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U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, SECRETARY
WOMEN'S BUREAU
MARY ANDERSON, Director

BULLETIN OF THE WOMEN'S BUREAU, NO. 25

**WOMEN IN THE CANDY INDUSTRY
IN CHICAGO AND ST. LOUIS**

A STUDY OF HOURS, WAGES
AND WORKING CONDITIONS
IN 1920-1921



WASHINGTON
GOVERNMENT PRINTING OFFICE
1923

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JAMES A. HANCOCK, CHIEF
WOMEN'S BUREAU
MARY WATSON, DIRECTOR

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U. S. DEPARTMENT OF LABOR
WASHINGTON, D. C.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, July 28, 1922.

SIR: I have the honor to submit the accompanying report of a survey made of hours, wages, and working conditions of women in the candy industry in Chicago and St. Louis.

The survey was begun the middle of February, 1921, and continued until the middle of April of that year.

Miss Caroline Manning directed the field work and Miss Elizabeth Hyde was in charge of the statistical compilation. The report was written by Miss Mary V. Robinson.

Respectfully submitted.

MARY ANDERSON, *Director.*

HON. JAMES J. DAVIS,
Secretary of Labor,

WOMEN IN THE CANDY INDUSTRY IN CHICAGO AND ST. LOUIS.

PART I.

INTRODUCTION AND SUMMARY.

This survey of the hours, wages, and working conditions of women in the candy industry in Chicago and St. Louis was made by the Women's Bureau of the U. S. Department of Labor at the request of certain organizations interested in the industrial status and opportunities of women wage earners. The field work was begun the middle of February, 1921, and was continued until the middle of April of that year.

The period of the survey was one of industrial depression which was crippling practically all industries and causing much unemployment. It is to be expected that under such circumstances candy sales would inevitably drop and candy manufacture be curtailed since these products not only come under the head of food but frequently are classed as luxuries. A brief glance at the recent history of the industry will aid in understanding the difficulties which confronted candy manufacturers and workers in the closing months of 1920 and the opening ones of 1921.

FACTS ABOUT THE INDUSTRY.

Few industries have grown so rapidly and extensively as the candy industry in the United States. Some idea of the rapid strides made can be gained from the following comparison set forth in an article in the *Financial World* of May 31, 1920.¹

A comparison of consumption between 1880 and 1919 shows:

	1880.	1919.
Pounds of candy.....	110, 342, 540	1, 400, 000, 000
Retail value of candy.....	\$33, 700, 000	\$1, 219, 000, 000
Per capita consumption.....pounds..	2. 2	13. 1

For the last few years the total estimated candy business has amounted to the following:

	1914.	1919.
Pounds of candy.....	550, 000, 000	1, 400, 000, 000
Value.....	\$176, 000, 000	\$1, 219, 000, 000
Per capita consumption.....pounds..	5. 6	13. 1
Per capita cost.....	\$1. 79	\$11. 39

¹ Patterson, Schuyler. The sugar industry: Its past and present. *Financial World*, May 31, 1920, Vol. 33, pp. 3-4.

From this it is evident that candy consumption increased almost 155 per cent in five years, and that the total cost went up approximately 600 per cent in that time. In 1920 the public was paying about 87 cents a pound as against 32 cents in 1914, and was spending almost seven times as much for candy as in 1914.

Nevertheless, the growth of the industry, meteoric as it appears, had not been entirely free from clouds. The following quotation from the address of the president of the National Confectioners' Association at its annual convention in May, 1920, gives the manufacturers' point of view on this subject: "Our industry has within the past few years undergone the most trying conditions. We experienced a great shortage of all kinds of raw materials. We suffered from labor unrest and strikes, coal shortage, and inefficient railroad traffic; and in spite of all this our records show our sales have been greater in dollars, although our production has not been greater, as a rule, in tonnage. The conditions of our present business are widely different from the pre-war period. With higher labor cost and higher price of raw material, we are on a higher plane, and it is my belief that we will not return to pre-war times at least for some years to come and probably never; so we must adjust ourselves to the present conditions. Adjustments can not always be made rapidly. It takes time, the best of judgment and the wisest counsel."² The general tone of this convention was optimistic, and the outlook in May, 1920, was, on the whole, encouraging for those connected with the candy industry. By November, 1920, however, an undercurrent of anxiety was apparent in candy manufacturing circles since orders were not flowing in with their usual rush. Accordingly, in many plants the phenomenal activity and preparation for Christmas were not experienced. This meant that the prosperity of the industry was dealt a sudden blow from which it was still staggering in February, 1921, and which had aroused among candy manufacturers a feeling of caution and a tendency toward retrenchment and had caused for candy workers a reduction in opportunities and earnings.

SCOPE AND METHOD.

Chicago and St. Louis are both definite candy centers. According to the U. S. Bureau of the Census there were in 1914, 97 confectionery establishments³ in Chicago and 48 in St. Louis. In the census classification the term confectionery is applied to the manufacture not only of all kinds of candy and confections but of ice cream, chewing gum, salted nuts, and cake ornaments as well. The survey made by the Women's Bureau was intended to cover candy

² Beich, Paul F. President's address. Proceedings of the 37th Annual Convention of the National Confectioners' Association. St. Paul, 1920, p. 15.

³ U. S. Bureau of the Census. Census of manufactures, 1914, Vol. I., pp. 339 and 892.

and confections only and not the other products. In the limited time of the investigation, however, it was impossible to visit even all of the candy factories in the two cities. Accordingly, an effort was made to select a representative number of factories as well as representative types.

In all, 32 establishments in Chicago and 19 in St. Louis were inspected. The factories investigated varied in size from one employing 5 workers to one with 639. The following summary gives some idea of the size of the plants in the two cities:

	Establishments employing—				Total.
	Fewer than 50.	50 to 100.	100 to 200.	200 and over.	
St. Louis.....	12	2	5	.....	19
Chicago.....	8	10	9	4	31
Total.....	20	12	14	4	50

¹ One plant not included because number of employees was not given.

This shows that plants of all sizes were selected—large, small, and medium sized. The factories in Chicago were in the main larger than those in St. Louis, since 74.2 per cent of the former employed 50 or more workers as compared with 36.8 per cent of the latter. The largest plant in St. Louis had only 134 employees, while in Chicago there were 8 factories with a greater force than this, the four largest having 639, 556, 307, and 275 workers, respectively. Twenty-four of the plants included in Chicago were among the 46 in that city listed as members of the National Confectioners' Association of the United States, while in St. Louis only 6 of those inspected belonged to this association.

The factories visited manufactured practically all kinds of confections, from penny goods to the highest grade of chocolates and bonbons. In addition to such is the following list of products turned out by these plants: Stick and hard candies, cough drops, lozenges, licorice, chewing goods, gumdrops, jelly beans, caramels, nougats, fudge, butterscotch, peanut brittle, marshmallows, nut bars, coconut confections, crackajack, iced cherries, pop corn, and fancy novelties. It is apparent from this that virtually all branches of candy manufacture are represented. Many plants produced a general line of these confections, whereas a few specialized in one variety.

The inquiry was carried on along several main lines. Definite information about numbers of employees, hour schedules, wages, and working conditions were recorded by the investigators from interviews with employers and managers, from inspection of plants, and from examination of pay rolls. In order to obtain accurate and uniform information data were taken personally from pay rolls

by the investigators. A special form was used for recording the weekly earnings, rates, and hours of each woman in each occupational group for a current week in 1921 and a representative week during the slack season in 1920. A current week, one in the latter half of February, was chosen for several reasons. In the first place, although February is not the busiest season in the industry—the fall months, in preparation for the Christmas trade, being the time of greatest output—the six weeks or so preceding Easter are generally recognized as the second busiest period in candy manufacturing. The February or current pay roll also was of interest as reflecting conditions in the industry during the period of widespread depression, since wage cuts in general were occurring at the beginning of 1921. Another advantage in securing data from the current pay roll was that it enabled the investigators to correlate these facts with the personal records of workers who were then employed. A week in June, 1920, was selected as representative of a normally dull season since the summer months are almost invariably the time of slackest activity in candy production. Individual yearly earnings for a representative number of women in each establishment were recorded on 52-week schedules. Furthermore, in order to estimate, if possible, the extent of seasonal fluctuations, the total number of wage earners and the total amount of wages paid out for each week in the year from February, 1920, to February, 1921, were obtained for most of the plants.

With the pay-roll data for the individual women were combined facts obtained from cards filled out in the plants by these women about age, nativity, experience in the trade, and conjugal condition. In addition the investigators by means of home visits were able to supplement this information with personal statements about the educational and industrial history as well as about the home responsibilities of a certain number of women.

The following table gives the number of employees, by sex and by occupation, for 31 establishments in Chicago and 19 establishments in St. Louis:

TABLE 1.—*Number of males and females employed, by occupation.*¹

Occupation.	Chicago (31 establishments). ²		St. Louis (19 establishments).		Total (50 establishments). ²		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
Foremen or forewomen	80	79	13	29	93	108	201
Cooking, making	161	.....	105	.....	266	.....	266
Dipping .....	.....	306	.....	122	.....	428	428
Packing and wrapping	34	932	12	290	46	1,222	1,268
Machine operating	110	358	11	99	121	457	578
Other occupations	1,229	389	199	92	1,428	481	1,909
Total	1,614	2,064	340	632	1,954	2,696	34,650

¹ Office workers not included in this report.

² One establishment excluded because number of employees not given.

³ Excludes 136 males and 6 females not reporting occupation.

The total number of workers in the 50 plants was 4,792, of whom 2,702, or 56.4 per cent, were women. In the 19 St. Louis factories there were 632 women, who constituted 65 per cent of the total working force, a larger proportion than was found in the 31 plants in Chicago, where 54.2 per cent of the employees were women. These figures, showing that women constituted over one-half of the workers in the industry, are typical. The Bureau of the Census figures show that in 1914, 60 of every 100 confectionery workers were women,⁴ and according to an investigation of the candy industry in Philadelphia in 1919, women constituted 58.3 per cent of the working force in 25 factories.⁵ Women are in general more in demand for most of the occupations than are men. The more detailed figures show that in some of the individual establishments the proportion of men, however, was larger than the proportion of women. One Chicago plant with men constituting 87 per cent of its 108 employees showed the largest percentage of male workers.

OCCUPATIONS IN THE INDUSTRY.

In factories manufacturing the variety of confections already enumerated, a diversity of occupations would be expected. The work was found, indeed, to be greatly subdivided into special processes, most of which were of a highly monotonous and repetitive nature, but for the purpose of discussion these have been classified under several main heads—foremanship, cooking and making, dipping, packing and wrapping, machine operating, and other occupations. Candy making has been reported upon frequently enough to make a detailed description of the various processes unnecessary in this discussion. It is of interest, however, to touch upon the types of work performed by the men and women in the plants inspected.

On the whole, the jobs had been assigned according to sex, in the usual way. In a comparison of the occupations of the men and women it is apparent from Table 1 that men had a monopoly of the actual making, that is, the mixing of materials and the cooking. No women were found in these occupations, which require skill and much physical strength. Only a comparatively small proportion of the men (13.6 per cent) were engaged in these processes. The great bulk of the men (73.1 per cent) were found in the "other occupations" group. This was due largely to the fact that men and boys were employed in the maintenance of the plant, in shipping and in doing miscellaneous jobs connected with production. One kind of work usually performed by men, and only occasionally by women, was the rolling of stick candy. The job of foremanship was divided rather

⁴ U. S. Bureau of the Census. Abstract of the census of manufactures, 1914, p. 445. The exact percentage is 59.7.

⁵ U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 14.

equally between men and women, as there were 93 foremen and 108 forewomen reported in the plants investigated. There were no men engaged in hand dipping. Only a small proportion of men (2.4 per cent) were employed as packers and wrappers and a not much larger number (6.2 per cent) as machine operators. In the latter group were a few supervisors of enrobing machines and some operators of machines for mixing ingredients, molding candy, cutting caramels, and blowing off the starch used in the hardening process.

The one operation performed exclusively by women and the one requiring more skill than any of the others done by women was hand dipping. This is divided into chocolate and bonbon dipping, the former requiring more dexterity and experience than the latter. One manager stated that a woman could become a bonbon dipper in a month, but that she required six months of practice to learn chocolate dipping. An even more expert job is that of two-hand dipping at which a girl must work for about a year and a half before attaining proficiency. In this process a roller works with the dipper, throwing the handmade centers into the chocolate. The dipper has two hands in the chocolate, using the left one as a sort of cup in which to dip the chocolate. The hand-rolled centers are more difficult to keep in shape than the centers made in the starch room. Altogether only 15.9 per cent of the women were found in all kinds of hand dipping, the smallest proportion, with the exception of forewomen, in any of the occupational groups in the table.

Not all of the dipping was done by hand. A great many chocolates, especially the cheaper grades, were machine dipped. The operation of these machines, designated as enrobers, was a simple process, usually performed by women. Four girls, as a rule, worked at an enrober, one being in charge and the rest feeding and taking off. Other automatic machines operated by women in some plants were those for molding, wrapping, blanching peanuts, and cutting such goods as caramels and chocolate and coconut bars.

By far the largest number of women were engaged in packing and wrapping (45.3 per cent). These jobs, in the main, required speed rather than judgment or skill. Frequently the packers also did the wrapping and occasionally the weighing and tying. In many plants they were classified as fancy, plain, chocolate, and pail, or bulk, packers. Methods varied in the different establishments. In one, for example, the girls doing fancy packing, which probably requires more care than does any other sort, filled only one box at a time; whereas in another establishment the fancy packers worked on as many as a hundred boxes at once, moving from one to another where they were spread out on a table. In some places the girls remained seated and packed from a moving belt.

In the making of so many different kinds of candy there were many miscellaneous jobs, for which women and girls were employed and

which required little if any skill. Among these occupations was the "slab work," a term used for such processes as cutting and powdering fancy candies, making fancy centers, assorting nuts, preparing dates, hand decorating, and molding—the last two requiring a little skill. Some of the workers were designated as helpers or floor girls, whose duty it was to facilitate the work in any way possible; sometimes they helped the dippers by bringing them the melted chocolate. "Sample girls" was the name given to those who planned what candy was to be packed. Other employees were engaged in labeling, tying, checking, and helping with the shipping. In a number of plants the girls changed from one of these small jobs to another and were known as general workers.

SUMMARY OF FACTS.

1. **Date.**—This study of candy manufacturing in two large middle western cities deals largely with conditions in the industry in February to April, 1921. It includes, however, some information about wages throughout 1920, with definite data for a week in June of that year. It shows that the industry in a slack month in a prosperous period was more active and thriving than it was in a supposedly busy season during the industrial depression of 1921.

2. **Scope.**—The study included 31⁶ factories in Chicago and 19 in St. Louis, employing, respectively, 2,070 and 632 women.

3. **Chicago versus St. Louis.**—In regard to hours, wages, and working conditions candy manufacturing was on a generally higher plane in Chicago than it was in St. Louis. The former city, however, is a more important candy center than is the latter.

4. **Hours.**—Despite the curtailment of working schedules during the time of the investigation, normal scheduled hours were recorded. The 31 Chicago establishments showed much shorter scheduled hours and also much more lost time than did the 19 St. Louis plants—facts shown by the following summary:

Daily hours.—An 8-hour day had been adopted by 11 factories in Chicago, employing 27.6 per cent of the women included in Chicago and by 3 factories in St. Louis, employing 2.8 per cent of the women included in St. Louis.

A 9-hour day was found in slightly less than one-third of the Chicago factories employing somewhat over one-third of the women in the Chicago survey and in almost two-thirds of the St. Louis factories employing three-fourths of the women in the St. Louis survey. No establishment in either city had more than a 9-hour day.

Weekly hours.—A weekly schedule of 48 hours or less was found in 22 Chicago factories employing almost two-thirds of the women included in Chicago (65.1 per cent) and in 4 St. Louis factories em-

⁶One other establishment was inspected, but no record was obtained for number of employees.

ploying less than one-fifth of the women (17.6 per cent) included in St. Louis. None of the Chicago factories had more than a 50-hour week despite the State law permitting 70 hours for women in industry, whereas 7 of the St. Louis factories employing over one-half of the women included in that city had as much as a 54-hours week, the maximum hours of employment for women permitted by the State.

Saturday hours.—A Saturday half holiday was customary in 26 of the 31 Chicago plants and in only 3 of the 19 St. Louis plants.

Lost time.—Much lost time was reported for both cities, due largely to slackened production in the industry. Somewhat over one-half of the women included in each city had lost some time during the week recorded. The Chicago factories, on the whole, despite shorter scheduled hours, showed much more lost time than did the St. Louis plants. Of the women with a record for time lost, 46.9 per cent of those in Chicago as compared with 26.9 per cent in St. Louis had lost 15 hours or more during the week.

5. *Wages.*—At the time of the investigation, earnings of women in candy factories had dropped noticeably below the 1920 peak and even below earnings in June, 1920, an admittedly dull season. This decline was the result of official wage cuts, discontinuance of bonuses, curtailed working schedules, and slackened production in the industry.

The women in Chicago despite their much shorter hours received considerably higher wages than did the women in St. Louis.

Piece workers in both cities earned more than did time workers.

Exclusive of foremanship, dipping—which is the most skilled work done by women and which employed 16 per cent of the women included in Chicago and 19 per cent of those in St. Louis—was by far the best paid occupation. The great bulk of the women in both Chicago and St. Louis (51 per cent and 46.1 per cent, respectively) were packers and wrappers. These constituted the lowest paid group in Chicago in the 1921 period, whereas in St. Louis the machine operators showed the lowest median earnings. In the 1920 period, however, exclusive of the unclassified, machine operators were the most poorly paid group in both cities.

In the 1920 period there was but little variation between earnings and rates, whereas in the 1921 period median earnings were less than median rates in all cases, showing a decrease for dippers in St. Louis and Chicago of 15 and 16.3 per cent, respectively. Furthermore, rates for the 1920 pay-roll period were higher than for the 1921, except for forewomen and dippers. Although the increase in the median rates for the former was negligible, the increase in the median rates of dippers was considerable, although their median earnings showed practically no increase over the 1920 period.

In the matter of yearly earnings, as would be expected, a group of experienced and steady women workers in Chicago showed a much better record than did a similar group of women in St. Louis.

In general the great majority of the St. Louis women received earnings which could scarcely be termed a living wage, in view of the exorbitantly high cost of living which prevailed throughout 1920 and which had declined only slightly at the time of the investigation.

Even in Chicago where wages were generally higher a number of women were inadequately paid.

The following summary of wage figures serves to substantiate the foregoing statements:

Weekly earnings and rates.

	1921 pay roll (February and March, usually a fairly busy season).	1920 pay roll (June, a slack month).
Median weekly earnings of all women:		
Chicago (1,832 women).....	\$14. 65 (2,268 women)	\$17. 05
St. Louis (579 women).....	11. 95 (609 women)	12. 60
Median weekly earnings of time workers:		
Chicago.....	14. 35	16. 00
St. Louis.....	11. 45	12. 35
Median weekly earnings of piece workers:		
Chicago.....	16. 80	20. 30
St. Louis.....	13. 40	14. 50
Median weekly earnings of all dippers:		
Chicago.....	17. 45	18. 85
St. Louis.....	12. 85	13. 35
Median weekly earnings of lowest paid group, exclusive of the unclassified workers:		
Chicago (packers and wrappers).....	13. 75 (Machine opera-	16. 30
St. Louis (machine operators).....	10. 80 tors.)	12. 35
Median weekly rates for all time workers:		
Chicago.....	15. 75	15. 95
St. Louis.....	12. 60	12. 80
Median weekly rates for forewomen:		
Chicago.....	26. 30	25. 90
St. Louis.....	20. 90	20. 65
Median weekly rates for dippers who were time workers:		
Chicago.....	20. 20	16. 75
St. Louis.....	15. 05	12. 75

Yearly earnings.

Median yearly earnings:		
Chicago (237 women; no forewomen included).....		\$891
St. Louis (88 women; no forewomen included).....		697
Median yearly earnings of dippers (best paid group):		
Chicago.....		988
St. Louis.....		742
Median yearly earnings of machine operators (lowest paid group):		
Chicago.....		825
St. Louis.....		625
Of the women whose yearly records were obtained—		
5.9 per cent in Chicago... } earned less than.....		600
22.7 per cent in St. Louis... }		
28.7 per cent in Chicago... } earned less than.....		800
73.9 per cent in St. Louis... }		
19.0 per cent in Chicago... } earned more than.....		1,000
2.3 per cent in St. Louis... }		

6. **Working conditions.**—Although working conditions on the whole were fair in the candy factories visited and in many cases showed that a definite effort had been made to look after the upkeep and sanitation of the plant as well as the health and comfort of the workers, there was still apparent the need for higher standards and improved conditions in an industry dealing with a food product and employing such a large proportion of women. Chicago showed generally higher standards than did St. Louis. In some plants every precaution had been taken to insure the cleanliness of the product. On the other hand, equipments and methods found in a number of plants did not guarantee a strictly sanitary output and in a few cases appeared to be a positive menace to consumers. Despite legal regulations in both cities in regard to the cleanliness of food establishments, 10 plants in Chicago and 10 in St. Louis were reported as having dirty workrooms and lack of systematic cleaning. Of the 51 plants visited, 37, or almost three-fourths, fell below the standard of having hot water, soap, and individual towels—essential features of sanitary washing facilities. There was also in many plants a laxity about uniforms. Some sort of apron and cap would seem necessary for workers in candy factories. Nevertheless, 14 plants were recorded in which the employees wore no working garb of any sort over their street clothes. In only 4 establishments were uniforms supplied by the firm. Furthermore, although a physical examination of employees in this industry is desirable, only 1 plant reported such a requirement for new employees. In several other plants it was stated that workers were examined if there was any doubt about their health. Hospital rooms were found in 7 plants and a nurse or doctor in attendance daily in 7.

There was in fact quite a difference in the facilities provided in the various plants for looking after the health and comfort of the women. Seating, in particular, had been given too little attention. In 25 plants there was an insufficient number of seats for the women; in 39 the only seats provided were stools or benches without backs, while in 8 plants women were seen sitting on boxes and cans. In a number of instances women who could have performed their work equally well while sitting were compelled to stand all day, since no seats were available, or the seats provided were not adjustable to worktables. The regulation of temperature and ventilation in certain workrooms of candy factories is a difficult problem, which had been satisfactorily solved by some but not by all the plants visited. Women in 22 plants worked in a temperature below 66°, the minimum given by some managers as necessary for the preservation of the product. The lowest temperature reported, 50°, was obviously too cold for health or comfort. Another situation detrimental to health was the stale air in a number of chocolate rooms, due to the

lack of proper ventilation. Otherwise there were few hazards or strains for the women in the industry. Strain from undue speeding was reported for 9 plants. Unguarded belts in 19 plants constituted something of a hazard, but not so great a one as the unguarded cutting machines which were occasionally operated by women. Another menace to health was the use of the common drinking cup, reported for 10 plants.

The service rooms found in many factories added greatly to the comfort of the workers. Nineteen firms in all, 6 in St. Louis and 13 in Chicago, had provided lunchrooms. There was an unusually good record for cloakrooms, since all of the Chicago plants and 16 in St. Louis had provided some sort of room where women could change their clothes and leave their wraps. Many of the plants, however, had failed to recognize the value of a rest room, as only 19 factories—13 in Chicago and 6 in St. Louis—had provided such. Service rooms were in a number of cases inadequate as to equipment and arrangement.

7. **The workers.**—Women constituted a large proportion of the working forces in the candy establishments visited in both cities, 54.2 per cent in Chicago and 65 per cent in St. Louis.

Candy manufacturing also attracts young workers. Of the women reporting on age, 35.8 per cent in Chicago and 47.6 per cent in St. Louis were under 20 years of age. However, there were women in all age groups up to 60 and over.

Of the women reporting on conjugal condition, 62.6 per cent in Chicago as against 75.8 per cent in St. Louis were single; 27.5 per cent in Chicago as compared with 14.3 per cent in St. Louis were married, while 10 per cent in round numbers in both Chicago and St. Louis were widowed, separated, or divorced.

Of women reporting on nativity, only 5.8 per cent in St. Louis as contrasted with 34.3 per cent in Chicago were foreign born.

Of women reporting length of time in the trade, 23.8 per cent in Chicago and 24.4 per cent in St. Louis had had 5 years or more of experience. These figures are proof of a large proportion of steady workers.

PART II.

HOURS.

In a study of hours it is necessary to know both the daily hour and weekly hour schedules in force in the establishments investigated; that is, the number of hours stipulated by the firm that women in its employ shall work regularly each day and each week. The policies in regard to lunch periods, Saturday half holiday, and night work, practiced in the plants are of great importance in determining whether or not women in industry have satisfactory hour schedules. Also, it is of interest to ascertain so far as possible the actual hours worked by the women in these plants in order to measure lost time and overtime.

Although the period of the investigation was characterized by a great deal of lost time due to limited output in the industry, the normal daily and weekly schedules of the plants were recorded in each case.

Daily hours.

The following table gives the number of establishments and the number of women having certain classified daily schedules:

TABLE 2.—*Scheduled daily hours.*

Place.	Total number reported.		Establishments and number of women whose daily hours of work were—					
			8.		Over 8 and under 9.		9.	
	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.
Chicago:								
Number	31	1,935	11	535	10	668	10	732
Per cent distribution.....	100.0	100.0	35.5	27.6	32.3	34.5	32.3	37.8
St. Louis:								
Number	19	618	3	17	5	136	12	465
Per cent distribution.....	100.0	100.0	15.8	2.8	26.3	22.0	63.2	75.2
Total:								
Number	50	2,553	14	552	15	804	22	1,197
Per cent distribution.....	100.0	100.0	28.0	21.6	30.0	31.5	44.0	46.9

¹ Per cents of establishments total to more than 100 because one firm, employing some women 8½ hours and some 9 hours, is entered twice.

None of the factories in either city had more than a 9-hour day. Chicago made a better showing in the matter of a shorter day than did St. Louis. Eleven establishments in Chicago had adopted the 8-hour day, as compared with three in St. Louis. Furthermore, in Chicago slightly less than one-third of the factories (32.3 per cent) employing somewhat over one-third of the women included in Chicago had a 9-hour day, whereas almost two-thirds of the St. Louis plants (63.2 per cent), employing three-fourths of the women included in St. Louis, had so long a day.

Weekly hours.

The following table gives the number of establishments and the number of women operating under certain classified weekly hours:

TABLE 3.—Scheduled weekly hours.

Place.	Total number reported.		Establishments and number of women whose weekly hours of work were—													
			44.		Over 44 and under 48.		48.		Over 48 and under 50.		50.		Over 50 and under 54.		54.	
	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.	Estab-lish-ments.	Women.
Chicago:																
Number	31	1,935	5	393	3	151	14	715	2	111	7	565				
Per cent distribution...	100.0	100.0	16.1	20.3	9.7	7.8	45.2	37.0	6.5	5.7	22.6	29.2				
St. Louis:																
Number	19	618	1	1			3	108			2	25	7	146	7	338
Per cent distribution...	¹ 100.0	100.0	5.3	0.2			15.8	17.5			10.5	4.0	36.8	23.6	36.8	54.7
Total:																
Number	50	2,553	6	394	3	151	17	823	2	111	9	590	7	146	7	338
Per cent distribution...	¹ 100.0	100.0	12.0	15.4	6.0	5.9	34.0	32.2	4.0	4.3	18.0	23.1	14.0	5.7	14.0	13.2

¹ Per cents of establishments total to more than 100 because one firm, employing some women 51 hours and some 54 hours, is entered twice.

From the table it can be seen that the weekly hours of the Chicago plants were much shorter than those of the St. Louis firms. Of the 31 factories in Chicago, 22, or 71 per cent, employing 65.1 per cent of the women in the Chicago investigation, had a weekly schedule of 48 hours or less. None had more than 50 hours, despite the 70-hour weekly maximum for women in industry permitted by the State law. Of the 19 factories in St. Louis only 4, or a little over one-fifth, employing 17.6 per cent of the women in the St. Louis investigation, had a schedule of 48 hours or less a week, whereas 7 plants, employing 54.7 per cent of the women, had a 54-hour week. None had more than 54 hours a week, the legal maximum hours of employment for women in the State. It is interesting also to note that only 29 per cent of the Chicago plants as contrasted with 84.2 per cent of the St. Louis plants had more than a 48-hour week. The shorter working week in Chicago, despite the much longer hour law, may be attributed partly to the organization of the candy workers in that city. At the time of the investigation only 1 plant in St. Louis with 1 woman worker had a 44-hour week, as compared with 8 plants in Chicago with such a schedule. The 44-hour week had been even more universal in the candy industry in Chicago in June, 1920, than it was in February, 1921. Of the 31 factories included, 29 were in existence at the earlier date, and 27 of these were operating on a 44-hour schedule. Although by the beginning of 1921 the industrial depression was crippling the industry, and although such a condition would seem incompatible with an increase in the working schedule, 22 of the plants had abandoned the 44-hour week for a longer weekly schedule, as the following summary shows:

- 8 factories increased from 44 hours to 50 hours.
- 1 factory increased from 44 hours to 49 $\frac{1}{2}$ hours.
- 1 factory increased from 44 hours to 49 hours.
- 11 factories increased from 44 hours to 48 hours.
- 1 factory increased from 44 hours to 47 $\frac{1}{2}$ hours.
- 1 factory increased from 46 $\frac{1}{2}$ hours to 48 hours.

Despite the adoption of such schedules a number of the plants were not putting them into force, but because of the need for restricted production were operating even less than 44 hours weekly by cutting down the number of working days a week. Evidently these factories were planning to use the new schedules when business in the industry again became normal. Many of the workers objected to the change in schedule, but did not dare make open complaints for fear of losing their job and of not being able to get another during the stress of unemployment. As one woman said, "Most of the women in our factory are married, and though we didn't like it when the hours changed from 8 to 9 a day we couldn't say anything." In St. Louis no plant had a longer schedule in 1921 than in 1920, while 4 had shorter schedules.

Saturday hours.

A Saturday half holiday in manufacturing establishments is becoming more and more prevalent. Despite this tendency only 3 of the 19 St. Louis candy factories reported a half holiday on Saturday. Four others had one hour less, and another one hour and a half less than on other days. The Chicago plants showed a much better record in this respect, since 26 of the 31 establishments visited in this city were closed on Saturday afternoon.

Hours actually worked.

It was not possible to ascertain the hours actually worked by all of the women during the week for which the 1921 pay-roll data were taken, since in some cases no record was kept of the hours of piece workers. Nevertheless such information was obtained for 94.5 per cent of the women in St. Louis and for 80.2 per cent in Chicago.

The scheduled weekly hours and the hours actually worked by the women during the week recorded did not coincide in many cases on account of the large proportion of women working less than the normal schedules and the very small percentage working longer. For example, although no women in either Chicago or St. Louis had schedules of less than 44 hours a week, according to Table II in the appendix, of those for whom hour records were secured 47.9 per cent in Chicago and 23 per cent in St. Louis actually worked less than this amount. Moreover, whereas 34.9 per cent of the women in Chicago and 82.4 per cent of the women in St. Louis had a schedule of more than 48 hours a week, it is seen from Table II that of those with hour records, only 16.5 per cent in Chicago and 41.9 per cent in St. Louis actually worked more than 48 hours a week.

Lost time.

From this it is quite evident that there was much time lost by the women. Although some of this may have been due to the absence of the workers for personal reasons, by far the largest amount is attributable to the general depression and the slackened production in the plants.

An idea of the amount of time lost can be gained from the following table which gives not only the number and percentage of women with hour records who lost some time during the week selected but the proportions of women who lost certain specified amounts according to the weekly schedules under which they worked.

TABLE 4.—*Lost time of women employees, by scheduled weekly hours—Late pay-roll period.*

Scheduled weekly hours.	Number of women reported with hours worked.		Number and per cent of women who worked less than scheduled hours.				Per cent of women who worked less than scheduled hours—							
							Under 5 hours.		5 and under 10 hours.		10 and under 15 hours.		15 hours and over.	
	Chicago.	St. Louis.	Chicago.		St. Louis.		Chicago.	St. Louis.	Chicago.	St. Louis.	Chicago.	St. Louis.	Chicago.	St. Louis.
			Number.	Per cent.	Number.	Per cent.								
44.....	328		144	43.9			22.9		26.4		17.4		33.3	
Over 44 and under 48.....	99		87	87.9			8.0		36.8		9.2		46.0	
48.....	687	99	401	58.4	46	46.5	20.4	52.2	12.2	17.4	15.5	13.0	51.9	17.4
Over 48 and under 50.....	5		5	100.0			40.0		40.0				20.0	
50.....	349	25	165	47.3	19	76.0	15.8	21.1	21.8	10.5	14.5	5.3	47.9	63.2
Over 50 and under 54.....		91			61	67.0			60.7		3.3		34.4	
54.....		332			179	53.9		19.0			12.8		22.9	
Total.....	1,468	547	802	54.6	305	55.8	18.7	20.7	19.6	42.0	14.8	10.5	46.9	26.9

From this table we find that of the women with hour records, 55.8 per cent in St. Louis had lost some time as compared with 54.6 per cent in Chicago. However, the amount of time lost was much greater in Chicago than in St. Louis, even though, as we have already seen, the scheduled hours in the former city were shorter than those in the latter. In Chicago, 46.9 per cent of the women who worked less than the time scheduled in the plants lost 15 hours or more during the week, while in St. Louis only 26.9 per cent of those who did not work a full week lost as much as this. Furthermore, 61.7 per cent in Chicago lost 10 hours or more as compared with 37.4 per cent in St. Louis losing this amount. In Chicago, even among women whose scheduled hours were 44 a week, 43.9 per cent worked less than a full week, and one-third of these lost 15 or more hours in the week. No women in St. Louis whose hours were reported had such a short weekly schedule.

When we consider only the women with hour records whose scheduled hours in each city were 48 a week, we find that 46.5 per cent of the women in St. Louis worked less than these scheduled hours as compared with 58.4 per cent in Chicago. However, this group in Chicago lost much more time than did the corresponding group in St. Louis, since 51.9 per cent of those working less than their scheduled 48 hours in the former place showed a record of 15 hours or more lost during the week, while only 17.4 per cent of the women in St. Louis who failed to work their full 48-hour week lost as much as 15 hours or more. In the St. Louis group, by far the largest proportion (52.2 per cent) lost less than 5 hours a week. Altogether, the women in the Chicago establishments not only had much shorter hour schedules, but also worked much less time than did the women in the St. Louis plants.

Overtime.

In a period when so much time was lost on account of restricted output in the plants, the amount of overtime would naturally be slight. In fact, of the women with hour records only 2.4 per cent in St. Louis and 8.1 per cent in Chicago worked longer than the scheduled hours.

It must be remembered that these figures, taken during the industrial depression and for a season which even in normal times is only second in output and activity during the year, are, in consequence, not representative of the overtime problem in candy manufacture. During the busy season preparatory to Christmas, work after scheduled hours is apt to be much more prevalent. Of the firms visited, 13 acknowledged some overtime for women, but the pay rolls and the statements of the workers made it evident that occasional overtime was customary in a few other plants. With some firms it was

the practice to have the women remain longer than the scheduled hours during emergencies and especially during the Christmas rush. One manager reported that a short time before, several girls had remained for an hour or two on three nights in the week to work on the wrapping machines, but that they had never had more than a 10-hour day. In another factory the only overtime was on Saturday afternoon. Here the closing hour was 1 p. m., but the girls worked until 3 or 4 o'clock, or even until 6 p. m., "if they cared to stay." Some of the women when interviewed in their homes contributed information about overtime. Several spoke of working on Sundays in the busy season. In one plant, for example, the girls worked seven days a week for three weeks before Christmas. One girl who had refused to work on Sunday said "They don't do anything to you if you refuse, but it is hard to refuse." Two girls in another plant said they were told they would be fired if they would not work overtime. They added that for some weeks before Easter the girls worked from 7.30 a. m. to 7.45 p. m., and sometimes even later, with only a half hour for lunch, so that the girls who lived on the edge of town did not reach home until 9 o'clock or after. Although the general policy was to pay time and a half for overtime, a few plants paid only straight time, and one firm paid double time. The system of having women work longer than the usual hours for even a few weeks is to be discouraged both from the worker's point of view, since the gain in pay is frequently counterbalanced by a loss in energy, and from the employer's point of view, since the temporary increase in production tends towards an eventual decrease in efficiency.

Night workers' hours.

A practice which is even more detrimental to the health of women engaging therein and which should be prohibited by law is that of night work. Despite the curtailed production and shortened schedules in many plants, night work was being performed by women in two factories¹ included in the survey—one in Chicago employing 102 women as night workers, and one in St. Louis employing 13 women on a night shift. In the latter group were 11 machine operators, 1 packer and wrapper, and 1 forewoman. Of the 102 women in Chicago, 56 were packing and wrapping, 42 were operating machines, 2 were miscellaneous workers, and 2 were forewomen. There were no night dippers reported in either city.

In Chicago the women worked for only 5 nights a week but for 10 hours a night, beginning at 7 p. m. and ending at 5.30 a. m., with one-half hour for lunch, totaling 50 hours a week, the same number of hours as for daywork in the factory. The women classed as

¹ Seven other Chicago plants reported that women had been on night shifts at some time during the year.

night workers in the St. Louis plant were on an evening rather than a night shift, as they worked from 3.30 p. m. to 11 p. m. for 6 nights in the week, 45 hours in all. The management stated that this was a temporary arrangement of only a few weeks' duration.

The supposed lure of night work for women and their reasons for engaging therein, is well illustrated by the story told by one Chicago worker. She was the mother of four children, the oldest being 12 years old, the youngest too small to go to school. As her husband had lost his position during the industrial depression and had been able to get only an occasional odd job, the wife had become the main support of the family. Answering a newspaper advertisement for women night workers she had got a job in a candy factory, working from 7 p. m. to 5.30 a. m. for 5 nights a week. At first she had been pleased, thinking she would be able to look after her children during the day and earn about \$15 a week by working at night. After a time, however, she had found that she could not stand the work, on account of the long hours and her inability to sleep during the day. She had arrived home too late in the morning to get any sleep before the children got up and had found it practically impossible to sleep during the day with the children running back and forth. "It was a case of quit or break down," she said.

Conclusion.

On the whole the scheduled hours of the women in candy manufacturing in the two cities were fairly satisfactory, the record for Chicago being much better than that for St. Louis. The fact, however, that in the latter city over one-half of the women included in the survey worked 54 hours a week shows the need of improvement. That such long hours are not inherent in the industry nor essential for its success is proved by the situation in Chicago, where none of the women had more than a 50-hour schedule. Also, since the wages in Chicago were strikingly higher than those in St. Louis, shorter hours do not necessarily mean lower pay. In any discussion of hours of labor, it is important to bear in mind that women wage earners frequently are home makers, performing household tasks before and after the hours spent in industrial plants. Accordingly, the 8-hour day for women in industry is a standard not only advisable but attainable.

PART III.

THE SEASONAL NATURE OF THE INDUSTRY.

The candy industry, on the whole, varies greatly throughout the year in regard to the extent of output and the number of employees. A survey of this industry in Philadelphia in 1919 showed a condition generally conceded to be typical of candy manufacture, namely, two busy seasons and two periods of depression, with pronounced fluctuations in wages. The busy periods were the weeks preceding Christmas and Easter. The slack seasons were the summer months and the first part of January. The maximum force of employees and the maximum total of wages were shown to be in December. The minimum force was found in June, whereas the minimum payroll sum was for the first week in January, with a second low point in August.¹

It is a well-known fact that the fall months are the busiest season in the manufacture of candy. At that time there is in most plants a considerable increase in the number of employees and in some plants a great deal of overtime. This period of extreme activity varies in different establishments, lasting in many from the first part of September until a week or two before Christmas. Of the factories included in the survey in Chicago and St. Louis, some reported a definitely busy period for November and December only, while others stated that the rush began as early as August.

The next busiest season in the industry is the latter half of February and most of March, the six weeks or so preceding Easter. This was true for the majority of the plants visited in the two cities, although some maintained that the output during these months in 1921 was below normal because of the lack of orders.

The summer months are generally acknowledged to be the duller. A few plants included in the Chicago and St. Louis survey, however, asserted that they had managed to do away with this seasonal slackness, by the manufacture in the summer of such confections as crackajack, marshmallows, and popcorn, thereby catering to the amusement-park trade. One factory which had its busiest season from May to October shipped goods of this sort south even in February. Such systems might not be possible for those firms which specialize in a particular variety of candy, but other adjustments might

¹ U. S. Department of Labor, Woman in Industry Service. Wages of candy makers in Philadelphia in 1919, Bulletin No. 4, 1919, p. 31.

be made to prevent unduly long dull stretches. In one large factory, for example, employing between 500 and 600 workers, and manufacturing chocolates, bonbons, and hard candies, there was no slack season, since the firm "put up stock" in the summer. Another manager said that after seasonal rushes he made an effort to keep the girls busy at boxcutting, folding, making bonbon cups, and so on.

An analysis of the normal seasonal fluctuation in terms of the total number of employees and the total wages paid for each week of the year in the factories visited in Chicago and St. Louis is hardly possible since 1920-21 was such an abnormal period. Table I in the appendix, which gives the total force and total pay rolls in a number of identical plants week by week, from the latter part of February, 1920, to the same period in 1921, serves as an index not so much of seasonal variations as of the effects of the industrial depression upon the industry. The table shows that in 13 St. Louis factories the maximum force was employed in the week ended October 2, while the maximum amount of wages was paid the following week. The minimum force and the minimum pay roll were found to be for the same week in the year—the week ended January 1. The next lowest in regard to number of workers and amount paid in wages was the following week in January, a more representative period, since it contained no holiday. A rather parallel record was shown for 22 Chicago plants. The maximum force was employed in the week ended October 9, and the maximum pay roll was for the preceding week. The minimum force and minimum pay roll were for the week ended January 1. The next lowest week for wages for the 22 firms was the following week, although the next lowest from the standpoint of number of employees was the week ended January 22.

Six other Chicago firms reported that output had been so adjusted as to avert summer slackness or that because of the kind of product the summer months were a busier season than were other periods. The figures for these firms form a separate compilation in the table. They show the maximum number of employees and the maximum pay-roll to have been in the middle of September, but the minimum force and pay-roll to have been for the week ended January 1.

In general, the whole table would indicate certain fluctuations. There appeared for 1920 a normal preparation for Easter in the two cities. Apparently, because of the general business prosperity which characterized the spring and early summer of 1920, the usual summer slackness in the candy industry was not experienced. With the beginning of the fall, the candy trade showed its usual increased activity which reached a peak in the early part of October. According to reports from the industry at about this time candy manu-

facturers noticed a general falling off in orders. This led to a gradual slackening in output instead of the usual increase in the weeks which followed. Accordingly, the customary December climax was not reached. To be sure, the first part of December showed a slightly rising curve for production but a falling one for the number of employees. As has already been pointed out the lowest point for the year was experienced the first part of January. By the middle of February business was again increasing, but as far as number of employees and amount paid in wages were concerned, it appeared on the whole to fall below the level of the last week of February, 1920.

Some comparison of the year's record in Chicago and St. Louis with the year's record in Philadelphia is possible from the following table which shows the relation to the average, of maximum and minimum weekly forces and pay rolls:

TABLE 5.—*Per cent relation between average, maximum, and minimum weekly forces and pay rolls, Philadelphia,¹ St. Louis, and Chicago.*

	Per cent maximum is of average.				Per cent minimum is of average.				Per cent minimum is of maximum.			
	Philadel-phia.	Chi-cago A. ²	Chi-cago B. ³	St. Louis.	Philadel-phia.	Chi-cago A. ²	Chi-cago B. ³	St. Louis.	Philadel-phia.	Chi-cago A. ²	Chi-cago B. ³	St. Louis.
Number of employees...	127.6	123.2	131.4	123.1	75.4	63.1	27.9	51.2	59.1	51.2	21.3	41.6
Amount of wages.....	155.9	129.4	136.4	132.4	58.1	54.9	26.8	41.3	37.2	42.5	19.7	31.2

¹ U. S. Department of Labor, Woman in Industry Service. Wages of candy makers in Philadelphia in 1919, Bulletin No. 4, 1919, p. 31.

² Chicago A represents 12 Chicago establishments reporting slack summer season.

³ Chicago B represents 6 Chicago establishments reporting busy summer season.

⁴ About 2 per cent lower than it should be because one plant gave no record of amount paid in wages for the week with the maximum pay roll.

If the average number of employees on the pay roll and the average amount paid in wages be regarded as 100 per cent, we find that the Philadelphia plants soared to a higher point above the average in regard to both the maximum force and maximum pay roll than did the St. Louis and Chicago establishments, with one exception. The firms under Chicago B showed a higher peak than did the Philadelphia firms for the maximum number of employees. However, when all the 28 Chicago plants for which these data were gathered are combined, the percentage which the minimum pay roll forms of the maximum is pulled down below the corresponding Philadelphia percentage. These more unfavorable conditions in Chicago and St. Louis are undoubtedly traceable to the industrial depression. Even when due allowance is made for this abnormal slump, Table I in the appendix throws considerable light on the seasonal vicissitudes to which candy makers are subjected and is indicative of the hardships resulting from such irregularity of employment.

PART IV.

WAGES.

In 1920 wages in general had reached the highest peak ever known in this country, as a result of the stimulus of war-time production and of the labor shortage. By February, 1921, however, wages were in an extremely unstable state, showing a downward trend and a barometric relation to the industrial depression. Not only were official wage cuts prevalent but the slackening of output, the closing of many plants, and in others the reduction of the working week to far below the normal schedule, meant for a considerable number of workers either unemployment or a veritable landslide in actual earnings.

Candy manufacturing, in the early months of 1921, although not so much undermined as some other industries, was sharing in the general slump just as it had shared in the general prosperity of the several preceding years. Business was still in a prosperous state at the beginning of the 1920 summer season since in May during the convention of the National Confectioners' Association the president of the Association said in his report:

I see no reason why we should not enjoy a good business throughout the year. Conditions are generally good; the farmers are prosperous, receiving high prices for their products; workmen are earning excellent wages; the standard of living has been raised; consequently candy is receiving its share of business. There is no set rule by which to gauge the future, but I am optimistic enough to believe it will continue to be exceptionally good.¹

Such was the note of optimism sounded by the manufacturers in the late spring of 1920. Nor was it likely that labor in the candy industry was any more expectant of the pending industrial crisis with its accompanying drop in wages. The following quotation from the report presented by the chairman of the executive committee to the Confectioners' Association in May, 1920, also is of interest:

Is there any relief from the present labor situation as to high wages and shortage? I don't see any until we have an industrial panic. Labor is enjoying the benefits of the laws of supply and demand working in its favor * * *.²

By February, 1921, there was a complete reversal of this situation. Unemployment was flooding the market with surplus labor. "Bene-

¹ Beich, Paul F. President's address. Proceedings of the 37th Annual Convention of the National Confectioners' Association, St. Paul, 1920, pp. 18, 19.

² Price, V. L. Report of the discussion of the executive committee. Proceedings of the 37th Annual Convention of the National Confectioners' Association, St. Paul, 1920, p. 69.

fits" were fast changing into hardships. Wages of candy workers were dwindling considerably. Not only had definite cuts in rates averaging as a rule from 10 to 20 per cent caused a reduction in many cases but in many others curtailed factory schedules—an abridgment to 3 or 4 working days a week—were responsible for an even greater shrinkage in earnings. Piece workers were being handicapped in some instances by long profitless intervals when they waited for work, slow in coming because of lessened production. Another factor contributing to flabby pay envelopes was the discontinuance of attendance and production bonuses. Piece workers who formerly had been able to earn \$20 to \$30 or more a week were obtaining at the time of the investigation not more than one-half of these amounts and even less. The opinion expressed by one woman—"What can you do but accept such cuts, when there is no work elsewhere and when there are many people after your job?"—was the necessitous attitude of the majority of workers.

Week's earnings.

Even in a normal year wide variations in the weekly wages of women workers in the candy industry are to be expected, because of many modifying factors, such as the seasons of the year, the occupations of the women, the time and piece work system, the hours actually worked, employment in different establishments, the length of time in the trade, and even less obvious influences like the section of the United States where industrial establishments are located, and the economic conditions existing in the country. Fluctuations are found in the earnings of an individual worker week by week in the year and also in the earnings of a number of women for any one week in the year. An analysis of the earnings of a large group of women for one week is possible from the following table, which gives the number of women in the various occupations who received certain classified amounts:

TABLE 6.—*Week's earnings, by occupation*¹—*late pay-roll period.*

CHICAGO.

Week's earnings.	All women reported.	Number of women earning each specified amount.					Occupation not reported.
		Fore-women.	Dippers.	Machine operators.	Packers and wrappers.	Other occupations reported.	
Under \$1.....	3						
\$1 and under \$2.....	13				2	1	
\$2 and under \$3.....	40			3	6	4	
\$3 and under \$4.....	23		5	4	25	6	
\$4 and under \$5.....	18		1	3	15	4	
\$5 and under \$6.....	48		7	10	16	6	1
\$6 and under \$7.....	33		4	3	24	1	1
\$7 and under \$8.....	41		7	4	18	8	1
\$8 and under \$9.....	84	1	11	11	24	5	1
\$9 and under \$10.....	92		10	11	55	6	
\$10 and under \$11.....	71		10	6	58	11	2
\$11 and under \$12.....	97		9	16	44	7	1
\$12 and under \$13.....	140		12	34	64	11	1
\$13 and under \$14.....	93		9	15	73	12	
\$14 and under \$15.....	180		16	35	57	12	1
\$15 and under \$16.....	178		17	42	94	34	
\$16 and under \$17.....	138	1	20	42	87	32	
\$17 and under \$18.....	117	2	21	21	58	17	
\$18 and under \$19.....	84	3	26	12	55	9	2
\$19 and under \$20.....	71	1	23	5	32	9	2
\$20 and under \$21.....	64	5	18	3	34	8	
\$21 and under \$22.....	30	2	15	4	27	9	2
\$22 and under \$23.....	40	3	13	3	8	1	
\$23 and under \$24.....	23	2	9	2	17	4	
\$24 and under \$25.....	23	5	9	1	10		
\$25 and under \$30.....	56	19	13	2	5	3	
\$30 and under \$35.....	21	9	5		20	2	
\$35 and under \$40.....	4	3			6	1	
\$40 and over.....	7	3	4		1		
Total.....	1,832	59	294	292	935	238	14
Median earnings.....	\$14.65	\$26.20	\$17.45	\$15.75	\$13.75	\$14.50	(²)

ST. LOUIS.

Under \$1.....	2					2	
\$1 and under \$2.....	21				4	11	6
\$2 and under \$3.....	4			1	1	3	
\$3 and under \$4.....	5		1		2	3	1
\$4 and under \$5.....	6				3	3	1
\$5 and under \$6.....	5		1		2	3	1
\$6 and under \$7.....	17		4	2	8	4	3
\$7 and under \$8.....	11		2	1	7	3	1
\$8 and under \$9.....	43		1	10	29	1	1
\$9 and under \$10.....	47		5	10	20	12	3
\$10 and under \$11.....	85		9	16	47	13	4
\$11 and under \$12.....	48		12	6	26	4	2
\$12 and under \$13.....	102		23	17	37	25	4
\$13 and under \$14.....	20	1	5		37	5	3
\$14 and under \$15.....	31	1	8	7	12	3	3
\$15 and under \$16.....	29	1	8	1	18	3	1
\$16 and under \$17.....	30	3	9	3	11	4	1
\$17 and under \$18.....	15	2	4	2	11	4	2
\$18 and under \$19.....	21	2	10		5	2	2
\$19 and under \$20.....	8	1	1	1	7	2	2
\$20 and under \$21.....	11	5	2	1	4	1	
\$21 and under \$22.....	2		1	1	3	1	
\$22 and under \$23.....	8		3		1	1	
\$23 and under \$24.....	3	4	2	1	1		
\$24 and under \$25.....	1	1		1			
\$25 and under \$30.....							
\$30 and under \$35.....	1	1					
\$35 and under \$40.....	2	2					
\$40 and over.....	1	1					
Total.....	579	25	110	85	267	92	
Median earnings.....	\$11.90	\$20.30	\$12.85	\$10.80	\$11.10	\$11.00	

¹ Night workers not included.

² Not computed, owing to small number involved.

This table shows the actual earnings during a current week in 1921—for the most part in the latter half of February³—for 579 women in 18 candy factories in St. Louis, and 1,832 women in 31 candy establishments in Chicago; that is, for a total of 2,411 women employed in 49 plants. It has already been pointed out that this season, preparatory to Easter, is normally one of increased activity in candy manufacturing, although secondary in importance to the fall trade, but that the production for Easter in 1921 was slackened below normal on account of the industrial depression. Earnings in many cases were reduced because of the great amount of lost time.

The median earnings—irrespective of any qualifications—of all women in St. Louis are \$11.95, and of all women in Chicago \$14.65; that is, in each case one-half of the workers received more and one-half less than this amount. The difference of \$2.70 between the medians of the two cities indicates that the industry in Chicago was based for some reason on a higher wage scale than that prevailing in St. Louis, an indication that is crystallized into a fact by the figures in the ensuing discussions.

It is of interest to compare with the Chicago and St. Louis figures those obtained in the survey of the candy industry in Philadelphia in 1919. The median earnings of 1,246 women included in that investigation were only \$10.30.⁴ Apart from forewomen only 2.7 per cent of the women in St. Louis for whom wage data were gathered earned \$20 or more a week, as contrasted with 12.2 per cent of the Chicago women and 4.9 per cent of the Philadelphia women earning such an amount. If \$15 a week be taken as a measure—the approximate amount estimated by various minimum wage boards in the last few years as necessary for a living wage—it will be found that over three-fourths of the women included in St. Louis (77.2 per cent) earned less than this amount, as compared with 53.3 per cent in Chicago. The Philadelphia figures, taken for a period when the cost of living was somewhat less, show that four-fifths of the women surveyed (81.5 per cent) received less than \$15 a week. Furthermore, if \$10 a week be used as a line of demarcation, 27.8 per cent in St. Louis, 21.6 per cent in Chicago, and 45.3 per cent in Philadelphia failed to receive such a wage. The great difference here between the figures for Philadelphia on the one hand, and those for Chicago and St. Louis on the other, would make it appear that with the increase in cost of living, there was of necessity a rise in the lowest wage rates in the candy industry. Nevertheless, the proportion of women in Chicago and St. Louis who received inadequate earnings was sufficiently large to be of significance.

³ A pay roll in March, 1921, was taken for four firms in Chicago.

⁴ U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 17.

Time work and piece work.

It is generally supposed that piece workers, those paid by the amount of work done, earn more than time workers, or those receiving a definite hourly, daily, or weekly rate. On the whole, this is true. Nevertheless, the earnings of the former are sometimes reduced by contingencies which do not affect the earnings of the latter, such as delays in the arrival of work or losses on account of disorders in machinery. Women on piece work need, as a rule, to be highly experienced in order to earn more than do time workers in the same occupations. Accordingly, the proportion of piece workers in an industry is apt to be smaller than that of time workers. Table 7 shows the earnings of these two classes of women employees in the candy industry in Chicago and St. Louis.

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TABLE 7.—*Week's earnings of time workers and piece workers,¹ by occupation—late pay-roll period.*

Week's earnings.	Number of women reported.				Number of women who were—							
					Forewomen.				Dippers.			
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.	
	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.
Under \$1.....	3		2									
\$1 and under \$2.....	12		20	1								
\$2 and under \$3.....	30	7	4						2	1		
\$3 and under \$4.....	18	3	5						1		1	
\$4 and under \$5.....	14	4	6									
\$5 and under \$6.....	29	8	4	1					2	2		1
\$6 and under \$7.....	26	6	17						1		4	
\$7 and under \$8.....	27	6	8	3					3	1	1	1
\$8 and under \$9.....	61	12	41						7	3	4	
\$9 and under \$10.....	65	15	38	7					3	1	7	2
\$10 and under \$11.....	58	7	78	4					5	6	8	4
\$11 and under \$12.....	77	17	41	4					2	3	8	8
\$12 and under \$13.....	102	28	84	17					8	6	2	3
\$13 and under \$14.....	63	22	12	8			1		3	6	2	2
\$14 and under \$15.....	150	25	24	7			1		9	5	3	5
\$15 and under \$16.....	138	27	19	9			1		10	7	5	4
\$16 and under \$17.....	99	32	20	10	1		3		10	9	2	2
\$17 and under \$18.....	74	41	11	4	2		2		7	13	5	
\$18 and under \$19.....	50	29	19	2	3		2		12	14	9	1
\$19 and under \$20.....	37	27	6	2	1		1		11	9		
\$20 and under \$21.....	45	19	11		5		5		12	8	2	
\$21 and under \$22.....	14	15		2	2				7	6		
\$22 and under \$23.....	24	12	8		3		4		7	5	3	
\$23 and under \$24.....	10	12	3		2				5	4	2	
\$24 and under \$25.....	8	14	1		5		1			8		
\$25 and under \$30.....	28	21			19				3	10		
\$30 and under \$35.....	10	11	1		9		1			5		
\$35 and under \$40.....	3	1	2		3		2			3		
\$40 and over.....	3	4	1		3		1			4		
Total.....	1,278	425	486	83	58		25		130	135	76	34
Median earnings.....	\$14.35	\$16.80	\$11.50	\$13.30	\$26.20		\$20.30		\$16.90	\$18.40	\$12.80	\$13.00

Number of women who were—

Week's earnings.	Machine operators.				Packers and wrappers.				In all other occupations reported.				In occupations not reported.			
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.	
	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.
Under \$1.....					2					1						
\$1 and under \$2.....	3		4		5		10	1		4		6				
\$2 and under \$3.....	4		1		19	5	3			5	1					
\$3 and under \$4.....	3				10	3	3			4		1				
\$4 and under \$5.....			2		12	4	3			1		1		1		
\$5 and under \$6.....	10				11	5				5	1	4		1		
\$6 and under \$7.....	2	1	2		16	2	8			7	1	3		1		
\$7 and under \$8.....	4		1		16	4	6	1		4	1		1			
\$8 and under \$9.....	11		10		42	5	27			1	4	3				
\$9 and under \$10.....	11		10		40	12	16	3		9	2	8	3	2		
\$10 and under \$11.....	6		16		36	4	43	2		11		12		1		
\$11 and under \$12.....	16		6		51	11	23	2		7		4		1		
\$12 and under \$13.....	33		17		43	22	28	8		17	3	24		1	1	
\$13 and under \$14.....	15				33	16	9	2		12			3			
\$14 and under \$15.....	35		6	1	75	16	9	3		30	4	2	1	1		
\$15 and under \$16.....	34	4	1		64	15	13	4		30	1	1				
\$16 and under \$17.....	41	1	2	1	32	20	6	5		15	2	4				
\$17 and under \$18.....	19	2	2		29	25	3	2		15	1	2		2		
\$18 and under \$19.....	10				16	14	6	1		7	1	2		2		
\$19 and under \$20.....	4		1		14	17	2	2		7	1	1				
\$20 and under \$21.....	3		1		14	13	3			9				2		
\$21 and under \$22.....	3	1			1	6		1		1			1			
\$22 and under \$23.....	1				9	7	1			4						
\$23 and under \$24.....	2		1		1	8										
\$24 and under \$25.....	1				1	4				1	2					
\$25 and under \$30.....					5	10				1	1					
\$30 and under \$35.....						6				1						
\$35 and under \$40.....						1										
\$40 and over.....																
Total.....	271	9	83	2	597	255	222	37	209	26	80	10	13			
Median earnings.....	\$14.50	(?)	\$10.70	(?)	\$12.90	\$16.20	\$10.80	\$13.75	\$14.55	\$13.50	\$11.00	(?)	(?)			

¹ Night workers not included.

² Not computed, owing to small number involved.

IN CHICAGO AND ST. LOUIS.

The time workers constituted by far the largest proportion, 83.4 per cent, of the women included in St. Louis and 69.8 per cent of those in Chicago. A comparison of the median earnings of the time workers and the piece workers in the two cities shows that in each case the piece workers earned in round numbers 17 per cent more than did the time workers, St. Louis showing \$11.45 for the time workers and \$13.40 for the piece workers, and Chicago \$14.35 for the former and \$16.80 for the latter. These figures reveal an even more striking difference in wages in the two cities, since the median for time workers in Chicago is \$2.90 higher than the median for this class of workers in St. Louis, and the median for piece workers in Chicago is \$3.40 above that of piece workers in St. Louis. Furthermore, the time workers in Chicago, the lower wage group there, show a median that is 95 cents more than the median for the wage-earning women in St. Louis who were paid by the piece and belonged, on the whole, in the more highly paid class.

In regard to the difference in wages of women in the various occupations, the two foregoing tables contribute interesting information. The forewomen, a very small group of 25 women in St. Louis with a median of \$20.30, and of 59 women in Chicago with a median of \$26.20, are far ahead of all other groups in the amount of earnings. This is not surprising, for even though the forewomen were all time workers, they were in supervisory positions. The excess of \$5.90 in the median of the Chicago forewomen over that of the St. Louis group is striking. The forewomen in the Philadelphia investigations,⁵ showed a median of \$18.50, which falls even below the St. Louis figures.

The next highest paid occupation in Chicago and St. Louis was dipping, the most skilled work done by women in the trade. The weekly median for the dippers in St. Louis is \$12.85 as contrasted with \$17.45 for this group in Chicago, the latter showing an increase of 35.8 per cent over the former. In fact the St. Louis median is only a little above the median for such work in Philadelphia, which was \$12.60. The great difference between the earnings of women in this occupation in Chicago and those in St. Louis is partly attributable to the fact that there was a larger proportion of piece workers among this occupational group in Chicago (45.9 per cent) than among the corresponding one in St. Louis (30.9 per cent). Furthermore, the median for the dippers on the piece system in Chicago shows an 8.9 per cent excess over that of the time dippers, whereas in St. Louis the median for the piece rate dippers is only 1.6 per cent greater than the median for the time rate dippers. The dippers in each city

⁵ U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 17.

showed a much larger proportion of piece workers than did any other occupational group.

The next largest percentage of piece workers in both Chicago and St. Louis was among the packers and wrappers, that is, 27.3 per cent and 13.9 per cent of the total number of women included in this occupational group in each city, respectively. Despite this fact the packers and wrappers in Chicago were the most poorly paid group, with a median of \$13.75. By far the largest proportion of the Chicago women were doing this work, that is, a little over one-half (51 per cent) of the total number included in Chicago. The median of these women is pulled down by the large number of time workers with their low median of \$12.90, which is in striking contrast to the \$16.20 median of the packers and wrappers on a piece-work basis. As has been shown, these constituted only a little over one-fourth (27.3 per cent) of all the women in this occupational classification. The packers and wrappers in St. Louis also formed much the largest occupational group in the candy plants there, 46.1 per cent of the total number in the St. Louis survey. They were next to the lowest paid class in that city, with a median of \$11.10. Also in the Philadelphia survey the packers, who constituted 62.7 per cent of the total number of women, were the lowest paid group, with a median of \$10.20.⁶

Earnings and hours.

The earnings discussed in the foregoing paragraphs were tabulated without relation to the hours worked during the pay-roll period. Wages do not necessarily vary in direct proportion to the number of hours worked. This is true for time workers in any one establishment, but not for piece workers. For the latter, wide variations in earnings are usual among those in any one plant who are working the same number of hours. Since it is frequently the custom not to record the hours of piece workers, it was not possible to secure the hour data for all the women for whom wage figures were taken. However, for 94.5 per cent of the women included in St. Louis and for 80.2 per cent of those in Chicago hour records were obtained.

For this survey, made during a period when cut schedules were found in so many plants, it is especially significant to correlate earnings and time worked. A week of 44 hours may be considered as a measure of a fairly full week. According to Table II in the appendix, 52.1 per cent of the women in the Chicago survey and 77 per cent of those in the St. Louis worked 44 hours or more. The table shows that in Chicago the median for women who worked such hours is \$16.45, which is \$1.80 higher than that for all

⁶ U. S. Department of Labor, Woman in Industry Service, Wages of candy makers in Philadelphia in 1919, Bulletin 4, 1919, p. 17.

women irrespective of time worked. The St. Louis figures show a median of \$12.45 for those who worked 44 hours or more, which is only 55 cents above the median for all women. The greater difference in Chicago can be explained by the fact that the proportion of women in this city who did not work 44 hours (47.9 per cent) was much larger than that in St. Louis (23 per cent). For all groups where women in the two cities worked the same number of hours the Chicago women show higher medians. Also, the median earnings for all the women in Chicago whose hours were given (\$14.43) are \$2.63 higher than the median for the St. Louis women with hour records (\$11.80), despite the fact that a much larger proportion in Chicago had shorter hours than in St. Louis. Only 9.3 per cent in St. Louis worked less than 30 hours as compared with 21.2 per cent in Chicago, only 11.9 per cent in St. Louis worked less than 36 hours as compared with 31.1 per cent in Chicago, only 23 per cent in St. Louis worked less than 44 hours as compared with almost one-half in Chicago (47.9 per cent), and finally only a little over one-half in St. Louis worked less than 48 hours (51.9 per cent) as compared with two-thirds in Chicago.

The following summary of Table II in the appendix gives the median earnings for women working certain classified hours:

TABLE 8.—Median week's earnings, by hours worked—late pay-roll period.

Hours worked.	Chicago.		St. Louis.	
	Median earnings	Number of women.	Median earnings.	Number of women.
44.....	\$17.15	200	(¹)	11
Over 44 and under 48.....	15.75	73	\$11.25	126
48.....	16.35	249	10.95	55
Over 48 and under 50.....	14.50	21	13.50	31
50.....	15.65	111	(¹)	6
Over 50 and under 54.....	17.00	76	12.45	32
54.....	19.25	35	12.80	148
Over 54.....	19.25	35		

¹ Not computed owing to small number involved.

This shows that increase in hours did not always mean increase in pay. To be sure in Chicago the highest median (\$19.25) is that for the 35 women working over 54 hours, but the next highest median (\$17.15) is for the 44-hour group, consisting of 200 women. In St. Louis the highest median (\$13.50) is that for the 31 women who worked between 48 and 50 hours, and the next highest (\$12.80) is for the women with 54 hours, or the longest hour classification.

Earnings and experience.

It seems reasonable to expect that earning capacity should increase with years in the trade. On the whole, this was found to be true in the candy industry in St. Louis and Chicago. According to

Table III in the appendix, the median weekly earnings for the various groups in Chicago show a steady increase with the increase in experience, with the exception of a 5-cent drop in the median earnings of the women who had been in the trade for 4 years as contrasted with the median of the 3-year group. The upward curve for St. Louis is not so uniform, since there is an occasional fall in the median earnings despite the increase in years of service. The most conspicuous drop is in the median of the women who had worked in the trade for 15 years or over as compared with that of the employees with a 10 to 15 years' record, the latter median being 85 cents higher than the former. Accordingly, the maximum of the wage medians computed according to years of experience in St. Louis is \$17.35, or that of the women with from 10 to 15 years in the industry; whereas in Chicago the maximum median is for the women with 15 years or more of experience (\$21.65). A comparison of the minimum median earnings—those for women having less than three months' experience in the industry—with the maximum in each city shows for Chicago an increase of 73.9 per cent over a stretch of 15 years and more, and for St. Louis an increase of 68.4 per cent over a stretch of from 10 to 15 years.

Earnings and rates.

Because of the slackened production and lost time during February and March, 1921, a discrepancy between rates and earnings would be expected. The following summary prepared from Table 7, page 28, and Table IV in the appendix, giving the median earnings and median rates of time workers for a week during this period, makes a comparison possible:

TABLE 9.—Median weekly rates and median week's earnings, by occupation—late pay-roll period.

Occupation.	Chicago.			St. Louis.		
	Median rate.	Median earnings.	Per cent decrease of earnings below rate.	Median rate.	Median earnings.	Per cent decrease of earnings below rate.
Forewomen.....	\$26.30	\$26.20	0.4	\$20.90	\$20.30	2.9
Dippers.....	20.20	16.90	16.3	15.05	12.80	15.0
Machine operators.....	15.55	14.50	6.8	12.65	10.70	15.4
Packers and wrappers.....	15.35	12.90	16.0	12.10	10.80	10.7
All other occupations reported.....	15.60	14.55	6.7	12.20	11.00	9.8
All occupations ¹	15.75	14.35	8.9	12.60	11.45	9.1

¹Includes those with occupation not reported.

This table shows the median earnings to be below the median rate in all occupations in both cities. In Chicago the greatest difference is for the dippers, whose median earnings fall 16.3 per cent below

the median rate. In St. Louis, although the machine operators show the greatest decrease (15.4 per cent), the dippers stand next, with a drop of 15 per cent of median earnings below the median rate.

Variations in wages in the different factories.

The striking difference between Chicago and St. Louis in the wages of workers in candy factories shows a certain lack of standardization in the industry. The question arises, Do the various factories in one city also show such a wide divergence in rates of pay? The more detailed figures of the survey offer an affirmative answer to this. For example, in the larger plants in Chicago, those employing 50 or more women engaged in all types of work, the median weekly rate ranges from \$12.65 in one plant to \$18 in another, showing a difference of \$5.35. The total median rate for this group of firms is \$15.65, the minimum median dropping \$3 below and the maximum rising \$2.35 above this amount. In St. Louis the difference between the lowest and highest median rates found for those establishments employing 50 or more women is not quite so great as in Chicago, the lowest being \$10.95, the highest, \$15.25, with a median of \$12.60 for the total number of firms in this group.

Comparison of wages for a week in 1920 and one in 1921.

In order to ascertain the conditions in the industry in a slack season, wage data for a week in June, 1920, were secured in the identical plants⁷ where the 1921 wages were recorded.

The following table compiled from Table 7 and Table VI in the appendix, makes a comparison of the two periods possible:

TABLE 10.—Median week's earnings of time workers and piece workers, by occupation—early and late pay-roll periods.

Occupation.	Median week's earnings of—											
	All women. ^a				Time workers.				Piece workers.			
	1920		1921		1920		1921		1920		1921	
	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.
Forewomen	\$25.35	\$20.85	\$26.20	\$20.30	\$25.40	\$20.85	\$26.20	\$20.30	.....	.....	.....	.....
Dippers	18.85	13.35	17.45	12.85	16.95	12.45	16.90	12.80	\$23.15	\$16.50	\$18.40	\$13.00
Machine operators	16.30	12.35	15.75	10.80	15.85	12.20	14.50	10.70	22.05	12.75	(b)	(b)
Packers and wrappers	16.50	12.75	13.75	11.10	15.75	12.45	12.90	10.80	20.95	15.00	16.20	13.75
All other occupations reported	16.50	11.30	14.50	11.00	16.45	11.25	14.55	11.00	16.00	(b)	13.50	(b)
Occupation not reported	10.75	.....	(b)	.....	9.90	.....	(b)	.....	(c)	.....	.....	.....
Total	17.05	12.60	14.65	11.90	16.00	12.35	14.35	11.50	21.40	15.00	16.80	13.30
Number of women included	2,268	609	1,832	579	1,607	444	1,278	486	523	134	425	83

^a Includes women engaged on both time and piece work.

^b Not computed, owing to small number involved.

⁷ Five of the plants for which wage data were secured in 1921 were not in operation in June, 1920.

The table shows that in 1920, in a slack season, there were more women employed in the plants included in the survey than there were in the 1921 period, even though there were five additional plants in the latter period. This reduction in forces can be traced to the industrial depression. Because of this depression which had checked the usual output of the normally busy months of February and March and had led to a reduction in actual working hours and to some extent to a downward revision in rates, it is not surprising to find that the earnings in June, 1920, were greater in almost every instance than those for the 1921 period. The only exceptions were the St. Louis dippers on a time work basis, whose median weekly earnings are 35 cents higher in 1921 than in June, 1920, and the Chicago forewomen, whose median is 85 cents greater in the late than in the early period.

A comparison of the rates and earnings in June, 1920, as well as a comparison of rates paid in the two pay rolls is of interest at this point in a general discussion of the two periods.

The following summary from Tables IV and VI in the appendix, gives the median rates and median earnings of time workers in June, 1920:

TABLE 11.—*Median weekly rates and median week's earnings of time workers by occupation—early pay-roll period.*

Occupation.	Chicago.		St. Louis.	
	Median rate.	Median earnings.	Median rate.	Median earnings.
Forewomen.....	\$25.90	\$25.40	\$20.65	\$20.85
Dippers.....	16.75	16.95	12.75	12.45
Machine operators.....	15.90	15.85	12.70	12.20
Packers and wrappers.....	15.90	15.75	12.85	12.45
All other occupations reported.....	15.90	16.45	12.65	11.25
All occupations ¹	15.95	16.00	12.80	12.35

¹ Includes those with occupation not reported.

The table shows for each city a very close resemblance between earnings and rates throughout the several occupations. In St. Louis, except for a negligible increase of 1 per cent in the earnings of forewomen over their rates, earnings fall slightly below rates, as would be expected on account of time lost from work for various reasons. In Chicago the median week's earnings for the total group of all occupations show the insignificant increase of less than 1 per cent over the median rate. Also the median earnings both for dippers and for the miscellaneous group (all other occupations reported) surpass median rates by very small amounts. This indicates perhaps that there may have been a little overtime or a bonus in a few cases.

Candy manufacturing like other industries had joined to some extent the movement of reducing wages at the beginning of 1921. The difference between rates of time workers in June, 1920, when wages

were at their peak and rates of time workers in 1921 after some cuts had been made can be seen in the following summary of Table IV in the appendix:

TABLE 12.—Median weekly rates of time workers, by occupations, early and late pay-roll periods.

Occupation.	Chicago.			St. Louis.		
	1920	1921	Per cent of increase (+) or of decrease (-).	1920	1921	Per cent of increase (+) or of decrease (-).
Forewomen.....	\$25.90	\$26.30	+1.5	\$20.65	\$20.90	+1.2
Dippers.....	16.75	20.20	+20.6	12.75	15.05	+18.0
Machine operators.....	15.90	15.55	-2.2	12.70	12.65	-.4
Packers and wrappers.....	15.90	15.35	-3.5	12.85	12.10	-5.8
All other occupations reported.....	15.90	15.60	-1.9	12.65	12.20	-3.6
All occupations ¹	15.95	15.75	-1.3	12.80	12.60	-1.6

¹Includes those with occupation not reported.

From this it appears that there is a slight decrease in median weekly rates in 1921 as against 1920 for all occupations except for those requiring the most experience and the most skill, namely, foremanship and dipping. For the forewomen there is a small increase in the 1921 median weekly rate over the 1920 rate for both cities. Not much importance can be attached to this, however, because of the small number of women involved. The increase in the dippers' median weekly rate in each city in 1921 as against 1920—an increase of 18 per cent in St. Louis and 20.6 per cent in Chicago—is striking enough to justify some discussion. Several possibilities suggest themselves as explanatory of these findings. In the first place this astonishing rise in rates apparently was not a means of increasing wages at the time of the investigation but served only as a deterrent in the lowering of the actual earnings of the dippers, a fact illustrated by the following figures:

Median week's earnings for dippers who were time workers.

Pay-roll date:	Chicago.	St. Louis.
1920.....	\$16.95	\$12.45
1921.....	16.90	12.80

From this it appears that there was very little difference in the earnings of dippers in both cities in the two periods. Accordingly, it would seem that at some time in the interval from June, 1920, to February, 1921, probably at the beginning of the fall rush in September or October before the industrial depression had clouded the horizon of the candy industry, the rates of the dippers, the most skilled workers, had been increased and up to the time of the investigation had not been cut. The 52-week schedules of individual workers bear out this theory. To be sure the fact that many plants were

operating for much less time than their full schedules at the time of the investigation served as a virtual reduction in wages. Moreover, the nominal increase in weekly scheduled hours reported for most of the Chicago plants doubtless contributed in some slight degree to an increased quotation in weekly rates in those plants where rates were given in hourly terms.

The foregoing figures show the median weekly rates of time workers in Chicago for both periods to be considerably higher in every occupation than the corresponding medians in St. Louis. The greatest difference is for forewomen, the Chicago group showing median weekly rates which are \$5.25 and \$5.40 greater than the median weekly rate of the forewomen of the early and late pay-roll periods, respectively, in St. Louis. The median weekly rate for dippers also varies quite materially in the two cities. The median for Chicago in the early period is \$4 more than that in St. Louis, and for the late pay roll \$5.15 more than the St. Louis median.

Year's earnings.

The foregoing wage figures are those for a given week irrespective of the other weeks in the year. Because of the fluctuations in the candy industry and the vicissitudes in the industrial records of the women, the wages of individual workers are apt to suffer considerable variation from week to week. The question of yearly income is the important one in judging whether a woman is receiving a living wage, since it is the year's earnings which of necessity regulate the standard of living. Accordingly, it is important to know not only what wages women in the candy industry earned during one specific week but how much they obtained during the year.

In the study of yearly earnings an effort was made to secure the wage data of women who were steady, experienced workers, who had worked with the firm for at least one year, and who had not been absent from their post for more than a few weeks in the year. Altogether, annual earnings were recorded for 88 women in St. Louis and 237 in Chicago. These constituted 15.2 and 12.9 per cent of the entire number for whom the current weekly pay roll was secured in the two cities, respectively.

The following summary of Table VII in the appendix shows the median year's earnings, exclusive of those of forewomen, for the various occupations in the two cities to be as follows:

	Chicago.	St. Louis.
Dippers.....	\$988	\$742
Machine operators.....	825	625
Packers and wrappers.....	893	696
All other occupations reported.....	875	(¹)
All occupations.....	891	697

¹ Not computed, owing to small number involved.

The summary reveals that one-half of the candy workers in St. Louis whose yearly records were obtained earned less than \$697 and one-half in Chicago earned less than \$891, showing a difference of \$194 between the medians in two cities. The dippers in Chicago with a yearly median of \$988 and the dippers of St. Louis with a yearly median of \$742 surpassed all other groups in yearly earnings, whereas the machine operators, with a median of \$825 in Chicago and \$625 in St. Louis, ranked below all others.

If we take as a measure a yearly income of \$800, approximately \$15.50 a week, which in many places is considered a fair minimum wage rate, we find that all of the medians for St. Louis fall below this, while all for Chicago surpass it. It should be remembered that these yearly figures represent not only the earnings of a picked group of steady workers but typify on the whole wages at their peak in the industry, since only about a month and a half of the 1921 wages were included.

In a classification of women with incomes of less than \$600 a year, 22.7 per cent of those whose yearly earnings were recorded in St. Louis received less than this amount as compared with 5.9 per cent in Chicago. Furthermore, 73.9 per cent in St. Louis as against 28.7 per cent in Chicago earned less than \$800 a year. At the other end of the wage scale we find that only 19.3 per cent or a little less than one-fifth of the St. Louis women earned more than \$800 as opposed to 59.1 per cent or a little less than three-fifths in Chicago, and that only 2.3 per cent in St. Louis had yearly earnings of more than \$1,000 as contrasted with 19 per cent in Chicago. With such an income no women in St. Louis earned more than \$1,100 a year. Only eight women in Chicago earned as much as \$1,600 or over.

The degree of steadiness of the women workers whose annual earnings were ascertained is shown in Table VIII in the appendix. In both cities the largest group worked 52 weeks in the year, that is, 44.3 per cent in St. Louis and 32.5 per cent in Chicago. Of the 88 women in St. Louis, 95.5 per cent worked at least 46 weeks, and of the 237 women in Chicago, 82.3 per cent worked this number of weeks. Accordingly, the great preponderance of workers whose annual earnings were recorded did not miss more than six weeks in the year either through slackness in the industry or for personal reasons. It must be remembered that these women are representative of those with steady employment throughout the year and not of the rank and file of the workers.

Night workers' wages.

As a rule night workers are paid a higher rate than are day workers, but that this is not always true is shown by the following table of the

women working at night in the one Chicago and in the one St. Louis plant reporting such work for women:

TABLE 13.—*Week's earnings of women employees who were night workers, by occupation—late pay-roll period.*

Week's earnings.	Number of women reported.		Number of women earning each specified amount who were—							
			Forewomen.		Machine operators.		Packers and wrappers.		All others.	
	Chicago.	St. Louis.	Chicago.	St. Louis.	Chicago.	St. Louis.	Chicago.	St. Louis.	Chicago.	St. Louis.
Under \$6.....	13	2	1		8	2	4			
\$6 and under \$8.....	3	3			2	2	1	1		
\$8 and under \$10.....	11	7			2	7	9			
\$10 and under \$12.....	6				2		4			
\$12 and under \$14.....	6						6			
\$14 and under \$16.....	45				16		29			
\$16 and under \$18.....	14				11		2		1	
\$18 and under \$20.....	2						1		1	
\$20 and under \$25.....	1	1		1	1					
\$25 and under \$30.....										
\$30 and over.....	1		1							
Total.....	102	13	2	1	42	11	56	1	2	

In St. Louis all the night workers except one earned less than \$10 a week, whereas in Chicago 26.5 per cent earned less than \$10, 82.4 per cent earned less than \$16, and all but two women received less than \$20 a week. It is somewhat difficult to compare the earnings of night workers by percentages and medians with the earnings of dayworkers, since there are so few of the former and so many of the latter. In Chicago, however, the median for the 102 night workers is \$14.75 as against the median of \$14.65 for 1,832 dayworkers, a difference too slight to be of significance. It means more, perhaps, to point out that 82.4 per cent of the night workers earned less than \$16 as opposed to 63 per cent of the dayworkers receiving less than this amount. With the small number of night workers in St. Louis the only comparison possible is one showing that the weekly rates of night workers were about the same as the weekly rates of women working by day in the same plant, but that since the weekly schedule of the night workers was only 45 hours instead of the 54-hour schedule of the day workers, the hourly rates of night workers were higher.

Conclusion.

In conclusion it is well to emphasize certain significant facts. In general, wages were considerably higher in Chicago than in St. Louis. The median weekly earnings of all women included in Chicago for February, 1921, were 23.1 per cent higher than the corresponding median in St. Louis. An even greater difference existed in June, 1920, since a comparison of the weekly medians for that period shows

a 35.3 per cent excess in favor of Chicago. Moreover, median yearly earnings were over one-fourth higher in Chicago (27.8 per cent) than in St. Louis. It is probable that the cost of living may have been somewhat higher in the former place than in the latter, but it seems scarcely possible that there was a sufficiently great difference in the cost of living to justify the large discrepancy in wages. A complete comparative study of the cost of living for the two cities can not be made at this point for lack of comprehensive data. However, certain figures compiled by the Bureau of Labor Statistics and presented in the appendix of this report (Table IX) show the differences in the cost of food, dry goods, and coal in the two cities on February 15, 1921. The average retail prices of 43 principal articles of food show that three items cost the same in each place, whereas 22 were lower and 18 higher in St. Louis than in Chicago. The total shows that food in general was only 1.8 per cent higher in Chicago than in St. Louis. The difference in dry goods was also small, only 1.1 per cent more for a total of 11 staple articles in Chicago than for these same articles in St. Louis. A comparison of coal prices shows that although bituminous coal cost 17.5 per cent more in Chicago, the Pennsylvania anthracite stove and chestnut coal cost 11 per cent and 9.6 per cent, respectively, less in Chicago than in St. Louis.

It is of interest also to compare the relations between wages and prices in each city. Although no definite information as to the exact money value of the cost of living at the time of the investigation is available, figures compiled by the Bureau of Labor Statistics show that the cost of living which had been soaring steadily upward since 1914 had reached its peak in June, 1920, and that by December, 1920, there was some reduction in prices throughout the country.⁸ At this date the cost of living in Chicago had fallen 9.9 per cent, and in St. Louis 9.1 per cent below the June level. There is a tendency for wage cuts to precede and surpass price cuts. The data contained in this report show this to be true on the whole for the candy industry in Chicago, but not in St. Louis. A comparison of the median weekly earnings of all women in the Chicago investigation for June, 1920, with the corresponding median for February, 1921, shows a decline of 14.1 per cent in median earnings, whereas the reduction in cost of living from June to December was 9.9 per cent. A similar comparison for St. Louis reveals a drop of only 5.6 per cent in median earnings as against the 9.1 per cent fall in prices. The per cent decrease in wages was greater in Chicago than in St. Louis, but even so, the St. Louis median weekly earnings for June before the cuts

⁸ U. S. Department of Labor, MONTHLY LABOR REVIEW, Vol. 14, No. 5, May 1922, Changes in cost of living, pp. 69-76.

had occurred are still 14 per cent below the Chicago median for February after the wage reduction.

In St. Louis the majority of the women failed to receive what might be considered a living wage in either period. Also, in Chicago, despite the generally higher earnings secured by women in the candy industry, a sufficiently large proportion were in the low-paid class in both June and February to make it evident that a minimum wage law is necessary to guarantee all women a subsistence income. To be sure, the unusually high wages obtained by a number of women in Chicago and by a few even in St. Louis indicate the trade opportunities for women in the candy industry, but do not make amends for those at the other end of the wage scale.

PART V.

WORKING CONDITIONS.

Good working conditions are essential in all industrial establishments for the promotion of the health and comfort of the workers and for the maintenance of efficiency in the plant. In those factories handling food products the need for satisfactory and sanitary premises is even greater in order to protect the consumer. It is important therefore to consider the conditions found in the 51 candy factories visited in Chicago and St. Louis and to point out such facilities as appeared obviously below the standards set by the Women's Bureau and sanctioned by enlightened public opinion. Credit also must be given to certain firms which had made every effort to insure the welfare of the workers and the purity of the product.

GENERAL WORKROOM CONDITIONS.

General impression.

The plan and appearance of the workroom have a significant effect upon both the workers and the work. In 10 of the 19 plants in St. Louis and 10 of the 32 in Chicago the general condition of the workroom was reported to be such as would tend to induce carelessness and inefficiency. In fact the statement made of one plant that the workers therein must unconsciously be depressed by their surroundings, would have applied to others. The workrooms in some cases had low ceilings and dark walls or they were crowded and poorly arranged, with aisles so narrow and congested with stock and débris as to make passing difficult. In other plants the workrooms were dirty. For example, one factory was described as having an accumulation of soot and cobwebs near the ceiling, and others as showing the need of a good scrubbing. In striking contrast were those factories in the two cities which appeared spacious, light, clean, and well arranged.

Cleaning.

For the sake of sanitation the subject of cleanliness can not be stressed too much in connection with establishments handling food products, especially candy factories where sticky substances become caked on floors, tables, stools, and utensils. It should be a matter of concern that 10 of the plants visited in St. Louis and 10 in Chicago were reported inadequate in some respect as to cleanliness. The chief defects were dirty workrooms, lack of systematic cleaning and scrubbing, and the custom of requiring women employed for other

work to do some or all of the cleaning. The following excerpts from reports serve as concrete examples of such conditions:

Place dirty; floors, stairways, and handles of doors caked with candy.

Porter was sweeping at time of inspection and causing a dust; open trays of candy scattered around the room.

The plant looked as though it had not had a scrubbing for months. As no hot water is obtainable in the factory the scrubbing can not be adequate.

According to the statement of one worker so many cats prowl about the factory that one can see and smell that the place is insanitary.

A worker who had been with the plant for 18 months stated that as far as she knew it had been scrubbed only twice in this time.

The women employed as candy workers but required to do the scrubbing complained of getting their dresses wet up to their knees.

The lack of thorough cleaning and good management in these plants is evident. There were on the other hand, favorable reports from a number of establishments in regard to the system of cleaning and the results, of which the following is a typical example:

Wooden floors scrubbed every night. Two porters do the cleaning and are kept busy with it much of the time. General cleaning going on at time of visit. Floors looked well taken care of. Zinc on floor in front of sink; zinc and cement under cooking kettles. Tables in dipping and packing rooms covered with zinc. All very clean.

Such a standard is easily within reach of all candy establishments and should be required in the name of sanitation and comfort. In fact there are very definite laws in both Illinois and Missouri dealing with the cleanliness of the floors, walls, ceilings, furniture, receptacles, implements, and machinery of all establishments where food is handled.

Lighting.

Since the occupations in the candy industry do not necessitate close application of the eyes the matter of lighting is not of such technical importance as in many industries. Nevertheless, it is desirable that all workers should have sufficient light at all times and should not suffer from glare. Altogether 19 plants were reported with natural lighting unsatisfactory and 14 with artificial lighting unsatisfactory in some respect. Chicago had a much better record for both kinds of lighting than did St. Louis. In some instances there was the possibility of eyestrain for women who at their work directly faced windows without shades. A better placement of work tables would have obviated the difficulty. In other plants dark walls, low ceilings, and the haphazard arrangement of tables, benches, shelves, and stock cut off the supply of light to such an extent that workers' eyes were unduly taxed. Many of these conditions could easily have been remedied.

In some plants where the poor natural lighting required the constant use of artificial, great care had been taken to install well-placed and well-shaded lights, as the following description illustrates:

The dark rooms were lighted by means of "daylight" electric lights at ceiling, with frosted bulbs and large shades with white lining and green exterior.

Sometimes artificial lighting consisted of unshaded electric bulbs so placed as to cause a glare. In a few instances workers had pinned improvised paper shades over such bulbs. Since lighting when inadequate not only produces impaired vision—which in turn causes nervous fatigue of the whole body—but also limits production, it is a question which should receive the careful attention of all managers of industrial establishments.

Heating.

On the whole the heating of workrooms was quite satisfactory. Only three plants were reported as inadequate in this respect. In one it was stated that the small stove in use would cause uneven distribution of heat in the workrooms and insufficient warmth on cold days. The workrooms in another plant were described as being too warm on the day of the visit. In a third plant a few girls worked with their backs too close to radiators which were devoid of metal protectors.

Ventilation and special temperature.

The low temperature maintained in certain workrooms for the sake of the product and the high temperature resulting in others from the cooking of the candy complicate the problem of ventilation in this industry. A cool temperature in the rooms where chocolate dipping is done and often in rooms where candy is packed is generally conceded to be necessary. The temperature for these processes in the establishments visited showed a wide range, varying from 50° to 86°. Several managers stated that it was unnecessary to have rooms for this work cooler than from 66° to 68°. Twelve of the plants visited maintained such a temperature for these processes but 22 plants kept some rooms below 66°. In a few factories the temperature used for dipping was the normal one in the plant, no attempt being made at any time to cool the atmosphere. Several managers reported that no dipping was done in hot weather.

For the maintenance of the necessary temperature in the chocolate room, various systems were in use in the different plants and even in the same plant at different seasons. Although the system of keeping the right degree of temperature by means of air pipes would be adequate for winter when the outside air is cold, it is frequently not sufficient for summer, unless there is some way of cooling the air as it is brought in. Accordingly some plants were equipped with

both a refrigeration system and the natural air pipes. The type of cooling system used made a great difference in the comfort of the workers. Also the necessity of keeping the room cool enough for the product and not too cold nor too close for the workers is a matter of scientific ventilation. In some plants, however, where the rooms were insulated with double windows against outside air and the atmosphere in the room was kept sufficiently cool by ammonia pipes there was no provision for introducing fresh air or of changing the air in the room. The use of electric fans in such cases served only to circulate the stale air. In several establishments an ideal equipment for regulating temperature and moisture consisted of ceiling refrigerating pipes, washed air, and a large motor fan. In some cases where a blower system was used, the outlets were so located that drafts blew directly upon the workers. In other plants arrangements had been made to protect the girls from such drafts. Occasionally a galvanized trough was placed directly beneath the overhead ammonia or refrigerating pipes to prevent the frost on the pipes from dripping on the workers. The device used in several factories where chocolates were dipped by enrobing machines did away with the need of definitely lowering the temperature of the room, since the chocolates were passed on a belt through an artificially cooled metal inclosure.

Another disagreeable feature of candy manufacturing is the heat and humidity generated in cooking processes. Although men were engaged in this work it was sometimes performed in rooms where women were found at other occupations. Kettles frequently were heated by steam and not always most advantageously placed in respect to windows. When with such arrangements there were no artificial devices for ventilating, the atmosphere tended to become objectionably oppressive. In those plants, however, where the steam was caught in hoods over the kettles and dissipated by means of vents and exhausts, this trouble was remedied to a great extent.

Seating.

On the whole too little attention had been given to seating arrangements. In 25 plants there were not enough seats supplied for the women workers, in 39 the only seats provided were stools and benches without backs, while in 8 plants extremely casual arrangements such as boxes or cans were found. In both Illinois and Missouri there is a law requiring that all manufacturing, mercantile, mechanical, and other establishments employing women shall provide seats for them and permit the use thereof. The Chicago law specifies that there shall be supplied a reasonable number of seats for use when the women are not necessarily engaged in the active duties for which they are employed or when the use does not interfere with the proper

discharge of such duties. The Missouri law stipulates that the seats furnished shall be conveniently located and sufficient to seat women comfortably when their duties do not require them to be upon their feet. Almost all of the occupations in the candy industry can be performed by workers either sitting or standing, but in a number of the plants visited the workers in certain departments were compelled to stand all day because there were no seats available. That this was an unnecessary strain is shown by the fact that women performing these same jobs in other plants were sitting at their work. In some cases employees were forced to stand at their operations or lose in efficiency since the seats provided were too low or too high for the worktables. The forewoman in one plant said that the girls who were packing would not sit, especially if they were on piece work, "as they could not earn their salt," if they did. Some of the women complained of standing all day. In one packing room devoid of seats, the workers were seen sitting on window sills while waiting for work. Occasionally where seats were provided the girls hesitated to use them. "It takes nerve to sit" was the statement of one girl, "as the forewoman does not like it. Besides there are not enough stools." A woman in another plant remarked, "They don't like us to sit, as they think we can't turn out as much work." In a third plant it appeared that the girls did not dare to sit down as the foreman "yelled" at them when they did. As a contrast to this was the policy of one progressive plant in which the girls were urged to sit at their work in order to save themselves as much as possible. Kitchen chairs were provided here for all workers. One girl's testimony about this firm would indicate that consideration of employees is a paying policy. "I never worked at a place before where the boss wanted you to sit and save yourself, and we have chairs with backs. You couldn't find better people to work for. I sure would recommend this place to my best friend. There is such a homey feeling, and they make you interested in the business and you want to work."

For women whose jobs necessitate constant sitting there should be provided comfortable chairs, adjustable to the work. Although all dippers in the plants visited were seated, in the great majority of cases they sat on stools without backs. In other instances women were reported as sitting in extremely irksome postures. For example, one group of girls sat on stools at a bench which interfered with their knees in such a way as to cause a twisted position.

In conclusion it should be emphasized that it is possible and desirable to furnish a sufficient number of comfortable seats for the leisure moments of women at standing jobs, suitable seats for those where sitting or standing at the job is optional, and adjustable seats to relieve the strain of constant sitting.

HAZARD AND STRAIN.

Apart from the possible hazard for dippers and packers of working in a lowered temperature and the strain of constant standing for some workers there were comparatively few menaces to the health and safety of the women in the candy industry. In individual establishments some objectionable features in connection with women's occupations were found. In several plants, for example, the dust from the starch was obviously disagreeable. In several, also, the girls who spun hard candy sticks complained of having blistered hands most of the time. Furthermore, a possible strain was reported in establishments where women lifted boxes or pails weighing from 30 to 50 pounds to a height above their heads. A strain from undue speeding was recorded in 9 plants. In these cases women were keyed up to such a high tension that there was danger of overfatigue. It is a well established fact that such a condition acts like a poison to the system, predisposing to more serious illness and to plant accidents. Speeding was not always the result of piece work, since the time workers in one factory testified that they were compelled to work fast to satisfy their forewoman who was very strict, and their employers who complained of losing money. The forewoman in another plant tried to prevent the piece workers from "driving themselves too hard." Also in this plant the girls who were feeding and taking off from an automatic machine were encouraged to change about, every two hours, to avoid strain from posture.

Apparently accidents were rare in the plants visited. However, women operating unguarded cutting machines needed to be extremely vigilant to avoid casualties. In 19 plants unguarded belts constituted a hazard, since there was the possibility that women's hair or clothing might be caught. In one factory a belt was so located that workers were in danger of stepping upon it and being thrown thereby. In several instances elevator shafts were uninclosed. As a contrast to such conditions is the following extract from a report illustrating the policies in other plants for safeguarding the workers:

The equipment throughout the plant was obviously designed and arranged with a view to the safety and comfort of the workers. Ventilation and lighting were good. Individual adjustment of chairs to worktable had been made. Belts and machines were adequately guarded. Moving belts transported finished goods. The work was light and there were no heavy cartons or buckets to lift.

Fire hazard.

Another type of hazard existing in a sufficient number of plants to warrant some consideration was that of inadequate protection against fire. Such things as doors opening inward, narrow aisles, obstructions in aisles or in front of exits, stairways that were winding, narrow, steep, or dark—all dangers in case of fire—were found in a number of plants. The lack of fire escapes on buildings of more than two

stories was reported for 5 establishments. Other plants had taken every possible precaution against fire. These were located in fire-proof buildings equipped with automatic sprinklers and fire towers; exits were marked with red lights; outside and inside doors opened outward.

SANITATION.

The question of sanitation has already been touched upon in connection with the cleanliness of workrooms, but it is a subject of much wider scope, requiring that careful attention also be given to drinking, washing, and toilet facilities, and to working uniforms.

Drinking.

Sanitary drinking facilities conveniently located are essential in every establishment, especially in the candy industry, since the workers therein are apt to become unusually thirsty. Forty factories were reported as having failed to supply satisfactory arrangements. In 20 plants no cups of any sort were provided; the workers were supposed to supply their own. A girl in one of these establishments was seen drinking out of her hand. Common cups, a generally recognized means of spreading disease, were found in 10 factories. Even in plants where bubble fountains formed part of the equipment, these were in many cases of the insanitary type, which scientific investigation has proved to be another medium for disseminating germs and, therefore, to be discountenanced. If, however, the tube of the fountain is inclined at an angle of at least 15° and the orifice is protected by a collar the arrangement passes the sanitation test. One plant, equipped at regular intervals throughout with ice-cooled sanitary drinking fountains having a spray inclined at 45° might serve as a model in this respect to all industrial establishments.

Washing facilities.

The washing facilities in candy factories, where workers must constantly handle sticky substances and must frequently wash their hands for the sake of comfort and sanitation, should receive careful attention from the management. Hot water, soap, and individual towels should be available in workrooms as well as in wash rooms, and instructions about washing should be conspicuously posted. Nevertheless, of the plants visited 37, or almost three-fourths, fell below this standard, the Chicago plants perhaps presenting a somewhat better record than did the St. Louis. A State law in both Missouri and Illinois requires that in every establishment where food products are handled there shall be, adjacent to the toilet room, a lavatory or wash room equipped with soap, running water, and towels. In neither State does the law stipulate the provision of hot water and individual towels. Fifteen establishments included in the survey had no hot water for the use of workers, 12 provided no soap, and 10

no towels of any sort. Such omissions in candy factories are serious, since they make thorough washing impossible. In these plants workers frequently were "expected to provide their own towels," with the consequence that some girls were found using their aprons, skirts, or handkerchiefs. The use of common towels, reported for 19 establishments, is another arrangement which should be prevented in the name of health and sanitation. The roller towels seen hanging about in some plants were described as being very dirty. Some firms realizing the importance of this matter had provided excellent facilities, of which the following is an example:

Porcelain basins with hand sprays, in connection with toilets on each floor. Also hand sprays with foot pedal attachments over porcelain basin partitioned off at one end of chocolate dipping room. Hot and cold water and soap supplied. Individual cloth towels attached by brass rings to fixture in connection with basins, replenished during day as needed.

Paper towels used in other establishments were found to be satisfactory. In 19 factories, 17 of which were in Chicago, a placard with instructions to workers about washing their hands was posted in the toilet room. The cooperation of employees with the management is essential for the maintenance of a high standard of cleanliness. The system in some plants of having a matron in charge of these facilities tended to produce good results.

Toilets.

In both Illinois and Missouri, State legislation requires the provision of conveniently and properly located toilets in all establishments employing women, and of separate toilets, carefully designated, where men and women are employed. The law in each State also stipulates adequate cleaning and ventilation of all toilets. The Illinois law specifies that the floors of toilet rooms shall be washed and scoured daily. Toilet facilities in both Chicago and St. Louis were, on the whole, fair. However, in 15 plants in St. Louis and 17 in Chicago, certain conditions were found in need of improvement. There was not in all cases sufficient privacy, since there was no screen before the toilet doors in 10 plants, and no partition between the seats in 8. In only one plant, and that was a Chicago factory, did men and women use the same facilities. In 11 establishments there were no signs to designate which toilets were for men and which for women, even when the accommodations were side by side. According to the standard of requiring one toilet for every 15 women, only 7 establishments had an insufficient number. Ventilation was reported inadequate in some or all of the toilet rooms in 13 plants, either because such rooms had no access to outside air or because they were ventilated from work-rooms over a partition not reaching to the ceiling. In a few cases the cleaning of the toilet rooms was not satisfactory. The custom found

in 5 plants of having women employed for other work clean these rooms is to be condemned, since this added task may be a hardship to the workers and may result in haphazard cleaning. In one factory, for example, where "the girls took turns," the toilet was very dirty. "The girls have been too busy lately to scrub," was the forewoman's apology. The forewoman in another case dismissed the subject of cleaning with the remark, "Oh, different people do it different weeks." Altogether 6 plants were reported in which the toilets were not cleaned and scrubbed with sufficient regularity.

Uniforms.

In candy manufacture the wearing of uniforms would seem to be essential for sanitary production and for protection of clothes. Nevertheless, 14 factories were recorded in which the employees wore no working garb of any sort over their street clothes. As one manager explained, "The girls like to wear out old clothes and don't like extra expense." Even so, the women did not always wear wash dresses. In dipping rooms uncovered woolen dresses and sweaters were sometimes seen, with disastrous effects both to candy and clothes. In other plants, even where some sort of uniform for the job was more or less customary, the wearing of such was decidedly haphazard. The most usual practice seemed to be for the women to supply their own caps and aprons or to buy them at cost from the firm, and to attend to the laundering themselves. According to prices quoted by several firms caps ranged in cost from 15 to 25 cents and aprons from \$1.50 to \$2.25. The purchase and maintenance of uniforms by the employees requires an expenditure of money and energy, and hence means a decrease in actual wages and an increase in labor. In only 4 factories were uniforms supplied in the plant. In one of these, for example, blue overall aprons with sleeves were furnished and laundered by the firm. Caps also were to be given to the workers.

SERVICE FACILITIES.

Other arrangements for the comfort of the women, such as lunchrooms, restrooms, cloakrooms, and first-aid equipments, were found to vary greatly in the establishments inspected.

Lunchrooms.

It is extremely desirable that there should be a lunchroom of some kind in every factory, to enable employees to have a satisfactory lunch period away from workbenches and workrooms. Nineteen establishments in all, 6 in St. Louis and 13 in Chicago, had provided lunchrooms. These varied greatly in kind from poorly equipped rooms where women ate cold lunches brought from home, to carefully planned cafeterias where hot, wholesome, and inexpensive food was available. In some cases where food was not obtainable in the plants,

arrangements had been made for women to prepare their own hot lunches, if they so desired. Some firms served hot coffee to employees free of charge or at a nominal price.

Cloakrooms.

It seems reasonable to expect adequate facilities for wraps in every establishment employing women. Such a room in a candy factory also should serve as a dressing room where women could change their clothes. The record was remarkably good in this respect, since all of the establishments visited in Chicago and 16 of the 19 in St. Louis had provided a definite cloakroom. The record, however, for the condition and equipment of these rooms was not quite so good. In a few cases they were dirty, with accumulations of rubbish, paper, and dust. One woman complained that the dressing room in the plant where she worked was infested with roaches, which she feared would get into her clothes. In some cloakrooms there were no seats for the girls to use while changing shoes. In others light and ventilation were not adequate. In one place there was not sufficient privacy, since girls when changing their clothes in the dressing room could be seen by the men in the workroom. The arrangement in another plant was exceptionally poor; the women in one building were compelled to go outside and down the street to the cloakroom in another building. Employees complained that this was very unpleasant in cold weather. Twenty-seven plants, or more than one-half of the number visited, had provided lockers, although these were not always adequate. Arrangements other than lockers may be just as satisfactory. A type of cloakroom recommended is one equipped with iron racks, coat hangers, and shelves, and properly supervised.

Restrooms.

Some facilities should be available in all plants employing women for use in case of accident, illness, or extreme fatigue. Such an arrangement is of value to both employer and employee, since thereby a woman is frequently able to go on with her duties after a brief interval instead of losing the remainder of the day from work by going home. Many of the plants had failed to recognize the need for a restroom, since only 19 of the 51 factories—13 in Chicago and 6 in St. Louis—had provided such. The standards for these facilities varied considerably. "A dirty, old, sagging cot and a broken chair in an untidy room," the report from one plant but typical of several, is obviously an inadequate equipment. In contrast to this were the restrooms supervised by a matron and furnished with comfortable couches and easy chairs. In small plants where it was not possible to have a separate room set apart, a restroom combined with a cloak- or lunchroom served the purpose admirably.

Health service.

Although a plant may be supplied with all of the foregoing facilities, it is not adequately equipped unless there is provision for first aid in case of accident or illness. Nine plants were reported as lacking such equipment. On the other hand a few firms had extensive arrangements for looking after the health of the workers. Hospital rooms were found in 7 plants, and a nurse or doctor in attendance daily in 7. Although a physical examination for new employees was compulsory in only one factory, in several others it was stated that they were examined if there was any doubt about their health. An examination of the workers in the candy industry would seem advisable from the point of view of both workers and consumers. Since women in this industry so often work in rooms with a temperature below normal, an effort should be made to discourage those women whose health is obviously endangered by such a condition from working therein. Also, care should be taken to prevent operatives with infectious diseases from handling candy. It was reported by a woman in one factory that a girl with a severe case of eczema had worked there as a dipper for over six months. In such a case the worker might be transferred to a job where her malady would not be a menace to others.

EMPLOYMENT MANAGEMENT.

Questions were asked as to who was responsible for employing and transferring women workers. Several methods were found in use. In 37 plants the employment management was definitely centralized; that is, it was attended to by the superintendent, manager, owner, or by one foreman or forewoman. In five establishments there was a special employment manager. In a few one person acted in this capacity after consultation with other persons in authority. In those plants lacking such centralization, one person did the employing and some one else the discharging, or several persons did both. The statement made in one factory—"the manager, or the manager's secretary, or the forewomen do this work; it all depends upon who is busy at the time an applicant appears"—shows the haphazard nature of some arrangements. Misunderstandings and injustices are likely to arise in cases of this sort, reacting against employer and employees, preventing satisfactory cooperation in the plant, and producing a high labor turnover. One superintendent said he believed in handling all cases himself, so that he could adjust difficulties. The advisability of having one person of intelligence and judgment definitely in charge of these matters is obvious.

PART VI.

THE WORKERS.

As has already been shown, the 2,702 women included in the survey in Chicago and St. Louis constituted over one-half of the working forces in the factories visited. In the foregoing pages information about these women as industrial workers has been given. Since they are an important factor, not only in the economic output of the country but in the social fabric as well, some analysis of their personal records is of significance. It was not possible to secure such information for all the women in the survey, but some personal facts for 1,500, in round numbers, were ascertained.

Nativity.

The nativity of the women in the candy factories of the two cities, who reported on country of birth is shown in Table X in the appendix. The proportion of foreign-born workers was much greater in Chicago than in St. Louis, 34.3 per cent in the former, as compared with 5.8 per cent in the latter. The difference between the two cities is striking. The 1920 census figures concerning the proportions of the total number of foreign born in the populations of the two cities reveal less discrepancy, since Chicago showed 29.8 per cent of its population to be of foreign birth, as compared with 18.3 per cent in St. Louis.¹ It would appear from this that the candy industry in Chicago attracts foreign-born women more extensively than does this same industry in St. Louis. The survey of candy manufacturing in Philadelphia, made by the Women's Bureau in 1919, showed 17.6 per cent of the women workers to be of foreign birth.² Accordingly, Philadelphia in this respect occupied a middle ground between Chicago and St. Louis. In every case the proportion given of women born elsewhere than in the United States was probably somewhat smaller than it was in reality, since the figures were obtained from questionnaires filled out by the employees in the plants, and since the foreign born with limited knowledge of English would be less likely to contribute personal records than would the native born.

Age.

Candy manufacturing is an industry which appears to attract young workers. This may be explained by the fact that the work is not

¹ U. S. Bureau of the Census. Population Statistics. Composition and characteristics of the population, 1920, pp. 33-35.

² U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 15.

heavy and requires for most of the occupations no training or skill. Also, as an industry it may attract young, inexperienced girls because to many of them the thought of handling candy is alluring. In the Philadelphia survey it was found that 41.7 per cent of the women were under 20 years of age.³ According to Table XI in the appendix, the candy factories inspected in St. Louis showed that an even larger proportion of the women reporting on this subject (47.6 per cent) were less than 20 years old, although in the Chicago plants only 35.8 per cent were in this age classification. In the matter of more mature women employees, the Chicago establishments showed that 14 per cent of the women reporting were 40 years old or over, as compared with the 7.5 per cent in St. Louis in this group.

Age at beginning work.—Because of the large proportion of young workers, it is of interest to consider at this point the age at which women in this industry began their wage-earning career. Table XII in the appendix, shows that 52.4 per cent began to work before they were 16 years old, and 79 per cent became wage earners before they were 18.

Conjugal condition.

As might be expected from the foregoing figures, the St. Louis plants had a higher percentage of single women (75.8 per cent) than had the Chicago factories, where only 62.6 per cent of those reporting on conjugal condition were not married. (Table XIII in the appendix.) The proportions of married women in the two places, 14.3 per cent in St. Louis and 27.5 per cent in Chicago, differed considerably, but the percentages of women reporting on conjugal condition who were widowed, separated, or divorced were almost the same in St. Louis and Chicago, that is, 10 and 9.9 per cent in each city, respectively.

Length of time in the trade.

In the candy industry, in which there is such a large proportion of young workers, and in which most of the occupations require little if any skill and offer few opportunities for advancement a high labor turnover would be expected. The following summary of Table III in the appendix, presents figures on the length of time in the trade of the workers in St. Louis and Chicago, who reported on experience, as well as figures from the Philadelphia survey on this subject.

³ U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 15.

TABLE 14.—Years in the trade of women employees who supplied personal information, St. Louis, Chicago, and Philadelphia.¹

Years in the trade.	Number and per cent of women who had been each specified length of time in the trade in—					
	Chicago (1921).		St. Louis (1921).		Philadelphia (1919).	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 6 months.....	143	14.3	93	22.7	369	39.1
6 months and under 1 year.....	124	12.4	73	17.8	77	8.2
1 and under 2 years.....	160	16.0	52	12.7	81	8.6
2 and under 5 years.....	336	33.6	91	22.2	153	16.2
5 and under 10 years.....	147	14.7	46	11.2	148	15.7
10 and under 15 years.....	55	5.5	20	4.9	47	5.0
15 years and over.....	36	3.6	34	8.3	68	7.2
Total.....	1,001	100.0	409	100.0	943	100.0

¹ U. S. Department of Labor. Woman in Industry Service. Wages of candy makers in Philadelphia in 1919. Bulletin 4, 1919, p. 15.

According to the summary Chicago plants, which had shorter hours and higher wages than had the St. Louis plants, show, on the whole, a better record for the length of time that the women had worked in the trade. In the St. Louis factories 40.5 per cent of the women reporting on this subject as compared with 26.7 per cent of those in Chicago had worked less than one year in the industry. Moreover, beginning with one year's experience and running through the classifications which show increasing numbers of years of experience we find that St. Louis has a smaller proportion in each case except in the 15 years and over group where it shows a somewhat higher percentage than does Chicago.

The record for Philadelphia reveals the proportion of women with less than one year's experience (47.3 per cent) to be greater even than the proportion in St. Louis with that amount, a fact probably traceable to the high labor turnover prevailing during and immediately after the war. That there was a nucleus of steady workers in Philadelphia, similar to that in each of the other two cities, is shown by the fact that 27.9 per cent had been in the industry for 5 years or more as compared with 24.4 per cent of the women in St. Louis and 23.8 per cent of those in Chicago with this much experience. The occupational statistics are of interest at this point. As has already been shown hand dipping and foremanship are virtually the only occupations in the industry offering special opportunities to women. The fact that 23.9 per cent of all the women in St. Louis were reported to be in these jobs, 18.7 per cent in Chicago, and 21 per cent in Philadelphia indicates a fairly close parallelism between opportunity and comparative permanence in the industry. Sufficient argument can be piled up to prove that women are interested in industrial careers from the viewpoint of acquiring both a satisfactory trade and a satisfactory income. Recent years have exploded not only the pin money theory about women wage earners but also the

theory that they are mere transients in the industrial realm. Since women need in so many cases to support themselves for life and frequently dependents as well, they are naturally interested in industrial training, opportunities, and advancement.

Home responsibilities and living conditions.

A dependency study of the women in the candy factories visited could not be made in the limited time of the survey. Nevertheless, the investigators in visits to the homes of the women picked up sufficient information about the financial and domestic burdens of these wage earners to indicate that their home responsibilities were a vital problem.

Widows and deserted wives, or even women with husbands, were found to be the entire or partial mainstay of their families. In several cases, for example, a husband who was an invalid or who was out of work had added greatly to a woman's responsibilities. One woman who was separated from her husband was supporting four children. A recent \$2 cut in wages combined with a shortening of the plant schedule to five days a week had reduced her weekly wage to \$8.35 and thereby greatly increased her problems in trying "to make ends meet." A married woman in the same plant receiving the same wage, who was assisting her husband in the maintenance of the family, complained of the low pay. She said that the girls in her department were restrained by the forewoman from writing on the personal record cards distributed by the investigators during the survey that "they were not paid enough wages to eat." The following figures given by one widow with three daughters—only one of whom was old enough to work—serve as proof of this statement:

Earnings of mother per week.....	\$8.35	Rent per week.....	\$6.25
Earnings of daughter per week....	7.00	Food per week.....	11.00
	<hr/>		<hr/>
	15.35		17.25

In this case where expenditures included only the barest necessities and at that allowed for only about 40 cents a day apiece for food, there was a weekly deficit of \$1.90. Another widow supporting two children and financing a sister who was ill in the hospital averaged because of limited production only \$15 or \$16 a week, although she was able to make as much as \$20 if allowed to work full time. During the week preceding the visit as there had been no dipping for her to do she had made only \$11 from rolling stick candy. One Chicago woman with two small children and a husband who had been out of work for many months said that she had been forced to find work "in order to pay the rent and to eat," but that her present earnings of \$11.25 a week, the only income, were entirely insufficient. A divorced woman with three children, aged 19 months, 3 and 4 years,

respectively, left her children each morning at a day nursery in order that she might work in a factory. Even so, she was unable to earn enough for the support of her family and was forced to accept aid from charitable organizations. These stories stand as representative rather than as isolated cases. Almost one-fourth of the women workers in the St. Louis plants and over one-third in the Chicago were married, widowed, separated, or divorced and hence, in all probability, had some home responsibilities.

Many instances also could be cited where daughters had heavy financial and domestic obligations because the mother was a widow or the father's wages were insufficient for the maintenance of the family. A 30-year-old worker with a wage of \$15 a week was helping her mother in the support of four younger brothers. In another family a girl and her father were the only wage earners in a family of seven. "We have debts everywhere, now," she remarked "because my father was laid off two weeks ago, and the money I get hardly brings enough food." A boy of 12 and a baby had died in the preceding six weeks. In a third family, two daughters, 19 and 23 years old, were supporting the family, which consisted of the father, mother, and six younger brothers and sisters. The mother was an invalid and the father had recently failed in his business. An effort was being made to enable the oldest boy, 17 years of age, to complete his course at a technical school. Three other children were at school and the two youngest were still at home. The two older daughters were bearing not only the financial burden of the family but the domestic one as well, since they did all the housework even to the ironing after their factory hours. "You know we are finding it pretty hard," was the confession of one of the girls.

Even girls who had no dependents found it impossible to make ends meet when they received only \$10 a week. One girl who was getting this amount and who was doing "light housekeeping" reported that she spent \$2.50 a week for rent and \$4 for food, with a residue of \$3.50 for clothes and all other expenses. Even though she bought her clothes on the installment plan this wage was not sufficient for her maintenance and she was forced to accept assistance from her brother. She thought that if she could earn \$14 a week she would become self-supporting.

Another girl who boarded and who may be taken as a typical case of a worker living independently on earnings of \$10 a week gave her expenses as follows:

	For week.
Room.....	\$4.00
Food (breakfast, \$0.25; lunch, \$0.15; dinner, \$0.40).....	5.60
Carfare.....	.84
	10.44

Obviously she had no money for clothing or anything above a bare subsistence, and even so her expenses overbalanced her earnings. Until Christmas she had worked for an electrical company where she had received for piece work from \$25 to \$30 a week. Then the plant had closed. "For six weeks," she said, "I hunted for work, answering every 'ad' in the papers. Every time I looked up a place I found the room crowded with girls looking for work. The firm would take only a couple, then the rest would have to go away. Finally I got the job as packer with this candy firm, but I earn so much less that I find it hard to live."

Thus the industrial depression like a huge octopus with its tentacles of slackened production, unemployment, wage cuts, and reduced hour schedules was reaching out in all directions, drawing into its inexorable clutch vast numbers of wage-earning women and multiplying thereby their problems and hardships. Especially was this true for women in an industry like candy manufacturing since confections are rather generally labeled as luxuries, which during "hard times" are apt to be stricken off the consumers' list, in some cases from necessity and in others from economy.

The maintenance and dependency problems of women in this industry are sharpened by, but not confined to, a period of industrial depression. Normally so slender is the average candy worker's pay envelope, so many the demands made upon it—whether she is married or single, or whether she is aiding in the support of others or not—that very clever manipulation of the contents is necessary to enable her to weather the vicissitudes inherent in her industrial job; to permit her to steer a safe course between the Scylla of present urgent needs and the Charybdis of possible future misfortunes. Frequently, home responsibilities of a financial and domestic nature—that is, the making and keeping of a home, the care of a family, or the performance of household duties—complicate her existence beyond individual adjustment. Accordingly, when minimum wage laws guarantee to all working women a rate not only covering bare living expenses but allowing some margin for dependents or savings for future emergencies and when shorter hour laws insure women against the expenditure of too much of their time and energy in industrial employment, there will be made long strides forward toward the social betterment of a large and important part of the population.

APPENDIX A.

GENERAL TABLES.

TABLE I.—Total number of employees, male and female, and total earnings during each week of the year from February, 1920, to February, 1921, in 28 Chicago and 13 St. Louis factories.

Week ending—	Chicago (22 firms reporting slack summer season).		Chicago (6 firms reporting busy summer season).		St. Louis (13 firms reporting).	
	Number of employees.	Amount of pay roll.	Number of employees.	Amount of pay roll.	Number of employees.	Amount of pay roll.
Feb. 28.....	¹ 1,859	\$41,066.22	1,385	\$28,642.52	942	\$14,272.86
Mar. 6.....	2,706	60,516.44	1,343	28,034.83	1,011	14,657.52
Mar. 13.....	2,637	59,908.06	1,322	26,902.10	996	14,896.13
Mar. 20.....	2,748	57,987.30	1,089	22,981.57	1,017	15,119.46
Mar. 27.....	2,697	58,220.26	1,034	22,501.60	970	14,504.21
Apr. 3.....	2,656	56,988.22	1,061	20,522.22	923	14,332.64
Apr. 10.....	2,654	54,782.98	1,158	24,109.24	890	13,631.93
Apr. 17.....	2,719	56,997.06	1,161	24,857.41	884	13,518.42
Apr. 24.....	2,716	58,688.60	1,239	26,753.86	913	13,632.46
May 1.....	2,866	61,337.79	1,295	28,545.17	897	13,677.07
May 8.....	² 2,876	64,160.06	1,371	30,368.30	935	14,621.79
May 15.....	3,049	65,027.56	1,410	31,409.49	931	14,673.59
May 22.....	3,150	70,136.52	1,533	35,570.78	909	14,659.15
May 29.....	3,081	73,693.05	1,601	37,056.23	917	14,511.96
June 5.....	3,094	59,807.66	1,606	32,036.32	904	13,258.95
June 12.....	2,962	67,602.49	1,723	35,664.36	954	14,891.17
June 19.....	2,919	67,180.74	1,722	37,305.60	988	14,773.18
June 26.....	3,032	69,419.43	1,749	38,022.28	948	14,791.13
July 3.....	3,191	66,486.33	1,764	35,506.29	899	12,811.77
July 10.....	³ 2,983	53,600.27	1,752	32,393.20	868	10,437.27
July 17.....	3,155	68,937.60	1,775	38,429.68	934	14,800.56
July 24.....	3,278	72,214.98	1,757	38,501.17	942	12,851.87
July 31.....	3,296	72,462.62	1,711	37,391.05	920	14,485.76
Aug. 7.....	3,220	72,416.92	1,756	34,557.52	962	15,005.08
Aug. 14.....	3,364	74,394.98	1,718	38,178.36	963	15,394.46
Aug. 21.....	3,334	73,429.16	1,704	37,716.78	1,019	15,599.29
Aug. 28.....	3,441	76,415.11	1,704	39,317.79	1,047	16,591.13
Sept. 4.....	3,425	76,751.00	1,756	40,635.33	1,048	16,807.67
Sept. 11.....	3,352	71,003.81	1,750	33,196.92	1,118	14,828.55
Sept. 18.....	3,533	81,117.38	1,777	40,155.82	1,101	17,692.91
Sept. 25.....	² 3,552	82,142.13	1,738	39,960.54	1,080	17,855.42
Oct. 2.....	3,511	82,353.14	1,547	34,662.50	1,130	18,022.55
Oct. 9.....	3,590	80,432.67	1,287	29,056.11	1,125	19,021.92
Oct. 16.....	3,484	77,635.28	1,145	26,738.52	1,102	18,080.86
Oct. 23.....	3,376	79,065.41	1,366	29,530.78	1,100	18,014.71
Oct. 30.....	3,390	75,647.93	1,303	30,357.48	1,081	16,453.70
Nov. 6.....	3,175	71,113.74	1,213	26,550.43	971	14,641.38
Nov. 13.....	3,114	70,896.70	1,100	26,777.26	942	15,282.81
Nov. 20.....	2,990	63,533.43	1,017	28,270.45	921	14,946.92
Nov. 27.....	2,926	61,214.79	1,059	26,135.76	889	13,406.84
Dec. 4.....	2,671	65,910.17	1,188	31,295.45	881	15,065.85
Dec. 11.....	2,793	63,879.64	1,138	31,813.42	853	15,112.60
Dec. 18.....	2,633	58,356.00	1,121	27,606.47	797	14,054.76
Dec. 25.....	2,321	44,503.57	947	18,269.65	654	11,203.10
Jan. 1.....	1,838	34,964.11	378	7,992.23	470	5,934.95
Jan. 8.....	2,152	42,008.40	585	13,582.53	593	8,262.75
Jan. 15.....	2,193	44,782.43	775	18,716.97	721	11,036.17
Jan. 22.....	2,145	44,148.04	884	19,758.49	734	12,353.11
Jan. 29.....	2,322	48,986.81	1,071	22,946.41	774	12,007.64
Feb. 5.....	2,350	50,535.29	1,167	24,584.47	783	12,322.98
Feb. 12.....	2,475	52,035.03	1,282	26,900.89	760	12,003.14
Feb. 19.....	2,482	52,422.83	1,303	28,104.02	683	16,267.26
Total.....	151,540	3,309,320.14	70,340	1,549,663.59	47,740	746,821.36
Weekly average.....	2,914.2	63,640.77	1,352.7	29,801.22	918	14,361.94

¹ Exclusive of two firms not reporting.

² One firm not reporting.

³ Includes one firm reporting men only for this week.

TABLE II.—*Week's earnings, by hours actually worked—late pay-roll period.*

Week's earnings.	Number of women reported. ¹		Number of women who worked—															
			Under 24 hours.		24 and under 27 hours.		27 and under 30 hours.		30 and under 33 hours.		33 and under 36 hours.		36 and under 39 hours.		39 and under 42 hours.		42 and under 44 hours.	
	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.
Under \$1.....	3	2	3	2														
\$1 and under \$2.....	12	20	11	20	1													
\$2 and under \$3.....	34	4	34	4														
\$3 and under \$4.....	20	5	20	5														
\$4 and under \$5.....	14	6	14	6														
\$5 and under \$6.....	37	4	34		3	4												
\$6 and under \$7.....	29	17	11	1	13	2		1	3	5		1	7					
\$7 and under \$8.....	33	10	11		13	2		1	8		2	2	2			2		
\$8 and under \$9.....	77	42	4		45	1			10		3	2	1			2		
\$9 and under \$10.....	78	45	2		26				7		24	2	17			1	2	
\$10 and under \$11.....	63	82			7				2		8	2	5			5	13	
\$11 and under \$12.....	82	45	2		3	1			2		11	3	2			3		
\$12 and under \$13.....	114	94			2				3		15	6	1			2	10	
\$13 and under \$14.....	71	18	1		2				4	1	4	3	7			1	4	
\$14 and under \$15.....	157	30			2				1		3	4	8			1	10	
\$15 and under \$16.....	153	26		1					4		2		8			2	18	
\$16 and under \$17.....	114	29	1		1				3		3		1			1	2	
\$17 and under \$18.....	89	12	1		1				2		2		1			2	3	
\$18 and under \$19.....	62	20	1		1				1		1		1			4		
\$19 and under \$20.....	46	8			1		1				1		3			5		
\$20 and under \$21.....	48	10			1								1			5		
\$21 and under \$22.....	17	2														2		
\$22 and under \$23.....	29	8											2					
\$23 and under \$24.....	13	3														1		
\$24 and under \$25.....	12	1					1									1		
\$25 and under \$30.....	40		1				2			1							1	
\$30 and under \$35.....	12	1																
\$35 and under \$40.....	3	2																
\$40 and over.....	7	1	1								1					1		
Total.....	1,469	547	152	39	120	10	40	2	80	7	65	7	72	22	105	21	70	18
Median earnings.....	\$14.43	\$11.80	\$4.55	\$1.90	\$8.65	(²)	\$9.00	(²)	\$10.15	(²)	\$12.05	(²)	\$11.75	\$9.00	\$13.25	\$9.90	\$14.10	\$9.55

Number of women who worked—

Week's earnings.	44 hours.		Over 44 and under 48 hours.		48 hours.		Over 48 and under 50 hours.		50 hours.		Over 50 and under 54 hours.		54 hours.		Over 54 hours.		44 hours and over.		
	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	
	\$7 and under \$8.....				1														
\$8 and under \$9.....	1			29										1					30
\$9 and under \$10.....			1	7		2		3				4		7					23
\$10 and under \$11.....		1	3	23		26						4		21					3
\$11 and under \$12.....	7	3	3	13			2	7				4		13					40
\$12 and under \$13.....	15	2	1	20	3	10	3	3	30	5	1	9		40					89
\$13 and under \$14.....	10		10	7	1	4	5	1						4			1		26
\$14 and under \$15.....	8		17	7	74	3	1	1	8		9	4		11	4				121
\$15 and under \$16.....	32		2	3	36	3	3	2	28	1	21	9		10		4			122
\$16 and under \$17.....	24		12	8	29		4	6	22		7	1		9	2	3			100
\$17 and under \$18.....	19	1	4	3	30	1	1	2	8		9			5	6				77
\$18 and under \$19.....	17	1	6	2	15	3		2	3		8	1		10	5				54
\$19 and under \$20.....	9	2	5	1	15			1	3		1			4	2				35
\$20 and under \$21.....	20		1	1	8	1		1	5		5	1		4	3	2			42
\$21 and under \$22.....	7				4						1			2	3				15
\$22 and under \$23.....	10		3		11		1				1	4		4	1				27
\$23 and under \$24.....	5	1	1	1	2				1		3			1					12
\$24 and under \$25.....	1		1		5						1					2	1		10
\$25 and under \$30.....	11				9		1		3		7					4			35
\$30 and under \$35.....	2		1		7	1		1			1					1			12
\$35 and under \$40.....	1				1									1	2				3
\$40 and over.....	1		2								1			1					4
Total.....	200	11	73	126	249	55	21	31	111	6	76	32		148	35	12		765	421
Median earnings.....	\$17.15	(²)	\$15.75	\$11.25	\$16.35	\$10.95	\$14.50	\$13.50	\$15.65	(²)	\$17.00	\$12.45		\$12.80	\$19.25	(²)		\$16.45	\$12.45

¹ Night workers not included.

² Not computed, owing to small number involved.

TABLE III.—*Week's earnings, by years in the trade—late pay-roll period.*

Week's earnings.	Number of women reported. ¹		Number of women who had been in the trade—																				
			Under 3 months.		3 and under 6 months		6 months and under 1 year.		1 and under 2 years.		2 and under 3 years.		3 and under 4 years.		4 and under 5 years.		5 and under 10 years.		10 and under 15 years.		15 years and over.		
	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	
Under \$1.....																							
\$1 and under \$2.....	2	2		1		1							1				1						
\$2 and under \$3.....	7	2	2				3		2					1				1					
\$3 and under \$4.....	4		1				1						2										
\$4 and under \$5.....	4	1	2		2													1					
\$5 and under \$6.....	11		2		2				2				3									2	
\$6 and under \$7.....	14	10	7	2	2	1	1	3	2	2		2		1							1		
\$7 and under \$8.....	13	6	2	1		1	2	4	4	2	1	1	1	1		2	1						
\$8 and under \$9.....	44	28	3	7	2	3	8	8	7	6	7	2	1			9	1	2	1	1			
\$9 and under \$10.....	51	31	8	6	3	9	6	2	6	6	11	3	5		2	1	6	3					
\$10 and under \$11.....	27	63	5	12	3	18	4	9		8	5	3	3	6		1	6	3	1			1	3
\$11 and under \$12.....	39	37	5	8	5	2	10	7	6	7	4	6	5	3	1	2	3	2					
\$12 and under \$13.....	76	80	28	2	1	9	17	24	10	10	6	12	4	7	6	6	5	6	3		1	1	3
\$13 and under \$14.....	43	16	9	1	4	2	8	3	11	1	5	1	2	2	2	2	2	2					
\$14 and under \$15.....	91	27	16	1		12	1	19	7	15	4	9	2	3	2	8	2	8	1	1	2		5
\$15 and under \$16.....	112	27	7		4		17	5	21	2	23	5	10	3	8	5	16	5	6				3
\$16 and under \$17.....	83	25			2	2	9	2	22	3	15		10	3	9	2	10	7	4	3	2		1
\$17 and under \$18.....	79	12	2		1	1	7	1	15	1	10	1	12		17		11	2	4	3			3
\$18 and under \$19.....	57	13			1	1	3		11		13	1	12		6		6	5	3	3	2		4
\$19 and under \$20.....	52	5			1	1	2		8		9		8		5		14	2	4	1	2		1
\$20 and under \$21.....	47	7			1		1		8		6		4		3	1	15	1	3	1	5		4
\$21 and under \$22.....	19	2			1		1		3		3	1	2		2	1	2		3		3		
\$22 and under \$23.....	27	6					3		2		2		7		4		6	3	2	2	3		1
\$23 and under \$24.....	17	2						2			2		2		1		8		3		1		
\$24 and under \$25.....	15	1					1		1		3		1		2		3		3		1		1
\$25 and under \$30.....	37				1		1		3		8		4		3		7		5		5		
\$30 and under \$35.....	16	1						1	1		5				2		1		2		1		5
\$35 and under \$40.....	3													1			2						
\$40 and over.....	6	1															2		2		2		1
Total.....	996	405	94	41	47	50	124	73	160	52	145	40	103	28	87	22	145	46	55	20	36		33
Median earnings.....	\$15.65	\$12.30	\$12.45	\$10.30	\$13.90	\$10.55	\$14.10	\$12.30	\$15.70	\$11.30	\$16.10	\$12.25	\$17.15	\$12.55	\$17.10	\$13.50	\$17.40	\$15.40	\$18.85	\$17.35	\$21.65		\$16.50

¹ 9 night workers who gave personal information not included.

TABLE IV.—Weekly rates of time workers, by occupation ¹—early and late pay-roll periods.

Weekly rate.	All occupations.				Number of women time workers who were—											
					Forewomen.				Dippers.				Machine operators.			
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.	
	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.
\$7 and under \$8.....	1	1														
\$8 and under \$9.....	2															
\$9 and under \$10.....	1	1														
\$10 and under \$11.....	4	8	40	141										1		1
\$11 and under \$12.....	15	38	21	23										5	12	24
\$12 and under \$13.....	58	126	198	118					4					2	3	2
\$13 and under \$14.....	47	32	46	21					7	15				22	32	23
\$14 and under \$15.....	122	256	36	34					9					3	2	3
\$15 and under \$16.....	577	225	34	42					6					9	5	12
\$16 and under \$17.....	293	193	15	17		1		1	61	13				3	9	117
\$17 and under \$18.....	229	120	6	11	2	1		1	16	8				5	2	70
\$18 and under \$19.....	70	58	14	20					12					39	59	14
\$19 and under \$20.....	61	36	9	10	2		3	3	29	5				53	30	9
\$20 and under \$21.....	31	45	10	10	6	6	6	4	14	10				4	4	1
\$21 and under \$22.....	16	16	5	4	4	1	2	4	7	12				3	9	8
\$22 and under \$23.....	23	32	5	10	8	2	2	6	6	12				2	2	2
\$23 and under \$24.....	2	15	1	3	3	3	1	1	6	18				3	3	1
\$24 and under \$25.....	10	10	1	2	4	7	1	2	2	11				1		1
\$25 and under \$30.....	32	40		3	20	23			3	3						
\$30 and under \$35.....	5	9	1		5	8		1	8	11				3		
\$35 and under \$40.....	2	2		2	2	1		2								
\$40 and over.....	6	3	1	1	6	3		1								
Total.....	1,607	1,266	444	482	59	58	20	25	182	129	69	75	242	268	151	83

¹ Night workers not included.

IN CHICAGO AND ST. LOUIS.

TABLE IV.—Weekly rates of time workers, by occupation—early and late pay-roll periods—Continued.

Weekly rate.	Number of women time workers who were—											
	Packers and wrappers.				In all other occupations reported.				In occupations not reported.			
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.	
	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.	Early pay roll.	Late pay roll.
\$7 and under \$8.....					1	1						
\$8 and under \$9.....	2											
\$9 and under \$10.....	1			3								
\$10 and under \$11.....	3	5	4	86	1	2	13	28				
\$11 and under \$12.....	4	35	10	16	3		3	3	2	3		
\$12 and under \$13.....	38	54	62	44	17	22	28	29	1	3		
\$13 and under \$14.....	27	26	14	13	10	5	8	2	1			
\$14 and under \$15.....	65	138	14	14	14	50	3	3	25	1		
\$15 and under \$16.....	305	99	11	20	54	43	5	3	10			
\$16 and under \$17.....	186	97	7	7	49	28	2	4	3			
\$17 and under \$18.....	142	63	3	4	20	19	2	2		2		
\$18 and under \$19.....	26	25	4	5	11	15	1	2		2		
\$19 and under \$20.....	19	18	2	3	17	7	2					
\$20 and under \$21.....	11	14	3	3	4	9			1	2		
\$21 and under \$22.....	5		1			2						
\$22 and under \$23.....	1	8	1	1	8	4	1					
\$23 and under \$24.....		1						1				
\$24 and under \$25.....	2				1							
\$25 and under \$30.....	1	5			3	1						
\$30 and under \$35.....						1						
\$35 and under \$40.....						1						
Total.....	838	588	136	219	243	210	68	80	43	13		

TABLE V.—*Week's earnings, by occupation—early pay-roll period.*

CHICAGO.

Week's earnings.	All women reported. ¹	Number of women earning each specified amount.					
		Fore-women.	Dippers.	Machine operators.	Packers and wrappers.	Other occupations reported.	Occupation not reported.
Under \$1.....	4						
\$1 and under \$2.....	30				3	1	
\$2 and under \$3.....	31			5	14	4	2
\$3 and under \$4.....	41			1	15	5	4
\$4 and under \$5.....	20			3	31	1	2
\$5 and under \$6.....	24			2	11	4	2
\$6 and under \$7.....	44			3	13	3	5
\$7 and under \$8.....	29			3	28	8	2
\$8 and under \$9.....	48			3	19	4	1
\$9 and under \$10.....	42			7	19	14	1
\$10 and under \$11.....	74			3	11	7	5
\$11 and under \$12.....	62			11	3	44	2
\$12 and under \$13.....	77			7	4	40	5
\$13 and under \$14.....	98			12	10	46	7
\$14 and under \$15.....	110	1		12	12	62	9
\$15 and under \$16.....	224			21	18	50	18
\$16 and under \$17.....	172	2		21	56	119	26
\$17 and under \$18.....	151	2		25	28	98	16
\$18 and under \$19.....	271	1		24	28	74	23
\$19 and under \$20.....	161	2		53	25	156	35
\$20 and under \$21.....	98	3		25	29	82	20
\$21 and under \$22.....	69	3		24	20	41	9
\$22 and under \$23.....	62	5		15	8	34	9
\$23 and under \$24.....	64	2		12	11	23	10
\$24 and under \$25.....	35			17	4	32	8
\$25 and under \$30.....	151	25		13	1	18	3
\$30 and under \$35.....	51	5		55	6	54	11
\$35 and under \$40.....	14	3		8		16	2
\$40 and over.....	11	6		5		3	
Total.....	2,268	60	418	302	1,161	276	51
Median earnings.....	\$17.05	\$25.35	\$18.85	\$16.30	\$16.50	\$16.50	\$10.75

ST. LOUIS.

Under \$1.....	3					2	1
\$1 and under \$2.....	4					1	1
\$2 and under \$3.....	16		2	2	8	3	3
\$3 and under \$4.....	3			1	1	2	
\$4 and under \$5.....	15		1	7	4	4	3
\$5 and under \$6.....	7		3	2	2	2	
\$6 and under \$7.....	18		1	11	4	4	2
\$7 and under \$8.....	10		3		5	2	2
\$8 and under \$9.....	20			7	11	2	
\$9 and under \$10.....	25		6	6	9	4	4
\$10 and under \$11.....	61		13	19	13	16	
\$11 and under \$12.....	45		12	10	15	8	
\$12 and under \$13.....	126		18	59	41	8	
\$13 and under \$14.....	44		10	13	16	5	
\$14 and under \$15.....	47		11	13	19	4	
\$15 and under \$16.....	43	1	8	16	14	4	
\$16 and under \$17.....	29	1	10	3	12	3	
\$17 and under \$18.....	18		8	2	6	2	
\$18 and under \$19.....	24	2	9	4	8	1	
\$19 and under \$20.....	9	1	3		3	2	
\$20 and under \$21.....	15	6	3	1	4	1	
\$21 and under \$22.....	6	3	2	1			
\$22 and under \$23.....	8	2		2	3		
\$23 and under \$24.....	2	1			1		
\$24 and under \$25.....	1	1					
\$25 and under \$30.....	8		2		6		
\$30 and under \$35.....	1	1					
\$35 and under \$40.....							
\$40 and over.....	1	1					
Total.....	609	20	125	187	204	73	
Median earnings.....	\$12.60	\$20.85	\$13.35	\$12.35	\$12.75	\$11.30	

¹ Night workers not included.

TABLE VI.—*Week's earnings of time workers and piece workers, by occupation—early pay-roll period.*¹

Week's earnings.	Number of women reported.				Number of women who were—									
					Forewomen.				Dippers.					
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.			
	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.		
Under \$1.....	4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
\$1 and under \$2.....	28	2	4	.....	.....	.....	.....	.....	3	2	.....	.....
\$2 and under \$3.....	31	.....	14	2	.....	.....	.....	.....	1	.....	.....	2
\$3 and under \$4.....	40	1	3	.....	.....	.....	.....	.....	3	.....	.....	.....
\$4 and under \$5.....	18	2	15	.....	.....	.....	.....	.....	2	1	1	.....	
\$5 and under \$6.....	23	1	7	.....	.....	.....	.....	.....	2	.....	3	.....	
\$6 and under \$7.....	38	3	14	3	.....	.....	.....	.....	3	.....	1	.....	
\$7 and under \$8.....	26	2	6	4	.....	.....	.....	.....	1	2	2	1
\$8 and under \$9.....	43	4	17	2	.....	.....	.....	.....	6	1	.....	.....
\$9 and under \$10.....	39	3	20	3	.....	.....	.....	.....	3	.....	5	1
\$10 and under \$11.....	64	8	49	9	.....	.....	.....	.....	8	3	8	4
\$11 and under \$12.....	46	7	32	9	.....	.....	.....	.....	4	3	7	4
\$12 and under \$13.....	56	14	107	15	.....	.....	.....	.....	6	6	16	2
\$13 and under \$14.....	73	10	33	10	1	.....	.....	.....	8	4	7	3
\$14 and under \$15.....	73	20	28	10	.....	.....	.....	.....	11	10	4	3
\$15 and under \$16.....	79	18	30	10	.....	.....	.....	.....	14	5	6	2
\$16 and under \$17.....	199	22	15	13	2	.....	.....	.....	17	8	5	5
\$17 and under \$18.....	137	26	7	10	2	.....	.....	.....	18	5	1	7
\$18 and under \$19.....	109	26	7	10	2	.....	.....	.....	30	19	.....	9
\$19 and under \$20.....	224	35	8	16	1	.....	.....	.....	2	.....	.....	.....
\$20 and under \$21.....	123	21	6	3	1	.....	.....	.....	15	6	1	2
\$21 and under \$22.....	58	34	11	4	3	.....	.....	.....	9	15	1	2
\$22 and under \$23.....	34	27	4	1	3	.....	.....	.....	3	4	.....	.....
\$22 and under \$23.....	23	32	6	2	5	.....	.....	.....	2	1	.....	.....
\$23 and under \$24.....	24	32	1	1	2	.....	.....	.....	1	3	.....	.....
\$24 and under \$25.....	7	25	1	.....	.....	.....	.....	.....	1	2	.....	.....
\$25 and under \$30.....	51	97	1	7	25	.....	.....	.....	7	48	.....	2
\$30 and under \$35.....	7	43	1	.....	5	.....	.....	.....	1	27	.....	.....
\$35 and under \$40.....	3	11	.....	.....	3	.....	.....	.....	.....	8	.....	.....
\$40 and over.....	6	5	1	.....	6	.....	.....	.....	1	5	.....	.....
Total.....	1,607	523	444	134	59	20	182	222	69	49
Median earnings.....	\$16.00	\$20.30	\$12.35	\$14.50	\$25.40	\$20.85	\$16.95	\$22.55	\$12.45	\$16.50

Number of women who were—

Week's earnings.	Number of women who were—															
	Machine operators.				Packers and wrappers.				In all other occupations reported.				In occupations not reported.			
	Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.		Chicago.		St. Louis.	
	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.	Time workers.	Piece workers.
Under \$1.					3		2									
\$1 and under \$2.	5		2		14		1		4		1					
\$2 and under \$3.	6		8		15		3		5		3			2		
\$3 and under \$4.	4		1		30	1	2		1					4		
\$4 and under \$5.			7		11		4		4					2		
\$5 and under \$6.	1		2		12	1	2		4		3			1		
\$6 and under \$7.	3		11		23	2	1		3					5	1	
\$7 and under \$8.	2		7		18		2		8		1	1		1	1	
\$8 and under \$9.	7		4		15	3	2	3	4		2			1		
\$9 and under \$10.	11		7		15	3	9	2	14		2			1		
\$10 and under \$11.	2		4		13	3	7	2	7		1			1		
\$11 and under \$12.	4		17	1	41	2	8	4	12		4			5	1	
\$12 and under \$13.	4		8	1	29	3	9	4	12	2	16			1		
\$13 and under \$14.	7		45	13	36	7	38		3	1	8			6		
\$14 and under \$15.	9	1	11	1	46	12	10	6	7	2	8				1	
\$15 and under \$16.	15	2	10	1	31	12	10	6	14	4	5			2		
\$16 and under \$17.	52		12	1	110	8	7	7	14	4	4			2	1	
\$17 and under \$18.	22	1	1	1	79	12	6	6	21	5	4			2		
\$18 and under \$19.	23	1	1		48	16	4	2	14	1	2	1		3		
\$19 and under \$20.	22	2		3	139	11	4	4	18	4	1	1				
\$20 and under \$21.	25				62	13	2	1	31	3	1	1				
\$21 and under \$22.	14	3	1		23	15	3	1	17	2	2			3		
\$22 and under \$23.	2	2		1	17	16			9			1			1	
\$23 and under \$24.	2	7	2		5	13	1	2	8	1					1	
\$24 and under \$25.	3				8	17		1	10		1					
\$25 and under \$30.		1			3	13			7	1				1		
\$30 and under \$35.	1	5			8	43	1	5	2							
\$35 and under \$40.					15	15			10	1						
\$40 and over.					3				1	1						
Total	242	25	151	23	839	241	136	58	242	28	68	4	43	7		
Median earnings.	\$15.85	\$22.05	\$12.20	\$12.75	\$15.75	\$20.95	\$12.45	\$15.00	\$16.45	\$16.00	\$11.25	(²)	\$9.90	(²)		

¹ Night workers not included.

² Not computed, owing to small number involved.

WOMEN IN THE CANDY INDUSTRY

TABLE VII.—Year's earnings of women employees for whom 52-week pay-roll records were secured, by occupation.

FEBRUARY, 1920, TO FEBRUARY, 1921.

Year's earnings.	Number of women reported.		Number of women who were—								
			Dippers.		Machine operators.		Packers and wrappers.		In all other occupations reported.		
	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	Chi-cago.	St. Louis.	
\$350 and under \$400.....	1		1								
\$400 and under \$450.....	1				1						1
\$450 and under \$500.....	2	3			1		1	2			
\$500 and under \$550.....	2	3					3	2			
\$550 and under \$600.....	8	14		3			3	7	6	1	2
\$600 and under \$650.....	10	9	1	3	2		3	7	2		1
\$650 and under \$700.....	6	16		6	2		2	4	6		2
\$700 and under \$750.....	18	10	2	3	4		1	7	5	5	1
\$750 and under \$800.....	20	10	3	3	7		2	9	5	1	1
\$800 and under \$850.....	29	6	4	3	12			10	2	3	1
\$850 and under \$900.....	26	7	2	3	6			14	1	4	3
\$900 and under \$950.....	22	5	7	3	2			10	1	3	1
\$950 and under \$1,000.....	17	3	6		1		1	9	1	1	1
\$1,000 and under \$1,100.....	30		5		5			17		3	
\$1,100 and under \$1,200.....	22	2	3	2	3			14		2	
\$1,200 and under \$1,400.....	13		7					6			
\$1,400 and under \$1,600.....	2		1					1			
\$1,600 and under \$1,800.....	5		4							1	
\$1,800 and under \$2,000.....	2		2								
\$2,000 and over.....	1		1								
Total.....	237	88	49	29	46	15	118	31	24	13	
Median earnings.....	\$891	\$697	\$988	\$742	\$825	\$625	\$893	\$696	\$875	(1)	

1 Not computed owing to small number involved.

TABLE VIII.—Year's earnings, by weeks worked.

Year's earnings.	Total number of women reported.		Number of women who worked—																	
			Under 32 weeks.		32 and under 36 weeks.		36 and under 40 weeks.		40 and under 44 weeks.		44 and under 46 weeks.		46 and under 48 weeks.		48 and under 50 weeks.		50 and under 52 weeks.		52 weeks.	
	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.	Chi- cago.	St. Louis.
\$350 and under \$400	1		1																	
\$400 and under \$450	1		1																	
\$450 and under \$500	2	3	2							2										
\$500 and under \$550	2	3												1						
\$550 and under \$600	8	14							1					1					2	1
\$600 and under \$650	10	9						1	2	1				3	5				1	3
\$650 and under \$700	6	16			1			1	2					1	2			2	1	4
\$700 and under \$750	18	10			1				2					1	3			1	1	5
\$750 and under \$800	20	10							1					4	5			4	5	2
\$800 and under \$850	29	6							2					4	3			6	3	5
\$850 and under \$900	26	7					1		5					4	2			7	3	2
\$900 and under \$950	22	5							2					2	2			6		11
\$950 and under \$1,000	17	3							2					1	4			5		12
\$1,000 and under \$1,100	30								1					1	1			6		8
\$1,100 and under \$1,200	22	2							2					4	1			12		10
\$1,200 and under \$1,400	13								1					4	2			6		9
\$1,400 and under \$1,600	2													3	3			3		7
\$1,600 and under \$1,800	5													3	1			1		1
\$1,800 and under \$2,000	2													1	1			3		1
\$2,000 and over	1													1	2			2		1
Total	237	88	4		2		3	1	21	3	12			29	8	23	14	66	23	77
Median earnings	\$891	\$697	(1)		(1)		(1)	(1)	\$825	(1)	(1)			\$831	(1)	\$792	(1)	\$950	\$696	\$940
																				\$795

¹ Not computed, owing to small number involved.

IN CHICAGO AND ST. LOUIS.

TABLE IX.—Average retail prices of certain articles of food, of dry goods, and of coal—Chicago and St. Louis, February 15, 1921.¹

FOOD.				
Article.	Unit.	Chicago.	St. Louis.	Amount that St. Louis prices fall below (—) or exceed (+) Chicago prices.
Sirloin steak.....	Pound	\$0.362	\$0.347	—\$0.015
Round steak.....	do	.293	.329	+ .036
Rib roast.....	do	.293	.297	+ .004
Chuck roast.....	do	.206	.20	— .006
Plate beef.....	do	.145	.152	+ .007
Pork chops.....	do	.282	.272	— .01
Bacon.....	do	.504	.383	— .121
Ham.....	do	.51	.47	— .04
Lamb.....	do	.322	.324	+ .002
Hens.....	do	.397	.387	— .01
Salmon (canned), red.....	do	.378	.363	— .015
Milk, fresh.....	Quart	.14	.15	+ .01
Milk, evaporated.....	15-16 ounce can.	.139	.139	.....
Butter.....	Pound	.523	.559	+ .036
Oleomargarine.....	do	.295	.337	+ .042
Nut maragarine.....	do	.278	.301	+ .023
Cheese.....	do	.397	.357	— .040
Lard.....	do	.198	.143	— .055
Crisco.....	do	.259	.257	— .002
Eggs, strictly fresh.....	Dozen	.45	.397	— .053
Bread.....	Pound	.113	.112	— .001
Flour.....	do	.055	.058	+ .003
Corn meal.....	do	.061	.036	— .025
Rolled oats.....	do	.096	.098	+ .002
Corn flakes.....	8-ounce package.	.13	.124	— .006
Cream of wheat.....	28-ounce package	.286	.306	+ .02
Macaroni.....	Pound	.193	.211	+ .018
Rice.....	do	.098	.093	— .005
Beans, navy.....	do	.081	.077	— .004
Potatoes.....	do	.021	.024	+ .003
Onions.....	do	.033	.033	.....
Cabbage.....	do	.035	.035	.....
Beans, baked.....	No. 2 can	.148	.127	— .021
Corn, canned.....	do	.157	.158	+ .001
Peas, canned.....	do	.158	.165	+ .007
Tomatoes, canned.....	do	.119	.115	— .004
Sugar, granulated.....	Pound	.084	.082	— .002
Tea.....	do	.65	.706	+ .056
Coffee.....	do	.336	.343	+ .007
Prunes.....	do	.23	.227	— .003
Raisins.....	do	.316	.32	+ .004
Bananas.....	Dozen	.40	.372	— .028
Oranges.....	do	.452	.448	— .004
Total.....		10,623	10,434	— .189
COAL. ²				
Pennsylvania anthracite:				
Stove.....	Ton	\$15.28	\$17.163	+\$1.883
Chestnut.....	do	15.52	17.163	+1.643
Bituminous.....	do	9.107	7.75	—1.357
Total.....		39.907	42.076	+2.169
DRY GOODS.				
Calico, 24 to 25 inch.....	Yard	\$0.132	\$0.131	—\$0.001
Percale.....	do	.284	.262	— .022
Gingham, apron, 27 to 28 inch.....	do	.159	.154	— .005
Gingham, dress, 27-inch.....	do	.255	.238	— .017
Gingham, dress, 32-inch.....	do	.579	.593	+ .014
Muslin, bleached.....	do	.228	.208	— .02
Sheeting, bleached, 9-4.....	do	.637	.67	+ .033
Sheets, bleached, 81 by 90.....	Each	1.53	1.729	+ .199
Outing flannel, 27 to 28 inch.....	Yard	.236	.238	+ .002
Flannel, white wool, 27-inch.....	do	1.10	.985	— .115
Blankets, cotton, 66 by 80.....	Pair	5.098	4.916	— .182
Total.....		10,238	10,124	— .114

¹ U. S. Department of Labor. MONTHLY LABOR REVIEW, vol. 12, No. 5, May, 1921, pp. 20-28 and 33-35, and vol. 14, No. 5, May, 1922, pp. 53-58.

² Figures given in table are cost per ton of 2,000 pounds for household use.

TABLE X.—*Nativity of the women employees who supplied personal information.*

City.	Number of women reporting.	Number and per cent who were—			
		Native-born white.		Foreign-born.	
		Number.	Per cent.	Number.	Per cent.
Chicago.....	1,128	741	65.7	387	34.3
St. Louis.....	416	392	94.2	24	5.8
Total.....	1,544	1,133	73.4	411	26.6

TABLE XI.—*Age of the women employees who supplied personal information.*

City.	Number of women reporting.	Number and per cent whose age was—							
		16 and under 18 years.		18 and under 20 years.		20 and under 25 years.		25 and under 30 years.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Chicago.....	1,140	203	17.8	205	18.0	240	21.1	153	13.4
St. Louis.....	416	115	27.6	83	20.0	93	22.4	30	7.2
Total.....	1,556	318	20.4	288	18.5	333	21.4	183	11.8

City.	Number of women reporting.	Number and per cent whose age was—							
		30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 years and over.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Chicago.....	1,140	179	15.7	106	9.3	47	4.1	7	0.6
St. Louis.....	416	64	15.4	23	5.5	7	1.7	1	.2
Total.....	1,556	243	15.6	129	8.3	54	3.5	8	.5

TABLE XII.—*Age at beginning work of the women employees who supplied personal information.*

Age at beginning work.	Total number reporting.	Number and per cent in each age group—			
		Chicago.		St. Louis.	
		Number.	Per cent.	Number.	Per cent.
Under 14 years.....	75	42	56.0	33	44.0
14 and under 15 years.....	427	291	68.1	136	31.9
15 and under 16 years.....	215	151	70.2	64	29.8
16 and under 18 years.....	365	240	65.8	125	34.2
18 and under 20 years.....	90	62	68.9	28	31.1
20 and under 25 years.....	71	56	78.9	15	21.1
25 and under 30 years.....	36	27	75.0	9	25.0
30 and under 35 years.....	32	29	90.6	3	9.4
35 and under 40 years.....	20	18	90.0	2	10.0
40 and under 50 years.....	28	26	92.9	2	7.1
50 years and over.....	10	8	80.0	2	20.0
Total.....	1,369	950	69.4	419	30.6

WOMEN IN THE CANDY INDUSTRY

TABLE XIII.—*Conjugal condition of the women employees who supplied personal information.*

City.	Number of women reporting.	Number and per cent whose conjugal condition was—							
		Single.		Married.		Widowed.		Divorced.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Chicago.....	1,111	695	62.6	305	27.5	90	8.1	21	1.9
St. Louis.....	421	319	75.8	60	14.3	26	6.2	16	3.8
Total.....	1,532	1,014	66.2	365	23.8	116	7.6	37	2.4

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- Second Annual Report of the Director. 1920.
Third Annual Report of the Director. 1921.
Fourth Annual Report of the Director. 1922.