

**U. S. DEPARTMENT OF LABOR
WOMAN IN INDUSTRY SERVICE**

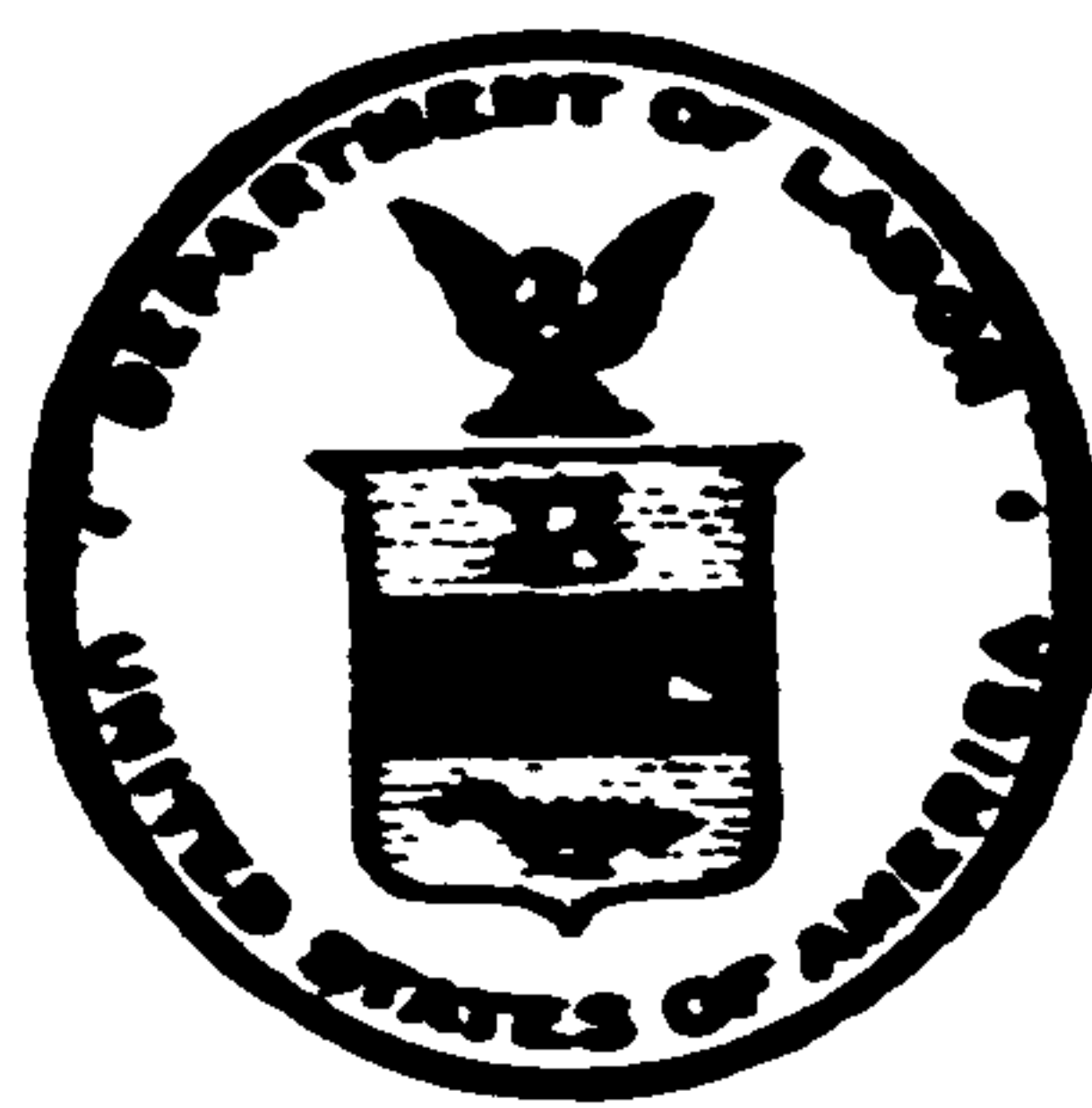
MARY VAN KLEECK, Director

BULLETIN OF THE WOMAN IN INDUSTRY SERVICE NO. 4

**WAGES OF CANDY MAKERS IN
PHILADELPHIA IN 1919**



**EDITED BY THE BUREAU OF LABOR STATISTICS
ROYAL MEEKER, Commissioner**



JUNE 28, 1919

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LETTER OF TRANSMITTAL

U. S. DEPARTMENT OF LABOR,
WOMAN IN INDUSTRY SERVICE,
Washington, May 1, 1919.

SIR: We submit herewith a report giving the results of an investigation of the wages of candy makers in Philadelphia. The investigation was undertaken at the request of the Women's Trade-Union League of Philadelphia. The League had received numerous complaints of the low wages of women in the candy trade and wished to verify or disprove the accuracy of these statements.

As the Bureau of Labor Statistics had under way a nation-wide survey of wages and working conditions in important industries, we asked and secured its cooperation in this brief inquiry in Philadelphia. The Bureau assigned Miss Suzanne Wunder, Mrs. Ethel C. Ulrich, and Miss Alice F. Mueller to work with Miss Agnes L. Peterson and Mrs. Ethel L. Best of the staff of the Woman in Industry Service. The schedules used by the Bureau of Labor Statistics in its larger survey were adopted in this inquiry in order that the facts gathered might be part of the statistics secured by the Bureau for the same industry in other communities. Certain supplementary information was secured for the immediate use of the Woman in Industry Service.

Mrs. Best has been responsible for the preparation of the material included in the report and Miss Mildred L. Jones has compiled the statistics. In accordance with a plan of cooperation recently adopted between the Bureau of Labor Statistics and the Woman in Industry Service, the manuscript has been edited in the Bureau and the bulletin is issued as a joint publication.

Respectfully submitted.

MARY VAN KLEECK,
Director.

The SECRETARY OF LABOR.

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WAGES OF CANDY MAKERS IN PHILADELPHIA IN 1919.

FOREWORD.

Candy making may be described as having been, for a time, a war industry. Its products were on the list of essential supplies for the Army in France. Its production during the war, however, was necessarily curtailed by restrictions on the use of sugar and other materials, and by limitations in the supply of fuel, as well as by the necessity for withdrawing men for military service and releasing as many workers as possible, including both men and women, for the manufacture of munitions. With the signing of the armistice and the subsequent removal of these regulations the confectionery industry assumed its normal place as related on the one hand to the food supply of the country, while on the other hand its products may also be classed as luxuries. How the women employed as candy makers were faring, especially in wages, in a typical city in the period following the signing of the armistice, was the subject of this investigation.

The subject of wages had taken on a new significance during the war. The policy which should underlie wage determination was officially defined by several Federal agencies. The most authoritative statement was contained in the report of the National War Labor Conference Board, which, as affirmed by the President, became the guiding principle for the National War Labor Board in the settlement of industrial disputes during the war. The paragraphs relating to wages are as follows:

1. The right of all workers, including common laborers, to a living wage is hereby declared.

2. In fixing wages, minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort.

Presumably this statement applied to all workers, including women. In addition the board had declared that—

If it shall become necessary to employ women on work ordinarily performed by men they must be allowed equal pay for equal work.

In the Standards for the Employment of Women recommended by the Woman in Industry Service, adopted by the War Labor Policies Board and subsequently issued as a statement of purposes in the period of reconstruction, it is recognized that the principle of equal pay for equal work is not sufficient since it is held to apply only to those occupations in which women take the places of men and then, in practice, the right to equality is usually recognized only if the process be identically the same when a woman performs it as when a man performs it. The Woman in Industry Service held rather that wages should be set for an occupation with recognition of the cost of living as the first factor in determining the minimum, regardless of whether the work was to be performed by a woman or by a man. In the standards recommended by the service, therefore, the following paragraphs outline a policy for wage determinations:

1. *Equality with men's wages.*—Women doing the same work as men shall receive the same wages, with such proportionate increases as the men are receiving in the same industry. Slight changes made in the process or in the arrangement of work should not be regarded as justifying a lower wage for a woman than for a man unless statistics of production show that the output for the job in question is less when women are employed than when men are employed. If a difference in output is demonstrated, the difference in the wage rate should be based upon the difference in production for the job as a whole and not determined arbitrarily.

2. *The basis of determination of wages.*—Wages should be established on the basis of occupation and not on the basis of sex. The minimum wage rate should cover cost of living for dependents and not merely for the individual.

The application of wage standards in time of peace depends upon the voluntary action of employers and workers and the agreements which these two groups adopt, except in those States which have already enacted wage legislation. The function of an agency of the Federal Government in relation to this subject is limited to investigating and reporting. The emphasis upon policies for determining wages which was given in the various official pronouncements of the Federal Government during the war, however, made the whole subject of wages one of peculiar importance to the Woman in Industry Service, charged, as it is, with the task of developing standards and formulating policies for women in industry. The request of the Women's Trade-Union League of Philadelphia that the Service investigate wages in the candy factories in Philadelphia, on the ground that the earnings therein were reputed to be less than the cost of living, was deemed, therefore, to be of urgent importance.

Moreover, in view of the generally prevailing opinion that because of war conditions high wages had become the universal practice in industry, it was thought that facts were needed to show the actual conditions after the war in the trades in which before the war instances

of a low wage scale had been numerous. Such an industry was candy making, as facts obtained in official investigations had demonstrated. The wages of candy makers were included in investigations made, for example, by the Commissioner of Labor of the United States in 1907-8, as authorized by act of Congress, and by the New York State Factory Investigating Commission in 1914. In both of these important inquiries an alarmingly large proportion of the women employed in candy making were receiving less than the minimum accepted as essential for subsistence. The facts gathered in these inquiries will be more fully discussed in the following report.

SCOPE AND METHOD.

As the Bureau of Labor Statistics had projected a nation-wide survey of wages in important industries, this inquiry in Philadelphia was planned with its cooperation, and its schedules were used as the basis for the statistical work so that the data might form part of the results of the Bureau's national investigation, while it would also be available through the Woman in Industry Service for recommendations for local action. These schedules provided for a record from the pay roll of the hours of work, the rates of pay, and the actual earnings of each worker in each occupational group for a pay-roll period, with a supplementary record where possible of actual hours of employment of pieceworkers.¹ In addition the Woman in Industry Service used three other forms of records. The first showed for a factory the number of employees and the total wages paid in each week in the year in order to trace fluctuations in employment.² The second, a small card, was filled out by the employee, giving name, address, conjugal condition, country of birth, age, length of experience in the candy trade, length of employment in this establishment, occupation, and conditions of living; that is, whether living at home or boarding. This personal information was combined with facts taken from the pay roll for each employee, showing rate of pay, days worked during the week, and hours of employment during the same period. The facts secured from the pay roll were supplemented by an inspection of the workrooms, but this inspection was merely incidental. The personal records were supplemented by visits to the homes of the workers.

Table 1 shows the number of men, women, and children employed during one weekly pay-roll period in 1919 in each establishment visited.

¹ See Appendix II, p. 44, for the form of this schedule.

² See Appendix II, pp. 45 and 46, for additional forms of records used by Woman in Industry Service.

10 WAGES OF CANDY MAKERS IN PHILADELPHIA IN 1919.

TABLE 1.—NUMBER OF MEN, WOMEN, AND CHILDREN EMPLOYED DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY ESTABLISHMENT.

Establishment No.	Number of employees.			
	Men.	Women.	Children under 16. ¹	Total.
I.....	203	536	.....	739
II.....	361	167	1	529
III.....	83	141	.....	224
IV.....	123	98	.....	221
V.....	102	75	.....	177
VI.....	32	90	11	133
VII.....	26	61	.....	87
VIII.....	18	64	.....	82
IX.....	15	35	5	55
X.....	5	42	.....	47
XI.....	12	35	.....	47
XII.....	12	26	2	40
XIII.....	6	31	1	38
XIV.....	10	25	.....	35
XV.....	11	16	.....	27
XVI.....	3	18	1	22
XVII.....	5	12	.....	17
XVIII.....	5	7	3	15
XIX.....	2	9	.....	11
XX.....	2	7	2	11
XXI.....	4	4	.....	8
XXII.....	.....	3	1	4
XXIII.....	3	1	.....	4
XXIV.....	2	1	.....	3
XXV.....	2	1	.....	3
Total.....	1,047	1,505	27	2,579

¹ The number of children under 16, as shown in this table, was reported by the management in the establishments investigated. The personal record cards used, for example, in Table 2, p 13, showed 26 girls under 16. Probably the number of children of both sexes in Table 1 is underestimated.

The total number of workers in the 25 factories visited was 2,579, of whom 1,505, or 58.4 per cent, were women. Only 27 children under 16 were recorded, but it is quite possible that this is not an accurate figure as no documentary proof of age was asked for and no special emphasis was placed upon the subject of child labor in making the investigation.

The more recent census figures on the candy industry were secured in the census of manufactures made by the Bureau of the Census of the Department of Commerce in 1914. According to these figures, the total number of wage earners employed in the confectionery industry in the Philadelphia metropolitan district¹ was 3,415 in 159 establishments. The increase in the number of wage earners since 1909 had been 282, or 9 per cent of the 3,133 employed in 1909. Allowing for the same increase between 1914 and 1919, the total number of candy makers now employed in the Philadelphia district may be estimated as 3,722. The investigation made by the Woman in Industry Service may be assumed therefore to have included two-thirds of the total for the city.

The factories investigated varied greatly in size, from the small plant employing 3 workers to the establishment whose force num-

¹ U. S. Bureau of the Census. Census of Manufactures, 1914, Pennsylvania, Table 17, p. 23.

bered 739. It may be said therefore that typical factories in the industry were represented in the wage study.

The investigation was beset with the usual difficulties, due primarily to the absence of records. Twenty-five factories were visited and brief inspections made of the working conditions—cleanliness, sanitation, ventilation, and light—both from the standpoint of the worker and that of the consumer. Of these 25, 5 were small plants which kept no pay roll and in 1 establishment the management was unwilling to give access to the books. The current pay roll with rate of pay and earnings was available in 19 establishments and in 10 of these it was possible to secure a contrasting pay roll in July or August. In 18 plants the record was obtainable of the number of workers and the total wages paid out during each week of the 12 months preceding the date of the investigation.

The cards for personal records were distributed to the workers in 21 plants and were filled out by 572 men and 970 women. This information was then correlated with the data from the pay roll regarding each of the workers who filled out a personal-information card. The complete material from both pay roll and personal record was available for 812 women and 231 men. Visits were made to the homes of 42 women employed in the factories investigated and additional information was secured as to home conditions and the amount contributed by the worker to the family budget.

The investigation was begun the middle of January, 1919, and continued for a period of five weeks. As the figures on regularity of employment and seasons will show, these weeks were the beginning of the spring season and represented neither the maximum nor the minimum period of employment from the point of view of seasonal fluctuations. In selecting for comparison a week in July or August¹ the aim was to record the earnings in the dullest season of the year. The advantage in securing statistics from the current pay roll was that it enabled the investigators to correlate the facts with the personal records of workers who were then employed and could be found in the workrooms. Had one of the maximum weeks of December or November been chosen this correlation with personal data would not have been possible.

FACTS ABOUT THE CONFECTIONERY INDUSTRY.

Nine pounds of candy a year at 15 cents a pound for every man, woman, and child in the country, or a total of \$135,000,000 worth, represented the output of the confectionery industry in the United

¹ In one factory employing three workers the pay roll for 1918 had to be taken in December, as no records of the period before that were preserved, and in one other establishment the contrasting pay roll for 1918 was taken in April, which represented the dull season in that establishment.

States in 1910, as the New York State Factory Investigating Commission pointed out in its report in 1915.¹ The United States Bureau of the Census reported the value of the products of confectionery in 1914 as somewhat over \$170,000,000, with a total payroll of approximately \$21,500,000. The number of wage earners in the industry was 53,658, and these were employed in 2,391 factories.² Every State in the Union has at least 1 confectionery establishment, but the largest number of wage earners are employed in the manufacturing States of New York, Massachusetts, Pennsylvania, and Illinois. Pennsylvania ranked third among the States as to wage earners, having 6,465, but it ranked second in number of factories, having 281 such establishments.³ The tendency, too, is for the industry to be concentrated in the large cities. Thus, New York City⁴ has 9,907 of the 10,768 workers in the candy industry of the State, Boston has 6,323 of the 6,787 in Massachusetts,⁵ and Philadelphia factories employ 3,415, or 52.8 per cent, of the total force of 6,465 in Pennsylvania.⁶

Conditions vary greatly, according to the size and character of the establishment and the kind of product in which the firm specializes.

Perhaps the greatest difference noted in the candy factories visited in Philadelphia was in their varying size and the degree of organization. The size seemed to depend largely upon the product. The products include chocolates, cream candies, hard candies, caramels, and marshmallows. In the making of hard candies and marshmallows and certain kinds of chocolates machinery is used, and the tendency in making these products is therefore toward larger establishments and a greater degree of organization. The machinery requires a larger outlay of capital and its use tends toward more highly organized production and specialization by the workers. The chocolate candies which are dipped by hand and the cream candies are made chiefly by hand processes and it is possible, therefore, to make them in the small plants. Another characteristic of the industry is the small retail shop which has its own kitchen to make cream candies, chocolates, and occasionally hard candies, although these last are usually made in the larger establishments which have machinery.⁷

¹ New York State Factory Investigating Commission, Fourth Report, 1915, Vol. II, p. 301.

² U. S. Bureau of the Census. Census of Manufactures, 1914, Abstract, Table 223, p. 603.

³ Idem, Table 223, pp. 603, 604.

⁴ Idem, New York, Table 20, p. 32.

⁵ Idem, Massachusetts, Table 17, p. 21.

⁶ Idem, Pennsylvania, Table 17, p. 23.

⁷ Some factories supply a chain of their own retail stores, while other plants manufacture for retailers and do not sell directly to the consumer.

Processes in the industry.—The cooking of the candy is always done by men, usually assisted by boys¹ who act as helpers. Cooking is a skilled occupation. It is highly specialized in the larger plants. One worker makes only creams, another neugat, and another hard candy, while before Easter an egg decorator comes in for a few weeks and does nothing but decorate eggs. He is usually a baker by trade and returns to his bakeshop when the Easter rush is over. In one plant the egg decorator worked during the greater part of the year as crane operator in a steel mill, but his vocation was apparently ornamenting eggs, for he received \$83 a week for the period before Easter, when he was employed in a candy factory.

In the making of chocolate or cream coated candies the cooks pour the cream or fondant into molds, which are then carried to the room where they are dipped into chocolate or coated with cream. After the candies are dipped they are taken to the cooling room to harden. From there they go to the packer, who packs them either in fancy boxes or in bulk for the retail trade. Some candies are wrapped before being packed, but both the wrapping and packing are usually done by the same group of workers. Fancy packing in separate boxes for the consumer requires practice and is better paid than packing in bulk. The most skilled process is the hand dipping of the chocolates, but some chocolate candies are dipped by machine, and the tending of the machine is not a skilled process. The tendency in several plants is to replace handwork with machine dipping.

The process of making hard candies and caramels differs in that these candies are usually made entirely by machine after the cooking is done. The wrapping and packing are essentially the same for the hard candies as for the chocolates and cream candies, except that in a few plants wrapping of caramels is done by machine.

Table 2 shows the number of workers employed in the various occupations in 19 of the factories visited.

TABLE 2.—NUMBER OF MEN, WOMEN, AND CHILDREN EMPLOYED DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, CLASSIFIED BY OCCUPATIONS.

Occupation.	Number employed in each occupation.				Per cent in each occupation.
	Men.	Women.	Children under 16.	Total.	
Foremen or forewomen.....	16	9	.....	25	1.3
Cooks.....	161	.....	.....	161	8.4
Dippers.....	.....	253	2	255	13.3
Packers.....	.....	781	7	788	41.0
Machine operators.....	223	48	.....	271	14.1
Other occupations.....	262	155	6	423	22.0
Total.....	662	1,246	15	1,923	100.0

¹ In one plant girls were employed as helpers.

² See footnote, Table 1, p. 10.

It will be noted that in the occupation of cooking only men are employed, while dipping and packing are done exclusively by women. In machine operating and in miscellaneous occupations both men and women are employed. The miscellaneous occupations include carrying trays, sorting nuts, and stoning fruits. The largest group are employed in the process of packing.

THE WORKERS.

Proportion of women.—Women are in the majority among the makers of confectionery. Throughout the country 60 of every 100 confectionery workers are women.¹ In the 25 factories investigated in Philadelphia the proportion of women in the total working force was slightly smaller, 58.3 per cent. In the 19 factories for which the current pay-roll statistics were secured the proportion of women was decidedly larger, as Table 2 shows. In these factories women constituted nearly two-thirds, or 64.7 per cent, of the force. It should be noted that the percentage of women varies according to the product of the plant. Reference to Table 1 shows, for example, that in establishment No. I the women number 536 of the total force of 739, as contrasted with establishment No. II, in which only 167 women were employed in a working force of 529. Establishment No. I manufactures a great variety of products, including handmade chocolates, while in establishment No. II no hand dipping is done.

Ages.—Candy making seems also to be the occupation of young persons. Table 3 shows the ages of the workers who filled personal record cards.

TABLE 3.—NUMBER AND PER CENT OF WOMAN WORKERS, 1919, CLASSIFIED BY AGE GROUPS.

Age group.	Number.	Per cent.	Age group.	Number.	Per cent.
14 and under 15 years.....	9	0.9	40 and under 50 years.....	82	8.6
15 and under 16 years.....	18	1.9	50 and under 60 years.....	43	4.5
16 and under 18 years.....	198	20.8	60 years and over.....	12	1.3
18 and under 20 years.....	171	18.0			
20 and under 30 years.....	303	31.9	Total.....	1 950	100.0
30 and under 40 years.....	114	12.0			

¹ Of the 970 women who supplied personal record cards, 20 did not state their age.

Thus 42 of every 100 women in the candy factories investigated were under 20 years of age.

As might be expected in an industry employing so large a proportion of young workers, the large majority, 672, or 72.5 per cent of the 927 reporting as to conjugal condition, were single. The number of married women was 176, or 19 per cent, and the widowed, deserted, or divorced numbered 79, or 8.5 per cent.

¹ U. S. Bureau of the Census. Census of Manufactures, 1914, Abstract, Table 207, p. 45. The exact percentage is 59.7.

Age at beginning work, and nativity.—The age at beginning work and the nativity of the women employed in candy factories are shown in Table 4.

TABLE 4.—NUMBER OF WOMAN WORKERS, 1919, CLASSIFIED BY AGE AT BEGINNING OF SERVICE AND BY NATIVITY.

Country of birth.	Number whose age at beginning of service was—					Total.	Per cent.
	Under 14 years.	14 and under 15 years.	15 and under 16 years.	16 and under 18 years.	18 years and over.		
United States.....	50	236	162	250	84	782	82.5
Russia.....	7	12	10	14	4	47	5.0
Austria.....	12	6	4	6	8	36	3.8
Italy.....		12	7	6	3	28	3.0
Ireland.....	2	3	1	5	6	17	1.8
Germany.....	3	2		2	6	13	1.4
Other countries.....	1	4	6	8	6	25	2.6
Total.....	75	275	190	291	117	1 943	100.0
Per cent.....	7.9	29.0	20.0	30.7	12.3	100.0	

¹ Of the 970 women who supplied personal records, 22 omitted either the country of birth or the age at beginning work.

It should be remembered that the personal records on which this table is based were filled out by the workers employed at the time of the investigation. It is to be expected, therefore, that the proportion of the native born, who can more readily write English, would be higher than would be probable if there had been no such factor of selection. It is possible also that this same factor resulted in recording a larger proportion of women who began work after the age of 16 than would be true for all the women in the industry. It seems clear, nevertheless, that among the workers in the factories included in this investigation the proportion of the native born was very large. If the data regarding birthplace of parents were available undoubtedly the proportion of workers of foreign extraction would be much larger. Of the total number of women who filled out the record cards more than one-half, or 57 per cent, began work before they were 16 years old.

Length of time in the trade.—That the workers do not stay long in the trade is indicated in Table 5.

TABLE 5.—NUMBER AND PER CENT OF WOMAN WORKERS, 1919, CLASSIFIED BY NUMBER OF YEARS IN THE TRADE.

Years in the trade.	Number.	Per cent.	Years in the trade.	Number.	Per cent.
Under 6 months.....	300	39.1	10 and under 15 years.....	47	5.0
6 months and under 1 year.....	77	8.2	15 and under 20 years.....	35	3.7
1 year and under 2 years.....	81	8.6	20 years and over.....	33	3.5
2 and under 5 years.....	153	16.2			
5 and under 10 years.....	148	15.7	Total.....	1 943	100.0

¹ Of the 970 women who supplied personal record cards, 27 did not state the number of years in the trade.

More than one-third, or 39 per cent, of the women had worked in candy making less than six months, and over one-half, or 56 per cent, less than two years. The records of the men showed a surprising similarity, the proportion who had worked less than six months being 35 per cent and those less than two years 53 per cent.

Living at home or boarding.—The majority of the women, 86 per cent, lived at home, but the proportion of those who were boarding, 14 per cent, was not inconsiderable nor did those who lived at home lack responsibility for family support.¹ Among the women visited, three-fourths of the entire number were contributing to the support of the family, and only three of them were paying to the household a fixed sum in board, the others turning all or a large part of their wages into the family fund.

WAGES.

Changes during the war.—Wage rates in the candy trade in Philadelphia undoubtedly increased during the war. The year 1918, especially, was an abnormal one for the confectionery industry, as it was in other trades which appeared to be more directly connected with the war. In Philadelphia, with its large demand for munition workers, employers became keenly interested in the problem of getting and keeping workers. Wage increases were the principal means of competing for labor.

In every candy factory investigated the wages had been increased—some by a direct raise in rates and others by bonuses. Two firms reported increases of \$1 a week for each worker and an increase in piece rates. One firm gave a bonus at Christmas based on a percentage of wages. Another paid a bonus of \$1 for each year of employment in the factory, while yet another gave \$200 apiece to two forewomen and a bookkeeper and \$100 to the chief cook, but paid no additional amount to the other workers.

Investigations before the war.—It was probably due to these increases during the war that the pay rolls showed higher rates than had been reported in some previous investigations. In 1907–8 a nation-wide survey of the condition of woman and child wage earners in the United States was made by the Commissioner of Labor in accordance with a special act of Congress, and the confectionery industry was included in this survey. It was found at that time that 91.1 per cent of the woman workers aged 18 years and over earned less than \$8 a week in Pennsylvania candy factories. In no other State except Wisconsin and Maryland was the proportion of workers in these lower wage groups so large and in no other State was there so small a proportion earning \$10 and over as in Penn-

¹ See Table 12, p. 23.

sylvania—only eight-tenths of 1 per cent.¹ That confectionery was a low-paid industry for women throughout the country was shown by the fact that “in a group of some 3,500 not quite 5 per cent earned as much as \$10 a week, not quite 12 per cent made \$8, while over two-thirds of the whole number earned less than \$6.”

Weekly earnings.—Table 6 shows the actual earnings during one week for 1,246 women piece and week workers in 19 of the candy factories of Philadelphia, as shown by the current pay rolls in 1919.

TABLE 6.—NUMBER OF WOMEN EARNING EACH CLASSIFIED AMOUNT DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY OCCUPATION.

Actual weekly earnings.	Fore-women.	Dippers.	Machine operators.	Packers.	Others.	Total.	Per cent.
Under \$1.....		1		3	2	6	0.5
\$1 and under \$2.....		8		34	2	44	3.5
\$2 and under \$3.....		5		15	3	23	1.8
\$3 and under \$4.....		3		15	3	21	1.7
\$4 and under \$5.....		5	3	22	2	32	2.6
\$5 and under \$6.....		10		27	3	40	3.2
\$6 and under \$7.....		4	2	25	7	38	3.0
\$7 and under \$8.....		12	2	35	8	57	4.6
\$8 and under \$9.....		15	5	103	35	158	12.7
\$9 and under \$10.....		19	5	87	34	145	11.6
\$10 and under \$11.....		24	18	127	24	193	15.5
\$11 and under \$12.....	1	11	1	39	3	55	4.4
\$12 and under \$13.....		17	4	55	10	86	6.9
\$13 and under \$14.....		20	2	38	7	67	5.4
\$14 and under \$15.....		16	4	29	1	50	4.0
\$15 and under \$16.....	1	12	1	29	3	46	3.7
\$16 and under \$17.....	1	15	1	26	3	46	3.7
\$17 and under \$18.....		6		18		24	1.9
\$18 and under \$19.....	3	12		18	2	35	2.8
\$19 and under \$20.....		7		9	1	17	1.4
\$20 and over.....	3	31		27	2	63	5.1
Total.....	9	253	48	781	155	1,246	100.0
Median weekly earnings.....	\$18.50	\$12.62	\$10.36	\$10.22	\$9.36	\$10.30	

This table includes those who are paid by the piece and those who receive a definite weekly rate, and it is based on actual earnings rather than on rates. For the entire group the median wage was \$10.30. That is, one-half of the women recorded earned less than \$10.30 and one-half earned more during the week when the plants were inspected. The best paid group naturally were the forewomen, with median earnings of \$18.50. The dippers, who are employed at the most skilled work done by women in the trade, received a median of \$12.62. Dipping is an operation which not only requires skill and practice, but, as one manager said, “A girl must be born with a knack to be a good dipper.”

Some of the dippers are paid by the week and some by the piece, the method of payment depending more upon the custom of the plant than upon the nature of the work. Sometimes both methods of pay-

¹ S. Doc. 645, 61st Cong., 2d sess., Report on Condition of Woman and Child Wage Earners in the United States. Vol. XVIII, Employment of Women and Children in Selected Industries, p. 136.

ment are found in the same plant. The girls believe that they can earn higher pay working by the piece than when paid a weekly rate. Piece rates vary according to the kind of candy coated and also according to the time of weighing; that is, before or after the coating.

Output.—The number of pounds that a girl can dip in one day of 9 hours, according to one forewoman, varies from 50 to 200, according to speed. From three firms the number of pounds dipped in a week by four girls in each plant was recorded. These girls dipped different kinds of candy—almonds, cherries, creams, caramels, chips, nougat, and strings. None of these girls dipped more than 156 pounds in a day. The 156 pounds were dipped in a day of 8½ hours and the same girl also dipped the greatest number of pounds (722) in any one week. It was a six-day week of 42½ hours.

Although, as has been explained, the majority of the girls believed that they earned higher rates when paid by the piece, there was some difference of opinion on this point. One girl who had worked both by piece and time preferred weekly rates because, as she said, "You don't feel rushed all the time and you know what you can count on, and in summer when you can't dip much they give you packing or wrapping to do. It is not so exciting but you feel steadier." On the other hand, another girl preferred piece rates because, "If you want to lean back and rest or leave a bit early, no one glares at you."

Weekly earnings of packers.—The packers, among whom are included the wrappers, are the largest group of workers. The records show wide variations in their earnings. One-half earned less than \$10.22, and three-fourths earned less than \$13. The lowest paid group were those doing miscellaneous work such as carrying trays and so-called floor-work. The median earnings for these were \$9.36. On the other hand, a larger proportion approached the median in their earnings, since 60 per cent earned between \$8 and \$11, while the number in the extreme groups was very few.

That the earnings of the week workers as a group are lower than for the combined group of piece and week workers was shown on the pay rolls.¹

For the total number of week workers the median earnings were \$9.34, while the dippers employed as week workers had a median wage of only \$9.30 as compared with the median wage of \$12.62 for the combined group of piece and week workers.

That actual earnings are less than the rates of pay is shown in Table 7, which gives the rates of wages for women employed as week workers. Of course no corresponding figures could be secured for pieceworkers.

¹ For classified weekly earnings by occupations for woman week workers, see Appendix I, Table A, p. 39.

TABLE 7.—NUMBER OF WOMAN WEEK WORKERS RECEIVING EACH CLASSIFIED WEEKLY RATE OF WAGES DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY OCCUPATION.

Weekly rates of wages.	Fore-women.	Dippers.	Machine operators.	Packers.	Others.	Total.	Per cent.
\$7 and under \$8.....		17		6	6	29	3.5
\$8 and under \$9.....		3	3	131	28	165	19.8
\$9 and under \$10.....		15	27	161	40	243	29.1
\$10 and under \$11.....		28	2	104	32	166	19.9
\$11 and under \$12.....	1	2	2	34		39	4.7
\$12 and under \$13.....		17	6	47	16	86	10.3
\$13 and under \$14.....	1	14	4	19	2	40	4.8
\$14 and under \$15.....		6	2	12	1	21	2.5
\$15 and under \$16.....		5		9	4	18	2.2
\$16 and under \$17.....	1	4	1	3	1	10	1.2
\$17 and under \$18.....				1		1	.1
\$18 and under \$19.....	3	1		5	1	10	1.2
\$19 and under \$20.....					2	2	.2
\$20 and over.....	3				1	4	.5
Total.....	9	112	47	532	134	834	100.0
Median weekly rates.....	\$18.50	\$10.73	\$9.75	\$9.80	\$9.82	\$9.92	

The median rate for the entire group of week workers was \$9.92, as compared with the median earnings of \$9.34 just noted for the same group. For the forewomen the actual earnings were equal to the rates; and for the machine operators higher than the rates, possibly because of overtime. The number in the low-wage group is much greater when actual earnings are considered than when only the rates of pay are shown. In the table showing weekly rates no workers were recorded as receiving less than \$7 but in actual earnings 184 of the 834 included in the table, or 22 per cent, received less than \$7.

Variations in different factories.—Wages in the candy industry are not standardized. The workers are unorganized and there is no definite and universally accepted method of determining rates. This lack of standardization is shown in the great divergence in the pay rolls of the factories investigated. The median of the weekly earnings in each factory is shown in Table 8.¹

¹ For classified weekly earnings see Appendix I, Table B, p. 40.

TABLE 8.—MEDIAN WEEKLY EARNINGS OF WOMAN WORKERS (NOT INCLUDING FOREWOMEN) EMPLOYED DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY ESTABLISHMENT.

Establishment No.	Number of woman workers.	Median weekly earnings.
I.....	483	\$10.32
II.....	91	9.90
III.....	124	12.86
IV.....	84	12.03
V.....	99	9.81
VI.....	74	9.25
VII.....	51	7.41
IX.....	41	9.73
X.....	37	9.03
XI.....	27	8.90
XII.....	27	8.90
XIII.....	23	10.18
XIV.....	24	12.70
XV.....	18	10.85
XVI.....	9	11.50
XVII.....	8	10.50
XVIII.....	7	9.50
XIX.....	7	12.25
XX.....	3	15.50
Total.....	1,237	9.76

The median earnings varied from \$7.41 to \$15.50. It is natural that in a small plant like No. XX, where there is less specialization and, therefore, less opportunity for mere repetitive processes the lower paid groups should not be represented. If, for example, only three workers are employed and two are dippers at \$16 each, the median earnings will be much higher than in another establishment so large as to justify a separate group of packers earning approximately \$9 a week. Firms Nos. II, VII, and X had no dippers on their pay rolls. In establishment No. VI at the time of the investigation the workers were on part time. But it is significant to note that in the larger plants, employing 50 or more, the median earnings vary from \$7.41 to \$12.86. It is doubtful whether there is enough variation in the scale of processes in these different plants to warrant such diversity in earnings. Greater standardization would undoubtedly be advantageous both for workers and employers.

Basis for determination of wages.—The wage setting seems to be more or less a matter of chance. In answer to our question as to the basis for determining wages, one manufacturer said, "We pay the market price for labor." A second said, "We pay the same wages as our competitors in the trade," while a third frankly stated, "We pay what we have to." Recognition of the cost of living as the first factor in determination of wages was not defined as the policy in any plant.

Wages according to length of experience.—Another factor in wage rates is experience, resulting in variations according to the length

of time in the trade in those industries in which the processes are skilled and require practice. The relation of rates of pay to experience in the candy industry is shown in Table 9.

TABLE 9.—NUMBER OF WOMEN EARNING EACH CLASSIFIED AMOUNT DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY YEARS IN THE TRADE.

Actual weekly earnings.	Women employed in the trade—								Total	Per cent.
	Under 6 months.	6 months and under 1 year.	1 year and under 2 years.	2 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 years and over.		
Under \$2.....	9								9	1.2
\$2 and under \$4.....	10			1	1				12	1.5
\$4 and under \$6.....	30	2	4	4	2	2			44	5.6
\$6 and under \$8.....	21	8	8	8	1	1	1		48	6.2
\$8 and under \$10.....	128	16	15	12	12	1		1	155	23.7
\$10 and under \$12.....	92	15	18	26	16	1	3	1	172	22.1
\$12 and under \$14.....	16	8	11	32	23	9	3	7	109	14.0
\$14 and under \$16.....	4	3	11	22	21	8	3	3	75	9.6
\$16 and under \$18.....	3	3	3	10	12	6	6	4	47	6.0
\$18 and under \$20.....		2	2	5	10	2	5	4	30	3.9
\$20 and over.....		3	2	9	21	4	4	5	48	6.2
Total.....	313	60	74	129	119	34	25	25	779	100.0
Median earnings.....	\$8.67	\$10.23	\$10.52	\$12.42	\$14.21	\$14.31	\$16.41	\$16.12	\$10.53	

The median earnings for those employed less than six months were \$8.67. The medians show a steady advance according to the length of employment to the maximum median wage of \$16.41 for those who have worked 15 to 20 years. Those employed 20 years and over received slightly less than the median for those between 15 and 20 years, but in both these groups the numbers were small.

The chance of earning as much as \$14 is slight; only 1 woman out of 4 receives that amount. After two years of work she may be the 1 out of 3 who earns \$14 or over, and if she perseveres five years or longer her chances are about 1 out of 2 of receiving \$14 or over. Only 18 per cent of the girls earning \$14 and over have been less than two years in the trade, which means that 72 out of every 100 girls must work two years on a wage of less than \$14 and after sticking to their jobs for two years their chances are about 1 out of 3, or 35.7 per cent, of reaching the \$14 goal.

In interpreting the figures showing the relation between the earnings and length of experience it should be noted that those who have been longest in the trade are in the skilled processes, in which the pay is higher. Table 10 shows the length of experience in the trade of the women in the different processes.

TABLE 10.—NUMBER AND PER CENT OF WOMAN WORKERS IN EACH OCCUPATION, 1919, CLASSIFIED BY NUMBER OF YEARS IN THE TRADE.

Years in the trade.	Dippers.		Packers.		Machine operators.		Fore-women.		Others.		Total.	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
Under 6 months.....	27	15.7	244	47.1	31	38.3	2	6.1	65	48.9	369	39.4
6 months and under 1 year..	5	2.9	43	8.3	10	12.3	1	3.0	18	13.5	77	8.2
1 year and under 2 years...	14	8.1	43	8.3	13	16.0	1	3.0	10	7.5	81	8.6
2 and under 5 years.....	39	22.7	84	16.2	11	13.6	2	6.1	17	12.8	153	16.3
5 and under 10 years.....	52	30.2	61	11.8	12	14.8	8	24.2	15	11.3	148	15.8
10 and under 15 years.....	15	8.7	15	2.9	4	4.9	4	12.1	6	4.5	44	4.7
15 and under 20 years.....	14	8.1	15	2.9	.....	.....	3	9.1	1	.8	33	3.5
20 years and over.....	6	3.5	13	2.5	.....	.....	12	36.4	1	.8	32	3.4
Total.....	172	100.0	518	100.0	81	100.0	33	100.0	133	100.0	1 937	100.0

¹ Of the 970 women who supplied personal records, 33 omitted either the number of years in the trade or the occupation.

Nearly one-half the packers, 47 per cent, have been in the trade less than six months, while 50.6 per cent of the dippers have worked five years or longer in the trade. Of those employed in machine operating, 38.3 per cent have worked less than six months, and in the miscellaneous group 48.9 per cent have had but a brief experience. Only 12 out of every 100 workers have stayed in the industry for ten years or longer. Either those who stay in the industry graduate into the process of dipping or else the dippers as a group stay much longer in the trade than packers or machine operators.

Closely allied to difference in earnings through length of experience are the differences in different age groups. The weekly earnings, classified by ages, for women employed as workers in candy factories are shown in Table 11.

TABLE 11.—WEEKLY EARNINGS FOR WOMAN WORKERS EMPLOYED IN CANDY FACTORIES, BY AGE, AS SHOWN BY CURRENT PAY ROLL, 1919.¹

Actual weekly earnings.	Women whose ages were—									Total.	Per cent.
	14 and under 15 years.	15 and under 16 years.	16 and under 18 years.	18 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and over.		
Under \$1.....					1					1	0.1
\$1 and under \$2.....	1	1	3		3		1			9	1.1
\$2 and under \$3.....			1	2	4					7	.9
\$3 and under \$4.....			2	2	1	1				6	.8
\$4 and under \$5.....	1	2	4	3	4	2		1		17	2.1
\$5 and under \$6.....		1	12	11	3	1		2		30	3.8
\$6 and under \$7.....	1	2	4	1	6	3		2		19	2.3
\$7 and under \$8.....	1	1	9	5	7	5				28	3.5
\$8 and under \$9.....	5	2	34	25	20	4	4	4	3	101	12.7
\$9 and under \$10.....	1	2	25	13	20	10	12	4		87	10.9
\$10 and under \$11.....	1	2	40	24	39	14	11	6	2	139	17.5
\$11 and under \$12.....			14	8	12	2	2	1	1	40	5.0
\$12 and under \$13.....			2	12	18	8	7	5	5	57	7.2
\$13 and under \$14.....	1		6	11	20	12	3	2		55	6.9

¹ Of the 970 women who supplied personal records, 17 did not state their age, and 158 were not found on the pay roll. The number of minors shown by this table, though probably more nearly correct than that obtained from any other source, may be too small, as some of the younger girls undoubtedly reported that they were over 16 years of age, in order to avoid the regulations of the child labor law. One such instance was discovered in the home visits, and others were suspected.

TABLE 11.—WEEKLY EARNINGS FOR WOMAN WORKERS EMPLOYED IN CANDY FACTORIES, BY AGE, AS SHOWN BY CURRENT PAY ROLL, 1919—Concluded.

Actual weekly earnings.	Women whose ages were—									Total.	Per cent.
	14 and under 15 years.	15 and under 16 years.	16 and under 18 years.	18 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and over.		
\$14 and under \$15.....		1	4	10	12	5	3	3	1	39	4.9
\$15 and under \$16.....			4	4	20	7	2	1		38	4.7
\$16 and under \$17.....			3	3	13	5	1	2	1	28	3.5
\$17 and under \$18.....			1	3	12	1	3	2		22	2.8
\$18 and under \$19.....				4	9	3	5	1		22	2.8
\$19 and under \$20.....			1		3	1	3			8	1.0
\$20 and under \$21.....			1	3	3	5	3			15	1.9
\$21 and under \$22.....					1	2				3	.4
\$22 and under \$23.....					4	1	2			7	.9
\$23 and under \$24.....					4	1				5	.6
\$24 and under \$25.....					3					3	.4
\$25 and over.....				2	5	2				9	1.1
Total.....	12	14	170	145	247	95	64	34	13	795	100.0
Median earnings.....	\$8.30	\$7.50	\$9.62	\$10.43	\$12.19	\$12.69	\$11.75	\$10.91	\$12.10	\$10.66	.....

No logical relation between ages and weekly earnings appears in the table. It is true that the maximum median was recorded for women between the ages of 30 and 40 but this median was larger by only \$2.03 than the median for the group as a whole. The fact that so large a proportion of the workers have been in the trade so short a time naturally results in a scale of earnings which has no relation to age. This table, therefore, is a further indication of the casual nature of employment in the candy industry.¹

Earnings and living conditions.—To the worker the important fact about earnings is the standard of living which they make possible. This is to be measured not merely in terms of the buying power of the dollar but also in relation to the responsibility of the workers for the support of others besides themselves. Table 12 shows the earnings in one week for the women who live at home and for those who board.

TABLE 12.—CLASSIFIED WEEKLY EARNINGS OF WOMEN LIVING AT HOME AND OF WOMEN BOARDING, DURING ONE PAY-ROLL PERIOD IN 1919.

Weekly earnings.	Women living at home.	Women boarding.	Total.	Per cent.
Under \$2.....	8	2	10	1.3
\$2 and under \$4.....	11	2	13	1.6
\$4 and under \$6.....	38	10	48	6.0
\$6 and under \$8.....	39	7	46	5.8
\$8 and under \$10.....	171	21	192	24.0
\$10 and under \$12.....	152	25	177	22.1
\$12 and under \$14.....	94	18	112	14.0
\$14 and under \$16.....	60	7	67	8.5
\$16 and under \$18.....	30	9	39	4.9
\$18 and under \$20.....	26	4	30	3.8
\$20 and over.....	41	7	48	6.0
Total.....	688	112	800	100.0

¹ Of the 970 women who supplied personal records, 158 were not identified on the pay roll, and 12 did not give information as to living at home or boarding.

² For weekly rates of wages of woman week workers, by ages, see Appendix I, Table H, p. 43.

Of the 800 women for whom information as to living conditions was obtained through the personal records, 688 lived at home and 112, or 14 per cent, were boarding. Of the women living at home 60.9 per cent earned less than \$12 in the week for which the wage statistics were secured and 39.1 per cent earned \$12 or more. The proportions for the women who were boarding were almost identical. Of these, 59.8 per cent received less than \$12 and 40.2 per cent received \$12 or more. Apparently, therefore, the earnings are not affected by the fact that a girl is living alone away from her family, nor are they affected by the supposed support which family life gives to women workers.

Certain essentials a wage earner must have whether she boards or lives at home. She must have shelter, food, clothing, car fare, and a surplus for health and amusements. If she boards her expenses are more easily estimated, as a fixed sum can be ascertained for the cost of living, including heat and light, and food and shelter. When a worker lives at home she either gives all her wages to her family or pays a part with no knowledge as to whether it covers her actual share of the family budget or not. It is certain that both the girl who boards and the girl who lives at home are subject to the same increases in the cost of living.

The United States Bureau of Labor Statistics found that the cost of food had increased 88 per cent from January 15, 1913, to January 15, 1919.¹ In Philadelphia in the 12 months preceding September, 1918, the cost of food increased 18.4 per cent as compared to an average rise of 16.4 per cent in 45 cities of the United States.² According to these figures, the girl who in 1913 spent \$5 a week for food must in 1919 spend \$9.40 for the same kind and amount. Since the year 1918 saw the food prices in Philadelphia advance more rapidly than for the rest of the country, \$9.40 would not buy even an equal amount of food in that city. This would be serious if food were the only necessity for which the cost increased, but it has been pointed out that between July, 1914, and November, 1918, the cost of clothing increased 88.1 per cent, and sundries 55 per cent; that the increase in rent ranged from 11 per cent to 20 per cent in Philadelphia; that fuel, heat, and light increased 55 per cent.³ While these latter expenses may not appear to affect the girl directly, it is obvious that their cost is added to her room rent if she boards, and to an increase in the family budget if she lives at home.

When, however, she buys her clothes she probably realizes most vividly the change that has taken place in the past four or five years.

¹ U. S. Bureau of Labor Statistics, *Monthly Labor Review*, March, 1919, p. 91.

² U. S. Bureau of Labor Statistics, *Monthly Labor Review*, November, 1918, p. 97.

³ National Industrial Conference Board, *War Time Changes in the Cost of Living*, Research Report No. 14, February, 1919, pp. 7, 23, 25.

A dress which in July, 1914, she could buy for \$10, in November, 1918, would cost her \$18.80, and a hat for which she paid \$5 in 1914 would cost her \$9.40 in 1918. It was contended by representatives of the shipyard employees, appearing before the Labor Adjustment Board of the Emergency Fleet Corporation, that a 1917 family budget of \$1,200 fell short by \$231.30 of a sufficient sum to support a family in 1918.¹ This seems a most conservative estimate if the figures quoted above are correct.

Home responsibilities.—In considering the amount that the girl living at home contributes to the family budget, it is not merely the problem of the one who pays board to her family and assists besides with personal services that must be considered, but the much more common case of the girl who tries to support others besides herself on her earnings. In a Government investigation² of the living expenses of 1,760 working girls in New York State in 1918 it was found that 4 out of every 5 helped to support others besides themselves.

Although no statistical study of the cost of living or the home responsibilities of girls was made in this investigation in Philadelphia, it was evident that the girls who were visited at home were responsible in no small degree for the family support. The widow with young children and the daughter taking care of a mother or father no longer able to work are both included among the candy makers. One girl who was paying \$6 a week to her family for her own board was planning and saving in order to contribute in the future to the support of a brother who had been badly injured in France and was expected to return soon from overseas.

One woman whose weekly wage rate was \$12 was the sole support of herself, her mother, and a half-witted child of 7. Another girl visited, who had worked for the same company for eleven years, was earning \$13 a week, which included three raises of a dollar each that were given during 1918. She began work at \$5 a week and regrets that she did not choose another trade with better prospect of advancement. "But," she said, "I had mother to support and it might have taken me a week to find another job, and then what would we have done?" So close was her margin.

One middle-aged woman had been in her present job six years. She was a dipper and had learned the trade as a girl before she married, so when her husband died she naturally went back to chocolate dipping. Now her daughter is 16 and old enough to work, but she wants her to begin in an office or department store. "She would rather come with me and learn dipping, but I tell her the work is uncertain and you can't make steady money."

¹ Lauck, W. J.: Cost of Living and the War. Cleveland, Ohio. 1918, p. 33. The Doyle & Waltz Printing Co.

² National War Labor Board Report not published.

Two sisters who boarded and whose weekly wage rates were, respectively, \$12 and \$10.50, received bonuses last year of \$37.50 and \$32. The older sister explained that they would each buy a dress and a suit, as they could not afford to buy them with their regular wages. "Wages don't go very far these days," she added, "especially when you are paying \$1.50 a week for a Liberty bond and war savings stamps and when they ask you to give 50 cents a month to the war chest funds."

One girl said she had tried work in a candy factory because she knew some girls there but she "could not afford it." "I have no one to help me out and I can't live on \$8 a week, which was what they paid me," she explained. That was three months ago and now she is working as a clerk in an office at \$17 per week.

Estimates of the cost of living.—In New York State the Consumers' League, after a careful examination of girls' budgets, stated that in the early months of 1918, \$14.80 was the minimum on which a girl could live. The Consumers' League of Eastern Pennsylvania named \$14.66 as the minimum, explaining that it made no allowance for savings or health insurance, which the league considered essential in any budget.¹ In the District of Columbia a conference composed of representatives of employers, workers, and the public and one representative of the minimum wage board, appointed under act of Congress to recommend a minimum wage for the printing and publishing houses of the District, has just recommended to the minimum wage board a minimum of \$15.50, declaring it to be "the minimum wage upon which a woman without dependents can maintain herself at a proper standard of living in the District of Columbia."²

The difference between these recommendations for New York, Pennsylvania, and the District of Columbia is slight. In none of these reports is a wage of \$14 or less considered adequate as a minimum.

How nearly does the girl working in the candy industry in Philadelphia earn this essential minimum? In a week of January, 1919, less than one-fourth, 22.6 per cent, of the women workers in the candy industry earned \$14 and over, and one-half earned less than \$10.30.³

How does the girl who earns less than \$14 make both ends meet? Her room probably costs \$2.50 a week at the least and her board, covering only two meals on week days, and three meals on Sunday, will cost an additional \$5. Then there are lunches, car fares, cloth-

¹ Consumers' League of Eastern Pennsylvania. Preliminary report (not in print).

² The recommendations have since been adopted and the rate will go into effect Aug. 13, 1919. For summary of the report and recommendations of the board see U. S. Bureau of Labor Statistics' Monthly Labor Review, May, 1919, pp. 216-219.

³ See Table 6, p. 17.

ing, laundry, insurance, savings and recreation, all of which are required as an inevitable part of the cost of living. If a worker earns \$10.30, which is the median wage in the candy industry, and pays \$7.50 for room and board, she has left \$2.80 for all other expenses. These necessities must be paid for in some such way as was illustrated among the candy makers who were interviewed in this inquiry. The first result of low earnings is that the girls must go without proper food, clothing, or medical care, so that the industry levies a toll upon their health. In some instances charitable assistance was necessary. Coal and sometimes medical assistance were obtained from public or private charity. In families where there were two or three wage earners it was evident that either the entire family lived at a standard lower than the requirements for health and welfare or that those wage earners who were receiving somewhat more than the minimum were contributing to the support of those who were underpaid. If, as was the case frequently, the underpaid workers have had sufficient experience to be beyond the stage of apprenticeship and as adults are contributing their full time to an industry, it is evident that, from a social point of view, the failure of the industry to make the cost of living the basis for determining the minimum wage means that the industry is securing contributions from the wages paid in other industries or that it is levying a tax upon the amount which should be available for the requirements of a proper standard of living for the workers.

Increases in wages.—Although nominal wages have unquestionably risen since the earlier investigations referred to, the greater part of this increase having taken place since the beginning of the war, the improvement in actual earnings in relation to the cost of living is not marked. In order to find just what the change has been, the Bureau of Labor Statistics was asked to furnish figures showing the increase in cost of living since 1908, the date of the Federal investigation which included confectionery workers in Pennsylvania. Taking the cost of living for 18 shipbuilding centers, it was found that it had increased by 73.4 per cent from December, 1914, to December 1918, and that the rise in the cost of food for the same places and period was 81.4 per cent; in other words, the rise in the cost of food was 11 per cent greater than that of the total cost of living. The average price of food in 1918 was 100 per cent higher than for the year 1908, while in December, 1918, it was 123 per cent higher than for the year 1908. If the above relation between cost of food and total cost of living may be assumed to be fairly steady, this means that in the year 1918 the cost of living had risen by 90 per cent, and by December, 1918, by 111 per cent over the price for the year 1908. The present investigation was conducted in January, 1919, at which time there had been little change from

the December figures. It seems hardly justifiable, however, to take the highest point reached in the cost of living as the norm by which to measure usual wages, so the mean of the increase for the year and for December of 1918 was taken, which gives a rise in the cost of living, as compared with 1908, of 100 per cent. On this basis, \$10 in January, 1919, had a purchasing power equal to \$5 in 1908, \$12 at the later date equaled \$6 at the earlier, and so on. Rearranging the wage groups of the present investigation on this basis, and comparing them with those of the investigation of 1908, we have the following table:

TABLE 13.—DISTRIBUTION OF FEMALE CONFECTIONERY WORKERS IN 1908 AND 1919 RECEIVING WAGES OF EQUIVALENT PURCHASING POWER, BY WAGE GROUP.

1908. ¹			1919. ²			
Wage group.	Employees receiving each amount.		Wage group.	Purchasing power in terms of 1908 wages, equivalent to—	Employees receiving each amount.	
	Number.	Per cent.			Amount received.	Number.	Per cent.
Under \$6.....	285	74.02	Under \$12.....	Under \$6.....	812	65.17
Under \$8.....	363	94.28	Under \$16.....	Under \$8.....	1,061	85.18
Under \$10.....	383	99.48	Under \$20.....	Under \$10....	1,183	94.94
\$10 and over.....	2	.52	\$20 and over.....	\$10 and over..	63	5.06
Total.....	385	100.00	Total.....		1,246	100.00

¹ Figures from S. Doc. 645, 61st Cong., 2d sess., Report on Condition of Woman and Child Wage Earners in the United States. Vol. XVIII, p. 476.

² Figures compiled from present report, Table 6, p. 17.

This table unquestionably shows a certain improvement in the general situation. The proportion earning \$10 or over (or its equivalent in purchasing power, which in 1919 amounted to \$20 or over), has increased to one-twentieth of the whole group, and the proportion earning from \$8 to \$10 (or its equivalent, \$16 to \$20) has increased from 5.2 per cent to 9.76 per cent. But the improvement is not great enough to justify much exultation. More than four-fifths of the 1919 group received earnings the purchasing power of which was less than the amount established in 1908 as the living wage. By the most recent decision, that in the District of Columbia, \$15.50 was fixed as the minimum on which a self-supporting woman could live. The table on page 17 shows that according to the 1919 face value of wages, 81.4 per cent of the workers studied in Philadelphia earned less than \$15 a week. That is very near the proportion shown in the above table as earning less than a living wage on the 1908 standard.

Both the figures for 1908 and those for 1919 given above include workers under 18. Perhaps it is hardly reasonable to expect that

girls of 15 and 16 who have just begun to earn should be able to make living wages, and a fairer comparison may be between workers aged 18 or over for both periods. The following table gives the figures for these:

TABLE 14.—DISTRIBUTION OF FEMALE CONFECTIONERY WORKERS AGED 18 OR OVER IN 1908 AND 1919 RECEIVING WAGES OF EQUIVALENT PURCHASING POWER, BY WAGE GROUP.

1908 ¹			1919 ²			
Wage group.	Employees receiving each amount.		Wage group.	Purchasing power in terms of 1908 wages equivalent to—	Employees receiving each amount.	
	Number.	Per cent.			Amount received.	Number.	Per cent.
Under \$5.....	103	41.5	Under \$10.....	Under \$5.....	190	31.7
Under \$6.....	153	61.7	Under \$12.....	Under \$6.....	312	52.1
Under \$8.....	226	91.1	Under \$16.....	Under \$8.....	483	80.6
Under \$10.....	246	99.2	Under \$20.....	Under \$10.....	558	93.1
\$10 and over.....	2	.8	\$20 and over.....	\$10 and over.....	41	7.0
Total.....	248	100.0	Total.....		599	100.0

¹ Figures compiled from S. Doc. 645, 61st Cong., 2d sess., Report on Condition of Woman and Child Wage Earners in the United States, Vol. XVIII, p. 136.

² Figures from present report, Table 11, p. 23.

This shows an appreciable increase in the wage level of those aged 18 or over in the ten years or more which intervened between the two investigations, but even so, the improvement is far from satisfactory. Even in this group, which includes the higher-paid workers, and shuts out the young girls who swell the numbers in the lower earnings groups, there are still four-fifths who, according to the standards of 1908, do not earn a living wage.

Earnings in dull season.—It should be emphasized, moreover, that the entire discussion so far has centered about the earnings in a normal week. It is characteristic of the candy industry that the same level of employment is not maintained throughout the year. In slack seasons, workers may be dismissed or employed on part time. This prospect of no employment or work at greatly reduced pay is constantly hanging over the workers. A widow, with three little children, whose husband died in the fall, was taken on at a candy factory. She worked steadily until Christmas, when she was laid off for three weeks. She was then taken back but they told her they probably would not keep her after Easter, so that she is already wondering what will become of her and the children if she can not find another place.

Table 15 shows the median wages of women in ten identical candy factories for which comparative figures were secured, in the dull season in 1918 as compared with a normal season in 1919.

TABLE 15.—MEDIAN EARNINGS OF WOMAN WORKERS EMPLOYED IN 10 IDENTICAL CANDY FACTORIES FOR ONE WEEKLY PAY-ROLL PERIOD IN 1918 (DULL SEASON) AND IN 1919 (NORMAL SEASON).

Establishment No.	1918 (dull season).	1919(normal season).
V.....	\$4.06	\$9.81
VII.....	5.55	7.41
IX.....	10.38	9.73
X.....	1.78	9.07
XI.....	5.10	8.90
XII.....	4.13	8.90
XIII.....	8.41	10.18
XVII.....	8.75	10.50
XVIII.....	10.25	9.50
XX.....	17.50	15.50
Total.....	5.62	9.60

The median earnings for a week in July or August, 1918, were \$5.62, as compared with \$9.60 for the same factories in January. The proportion of women receiving \$13 and more is 17 per cent in the normal season in January, and but 4 per cent in the dull season.¹

IRREGULARITY OF EMPLOYMENT.

Not only are the earnings almost split in half in the dull season but little more than half as many women are employed as in the busy season. One woman reported that she had worked in candy factories for 11 years, but of course it was not steady work. Last year she was laid off in the dull season. War work, stitching Navy uniforms in a garment factory, enabled her to find employment, but she was laid off there after the signing of the armistice and returned to the candy trade. "In a candy factory one is always laid off for a couple of weeks after Christmas and of course in summer," was a statement of her experience.

If we compare a woman's chance of steady employment in the candy trade with a man's, we find that in 11 plants nearly 1 of every two women, or 45.5 per cent, lose their positions in the summer, while only 3.3 per cent or one out of 30 of the men are turned off. The woman workers who are kept show a drop in earnings of 41.5 per cent and the men 40.2 per cent. In spite of this practically equal decrease in earnings, wages of the men in dull season have a median of \$10.96, contrasted with \$5.62 for the girls.

Fluctuations week by week.—Table 16 shows the number of workers employed and the total wages paid in 18 candy factories in each week of the year 1918.

¹ See Appendix I, Table C, p. 41, for the number of women employed in each wage group in these 10 factories in 1918 as compared with 1919.

TABLE 16.—TOTAL NUMBER OF EMPLOYEES AND TOTAL EARNINGS DURING EACH WEEK OF THE YEAR 1918, IN 18 FACTORIES.

Week.	Number of workers.	Wages paid.	Week.	Number of workers.	Wages paid.
1st.....	1,971	\$14,286.46	28th.....	1,823	\$21,495.12
2d.....	2,008	22,233.97	29th.....	1,818	21,523.20
3d.....	2,010	20,220.80	30th.....	1,792	20,983.08
4th.....	2,121	20,738.99	31st.....	1,796	20,530.35
5th.....	2,159	24,261.21	32d.....	1,702	18,324.36
6th.....	2,210	24,440.53	33d.....	1,099	22,025.15
7th.....	2,267	25,503.55	34th.....	1,725	19,863.64
8th.....	2,346	26,397.38	35th.....	1,772	19,522.08
9th.....	2,306	27,895.41	36th.....	1,777	20,526.31
10th.....	2,333	27,130.58	37th.....	1,873	24,880.60
11th.....	2,337	26,996.60	38th.....	1,848	25,255.92
12th.....	2,288	26,214.47	39th.....	1,963	25,971.68
13th.....	2,223	25,680.31	40th.....	1,971	25,164.32
14th.....	2,149	23,165.14	41st.....	2,026	24,509.12
15th.....	2,122	23,474.88	42d.....	2,095	27,480.48
16th.....	2,084	22,926.06	43d.....	2,157	29,445.00
17th.....	2,056	23,238.30	44th.....	2,277	30,194.46
18th.....	1,972	21,386.08	45th.....	2,175	29,062.48
19th.....	1,874	21,520.81	46th.....	2,188	29,073.48
20th.....	1,829	20,929.41	47th.....	2,295	28,981.24
21st.....	1,792	21,353.57	48th.....	2,335	33,301.44
22d.....	1,744	20,730.69	49th.....	2,544	35,850.97
23d.....	1,740	20,638.06	50th.....	2,473	38,368.63
24th.....	1,722	20,833.24	51st.....	2,459	27,766.85
25th.....	1,742	21,159.83	52d.....	2,298	29,095.11
26th.....	1,503	21,433.56			
27th.....	1,829	19,712.52			
			Total.....	105,634	1,279,548.40

The table gives the two most important indexes of fluctuating employment—the numbers at work and the total pay roll. Unemployment is shown in the decrease in numbers in the dull weeks. Underemployment or part-time employment is measured in a fluctuating pay roll, as distinct from individual earnings. The maximum force, 2,544, was employed in the forty-ninth week (December); the minimum, 1,503, in the twenty-sixth week (June). Thus in the week of least employment 41 of every 100 who worked in December were superfluous in the industry. Moreover, in the 12 months there were 2 busy seasons and 2 periods of depression. The fluctuations in total wages were even more pronounced. The pay roll of the first week in January was the lowest in 1918, with a second low point in the thirty-second week (August). The maximum pay roll was in the fiftieth week of the year—in December. The minimum pay roll was only 37 per cent of the maximum.

Table 17 summarizes Table 16 and shows the relation of average employment to the maximum and to the minimum.

TABLE 17.—MAXIMUM, MINIMUM, AND AVERAGE OF NUMBER OF WAGE EARNERS EMPLOYED AND OF AMOUNT OF WAGES PAID DURING ONE WEEKLY PAY-ROLL PERIOD IN 1918.

	Maximum for 1 week.	Minimum for 1 week.	Average for 1 week.	Per cent maximum is of average.	Per cent minimum is of average.
Number of wage earners.....	2,544	1,503	2,031	127.6	75.4
Amount of wages paid.....	\$38,368.63	\$14,286.46	\$24,606.70	152.9	58.1

If the average number on the pay roll and the average amount paid in wages be regarded as 100 per cent, it is found that the maximum pay roll is 156 and the minimum 58, while the number of employees fluctuates from 128 to 75.

It is impossible with any degree of accuracy to translate this variation in employment into terms of actual income of the workers, but it is obvious that their earnings are affected seriously by this irregularity in the industry. Those who are laid off in dull season may lose three or four months in the course of a year, thereby reducing their yearly income by a fourth or a third. Or, as already indicated, if they are not out of work they are employed only for part time with earnings reduced accordingly. Although the median earnings in a busy season are a little more than \$10 a week, it is certain that the median yearly income is not as much as \$520. It would be liberal to estimate that \$450 is the income below which half the workers fall.

Employment in dull season in other industries increases the income for some of the workers. One girl found work in a garment factory, making uniforms for the Navy; another worked in a shoe-polish establishment, and a third in a hosiery factory. This necessity for finding other jobs twice a year contributes, of course, to general restlessness and drifting from factory to factory.

Even in the intermediate seasons the hours worked are irregular. It is not always possible to tell how far this is due to lack of work and how far the worker himself is responsible. Employers complain that the workers are absent or tardy. Several firms give bonuses for steady attendance and for beginning work on time in the morning. In other plants a fine is imposed for tardiness, but neither system, according to the statement of the management, is successful. The manager in one plant declared that the bonus for good timekeeping would be discontinued, as it had had no effect in encouraging regularity. The fine for tardiness in one plant was 1 cent a minute, while in another, a worker coming more than five minutes late was charged 2 cents for every minute lost. These fines apply to week workers, not to pieceworkers. Evidently the value of these workers' time was rated at 60 cents to \$1.20 an hour. "We have tried fines and bonuses, but neither works," said one irritated employer.

The workers, on the other hand, complain that they lost time because the routing of work from one department to another is not carefully planned. The dippers, paid by the piece, for instance, say that they sometimes sit idle waiting for centers or chocolate to be brought to them, and, in turn, the wrappers and packers may lose time and earnings if the candy does not come promptly and in right quantities from the cooks and the dippers. One wrapper, visited at her

home, complained that the preceding week she had worked but 30 hours out of a scheduled week of 54 hours. Without doubt the knowledge that there may be insufficient work for the girl when she reaches the factory contributes to her own irregular timekeeping, of which the employers complain. Undoubtedly both workers and employers are responsible, but in so far as this is a problem of organization of the factory, as it is in no small measure, the hope of change rests in the initiative of the employers in the trade to join together in efforts to regularize it.

The pay rolls for January or February showed that in that season, which is intermediate before the peak of the spring trade is reached, of 1,237 workers for whom the data were secured, 363 worked the full week scheduled in the factory, 562 worked fewer than the regular hours, and 312 worked overtime. The median earnings for full-time workers were \$10.77 as compared with \$8.37 for the part-time workers, and \$12.47 for those who worked overtime.¹

Table 18 shows the weekly earnings in relation to hours of labor for the entire group of those working full time, part time, and overtime.

TABLE 18.—NUMBER OF WOMEN (NOT INCLUDING FOREWOMEN) WORKING EACH CLASSIFIED NUMBER OF HOURS DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY ACTUAL WEEKLY EARNINGS.

Actual weekly earnings.	Number of women who worked—										Total	Per cent.
	Under 6 hours.	6 and under 12 hours.	12 and under 18 hours.	18 and under 24 hours.	24 and under 30 hours.	30 and under 36 hours.	36 and under 42 hours.	42 and under 48 hours.	48 and under 54 hours.	54 and under 57 hours.		
Under \$1.	6										6	0.5
\$1 and under \$2.	4	38	2								44	3.6
\$2 and under \$3.		3	11	9							23	1.9
\$3 and under \$4.			6	12	3						21	1.7
\$4 and under \$5.		1	5	13	13						32	2.6
\$5 and under \$6.				2	31	5	2				40	3.2
\$6 and under \$7.				3	8	6	19	2			38	3.1
\$7 and under \$8.				2		8	17	21	2	7	57	4.6
\$8 and under \$9.				1	2	6	16	63	57	13	158	12.8
\$9 and under \$10.				2	3	8	11	25	83	13	145	11.7
\$10 and under \$11.				3	2	8	7	31	74	68	193	15.6
\$11 and under \$12.					1	3	5	9	19	17	54	4.4
\$12 and under \$13.						4	5	14	48	15	86	7.0
\$13 and under \$14.						2	5	11	28	21	67	5.4
\$14 and under \$15.					1	1	3	9	24	12	50	4.0
\$15 and under \$16.						3	1	8	19	14	45	3.6
\$16 and under \$17.						2	3	6	23	11	45	3.6
\$17 and under \$18.							2	7	12	3	24	1.9
\$18 and under \$19.								8	17	7	32	2.6
\$19 and under \$20.								1	8	8	17	1.4
\$20 and under \$21.								2	11	3	16	1.3
\$21 and under \$22.									1	2	9	.7
\$22 and under \$23.								1	6	4	11	.9
\$23 and under \$24.								1	1	7	9	.7
\$24 and under \$25.									1	4	5	.4
\$25 and over									7	3	10	.8
Total	10	42	24	47	64	56	97	220	442	235	1,237	100.0

¹ See Appendix I, Tables D, E, and F, pp. 41 and 42, for earnings in relation to hours of labor for full-time workers, part-time workers, and overtime workers.

It is clear from this table how seriously irregularity of employment affected earnings. The number working less than 42 hours was 340 or 27 per cent of the total included in this part of the inquiry. Those receiving less than \$6 a week were all employed for part time.¹

Thus it is clear that irregular employment is an important cause of low earnings in the candy industry. That it is not the only cause is shown by the fact that in the columns representing a schedule of hours of 48 to 54, and 54 to 57,² wages of \$7, \$8, and \$9 are recorded and the whole group of these girls earning less than \$14 a week or even less than \$12 is considerable. Nevertheless it seems evident that if efforts were made to regularize employment the income of candy makers as a group would be increased. Without such an effort the most serious problems of the trade will remain unsettled.

Employers to whom this report was submitted in manuscript form for criticism in advance of publication objected to the inclusion of part-time workers in the statistics of earnings. They thought it fairer to judge the industry by the earnings of those employed full time. But no description could be accurate which omitted the facts about irregularity of employment and its effect upon the income and the standard of life of the workers.

CONDITIONS IN THE WORKROOMS.

In this investigation interest was centered on wages, and the data given are based on pay rolls and schedules. The investigators also inspected the workrooms, however, and although this inspection was incidental and casual the resulting observations are of practical value.

The first problem, that of the cleaning in a candy factory, is necessarily a difficult one. Pieces of hard candy, bits of cream filling, and chocolate drop on the floor and are trodden in. Scrubbing takes up the dust and the candy that has not been stepped on but may not remove that which has been tramped into the flooring. In most plants trays of candies are carried from the cooking room to the packing room and from the dipping tables to the tables where they are packed. This means that the stairs and halls as well as the workrooms receive their share of dropped candy. A few of the factories are swept daily by cleaning women (or a janitor), and thoroughly scrubbed and scraped once or twice a week. Four factories visited were immaculately clean and showed what could be accomplished by efficient management. In nine plants the girls making the candy do the sweeping during working hours, and in some of

¹ See Appendix I, Table G, p. 43, for the actual hours worked in comparison with the scheduled weekly hours for the establishment.

² It is a violation of the State labor law to employ women longer than 54 hours in a week, but the pay-roll record was taken of women actually working 55½ hours.

the factories they also give the floors a weekly scrubbing. The sweeping of the floors by the girls seems to have been an established custom in the trade. One forewoman who had worked in candy over 20 years said that until the last two years her girls had always done their own cleaning. In one plant scrubbing of the tables and floor around each seat was done on Saturday mornings. This was hard on the pieceworkers, as their earnings ceased during the cleaning period. A dipper paid by the piece said she hurried through her cleaning and so lost only half an hour from her work, and "I work very fast afterwards to make up," she added. From the appearance of some factories it was plain that scrubbing and sweeping had not been done recently. The floors and stairs were uneven from ground-in candy and the treads of the stairs were thickly coated with starch from the molding trays. The general condition of one plant was such that it was no surprise to hear the manager reply to a question as to his policy regarding dismissals, "They don't have to be fired—they just walk out."

The standard of cleanliness is without doubt fixed by the management both in regard to making, wrapping, and packing the candy. This is shown with equal force when it comes to washing facilities. All day girls who are packing and wrapping are handling candy and many times a day they want to wash their hands. The dippers' hands are in the melted chocolate, which gets into their nails and of course on any part of their clothing that they touch. What are the washing facilities for girls in most candy factories? Only 8 out of the 25 establishments visited supplied hot water and only 4 had wash rooms. In most factories basins with one cold-water faucet were supplied in each workroom, and in all but two instances soap was furnished. It is not very easy to get sticky material off your hands with soap and cold water, and when no towel is provided, or but one roller towel for a department, it makes the operation more difficult. In one factory where towels were not supplied one of the packers was asked how she managed: "Oh, I live near and don't need to wash here," she answered. A girl in another plant said she wiped her hands on her apron or petticoat.

It is important that wash rooms should be provided where girls can wash thoroughly and comfortably, as well as that basins with hot water, soap, and towels be placed in each workroom. These arrangements would allow the girls to rinse their hands frequently and to clean up thoroughly in the wash room whenever necessary. One forewoman insisted that the work tables should be spotless, but no towels or aprons were supplied to keep the workers immaculate. The picture so often imagined of a worker in a spotless white apron and cap was not often seen. Seven of the firms realized the importance of

providing and laundering aprons and caps for the workers, and two others require them but do not provide them.

In many of the establishments the supplying and wearing of uniforms is optional with the girls themselves. The result is that some girls wear big gingham aprons which completely cover their dresses while others wear little waitress aprons that protect only the front of the skirt, and many girls wear no aprons at all. One girl wore a newspaper tied on with string, which effectually protected her dress if not the candy. In some of the occupations, dipping especially, it is impossible to prevent one's clothes from becoming caked with the melted chocolate and the low temperature of the dipping room makes it necessary to wear a woolen dress or a wrap which can not be washed. It seems hardly more reasonable to expect the worker to be immaculate without supplying her the means for it than to require clean dishes from a cook when no hot water or towels are furnished. Caps were worn by but few of the workers, although some firms supplied them. The girls found them hot and did not like to wear them; as one forewoman explained, "I tried them myself last summer, and it was so warm that I did not blame the girls for losing theirs." It was suggested that a possible solution might be in caps made of net or veiling, which would be both light and cool. When girls handle the candy it is almost impossible to prevent their rearranging their hair one minute and handling candies the next unless caps of some kind are worn.

The location and proper equipment of the toilets is obviously of great importance. The toilet room should not get its ventilation through the workroom but from outside windows, and the wash room or basin should be convenient to it. In five plants the partition between the workroom and toilet did not reach the ceiling; in one plant it adjoined the lunch room, and in another plant trays of candies were stacked around it. But little thought seems to have been spent on the location of the toilet and in six cases the toilets were reported as inconvenient or badly located.

The same complaint, lack of planning, was noticed when it came to seats. In one plant the seats were actually so unique as to be interesting. They showed ingenuity and variation—an old packing box 3 feet high for one dipper, a stool a little taller for the next, a chair without a back for the third, and a nail keg finishing up the line. No back rests were seen in this plant nor in many others; in fact only five factories supplied seats with backs and these not in all departments. In some plants the packers stand, while in others they sit on stools. One girl said she thought that "it would be nice if you could stand *and* sit." This ideal would certainly seem easy of attainment, for in certain departments of some establishments all were seated, while in others all stood, and it would appear that it

might easily be arranged for girls to sit or stand when they choose while at work.

It appears that not much thought or attention is devoted to "factory housekeeping" in the candy industry. Such conveniences as light cloakrooms with individual lockers, rest rooms, lunch rooms, and drinking facilities are provided in but few of the plants. Six plants have rooms where girls can eat their lunch and two of these supply food. In the remaining 19 factories girls can go out to their homes or near-by restaurants for their noon meal or bring it with them and eat it at the table where they pack and wrap the candies. This is undesirable both for the girls and the candies. At the very least a separate room should be provided for the workers who must remain in the plant. Three of the larger factories supply rest rooms, but in the other 22 factories no provision is made for a girl to lie down if she feels ill or faint—unless permission for the worker to use a wooden bench in the cloakroom when she feels ill could be called "provision."

Even the usual wooden bench in a cloakroom would not be a possible resting place in many plants for the simple reason that there are no cloakrooms. Eight factories made no provision for the girls' wraps except hooks in the corner of the kitchen, and in two establishments wooden lockers only were supplied. These lockers were not individual lockers and were so crowded that hooks in the workroom, or even in the kitchen, seemed preferable. Six cloakrooms had no windows and were ventilated by air from the workroom over the partitions which did not reach the ceiling. In three instances, however, the only ventilation was through the entrance door, and the rooms were stuffy and ill-smelling. A few of the factories had light roomy cloakrooms with individual wire lockers, but these were exceptions and not the rule.

Probably one of the most important requirements of the workers is for well cooled water. The girls as they work eat more or less candy and the very smell of the cooking makes them thirsty. In 21 plants no special drinking water was furnished. The girls drank the water as it came from the faucet—cold in winter and warm in summer. Of the 4 establishments where special provision was made for drinking water, 2 had ice-coolers, 1 a bubbler, and 1 kept a big bottle of water on the ice coils in the chocolate cooling room. Individual drinking cups were supplied in but one plant, although in a number the realization that a common drinking cup was insanitary was shown by a request that girls bring their own glasses. The impracticability of this advice can be easily seen. In most plants there were no cloak rooms with individual lockers where the glasses could be kept and if these conveniences were supplied they were a long way from the water faucets or coolers. What the girls

actually used was a common glass, cup, or mug. In candy factories, as elsewhere, if necessities are not provided, makeshifts are used and discontent and restlessness result. The fact that the plants are poorly equipped for the comfort of the workers contributes to the shifting of the girls to other industries or to their trying first one plant and then another in the candy trade.

RECOMMENDATIONS.

This report was submitted in manuscript form to each establishment included in the investigation, and to the Women's Trade-Union League of Philadelphia, and recommendations for action were urgently invited. One firm sent its employment manager to Washington to make comments, but no recommendations for improvement in wages or conditions of work were made by representatives of managements.

The Women's Trade-Union League of Philadelphia submitted the following suggestions:

We think that two lines of action are desirable and feasible. First, since this industry is one that directly concerns the candy consuming public, which suffers immediately from insanitary conditions that menace health, therefore we think the public as well as workers and management should take steps changing at least the more serious of these conditions which you have found so prevalent. We believe that the best way to improve conditions is through the action of the candy trade itself, which has the most accurate knowledge of conditions, and can therefore work out the most practicable methods of altering them. Our recommendation is that a sanitary board of nine people be chosen, three representing the public, three the workers, and three the management. It should be the duty of this board to study the whole question of sanitation as it concerns candy making, to establish reasonable standards for plants and to have power and an inspectorial staff for enforcing those standards. Of course, we are not at this moment prepared to submit details for the working out of this recommendation. We are aware that, first of all, expert knowledge of the trade would be necessary before undertaking such a step, and it is on this account that we recommend having a majority of the board members of the trade. Secondly, we realize that there are questions of administrative machinery which would require considerable study, but it seems to us that the purpose to be achieved warrants the effort. There can be no doubt that the insanitary conditions found in some of the plants constitute a health hazard of sufficient importance to the purchasing public, so that on this ground alone, improvements should be insisted upon.

Our second recommendation is concerned more immediately with the workers than with the public, though recent investigations everywhere have established the general social significance of the minimum living wage. We believe that all of Pennsylvania, but more especially the candy trade and our State legislature, should be acquainted with the findings of your investigation in order to give them irrefutable testimony on the need for passing the minimum wage bill now before the State senate.

Anything you can do to put this data before them seems most desirable and worth while, for it seems obvious that no industry can be stabilized, nor its continued existence justified, while conditions continue that permit women to work for so low as \$400 to \$500 yearly income.

APPENDIX I.—DETAILED TABLES.

TABLE A.—NUMBER OF WOMAN WEEK WORKERS EARNING EACH CLASSIFIED AMOUNT DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, BY OCCUPATION.

Actual weekly earnings.	Fore-women.	Dippers.	Machine operators.	Packers.	Others.	Total.	Per cent.
Under \$1.....				2	2	4	0.5
\$1 and under \$2.....		6		31	2	39	4.7
\$2 and under \$3.....		5		14	3	22	2.6
\$3 and under \$4.....		3		14	3	20	2.4
\$4 and under \$5.....		2	3	21	2	28	3.4
\$5 and under \$6.....		10		26	3	39	4.7
\$6 and under \$7.....		4	2	20	6	32	3.8
\$7 and under \$8.....		10	2	33	8	53	6.4
\$8 and under \$9.....		11	5	92	33	141	16.9
\$9 and under \$10.....		15	5	66	30	116	13.9
\$10 and under \$11.....		13	18	103	19	153	18.3
\$11 and under \$12.....	1	3	1	21		26	3.1
\$12 and under \$13.....		9	4	33	10	56	6.7
\$13 and under \$14.....		11	2	19	7	39	4.7
\$14 and under \$15.....		5	3	11		19	2.3
\$15 and under \$16.....	1	1	1	13	2	18	2.2
\$16 and under \$17.....	1	3	1	6	1	12	1.4
\$17 and under \$18.....		1			3	4	.5
\$18 and under \$19.....	3			5		8	1.0
\$20 and over.....	3			2		5	.6
Total.....	9	112	47	532	134	834	100.0
Median weekly earnings.....	\$18.50	\$9.30	\$10.38	\$9.19	\$9.15	\$9.34	

WAGES OF CANDY MAKERS IN PHILADELPHIA IN 1919.

TABLE B.—NUMBER OF WOMEN (NOT INCLUDING FOREWOMEN) EARNING EACH CLASSIFIED AMOUNT DURING 1 WEEKLY PAY-ROLL PERIOD IN 1919, BY ESTABLISHMENT.

Actual weekly earnings.	Establishment No.																				Total.	Per cent.
	I.	II.	III.	IV.	V.	VI.	VII.	IX.	X.	XI.	XII.	XIII.	XIV.	XV.	XVI.	XVII.	XVIII.	XIX.	XX.			
Under \$1.....	3								1		2										6	0.5
\$1 and under \$2.....	18	2	9		1	1	9	1	1	1	1										44	3.6
\$2 and under \$3.....	10		2		1	1	3	1	1	1	5	1									23	1.9
\$3 and under \$4.....	7	2	1	1	3	2	2	1	1	2											21	1.7
\$4 and under \$5.....	11	2	3	1	2	6	2	1	1	1	1										32	2.6
\$5 and under \$6.....	18	1	2	1	3	2	1	1	1	1	1										40	3.2
\$6 and under \$7.....	20	1			3	1	6	1	2	3	1	1	1		1						38	3.1
\$7 and under \$8.....	24	4	4	1	5	6	1	8	2	1	1	1	1		2						57	4.6
\$8 and under \$9.....	54	29	8	8	16	3	6	13	10	5	5	7	4	10	1	2					158	12.8
\$9 and under \$10.....	50	5	6	6	24	10	5	7	7	4	1	1	4	1	1	3					145	11.7
\$10 and under \$11.....	82	11	15	11	12	11	3	7	2			2	2	1	1	1					193	15.6
\$11 and under \$12.....	25	6	2	2	5	4	2	5	3	2		2	2	1	1	1					86	7.0
\$12 and under \$13.....	21	4	11	15	8	4	2	5	3	3		2	2	5	1	1					67	5.4
\$13 and under \$14.....	22	12	6	8	6	2	3	5	2	2			1	2	4	1					50	4.0
\$14 and under \$15.....	18	3	5	4	5	5	2	2	1	1			1	1	1	1					45	3.6
\$15 and under \$16.....	20	8	5	5	2	1	1	1	1	1			2	1	1	1					45	3.6
\$16 and under \$17.....	16	1	9	6	2	2	1	1	2	1			2	1	4	1					24	1.9
\$17 and under \$18.....	6		8	8	2	2	1	1	1	2	1		2	2	2	1					32	2.6
\$18 and under \$19.....	14		8	4	1	1	4	1	1	2	2		1	1	1	1					17	1.4
\$19 and under \$20.....	10		3	2	2	2	2	1	1	1	1		1	1	1	1					16	1.3
\$20 and under \$21.....	4		8	2																	9	0.7
\$21 and under \$22.....	6		1	1		1					1										11	0.9
\$22 and under \$23.....	7		2								1										9	0.7
\$23 and under \$24.....	8		6																		15	1.2
\$24 and over.....	9		6																		15	1.2
Total.....	483	91	124	84	99	74	51	41	37	27	27	23	24	18	9	8	7	7	8	1,237	.....
Median weekly earnings.....	\$10.32	\$9.90	\$12.86	\$12.03	\$9.81	\$9.25	\$7.41	\$9.73	\$9.07	\$8.90	\$8.90	\$10.18	\$12.70	\$10.85	\$11.50	\$10.50	\$9.50	\$12.25	\$15.50	\$9.76	.....

TABLE C.—WEEKLY EARNINGS OF WOMAN WORKERS EMPLOYED IN 10 IDENTICAL CANDY FACTORIES FOR ONE WEEKLY PAY-ROLL PERIOD IN 1918 (DULL SEASON) AND IN 1919 (NORMAL SEASON).

Actual weekly earnings.	1918 (dull season).	1919 (normal season).
Under \$1.....	4	3
\$1 and under \$2.....	14	14
\$2 and under \$3.....	22	10
\$3 and under \$4.....	21	9
\$4 and under \$5.....	15	12
\$5 and under \$6.....	20	4
\$6 and under \$7.....	9	10
\$7 and under \$8.....	12	17
\$8 and under \$9.....	20	56
\$9 and under \$10.....	15	60
\$10 and under \$11.....	12	38
\$11 and under \$12.....	4	13
\$12 and under \$13.....	2	22
\$13 and under \$14.....	1	18
\$14 and under \$15.....	1	14
\$15 and under \$16.....	1	5
\$16 and under \$17.....	1	5
\$17 and under \$18.....	1	3
\$18 and under \$19.....	1	4
\$19 and under \$20.....	1	3
\$20 and over.....	2	3
Total.....	177	323
Median weekly earnings.....	\$5.62	\$9.60

TABLE D.—NUMBER OF WOMEN (NOT INCLUDING FOREWOMEN) WHO WORKED THE FULL-TIME WEEKLY HOURS DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919 CLASSIFIED BY ACTUAL WEEKLY EARNINGS.

Actual weekly earnings.	Number of women who worked a full week of—															Total.	Per cent.
	43½ hrs.	44 hrs.	45½ hrs.	46½ hrs.	47½ hrs.	48½ hrs.	49 hrs.	49½ hrs.	50 hrs.	50½ hrs.	50½ hrs.	51½ hrs.	52½ hrs.	53½ hrs.	54 hrs.		
\$7 and under \$8.....					2			1								3	0.8
\$8 and under \$9.....	4	12			3			1	4	2	24	1		9		60	16.5
\$9 and under \$10.....	1	1			4			5	1	2	31	1	3	15		64	17.6
\$10 and under \$11.....	7		1		5	10	2		4	1	7	1	10	22	1	71	19.6
\$11 and under \$12.....	2				1	1	1			1	2			4		12	3.3
\$12 and under \$13.....	2				3	5	4		2		3	1		19	3	46	12.7
\$13 and under \$14.....	1				1	2	1		2					2	1	13	3.6
\$14 and under \$15.....				1	2		4	1	1		2	5	1	2		19	5.2
\$15 and under \$16.....			1				4		1		1			3		10	2.8
\$16 and under \$17.....			1				6		2		1	1	2	1		14	3.9
\$17 and under \$18.....							7		2							9	2.5
\$18 and under \$19.....				2			6		1	1			2	1		13	3.6
\$19 and under \$20.....				1			3		1		1					6	1.7
\$20 and under \$21.....							7		2				1			10	2.8
\$21 and under \$22.....	1						1									2	.6
\$22 and under \$23.....				1			3									4	1.1
\$23 and over.....				1			6									7	1.9
Total.....	18	13	3	6	21	18	55	8	23	7	72	10	25	77	7	363	100.0

NOTE.—The median earnings of these 363 full-time workers were \$10.77 per week.

WAGES OF CANDY MAKERS IN PHILADELPHIA IN 1919.

TABLE E.—NUMBER OF WOMEN (NOT INCLUDING FOREWOMEN) WHO WORKED LESS THAN THE FULL-TIME WEEKLY HOURS DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, CLASSIFIED BY ACTUAL WEEKLY EARNINGS.

Actual weekly earnings.	Number of women who worked—																	Total.	Per cent.
	3 and under 6 hrs.	6 and under 9 hrs.	9 and under 12 hrs.	12 and under 15 hrs.	15 and under 18 hrs.	18 and under 21 hrs.	21 and under 24 hrs.	24 and under 27 hrs.	27 and under 30 hrs.	30 and under 33 hrs.	33 and under 36 hrs.	36 and under 39 hrs.	39 and under 42 hrs.	42 and under 45 hrs.	45 and under 48 hrs.	48 and under 51 hrs.	51 and under 55½ hrs.		
Under \$1.....	6																	6	1.1
\$1 and under \$2.....	4	14	24	2														44	7.8
\$2 and under \$3.....		1	2	8	3	9												23	4.1
\$3 and under \$4.....				1	5	10	2	1	2									21	3.7
\$4 and under \$5.....			1	3	2	4	9	6	7									32	5.7
\$5 and under \$6.....						1	1		31	3	2	2						40	7.1
\$6 and under \$7.....						1	2	1	7	5	1	11	8	2				38	6.8
\$7 and under \$8.....						1	1			4	4	5	12	19	9			46	8.2
\$8 and under \$9.....							1	1	1	3	3	7	9	19	24	9	6	83	14.8
\$9 and under \$10.....						1	1	2	1	6	2	4	7	8	9	15	3	59	10.5
\$10 and under \$11.....						2	1		2	8		2	5	10	8	2	4	44	7.8
\$11 and under \$12.....									1	3			5	2	4	2	1	18	3.2
\$12 and under \$13.....										3	1	1	4	5	4	2	2	22	3.9
\$13 and under \$14.....										2			5	2	7	2	2	20	3.6
\$14 and under \$15.....									1		1	1	2	5	1	2		13	2.3
\$15 and under \$16.....										1	2		1	7		1		12	2.1
\$16 and under \$17.....										1	1		3	4	1	1	4	15	2.7
\$17 and under \$18.....													2	6	1	2	1	12	2.1
\$18 and under \$19.....														6		2	1	9	1.6
\$20 and over.....													1		2	1	1	5	.9
Total.....	10	15	27	14	10	29	18	11	53	39	17	33	64	86	70	41	25	562	100.0

NOTE.—The median earnings of these 562 workers were \$8.37 per week.

TABLE F.—NUMBER OF WOMEN (NOT INCLUDING FOREWOMEN) WHO WORKED MORE THAN FULL-TIME WEEKLY HOURS DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, CLASSIFIED BY ACTUAL WEEKLY EARNINGS.

Actual weekly earnings.	Number of women who worked—				Total.	Per cent.
	42 and under 48 hours.	48 and under 51 hours.	51 and under 54 hours.	54 hours and over. ¹		
\$7 and under \$8.....				7	8	2.6
\$8 and under \$9.....				13	15	4.8
\$9 and under \$10.....				7	22	7.1
\$10 and under \$11.....			10	67	78	25.0
\$11 and under \$12.....			6	16	24	7.7
\$12 and under \$13.....			3	12	18	5.8
\$13 and under \$14.....			13	19	34	10.9
\$14 and under \$15.....			2	12	18	5.8
\$15 and under \$16.....			8	14	23	7.4
\$16 and under \$17.....			2	11	16	5.1
\$17 and under \$18.....				3	3	1.0
\$18 and under \$19.....				3	10	3.2
\$19 and under \$20.....				3	11	3.5
\$20 and under \$21.....				1	4	1.3
\$21 and under \$22.....				5	5	1.6
\$22 and under \$23.....				3	7	2.2
\$23 and under \$24.....				7	7	2.2
\$24 and under \$25.....				1	5	1.6
\$25 and under \$30.....				1	4	1.3
Total.....	3	45	36	228	312	100.0

¹ 54 hours is the legal limit in Pennsylvania, but one firm's hours were 55½.

NOTE.—The median earnings of these 312 overtime workers were \$12.47 per week.

TABLE G.—NUMBER OF WOMAN WORKERS, CLASSIFIED BY FULL-TIME WEEKLY HOURS AND BY HOURS ACTUALLY WORKED DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919.

Hours actually worked.	Women whose full-time weekly hours were—																	Total.	Per cent.
	43	44	45½	46½	47½	48½	49	49½	50	50½	50¾	51½	52½	53½	53¾	54	55½		
Under 3.....				1														1	0.1
3 and under 6.....				1			1	1		1	3		2					9	.7
6 and under 9.....		2			9					1	18		1		1	1	1	15	1.2
9 and under 12.....										1	18		6				2	27	2.2
12 and under 15.....	1			1	1			4		1	5		1					14	1.1
15 and under 18.....					5			1			2				1	1		10	.8
18 and under 21.....		2			1		1				15		3		1	1	5	29	2.3
21 and under 24.....		1			2					1	6		1		2		5	18	1.4
24 and under 27.....		2			5						2				1		1	11	.9
27 and under 30.....		1					1				30				5		16	53	4.3
30 and under 33.....	1	2			3		1	1	1		8						22	39	3.1
33 and under 36.....							1	1		1	5		1		1	2	5	17	1.4
36 and under 39.....	4	3					1			2	13	2		1	1	4	2	33	2.6
39 and under 42.....		7			2		8			3	34	1	1		4	3	1	64	5.1
42 and under 45.....	18	30			5		17			3	26	1	3		15	2	1	121	9.7
45 and under 48.....		1	3	6	22		6			6	41	1	5	1		7	2	101	8.1
48 and under 51.....		43			3	18	55	10	23	19	78	1	2		11	6	3	272	21.8
51 and under 54.....							1				35	10	32	1	80	7	7	173	13.9
54 and under 57.....											188			5	34	7	5	239	19.2
Total.....	24	94	3	9	58	18	93	18	24	38	509	16	58	8	157	41	78	1,246	100.0

TABLE H.—NUMBER IN EACH AGE GROUP OF WOMAN WEEK WORKERS EMPLOYED DURING ONE WEEKLY PAY-ROLL PERIOD IN 1919, CLASSIFIED BY WEEKLY RATES OF WAGES.

Weekly rates of wages.	Women whose ages were—									Total.	Per cent.
	14 and under 15 years.	15 and under 16 years.	16 and under 18 years.	18 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and over.		
\$7 and under \$8.....					1					1	0.2
\$8 and under \$9.....	1	6	36	24	18	1	1	5	4	96	18.5
\$9 and under \$10.....	2	2	45	31	29	11	14	4	1	139	26.8
\$10 and under \$11.....	2	2	32	15	25	11	8	6	1	102	19.7
\$11 and under \$12.....			2	9	10	7	2		1	31	6.0
\$12 and under \$13.....	1		1	9	22	13	12	4	4	66	12.7
\$13 and under \$14.....	1		1	3	14	4	1	2		26	5.0
\$14 and under \$15.....			2		9	3	2	1		17	3.3
\$15 and under \$16.....			3	2	7	3	1			16	3.1
\$16 and under \$17.....					3	2	1			6	1.2
\$18 and under \$19.....					4	3	3	1		11	2.1
\$20 and under \$20.....							1			1	.2
\$20 and over.....					3	3				6	1.2
Total.....	7	10	122	93	145	61	46	23	11	1,518	100.0
Median weekly rates.....	\$10.25	\$8.75	\$9.54	\$9.73	\$10.98	\$11.36	\$11.00	\$10.42	\$10.50	\$10.20	

¹ Of the 970 women who supplied personal records, 287 were pieceworkers, and of the week workers 3 did not state their age, and 162 were not found on the pay roll.

APPENDIX II.—SCHEDULES USED IN THE INVESTIGATIONS.

1. Industry.....

U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS,
WASHINGTON.

WAGES AND HOURS.

2. Date..... 3. Agent.....
 4. Establishment..... 5. Address.....
 6. Person furnishing data..... 7. Pay roll: Length..... Ending.....
 8. Department..... 9. Occupation.....
 10. Hours each day Monday to Friday..... Saturday..... Sunday..... Total per week.....

(11) For office use.	(12) Occupation term on pay roll.	(13) Number.	(14) Sex.	HOURS WORKED.			(18) Basic time rate per—	EARNINGS.				(23) For office use.
				(15) Regu- lar.	(16) Over- time.	(17) Total.		(19) Regu- lar time.	(20) Over- time.	(21) Pre- mium or bonus.	(22) Total.	
.....	1.....
.....	2.....
.....	3.....
.....	4.....
.....	5.....
.....	6.....
.....	7.....
.....	8.....
.....	9.....
.....	10.....
.....	11.....
.....	12.....
.....	13.....
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.....	25.....
.....	26.....
.....	27.....
.....	28.....
.....	29.....
.....	30.....
.....	31.....
.....	22.....
.....	33.....

UNITED STATES DEPARTMENT OF LABOR—WOMAN IN INDUSTRY SERVICE

INVESTIGATION OF WAGES IN CANDY FACTORIES IN PHILADELPHIA, BY WEEKS, FOR ONE YEAR.

Firm _____

Week ending—	Number of employees.	Wages.	Remarks.	Week ending—	Number of employees.	Wages.
1.....				27.....		
2.....				28.....		
3.....				29.....		
4.....				30.....		
5.....				31.....		
6.....				32.....		
7.....				33.....		
8.....				34.....		
9.....				35.....		
10.....				36.....		
11.....				37.....		
12.....				38.....		
13.....				39.....		
14.....				40.....		
15.....				41.....		
16.....				42.....		
17.....				43.....		
18.....				44.....		
19.....				45.....		
20.....				46.....		
21.....				47.....		
22.....				48.....		
23.....				49.....		
24.....				50.....		
25.....				51.....		
26.....				52.....		

* Holiday in week.

U. S. DEPARTMENT OF LABOR, WOMAN IN INDUSTRY SERVICE

Establishment. _____ Employee's No. _____ Department. _____

Name _____

Address _____

Male or female _____ Single, married, widowed or divorced? _____

Country of birth _____ Age _____ Years _____

How old were you when you began to work for wages? _____

How long have you been in this trade or business? _____

How long have you been working for this firm? _____

What is your regular work here? _____

Do you live at home? _____ Do you board? _____

Remarks _____

U. S. DEPARTMENT OF LABOR, WOMAN IN INDUSTRY SERVICE.

Establishment.	Employee's No.	Department.					
Name.			Male.	Female.	Age.		
Address.			CONJUGAL CONDITION.				
Occupation.			S.	M.	W.	D.	N. R.

Rate of pay.	Piece.	Hour. \$0.	Day. \$	Week. \$	½ month. \$	Month. \$	Additions. \$
	Days worked.	Regular weekly hours.	Hours worked this period.	Overtime hours.	Undertime hours.	Earnings.		Deductions.
					This period. \$	Computed for regular time. \$	\$
Country of birth.		Began work. Age.	Time at work.		In this trade.	This firm.	

At home. Board. Pay roll period.
 — days ending.

