitching, none of the hand finishing or pressing. All working together they plan to sew three dozen wool dresses in a day of 12 or 14 hours. In one of the busiest weeks in September they made 266 dresses. These garments were not simple: One 3-piece jersey dress consisted of a skirt on a yoke and having eight pleats, a separate sleeveless silk blouse having bound armholes and the neck nicely finished with jabot-like tabs, and a jacket with patch pockets, with cuffs, and with neck and fronts finished with an irregularly shaped facing stitched back on the outside of the garment. Besides this, there were two faced buttonholes on each jacket. They were paid 30 cents apiece to stitch such a dress; simpler styles were 25 cents each. The cost of this garment, covering the labor of sewing at 30 cents, and cost of materials, cutting, and usual overhead expenses, was \$3.75. In the early fall it retailed at from \$11 to \$12, later at \$6.75 in some shops. Naturally, they felt that their earnings were far too low.

Such women serve as a great convenience to the manufacturer. He is at no expense for rent nor for power to operate the machines; furthermore, when the rush season comes on he is spared the anxiety and confusion that come with hiring extra help. When the factory gets "in a pinch" he can send large consignments into homes, for the families will work very, very long hours to finish the bundle quickly and on time.

No. 6.—It is hard enough to work for almost nothing, but it is harder not to be able to collect one's wages when they are due. Such is the fate of T. She was a skilled embroiderer in Italy and considered herself fortunate when she came to America to find an opportunity to do the same kind of work for a woman who runs a distributing center for home workers, giving out the work she takes on contract chiefly from manufacturers of women's and children's dresses. T.'s first job was monogramming a luncheon set, and it was years before she was paid for it. Meantime she has done other embroidery for the same contractor, but it is one continuous struggle to collect her pay from the manager. "I don't know how much time I've spent going for my money; have always had trouble to get my pay. I go back each day and Mrs. X. says her check hasn't come yet; when it does she will pay. Lots of excuses; 'Come back tomorrow.' But next day the same thing; always no money. She owes a lot of people." In reply to the inquiry why she continues to work for this woman, T. explains that embroidery is all she knows how to do and "Mrs. X. has lovely material and the nicest work in town—I like her work", she says.

From a reliable source it is learned that there are about 100 petty wage claims against this contractor and T. is only one of many needy women clamoring for their pay.

No. 7.—Another young woman, the mother of two children, embroiders dresses for the contractor just described. She has worked for this woman off and on for the past 5 or 6 years. To quote her: "Its always been hard to get your money. She has good work, and if she paid it would be good."

At the time of interview the distributor of the home work owed this woman \$9.50, \$7.50 of it for work during the past year. It has cost more than the amount due in efforts to collect, and when she goes to the contractor's place of business they laugh at her. In trying to collect this account she has appealed to the city attorney. This woman is the victim of another unscrupulous subcontractor, for whom she did work in the summer previous to interview. There is \$6 due her for that work. The last time she called at the place where he had been living, she was told he had left town.

No. 8.—An older woman, whose husband has no regular employment, embroiders dresses at home. She has worked for the same contractor for 8 or 9 years. For some of her embroidery—collars, sleeves, and pockets on children's dresses—she reports a rate of only 15 cents a dozen dresses.

She has always had trouble getting her money from this contractor, even though the rates were so low. She shows slips due for work during the previous year for \$30.45 and for the summer before that she has slips amounting to \$11.16, a total of \$41.61. It was nothing new to have difficulty getting pay from this subcontractor; it had always been so.

Reasons for choice

While home work has long been considered something that should be abolished, persons by whom this is not recognized point to the need of this means of livelihood. The woman with small children or with an invalid to be cared for can remain in her home and augment the family income by doing home work. Other cases are those of women who feel that they are too old to seek employment in a factory but can eke out a slender income by work at home. The freedom as to hours of labor is another argument set forth.

In confirmation of the statement that home work is done by women who need to be at home for one reason or another, 90 of the 126 women reporting as to why they preferred work of this kind gave home duties as the reason. Eleven women preferred home work to work in a factory, and 10 did it because they could get nothing else to do. Illness or old age was given as the reason by 9 women. Of the remaining 6 who reported, 4 did home work in addition to a regular job and 2 while attending school.

Condition of homes

From the point of view of the consumer particularly, one of the greatest objections to the carrying on of industrial work in private homes is the insanitary condition of many homes. To discover how important a sanitary inspection of home-work shops might be in Connecticut, observations were made summarizing in a general way the type of house, condition of repair and cleanliness, room used for work, and artificial light found in these homes.

While 36 percent of the families were living in single dwellings and 30 percent lived in duplexes, the remaining 34 percent lived in tenements, that is, dwellings for 3 or more families. Nearly all the homes where the women lived were clean and in good repair.

Over one-half of the women did the work in their kitchens, comparatively few working in dining or living rooms. For some it was customary to work wherever it was most convenient, in kitchen, bedroom, or living room.

Since much of the work done required constant use of the eyes, provisions for artificial lighting were noted. Most of the women used electric light in one form or another. Fourteen women rarely used artificial light and 5 never used it.

Inquiries of the women regarding illnesses in their families in the year previous to the visit disclosed no case of contagious disease.

The trouble caused by having to call for and return home-work material depended somewhat on the type of product and the quantity received at one time. For about 7 in 10 of the women the work they did at home had to be called for and returned to the firm by the women themselves or by a messenger provided by them. For only 43 women was the work delivered and collected by the firm.

Number in family and number of wage earners

To determine the economic status of the families visited, facts were secured regarding the number in the family, the number of wage earners normally employed, the number employed at time of survey, full or part time, and the number unemployed. Women who were engaged in industrial home work only have not been regarded as wage earners, since for the majority of these women it is a makeshift proposition. In the classification of wage earners and non wage earners in the family groups, therefore, these women have been grouped with non wage earners. An exception to this should be noted: Four home workers who had other employment have been classed also as wage earners.

Most of the families of these home workers were not small. Though exactly one-third (48) were composed of 3 persons or fewer, another third had 4 or 5 members, and the remaining third ranged in size from 6 to 12. Five families reported 10 or more members. The 144 families comprised 699 persons, an average of 4.85.

In 39 of the smallest families (3 or fewer) there was normally 1 wage earner; at the time of interview, in only one-third of the families was this person steadily employed. In 5 of these small families there were usually 2 wage earners employed, but at the time of interview there were 2 of these in which there was no wage earner regularly employed.

In the 48 families composed of 4 or 5 persons, 29 had normally 1 wage earner. In 22 of these 29 there was either no wage earner or none regularly employed at time of interview.

Of the larger families (6 or more persons) 13 reported 1 wage earner normally employed and 13 reported 2. In each group only 4 families reported a wage earner regularly employed at time of interview.

In 13 of the 48 larger families (6 or more persons) there was only 1 wage earner. In only 4 of the 13 was there 1 person regularly employed at time of visit. In the 22 families of 6 or more persons where normally 3 or more wage earners were employed there were a number of instances of no person having steady employment.

Looked at from another angle, disregarding the number of persons in the families, the unemployment situation of those normally employed appears again. In almost three-fifths (57.9 percent) of the 140 families in which there were normally 1 or more wage earners other than the home workers, there was no one regularly employed at a full-time job at the time of interview. In only about one-third (32.9 percent) of these families was there 1 wage earner regularly employed. In the remaining 13 families there were 2 or more wage earners regularly employed.

The summary following shows for 140 families the employment status at time of visit as compared with the normal status.

Usual wage earners per family	Number of families	Usual number of wage earners	Wage earners who at time of survey were—		
			Out of work	Irregularly employed	Regularly employed
Total families.....	140	241	72	93	76
1 wage earner.....	81	81	19	38	24
2 wage earners.....	29	58	17	18	23
3 wage earners.....	22	66	19	27	20
4 wage earners.....	4	16	5	4	7
5 wage earners.....	4	20	12	6	2

INFORMATION FROM FACTORY PAY ROLLS

One week's earnings of 295 home workers

From 13 factory pay rolls the amounts paid during one week to 315 home workers were secured. As 20 of the pay-roll entries were known to represent more than one worker, these are excluded from the table and discussed separately. From information secured in home visits, to be sure, it seems likely that only in the case of necktie workers do the amounts actually represent the work of individual women, as assistance by family groups was common; but in the 20 cases treated separately it was a matter of pay-roll record.

More than one-half (53.9 percent) of the 295 women had worked on garters, practically one-third (32.9 percent) on neckties and cravats, and the remainder on tailored garments, women's dresses, children's apparel, and men's shirts.

TABLE 11.—*One week's earnings of 295 home workers, by branch of industry—pay-roll data*

Week's earnings	Women with earnings reported			
	Total	Garters	Neckties and cravats	Other products ¹
Number of women.....	295	159	97	39
Median earnings.....	\$5.90	\$4.55	\$8.95	\$7.30
Less than \$2.....	31	17	9	5
\$2, less than \$4.....	59	47	6	6
\$4, less than \$6.....	60	43	12	5
\$6, less than \$8.....	42	22	13	7
\$8, less than \$10.....	37	19	14	4
\$10, less than \$12.....	17	2	10	5
\$12, less than \$14.....	18	4	12	2
\$14, less than \$16.....	6	2	4	—
\$16, less than \$18.....	7	2	2	3
\$18, less than \$20.....	2	—	1	1
\$20, less than \$25.....	13	1	11	1
\$25, less than \$30.....	2	—	2	—
\$30, less than \$32.....	1	—	1	—

¹ Tailored garments, 8 women; children's apparel, 12; women's dresses, 18; men's shirts, 1.

For the group as a whole the earnings received during the week varied from less than \$1 to \$31, the maximum amount reported being \$31.47. One-half of these women (50.8 percent) had received less than \$6, as indicated by the fact that the median of the earnings was \$5.90.

Only 1 of the 159 women making garters or other elastic accessories received more than \$20 (some amount between \$23 and \$24), while just over two-thirds (67.3 percent) had earned less than \$6. The median of the earnings for this group of women was \$4.55.

Of the 97 women working on neckties, 3 earned \$25 or more and fewer than three-tenths (27.8 percent) earned less than \$6. The median for this group of women was \$8.95, considerably higher than the medians already quoted.

The 20 amounts not shown in the table because representing payments to more than 1 worker were reported by garter firms in 17 cases and by necktie and cravat firms in 3. The first mentioned ranged from 95 cents to \$35.19; 2 were below \$2 and 4 were above \$13. The 3 amounts paid to more than 1 worker in the necktie and cravat industry were all between \$36 and \$41.

Year's earnings, nine establishments

Home-work earnings paid to 68 women for as many weeks as they had worked for the firm during the previous year were made available by nine establishments. It must be remembered that these women may have been doing work for other firms as well during this time.

It was not possible to learn the time expended in the actual doing of this work, so the facts regarding earnings and number of weeks on the pay rolls are given simply as an indication of the employment with specific firms.

Of the 68 women for whom records were obtained, 33 had been paid less than \$100; 13 had been paid \$100 and less than \$200; 16, \$200 and less than \$400; and only 6 had earned \$400 or more, none so much as \$700.

Of the 33 women who had earned less than \$100, 24 had been on the pay roll in 13 weeks or less, 8 in 14 to 39 weeks, and only 1 in 40 weeks or more. Eight of the 13 who earned \$100 and less than \$200 had been on the pay roll in 40 or more weeks, as had all but 2 of the 16 who earned \$200 and under \$400 and 4 of the 6 who earned \$400 or more.

TABLE 12.—Year's earnings of 68 home workers, by number of weeks in which work was done—pay-roll data

Weeks in which work was done	Number of women	Women whose year's earnings as reported by firms were—					
		Less than \$50	\$50, less than \$100	\$100, less than \$200	\$200, less than \$400	\$400, less than \$600	\$600 and over
Total.....	68	26	7	13	16	4	2
13 or less.....	25	24	-----	1	-----	-----	-----
Over 13, including 26.....	9	1	5	1	1	1	-----
Over 26, including 39.....	7	1	1	3	1	-----	1
Over 39, including 52.....	27	-----	1	8	14	3	1

All but 2 of the 26 cases of earnings below \$50 represent work in not more than 13 weeks. Sixteen were for work on garters for 1 to 5 weeks; 7 were for work on women's dresses for 1 to 6 weeks.

Five of the 7 cases of earnings of \$50 to \$99, all in boys' cotton suits or women's dresses, were for work in 17 to 25 weeks; 1 was for work on boys' suits in 29 weeks and 1 on women's dresses in 45 weeks.

Eight of the 13 cases of earnings of \$100 to \$199 were for work in 40 or more weeks, but 2 women in the necktie industry made such earnings in 13 and 22 weeks, respectively. Six of the cases in this earnings group worked on women's dresses.

All but 2 of the 16 cases of earnings of \$200 to \$399 represent work in 45 to 50 weeks, but a necktie worker made about \$238 in 24 weeks and a corset worker made \$202 in 35 weeks. Ten of the 16 cases were in women's dresses.

The higher wage levels in certain industries are indicated by the figures for earnings of at least \$400 in the year, as reported for 6 women as follows: One woman made \$548 in 50 weeks and another \$455 in 51 weeks on garters; 1 made \$587 in 44 weeks on women's dresses; 1 made \$615 in 44 weeks on neckties; and in the hat industry 1 made \$575 in 24 weeks and another \$678 in 33 weeks.

By dividing total earnings by number of weeks worked, average earnings per week were ascertained. Of the 36 women whose average was less than \$5, 15 had been on the pay roll 13 weeks or less, but 11 had worked in more than 39 weeks. Thirteen of the 26 who had averaged \$5 and less than \$10 had been on the pay roll in at least 40 weeks, as had 3 of the 6 women who had averaged \$10 or more. The highest average was \$24, for a woman in the time group 14 to 26 weeks.

Labor costs of home work and of factory work

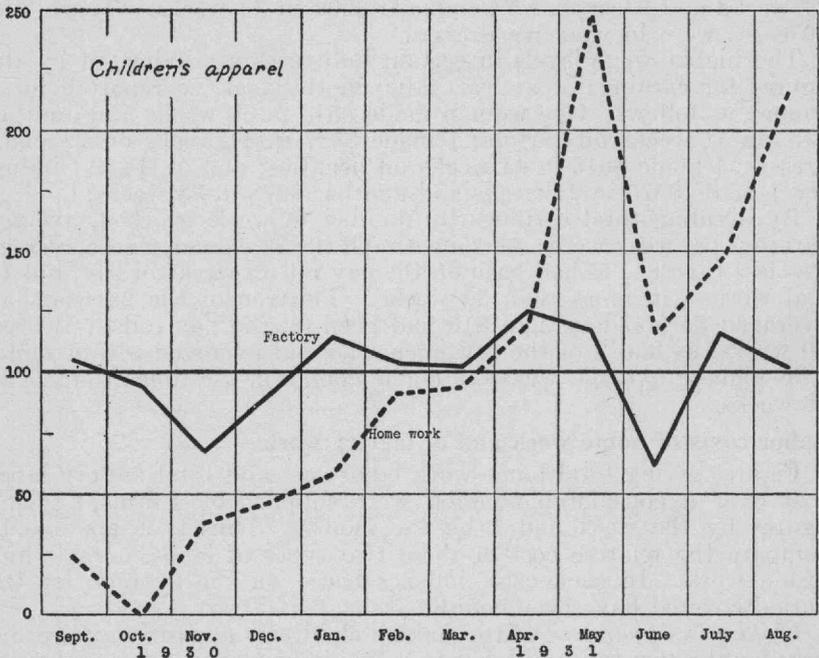
Figures giving total home-work labor cost and total factory labor cost over a considerable period were supplied by 4 firms, 3 giving figures by the week and 1 by the month. Thus it is possible to compare the relative cost of these two types of labor, outside and inside work. In each case, indexes based on the average for the period covered have been computed.

Children's apparel.—A firm making children's apparel supplied figures for the two types of labor cost for the year beginning with September 1930. For factory labor costs, the index was below the year's average in 4 months and above it in 8 months. In September the index of the factory pay roll was 105, and for the next 3 months it was below average. The next period in which earnings were above the average began in January and continued throughout May. The maximum for the year, 125, occurred in April, and the minimum for the year, 63, in June. For July and August, the last 2 months of the reported year, the index was equal to or above the average.

The trend of home-work labor costs was very different from that of factory labor costs. In 7 of the 12 months the index was below the average, and in 5 months it was above. The index for October was zero, no home work being reported. From this month on there was a constant rise for 7 months to the maximum, 248, in May. This high maximum was explained by the manager as caused by the demand for much embroidery on summer clothes. During June and July the index was much lower than this, but it remained well above the average and in August it was high again, rising to 216.

Month	Index ¹ of pay rolls of 1 children's apparel firm for—		Month	Index ¹ of pay rolls of 1 children's apparel firm for—		Month	Index ¹ of pay rolls of 1 children's apparel firm for—	
	Factory workers	Home workers		Factory workers	Home workers		Factory workers	Home workers
1930			1931			1931		
September.....	105	25	January.....	115	59	May.....	117	248
October.....	95	0	February.....	102	91	June.....	63	116
November.....	67	38	March.....	102	94	July.....	116	147
December.....	91	46	April.....	125	120	August.....	100	216

¹ Average for the 12 months equals 100 percent.



Children's underwear.—A firm making children's underwear provided records for 50 weeks, September 20, 1930, to August 29, 1931. For 4 of these weeks no home work was reported. In both pay rolls the indexes were below the average in 30 weeks.

Pay-roll date	Index ¹ of pay rolls of 1 children's underwear firm for—		Pay-roll date	Index ¹ of pay rolls of 1 children's underwear firm for—	
	Factory workers	Home workers		Factory workers	Home workers
1930			1930		
Sept. 20.....	53	44	Nov. 18.....	117	92
Sept. 27.....	39	22	Nov. 25.....	109	68
Oct. 4.....	70	28	Dec. 2.....	64	44
Oct. 11.....	88	53	Dec. 9.....	67	34
Oct. 18.....	91	69	Dec. 16.....	79	43
Oct. 25.....	110	74	Dec. 23.....	84	17
Nov. 4.....	112	93	Dec. 30.....	26	0
Nov. 11.....	103	103			

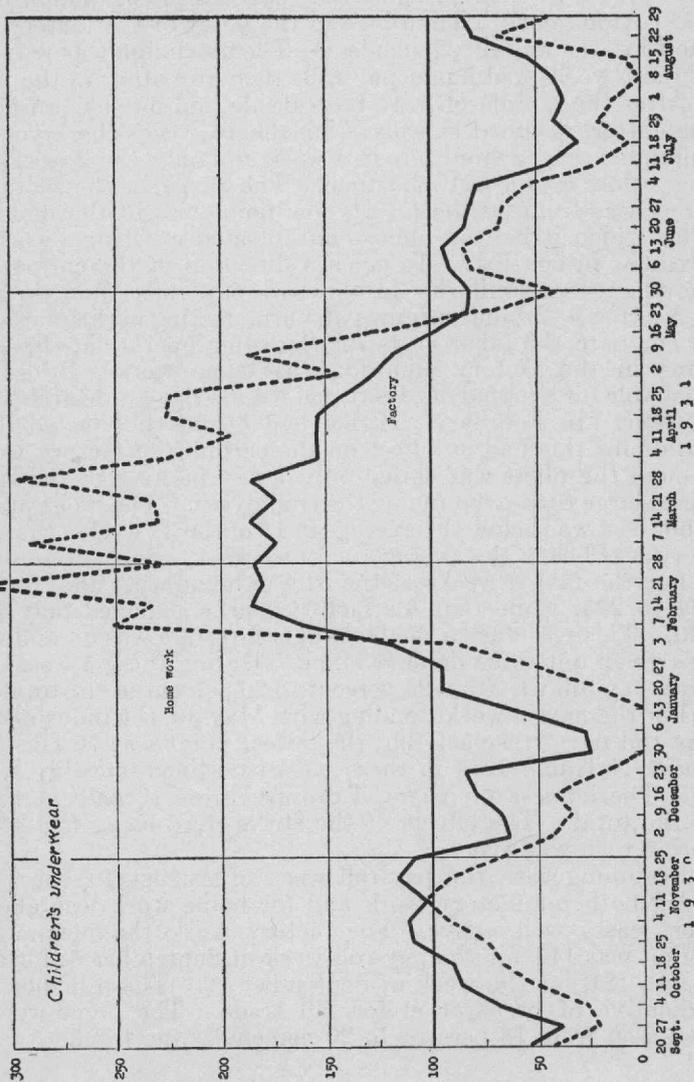
¹ See also p. 37. Average for the 50 weeks equals 100 percent.

Pay-roll date	Index of pay rolls of 1 children's underwear firm for—		Pay-roll date	Index of pay rolls of 1 children's underwear firm for—		Pay-roll date	Index of pay rolls of 1 children's underwear firm for—	
	Factory workers	Home workers		Factory workers	Home workers		Factory workers	Home workers
1931			1931			1931		
Jan. 6	28	0	Mar. 28	186	296	June 20	83	68
Jan. 13	62	0	Apr. 4	153	228	June 27	81	66
Jan. 20	96	21	Apr. 11	154	195	July 4	79	53
Jan. 27	97	51	Apr. 18	154	225	July 11	44	22
Feb. 3	118	87	Apr. 25	142	225	July 18	30	7
Feb. 7	163	250	May 2	127	144	July 25	41	21
Feb. 14	187	233	May 9	119	188	Aug. 1	36	13
Feb. 21	180	316	May 16	99	125	Aug. 8	42	0
Feb. 28	184	290	May 23	82	72	Aug. 15	55	7
Mar. 7	174	292	May 30	82	42	Aug. 22	79	69
Mar. 14	187	230	June 6	91	81	Aug. 29	86	44
Mar. 21	175	232	June 13	94	84			

¹ See also p. 36. Average for the 50 weeks equals 100 percent.

COMPARISON OF FACTORY AND HOME-WORK PAY ROLLS—1 FIRM MAKING CHILDREN'S UNDERWEAR

[Average for 31 weeks = 100]



For the first 5 pay-roll weeks, beginning with that of September 20, the index for the home-work pay roll ranged from 22 to 69 and that of the factory pay roll ranged from 39 to 91. In the 5 weeks following, both pay rolls advanced, but the home-work pay roll ranged from 68 to 103, while that of factory workers was from 103 to 117.

In the next 10 weeks—in 3 of which no home work was done, and in 2 of which factory work was at its lowest—the range was wide for both pay rolls. In each case the index declined and came up again within the 10 weeks.

Beginning with the pay-roll period dated February 7, both inside and outside work had a tremendous increase. For 15 weeks the index of the home-work pay roll was from $1\frac{1}{4}$ times to more than 3 times the average for the year; in fact, the index was over 200 in 11 of the 15 weeks. The high point, 316, was reached in the pay-roll week of February 21. This spring activity covered the peak months for rayon and cotton goods. The range in the index of the factory pay roll in the 15 weeks was very much less. The maximum was 187. Fourteen of these weeks had larger pay rolls than any other in the year.

After the middle of May both inside and outside work, especially the latter, declined sharply. In the 15 weeks the home-work pay-roll index ranged from zero in 1 week and only 7 in 2 weeks to 84. It was below 50 for half the time. The range in the factory pay-roll index was from 30 to 94. Its low point was in the middle of July, after which it had an almost unbroken rise. Home work was very irregular in contrast. In general direction of the curves, this chart shows greater similarity in the two pay rolls than do the others.

Neckties.—From the figures of a firm making neckties it was possible to compare the labor costs for the same operation, slipstitching, as done in the factory and done as home work. Information was available for a period of 31 pay-roll weeks, those of March 7 to October 3, 1931. In February a strike had begun that lasted for months. No doubt this had an effect on the earnings of factory workers; for, though the plant was closed only 1 day because of the strike, there was a large turn-over among the employees. The index of the factory labor cost was below the average in 18 of the 31 weeks; that for outside work was below the average in 19 weeks.

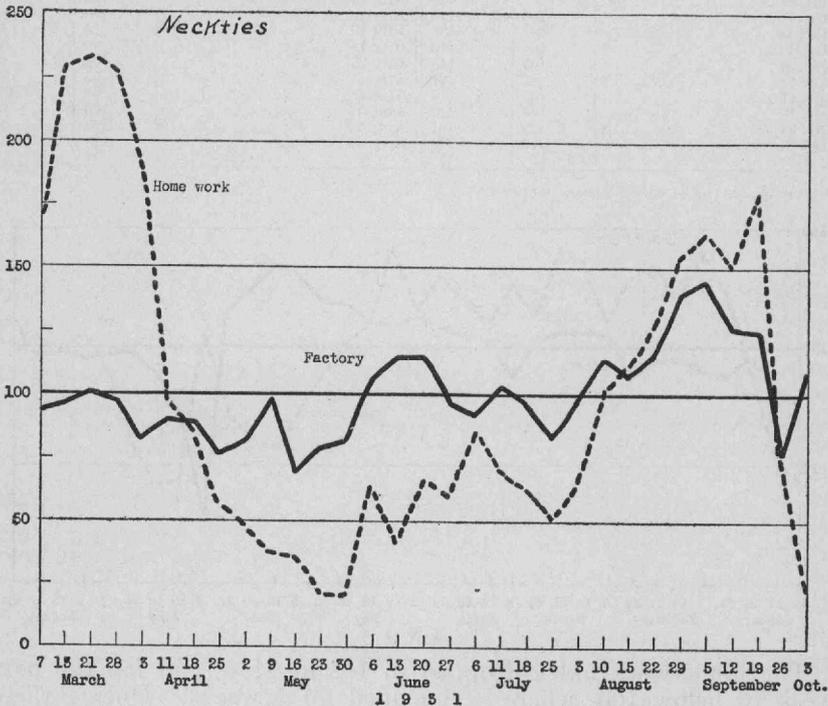
For the first 5 weeks of the 31 the home-work index ranged from 171 to 233, while that for factory workers ranged only from 83 to 100. This was due to the fact that the strike was on and much work was given out to be done at home. During these 5 weeks the home-work pay roll was from 24 percent to 29 percent of the total labor cost.

For the next 6 weeks, ending with May 30, the index of the factory pay roll never reached 100; the lowest point was 70 and the highest was 99. Home work in these weeks declined steadily, from 57 to 21. The home-work pay roll dropped from 12 percent to 4 percent of the total. The effects of the strike were being felt less, and the spring rush was over.

Beginning with the pay-roll week of August 10, for 7 weeks the index both for factory work and for home work was above 100, in most cases well above. For factory work the maximum in this period was 146, for the pay-roll week of September 5; for home work it was 181, for the week of September 19. These higher figures are indicative of preparation for fall trade. The home-work pay roll increased from 13 percent to 20 percent of the total.

Pay-roll date	Index ¹ of pay rolls for slipstitching, 1 necktie firm, for—		Pay-roll date	Index ¹ of pay rolls for slipstitching, 1 necktie firm, for—	
	Factory workers	Home workers		Factory workers	Home workers
1931			1931		
Mar. 7	93	171	June 27	96	60
Mar. 13	96	229	July 6	93	85
Mar. 21	100	233	July 11	103	69
Mar. 28	97	227	July 18	97	62
Apr. 3	83	185	July 25	83	51
Apr. 11	91	98	Aug. 3	98	63
Apr. 18	89	87	Aug. 10	113	101
Apr. 25	76	57	Aug. 15	108	112
May 2	81	49	Aug. 22	116	128
May 9	99	38	Aug. 29	139	154
May 16	70	36	Sept. 5	146	164
May 23	79	22	Sept. 12	126	150
May 30	82	21	Sept. 19	125	181
June 6	107	65	Sept. 26	77	69
June 13	114	41	Oct. 3	108	24
June 20	115	67			

¹ Average for the 31 weeks equals 100 percent.



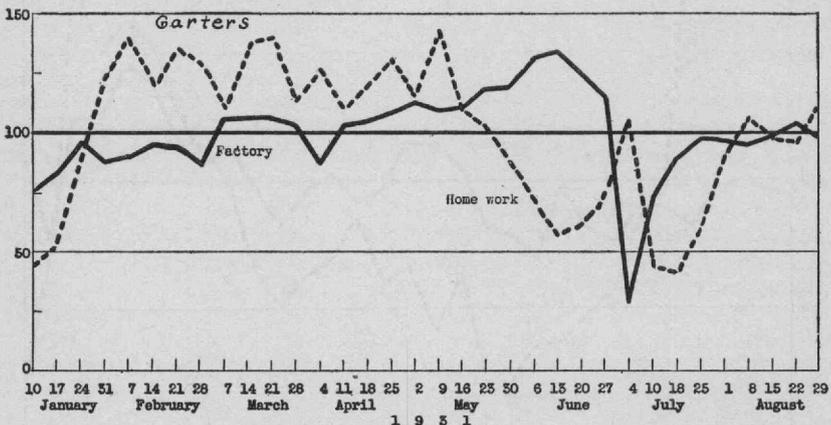
In the last 2 weeks of the 31 the index for home work fell abruptly to 69 and 24; the index for factory work fell to 77 and then advanced to 108. The home-work pay roll for the last week recorded was only 4 percent of the total.

Garters.—In a firm making garters, factory and home-work pay rolls were available for 34 weeks, beginning with the pay-roll week of January 10 and ending with that of August 29, 1931. For 17 weeks and 14 weeks, respectively, the factory and the home-work

pay rolls were below the average for the year. In the first 3 weeks of the 34 both indexes were below the average. The home-work pay roll jumped the next week to 123 and kept well above 100 for 16 weeks, with a maximum of 143. The factory pay roll was 5 weeks later than the home-work pay roll in rising above the average, but it remained there for practically the same number of weeks. Its maximum was 135.

Pay-roll date	Index ¹ of pay rolls of 1 garter firm for—		Pay-roll date	Index ¹ of pay rolls of 1 garter firm for—	
	Factory workers	Home workers		Factory workers	Home workers
1931			1931		
Jan. 10	76	44	May 9	110	143
Jan. 17	83	52	May 16	111	110
Jan. 24	97	88	May 23	119	102
Jan. 31	88	123	May 30	119	88
Feb. 7	92	140	June 6	131	72
Feb. 14	96	120	June 13	135	57
Feb. 21	95	136	June 20	125	62
Feb. 28	87	129	June 27	115	73
Mar. 7	106	110	July 4	80	105
Mar. 14	107	138	July 10	74	43
Mar. 21	106	140	July 18	90	42
Mar. 28	103	113	July 25	98	61
Apr. 4	87	127	Aug. 1	97	92
Apr. 11	103	110	Aug. 8	96	106
Apr. 18	105	120	Aug. 15	100	98
Apr. 25	108	131	Aug. 22	103	97
May 2	113	115	Aug. 29	99	110

¹Average for the 34 weeks equals 100 percent.



The home-work index dropped to 102 in May, and fell the next week to below 100, where it remained for 5 weeks. During these same 5 weeks the factory pay roll was well above 100. In fact, from the middle of May to the middle of July the two curves go in opposite directions.

In the first week of July the home-work pay roll rose above the average, while the factory index dropped to 30, its low for the year. For the next 3 weeks the home-work index was low, but in the 5 weeks following it was around 100. In this same 8-week period the factory pay roll rose, the index varying from 74 to 103.

Part IV.—LIGHTING IN CLOTHING FACTORIES ⁷

The laws of Connecticut, like those of many other States, require that all factories and buildings where machinery is used shall be "well lighted", but they set no standard beyond this generalization, and practically nothing is being done by the factory inspection forces to improve lighting equipment except what is helpful in preventing accidents. In the needle trades especially, good lighting is necessary not only for the health of the workers but for efficient production. Various studies have shown that quantity and quality of output increase as lighting of the workroom is improved. A report of the United States Public Health Service shows that in 10 industries surveyed the percent of employees with normal sight was lowest in the garment industry.

Since so much depends on the lighting in such work places, a special study was made of the lighting equipment in 32 clothing factories while the study of the sewing trades was in progress. A few hundred measurements were taken of the intensity of light at the working point (or surface) and striking conditions of glare and of shadows on the work were noted.

There was no special selection of factories beyond taking a group that seemed to be representative of the sewing trades. A very few of the factories included in this lighting study occupied entire buildings; the majority were renting lofts in buildings with other tenants. Some of the workrooms were large, two accommodating as many as 200 sewers, but only 10 had as many as 100. Others were small, 10 having fewer than 50 persons who were sewing.

Levels of lighting at work positions

For determining the amount of light a foot-candle meter was used. This is a simple instrument by which illumination is read directly from a scale without computing. While not so exact in measurement as some other instruments, the foot-candle meter is recommended by the Illuminating Engineering Society for measuring light, and it is considered accurate enough for most practical purposes.

Two things that could not be controlled affected the adequacy of the lighting—variation from day to day in the amount of natural light and the color of the materials on which the employees were working.

The days on which the light readings were taken were not uniformly bright; in fact, the sky was clear and cloudless while the measurements were being made in only 11 of the factories. In the other cases, either the sky was somewhat overcast or the day was decidedly dark and rainy, and in 15 of these the employees were working on dark materials. All measurements were made at as near the noon hour as possible, in either the late forenoon or the early afternoon, in the first part of January. Very few readings were made before 10 a. m. and almost none after 3 p. m. Wherever possible two readings were taken for each position, the first by natural daylight only, and the second with the addition of artificial light.

⁷ For a general discussion of the basic problems of lighting see Women's Bureau Bulletin No. 94, pp. 3-6.

In the workrooms of these 32 factories just over 2,600 women were employed in sewing operations, the great majority of them machine operators but 276 of them hand sewers. In the workrooms of 11 factories the women were sewing on light materials, used for house dresses, shirts, blouses, corsets, and underwear, and in 21 they were working on dark goods, used in the manufacture of such garments as silk and wool dresses, trousers, and neckties. Altogether, practically three-fifths of the women were sewing on dark materials.

The light was measured only at the work positions of those who were engaged in sewing, either by power machine or by hand—occupations that require close discrimination of detail. Readings were not made for all sewing positions, but in each workroom the number was representative of the various conditions; for example, some positions selected were near windows, others were remote from them. Other considerations were the location and the type of artificial lights, some being individual and others serving a group, some being of clear glass and others frosted, some having old-fashioned and crude reflectors or none at all and others having the approved types. Some lamps hung in the line of vision of the workers, others hung near the ceiling. The size of the lamps ranged from 5 or 10 watts to 200 watts.

Nine hundred and thirty-five candle-meter readings were taken at the working point of 459 positions. The numbers of readings by natural and by artificial light were not the same. In cases where, as in 3 plants, the light definitely was affected by more than 1 lamp, 2 readings were taken to show variations to the right and to the left of the needle. Furthermore, in some fixtures there were no lamps.

The code of lighting approved by the American Standards Association, August 1930, and recommended by the Illuminating Engineering Society⁸ gives different levels of illumination to correspond to the variations actually existing in specified processes. For sewing light goods, for example, from 15 to 10 foot-candles,⁹ and for sewing dark goods from 100 to 25 foot-candles, is considered desirable, depending on the degree of fineness and other conditions. "These values are based upon practice established through years of experience * * * in modern practice it will usually be found desirable to select values in or even beyond the upper portion of the range."¹⁰

Comparing the measurements taken in the Connecticut clothing factories with the standards recommended, the accompanying table shows that conditions fell far short of what is considered desirable in light intensities.

In workrooms where the employees were making garments from light goods, readings were made in 5 factories on sunny days and in 6 factories on cloudy days. One-half (49.3 percent) of the measurements taken on sunny days under natural light were below the lower recommended level of 10 foot-candles. By the addition of artificial light the level was raised, but even then 17.6 percent of the readings on sunny days still were below the lowest recommended standard. On cloudy days conditions were more serious. Under natural light, four-fifths (80.5 percent) of the readings showed less than 10 foot-

⁸ Code of Lighting: Factories, Mills, and Other Work Places. American standard, approved Aug. 18 1930, by American Standards Association.

⁹ A foot-candle is the unit of illumination in terms of which lighting requirements are specified. The light rays from a bare 25-watt tungsten filament lamp falling perpendicularly on the surface of a newspaper held 5 feet away represents approximately 1 foot-candle of illumination.—Ibid., p. 12.

¹⁰ Ibid., p. 13.

candles of illumination and with the addition of artificial light about 30 percent (29.1) still were below this level. With the electric lights on, intensities of 15 foot-candles were recorded in only two-thirds (66.2 percent) of the readings on bright days and in only about two-fifths of them (41.9 percent) on cloudy days.

Intensity of light	Percent of readings showing foot-candles as specified that were taken while—			
	Sun shining		Sky overcast	
	Natural light only	Artificial light in addition	Natural light only	Artificial light in addition
LIGHT GOODS				
Total number of readings	75	74	87	86
Percent	100.0	100.0	100.0	100.0
Under 10 foot-candles	49.3	17.6	80.5	29.1
10, under 15 foot-candles	16.0	16.2	8.0	29.1
15 or more foot-candles	34.7	66.2	11.5	41.9
DARK GOODS				
Total number of readings	85	77	212	239
Percent	100.0	100.0	100.0	100.0
Under 25 foot-candles	91.8	54.5	100.0	75.7
25 or more foot-candles	8.2	45.5	-----	24.3

In the 21 workrooms where the employees were engaged in the manufacture of garments from dark goods there was a still greater lack of good lighting. Six factories were visited on sunny days and 15 on cloudy days. Higher intensity naturally is necessary for work on dark materials, and for these the lowest recommended level is 25 foot-candles. Under natural light only, the readings taken on bright days fell below this level in more than nine-tenths (91.8 percent) of the cases, and on cloudy days they fell below in all cases. With the addition of artificial light there was some improvement, though the intensity still was below 25 foot-candles for over half (54.5 percent) the readings on light days and for three-fourths (75.7 percent) of those on cloudy days.

Though 25 foot-candles is the level recommended as satisfactory for close work on dark materials under some conditions, under other conditions the recommendation is for as much as 100 foot-candles. In only one position was the reading as high as 100 foot-candles. However, in the wide range between 25 and 100, several measurements were recorded, but on both bright and cloudy days, of all readings made with the addition of artificial light, most were less than 40 foot-candles and only 25 were as high as 50.

At the time of day when these readings were taken there was almost no machine operator or hand sewer who was not benefiting more or less by daylight. It was apparent, however, that at other times, as in the early morning or late afternoon, when natural light would be poor and the workers would be dependent on artificial light solely, the intensity of illumination would be much less than that shown in the table under combined daylight and artificial light.

In the group of readings of less than 5 foot-candles there was an amazing number even below 3, in both light- and dark-goods plants, when only natural light was used. This condition, greatly improved by the addition of artificial light, emphasizes the importance of sufficient equipment, installed and maintained with intelligence.

Intensity of light (foot-candles)	Number of foot-candle readings below 5, all sky conditions			
	Light goods		Dark goods	
	Natural light only	Artificial light in addition	Natural light only	Artificial light in addition
Under 1.....	24	-----	56	1
1, under 2.....	26	2	62	4
2, under 3.....	12	-----	44	7
3, under 4.....	9	4	28	7
4, under 5.....	10	6	18	11

To sum up: Of the readings taken under all sky conditions—bright, overcast, and cloudy—and when natural light was supplemented by the best artificial light possible with the equipment installed, about 24 percent of those in light-goods factories and 70 percent of those in dark-goods factories were less than the lower of the recommended levels for their respective types of materials; and 47 percent of those in light-goods factories and all but 1 of the 316 in dark-goods factories fell short of the higher of the recommended levels.

Lighting equipment

A lack of thought and system in installing lights was evident in almost every factory. In some rooms there was no uniformity in the types of lights supplied, even for persons doing the same kind of work; at the same worktable some lights hung high and others hung low; some had shades, others none; some work positions were dimly lighted and a few had too intense a light, with glare and shadows.

Of the more than 1,500 light units in these 32 factories, something over 700 were less than 2 feet from the working plane. Practically two-thirds of these were individual local lights, of 5 to 25 watts.

About 550 of the lights were 2 and less than 4 feet above the working plane. Three hundred of these were of 75 watts or more and 175 were of 40 to 60 watts. Just over 150 had no shades and more than two-thirds of those without shades were not frosted.

About 230 lights were 4 feet or more above the working plane. Almost 200 were of 75 or more watts. Fewer than 20 had no shades.

As might be expected, more lamps of high power were used close to the work on dark goods than on light goods. Most of the 40- to 60-watt lamps were used on dark goods, many at eye level and few more than 4 feet from the working plane. Lamps of 75 and 100 watts also were used on dark goods at less than 2 feet from the work.

A type of light in common use was the drop light in a deep bowl or a tin reflector, close fitting, and with the lamp often extending below. Frequently the reflector was of tin painted green on the outside, and usually the lamps were hung over the workbenches so that each served 2, 3, or 4 operators

Few lights with shallow-bowl or flat-cone reflectors, shaped like a plate and not enclosing the lamp, were at eye level, the majority hanging higher and contributing to the general lighting. The lights with dome reflectors, like inverted pans, wide and flat at the socket and with protecting sides usually below the lamp, also hung for the most part above eye level and lighted the work of more than one operator. The few that were hung less than 2 feet from the table were far from satisfactory, being too bright for such use.

Annoying or really harmful glare was noted in many plants. In a number of cases the workers had put up their own crude substitutes for shades.

A factory with 48 machine operators had the machine positions lighted by 12 lamps of 100 and 150 watts only 2 feet above the tables, all unshaded and 5 of them unfrosted. In another factory girls stated that they often sewed in the dark rather than endure the glare of the light. Comments on glare appear on many of the schedules made out by Women's Bureau agents.

Shadows on the work, not so noticeable to the casual observer as glare, are a very important consideration for the worker. In a number of factories, girls complained of "shadows from the lights." One assistant forelady, indicating a certain position, said, "I used to work at that machine. A shadow was on the the presser foot and needle all the time." A different situation is described in the following: "Lights are placed regularly, one to each two operators, purposely to avoid shadows. Only a few slight shadows were observed in this plant."

Other features

About half the rooms were 2 or 3 times as long as they were wide and well over 100 feet in length; 7 of them were 150 to 192 feet. All but 1 of the 32 had windows on more than one side. Five had very short windows—4 feet or less. In about two-thirds of the factories the floor area was more than 6 times the window area, though 6 to 1 is considered the maximum that is safe. In 2 plants the floor had more than 25 times the area of the windows. Only 3 or 4 plants had no curtains.

Nine workrooms had very low ceilings—10 feet or less. About 12 had skylights or monitor roofs.

