UNITED STATES DEPARTMENT OF LABOR
BULLETIN OF THE WOMEN'S BUREAU, No. 47

WOMEN IN THE FRUIT-GROWING AND CANNING INDUSTRIES IN THE STATE OF WASHINGTON

A STUDY OF HOURS, WAGES, AND CONDITIONS

[PUBLIC—No. 259—66TH CONGRESS]

[H. R. 13229]

An Act To establish in the Department of Labor a bureau to be known as the Women's Bureau

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of Labor a bureau to be known as the Women's Bureau.

SEC. 2. That the said bureau shall be in charge of a director, a woman, to be appointed by the President, by and with the advice and consent of the Senate, who shall receive an annual compensation of $5,000. It shall be the duty of said bureau to formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment. The said bureau shall have authority to investigate and report to the said department upon all matters pertaining to the welfare of women in industry. The director of said bureau may from time to time publish the results of these investigations in such a manner and to such extent as the Secretary of Labor may prescribe.

SEC. 3. That there shall be in said bureau an assistant director, to be appointed by the Secretary of Labor, who shall receive an annual compensation of $3,500 and shall perform such duties as shall be prescribed by the director and approved by the Secretary of Labor.

SEC. 4. That there is hereby authorized to be employed by said bureau a chief clerk and such special agents, assistants, clerks, and other employees at such rates of compensation and in such numbers as Congress may from time to time provide by appropriations.

SEC. 5. That the Secretary of Labor is hereby directed to furnish sufficient quarters, office furniture, and equipment, for the work of this bureau.

SEC. 6. That this act shall take effect and be in force from and after its passage.

Approved, June 5, 1920.

APPLE PICKING

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

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UNITED STATES DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, June 30, 1925.

SIR: There is transmitted herewith the report of a survey of women employed in seasonal industries in the State of Washington. The survey was made in the summer and fall of 1923 and was requested by the Presidents' Council of Tacoma, an association made up of the presidents of 50 women's organizations. The survey was requested because of the need of definite information concerning the conditions of women employed on fruit ranches and in canneries. Mrs. Hildred Hawkins, industrial assistant, and Miss Caroline Manning, industrial supervisor, were in charge of the survey.

Miss Caroline Manning, Miss Mary V. Robinson, editor, Miss Blanche Halbert, research assistant, and Miss Loretta Sullivan, statistical clerk, collaborated in writing the report.

MARY ANDERSON, *Director.*

Hon. JAMES J. DAVIS,
Secretary of Labor.

WOMEN IN THE FRUIT-GROWING AND CANNING INDUSTRIES IN THE STATE OF WASHINGTON

PART I

INTRODUCTION

During the summer and fall of 1923 the Women's Bureau, in conjunction with the Children's Bureau of the United States Department of Labor, made a survey of the women and children employed in seasonal industries in the State of Washington, in response to requests from the following organizations: Presidents' Council of Tacoma (an association made up of the presidents of 50 women's organizations), the State League of Women Voters, the State Minute Women, and the National Board of Young Women's Christian Associations. Because of their interest in the welfare of all women workers, these organizations felt the need of definite information concerning the conditions under which women and children were employed in outdoor industries, and especially on fruit ranches, in Washington, since these types of employment were outside the jurisdiction of the industrial welfare committee of the State department of labor and industries. Consequently, these several organizations applied, through the Secretary of Labor, to the Women's Bureau and the Children's Bureau with the request that these two bureaus make a joint survey of the working and living conditions of women and children in certain agricultural industries—fruit growing in particular—in Washington. It was believed by the forces desiring this investigation that the information revealed by such a study would be of greatest benefit in securing proper legislation for the workers.

The two Federal bureaus, also realizing the value and importance of the requested investigation, decided to cooperate for this purpose, each agency collecting the data bearing on the problems with which it was specifically concerned.[1]

The Women's Bureau is charged with the task of formulating standards and policies to promote the welfare of wage-earning women, to improve their working conditions, to increase their efficiency, and

[1] This report is confined to the conditions of employment affecting women—those 16 years of age or over—who were working in the districts covered. The report on children is issued in a separate bulletin: U. S. Department of Labor, Children's Bureau. Child labor in the fruit and hop growing districts of the northern Pacific coast, Bul. 151.

to advance their opportunities for profitable employment. At the time the request for the survey was received—in the fall of 1922—the Women's Bureau in its brief history had made no definite study of women engaged in such outdoor pursuits as those which would be covered in the type of survey requested by the Washington organizations. The very fact that according to the 1920 census [2] a large group of women (12.7 per cent of the total number of wage-earning women in the country) were reported as engaged in agricultural pursuits, served as an inducement to the Women's Bureau to seize this opportunity to study the conditions of employment of a representative group of women working on ranches—a highly seasonal occupation. Moreover, closely allied with fruit-growing activities in Washington is the canning and preserving industry, also seasonal; in fact, the business of the grower and that of the canner so dovetail that the success of the one depends upon the success of the other. It seemed advisable, therefore, to all forces interested in the survey of women in outdoor work in Washington to include in the investigation the women employed in canneries and fruit warehouses.

A complicating feature of the study was the fact that seasonal agricultural work, such as the picking of berries and the harvesting of orchard fruits is done in many sections of the country largely by migrant laborers, and even the canning of such products is a form of employment which attracts to some degree migratory workers. The problems of these people differ in a number of respects from those of resident workers, since the former have very little control over the living conditions with which they are confronted while on the job.

The Women's Bureau survey in Washington was carried on from the middle of June to the middle of November, 1923, by personal canvass and was continued for several months by correspondence.

As a preliminary to the actual interviewing of employers and employees and the scheduling of information, consultations were held with authorities in the State, in both private and public positions, connected with the types of industry covered by the survey. To the State officials and the agricultural department of the State College of Washington especial credit is due for helpful information. The work of the agents also was much facilitated by the courtesy and interest shown by employers and employees during the interviews and by their continued cooperation in filling out questionnaires and returning them to the bureau after the field work was completed.

[2] U. S. Bureau of the Census. Fourteenth Census, 1920. Population, v. 4, Occupations, p. 34.

THE FRUIT-GROWING AND CANNING INDUSTRIES IN WASHINGTON

The State of Washington seemed especially well qualified as a place in which to study women's work on ranches and in canneries. The raising of small fruits, such as strawberries, raspberries, blackberries, and loganberries, and of the larger orchard fruits—apples, pears, peaches, and prunes—is an important feature in the State's activities.

Census figures [3] for 1919 show that 7,434 acres in Washington were given over to the cultivation of the various kinds of berries, and that 16,884,745 quarts of berries were produced. Of this number, strawberries were the most important crop, accounting for 6,377,368 quarts; raspberries and loganberries followed with 5,757,456 quarts, and blackberries and dewberries came last with 3,691,065 quarts.

In 1920 Washington had 7,964,167 apple trees of bearing age, New York being the only State that outranked it in this respect; in 1919 the State produced 21,568,691 bushels of apples, a far greater yield than that of any other State, New York falling behind this record by over 7,000,000 bushels. In the number of prune and plum trees of bearing age in 1920 (875,363) and in the number of bushels of such fruit produced in 1919 (785,920) Washington was surpassed by only two States, California and Oregon. In pear-raising also Washington had a creditable record, with 866,634 pear trees of bearing age in 1920 and 1,728,759 bushels of fruit produced in 1919.[4]

Washington is also an important State in the canning and preserving industry. The Bureau of the Census [5] shows that in 1921 it ranked first among the States in the value of its canned sea food and tenth in the value of its canned fruits and vegetables. The total value of all the canned products was $13,653,129, and the value of the canned sea food $6,193,458.[6] The State stood third in regard to the number of wage earners in the fish canneries and seventh in the number of wage earners in the fruit and vegetable canneries.[7] Salmon and clams constituted the greater part of the canned sea food. The canned fruits consisted chiefly of apples, berries, cherries, and pears. With the exception of Oregon, Washington produced more cases of canned berries (278,150) than did any other State, and, with the exception of New York, more cases of canned apples (439,969). Washington also took a leading part in the apple-drying industry. In regard to vegetables the principal canned product was beans.[8]

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[3] U. S. Bureau of the Census. Fourteenth Census, 1920. Agriculture, v. 6, pt. 3, p. 289.
[4] U. S. Bureau of the Census. Fourteenth Census, 1920. Agriculture, v. 6, pt. 3, p. 291.
[5] U. S. Bureau of the Census. Biennial Census of Manufactures: 1921. p. 53.
[6] Ibid, p. 64–65.
[7] Ibid, p. 53.
[8] Ibid, p. 62–63.

SCOPE AND METHOD

The survey necessitated the collection of data on many subjects and the analysis of many problems. In fact, the investigation covers two distinct kinds of work: the first, outdoor employment, which includes the women engaged in picking berries, prunes, apples, and pears, and in performing other orchard jobs; the second, indoor labor, which includes the women employed at canning vegetables, fruit, salmon, and clams, and at sorting and packing prunes, pears, and apples. The work done by the women in each of these lines is of short duration and seasonal, controlled by the length of the harvest season and by the supply, as well as the perishability, of the product.

The districts covered by the survey were confined to very small sections of the State. The Puyallup Valley, a section about 3 miles wide and 15 miles long on both sides of the Puyallup River, is the center of intensive berry culture. It has had a most dramatic development. Twenty-five years ago it was devoted to hop growing, but the market price of hops dropped from 42 cents in 1889 to 3 and 4 cents in 1897. It is probably due more to Mr. W. H. Paulhamus than to any other person that the prosperity of the valley was restored, since he saw the possibilities of cultivating the wild berry, which grew luxuriantly in the native black soil. By 1902 the cooperative marketing of raspberries was well established. The berry ranches vary in size from 2 or 3 acres to 10 acres, and the rancher usually has his home adjoining the field. The fields themselves are planted in orderly rows; they are not a tangle of briers, but are pruned, and the growing canes are trained on trellises. In July and August trainloads of fresh, firm berries from the valley are shipped daily in refrigerator cars for the eastern markets, and the local canneries use as many more. It has been estimated that 1 acre produces an average of 6,000 pounds of berries, the harvesting of which requires at least six pickers. This estimate means the possibility of 10,000 berry pickers needed to harvest the berry crop, and although part of the labor is done by resident ranchers, great numbers of "extra help," chiefly women and children, must be hired.

Since the valley is located very near Seattle and Tacoma, it enjoys excellent transportation facilities—street car service, bus lines, and railroads—and much of the labor comes from neighboring towns and cities. Pickers' quarters have been built to accommodate the seasonal influx of labor. A standard equipment, providing two rooms per acre and costing the rancher about $250, includes a furnished shack (the furnishings consisting of stove, bench, table, and bunks), toilets, and the installation of water.

The prune orchards visited during the survey were located in the southwestern part of the State, in Clarke County, just across the Columbia River from Portland on the Oregon side. Vancouver, Wash., has been the shipping center of this prune district for many years. Since the prunes raised here are dried for market, they are shaken from the trees onto the soft, well-cultivated soil when they are ripe. Women are employed to pick up the prunes as well as to sort them in the driers on the ranches. Much transient labor is needed to harvest this crop.

Two large apple raising districts were visited; both are just east of the Cascade range of mountains toward the central part of the State, which has developed tremendously in the last few years through irrigation projects. Yakima is the center of the more southern of these two districts and Wenatchee of the northern. Around Yakima soft fruits also are grown, so that women are found employed there in peach and pear as well as in apple orchards. These orchardists, like the berry and prune growers, are dependent on outside labor to get in the crop. From a statement made by the manager of the office of the United States Employment Bureau in Yakima and published in a local paper in October, 1923, the following quotation is taken:

> Those who came for work in the orchards or packing houses waited for work to pick up, hundreds camping in the tourist parks and other available sites. Camper pickers are still in greater demand by local growers than there are such travelers ready to go into the field. Approximately 150 men and women are employed from this bureau every day, and orchard work will continue for three to four weeks more. More family campers can be used readily in Yakima, but pickers who want room and board can better be accommodated in the Wenatchee Valley.

The apple and pear warehouses employing women on inside work also were located in the Yakima and Wenatchee districts. Most of the women were engaged in sorting and packing the apples in commercial warehouses situated alongside the railroads at shipping points, but some were employed in smaller warehouses located very near the orchards and operated by individual ranchers.

The salmon canneries included in the study were scattered along Puget Sound in the following centers: Anacortes, Bellingham, Blain, Everett, Friday Harbor, and Lummi Island. Aberdeen, Hoquiam, Westport, and Copalis Beach were the only places visited in connection with the study of the clam industry.

The fruit and vegetable canneries and fruit evaporators were more scattered than the other industry groups. In general they were located in the Puyallup berry valley, in the Yakima orchard valley, and also in towns along the railroad from Bellingham at the northern end of Puget Sound to Vancouver, Wash., on the Columbia River; that is, in the following places: Bellingham, Everett, Everson, Fern-

dale, Kent, Mayfield, North Puyallup, Olympia, Puyallup, Sedro-Woolley, Selah, Sumner, Sunnyside, Vancouver, and Yakima.

The investigation of hours, wages, and conditions of employment of women in the two broad occupational groups touched upon by the study—the outdoor and indoor industries—called for different methods of study and treatment.

The investigation was carried on along several lines in each industry covered. The absence of systematic records in agricultural employment was a great handicap. Bookkeeping frequently was so haphazard that it was difficult to get definite information concerning either hours worked or earnings of individual pickers. The ranchers who had reliable data were probably among the more progressive, and their books proved very valuable in arriving at trustworthy conclusions on wages of field workers. Some ranchers in their desire to cooperate kept individual pay records after the visit of the Women's Bureau agents and submitted them later. Several of the women pickers also were interested enough to send in statements of their earnings and time worked. In general it may be said that the data were collected either in interviews or by correspondence with the ranchers and their workers.

The rancher's questionnaire covered points on acreage, crop conditions, labor supply, policies, and housing. A quite different schedule was used in the personal interviews with the women, to record the many details sought, these being in general connected with the personal, family, and industrial history of the women. Their age, nativity, marital status, and living condition were recorded and supplemented by information concerning the number of persons and number of wage earners in the family, and their occupations, as well as the home duties and financial responsibilities of the women interviewed. The worker also was questioned not only about her present job, the type of work, the reason for entering upon it, the working hours, and the pay, but about her former jobs, the length of time held, and the reason for leaving such employment. The women were classified as to whether they were resident or migrant workers; if the latter, they were asked to give information about the living quarters which they occupied. Inspection of such quarters was made by the agents, who scheduled details as to kind. size, equipment, and facilities.

Since it was not possible at the time of such interviews to get all the information desirable and necessary for an analysis of seasonal work, the agents at the end of the harvest season sent questionnaires to some of the workers, requesting them to furnish data for their whole season's work on the ranches; that is, to state the over-all period of their employment and the actual number of days or weeks

worked; the days lost for various reasons; and the total earnings, including any bonus that was paid.

These questionnaires were sent to a selected group of women, to those who, when interviewed during the personal canvass, had promised to keep a detailed and systematic record of their season's work, and to those who had seemed especially interested, alert, and capable of supplying the desired information.

In the canneries where systematic pay rolls were kept, definite data about numbers of employees, hours, wages, and working conditions were scheduled by investigators from interviews with employers and managers, from inspection of plants, and from examination of pay rolls. In order to obtain accurate and uniform material, wage figures were copied from the pay rolls by the agents of the bureau. A factory schedule was used to record data as to the number of employees—men, women, and children—the occupations of the women, their scheduled daily and weekly hours wherever scheduled hours were found, and rates of pay. In addition, facts were recorded about the working conditions in each plant; the type of buildings; lighting, heating, ventilation, and cleanliness of workrooms; the seating arrangements for women employees; the occupational and workroom hazards and strains; and sanitary and service facilities provided for the use of employees.

Pay-roll data were copied on a special form and showed the exact week's earnings, the rates, and the time worked—sometimes recorded in hours, sometimes in days—for individual women in each occupational group in a representative pay-roll period—weekly, if possible, but semimonthly or monthly where wages were paid on such a basis.

This definite information has been used as the basis for the discussion of earnings in canneries and warehouses, and of the differences in earnings of pieceworkers and timeworkers and of workers in various occupations. The data also show the fluctuation in hours between the extremely short and the extremely long days in canneries and the steadiness of the 10-hour day in warehouses. In every plant where data were secured the manager selected the period which he considered would give a satisfactory picture of the earnings of his women workers. The pay-roll periods chosen in the fruit and vegetable canneries fell somewhere between July 9 and September 29. The evaporator pay rolls from which information was copied ran from September 29 to November 11. The apple warehouses all furnished pay rolls for the first week in October, whereas the pear warehouse pay rolls extended from August 17 to September 19. The pay rolls taken in fish canneries covered the period from July 6 to September 7, and in clam canneries the month of May. Wherever possible, the season's earnings for a representative number of women in each establishment were recorded on a special schedule.

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The women in the canneries also were interviewed as to their personal, family, and industrial history in the same method as were the women working on ranches. The privilege of talking with the women at work was given by the employers.

The outstanding impression left by the interview with the women was that many of them were merely casual workers who during the rest of the year were non-wage-earning housewives, and that their standards of punctuality and steady attendance were not businesslike. On the whole, however, they were intelligent Americans, serious of purpose, cooperating with the employer during the emergencies arising from the handling of perishable products such as fruit and fish.

From several pay-roll records were made tabulations which show that the canner has a tremendous labor turnover problem, for a large number of employees never work more than one or two days and only a very small proportion work as much as six weeks. This is more than just a turnover problem, for the product is perishable, and the employer has no time during the emergency to select help carefully but must take what comes, trusting to keep a full force by not discriminating.

Repeatedly the agents were reminded of the great number of workers employed in the outdoor jobs who were migrants, living wherever they happened to be at work. This type of workers is so numerous, in fact, that especial provision must be made for housing them in the harvest season, and they are called by various names—"fruit laborers," "fruit tramps," and "fruit gypsies." The charity commissioner of Yakima County cooperated with the agents by furnishing records showing to what extent migrant laborers had appealed to the charity organization for aid.

The rumors of "fruit poisoning" were so frequent that the investigators felt the importance of looking into this matter, and upon request the Washington State department of labor and industries presented the Women's Bureau with records of all complaints received in 1923 from this industry group. An analysis of these cases is included in this report.

As it was impossible in the limited time of the survey to cover all the ranches and canneries employing women in the State, a representative number of each were chosen. In order to give a general idea of the extent of the survey the following table, showing numbers of establishments included in each industry, is presented:

TABLE 1.—*Number of establishments and number of women included in the survey*

Industry	Number of establishments visited	Number of women interviewed	Number of establishments inspected as to working conditions	Number of establishments with living quarters for migrant workers	Number of women reported in living quarters for migrant workers	Number of establishments furnishing pay-roll data	Number of women for whom wage data were secured from—	
							Pay rolls	Questionnaires
All industries	282	3,014	70	166	641	60	4,399	345
Outdoor industries	219	958	----------	166	641	----------	----------	345
Berry fields	131	607	----------	114	445	----------	----------	180
Prune orchards and driers	[1] 37	166	[2] 17	26	109	----------	----------	85
Apple and pear orchards	51	185	----------	26	87	----------	----------	80
Indoor industries	63	2,056	53	([3])	----------	60	4,399	----------
Apple and pear warehouses	19	425	19	----------	----------	19	656	----------
Prune-packing houses	2	19	[4] 2	----------	----------	[4] 2	[4] 18	----------
Fruit and vegetable canneries	15	1,176	15	----------	----------	14	2,750	----------
Evaporators	3	73	3	----------	----------	3	128	----------
Fish canneries	13	297	[5] 14	----------	----------	12	639	----------
Clam canneries	11	66	----------	----------	----------	10	208	----------

[1] Driers were visited on 17 of the 37 ranches.
[2] Driers only.
[3] Scattered instances of living quarters provided in these industries not included.
[4] Working conditions and wage data not discussed, because of small number of establishments.
[5] One firm with two separate buildings—a cannery and a warehouse—considered as two establishments.

In the course of the study 219 ranches were visited, the 131 berry ranches constituting about three-fifths, apple and pear ranches somewhat less than a fourth, and prune ranches about one-sixth of the total number covered. In addition 63 establishments connected with canning, preserving, and packing food were visited. Eighteen of these were fruit and vegetable canneries and evaporators, 24 were clam and fish canneries, and 21 were fruit warehouses. A little over 3,000 women employed in all these various places furnished personal information about themselves and their families. Of the approximately 3,000 who reported on whether they were resident or migrant workers, about one-third were migrants.

Hour and wage data were obtained from the pay rolls of 60 establishments—canneries, warehouses, and evaporators—employing 4,399 women. Information on wages and time worked was secured for 345 women in outdoor industries by means of questionnaires sent by mail. Much of this material was furnished by the women themselves, although for a number of these workers the data sent in by the fruit growers were the only source of the wage figures.

Attention is called to the fact that in the wage tables and analyses connected with the outdoor industries, it has been necessary to give average rather than median earnings, because in so many instances the numbers of women in the groups under discussion are too small

to permit the computation of medians. In the tables on indoor industries, however, in which much larger groups of women appear, it has seemed more advisable to present medians.

The conditions under which the women were employed on indoor work connected with the canning, preserving, and packing of fruit and vegetables are represented in this report by 70 plants. These were inspected by the agents of the bureau. A picture of the housing conditions of the migrant workers is presented through reports from 166 ranches, concerning camp quarters which accommodated 641 of the migrant women workers.

STATISTICAL SUMMARY

I. Scope.

In the course of this survey on the hours, wages, and working and living conditions of women in the fruit-growing and canning industries in the State of Washington, interviews were held with 958 women working in outdoor industries—on 219 ranches (berry fields and apple, pear, and prune orchards)—and with 2,056 women employed in indoor industries—in 63 establishments (fruit, vegetable, fish, and clam canneries; evaporators; apple and pear warehouses; and prune packing houses.)

II. The workers.

1. Age.

Of the 2,973 women who reported their age, more than one-fourth were under 20, nearly two-fifths were under 25, one-fifth were from 30 to 40 years old, and over three-tenths were 40 years of age or over.

The outdoor and indoor industries show little difference in the proportions of women in the under-18-years and the 40-years-and-over groups.

2. Conjugal condition.

Of the 3,014 women reporting on conjugal condition, approximately one-third were single, one-half were married, and nearly one-seventh were widowed or divorced. Over seven-tenths of the women in the outdoor industries, as compared with more than three-fifths in the indoor industries, were or had been married.

3. Nativity.

Of the 3,013 women whose nativity was ascertained, 82.5 per cent were native-born whites, 1 per cent were native-born Indians, and 16.5 per cent were foreign born. Of all the industries represented, the berry fields gave employment to the largest number of foreign born, followed closely in this respect by fruit and vegetable canneries. Moreover, the berry fields had a larger proportion of foreign born among their women (28.2 per cent) than had any other industry.

4. Living condition.

Of the 2,941 women reporting on living condition, only a little less than 6 per cent were living independently of their families.

5. Migrants.

Of the 3,014 women interviewed, almost one-third were migrant workers. Of all the industries surveyed, berry fields showed the largest proportion of migrant workers, with more than three-fourths of the total number of women so classified. About 55 per cent of the women in apple, pear, and prune orchards were migrants.

6. Size of families.

Of 2,591 women who were members of a family, approximately three-fourths belonged to families consisting of two, three, four, or five members.

7. Wage earners.

Every family of five or more members averaged at least three wage earners. Of the 2,591 women who were living with their families, 12.4 per cent had no male wage earner in the family and 5.7 per cent had no other wage earner in the family than the woman herself.

8. Women's contributions to the family income.

Of the 2,513 women reporting on the amount contributed to the family income, over two-thirds contributed all their earnings, as contrasted with one-fifth who contributed none.

9. Reason for working.

More than one-half of the approximately 3,000 women reporting on the subject stated that their reason for working was the need to help meet the expenses, or to supply the necessities, of the family.

III. Housing.

1. Women in temporary quarters.

Of the 607 women interviewed in the berry fields—representing 320 households—not far from three-fourths were temporarily housed on the premises of 114 ranches.

Of the 185 women interviewed in prune orchards—representing 60 households—a little less than three-fifths were in temporary quarters on 26 ranches.

Of the 185 women interviewed in apple orchards—representing 66 hous holds—not far from one-half were in temporary quarters on 26 ranches.

2. Types of living quarters and by whom supplied.

Of the 320 households on the berry ranches, 96 per cent were living in quarters supplied entirely by the ranchers. For three-fifths of the 60 households found on the prune ranches and approximately one-third of the 66 households domiciled on the apple ranches were the quarters supplied entirely by the ranchers. One-third of the

households on the prune ranches and not far from one-half on the apple ranches provided tents for themselves.

Nine-tenths of the households on berry ranches were domiciled entirely in frame buildings, as compared with one-half of the households on prune ranches and 13.6 per cent of the households on apple ranches.

3. Size of quarters.

Over four-fifths of all the households and 72 per cent of all the persons reported upon in regard to size of households had living quarters limited to one room, with opportunity of sharing small porches or kitchens with other families similarly housed. In a few cases the crowded living conditions were extremely bad, with as many as six or seven persons quartered in one room.

4. Toilet facilities.

Toilet facilities were in many instances inconveniently located and used by too many households and too many persons. For 130 of the 431 households reported upon, the toilets were located at a distance of 200 feet or more from the house. In 186 instances toilets provided for migrant households were used by more than one household. In 32 cases 20 persons or more were using one toilet.

5. Drinking, bathing, and laundry facilities.

Generally speaking, the water fixtures were much more conveniently located than might be expected for camp communities. Only 35 people, however, domiciled on 7 ranches enjoyed the comfort of having running water inside the house. Except for 7 ranches which had installed facilities for shower baths and 2 others where workers were permitted to use the bathroom in the rancher's house, no other special equipment had been provided for baths. On 38 ranches the women were provided with no equipment for laundry work.

6. Cooking facilities.

Altogether there were 82 cookstoves shared by 186 households, or an average of 2.3 households to each stove. Over one-half of the cookstoves were located in sleeping rooms.

IV. Working conditions.

Data compiled from 15 fruit and vegetable canneries and evaporators, 14 fish canneries, 19 fruit warehouses, and 17 prune driers show that, in addition to the strain of long hours which so frequently accompanies work in these establishments, there are certain characteristic problems in connection with the working conditions bearing on the comfort and well-being of the women employed.

1. Crowded condition of workrooms.

In a number of workrooms in canneries and warehouses crowded conditions and poor arrangement of equipment and workers made for inefficiency and discomfort.

2. Wet floors.

Wet floors in fruit and vegetable and fish canneries constituted another problem which had not been satisfactorily solved in some establishments. This difficulty was partially overcome in other places by the use of wooden racks or platforms.

3. Inadequate seating.

Seating as an important item in the comfort of the workers seemed to have been overlooked in many plants in the rush to save the crop.

Many women were reported as having jobs at which they stood continuously with no opportunity to sit—537 in fruit and vegetable canneries, 375 in fish canneries, and 338 in apple and pear warehouses. In many cases the only seats available for a brief rest were packing boxes. Definite information on the number of women who stood at their work is not available for prune driers, but sorting was generally regarded as a standing job, and in most of the driers visited the women stood. As proof of the possibility of improvement in this respect were a few establishments where arrangements had been made so that women performing exactly the same sorts of jobs as the foregoing women could either sit or stand at their work.

In a number of instances women whose work necessitated constant sitting had not been provided with comfortable seats; in such cases stools, benches, or packing boxes were the only seats supplied.

4. Temperature.

The minimizing of excessive heat in summer was not so much a problem as the supplying of artificial heat in the fall in the canneries and warehouses. Lack of proper heating facilities caused many workers in the fall to suffer from the cold and dampness in the plants. In the fish canneries and fruit warehouses the rooms can not be too warm on account of the product, but in a few such plants arrangements had been made to add to the comfort of the workers without injuring the product.

5. Sanitation and service facilities.

Washing facilities varied in the plants visited, being wholly adequate in comparatively few. The lack of hot water and the use of common towels were the most usual defects.

In regard to drinking facilities, the common drinking cup was found in 25 establishments—6 fruit and vegetable canneries, 7 fish canneries, 5 warehouses, and 7 driers. Although 26 plants had installed bubble fountains, only 5 of these were of a sanitary type.

Toilets varied considerably in the plants inspected. All but three of the fruit and vegetable canneries had inside toilets with modern plumbing. In 6 of the 14 fish canneries the only toilet accommodations were privies, most of them of a primitive nature. Five of the warehouses had outdoor privies that were not well kept. With one exception the driers had provided outdoor privies.

With only a few exceptions the toilets in the various plants were clean, light, well ventilated, conveniently located, and separate for men and women.

The number of toilet seats was not always adequate, some canneries having as many as 30, 40, 50, or 60 women to a seat; one warehouse showing a maximum of 100 women to a seat in the height of the season.

In the matter of cloakrooms, lunchrooms, and restrooms, warehouses had by far the poorest record, since but little effort had been made in these plants to provide such rooms. Fruit and vegetable canneries made a better showing in regard to such service facilities than did the fish canneries.

V. Hours and wages.[9]

1. Data from 53 berry ranches.

Number of women	180	Average amount earned	$33.74
Average working period (days)	21.1	Average daily earnings	$1.60

2. Data from 20 prune ranches.

Prune picking		*Prune sorting*	
Number of women	40	Number of women	45
Average working period (days)	15.1	Average working period (days)	18.8
Average amount earned	$46.75	Average amount earned	$64.59
Average daily earnings	$3.09	Average daily earnings	$3.43

3. Data from 31 apple and pear ranches.

Apple thinning

Number of women	23	Average amount earned	$82.04
Average working period (days)	25.9	Average daily earnings	$3.17

Apple picking		*Pear picking*	
Number of women	74	Number of women	41
Average working period (days)	14.9	Average working period (days)	6.5
Average amount earned	$51.02	Average amount earned	$19.41
Average daily earnings	$3.42	Average daily earnings	$2.97

4. Data from 14 fruit and vegetable canneries and evaporators.

TIME WORKED

Of the 1,228 women on the weekly pay rolls whose time was reported in both days and hours, 18.4 per cent worked more than a 56-hour week and 7.3 per cent included a Sunday in the week's work. About two-fifths had a week of more than 48 hours.

IRREGULARITY IN LENGTH OF WORKING DAYS

Only 26 of 1,151 women for whom records were secured of the length of each working day had a uniform day. The working days of the other women ranged from a minimum of under 1 hour to a

[9] Lack of uniformity in methods of presenting data for the various industries is due to differences existing in the industries, explained in detail in the different sections of this report.

maximum of 20 and under 21 hours. Hours in evaporators were much more regular, since 71.4 per cent of the women worked a full 10-hour day on the days on which they worked.

EARNINGS

Median earnings of 1,364 women on weekly pay rolls whose time worked was reported in hours were $12.30.

Median earnings of 507 so-called full-time workers on weekly pay rolls (women who worked 50 hours or more during the week) were $16.35.

Median earnings of 610 women on half-monthly pay rolls were $13.65.

Median earnings of 231 women whose wage records for the season were obtained were $225.60.

Median earnings of 48 women with 100 days or more of employment during the season were $295.

5. Data from 12 fish canneries.

TIME WORKED

Of the 279 women on the weekly pay rolls whose time was reported in both days and hours 18.3 per cent worked in excess of 56 hours a week. Almost three-fourths of the women with a weekly pay period worked less than 48 hours—a situation due not to regulation of hours but to the run of the fish. A little over one-fourth worked more than 48 hours. One-fifth of the women on the weekly pay rolls were reported as working on seven days of the week.

IRREGULARITY IN LENGTH OF WORKING DAYS

Only 1 of the 85 women for whom records were secured of the length of each working day had a uniform schedule. The working days of the other women ranged from a minimum of 1 and under 2 hours to a maximum of 22 and under 23 hours.

EARNINGS

Median earnings of 279 women on weekly pay rolls whose time worked was reported in hours were $12.50.

Median earnings of 71 so-called full-time workers on weekly pay rolls (women who worked 50 hours and over) were $20.65.

Median earnings of 120 women on the semimonthly pay rolls were $22.90.

Median earnings of 223 women on the monthly pay rolls were $39.55.

Median earnings of 125 women whose wage records for the season were obtained were $137.95.

Median earnings of 58 women with 50 days or more of employment during the season were $190.

6. Data from 9 clam canneries.

EARNINGS AND TIME WORKED

Median earnings of 46 women on monthly pay rolls whose time worked was reported in hours were $18.75.

Median earnings of 17 women on monthly pay rolls who worked 50 hours or more were $30.50.

Median earnings of 101 women whose wage records for the season were obtained were $52.40.

7. Data from 19 apple and pear warehouses.

TIME WORKED

Of 421 women on weekly pay rolls whose time worked was reported in both hours and days, 49.6 per cent of the women worked more than 56 hours in the week, 69.4 per cent worked more than 48 hours. Only 9 women worked on 7 days.

IRREGULARITY IN LENGTH OF WORKING DAYS

Of 122 women for whom records were secured of the length of each working day, 16 women had a uniform day of 10 hours. The working days of the other women ranged from a minimum of 1 hour to a maximum of 13 hours. In general, with the 10-hour day as the standard, the daily hours were much more regular in length in the warehouses than in the canneries.

EARNINGS

Apple sorting.—Median earnings of 358 women on weekly pay rolls were $18.45.

Median earnings of 42 full-time workers on weekly pay rolls (women who worked over 50 hours) were $20.90.

Apple packing.—Median earnings of 183 women on weekly pay rolls were $31.05.

Median earnings of 125 full-time workers on weekly pay rolls (women who worked over 50 hours) were $35.85.

Pear sorting.—Median earnings of 62 women on weekly pay rolls were $18.05.

Median earnings of 42 full-time workers on weekly pay rolls (women who worked over 50 hours) were $18.35.

Pear packing.—Median earnings of 53 women on weekly pay rolls were $25.85.

Median earnings of 29 full-time workers on weekly pay rolls (women who worked on six days) were $31.30.

Apple and pear sorting.—Median earnings of 87 women whose wage records for the season were obtained were $156.80.

Median earnings of 34 women who worked on 50 days or more were $197.80.

Apple and pear packing.—Median earnings of 65 women whose wage records for the season were obtained were $235.

Median earnings of 22 women who worked on 50 days or more were $315.

VI. Occupational histories.

1. Types of work formerly engaged in.

Nearly one-half of the workers employed in seasonal work in the fruit-growing and canning industries had previously been engaged in regular occupations. A little more than 42 per cent had done nothing but seasonal work all their lives. About 6 per cent had been working in occupations which are irregular in nature, and approximately 4 per cent had worked in both regular and irregular occupations. The proportion of workers who had engaged in seasonal occupations only varied little for the several industries, berry fields with 36.5 per cent of the workers so classified having the smallest percentage, and fish canneries with 46.7 per cent the largest.

2. Average time of employment in types of work.

For all the women reporting on the subject, the average number of months of employment at regular occupations was 59.2, the average number of months at irregular occupations was 105.5, and the average number of months at seasonal work was 6.

The highest average time spent in seasonal work for any one group was 3 years, the average for the women who had done seasonal work only and whose work period was between 20 and 30 years.

3. Number of occupations formerly engaged in.

Nearly three-fourths of the 1,042 women who had formerly engaged in regular occupations reported but one kind of work, and one-fifth reported two kinds. Also, by far the largest majority of women who had engaged in irregular occupations had had but one kind of work.

4. Age at beginning to work.

Of the 2,775 women reporting on the age at which they had begun to work, one-fourth had begun before the age of 16, and not far from one-half before 18 years of age; nearly 12 per cent had not worked before the age of 40.

5. First occupation.

Of 545 berry pickers who gave information in regard to their first occupation, almost one-half reported that the first job had been sea-

sonal work in canneries or on ranches. Almost one-fourth had engaged in domestic service at the beginning of their careers.

6. Chief occupation.

Of 2,720 women reporting on the subject, the largest proportion, or over one-half, stated that their chief occupation was seasonal in nature. The next largest proportion (13.5 per cent) reported domestic service as their chief work.

VII. Labor turnover.

1. Time worked during the season.

In the three fruit and vegetable canneries reporting upon the subject, 21.5 per cent of the women worked less than 7 days during the season, 73.3 per cent worked less than one-fourth the greatest number of days worked by any one woman, 10.2 per cent worked one-half or more of this time, and 5.4 per cent three-fourths or more of this time.

In the six fish canneries reporting upon the subject, 34.9 per cent of the women worked less than 7 days, 55.1 per cent worked less than one-fourth the greatest number of days worked by any one woman, 20.2 per cent worked one-half or more of this time, and 7.6 per cent three-fourths or more of this time.

In the three fruit warehouses reporting upon the subject, 14.9 per cent of the women worked less than 7 days, 40.4 per cent of the women worked less than one-fourth of the greatest number of days worked by any one woman, 37.9 per cent worked less than one-half or more of this time, and 22.4 per cent worked three-fourths or more of this time.

In the one evaporator reporting upon the subject, 45.3 per cent of the women worked less than 7 days, 59.4 per cent of the women worked less than one-fourth of the greatest number of days worked by any one woman, 22.9 per cent worked less than one-half or more of this time, and 10.6 per cent worked three-fourths or more of this time.

2. Maximum and minimum number of women on pay rolls.

The numbers of women employed during the season ranged in the three fruit and vegetable canneries and one evaporator reported upon from 6 to 105, from 4 to 255, from 41 to 151, and from 49 to 90, respectively; in the two fish canneries reported upon from 7 to 14 and from 5 to 63, respectively; in the three fruit warehouses from 12 to 61, from 19 to 25, and from 7 to 10, respectively.

VIII. Industrial accidents and diseases.

1. Nature of injuries.

Of 168 records of injuries received in 1923 by employees in fish and fruit and vegetable canneries, 94 were for women. Of these 94 women, 70 had suffered from infections and poisons, 17 from bruises, burns, or cuts, and 7 from strains, sprains, dislocation, fracture, hernia, and the like.

2. Time lost on account of injuries.

Of the total time lost by the men and women (3,403 days), almost three-fifths was on account of infections or of fish or fruit poisoning, the aggregate time lost for these reasons amounting to almost five and a half years.

3. Cause of injury.

More than one-fourth of the injuries were due to tools or machines used in the preparation of the product for canning, and approximately one-fourth were attributed to the handling of the raw product.

PART II

PERSONAL AND FAMILY HISTORY OF THE WOMEN WORKERS

Because women are producers not only of economic goods but of future citizens, because they are homemakers as well as wage earners, certain facts about their personal history and family responsibilities are of interest in connection with any analysis of their gainful employment. In the first place the women workers encountered in the fruit-growing and canning industries in the State of Washington may be divided into two main classes—resident and migrant. The problems peculiar to the latter group will be treated at length in the next two sections of this report. In this chapter such matters as the age, the conjugal condition, the nativity, and the family relationship and responsibilities of all the women will be discussed, the resident and migrant workers being classified separately in only a few instances.

PERSONAL INFORMATION

Age.

Of the 2,973 women in the present survey who reported their age, nearly two-fifths (38.5 per cent) were under 25 years; more than one-fourth (25.5 per cent) were less than 20 years; and about one-seventh (13.9 per cent) were not yet 18. A great many of the last named were school girls at work only in the vacation. (Table 2.)

One-fifth of all the women were 30 to 40 years of age. This was much the largest group in the berry fields and the prune orchards. In the apple and pear orchards and warehouses the largest group was 20 and under 30 years, and in the canneries it was a group younger still—girls under 20.

The fruit and vegetable canneries ranked first in the proportion of young people, having 30.6 per cent under 20, followed by the fish canneries with 26.6 per cent. Apple and pear warehouses ranked the lowest, with only 18 per cent under 20, but the women slightly older brought up the warehouse group so that it ranked first in number of women under 30 years, 58.4 per cent of the employees being so reported. About three-fifths, 61.4 per cent, of the warehouse workers were from 20 to 40 years of age, a period which may be considered the best of a woman's active working years.

The fact that considerable numbers of housewives enter these industries for the few weeks of the peak of employment accounts for the unusually high percentage of women of 40 years of age or more, 31.9 per cent being so reported. Fruit and vegetable canneries had the greatest numbers of elderly women, 19.7 per cent of their women

being 50 years of age or more, followed by the berry fields, with 16.4 per cent, and in contrast to 7.1 per cent in apple and pear orchards and warehouses. Of the total of 145 women at least 60 years of age, 55 were 65 years or more and 17 were at least 70 years old. Two women were in their eighties, one being 82 and the other 87.

TABLE 2.—*Age of the women employees, by industry*

Industry	Number of women reporting	Number and per cent of women whose age was—															
		16 and under 18 years		18 and under 20 years		20 and under 25 years		25 and under 30 years		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	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All industries	2,973	412	13.9	347	11.7	385	12.9	289	9.7	593	19.9	508	17.1	294	9.9	145	4.9
Berry fields	580	81	14.0	40	6.9	49	8.4	52	9.0	152	26.2	111	19.1	59	10.2	36	6.2
Prune orchards and driers	182	25	13.7	20	11.0	15	8.2	23	12.6	59	32.4	20	11.0	13	7.1	7	3.8
Apple and pear orchards	182	21	11.5	19	10.4	34	18.7	25	13.7	37	20.3	33	18.1	11	6.0	2	1.1
Apple and pear warehouses	423	32	7.6	44	10.4	94	22.2	77	18.2	89	21.0	57	13.5	25	5.9	5	1.2
Fruit and vegetable canneries and evaporators	1,245	196	15.7	185	14.9	141	11.3	83	6.7	171	13.7	224	18.0	163	13.1	82	6.6
Fish and clam canneries	361	57	15.8	39	10.8	52	14.4	29	8.0	85	23.5	63	17.5	23	6.4	13	3.6

Conjugal condition.

Of the 3,014 women who reported their marital status, approximately one-third were single, one-half were married, and two-thirds were either married, widowed, or divorced. (Table 3.) The age distribution of the 2,973 women in the several marital groups who reported age was quite usual. Unpublished figures show that only about one-tenth of the single women were 25 years or over, while more than one-half of the married women were between 30 and 50 years, and nearly three-fourths of the women with broken marital relations were 40 years of age or older.

All but one of the various types of employment showed a strikingly larger proportion of married women than of single or widowed. The largest proportion of married women was found in the apple and pear orchards, with almost two-thirds of the total number of women so reported. In the fruit and vegetable canneries, owing to the large numbers of young women, the number of married women was only slightly in advance of the number who were single, these latter constituting two-fifths of the women workers. This industry showed also the largest percentage of women with broken marital ties, 17.2 per cent of the total number in the industry.

TABLE 3.—*Conjugal condition of the women employees, by industry*

Industry	Number of women reporting	Number and per cent of women who were—					
		Single		Married		Widowed or divorced	
		Number	Per cent	Number	Per cent	Number	Per cent
Total	3,014	1,030	34.2	1,565	51.9	419	13.9
Berry fields	607	164	27.0	361	59.5	82	13.5
Prune orchards and driers	185	59	31.9	112	60.5	14	7.5
Apple and pear orchards	185	47	25.4	123	66.5	15	8.1
Apple and pear warehouses	425	136	32.0	240	56.5	49	11.5
Fruit and vegetable canneries and evaporators	1,249	501	40.1	533	42.6	215	17.2
Fish and clam canneries	363	123	33.9	196	54.0	44	12.1

Nativity.

Of the 3,013 women who reported on their country of birth, the great bulk, 82.5 per cent, were native-born whites. One per cent were native-born Indians. (Table 4.) Only 16.5 per cent of the women were foreign born.

Many countries were represented among the foreign born, but each showed only a small group of women. The largest group, 146 women, were from Scandinavian countries—Norway, Sweden, Denmark, and Iceland. The next largest groups were the 89 women from Canada and the 51 from Finland. Germany, Great Britain and Ireland, Austria-Hungary, Russia, Poland, Italy, Japan, and Holland, named in the order of numerical importance, each furnished a small quota of the women.

Of all the industries represented, the berry fields gave employment to the largest number of foreign-born women, followed closely by the fruit and vegetable canneries. The berry fields had a larger proportion of foreign born among their women employees than had any other industry, 28.2 per cent, followed by the fish canneries, with 21.8 per cent of their women workers born outside the United States. In the apple and pear warehouses the women of foreign origin comprised only 8 per cent of the women employees.

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TABLE 4.—*General nativity and country of birth of the women employees, by industry*

General nativity and country of birth	All women reporting		Number of women with nativity as specified who were employed in—					
	Number	Per cent	Berry fields	Prune orchards and driers	Apple and pear orchards	Apple and pear warehouses	Fruit and vegetable canneries and evaporators	Fish and clam canneries
Grand total	3,013	100.0	606	185	185	425	1,249	363
Native born, white	2,486	82.5	423	150	168	391	1,088	266
Native born, Indian	30	1.0	12					18
Foreign born	497	16.5	171	35	17	34	161	79
Country of birth of foreign born:								
All countries	497	100.0	171	35	17	34	161	79
Austria-Hungary	33	6.6	10		1	1	3	18
Canada—								
White	62	12.5	18	3	3	8	28	2
Indian	27	5.4	25					2
Finland	51	10.3	17	9			10	15
Germany	40	8.0	14	1	3		19	3
Great Britain and Ireland	37	7.4	9		1	9	11	7
Holland	10	2.0					10	
Italy	14	2.8	10	1			1	2
Japan	11	2.2	7	4				
Poland	18	3.6	8	3		1	6	
Russia	22	4.4	3	3	5	5	6	
Scandinavian countries	146	29.4	47	6	2	7	58	26
Other countries	26	5.2	3	5	2	3	9	4

Of the 2,516 native Americans, 30 were Indians; there were no negroes. More detailed figures than are here published show that only two of the native whites were unable to read and write, whereas 12 of the Indians could neither read nor write, and 8 of them were unable to speak English. As a whole, the foreign born were a very literate group, 83.6 per cent of them reporting ability to read and write.

Quite naturally, owing to the war conditions, few of the foreign-born women had been in the United States so short a time as 5 to 10 years, a length of residence in this country which means arrival during the period of 1913 to 1918. Almost two-fifths of the immigrants arriving in the last five years had come from Canada. Over two-fifths of the foreign born had been residents in the United States 20 years or more, Japan being the only country not represented by a long-time residence.

Three hundred and seventy of the women reporting on country of birth were from non-English-speaking countries. All but two of these reported on their ability to speak English, and of the 368, only 30 women were without this accomplishment. Twenty-three of these had been in the United States 10 years or more. In addition to the women from non-English-speaking countries were 18 Indians

born in Canada and 8 Indians born in the United States who could not speak English.

Living conditions.

An interesting aspect of the living conditions of the women engaged in the lines of work covered by this study is whether the women were living as members of a family. Of the 2,941 women reporting on the subject, only 171, not quite 6 per cent, were living independently of their families and relying upon their own resources. (Table 5.) By far the largest number living in such fashion, 90 women, were found among the workers in the fruit and vegetable canneries and evaporators. These represent, however, a very small part of all the cannery workers, as more than one-half of the women interviewed in the survey were workers in the fruit and vegetable and fish canneries. There was very little difference in the proportion of resident and that of migrant women living independently, 5.4 per cent of the former and 6.6 per cent of the latter being so reported.

TABLE 5.—*Living condition of the resident and migrant women, by industry*

Industry [1]	Number of women reporting	Number and per cent of women who were—							
		Resident				Migrant			
		Total		Living with relatives	Living independently	Total		Living with relatives	Living independently
		Number	Per cent			Number	Per cent		
Total	2,941	1,970	67.0	1,863	107	971	33.0	907	64
Berry fields	606	136	22.4	129	7	470	77.6	447	23
Prune orchards and driers	185	77	41.6	75	2	108	58.4	102	6
Apple and pear orchards	183	88	48.1	85	3	95	51.9	95	
Apple and pear warehouses	422	304	72.0	292	12	118	28.0	103	15
Fruit and vegetable canneries and evaporators	1,248	1,113	89.2	1,039	74	135	10.8	119	16
Fish canneries [1]	297	252	84.8	243	9	45	15.2	41	4

[1] Clam canneries have been omitted from this table, since only 5 of the 66 women employed in them at the time of the survey were migrants. The five whose homes were not in the district were visited in towns near-by but the data are not representative, as there are many migrant workers in the season.

FAMILY RELATIONSHIP AND RESPONSIBILITIES

Since such a majority of the women were living in families, it is of interest to consider some of the social and economic problems affecting them as a group.

In this discussion of family relationship a married woman without children has been called a wife, a woman with children but no husband has been called a mother, and a married woman with both husband and children has been called wife and mother. In the group designated as "other" have been included nieces, cousins, granddaughters, and more distant relatives. This classification also

includes a number of women living in households of rather complex families, as, for example, a married woman in her father's home, who might be daughter and wife or daughter and mother. The numbers of women reporting in each family relationship group are as follows:

Wife	422
Mother	257
Wife and mother	1,113
Daughter	834
Sister	116
Other	65

Size and make-up of family.

Data on the size and make-up of the family were secured from 2,591 women who were members of families. (Table 6.) Approximately three-fourths of the families consisted of two, three, four, or five members, with a fairly even distribution in the two, three, and four groups, about one-fifth in each case. Only 2 per cent of the families reported as many as 10 members.

The total number of families showed 653 more women than men wage earners, a situation which can be explained by the fact that the data presented in the table were obtained in every case from interviews with working women 16 years of age or more. The small proportion of persons not at work in the families of two members is due to the same fact.

Every family of 5 or more members averaged at least 3 wage earners. In the case of the families numbering 10 persons the average number of wage earners was 4.3, and the number of workers in the two families of 14 members averaged 6.

The average number of persons to each wage earner was not excessive in any case, the highest average, 4, being found in the families of 12 persons. The average for all the families was less than 2. There was an almost uniform increase from 1.1 to 2.8 with the increase in the number of persons in the families, the two of 14 members each showing, however, an average of only 2.3. Of all the persons in the families, only about two-fifths were not working. Since it is possible that some of the nonwage-earning members living elsewhere at the time of the interview were not reported, the average number of persons to each wage earner is probably slightly lower than it should be.

TABLE 6.—*Composition of the families of the women employees, resident and migrant, showing persons at work and persons not at work, by size of family*

Size of family	All families								Resident families								Migrant families							
	Number reporting complete data		Number of persons in families				Average number of wage earners	Average number of persons to each wage earner	Number reporting complete data		Number of persons in families				Average number of wage earners	Average number of persons to each wage earner	Number reporting complete data		Number of persons in families				Average number of wage earners	Average number of persons to each wage earner
			Total	At work		Not at work					Total	At work		Not at work					Total	At work		Not at work		
	Number	Per cent		Male	Female				Number	Per cent		Male	Female				Number	Per cent		Male	Female			
Total	2,591	100.0	11,309	3,094	3,747	4,468	2.6	1.7	1,854	100.0	8,277	2,145	2,608	3,524	2.6	1.7	737	100.0	3,032	949	1,139	944	2.8	1.5
2	511	19.7	1,022	398	553	71	1.9	1.1	344	18.6	688	261	373	54	1.8	1.1	167	22.7	334	137	180	17	1.9	1.1
3	509	19.6	1,527	481	640	406	2.2	1.4	365	19.7	1,095	339	442	314	2.1	1.4	144	19.5	432	142	198	92	2.4	1.3
4	535	20.6	2,140	630	764	746	2.6	1.5	369	19.9	1,476	409	510	557	2.5	1.6	166	22.5	664	221	254	189	2.9	1.4
5	383	14.8	1,915	515	619	781	3.0	1.7	268	14.5	1,340	334	413	593	2.8	1.8	115	15.6	575	181	206	188	3.4	1.5
6	262	10.1	1,572	375	435	762	3.1	1.9	206	11.1	1,236	297	324	615	3.0	2.0	56	7.6	336	78	111	147	3.4	1.8
7	175	6.8	1,225	287	314	624	3.4	2.0	129	7.0	903	185	213	505	3.1	2.3	46	6.2	322	102	101	119	4.4	1.6
8	117	4.5	936	211	233	492	3.8	2.1	89	4.8	712	152	174	386	3.7	2.2	28	3.8	224	59	59	106	4.2	1.9
9	48	1.9	432	87	88	257	3.6	2.5	39	2.1	351	76	73	202	3.8	2.4	9	1.2	81	11	15	55	2.9	3.1
10	31	1.2	310	67	65	178	4.3	2.3	28	1.5	280	58	57	165	4.1	2.4	3	.4	30	9	8	13	5.7	1.8
11	14	.5	154	29	26	99	3.9	2.8	12	.6	132	21	20	91	3.4	3.2	2	.3	22	8	6	8	7.0	1.6
12	4	.2	48	8	4	36	3.0	4.0	3	.2	36	7	3	26	3.3	3.6	1	.1	12	1	1	10	2.0	6.0
14	2	.1	28	6	6	16	6.0	2.3	2	.1	28	6	6	16	6.0	2.3								

Of the women who were living with their families, 147 represented families with no wage earner but the woman herself. These were exceptions, however, as the majority were in families where all who could work seemed to be employed. The distribution of the women who were sole breadwinners and that of all women unassisted by male workers is shown according to industry in the following statement:

Industry	Number of women who had no male wage earner in family	Number of women who had no wage earner but self in family
Total	322	147
Berry fields	50	18
Prune orchards and driers	2	2
Apple and pear orchards	8	2
Apple and pear warehouses	49	21
Fruit and vegetable canneries and evaporators	183	92
Fish and clam canneries	30	12

Of all the women interviewed, including the 174 living independently, 2,020 were resident and 993 were migrant; and of all the women whose families had male wage earners, 1,615 were resident and 672 were migrant.

Of the male wage earners, 2,134 were the chief breadwinners in their families; 1,336 of them were husbands of women interviewed, 646 were fathers, 66 were sons, 70 were brothers, and 16 were more distant relatives. A total of 1,155 male wage earners—670 chief wage earners and 485 others—were engaged in the same industries that employed the women interviewed. (Table 7.)

In actual numbers there was an almost even division between resident and migrant men employed in these industries. The following table indicates that many more male relatives of migrant women than of resident women were employed in the berry fields and that almost two-thirds of these were not chief wage earners but evidently were younger boys. One berry rancher remarked, in discussing his troubles with labor, "If you see a man picking berries you may know he is there for his health only."

Almost no men from migrant families represented in the survey were employed in the canneries, but a large number were in the fruit orchards. A fair number of migrant men worked in the fruit warehouses, but a much larger number of resident men found employment there. In the prune orchards, as in the berry fields, the males were not chief wage earners but young boys.

TABLE 7.—*Males in the families of the women interviewed—resident and migrant—who were in the same industry as the women, according to whether chief wage earner or not chief wage earner*

Industry	Males in all families			Males in resident families			Males in migrant families		
	Total reported	Number reported to be—		Number reported	Number reported to be—		Number reported	Number reported to be—	
		Chief wage earner	Not chief wage earner		Chief wage earner	Not chief wage earner		Chief wage earner	Not chief wage earner
Total	1,155	670	485	574	361	213	581	309	272
Berry fields	300	114	186	57	25	32	243	89	154
Fruit orchards	373	238	135	145	102	43	228	136	92
Apple and pear warehouses	205	165	40	142	110	32	63	55	8
Fruit and vegetable canneries and evaporators	156	73	83	133	59	74	23	14	9
Fish and clam canneries	121	80	41	97	65	32	24	15	9

Many of the women answered so vaguely about the exact kind of work which the men and boys of their families were doing that it has been possible to throw them only in large industry groups or occupations. Only 342 men were reported definitely as laborers. This is probably a misleading figure, since often the wife said that her husband "worked in the mill yonder," and when asked what he did in the mill, replied indefinitely, with a shrug of the shoulders, "sometimes one thing and sometimes another."

The industries or occupations in which the men usually were employed may be arranged in descending scale as follows:

Agriculture	594
Lumber and woodworking	367
Laborers (not elsewhere specified)	244
Transportation	179
Building trades	163
Food canneries	89
Trade and commerce	78
Personal service	73
Machinists and millwrights	61
Firemen and engineers	51
Fishing	37
Public service	34
Metal trades	26
Miners	16
Clerical	16
Professional	16
Other	55
Total	2,099

As would be expected, the two largest groups of men were in the chief industries of the State, 28.3 per cent in agriculture—this proportion including many small ranchers struggling to clear their land

and get a start—and 17.5 per cent in the logging camps and sawmills. In the personal service group were many camp cooks, and in transportation were many who worked in garages and on street railways. Of the men who were chief breadwinners, 166 were reported as having secondary jobs, supplemental to their regular work, and as about 30 per cent of these secondary jobs also were agricultural or lumber pursuits, it is apparent that a considerable proportion of the women interviewed in the survey were wives or daughters of men engaged in these important industries.

Children.

Since 2,811 women reported the ages of the members of the family, it has been possible to group the individuals in these families into those under 6 years, or below school age; those 6 and under 16; and those 16 years or over.

TABLE 8.—*Age composition of families, resident and migrant*

Number and class of families	Number of persons	Number and per cent of persons whose age was—					
		Under 6 years		6 and under 16 years		16 years and over	
		Number	Per cent	Number	Per cent	Number	Per cent
All families 2,811	11,717	838	7.2	2,990	25.5	7,889	67.3
Resident 1,991	8,513	567	6.7	2,165	25.4	5,781	67.9
Migrant 820	3,204	271	8.5	825	25.7	2,108	65.8

The proportions of children under 6 years and of children between 6 and 16 years were slightly larger in the migrant than in the resident families. Altogether about one-third of all the persons in the families for whom data were available were children under 16 years of age. Table 9 further analyzes the make-up of the families, both resident and migrant, with respect to the number of children, and shows the number of families with only young children under 6 years, with only children aged 6 to 16, and with children in both the younger and older age groups.

TABLE 9.—*Number of families—resident and migrant—having children of specified ages, by number of children in family*

Number of children in family	Total number of families with children under 16 years				Families with children under 6 years only				Families with children 6 to 16 years only				Families with children under 6 years and from 6 to 16 years			
	Resident		Migrant		Resident		Migrant		Resident		Migrant		Resident		Migrant	
	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children	Number of families	Number of children
Total	1,218	2,732	500	1,096	142	189	69	93	777	1,416	297	528	299	1,127	134	475
1	492	492	196	196	108	108	48	48	384	384	148	148				
2	322	644	138	276	25	50	18	36	226	452	87	174	71	142	33	66
3	189	567	92	276	6	18	3	9	111	333	46	138	72	216	43	129
4	107	428	38	152	2	8			36	144	12	48	69	276	26	104
5	67	335	24	120	1	5			17	85	4	20	49	245	20	100
6	25	150	8	48					3	18			22	132	8	48
7	12	84	4	28									12	84	4	28
8	4	32											4	32		

The resident families, constituting about 70 per cent of the total number, naturally had the larger number of children in each age group, but it is interesting to note that 500 migrant families had with them 1,096 children under 16 years of age—an average of more than 2 children per family. Sixty-nine of these families had 93 children, all under 6 years, an average of 1.3 per family; 297 families had 528 children between the ages of 6 and 16, an average of 1.8 per family; and 134 families had children in both age classifications, under 6 and from 6 to 16, the total number of children in this group being 475, or an average of 3.5 per family.

The following summary gives the number and proportion of children 6 to 16 years old who were at work:

Class of families	Children 6 and under 16 years		
	Total number	Number at work	Per cent at work
Total	2,990	491	16.4
Migrant	825	338	41.0
Resident	2,165	153	7.1

In spite of the fact that there were many more children from 6 to 16 in the resident than in the migrant families, 69 per cent, or over two-thirds, of all the children who were working were migrants, and 41 per cent of the migrant children were employed, while only 7 per cent of the resident children were so reported.

Only 23 children under 16 were at work in places other than those where the women were employed. Many of the children in the older group were working with the women interviewed. Altogether there were 468 cases where a child in the family of the woman interviewed was engaged in the same industry as was the woman. Of these boys and girls, 49 were the children of widows interviewed, 291 the children of the married women, 119 the brothers and sisters of women interviewed, and 8 the more distant relatives of such women.

The same 468 children were distributed in the various industries as follows:

Industry	Total number of children employed	In resident families	In migrant families
Total	468	135	333
Berry fields	304	46	258
Fruit orchards	109	41	68
Fruit warehouses	5	5	
Fruit and vegetable canneries	34	30	4
Fish and clam canneries	16	13	3

The most striking fact here is that almost two-thirds of these children were at work in the berry fields. Over one-fourth of the children were in fruit orchards. Children were very rarely seen in apple orchards but were employed to such an extent in picking up prunes that the school in at least one district visited had closed until after the prune harvest. It is therefore safe to assume that these 109 children were employed largely in the prune orchards.

Migrant households without adults.

The analysis of the family and household groups in relation to the number of children brings out an interesting fact in connection with the berry pickers. Several of the migrant household groups whose members were engaged in this line of work were devoid of persons older than 18 years; that is, the groups consisted of young girls and children camping together in a shack and working in the field. In eight cases a girl of 17 was the oldest in a camping unit, and in eight instances a 16-year-old girl was the head of a household group.

The following examples give an idea of the make-up of such households:

Two girl friends, each 17 years old.

A girl of 17 with a brother of 13 and a girl friend of 16 years.

A girl of 17 with two brothers and two sisters all under 16 years of age.

A girl of 16 with a girl friend aged 15.

A girl of 16 with a younger brother.

A girl of 16 with a sister, cousin, and two friends, all under 16.

Altogether there were 20 household groups on the berry ranches none of whose 55 members were over 18 years of age and whose heads were girls of 16, 17, or 18 years. Most of these households consisted of only two young people, but in two cases they had five members.

In addition to the households just discussed there were 23 working girls 16, 17, or 18 years of age not under the care of adult members of their own families but living with other women, sometimes friends and acquaintances, who also had come to pick berries. Occasionally they had met since their arrival in the berry fields the families with whom they were living.

The greatest difference in the living arrangements of the young migrant girls was between those employed in the berry fields and those in the apple orchards, for among the apple pickers there was no girl of 18 or under who was living even temporarily away from her family. In the other industries the migrant girls of 16, 17, or 18 years of age were on, the whole, with relatives, older friends, or neighbors.

Share of women workers in family support.

One indication of the degree of responsibility which the worker feels toward her family is the amount of her earnings which she contributes to the familys upport—whether she gives all or none of it to the common cause. The degree of responsibility differs, naturally, with the woman's position in the family.

The statement that a worker gives part of her earnings to the family is so indefinite that without further details an analysis of the real value of such contribution is impossible. It merely shows that the part contributor does feel some obligations toward her family and does not consider herself entirely independent.

The following shows the relationship to their families of the women interviewed who reported contributions, and the proportions of each group who contributed either all or none of their earnings.

Position in the family	Per cent contributing all earnings	Per cent contributing no earnings
Wife and mother	94. 6	3. 6
Mother	90. 2	7. 4
Wife	82. 8	12. 4
Daughter	20. 2	50. 5
Sister	18. 8	41. 2
Other	61. 8	20. 0

The same relative scale of contributions obtains whether the women were from resident or migrant families, and the percentage of earnings contributed varies but slightly between the residents and migrants, whether wives, mothers, wives and mothers, or women having other relationship are considered. Another tabulation of interest in this connection is the following, which shows the proportion of women contributing all or none of their earnings, correlated with size of family:

Number of persons in family	Per cent of women who contributed all earnings to family	Per cent of women who contributed no earnings to family
2	80. 5	14. 3
3	76. 7	15. 7
4	69. 4	19. 0
5	60. 2	26. 1
6	57. 9	24. 2
7	56. 4	22. 1
8	57. 6	27. 1
9	36. 2	40. 4
10	45. 7	31. 4
11	42. 9	35. 7
12	25. 0	25. 0
13	50. 0	50. 0

The percentage of those who gave all their earnings to the family decreases gradually from 80.5 to 57.6 as the size of the family increases from 2 to 8 members, probably indicating that the larger families represented by wage-earning women in this study had children of working age, so that the responsibilities were spread among more wage earners, and the individual necessity of contributing all earnings was not so urgent.

In the family groups consisting of 9, 10, or 11 members the sudden rise in percentage of those contributing none of their earnings to the family was due to the decreasing numbers of wives and mothers who contributed all, and to the larger proportion of daughters who contributed nothing. Only 22 mothers or wives and mothers of the total 1,241 were working in families composed of 9, 10, and 11 members, (none belonged to families larger than 11 persons), and 21 of these were contributing all their earnings to the common needs of the family. On the other hand, 65 daughters of the total 717 were working in families of 9, 10, and 11 persons, and 32 of them were contributing nothing to the family needs.

REASONS FOR WORKING

Closely allied with the foregoing subject is that of reasons for becoming wage earners, as given by the women interviewed, since family responsibilities were more frequently than not at the root of the whole matter.

Detailed data show that although a wide variety of reasons was given, more than one-half of the approximately 3,000 women who reported stated that they were working to help meet the expenses, or supply the necessities, of the home and family. A few of the women in this group definitely stated that they had to work because the man breadwinner was ill, incapacitated, or for some other reason not working. A few others included in this general classification were earning money to help in the purchase of a house, house furnishings, or extra equipment, such as a gas range, an electric washer, or a vacuum cleaner. A much smaller group, about 7 per cent of the total, reported that they had become wage earners in order to support themselves only. About the same proportion gave as their motive for working the need of money for their own or others' education. The necessity of buying clothes for themselves or others was the reason given by a few women.

Choice rather than necessity was the explanation of wage-earning activities offered by about one-tenth of the women; they wanted to earn spending money, or enjoyed the work or the chance to work with their friends. A few other women stated that they were working merely as an accommodation to the employer. Desire to be in the country, either for their own sakes or to benefit their children,

had caused another small group to accept the job at which they were engaged when interviewed. Certain women had undertaken the job because it enabled them to make a change in occupation or to take a sort of vacation, and a few others seized this opportunity to earn money for a vacation elsewhere.

Some had entered the job because it was the only kind of work available, some because they belonged to a family engaged in migrant labor, while others announced that they were working because they were accustomed to do so, because it was their habit to work, because they needed or expected to work, or because they had been curious to try employment for wages.

In relation to position in family.

The need to help in the maintenance of the family was the cause given for working by approximately one-half of the wives and mothers and one-sixth of the daughters reporting.

Nearly two-thirds of those who gave as a reason for working the need to secure money for education were daughters, and nearly three-fourths of these daughters contributed nothing toward the family expenses. Daughters comprised three-fourths of the number who gave as their motive for gainful occupation the need to earn money for clothing and also more than three-fifths of those who stated that they worked from choice rather than necessity in order to have "spending money" and their "own things."

The chance to work in the country apparently did not appeal to the daughters as a group as it did to the group of wives and mothers, since the latter made up more than three-fourths of the number who reported the desire for country influences as their reasons for working. Aside from the wish to help with expenses, 118 of the wives and mothers were employed because the normal chief breadwinner was incapacitated or temporarily out of work. Other reasons which the married women gave for working were that this employment offered a chance for the family to work together or that they wanted a job which, on account of the camp life connected with it, bore some resemblance to a vacation.

In relation to place of employment.

The reasons for working offered by the women berry pickers differed somewhat from those given by women in other places of employment. Of the 109 women giving the desire for a vacation as a reason for working, 78 were in the berry fields; two-thirds of these regarded the job itself as the necessary change, and one-third hoped to earn money for a "real vacation." Of 71 who claimed to be at their present work because it was an outdoor job, beneficial to the health of self or family, or was one permitting a trip to the country, 54 were employed in the berry fields. Seventy-seven of the women

were influenced chiefly to undertake their work because of the possibility of having the family work together; 28 of these were in the berry fields and the next largest group were in the prune orchards. Of 22 who were working mainly to accommodate their employer, 19 were berry pickers.

An important reason given by the women as their motive in seeking employment was to earn a living for themselves. Almost one-half of the women working to support themselves were in the fruit and vegetable canneries, and more than one-fourth were employed as sorters or packers in fruit warehouses.

Of 27 women who worked because their neighbors did, or because they preferred being with friends to remaining at home alone, about one-half were employed in fruit and vegetable canneries.

PART III

MIGRANTS

The workers, as already stated, may be divided into two main classes—resident and migrant. The word migrant is used in this study to indicate those who were not permanent residents in the place where they were working and those who were camping temporarily near their work. In its wide application, therefore, it includes all housed temporarily near their places of seasonal employment, both those who had a permanent residence elsewhere to which they expected to return and those who had no permanent residence. Most of this last group could give an address which they had had before beginning to wander, but others had little idea of what they had ever called home; they seemed only "to come from where they started."

Of the approximately 3,000 women interviewed during this survey, 993, or almost one-third, were nonresident workers living only temporarily near their seasonal jobs.

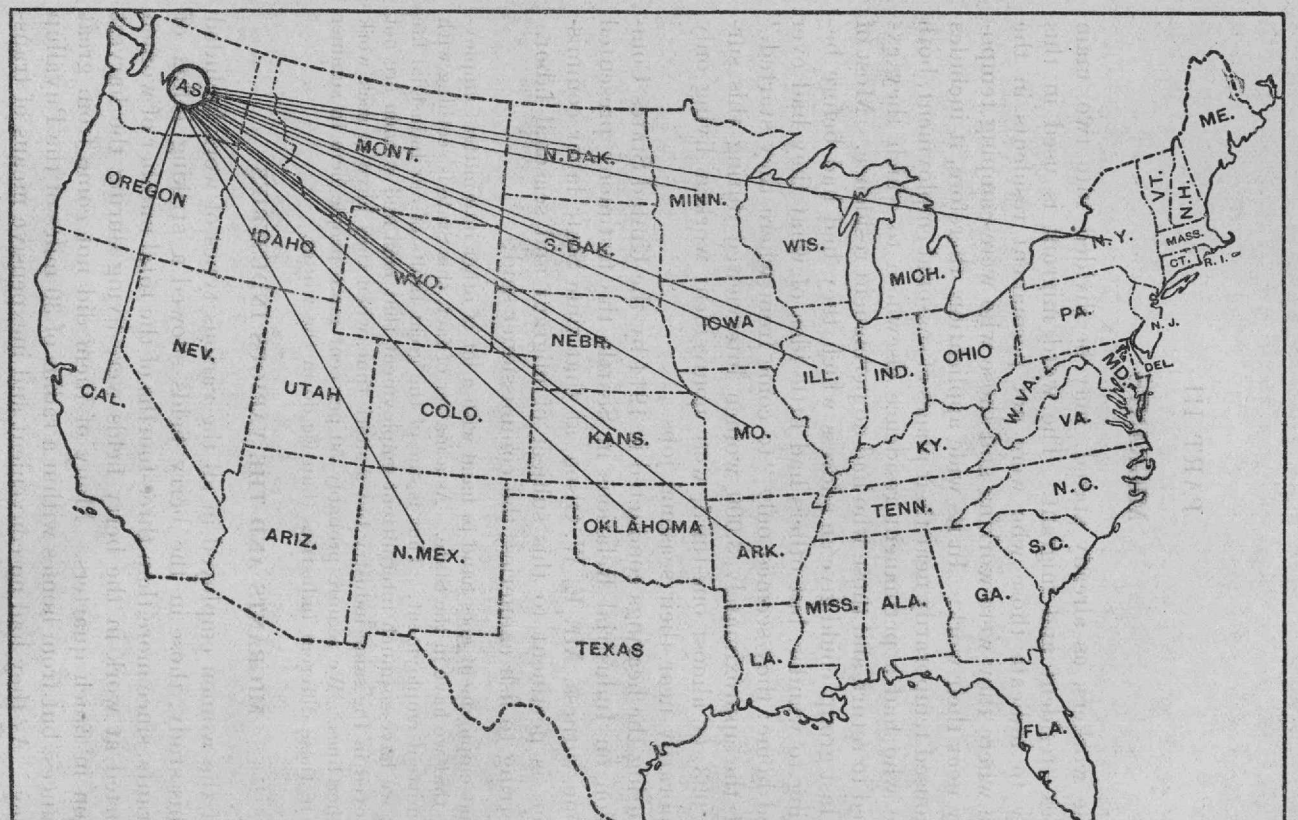
During the hearings conducted in 1914 by the United States Commission on Industrial Relations in Seattle the testimony presented by one witness, Mr. E. W. Olson, at that time State labor commissioner, is pertinent to this subject of migrant and seasonal labor. Referring to fish canneries, the commissioner said:

> That employment goes hand in hand with a lot of other intermittent employment that we have in the State. As a matter of fact, this State is seething with intermittent employment. That is one of the great faults of our industrial life here; we have so much intermittent employment that men and women are not employed in the same industry but a short time, when they have to seek work in other lines. We require probably 50 per cent more people here in summer time in these different industries than we do in the winter.[1]

MIGRANTS AND THE VARIOUS INDUSTRIES

Of the women employed in all the various types of work included in this study, those in the berry fields showed a striking influx of migrants, since more than three-fourths of the total number of women reported at work in the berry fields were living during the harvest season in ranch quarters. Many of them did not come from great distances, but from homes within a radius of 30 miles of the Puyallup Valley. As they had no convenient and inexpensive means of transportation for going back and forth daily, they found it necessary to

[1] Testimony of E. W. Olson, State labor commissioner of Washington, before U. S. Commission on Industrial Relations, Seattle, Aug. 10, 1914. Final report and testimony, v. 5 (U. S. Commission on Industrial Relations), pp. 4120, 4121.



MIGRANTS HAD COME FROM 18 STATES

camp in the shacks supplied rent free on the ranches. Some families even regarded this arrangement as a cheap way of giving their children a vacation in the country. Moreover, since these women brought little camp equipment with them, the berry ranchers provided more and better housing accommodations than did the employers in other districts who also depended on migrant labor. Exclusive of the Indians, only 25 berry pickers among those interviewed, reported "no home," and only 14 seemed to be typical migrants from distant points outside the State. These 14 moved wherever their husbands found work, and only 5 had their own cars and camp outfit.

About 55 per cent of the women working in the apple, pear, and prune orchards belonged in the so-called migrant class. Like the berry pickers, the majority of the prune pickers did not come great distances from their permanent homes, but with no direct means of daily transportation the only practical thing for them to do was to settle at the ranch for the short season. Many of these seasonal prune workers anticipated returning to their homes in the adjoining counties or in Portland and its environs. However, other migrants in the prune orchards claimed Illinois, Missouri, Nebraska, Kansas, Colorado, New Mexico, or California as the State in which they had last lived for any length of time. Their next permanent addresses were a matter of no concern to them. With the apple crop the situation was different. The reputation of the apple orchards for steady work and good pay has spread far, and it is customary for many pickers and packers to come long distances, with their own camp equipment, to the famed orchards. The apple harvest follows the wheat harvest, which, as is well known, requires large numbers of seasonal laborers, and as the orchards are just west of the grain districts, they are the next natural stopping point, especially since the orchard wages are attractive. There is little employment for the women of the families in the grain harvest, except in the cookhouses, but in the crop of pears and apples they find work, a few in the orchards and many more in the warehouses. In general, the fruit ranchers may be said to be as dependent upon transient labor as are the wheat growers; consequently, there are shifting families in the orchard districts just as there are shifting men in the great wheat fields.

In the Wenatchee Valley and farther north a few dormitories are provided for the migrants, which are a great convenience for single women, making it possible for them to live without their own camp outfit. A few such women among those interviewed made a practice of "working the fruits" in California in winter, then following the harvest seasons, and ending their migrations in the fall in the Washington apple orchards in time to return for winter work in

California again. In the Yakima Valley the majority of the transient women were with their families and traveling in their own automobiles with camp equipment, which included at least the barest essentials for living. More than 20 apple pickers had come from 11 other States and Alaska and were bound for no definite destination.

The proportion of migrant workers was considerably smaller among the women in apple and pear warehouses than among the women in the apple and pear orchards, because in some instances the warehouses were situated in towns and cities.

The cannery groups had the fewest migratory workers, a fact due to the location of canneries in towns and cities with a local labor supply. There were almost no migratory workers among the employees of the fish canneries, except for a small number of women imported to do the work in a few establishments remote from populous centers. The case of one young girl is interesting but not typical. With a friend she had left the Middle West to see the country. At home she had followed the trade of typesetting, but, being in need of funds on her journey, she took the first job that offered—that in the fish cannery. With a glance at her soiled apron and the remark, "I'm just smiling through this place," she told her story. Before her cannery experience she had picked berries two weeks, but "there was nothing in that," and one wondered with her what her next job would be.

A great majority of the women employed in the fruit and vegetable canneries who were not permanent residents in the cannery towns had come from homes within 30 to 40 miles of the cannery. The few who were following the harvest seasons as typical "fruit tramps" were employed in those canneries located in the orchard districts, while frequently other members of their families had work in the fruit orchards. These workers had come originally from Illinois, Oklahoma, the Dakotas, Montana, Wyoming, and British Columbia and had little intention of returning to these starting points. A few had followed the crops so long, with so many changes in winter quarters, up and down the coast, that they were at a loss to name any one place as a residence.

TYPICAL CASES OF MIGRANT WORKERS

The subject of migrant labor is so closely tied up with the various lines of employment covered by this report that it runs as an essential theme throughout the discussion of almost every problem connected with the study. To furnish a background to the general analysis and to emphasize the human-interest aspects of the subject, the following typical stories of the circumstances of migrant laborers are presented.

Berry workers.

1. A woman, 37 years old, with husband and two children, so-called "tourists," had started from North Dakota with their few possessions and had come to the Puyallup Valley by way of El Paso, Tex., and San Diego, Calif. They had their own camp equipment and automobile, working whenever necessary. They had started originally in search of health and thought of settling late in the fall. The woman was picking berries, but added proudly that her husband had a better job in town.

2. A woman, 31 years old, with husband and two children, had started from Illinois. They had wanted to travel, and not being able to do so in an elaborate way had set forth in their car with the expectation of being gone a year at least, and perhaps of never returning east. They had found jobs en route. The woman was picking berries, while her husband worked in a sawmill. She was a very intelligent woman, a normal-school graduate, and had taught several years.

3. A woman, 56 years old, and her nusband were camping in a tent. They had been traveling around for 11 years, going from place to place. In the winter he canvassed, but in the summer they worked together picking berries, fruit, and hops. For several years previous to this they had picked chiefly apricots, walnuts, and apples. "They just travel around" and have no plans of settling.

Orchard workers.

1. A woman, 44 years of age, was traveling with her husband from Oregon. They had their own car and camp equipment, which included bed springs, an improvised curtained clothes closet fitted with hangers on a rod, and other conveniences. This was the third season at this sort of work, which the woman felt she must do, in conjunction with her husband, as she could not do it to advantage "without a partner." They had started June 1 and had begun picking strawberries, together clearing about $60. During the next six weeks they picked 6 tons of cherries, making $40 a ton; this was the best-paying field work they had done that year. In the prune orchards they had worked one week—a type of work which the woman found very hard; in apricot orchards two weeks, where they just made expenses; in blackberry fields a month, where they had not cleared much; and in hop fields one week, where they had made good. At the time of the interview they were settled in the apple district, hoping to find work there for six more weeks, to keep them busy up to November. Before her marriage this woman had been a practical nurse, but she explained that her present way of earning a living paid about as well as nursing and that the nervous strain was much less.

2. A girl of 18 with her parents had started from Oklahoma five years before. The father formerly raised cotton, but "the grasshoppers and boll weevil had beat them out"; they had come north, working their way around from job to job, traveling by automobile, and living in their own tents. For about four months of the year the father was employed in lumber camps. This girl was a typical outdoor worker, having begun to pick cotton when she was 11 years old. For the last four harvest seasons she had lost little time, having managed to keep busy with the rest of the family. She had worked at cutting potatoes, picking hops, peaches, and pears, and was engaged in picking apples at the time of the interview. The preceding winter she had had to work also for a few weeks in a restaurant, because the harvest season of 1922 had been poor, and she and her parents had not cleared enough to carry them through the winter. The family appeared to enjoy this mode of living and had no plans for settling.

3. A woman of 28, with her husband and one child, calling themselves "tourists," had left their home in Texas in 1921 and worked their way through to Oregon and Washington in 1923. They had their own car and convenient camp equipment. The woman was not always able to find work where her husband could make the best money. They had spent much of the season in the wheat fields of eastern Washington, where he had run a threshing machine. She had picked berries for a few weeks and prunes for a short time. In Texas she had done much farm work, chiefly picking cotton.

4. A woman of 33 was traveling with her husband and five children. They had left New Mexico about a year before and were trying different places before making up their minds where they would settle down. In her former home the woman had worked part of the time on her own ranch and some of the time for wages on other people's ranches. She had done many kinds of farm work, but especially hoeing, picking cotton, and shucking corn. The last season she had been busy picking plums, prunes, and apples. Her husband and three of her children were busy with her, picking up prunes from the ground for drying.

5. A woman of 22 and her husband did not know what or where their home was. In the winters, through January and February, they packed oranges in California, then they worked their way north into the prune district of Walla Walla in August and planned to spend September, October, and November in the apple orchards and warehouses near Wenatchee.

6. A single woman of 24 whose home was in California had come north the past three seasons to work in apple packing. She was a stenographer during the winter months, but found she made better pay on fruit ranches in the summer.

7. A woman of 47, with her husband and four children, gave her address as "just traveling around in fruits." They had their own tent and equipment and earned their living as they went along. They had begun their outdoor work this season in cherries, then had moved over to a peach and pear district, and were, at the time of the interview, in the apple district for the fall work. Their plans for the winter were undecided.

8. A self-supporting widow of 30 years had made a practice for three years of going to the apple district in the fall months. This season she had had some sorting of pears in cold storage, where she "nearly froze." Always when the fruit season was over she hunted around for a job as a clerk in a store, which did not pay so well but kept her alive. For her address she gave that of her father in Oregon, as she had none of her own.

9. A woman of 36 was traveling with her own equipment from Idaho to California. Her husband, an itinerant preacher, was able to earn little. Whenever their finances ran low, they stopped touring and preaching and went to work. Two of the four children were helping the mother pick up prunes. They expected to work in hops and apples before the season ended. The mother added, "We really have no home."

10. A woman of 39, with husband and seven children, two of whom were helping her while two smaller ones were in school temporarily by a special and unusual arrangement with the teacher of the district, when asked her permanent address replied, "We just travel around." During the summer they had thinned apples and picked pears, peaches, and apples, and on the whole the husband had been busy most of the time. Their moves had been short ones this year, at no time more than a hundred miles.

11. A woman of 23 was traveling with her husband in their car and with their own camp equipment. Before and since marriage their business had been "following the fruits." Their address was wherever they could find work or wherever they happened to be. They had worked in California from November until June, chiefly packing oranges; then they had moved northward, packing tomatoes and peaches, en route to the apple orchards, where they were busy packing apples in October. At the expiration of the apple season they expected to return south again and had no plans for the future except the seasonal migrations.

12. A woman of 31, with her husband and young son, had started from southern Idaho in May and had worked on about 20 ranches in three States, up to the middle of October. They were en route for the South, not knowing what they would do or where they wanted to go. They had lost their farm in Idaho and had bought a car by paying $21 a month for it. They did not feel, when interviewed, that

they had earned enough to tide them over the winter and hoped to find work in some other line after the harvest season closed. They had worked for four weeks, off and on, in the berry season, and had managed to keep busy about a month picking cherries, a job which had paid particularly well. They had also picked prunes, peaches, and apples.

13. A widow of 39 years and her son and daughter, traveling in a car with friends from St. Louis, were working along the way. They had seen a general notice of the need for prune pickers and had gone into that district. The next move was to be into the Yakima Valley for work in the apple orchards. Ultimately they hoped to settle in San Francisco, but they realized that it would take a long time to get there, and that they might even then have to keep up this mode of life in order to exist.

14. A woman of 19 was touring with her husband from Niagara Falls; they camped in auto parks whenever they stopped to work. He was busy temporarily at his trade, and she in the field. They were looking over the country and working as necessary, with no plans of settling and with no ties or possessions to call them anywhere in particular.

STRANDED MIGRANT WORKERS

As already indicated, many families arrive in their automobiles, pitch their tents near the orchard where they get work, and are free to move to the next orchard as soon as they are through at their first place. That such working travelers deserve the title of "fruit transients" or "fruit hobos" is obvious from the following comments made by a few of the women interviewed, which illustrate the mode of life of the seasonal migrant worker: "Just traveling in our Ford; heard we could make good money; plan to take in the apple orchards next." "Our Hudson Six is our home." "Just traveling around, working as we need to, and heard about this place along the road." "Home? Where we pitch our tent." "Went broke dry farming and now we're just chasing a job here and there." In their wanderings they seem to have a definite idea of following a succession of crops, but otherwise they are carefree and irresponsible.

Most of them, of course, do well, but others fail to make their expenses and are compelled to wait around somewhere until spring. The severity of the winter, especially east of the Cascade Mountains, and the lack of substantial protection sometimes force these people to appeal for aid and to become a charge upon the community.

Failure is doubly hard for the fruit hobo with a family and equally difficult for his family, which is never long enough in a place to be part of the community and its organization or to know what the friendship of old neighbors means. Some very needy cases have

appealed for help to the charity commissioner in Yakima County, and his office courteously furnished the following data on the nature of the applications for aid made by the transients, who invariably explained that they had come to the district because they had heard that fruit was plentiful and help was needed.

Of the total number of applications from the entire county for the period from October 7, 1922, to February 28, 1923, 16.8 per cent were made by transients who had come into the district to work on fruit ranches. For the similar period, a year later, October 7, 1923, to February 25, 1924, 16.9 per cent of the applications for aid were made by fruit transients. Thus, approximately one-sixth of the applications in each of the two seasons were from this group of workers.

For both seasons the data were given on the length of residence in the county before help was solicited. The figures are as follows:

Residence in the county	Number of families seeking aid during season of—	
	1922–23	1923–24
Total	36	24
1 week	1	
2 weeks	2	
1 month		4
2 months	2	7
3 months	5	5
4 months	9	3
5 months	4	
6 months	1	
7 months	2	1
8 months	4	3
9 months	2	
Not reporting residence	4	1

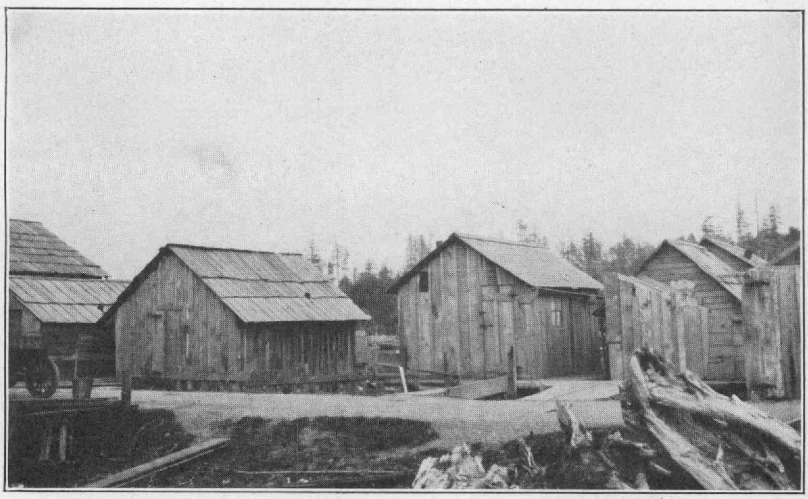
Help had been needed almost upon arrival by some, and not until nine months afterward by others. Those who had been in the county more than five months probably were those who hoped to winter there and to find occasional odd jobs until spring.

The following statement, showing the months in which most of the appeals were made, indicates that the hard times come after the harvest:

Month in which aid was requested	Number of families seeking aid in—	
	1922–23	1923–24
October	3	2
November	3	7
December	11	6
January	13	4
February	3	2

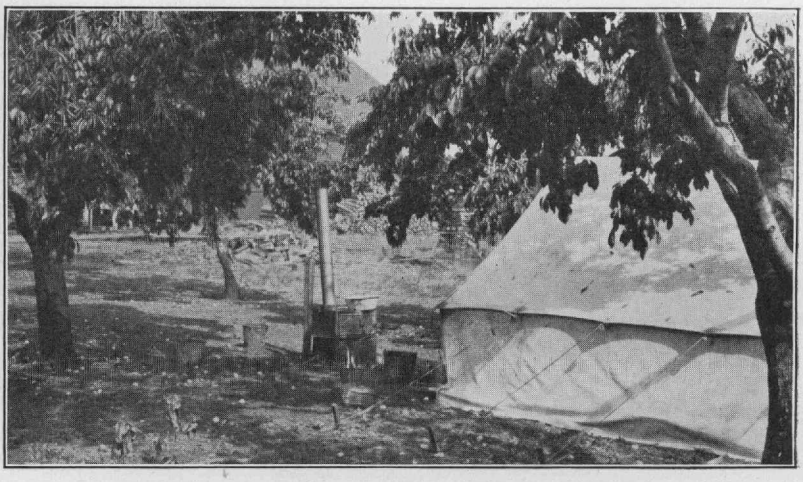
For the first season, 1922–23, either insufficient or poorly paid employment, or unemployment, was the main reason in 30 cases, and 4 of these were complicated by illness. Six families were in distress because of a misdemeanor of the chief breadwinner. One-third of all these applicants were given transportation to some former place of residence; others received medical attention, fuel, groceries, or clothing. The records for the second season were more complete than for the first, showing the make-up of the family as well as the reason for asking aid. Each of the 24 families applying during the second season had children. In all there were 93 children, 6 families having 2 each, 5 families 3 each, and 3 families having 7, 8, and 9 children, respectively.

It is impossible to quote any figures showing what proportion of all migrant labor becomes stranded, but the records already referred to emphasize the fact that the traveling families do have a difficult problem. Moreover, many other such families are helped by private individuals and do not come to the attention of the county authorities.

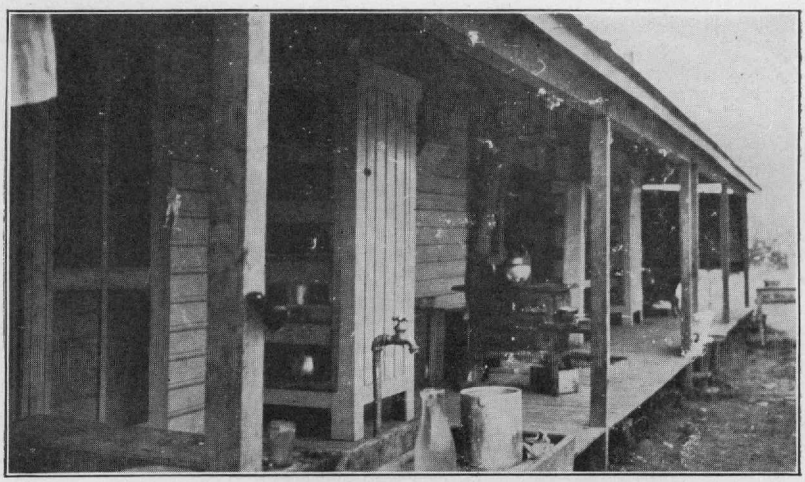


THE HOUSES OCCUPIED BY MIGRANTS IN THE CLAM INDUSTRY ARE MERE SHACKS, OFTEN BUILT CLOSE TOGETHER IN LITTLE SETTLEMENTS AT THE WATER'S EDGE

48—1



ON SOME RANCHES TENTS WERE THE ACCEPTED TYPE OF HOUSING



MANY MIGRANTS LIVED IN THE ROW TYPE OF QUARTERS—ONE ROOM FOR A FAMILY AND A STOVE IN COMMON

PART IV

HOUSING

The employment of migrant labor, or persons who go from place to place in quest of work, involves an added complication in the necessity for the rancher to provide camping sites and often living quarters for the workers during their temporary sojourn of a few weeks or months on his premises. The housing question is of even more vital importance to the workers, since their general health and welfare are so closely tied up with the living conditions encountered. It is not surprising, therefore, that individuals or families who make a practice of going to work in the fields and orchards season after season are eager to secure employment on ranches where they find not only fruit of a high grade for picking, together with satisfactory wages, but comfortable quarters for living and sleeping. Shacks equipped with running water on a porch and a good cook stove under cover, for each household, are remembered and serve as a strong inducement to the pickers to return to a particular ranch the next season; while other places, where a tumble-down building with cramped quarters, six families using one stove, an inconvenient water supply, and inadequate toilet facilities, also are remembered and avoided if possible.

At best, camp life carries with it certain crudities, and housekeeping is apt to be sketchy. It should be remembered, moreover, that in many cases families have to be cared for, and that the routine jobs of cooking, cleaning, and laundering must be attended to by the women of the household before and after their work in the fields. Such jobs are not likely to be performed in the routine way. For example, the "wash on Monday, iron on Tuesday" method is perforce discarded. The picker either waits for a slack day "in the fruit" or takes time off from her field work to do the washing. Then she collects the available pails and basins, for only occasionally is she lucky enough to find the camp equipped with tubs; she heats a little water over the camp stove, often shared with other families, and under difficulties "rubs out" the clothes.

PERIOD OF OCCUPANCY OF LIVING QUARTERS

It is needless to say that women appreciate anything that makes easier the necessary housekeeping. On the other hand, the rancher, realizing that these living quarters are occupied for only a few weeks each year, is apt to feel that he can afford to provide merely the sim-

plest necessities. The length of time that the workers stay on the premises varies on the different kinds of ranches.

The prune harvest, for example, continues little more than four weeks. In fact, 15 of the 26 prune ranches reported that the pickers' quarters were occupied in general only from three to four weeks, and that six weeks was the maximum.

The harvesting of berries extends over a longer period, especially if the rancher raises both raspberries and blackberries. Of the 162 quarters reported upon by the 112 berry ranchers giving information on this subject, only 8 were occupied less than six weeks; 73, or more than 45 per cent, were occupied for a period of six weeks; 10 for a period of over six weeks and under three months; 53, almost one-third, for three months; 6, for three and under four months; and 12, or approximately 7 per cent, as long as four months.

The report from the apple growers on this point was rather meager. The length of the apple harvest depends upon the number of varieties raised on a ranch. Some kinds of apples ripen as early as August, and these are followed by the harvesting of other varieties in succession through October. None of the living quarters for the workers in apple orchards for which a report on the subject was given were in use for less than six weeks, and most of them were occupied for three or four months.

SIZE AND LOCATION OF THE RANCHES

In a study of the housing question it is interesting to take into consideration the size and location of the ranches. Many of the berry ranches were located within the city limits. They were, on the whole, small; over one-half of those visited were only 5 acres or less in size, three-fourths were less than 10 acres, and barely 7 per cent comprised as much as 20 acres. The range in the size of orchards was greater. The prune ranches varied from one of 8 acres to one of 115 acres, two-fifths of the total number covering from 20 to 50 acres. The apple orchards were, on the whole, more extensive, since they ranged from five of less than 20 acres to one of 400 acres. One-third of them were from 50 to 100 acres.

TYPES OF LABOR

The extent to which the owners had attempted to furnish living quarters varied with the type of labor employed, due in turn to the kinds of crops raised on the various ranches. The great majority of the workers in the berry fields were women and children, who brought with them little or no housekeeping equipment. There were very few men.

Of the 607 women scheduled in the berry fields, 445, or 73.3 per cent, were temporarily housed on the premises of 114 ranches. Alto-

gether these women represented 320 households, the word household being used here in preference to family to indicate persons living together as a unit under the same roof, since the members of the household may represent several families in their more permanent and normal home conditions. Especially was this true among the berry pickers, where several women, neighbors at home, would live together with their children in quarters provided for one group of pickers. Occasionally, women who were strangers to each other upon arrival at the ranch would find it necessary to "double up" and live as one household in the camp.

Of the berry pickers' households, 65 had only one male member each and 8 had more than one, while 238 had no males over 16 years of age. There were 64 household groups without any children under 16; on the other hand, 172 groups had children between the ages of 6 and 16, and 19 had children under 6. These two groupings in regard to the age of children were not exclusive of each other, for 58 households reported children both under and over 6 years. Naturally each household included one woman of over 16 years of age, as the personal information in all cases was obtained from women over 16 years old who were interviewed by the agents of the bureau. Of the total number of households represented, 114 had more than one woman, 89 had two, and 21 had as many as three. In the 60 households on the prune ranches was a much smaller group of women than on the berry ranches, that is, 109 women, and only 50 men. There were 28 children under 16 and 79 between the ages of 6 and 16.

In the question of the make-up of the labor force the apple orchards formed a striking contrast to the berry fields; in fact, there was very little difference between the numbers of men and women—83 of the former as compared with 87 of the latter. Moreover, there were only 80 children in the 66 households on these ranches. In general it may be said that the conditions of work in the apple orchards attracted many men, who frequently migrated with their families, coming from a distance in their automobiles and camping along the way. Consequently, the final settling for work meant pitching their tents, arranging their camp equipment in or near the orchard, and making themselves at home. These migrant families occasionally used, in addition to their own supplies, an extra tent or building provided by the rancher.

TYPES OF LIVING QUARTERS

Table 10 discloses for the various household groups in the several industries, the types of housing provided and by whom, whether by the workers or by the ranchers.

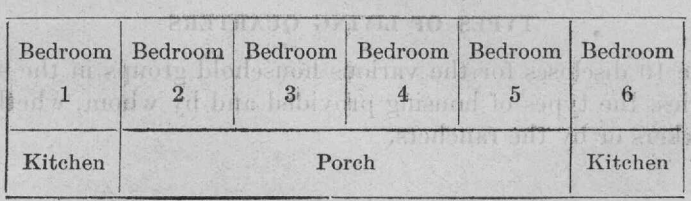
TABLE 10.—*Type of living quarters in berry fields and in apple and prune orchards, and number of groups housed*

Type of living quarters	Number of household groups in—			
	All places	Berry fields	Apple orchards	Prune orchards
Grand total	446	320	66	60
Ranchers provided lodging	367	308	23	36
Wooden quarters	327	288	9	[1] 30
Tents—				
With wooden floors	20	9	9	2
With wooden floors and sides 3 feet high	6	4	2	
With dirt floors	7	3	1	3
Rooms in ranch house and tents [2]	7	4	2	1
Pickers provided tents [3]	57	7	30	20
Ranchers provided wooden quarters and pickers tents	9	5	1	3
Ranchers and pickers provided tents [4]	13		12	1

[1] Includes 1 shack with dirt floor.
[2] Includes 3 tents with dirt floors and 2 with wooden floors and sides; 5 were used as kitchens.
[3] Includes 5 cases where berry pickers preferred own tents, though ranchers would have provided quarters.
[4] Includes 10 cases where ranchers provided wooden floors and sides and pickers provided the canvas tops.

From the table it is apparent that 96.3 per cent of the 320 households on the berry ranches were living in quarters supplied entirely by the ranchers and that 90 per cent of these were in frame buildings. The ranchers supplied equipment for much smaller proportions of the households of workers connected with the apple and prune orchards; in fact, for only about one-third and three-fifths of such households, respectively, was the equipment supplied entirely by the rancher. On the other hand, one-third of the households on prune ranches and not far from one-half on the apple ranches provided tents for themselves. Another striking contrast to be pointed out is that nine-tenths of the berry-pickers' households were domiciled entirely in frame buildings, as against one-half of the prune-pickers' households and 13.6 per cent of the apple-pickers' groups. In some instances the discomfort of living in tents was increased by the lack of wooden floors.

The most effective effort to provide adequate housing had been made by the berry ranchers. The prevailing type was a one-story house consisting of a single row of rooms of uniform size, each with its outside door and windows. Sometimes one of the rooms was furnished as a kitchen used in common by the occupants of the other rooms, or the row varied, having one or two common kitchens attached as depicted in the accompanying diagram.



In many houses the common kitchen was on the porch, or the porch was the kitchen. The row type ranged from 2 to 13 rooms, the following statement showing the prevailing sizes:

23 of two rooms.
23 of three rooms.
19 of four rooms.
15 of six rooms.
8 of seven rooms.

In some cases of the row type each room had its own door and stove, with a window opposite the door, and one household occupying each room. The pickers' quarters often were in the berry patch in close proximity to the rancher's house.

The buildings on the berry ranches were comparatively new and in good condition. Ninety-six of the berry ranchers were able to give the approximate age of their 125 pickers' shacks, one-eighth of which were over 10 years, the oldest being 17 years. Nineteen of them either were new or had had extensive repairs or additions the year of the survey. Nearly one-half of the 125 had been in use three years or less.

It is also true that several buildings used to house berry pickers had served other purposes, most of these having been the first home of the rancher, and a few others the woodsheds, garages, old barns, and even chicken houses.

In some of the houses not of the row type, the arrangement of rooms was such that it was necessary for occupants of one bedroom to pass through another room, either their own or a common kitchen, but in only one case, a bedroom occupied by another household.

In the apple orchards the custom of employing the migrant families who "follow the fruits" and carry the few necessities of life with them has relieved the ranchers of providing extensive housing accommodations for their force of workers, and tents are the accepted style in housing. There is, however, a great difference in tents, from small ones pitched on the ground to house tents with wooden floors and wooden sides 3 feet high fitted with canvas tops. With few exceptions the frame buildings used to house the "apple gypsies" had been built originally for other purposes. One such arrangement was a very large room on the second floor of a packing shed. Two families occupied this and had made a partition of empty packing boxes in order to have a little privacy.

In the prune orchards many packers had their own tents, but they had frame buildings furnished by the ranchers more often than had the apple pickers. On 10 of the prune ranches one-room cabins and on 4 ranches rows of rooms from two to six in number were provided. In 10 other instances buildings used to domicile the pickers originally had been ranch houses, one of which was in a particularly bad and

dilapidated condition. Three other buildings were garages and one was a woodshed. One group was living in the barnlike prune drier, which that season was not being used for drying.

It may be said that many of the buildings formerly used for other purposes which had been converted into living quarters were, on the whole, satisfactory as temporary dwellings, although in a few instances they were rather crude makeshifts.

SIZE OF LIVING QUARTERS

A correlation of the size of the household groups and the number of rooms which they occupied is extremely significant. Such a correlation is possible for 313 of the households for which information was secured during the course of the study, and it is presented in the following table:

TABLE 11.—*Number of rooms occupied by households in berry fields and in apple and prune orchards, by size of household*

Number of rooms occupied	Number of households reported	Total number of persons	Number of households composed of—							
			1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 or more persons
Total	313	1,157	17	80	67	71	35	20	13	10
1 room	126	417	7	37	27	33	11	9	2	
1 room+[1]	132	416	9	41	31	29	18	2	2	
2 rooms	34	159	1	1	9	6	5	6	4	2
2 rooms+[1]	9	63				1	1	1	4	[2] 2
3 rooms	9	67		1		2		1	1	[3] 4
3 rooms+[1]	2	17						1		[4] 1
6 rooms	1	18								[5] 1

[1] Includes the use of a room in common with other households.
[2] Includes 1 household of 12 persons.
[3] Includes 1 household of 9 persons, 2 of 10 persons, and 1 of 15 persons.
[4] 11 persons.
[5] 18 persons (Indians).

In this table the classifications, one room +, two rooms +, and three rooms +, indicate an arrangement where a household had one or more rooms of its own and in addition shared a kitchen, possibly a small porch or other closed-in area, with one or more other households. Such a distinction has been made to indicate the possibility of reducing confusion and crowding of floor space for some activities of family life without having any additional room for sleeping or privacy. Tents have been classed as rooms; for instance, it sometimes happens that in addition to the one-room apartment provided by the rancher the group had its own tent; in such cases the household has been regarded as occupying two rooms. If some of the family slept in the barn, as a means of reducing the inevitable overcrowding, the household has been credited with additional space. However, where a camp stove was reported as out in the open, exposed to all

the elements, it has not been regarded as an extra room or living space.

The most striking fact brought out by the table is that 82.4 per cent of all the households (72 per cent of all the persons) had living quarters limited to one room or one room with opportunity of sharing small porches or kitchens with other families similarly housed. These one-room quarters in a row were rarely larger than 9 by 12 feet, and in these restricted quarters the families lived and slept. With only one exception every room had at least one window, and some had two. Fortunately the elders worked in the fields during the day, and the children too young to work could play outdoors. Although the ranchers repeatedly stated that their standard for occupancy was two pickers per room, the figures show that over three-fifths of the households had more persons to a room. In some cases the crowded living conditions were extremely bad. For example, 11 households reported six or seven persons as quartered in one room; in another household there were 15 members in the three rooms.

Not only were the kinds of houses and the amount of space available for the pickers and their families influential factors in the possibilities for comfortable living during the picking season, but other matters, such as the drainage of camp sites, toilet facilities, water and food supply, cooking and lighting arrangements, disposal of garbage, and household equipment, had a very important bearing on the whole situation.

DRAINAGE

The land in the Puyallup Valley where the berry fields are located is gently sloping toward the river, and the drainage of the soil where the pickers' quarters were situated was most satisfactory. Only two camps were found on low, damp ground. The natural drainage was good also in the prune orchards. The apple orchards were in a district dependent upon irrigation, and living quarters were very generally placed on dry, loose soil. However, on two ranches the tents were pitched on the edge of the orchard so close to the irrigation canals that the effects of overflow from the orchard ditches in recent irrigating were very noticeable, and the ground which formed the floor of the tents was actually soft and damp.

TOILET FACILITIES

In an analysis of the adequacy of the toilet facilities it is necessary to consider the location and convenience of the toilets, the number of households and number of persons using individual toilets, and the sanitary conditions. The convenience to the camps is shown in the

following summary of the approximate distances which the toilets were from the camp houses:

Distance from camp house	Number of households
Not any (plumbing within house)	4
Less than 25 feet	74
25 and under 50 feet	64
50 and under 100 feet	159
100 and under 200 feet	70
200 feet	45
300 feet	5
One city block	10

For 15 the distances were not estimated, including one household group, camped far from the ranch house, reported as "using the woods."

The distribution of single toilet buildings used by more than one household group was as follows:

Number of households per single toilet	Number of single toilets
2	87
3	37
4	15
5	11
6	5
7	1
9	1

In 62 of these 157 cases the toilets were used also by the rancher's family. In 19 cases there were separate toilets for men and women, accommodating in each instance from 2 to 12 households. Each of 186 toilets was used in common by more than one family. There were only 7 toilets individual for separate households.

The following shows approximately the number of persons accommodated per toilet:

Number of persons per toilet	Number of toilets
2 and under 10	86
10 and under 20	75
20 and under 30	19
30 and under 40	9
40 and under 50	2
50	2

Only the people housed on the ranches constituted the basis for the above estimate. In many cases the other persons, countless day workers and the members of the rancher's family, should have been included in the estimate of the number using each toilet, but as it was not possible to get an exact enumeration—the number of workers varying during the season—they were not considered. Accordingly,

the foregoing summary of persons per toilet, although somewhat approximate, is an underestimate.

In the case of 405 households the toilets used were clean and in a fairly good condition, but in the case of 15 households they were extremely dirty. Twenty-one other households were annoyed by the proximity of toilets that needed more lime or other deodorizer.

For the most part no thought had been taken of the inconvenient distance between toilet and place of work. This fact was especially true in the larger prune and apple orchards, where only 15 of the camp toilets were fairly near the fields also. Five apple ranchers had provided toilets in their orchards.

DRINKING, BATHING, AND LAUNDRY FACILITIES

Naturally the question of the water supply had a close relation to the adequacy of the facilities for drinking, bathing, and laundering.

The proximity of the berry ranches to the city made it possible for the pickers on 63 ranches to have convenient access to the city water supply. Twenty-one other berry ranches had the convenience of spring water piped from the hills. These two systems supplied about three-fourths of the people housed on the berry ranches, the rest of the households being dependent upon driven wells. The workers on the prune and apple ranches used wells and cisterns. As the apple orchards were located in a country dependent entirely upon irrigation, their water supply was largely from reservoirs, the water being carried down in flumes from the mountains. On some ranches where storage cisterns were in use the water was filtered, but not in all instances. In one case the campers were dipping water for all purposes—drinking as well as washing—from the open irrigation ditch in the orchard near their tents, although they could have had filtered water by walking much farther for it. Two ranchers were hauling drinking water a long distance, though irrigation water was used for other purposes.

Generally speaking, the water fixtures were much more conveniently located than might be expected for camp communities. It is true that only 35 people, domiciled on 7 different ranches, enjoyed the comfort of having running water inside the house, and on only 2 of these ranches were all of the households so supplied. Water on the porches was reported for 13 ranches, supplying 138 individuals. For about one-half of the camp workers, on 78 ranches, the outside water supply was located at a distance of less than 50 feet from their dwellings. At the other extreme were a few—about 18 people, the members of one household—who were one-quarter of a mile from the water supply, and 40 persons on 3 ranches who were forced to go the distance of a city block for their water. For the average transient

dweller, however, it might be said that the water was pure and conveniently near.

Less can be said for the adequacy of the laundry and bath facilities, although the pickers on at least 6 ranches were privileged to use the washing machine at the ranch house. On 86 the ranchers furnished a tub. In a very few instances hot water was supplied. But on 38 ranches the women found absolutely no equipment to aid in doing their camp wash, so that many postponed the wash day until they could get home, or, as one wandering "fruit gypsy" hopefully exclaimed, "It'll probably be easier to wash at our next place."

A real bath was a rare event, for very little attempt had been made on the various ranches to give the workers a chance to keep clean. However, credit should be given seven ranches who had installed arrangements for shower baths. To be sure, one such equipment was most inadequate as to water supply, but, on the other hand, another on a prune ranch had water heated from the furnace of the drier. In two cases the pickers used the bath in the rancher's home. Except for the occasional use of the washtubs—and sometimes these had to be borrowed—there were no other special arrangements for baths.

Picking prunes is a particularly dirty job, for the soil is loose, usually ankle deep, and the prunes must be picked from the ground; also the customary position for picking is on the knees in the dirt. Many pickers besides those on the prune ranches complained because, despite their dusty or dirty jobs, they had no chance to make themselves clean.

COOKING FACILITIES

To the housewife upon whom falls the responsibility of cooking for a family of hungry fruit workers, her kitchen equipment is of great importance. When several women come in from the field about noon to prepare a meal in a hurry so as to be back in the field in an hour, and when all must use the same stove, the situation calls for much forbearance and consideration. Nevertheless, the women manage such inconveniences with apparent good temper, and rarely, to quote one picker, does a woman "hog the stove."

In very many cases the cook stoves in the camps were used in common by two or more households. The most extreme cases of such cooperation were found in connection with the rows of rooms in berry-pickers' quarters, where, for example, four, five, or six households shared one stove, seven households shared two stoves, and eight shared three. Altogether there were 82 cook stoves shared in common by 186 households, or an average of 2.3 households per stove. Such common use of stoves was very rare among the prune and apple orchard workers. Here there were only five stoves which were used in common by two or three households.

The location of the stoves furnished by the rancher adds to the picture of camp living.

Location	Number of stoves
Sleeping room	158
Individual kitchen	24
Individual porch	5
Common kitchen	31
Common porch	64
Outdoors with canopy roof	8
Outdoors without canopy roof	14

Over one-half of the stoves (52 per cent) were located in sleeping rooms. Another bad arrangement was found on a few ranches where the stove was placed outdoors without a protecting roof of any sort.

The difficulties of such a situation are illustrated by the statement of one prune picker, whose family consisted of three adults and one child. "Of course, we began living in our own small tent and cooking outside in the open," she said, "and then those rains came about the second week, and it was too hard; we couldn't even make a fire and were all for quitting until the rancher let us cook in his kitchen; so we stuck it out."

The problem of fuel also was investigated by the bureau's agents. It was found that the berry ranchers in every case furnished fuel for the campers, either wood or oil. When wood was provided it was always placed in piles convenient to the shacks, seldom more than 20 feet away.

The matter of fuel was a fairly simple one for the workers on the prune ranches. On the ranches where there were driers equipped with wood-burning furnaces it was easy for the campers to obtain some of the wood for their own use. In very few instances did the pickers have to rely on whatever wood they could find scattered about the orchard. A few of the prune pickers preferred to buy oil for the stoves which they had brought with them.

The apple pickers did not have fuel so conveniently or satisfactorily provided. One woman remarked, "Yes, wood is furnished, but it is hard to pick it up in the sage brush." Wood left in the orchards as a result of pruning the trees is so limited in quantity that the great majority of the campers on the apple ranches did not attempt to depend upon it but used oil which they supplied for themselves. One apple rancher had coal to sell to his employees.

LIGHTING

The fact that so many of the berry ranches were located within or near the city limits of Puyallup made it possible for the ranchers to enjoy the convenience of electricity. Furthermore, 15 of the berry ranchers visited had installed the necessary equipment and were

furnishing electricity to 41 groups housed on their premises. Another household of pickers on one of these ranches was paying for its own current. Other ranchers supplied lamps and kerosene oil. Of the various households on the berry ranches, 96 had been equipped with lamps and 93 others with lamps and oil. All the other groups furnished their own lights, although some of the shacks had lamp fixtures.

One prune rancher and two apple ranchers also furnished electricity for their pickers, and several other ranchers provided oil. As it seemed to be the more general custom, however, for the orchard migrant workers to supply all of their own equipment, the ranchers apparently felt little responsibility for the provision of lighting facilities.

DISPOSAL OF GARBAGE

The system or lack of system in the disposal of garbage and tin cans might make or mar the general appearance and sanitation of the camps. It sounds well to say that on approximately one-fourth of the ranches the garbage was kept in receptacles for collection and that on one-fifth it was burned, but unfortunately the receptacles were sometimes uncovered, and at the time of the harvest rush—just when there was most waste—the collection was not always made as often as desirable, or there was sometimes an unwarranted delay in burning.

In camp housekeeping the accumulation of tin cans may be more objectionable than decaying garbage, and to prevent this annoyance many ranchers had as definite and regular arrangements for hauling away the cans as the garbage.

In such haphazard living and confusion a few cases of carelessness by one or two households made the entire surroundings of the camp confused and untidy, even insanitary. Often garbage was thrown "to the chickens," "on the garden for fertilizer," "down the gully," or "just on the garbage pile," but, on the whole, the pickers' camps were clean. However, the very nearness of the campers to the ranch house probably had great influence in maintaining, in general, a fair degree of orderliness in the pickers' quarters. Some ranchers said that they occasionally had found it necessary to discharge pickers for keeping dirty premises. On the other hand, it was noticed that where garbage and tin cans were thrown "down the gully" the rancher's family also dumped all their refuse there. The situation in regard to the disposal of débris was good on the whole, and there were only occasional complaints.

FURNITURE

The practice of equipping the pickers' shacks with some furniture was much more prevalent among the berry than among the apple and prune ranchers, possibly on account of the large proportion of women and children among the berry pickers. In fact, berry ranchers supplied beds, tables, and chairs for all but 10 household groups, 6 of whom were regular tourists with their own equipment. On the other hand, one-third of the prune pickers and two-thirds of the apple pickers furnished their tents or cabins.

Wherever the rancher furnished the quarters, the pickers found bed, chairs, and table ready for them. There was little space for anything else, and even so, the small rooms were crowded. The pickers invariably brought their own bedding. Twenty-five ranchers had fitted their shacks with bunks, sometimes one above the other. About 100 others supplied beds of varying degrees of comfort, but 12 households of prune pickers were given only straw on the floor.

The chairs and tables provided were sometimes crude, improvised from boxes, but they served the purpose. Thirty-six ranchers supplied only a box, stool, or bench, but the great majority of the households had at least one chair with a back and occasionally a rocker. Altogether about 50 households on 12 ranches had to share a table with other groups living in the row. This arrangement complicated housekeeping almost as much as using the same stove, for these tables served both kitchen and dining purposes. Over 287 of the households on the berry pickers' ranches enjoyed the luxury of shelves or cupboards, and 10 of them had screened shelves. Almost none of the shacks were screened, but there were comparatively few flies.

Most of the migrant pickers supplying their own sleeping equipment lived in tents and could not boast of real beds. Instead they had arrangements consisting of straw spread on the ground or floor and kept within the limits by upright boards fastened in box fashion. Naturally, in damp, cold weather this arrangement had its drawbacks.

FOOD

Besides supplying rent-free houses, furniture, fuel, and frequently light, many of the berry ranchers also supplied some food. In their advertisements for pickers this was one of the inducements offered. Over one-half the ranchers provided potatoes. The arrangement was not altogether satisfactory, since several women complained that, although they had been promised potatoes, they had either received none or had been given potatoes too old to use. One rancher's version of the potato situation was that the pickers had used so many at first that he had no more to give. Thirty-three households were

benefiting from free milk in limited quantities, and on a very few ranches eggs were allowed, in some cases two to each picker daily. Other ranchers supplied some foodstuffs below cost. In the orchards, however, it was not customary to provide food, although once in a while the pickers were given a few potatoes or other vegetables, "if plentiful." This difference in the custom of supplying food to berry pickers and orchard workers may be due partly to the difference in the personnel of the families and partly to the higher wages paid in the orchards.

PART V

WOMEN WORKERS IN THE BERRY FIELDS

The Puyallup Valley is the center of the berry raising in the State of Washington, and the survey of the Women's Bureau was confined to the berry ranches in this section. Although in the course of the study data were gathered from and about women who had picked four kinds of berries—strawberries, raspberries, blackberries, and loganberries—more attention was given to the raspberry and blackberry industries than to the other two.

The strawberry season was practically over when the Women's Bureau investigation began, and information was obtained from only a few women who were actually engaged in picking strawberries at the time of the interview. The raspberry season was just starting. Harvesting of these berries began as early as June 21 on some of the ranches and lasted on others through the first week in August. On most ranches the harvesting of raspberries extended over a period of four weeks.

The loganberry and blackberry harvests followed soon after the raspberries; blackberries were ready for picking about the middle of August and lasted to the middle of October before frosts interfered. This was a longer season than usual, but many ranches stopped picking early in October. Accordingly, if the women picked berries more than 30 days it is quite likely that they worked on at least two kinds of berries.

FACTS ABOUT THE INDUSTRY

Raspberry and blackberry bushes are planted in rows and held in place by stout wires. The ground between the rows is cultivated so that the soil is loose and free, and the picker acquires much dust in shoes and clothing.

The raspberry bushes have two kinds of branches or canes: Those new this year, which, though attaining a height of 8 to 10 feet, yield no berries, and at the end of the season are cut down, pruned and trimmed, to be the berry producers the following year; and the bearing canes, usually of a height comfortable for picking when standing in an upright position, on which the berries have developed. Considerable stretching or reaching may be necessary to pick the fruit which has grown on the inner branches, and some bending

in order to pick that near the ground. The blackberry vines are trained along wire trellises with much of the fruit lying on the top. Except to pick the small quantity growing below, there is very little reaching for this fruit. Generally speaking, there were few strains or hazards noted in the berry-picking industry. Stiffness for the first day or two, the discomfort of constant standing on uneven ground, and scratches from the briers on the blackberry vines were inevitable, though as a prevention of the last mentioned, pickers wore old stockings or gloves cut to leave the fingers free. The real hardship was the lack of facilities for frequent bathing. The Puyallup River runs near many of the berry ranches, but few pickers had the courage to plunge into its glacial waters.

Most of the ranches were small, with the living quarters within or at the edge of the fields. The water supply in such cases was available for the pickers. Where the fields were large or at a distance from the living quarters, either water was piped to the crate sheds or pails or jugs of water were kept there. Some of the pickers complained that they had to carry their own jugs of water with them. In regard to toilet facilities, besides those at the camps many of the ranches had privies located in the fields.

The largest proportion of the ranches supply fruit for both the eastern markets and the canneries. In such cases some skill and judgment are necessary on the part of the pickers in order to discriminate between the fruit designed for shipping and that for canning, and many pickers find this a nuisance. Berries must be picked for shipping before they are quite ripe, else they will spoil in the box. The general plan is to pick the berries for shipping and canning at the same time, if conditions permit. The picker is supplied with two different sizes of boxes, placed on a tray-like holder or carrier, suspended from the neck and attached to the belt. The smaller boxes are for the berries that are firm and less ripe and are to be shipped. The larger boxes are for the canners, and into these are put all the berries which are soft. For carrying the filled boxes to the crate sheds, each picker has a container, or rack, holding from 6 to 12 boxes.

The first raspberries to ripen are usually the finest and are the ones shipped East. During the season of the survey, however, the three days of rain at the beginning of the raspberry harvest made the berries so soft that for a long time almost none could be picked for shipping. Consequently, after the rain everyone picked at top speed, and practically all the berries had to be sent to the canneries. Another matter to be emphasized in the method of picking berries is the need to pick rows "clean" each time. In other words, all the ripe berries must be gathered, for if any are left on the bushes they are too old by the time of the next picking

and are a total loss because they must be thrown away. If they are put in the boxes with other berries they spoil the good fruit. The opinion of one woman picker who was interviewed is of interest at this point as illustrating a system in force on a number of ranches. She said:

> I always pick clean. Of course, you can hurry through and pick a lot when the berries are at their height, if you just pick the very best ones and the easy ones, leaving those that are low down and hard to get at, or that are smaller or farther in the bushes. But the person who comes along in those rows after such a picker has a hard time of it. You can't find so much and are apt to get in some of the sour or old berries without intending to. I do not like to pick after other people, so ever since my first year of picking I have insisted on having my rows assigned to me at the beginning of the season; then I keep right straight through and am responsible for them.

Picking is paid by the box, and the rate varies for the different kinds of berries and for the same kind on different ranches, with a bonus sometimes paid to pickers remaining for the entire season. One worker stated that she thought payment by the pound would be fairer, since the growers were paid in this way and since some pickers piled their boxes up much more than did others, a heaped box of fruit weighing from one-quarter to one-half pound more than a level box.

Wages for picking are generally paid at the end of the season, though the pickers may draw what they need at any time. The amount they draw is then punched on their tickets, so that they can always see just how much has been drawn. The bonus is paid at the end of the season to those who have stayed until the last berries have been harvested. These are always scarcer and harder to pick, and the pickers make very little money from them.

By many of the ranchers bookkeeping was done most casually. The whole problem of securing data on the hours of employment and earnings of the women berry pickers is well illustrated by one berry rancher, who apologized for his inability to fill out a questionnaire including items on time worked, saying:

> I can't see how I am able to answer the questions you ask, as we do not keep a record of the number of hours per day or the number of days any picker works. There is no stated time for a picker to begin or end, while it is generally understood by the pickers that they should be out picking by 8 a. m. and should pick about eight hours. Some days a picker may go out to the field at 6 a. m. and pick steadily until 7 p. m., with a short noon hour, while a greater number of days during the picking season this same picker may start between 7 and 9 and quit between 4 and 7, taking what noon hour she wishes. The only time we try to work a picker a stated number of hours is during the peak of the berry season, or if the berries get too ripe, and then it is impossible for us to insist on a certain number of hours.

Another rancher explained his inability to furnish information about either the earnings of the berry pickers or the time they had worked, as follows:

> When the pickers first started to pick berries they received a ticket on which I would punch the number of boxes they brought in. On this ticket they could draw from 5 cents to $2 if they had that much coming at the time. But when the pickers drew some money I didn't put down the pickers' names. I just put down the amount they drew, and so it is quite impossible for me to tell the amount each picker earned or the time she picked. Sometimes a woman with children would want all to pick on one ticket, and after a week they would change their minds and pick on tickets of their own. Sometimes about six or seven of the neighbors' pickers would come over for a half or a whole day and help me out, but I didn't put down their names or the wages they drew.

EARNINGS AND TIME WORKED

Because of the fact that so many ranchers knew only their total labor cost regardless of the number of persons who worked or the time they worked, the definite records furnished by 18 ranchers for 114 women for whom they had individual records have been greatly appreciated. In addition, 66 women who worked on 38 ranches also cooperated by giving the desired information on earnings and days worked, so that the data on these subjects represent conditions on 53 ranches (3 ranches were represented by both ranchers and women) for 180 adult women berry pickers. Earnings that covered the work of more than one person have been omitted, as have also the records stating the over-all period within which the working days fell instead of the actual days on which the women worked.

It was possible to secure at the end of the season an unusual record kept daily by an industrious picker, a school-teacher by profession, who was spending part of her vacation in this way. She had started on June 29 and stopped on August 4, working on 29 days altogether and receiving for the whole season's work $48.25. It was only after an interview with an agent of the Women's Bureau on July 11, however, that the woman began to keep a definite account of her picking. The following record, therefore, represents only two-thirds of her season:

Daily record of a raspberry picker

Date	Hours of work			Number of crates and boxes picked [1]	
	Begin	End	Total hours worked	Crates	Boxes
July 12	7.40 a. m.	5.45 p. m.	9	3	15
13	7.40 a. m.	6.15 p. m.	9½	3	5
14	7.30 a. m.	5.00 p. m.	8½	2	10
15	7.45 a. m.	12.00 m.	4¼	1	10
16	7.45 a. m.	5.00 p. m.	8¼	2	16
17	7.40 a. m.	5.00 p. m.	8¼	3	-------
18	7.30 a. m.	5.30 p. m.	9	2	20
19	7.45 a. m.	5.20 p. m.	8½	3	-------
20	7.45 a. m.	5.15 p. m.	8½	2	13
21	7.30 a. m.	5.00 p. m.	8½	2	12
23	7.45 a. m.	5.15 p. m.	8½	3	-------
24	7.45 a. m.	5.15 p. m.	8½	2	12
25	8.00 a. m.	5.00 p. m.	8	2	6
26	7.45 a. m.	5.15 p. m.	8½	2	12
27	8.00 a. m.	5.00 p. m.	8	2	6
28	8.00 a. m.	5.15 p. m.	8¼	2	6
30	8.00 a. m.	5.00 p. m.	8	2	-------
31	8.00 a. m.	5.30 p. m.	8½	2	3
Aug. 1	8.00 a. m.	4.00 p. m.	7	1	21
2	7.45 a. m.	5.00 p. m.	8¼	1	18
3	8.30 a. m.	4.00 p. m.	6½	1	6
4	8.30 a. m.	11.30 a. m.	3	-------	14

[1] A crate contained 24 boxes.

In the 22 days on which this woman reported employment, she picked 51½ crates of 24 boxes each, or an average of 2⅓ crates a day. The record is interesting also because it shows the irregularities of the time of beginning and ending as well as the variations in the number of hours worked a day. It is possible to estimate what the woman earned each day and each week, since data for the ranch on which she worked showed that berries picked for shipping were paid for at the rate of 50 cents a crate, and those picked for canning at the rate of 60 cents a crate, these amounts including a bonus paid to pickers remaining for the whole season. Moreover, the woman's record in detail revealed the number of crates of each kind of berries that she had picked daily. Taking as a representative week the one beginning July 16, we find that this picker worked 51 hours in six days and picked 16 crates and 13 boxes, earning $9.71. The next week, also one of six days, she worked 49¾ hours and earned $8.85. Although she worked on six days during the last week she picked for only 41¼ hours and earned only $5.75. Her record shows that she had earned about the same amount, $5.77, in the four days July 12 to 15, inclusive. This dwindling in earnings bears out the idea that picking berries is less remunerative at the end than at the height of the season. For the whole season from June 29 to August 4, inclusive, in which time she picked on 29 days, she earned $48.25, an average of $1.66 a day.

It must be pointed out that this record of an individual woman is that of an exceptional worker. It is much more significant, therefore, to get a picture of the time worked and the earnings of a group of berry pickers. For 180 women the number of days on which each worked and the earnings of each during the season were secured and have been tabulated. As already stated, the data used in the table were obtained from two sources, in some instances from the ranchers and in others from the pickers themselves.

TABLE 12.—*Average daily earnings in picking berries, and number of days worked—180 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
1 day	4	$1.50 to $1.95	$1.66
2 days	7	$1.32 to $3.65	1.27
3 days	4	$1.50 to $7.05	1.63
4 days	5	$5 to $7.70	1.39
5 days	2	$4.20 and $7.65	1.19
6 days	6	$3.15 to $9	.86
7 days	2	$10 and $10.50	1.46
8 days	1	$14.20	1.78
9 days	3	$6.50 to $17.50	1.16
10 days	6	$7 to $27.25	1.46
11 days	2	$19.32 and $22	1.88
12 days	19	$9.60 to $40	1.75
13 days	3	$17.50 to $28.10	1.71
14 days	4	$14 to $30.40	1.53
15 days	4	$17.25 to $38.50	1.80
16 days	3	$20 to $34.50	1.78
18 days	11	$11.70 to $35.15	1.30
19 days	3	$25 to $40	1.65
20 days	9	$18 to $40	1.50
21 days	4	$32 to $38	1.63
22 days	5	$27.50 to $53.95	1.78
23 days	6	$30 to $51.70	2.01
24 days	10	$23 to $42.08	1.34
25 days	3	$36.50 to $60	1.84
26 days	4	$27.50 to $80	2.00
27 days	4	$22.20 to $49.27	1.32
28 days	4	$48.65 to $75.25	2.09
29 days	5	$29 to $59.42	1.75
30 days	5	$32 to $64.30	1.84
31 days	4	$35 to $64.95	1.46
32 days	1	$49	1.53
33 days	3	$32 to $41.25	1.14
34 days	3	$80 to $94	2.54
36 days	3	$52 to $94.25	2.10
38 days	3	$66.50 to $72.20	1.81
41 days	1	$55	1.34
42 days	1	$104.25	2.48
46 days	1	$55.58	1.21
47 days	1	$69.58	1.48
48 days	1	$100	2.08
49 days	1	$68.45	1.40
51 days	1	$119.50	2.34
54 days	1	$90	1.67
57 days	1	$50	.88
62 days	1	$60	.97
72 days	5	$72 to $88	1.13

Summary:
Number of women—180.
Average working period—21.1 days.
Average amount earned—$33.74.
Average daily earnings—$1.60.

The table is interesting because it illustrates definitely the many elements entering into the whole question of berry picking. The data are representative of the picking of the various kinds of berries.

The 180 women included in the table show a wide range in the number of days worked, from 4 women who picked on just 1 day to the 5 who picked on 72 days. There is, on the whole, a fairly even distribution of the workers in the various time classifications, except for the 41- to 62-day groups. One-sixth of the women (16.7 per cent) worked 7 days or less. Slightly more than a fifth (21.1 per cent) worked from 8 to 14 days, inclusive, making a total of three-eighths who picked for not more than 14 days. Nearly one-fifth (18.9 per cent) of the women worked from 15 to 21 days, inclusive, and a fifth worked from 22 to 28 days, inclusive, a period representative of the average season of a berry harvest. About one-sixth picked from 29 to 45 days, inclusive, and 13 women (7.2 per cent) had a record of more than 45 days of picking. The whole group of 180 women totaled 3,795 days of work, averaging slightly more than 21 days per woman.

The wage variations are brought out in the table by the range in the earnings of any group of pickers working the same number of days. For example, the figures for the 19 women who picked on 12 days show a minimum of $9.60 and a maximum of $40, and those for the 4 who worked on 26 days, a range of from $27.50 to $80.

To some extent the experience and the skill of the workers are responsible for the uneven earnings of women working the same number of days. One rancher explained: "It all depends upon the woman herself; some can pick, others can't. Some come for a vacation and don't intend to kill themselves to earn a penny." This, however, is only one side of the story. Several factors other than the experience and reliability of the workers tended to cause variations in earnings. On account of the yield and condition of the berries and the fields, picking was much better on some ranches than on others. Also, the several kinds of berries were paid for at different rates, and the workers on the various ranches received different rates for picking the same kind of berries. Then, too, frequently the earnings of individuals were lowered because they picked for shorter periods on certain days than on others, such shortened days being due in some cases to personal reasons on the part of the worker, and in others to the poor run of berries or to bad weather.

In a consideration of berry picking as a source of income it is necessary to take into account the various vicissitudes tending to keep earnings down. In a general estimate, therefore, it seems advisable to strike an average which may be taken as fairly representative of the whole situation. The average earnings of the 180 women for the berry season were $33.74. The average daily earnings were $1.60, a figure arrived at by dividing the total earnings of all the women by the total number of days worked by all. More detailed figures than those given in the table show that the average daily earnings com-

puted from individual reports furnished by the women themselves were $1.53, whereas the average for those women whose records were given by the ranchers was $1.65.

The average daily earnings are lowest in the 6-day group ($0.86) and highest in the 34-day group ($2.54). Of the various groups, 3 disclose an average below $1; 16 of $1 to $1.50; 19 of $1.50 to $2; and 8 of $2 or more.

The following is an arrangement of individuals' average daily earnings—not averages of groups—computed from figures more detailed than those published in this report:

Number of women	Average daily earnings	Number of women	Average daily earnings
2	$0.50 and under $0.60.	7	$1.80 and under $1.90.
5	$0.60 and under $0.70.	15	$1.90 and under $2.
3	$0.70 and under $0.80.	10	$2 and under $2.10.
6	$0.80 and under $0.90.	12	$2.10 and under $2.20.
6	$0.90 and under $1.	3	$2.20 and under $2.30.
12	$1 and under $1.10.	4	$2.30 and under $2.40.
7	$1.10 and under $1.20.	4	$2.40 and under $2.50.
17	$1.20 and under $1.30.	2	$2.50 and under $2.60.
10	$1.30 and under $1.40.	2	$2.60 and under $2.70.
11	$1.40 and under $1.50.	2	$2.70 and under $2.80.
19	$1.50 and under $1.60.	1	$3 and under $3.10.
12	$1.60 and under $1.70.	1	$3.30 and under $3.40.
7	$1.70 and under $1.80.		

From the daily averages given in the foregoing statement it appears that about one-eighth of the berry pickers averaged less than $1 a day, over one-third averaged as much as $1.20 but less than $1.70, and two-thirds were in the groups averaging as much as $1.20 but less than $2.20. The number with an average of $2.20 or more a day almost balances the number with an average of less than $1. Unpublished data show that the largest number averaging the same definite amount were nine women at $1.25 a day.

Not far from three-fifths of the total number of pickers (58.3 per cent) worked on 18 days or more. Some idea of the range in the earnings of these 105 women, which may be taken as somewhat representative of season's earnings, can be obtained from the following statement, which gives the proportions earning specified amounts:

	Per cent
Under $20	3. 8
$20 and under $30	18. 1
$30 and under $40	22. 9
$40 and under $50	16. 2
$50 and under $60	13. 3
$60 and under $70	9. 5
$70 and over	16. 2

In general it would appear that berry picking was not an especially remunerative occupation for the average woman picker. The testimony of one worker is interesting in this respect. She said:

> As a money-making proposition I, myself, do not think much of it, but the people of the cities and those who love to be out of doors like it. And as it is not strenuous work and is pleasant to those who are not so familiar with it, many people do it for their health. Of course, there are exceptions, but it usually takes serveral years to become an expert picker.

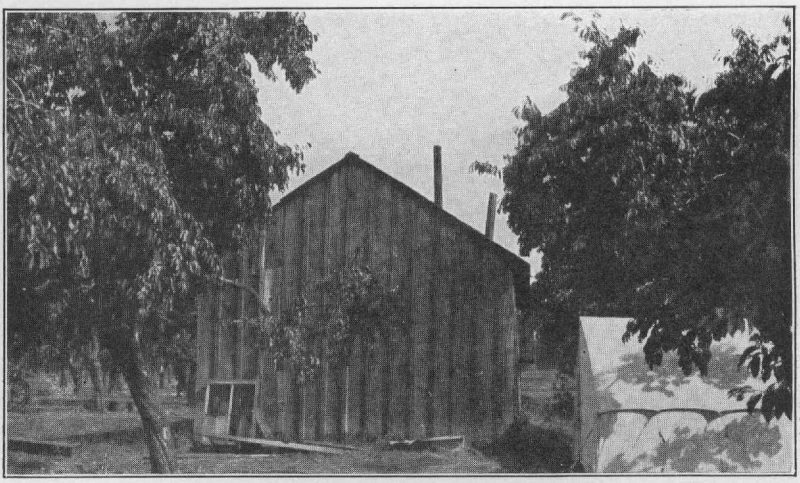
Table 12 shows that the highest amount earned by any woman was $119.50 for 51 days' work. Another woman earned $104.25 for 42 days of picking, and a third $100 for her work on 48 days during the season. The women with the highest daily averages did not work for so long a time as these; for example, one averaged $3.08 for 26 days, and another $3.33 for 12 days. It is apparent, however, from the foregoing analyses that all these were the unusual earnings of exceptional pickers.

57206°—26†——6

THE BLACKBERRY VINES ARE TRAINED ALONG WIRE TRELLISES WITH MUCH OF THE FRUIT LYING ON TOP

RASPBERRIES ARE USUALLY AT A COMFORTABLE HEIGHT FOR PICKING

IN PRUNE PICKING THE WOMEN WORK IN THE SOFT DIRT IN A CRAMPED POSITION



PRUNE SORTING IS DONE IN THE DRIER, A LARGE FRAME STRUCTURE ON THE EDGE OF THE ORCHARD

PART VI

WOMEN WORKERS IN THE PRUNE ORCHARDS

FACTS ABOUT THE INDUSTRY

One of the chief prune-raising districts in Washington is Clarke County, which is bounded on the south by the Columbia River and which has its county seat across the river from Portland. Here the prunes are raised for drying and left on the trees until they become ripe enough to be shaken off. The ground under the trees is cultivated so that it is free from all vegetation, and the earth is in a soft powder-like condition that does not bruise the ripe fruit when shaken from the trees. The prunes are then gathered into pails by the pickers, who work in the soft dirt usually in a cramped position on their knees. A few prefer to stand bending from the waist, but in either case the process is very dusty, and it is a strain to continue from 7 to 10 hours a day in such position and at the same time maintain any speed in picking.

The season for picking usually lasts through three weeks, always with the proviso of "weather permitting," and in 1923 the weather did interfere to some extent with the prune harvest. Full time for workers in the prune harvest varied from ranch to ranch, from 17 days in one case to 31 days in another.

The number of days on which there was orchard work was reported by the ranchers very definitely, accompanied in many cases by a statement of time lost by the workers on account of crop conditions or because of illness. Through possible misunderstanding the report may include one or two cases where the over-all period includes a little lost time not so specified; but the work of picking is quite continuous while it lasts, and the time at least indicates the days spent on the ranches, with no chance of other remunerative employment.

Picking is paid by the box, a boxful weighing from 60 to 70 pounds. The flat rate per box varied on the ranches included in the survey from 6 to 10 cents—the latter uncommon in the orchards visited—but in order to hold pickers until the harvest was over a bonus of 2 cents and occasionally 3 cents per box was paid at the end of the season. Accordingly, it was very much to the advantage of the pickers to remain, since it meant 8 or 9 cents instead of 6 cents, and might be even 12 instead of 10 cents a box. The number of boxes

one person can fill depends upon the endurance and agility of the picker, upon the condition and abundance of the prunes, as well as the absence of interfering grass under the trees. Furthermore, pickers must use judgment about which prunes to leave on the ground as unfit for drying.

Another important occupation connected with the prune orchards is that of sorting the fruit after it is dried. Not every ranch has a drier, as this sort of establishment frequently has a much greater capacity than is necessary for the owner's harvest, and in such a situation he contracts to dry his neighbors' crops.

The driers are large, frame, barn-like structures, built on the edge of the orchard convenient to the road. On the ground or basement floor is the furnace, and rising above it is the large heated chamber which is divided vertically into sections called tunnels. Each tunnel is of the width of the prune trays and fitted with brackets on which the trays rest. One kiln visited had 18 such tunnels, each tunnel being divided into 16 shelves, and each shelf equipped to accommodate a row of seven trays. The trays are of wire. Their usual size is about 2½ by 3 feet, and two trays are required to hold one 60-pound box of fresh prunes. The fruit dries down to approximately one-third of its weight after being exposed in the kiln to a steady heat of not less than 160° for about a day. Although the technique of drying varies slightly from ranch to ranch, the principle is the same.

Where prunes are dried on ranches, women are employed to sort the dried fruit. The number of women sorters in the driers visited varied from one to six, the average being three. There were usually twice as many men as women employed in the drier, but even so the total number of men and women did not average over nine. Men employed in the drier are kiln tenders working on day and night shifts; they wash, dip, and spread the fresh prunes on trays, fill the tunnels, and draw out the trays. Then they stack the trays in piles reaching from the floor to a height of about 7 feet. The trays weigh as a rule approximately 7 pounds, and with the dried fruit from 12 to 16 pounds. The work is usually arranged so that the girls lift the trays to the sorting table, where they pick out poor prunes and dump the good ones into a box, scrape the empty trays, and stack them. Where girls have been trained, it is possible for them to sort at the rate of one tray a minute, while others require three minutes for a tray. In many instances men helpers carry and lift the trays for the sorters, and in other cases the girls sort the good prunes through chutes extending from the top of the table to bins under the table or to the storeroom located on the floor below. When they sort to the chutes, from the prunes heaped on the table, they can work efficiently while seated, as the chute is near the front

edge of the table. One rancher who was visited had given up employing women as sorters, because the process entailed so much standing, reaching, and stretching that he considered it a type of work too taxing on women, and his experience with men helpers for these women had not been satisfactory.

The usual hours of work for women sorters in the driers visited were from 7 a. m. to 6 p. m., the allowance of an hour for lunch making a 10-hour day. However, on two ranches the 9-hour day was the standard followed. Of course, there were many departures from the usual schedule, for frequently sorting was finished earlier, and occasionally in a rush a sorter would work until 11 p. m. But as one rancher said, "If the daily picking is limited to the amount the drier can handle, one can avoid the night work." Another said, "If there are a sufficient number of trays for the drier's capacity, it eliminates night work for all except the kiln man." However, the urgency of the season is due primarily to weather conditions that may affect the fruit, as in fair weather the ripe prune itself will not spoil if left on the ground several days.

Sorters are paid by the hour, and the wages of sorters were found to be 30, 35, and 40 cents an hour. Not infrequently when the rate was 30 cents an hour, a bonus was paid at the end of the season. Three ranchers reported that they had not settled the rate for sorters, since they were waiting to see what their neighbors would do, but that it would not be lower than 30 cents. The season is short, from the middle of September through the first week of October, and there is more often than not work on the three Sundays.

In all, 37 ranches were included in the survey of the Women's Bureau. In these ranches the women workers constituted about one-third of the orchard force. The size of the ranches visited varied from many of 10 acres to an occasional one of 100, and the majority yielded somewhat over 2,000 pounds of dried prunes to the acre. A field of 10 acres usually required one man to shake the trees and from three to four pickers during the harvest season. One orchard of 100 acres had 40 laborers, about 25 of whom were women and children. One rancher with a large acreage kept more helpers than necessary, so as to be ready for an emergency, since, as he said, "they are always coming and going."

In order to get first-hand information personal interviews were held with 128 women picking prunes on the 37 ranches visited, and with 38 women sorting prunes in the driers on the 17 ranches which had such equipment.

EARNINGS AND TIME WORKED

Picking.

Of the 37 ranches visited, only 8 furnished data on pickers' wages. On the whole, however, the ranchers who cooperated in this matter were regarded in the community as among the leaders, and on their ranches the agents of the Women's Bureau found conditions particularly good. A few ranchers had no women on their orchard force. Moreover, since it is customary for families to work together, other ranchers kept accounts only in the name of the head of the family when two or more members were working on a particular job. Where the reports revealed that members of a family worked together regularly and had a joint account kept for them, their wages have not been included. Many other ranchers had records showing total picking costs, which were not adaptable to the method of using wage data in this survey.

The ranchers furnished information for 19 pickers. In addition to these data, reports were received from 21 women employed on 13 ranches, 5 of which ranches also were represented by data from ranchers. Twelve of these women, in answer to questionnaires sent by the Women's Bureau at the end of the season, were able to give very definite facts on the amount of work they had done throughout the period of prune harvesting; the other nine had reported before the end of the season. The data from the various sources have been combined in a table which shows the individual earnings of 40 women who picked prunes.

TABLE 13.—*Average daily earnings in picking prunes, and number of days worked—40 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
3 days	1	$4.26	$1.42
4 days	6	$6.48 to $9.48	1.97
5 days	3	$15.40 to $26	3.82
6 days	2	$10 and $12.80	1.90
8 days	1	$16.30	2.04
10 days	3	$32.90 to 39.24	3.53
12 days	2	$36.77 and $40.35	3.21
17 days	1	$27.65	1.63
18 days	2	$54.84 and $65.42	3.34
19 days	2	$38.75 and $61.72	2.64
20 days	1	$68.20	3.41
21 days	3	$70 to $125	4.35
22 days	3	$40.64 to $62.10	2.27
23 days	5	$50.95 to $111.42	3.23
24 days	1	$76.16	3.17
26 days	2	$84 and $90	3.35
27 days	1	$77	2.85
31 days	1	$100	3.23

Summary:
Number of women—40.
Average working period—15.1 days.
Average amount earned—$46.75.
Average daily earnings—$3.09.

An analysis of the data on earnings brings out certain significant facts. There is in some instances a wide range in the earnings of women who worked the same number of days. For example, one woman who had worked on five days earned $15.40 as compared with $26 earned by another working the same number of days. An even more striking illustration of the wide range in earnings is found in the 23-day group, the minimum earnings of the group being $50.95 and the maximum, $111.42. Moreover, a woman working 12 days and another working 22 days received about the same pay, $40.35 and $40.64, respectively. These striking extremes may be partly traceable to certain facts. In but few instances were the boxes of prunes weighed. The customary record kept was of the number of boxes only, a system which gave opportunity for slightly varying standards, so that some pickers gave scant measure while others heaped their boxes. Also, frequently women picking on the same number of days did not pick for the same number of hours. The most important factor, however, was the speed or endurance of the women.

Another method of considering earnings is to compare the average earnings for each time group. These averages are computed from figures more detailed than those given in the table. The season's average is obtained by adding the entire earnings of all the women in a time group and dividing by the number of women; the daily average is obtained by dividing the total earnings of the women in a group by the total number of days worked by the same women. The average season's earnings of the total number of pickers (40 women) working from 3 to 31 days were $46.75. The average earnings of 12 pickers who worked 6 days or less were $10.98. The average earnings of 22 pickers who worked 17 to 31 days, inclusive, were $69.96. This last figure is fairly representative of earnings for the whole season, since, as already noted, the season lasted on the different ranches from 17 to 31 days.

The average daily earnings of the 40 pickers working from 3 to 31 days, inclusive, were $3.09. Although the average daily earnings of the 12 pickers working 6 days or less ($2.44) were considerably below this sum, the average of the 22 pickers who worked approximately the whole season ($3.15) exceeded it slightly. The average of the 19 pickers for whom data were reported by the ranchers was $3.31; the average of the 21 women who gave wage information about themselves was $2.83. The highest amount earned was $125, reported by one rancher as paid to a woman who worked only 21 days. This amount averaged $5.95 a day, a sum equivalent, even at the maximum rate and the bonus, to earnings for picking 55 or 60 boxes of prunes daily.

The following is an individual daily record for the season of the number of boxes of prunes picked by an average steady worker who felt the urgent need of her earnings. She was so eager that she even worked one day in the rain. She was on a ranch where conditions were fair, the crop and soil conditions being neither the best nor the poorest. Occasionally she worked 10 hours a day, but more often it was 9 and sometimes only 8. Her daughter relieved her of the housekeeping duties in camp life, so that she had all her time and energy for outdoor work.

Date	Number of boxes picked [1]	Date	Number of boxes picked [1]
Sept. 12	18	Sept. 27	36
13	31	28	33
14	29	29	22
15	28	30	31
16	16	Oct. 1	35
17	24	2	40
18	21	3	18
19	18	4	31
20	20	5	17
21	15	6	20
22	16	7	17
23	20	8	21
24	40	9	3
25	35		
26	35	Total (28 days)	690

[1] Sixty to seventy pounds to the box.

The work the last few days was most discouraging as the prunes were not thick, having fallen at the fourth shaking of the trees. This picker felt, however, that she must stay through the harvest to get her bonus of 3 cents a box on the season's work; otherwise her rate of pay would have been only 6 cents a box, the 9-cent rate being conditioned upon her remaining to the end. As a whole, the rancher and picker agreed that the picking was good for half the time only; that she should have picked, on an average, 35 boxes in a 9-hour day; but that only in the orchards with a high bearing rate and especially clean dirt was this possible.

Sorting.

The records of sorters were furnished almost entirely by 12 ranchers. Each individual who sorts is paid for the hours she actually works, and as it is her definite job the bookkeeping is not complicated by family wages and other confusing elements, as in the case of picking. As already stated, the rate of pay for the prune sorters was 30, 35, or 40 cents an hour, sometimes with a bonus paid at

the end of the season, and, since the day consisted normally of from 9 to 10 hours, the wage scale, although not uniformly ascending, is decidedly regular as compared with that for prune pickers.

This table on sorters, who are paid by the hour, naturally reveals less startling extremes in earnings for the women in any one group than does that on prune picking, in which the women are paid by the box. Although there is, on the whole, a rather consistent increase in earnings with increase in time worked, the earnings of an occasional sorter, paid at a higher hourly rate, were above those of women who had worked on more days.

TABLE 14.—*Average daily earnings in sorting prunes, and number of days worked—45 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
3 days	1	$9	$3.00
4 days	2	$12 and $13.20	3.15
6 days	1	$21	3.50
7 days	2	$19.20 and $22.75	3.00
8 days	1	$28	3.50
9 days	1	$27	3.00
10 days	1	$35	3.50
11 days	1	$36.75	3.34
13 days	1	$45.50	3.50
16 days	1	$56	3.50
17 days	1	$59.50	3.50
18 days	1	$59.50	3.31
19 days	5	$63 to $75.80	3.58
20 days	3	$70 each	3.50
21 days	2	$73.50 each	3.50
22 days	2	$77 and $88	3.75
23 days	4	$69 to $80.50	3.16
24 days	10	$72 to $90.60	3.41
25 days	1	$78	3.12
27 days	1	$99	3.67
29 days	1	$114.40	3.94
30 days	1	$98	3.27
31 days	1	$101	3.26

Summary:
Number of women—45.
Average working period—18.8 days.
Average amount earned—$64.59.
Average daily earnings—$3.43.

The total number of sorters (45) reveal average season's earnings of $64.59 and average daily earnings of $3.43. Unpublished figures show that the average earnings of 33 sorters working approximately the full season (17 to 31 days, inclusive) were $78.22, and their average daily earnings $3.44.

In general, it is apparent that the earnings of the sorters were considerably in advance of those of the pickers. This difference can be brought out by a comparison of average daily earnings. The following is an arrangement in ascending scale of the average daily

earnings of the groups of pickers and sorters as revealed in Tables 13 and 14:

Amount	Average daily earnings of groups of pickers	Average daily earnings of groups of sorters
$1 and under $2	$1.42	----------
	1.63	----------
	1.90	----------
	1.97	----------
$2 and under $3	2.04	----------
	2.27	----------
	2.64	----------
	2.85	----------
$3 and under $4	3.17	$3.00
	3.21	3.00
	3.23	3.00
	3.23	3.12
	3.34	3.15
	3.35	3.16
	3.41	3.26
	3.53	3.27
	3.82	3.31
	----------	3.34
	----------	3.41
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.50
	----------	3.58
	----------	3.67
	----------	3.75
	----------	3.94
$4 and over	4.35	----------

It is apparent at a glance that the groups of sorters averaged considerably more per day than did the groups of pickers. Practically one-fourth of the groups of pickers show a daily average of between $1 and $2, and another fourth an average of $2 and under $3, whereas none of the groups of sorters fall below the $3-and-under-$4 classification of daily earnings. It is true, however, that none of the sorters show daily earnings of as much as $4, but one group of pickers—including the exceptionally rapid worker already referred to as averaging $5.95 a day—reveal an average of $4.35.

It is quite evident that the work of the sorters, employed in the driers at a job paid on a time basis with the definite possibility of earning about $3.50 a day, was, in general, much more remunerative

than the work of the pickers in the orchards under varying weather conditions and on a piecework job paying anywhere from $1.50 to over $5 a day but depending on physical endurance and adaptability.

WORKING CONDITIONS IN DRIERS

In all, the working conditions for women were inspected in 17 driers. These plants were, on the whole, crude structures, and the conditions under which the women worked were in some respects unsatisfactory.

Too great heat in the driers, however, was not one of the objections, for despite the proximity of the workers to the kilns the temperature of the workrooms was comfortable, chiefly because of the many open windows and doors. Nor was inadequate lighting a common defect. A good light is essential for sorting, and tables were invariably placed by the windows or under skylights. In only one drier, where sorters faced south, was there any glare from the windows.

The question of seating apparently had received but scant consideration. Sorting was generally regarded as a standing job, and in most of the driers visited the women stood. In four driers the work was so organized that the girls did not carry the trays to and from the sorting tables, and they could sit or stand according to desire. To be sure, the seats in each instance were improvised from prune boxes, and in other driers such boxes were available for sorters to sit if they had a spare moment. In one drier the women explained that the sorters could work to much better advantage if they stood. Although this was true in that particular plant because of its arrangements and equipment, nevertheless a man doing identically the same work near by was sitting on a box. In another drier the manager's wife, who was sorting, remarked that she preferred picking, which allowed a change in position, to sorting, which required constant standing.

The toilets provided for the women employed in the driers were outdoor privies. The only exception was where the one woman sorter was permitted to go to the home of the rancher. The toilets usually were placed in a position convenient to both the drier and the camp, although in one case the privy was at least a block and a half from the drier. That it was unusual to provide separate toilets for men and women is not surprising when one considers how few women were employed as sorters. Only one privy was in a disgusting condition, with broken seat and full pit. The rancher responsible for this situation certainly had not followed the prevalent custom of cleaning the privies before the harvest season. In very few cases did the ranchers supply paper in the toilets.

In 14 driers the drinking water was obtained at the faucets supplying water for washing the fruit, usually in a section of the drier adjoining the sorting tables. However, drinking water from a distance was brought in pails for two driers and in a covered milk can for a third. In another case either the water was carried from the ranch house in a pail or the employees could go to the house for it. In seven driers a common cup was placed conspicuously near the faucet or pails.

Washing facilities were strikingly inadequate. The usual wash place was at the faucet supplying water for the fruit-washing vats. Sinks or washbowls were noticeably absent, although occasionally a basin or bucket was seen near the faucet. Fortunately the faucet usually was so placed that the waste water from washing did not run into the fruit tubs. In many cases pails of water stood on the floor by the sorting table so that the workers could wash their hands as often as they wished and with little inconvenience. The water was changed at least daily and in some driers oftener. Sorting prunes is sticky work, but in only three driers was hot water easily obtained. One drier did have a washroom, but even so there was no soap or towel. The only woman who had such facilities supplied for her was the one privileged to use the ranch-house bathroom.

PART VII

WOMEN WORKERS IN APPLE AND PEAR ORCHARDS

The Yakima and Wenatchee Valleys are the center of the apple and pear growing industry of Washington, and this section of the report deals mainly with women workers in the orchards of that region. Because of the migratory habits of the field labor and the seasonal nature of the work, however, a detailed discussion of the reports secured from women employed in the apple and pear orchards necessitates some references in this chapter to their employment in connection with other crops.

FACTS ABOUT THE INDUSTRY

The first work done by the women employed in the apple orchards is the thinning of the fruit, some of the women working at this occupation for only a few days but others continuing at it for some weeks. The women who do this work are likely to be local laborers, as the migrants do not come into the Yakima Valley in large numbers until the harvest time. The process consists of picking a certain percentage of the apples before they mature to allow the fruit left on the trees to grow to a larger size than would be attained otherwise. Trees which have been thinned bear approximately the same amount of fruit in weight, but of a better quality; furthermore, it takes less time to pick the fruit at harvest. The thinner uses pliers or snaps the apples off with the thumb and finger. Ordinarily, the apples left to ripen hang about 7 inches apart, but some ranchers take off more apples than this. The cost of thinning is from $1 to $1.50 per tree. Men, women, and children are employed for this job. In some cases the women stand on the ground and pick from the lower branches, while the men, by means of ladders, work on the upper branches. However, many women also climb the ladders and thin the high branches as well as those below. The ranchers generally paid 30 or 35 cents an hour for thinning, and on one ranch visited the workers received 40 cents an hour.

Pear picking begins with the Bartlett pears, which are ready to be harvested by the middle of August and are completely picked by the first of September. They are picked green and left to ripen in cold storage. The packing and shipping also are done in cold storage, as the pears would spoil if they were taken in their cooled state to a

warm atmosphere to be wrapped and packed. The pear season, all told, is short, but the work is intensive while it lasts. Winter pears mature late in September and are frequently picked at the same time as are apples. Since this variety of pear ripens slowly, it is unnecessary for it to be packed in cold storage.

The most important crop in these valleys is the apple crop, and the different varieties ripening at different times prolong the harvest from the last of September to the first of November. On the whole, the intensive harvest activity in the highly developed orchard district is in September and October, when by far the greatest number of women are employed.

The job of picking pears and apples from the trees means that the worker must climb a ladder and in this position pick the fruit and place it carefully in a canvas pouchlike bag suspended around the neck and fastened in front to the waist. When the bag is full the worker descends to the ground to empty the contents, by opening the bottom of the bag, into a large 60-pound box beneath the tree. The filled boxes are taken by truck to the warehouses.

Because of the climbing and constant stretching and carrying, many ranchers consider the work too onerous for the average woman. Consequently, not a great many women pickers were encountered in the orchards visited. Wherever found in this occupation, they appeared to work more advantageously when doing "team work" with a husband or other male member of the family, the woman picking from the lower branches and the man confining himself to the higher ones and also being responsible for moving the ladder from tree to tree. As a rule the woman fills her bag only partly before emptying it into the box, in this way lightening the strain of carrying. The personal efficiency of the picker is a most important factor in the question of how remunerative is the job of picking. The rates quoted for picking apples were 35 and 40 cents an hour, or 5 to 7 cents a box. The rates for pears were slightly lower, generally 5 cents a box or 30 to 35 cents an hour. A 10-hour day was the accepted standard in the orchards. Almost invariably in the fruit orchards and warehouses men and women are paid at the same rate for the same kind of work. One rancher gave 5 cents an hour more to the men pickers than to the women because, he said, the former did more work. On the other hand, a rancher who paid the same rate per hour to women and men did so on the basis that the more careful handling of the fruit by the women more than compensated for the greater amount of work done by the men. On many ranches men did all the picking and women only the sorting and packing.

An average woman can pick about 70 boxes of apples or pears a day, though a great deal of care is necessary to avoid bruising the

fruit, and in cases where apples or pears are picked especially for color, judgment is needed for the selective process.

Before September the work in the orchards is done almost exclusively by local women, who live near the ranch or not so far away but that they can ride back and forth each day. Many migrant workers, however, are employed during September and October.

For local women the problem is to find work near home or convenient means of transportation to more distant fields. For migrant women the problem is to secure employment for the family where there is a good camp site. Frequently steadier jobs are available for the men in the migrant families, so that the family continues to camp at the ranch, and the women work whenever it is possible.

It does not often happen that a woman employed in thinning apples and picking cherries finds these jobs on the same ranch. For the most part those women who were working in apple orchards at the end of the season were employed on ranches devoted almost exclusively to apple raising. Pears are grown more often with apples than is any other fruit, but the acreage in peaches, cherries, and other fruits is so small that there is comparatively little work for the women in orchards except in connection with apples and pears. Accordingly, those women who desire steady employment during the entire fruit season must go from ranch to ranch where different kinds of fruits are grown.

EARNINGS AND TIME WORKED—WOMEN IN APPLE AND PEAR ORCHARDS

As already noted, very few women pickers were encountered in the orchards. On many ranches no women were employed for picking; on the majority there were one or two picking with their husbands, and rarely were there more than five women. As exceptions to this situation were two ranches, one of 400 acres with 14 women pickers and another of 200 acres with 11 women.

Eight ranchers replied to questionnaires on time worked and earnings of women employed in apple and pear orchards, in form so complete as to permit the tabulation of individual earnings of pickers. These ranchers gave definite data concerning 46 pickers, and in addition 58 women who had picked orchard fruits gave information so definite that their reports have been combined with those of the ranchers in the study of earnings in apple and pear orchard work. Also for 26 other women pickers sufficient information was furnished to make it possible to include them in some of the tabulations. Of these 130 women, a number had picked both kinds of fruit—apples and pears— or had had more than one occupation among the picking, sorting, or packing operations. Consequently they

appear in more than one table. Besides the data on picking, information was obtained from these same sources showing which of the pickers had worked for a definite period at thinning apples or at sorting and packing fruit in the ranch warehouses. Further information was available concerning 43 additional women, who had not picked but had been employed in the other occupations connected with the apple and pear crops.

Altogether the data on earnings in these orchards are representative of work done on 31 ranches. Occasionally the reply to the question about wages was given in terms of rates instead of actual amounts earned. Whenever it was feasible to compute the earnings from wage data given in either the ranchers' or the women's reports this was done. When information was given such as "picked apples 10 days at 35 cents an hour" the computation of earnings was made on the basis of a 10-hour day. This would mean an overestimate rather than an underestimate, for almost never did picking last more than 10 hours a day.

Apple thinning.

Wage data compiled for 23 women who thinned apples are presented in the following table:

TABLE 15.—*Average daily earnings in thinning apples, and number of days worked—23 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
3 days	1	$10	$3.33
6 days	1	$18	3.00
12 days	[1]1	$42	3.50
18 days	6	$54 to $63	3.08
24 days	[2]3	$72 to $96	3.33
25 days	2	$84.33 and $86.60	3.42
26 days	1	$103	3.96
30 days	2	$74 and $114	3.13
36 days	2	$90 and $108	2.75
42 days	2	$138 and $147	3.39
48 days	1	$144	3.00
54 days	1	$155	2.87

[1] Also thinned prunes on 3 other days for $9. Total thinning, 15 days, $51.
[2] One woman also thinned pears and peaches for 18 days for which there is no wage report. Total time thinning, 42 days.

Summary:
Number of women—23.
Average working period—25.9 days.
Average amount earned—$82.04.
Average daily earnings—$3.17.

Figures more detailed than those in the table reveal that $3 for a day of 10 hours was the usual wage, since this was the rate for 10 of the 23 women, and that the daily average earnings of individuals dropped below the $3 mark for only 3 women, their averages being $2.47, $2.50, and $2.87. The 23 women averaged 25.9 days per woman, $82.04 for entire earnings, and $3.17 as daily earnings.

The table shows one woman to have worked as much as 54 days, earning $155 in that time. The women whose jobs lasted through 42, 48, and 54 days were exceptionally fortunate in securing such steady employment in this sort of work, since the usual thinning period does not extend over 30 days. The highest average daily earnings which appear in the table are $3.96 over a period of 26 days in the case of one woman, though one of the group working 24 days exceeded this slightly, being paid $96, an average of $4 a day. Ten of the 12 daily averages given are between $3 and $4.

Apple picking.

Altogether the earnings of 74 women who picked apples were reported, and these are included in the following table:

TABLE 16.—*Average daily earnings in picking apples, and number of days worked—74 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
1 day	4	$3.45 to $3.55	$3.49
2 days	3	$2.90 to $6.90	2.64
3 days	3	$9.55 to $9.98	3.28
4 days	1	$12.06	3.02
5 days	2	$6.18 and $15.75	2.19
6 days	10	$6.30 to $24	2.91
7 days	2	$18.20 and $22.75	2.93
8 days	2	$27.90 and $28	3.49
9 days	2	$31.50 each	3.50
10 days	4	$34.50 to $35	3.46
12 days	8	$33.30 to $59.59	3.57
13 days	1	$24.25	1.87
15 days	3	$39.70 to $60	3.55
18 days	6	$54 to $72	3.39
19 days	3	$69.97 to $76	3.89
20 days	2	$70 and $71	3.53
21 days	1	$74.10	3.53
24 days	6	$56.67 to $106.50	3.48
30 days	4	$95.86 to $120	3.80
31 days	2	$103.43 each	3.34
36 days	2	$105 and $108	2.96
48 days	3	$154.80 to $192	3.49

Summary:
Number of women—74.
Average working period—14.9 days.
Average amount earned—$15.02.
Average daily earnings—$3.42.

Since the apple harvest lasts from the picking of the early apples before the middle of September until the last crop is gathered about the end of October, it is surprising to see that more than one-half of the 74 pickers reported in this table did not work more than 12 days, and that three-fifths were employed not more than 15 days. The different varieties of apples mature at different times, and this situation prolongs the season and permits pickers to go from ranch to ranch participating in the various harvests. Nevertheless not one in ten of the women included in the table worked more than a month.

The several day groups show some striking extremes in the range of earnings, due largely to the varying degrees of steadiness and strength of the individual women. The widest variation in earnings is in the 6-day group, consisting of 10 women, since the maximum amount earned by any individual in this period ($24) is 3.8 times as great as the minimum amount ($6.30).

The average daily earnings in the various groups have been secured by dividing the total earnings of all the women in a group by the total number of days which they worked. The averages obtained range from $1.87 to $3.89. Almost three-fourths of the groups reveal an average of between $3 and $4.

The average season's earnings for the whole group of 74 women were $51.02. The average period of employment was 14.9 days, and the average daily earnings were $3.42. The largest amount earned by any one woman was $192 for 48 days of work. This woman's daily average of $4 was exceeded, however, by that of a woman who was paid $59.59 for 12 days of work, an amount which averages $4.97 a day, and by that of another who received $106.50 for 24 days of work, an average of $4.44 a day.

Pear picking.

Notwithstanding the lower rate, pear picking is much more selective and therefore slower work than apple picking, as the fruit is picked carefully for size, and sometimes the trees are gone over as many as four times, the smaller fruit being left until it grows larger.

It was possible to secure data on earnings for only 41 women pear pickers, and these appear in the following table:

TABLE 17.—*Average daily earnings in picking pears, and number of days worked—41 women reported*

Days on which work was done	Number of women	Amount earned	Average daily earnings
1 day	6	$1.10 to $3	$2.39
2 days	4	$4.55 to $7	3.19
3 days	3	$6.60 to $10.50	2.90
4 days	5	$3.85 to $12.50	2.30
5 days	1	$17.50	3.50
6 days	6	$16.45 to $21	3.10
7 days	1	$21	3.00
8 days	2	$24 each	3.00
10 days	1	$30	3.00
12 days	10	$20 to $48.55	2.97
13 days	1	$45	3.46
18 days	1	$54	3.00

Summary:
Number of women—41.
Average working period—6.5 days.
Average amount earned—$19.41.
Average daily earnings—$2.97.

The number of days on which the women picked varied from 1 day for 6 women to 18 days for 1 woman, but the largest group of women (10), about one-fourth of the total, picked on 12 days. The limited pear season is emphasized by the fact that 25 of the women—practically 3 in 5—worked 6 days or less, and only 2 worked more than 12 days.

The average working period for the total number was 6½ days. The entire earnings averaged $19.41, and the daily earnings, $2.97. As already stated, the rates paid for pear picking are somewhat lower than those paid for apple picking, in spite of the fact that picking pears is a more selective process, and the averages for the various groups of pear pickers in this table show that this was the less remunerative occupation. The average daily earnings of the pear pickers were 45 cents less than the daily average for the apple pickers. The highest daily average shown in Table 17 is $3.50, but one woman who was paid $48.55 for 12 days of work averaged daily earnings slightly above $4. Four of the twelve averages presented are between $2 and $3.

OTHER TYPES OF SEASONAL WORK OF WOMEN IN APPLE ORCHARDS

Altogether data on earnings and time worked were secured from 173 women employed in apple and pear orchards. These records, which were supplied both by the ranchers and the women, also reveal the other types of work in which the women had engaged during the season. Sixty-eight of them had worked on only one kind of fruit—50 in apple orchards only and 13 exclusively in pear orchards. Fifty-six had handled two kinds of fruit, 23 of these being employed in apple and pear orchards, and 25 had worked on three kinds. Thirteen others were reported as having worked on four kinds of crops, nine on five kinds, and two on as many as six varieties. In addition to the work on apple and pear crops given as the type of employment, there was a miscellaneous group of occupations connected with fruit and vegetable crops, comprising peaches, prunes, berries, cherries, grapes, oranges, hops, onions, potatoes, asparagus, corn, and beets.

A special effort was made to secure full wage data for the season's employment for the women interviewed in apple and pear orchards. The ranchers' reports could not give the earnings for the whole season but only for the work done on their ranches. Sixty-nine women orchard workers who responded to questionnaires sent to them late in the fall, at the end of the harvest season, were able to give the complete record of all their work in agricultural pursuits. The data on earnings and time worked furnished by these women are presented in the following table:

TABLE 18.—*Average daily earnings in all agricultural pursuits, and number of days worked—69 women returning questionnaires on work done during the year*

Days on which work was done	Number of women	Amount earned	Average daily earnings
10 days	1	$35	$3.50
15 days	2	$39.70 and $60	3.32
18 days	3	$54 to $72	3.53
19 days	2	$76 each	4.00
20 days	1	$70	3.50
22 days	3	$66.80 to $78	3.32
24 days	2	$56.67 and $100	3.26
27 days	2	$107.26 and 117	4.15
28 days	2	$93.45 and 165	4.62
29 days	1	$146.80	5.06
30 days	3	$96.80 to 120	3.58
31 days	4	$102.25 to $114.10	3.41
33 days	1	$105.50	3.20
36 days	3	$111 to $149.52	3.44
37 days	3	$72.25 to $193.10	3.68
38 days	4	$111.58 to $139.98	3.40
40 days	4	$132.90 to $198.20	3.82
42 days	2	$147 each	3.50
43 days	2	$137.50 each	3.20
47 days	1	$163	3.47
48 days	3	$139.50 to $214.68	3.79
49 days	2	$156.86 and $186.20	3.50
51 days	1	$261.60	5.13
52 days	1	$262.40	5.05
54 days	1	$162	3.00
63 days	1	$227.50	3.61
64 days	1	$200.50	3.13
69 days	1	$225.60	3.27
70 days	1	202.50	2.89
78 days	2	$264 and $304.56	3.64
96 days	2	$290 and $555.33	4.40
97 days	1	$329	3.39
98 days	1	$450	4.59
115 days	1	$473.13	4.11
117 days	1	$302.05	2.58
121 days	1	$317.25	2.62
130 days	1	$565.46	4.35
138 days	1	$424	3.07

Summary:
Number of women—69.
Average working period—46.8 days.
Average amount earned—$170.29.
Average daily earnings—$3.64.

Due to the fact that the orchard work was not quite finished when many of the women answered the questionnaires, the report given on earnings and the number of days worked in some instances may be slightly below the actual total for the year. In the main, however, the data show what the average woman could depend upon in agriculture, in respect to both time worked and earnings. The season was limited to 10 days for one woman, 15 days for two, and so on to the opposite extreme of 138 days for the woman with the maximum amount of time spent in such pursuits. The harvest, beginning with cherries in June, is not over until the apples are picked, usually by the first of November, but the harvest of each crop, except apples, is limited to a few days or weeks.

The range of earnings in some groups is strikingly great, but this is not to be wondered at, since the skill and endurance of workers are not alone responsible for the differences. The earnings represent remuneration for work on many sorts of crops; women employed

for the same number of days might have performed very different jobs. The greatest differences are seen in the group of three women who worked 37 days with earnings that ranged from $72.25 to $193.10, and the two women with employment on 96 days, one earning $290 and the other $555.33. Of all those whose records were secured, the last-mentioned woman showed next to the highest season's earnings, and next to the highest daily average ($5.78). The woman who earned $165 for 28 days heads the list in the matter of daily average earnings, with the figure $5.89, and the woman whose earnings amounted to $565.46 for 130 days of employment revealed the largest sum secured during the season.

None of the 38 averages in the table drops as low as $2, and only 3 are between $2 and $3, whereas 10—or more than one-fourth—range from $4 to a little over $5. The great bulk, or about two-thirds, are between $3 and $4.

In a consideration of the 69 women as a whole it is found that the average working period was 46.8 days, the average season's earnings were $170.29, and the average daily earnings were $3.64.

From the records of the 69 women reporting upon all work in which they had engaged during the period from May to November, 1923, are taken the following examples of those who worked at various jobs on several ranches as the different crops came on and who managed to have fairly steady employment:

Over-all period	Occupation	Number of days worked	Amount earned
	Number 1		
Approximately 5 months.	Cut potatoes for planting	6	$18.00
	Thinned apples	18	54.00
	Picked cherries	6	18.00
	Picked pears, peaches, and apples	21	73.50
	Picked apples	18	62.10
	Total	69	225.60
	Number 2		
Approximately 6 months.	Weeded onions	6	21.00
	Picked berries (strawberries, raspberries, blackberries).	48	76.80
	Picked peaches	4	16.00
	Picked prunes	2	6.00
	Picked pears	1	3.00
	Sorted pears	1½	5.25
	Picked hops	6	19.20
	Picked apples	48	154.80
	Total	116½	302.05

Over-all period	Occupation	Number of days worked	Amount earned
	Number 3		
About 4 months	Packed peaches	8	20.00
	Packed pears	18	70.00
	Packed apples	72	360.00
	Total	[1] 98	450.00
	Number 4		
About 4 months	Picked cherries	2	7.00
	Thinned apples	12	42.00
	Picked peaches	12	42.00
	Picked prunes	3	9.00
	Picked pears	6	21.00
	Sorted apples	12	42.00
	Total	47	163.00
	Number 5 [2]		
About 3 months	Packed prunes	10	30.00
	Packed peaches	18	89.00
	Packed pears	12	64.20
	Packed apples	12	79.20
	Total	52	262.40
	Number 6		
About 5 months	Thinned apples	18	54.00
	Picked cherries	12	30.00
	Picked prunes	½	1.50
	Picked pears	3	9.00
	Picked apples	36	108.00
	Total	69½	202.50
	Number 7 [3]		
About 5 months	Thinned apples	30	74.00
	Picked cherries	4	10.00
	Picked pears	2	7.00
	Picked apples	30	120.00
	Packed peaches	6	36.00
	Packed apples	6	17.00
	Total	78	264.00
	Number 8 [4]		
About 4 months	Thinned apples	3	10.00
	Picked peaches	6	20.00
	Picked hops	18	40.00
	Picked apples	19½	71.00
	Sorted apples	17	59.50
	Total	63½	200.50

[1] Days worked for wages in 5 different orchards; also worked in own orchard 2½ weeks.
[2] Did not work before July, and season incomplete, with possibly one more week of work after this record was given.
[3] In the interim between fruit jobs the worker was "forced to do housework" for 30 days altogether. The fruit jobs averaged over $3 and the housework less than $1 a day.
[4] When work on the ranches was over, this worker was employed in town in a cannery for 24 days.

PART VIII

WOMEN WORKERS IN FRUIT AND VEGETABLE CANNERIES AND EVAPORATORS

FACTS ABOUT THE INDUSTRY

Most of the canneries included in this section of the report were scattered along the coast and west of the Cascades from the northern part of the State on Puget Sound to the Columbia River on the south, while a few of the canneries and evaporators were in the Yakima Valley.

Some of the establishments visited in this survey canned several different kinds of fruits and vegetables. Many of them were open only during the seasonal rush, but some few held their steadiest employees for more than six months. One very large cannery operated throughout the year; all of the workers employed at this plant during the peak of the season were, of course, not retained throughout the 52 weeks, many of them having desired only a short seasonal job.

The survey included 15 fruit and vegetable canneries and 3 evaporators. In these 18 establishments there were employed at the time of the inspection 899 men and 2,203 women—about 7 women to every 3 men, or more than twice as many women as men.

In contrast to the confusion in the housewife's little kitchen on canning days is the orderly routing of the work in an up-to-date cannery. The fruit is carried along from one worker to another and from one process to another by conveyors, and in the canning of certain products even the peelings and waste are removed by conveyors.

The machinery operates with such precision that the sealing of the cans looks much simpler and easier than the housewife's struggle to make her jars "air-tight." A machine drops the tin cover in exact position and clinches it lightly on the open top of the can. From the clincher the cans pass along the conveyor to the sealing machine, which exhausts the air from the can, and at the same time the double seamer traces the outside edge of the can, folding it in with the rim of the cover so tightly that it is hermetically sealed. It is not unusual for cans to pass along the line at the rate of 60 a minute. These operations are all done rhythmically, quickly, and without assistance from human hands. The cooking process follows, and it also has been simplified by the application of mechanical means for moving and lifting the cans and by the scientific use of steam or hot water for cooking the product.

The women's occupations.

When women can or preserve in their own homes, they perform all the work connected with "putting up," for example, a crate of berries or a box of pears. When they go to a cannery to work, however, they find the jobs specialized. Generally speaking, women clean or prepare the fruit, and men oversee the job and have the responsibility of the cooking. One group of women sorts pears, another peels, another splits and cores, and still another carefully fills the cans. The large majority of the women are concerned only with the preparation of the fruit. A few are employed "on the line," so called because of the direct course the filled cans take as they are conveyed in single file along a moving belt from the hands of the filler to the capping and sealing machine, and then into steam or hot-water cookers. "On the line" the women's chief business is to watch the machines and the course of the cans. Men do the cooking, or to use a more technical term, the processing, as well as the heavier work of moving the baskets, boxes, and heavy crates.

Modern mechanical equipment has greatly simplified some of the monotonous labor of the women. One power-driven cherry pitter makes the work of a dozen women hand pitters seem ridiculously slow; even gooseberries are snipped by machine, and apples are peeled by power-driven knives, not so perfectly, however, but that women trim them afterward, in order to remove spots and little pieces of skin that the machine fails to take off. Yet the preparation of the softer and more perishable fruit is done entirely by hand and keeps the many women busy. The snipping of string beans by hand is probably as monotonous and at the same time as poorly paid a job as the women had in the canneries visited. Some women make a practice of leaving their jobs during the bean pack and returning again for pears and apples, since they consider that the fruits pay better.

WORKING CONDITIONS

Buildings.

The establishments visited during the survey usually covered considerable ground space and always had an adequate number of exits. The women in most cases were at work on the first floor, but in a few instances where they were performing jobs on the second floor the stairways were not satisfactory. In one case, the stairway lacked a hand rail, and in another the stairs were decidedly sticky.

General plan and cleanliness of workrooms.

The cannery workrooms were invariably freshly painted, or at least clean, airy, and light. In fact, commenting on the adequacy of daylight, one canner said, "Daylight is cheap, so why not use it?" In one case the light was so direct and bright that the girls had

pinned paper at the window to eliminate the glare. Skylights and monitor roofs served both as a help in lighting and in ventilation, being especially efficacious in the removal of steam from the cook rooms.

The width of the passageways between the long parallel rows of tables at which the girls worked, usually on both sides, determined to some extent the degree of cleanliness of the floors around the tables during the work hours. In one cannery the space between the tables was so wide that the man whose sole duty was to collect the waste and peelings could wheel the large barrel down the aisle without crowding against the women at work, and he also had room to dump the containers carefully without spilling refuse on the floor. In another cannery that had just been fitted with the latest equipment in the way of worktables, conveyors, and cookers, the long aisles between the rows of girls were barely wide enough for one person to elbow his way through and it was practically impossible for two to pass each other. The confusion was increased by the fact that the waste, which on the day of the visit consisted of pear peelings, was removed in buckets by several men who had to reach over the girls' shoulders to get the pans full of peelings. As the aisles were closed at one end, the same passage served traffic both entering and leaving. No one could wind his way through without becoming smeared with sticky pear juice. A few women working at the tables had taken the extra precaution of tying rubber aprons across their backs also, but even so they were not completely protected.

The arrangement of the work also made a difference in the cleanliness of the floors in canneries that were engaged in packing string beans. Snipping beans is a very clean and dry process compared with the preparation of berries or pears, yet in one cannery the snippers were huddled together in such a haphazard and crowded manner in one corner of the preparation room that by noon the floor looked as if it had not been swept for a week, whereas it had been swept the night before. In another part of the same cannery bean snippers sat in regular order, and the aisles were well defined, so that it had been possible to sweep around the work places twice during the morning and the floor was free from refuse.

Occasionally the arrangement of workbenches and conveyors was such that they inclosed the women in hollow squares. The exits from these spaces were by means of steep stairways of six to eight steps, with narrow treads, although usually of substantial structure and equipped with hand rails. These stilelike stairs led to a platform constructed above the trunk line of the conveyor and extending the length of the conveyor to the end of the cannery. The overhead platforms were necessarily well built and railed in, but only wide enough for a single file.

Only five of the canneries had a cement or waterproof floor in the preparation departments, the others having wooden floors. The cleanliness of the floors depended largely upon the kind of crop that was being canned, whether soft berries or hard apples, and upon the time of day. One floor was described as "so sticky and rough with an accumulation of dirt that it needed scraping," but this was an exception to the usual cleanliness.

Most of the floors were constructed with a pitch drain sloping to a gutter or conduit extending the length of the building, frequently near the "line." In some cases the conduits were closed over with secure but removable plank covers. They were cleansed with lime at least weekly and with live steam daily. The cannery gutters discharged into a cesspool or catch basin, which, in turn, was connected with the sewer system where such was available.

Wet floors were more prevalent than dirty floors. Parts of at least half the canneries visited had disagreeably wet floors. This situation in places was partially overcome by the use of wooden racks or platforms raised 2 inches or so above the floor level. In some plants the racks were long enough to accommodate several girls; in others they were short and for individual use only. But these racks could not be depended upon always for adequate protection, and too often there were not enough for all the girls who really needed them.

The floors were more apt to be wet under the "can line" and sticky by the preparation tables. Along the line there were occasional splashings and overflows from the constant use of water and the frequent hosing of machinery and floors. In one cannery a most unsatisfactory drainage system had but recently been installed. All preparation work on pears, after they were peeled, was done in water. Each worker had one of a line of sinks or tubs to work in, the water in which had to be changed frequently. The waste water did not drain into a closed pipe below the sink, but gushed out into an open catch gutter, splashing the girls' skirts and legs. The branch drains from these three or four lines of sinks, as well as usual floor drainage, entered the main trunk line in the floor at the end of the factory. Moreover, this main line, instead of being closed, was an open gutter, which was so inadequate for the amount of water that it overflowed, with the result that there was an inch of water over a considerable part of the floor. One girl working in this section was very proud of her recent purchase of a pair of rubber boots. The foregoing is the exceptional case of wet floors, but it illustrates a cannery problem that has been solved in a more efficient manner by most canners.

Seating.

Some of the women had work so arranged that they had to be on their feet all day while others sat continuously. More fortunate workers could sit or stand. The 776 women who were reported as having sitting occupations were, with very few exceptions, sorting and preparing the fruit and vegetables for canning. Of the 537 women who stood continuously, 148, more than one-fourth, also were engaged in similar work of sorting, peeling, and cutting the fruit, but no provision had been made for them to sit. The other women who found it necessary to stand were stamping and labeling cans in the warehouse, or were working on the line filling cans or watching the machines, or were checkers and floor girls helping to keep records of amount of work done and to assist those busy preparing the product.

Convenient adjustments of the height of seats and tables had been made in several plants, so that 736 women could either sit or stand while they worked; and of these, 478 women, almost two-thirds, were doing exactly the same kind of work in preparation of the product as were women who were forced to sit all the time while working in most canneries, or to stand in a few others. Also, there were many labelers, packers, and line girls for whom suitable seats had been provided so that they could sit occasionally while at work.

Seating as an important item in the comfort of the workers seemed to have been overlooked in many plants in the rush to save the crop. In one cannery packing boxes were the only seats available. In another, the women had improvised high stools by placing a packing box endwise on a broader and lower box, laid flat, which served also as a foot rest. In five other canneries the shortage of ordinary stools led to the use of packing boxes as seats. In one cannery there were kitchen chairs which, by means of wooden stilts nailed to the legs, had been raised to a height convenient to the tables, but as a board made it impossible for the workers to get their knees under the table when using the chairs, the women stood. In one place the stools were so low that when the women sat on them they were in a strained position, and their elbows were so much lower than their hands that the water and fruit juice ran down their arms instead of into the receptacle on the table. In another cannery where stools were provided for all, though some could work to an advantage while sitting, others found them too high to use. The benches furnished as seats in certain plants were far from satisfactory. It is easy to imagine the discomfort involved when several women occupied a long bench, at least 3 feet high, before a peeling table, and the difficulty for any one woman to get out without disturbing all the other women sitting beyond her. In preference to this, the women pulled themselves up and jumped down, and

the struggle to get up when returning to their work positions was even harder. There was a foot rail on these tables by the high benches, but in many cases the women were too short to reach the rail, so that their feet dangled all day. The manager of one cannery had nailed crude board back-supports on his stools, and the workers said they were a great help, but in no case were the seats such as could be adjusted to different heights of tables or women.

Temperature.

Next to proper drainage and seating, probably the regulation of the atmosphere has most to do with the comfort, health, and indirectly the efficiency, of the women employed in canneries. The inspections of the canneries were made in the pleasant weather of summer. One canner frankly said, "Well, we collect more steam in the colder days of the fall," and more than one woman complained that she was obliged to quit work in the fall because it was so cold and damp then. The minimizing of excessive heat in summer is not nearly so much of a problem as supplying artificial heat in the fall. Under a few worktables in some plants was seen a one-pipe extension from the boiler room, and in one cannery a steam pipe was laid on the floor with racks over it for the women to stand on. In some canneries it was customary to confine the work in the fall to a limited section of the room, which could be inclosed by a temporary partition, thus making a smaller area to heat. Another plant, equipped with a few steam pipes at the ceiling, hung large canvas flaps in an attempt to shut out drafts. The workers there had cold feet, for although the sunshine was bright outside, the thermometer registered only 58° in the room. One room was described as comfortable at 60°, because there were adequate steam pipes on the side wall not far from the workers and a good exposure to the sun, and because the floors were dry. The standard of comfort was much lower in a cannery where the only heat was the damp, steamy atmosphere from the adjoining cooking department; however, there was a little stove in the dressing room, and on this the women heated bricks, their only foot warmers, which they themselves had brought to the cannery.

Sanitation and service facilities.

Uniforms.—The women instinctively wear wash dresses and aprons for cannery work, and the large oilcloth or rubber apron is much more of a protection in some kinds of work than is the gingham cover-all. Many of the firms provided aprons and caps at wholesale prices, but there were plants reported where the workers were entirely devoid of caps.

Washing facilities.—There were washing facilities of some sort in every cannery, a provision quite essential in plants handling food

products and one not difficult to make where such large supplies of water are used for other purposes. As in other conveniences, there was great contrast in the type of washing facility provided in different canneries. In one, for example, was an iron sink in the dark corner of a toilet room, while in another was a white porcelain bowl, with hot and cold water, liquid soap, and paper towels. In one cannery there was the primitive arrangement of a washtub under a faucet in a room adjoining the cannery proper. "The workers can wash there if they want" was the comment of the superintendent, but there were no towels and no soap. In still another establishment the only opportunity offered for washing was at the tank in which the large crates of cans were lowered for cooling after the cooking process. No matter what the type, all washing arrangements were reported to be clean or fairly so.

Only three washbowls had a hot-water supply. One foreman remarked, "They can fetch hot water from the cookroom when they want it," but few women would bother for that in the rush to leave at the close of the workday. Twelve of the canneries, or two-thirds of the total number, provided towels; three furnished roller towels, seldom changed in two plants, but changed three times daily in the third cannery; eight supplied paper towels, and one provided individual linen towels, furnished, according to the report, in plentiful supplies.

Drinking facilities.—Eleven of the canneries had bubble drinking fountains, but in only three were these of a sanitary type.[1] These bubble fountains were conveniently placed, usually in the workrooms.

Six plants were reported to have common drinking cups by the faucets, and there were "tin cans a plenty," as one man explained. In this connection it is interesting to quote the State law, which is as follows:

> No drinking cup, glass, or vessel for common use shall be provided in any car, vessel, vehicle, or other common carrier, * * * nor in any manufacturing, mercantile, or industrial establishment, nor in any public resort or recreation camp, nor in any logging, railroad construction, or industrial camp.[2]

One establishment suffered during the season from a water supply inadequate for canning purposes, so that the water was shut off from the bubbler, and the pressure in the toilet and sink was insufficient.

Toilets.—All but three of the fruit and vegetable canneries had inside toilets with modern plumbing, and these were in good repair in all but one case. One of the privies reported was located at least half a block distant from the cannery, and was used by both

[1] According to the National Safety Council the most approved type of sanitary bubbler is one with an adequate collar to prevent contact of the lips with the orifice and one with the tube inclined at an angle of 30° or more from the vertical.

[2] Washington Department of Health. v. 1, Rules and regulations of the State board of health, adopted July 27, 1921, sec. 57 (a).

men and women. One of the others was especially clean, not inconvenient, and its approach and entrance were effectively screened. In seven canneries matrons were constantly on duty, and even where there were no matrons there were definite arrangements for cleaning, either by janitors or the night force of cleaners; in no case were the girls employed in the cannery held responsible for scrubbing the toilets. Usually toilets were cleaned once or twice during the day or at night. Only one was reported dirty, and it looked as if it had not been scrubbed the entire season. As this toilet was not adequately screened, there was no privacy from the cloakroom in which it was located. The toilets were light and well ventilated, with one exception, this being a toilet with a transom opening into the workroom. The number of women per toilet seat varied greatly from month to month during the season. One manager stated that the number ranged from 20 to 60 women; 5 canneries had a maximum of not over 20 women per seat; 10 had never less than 20, and sometimes as many as 30, 40, 50, and 60 women per seat.

Cloakrooms.—In consideration of the nature of cannery work, a dressing room in which to change clothing seems essential, but it was not found in all the canneries visited. In one, nails in the workroom walls, on which the girls hung their skirts or sweaters, were the nearest approach to a dressing room. A slight improvement on this arrangement was an open corner of the warehouse, which was used for a cloakroom. A small, dark, closetlike room at the entrance to the toilet and entirely inadequate was another plant's provision for the workers' wraps. Another cloakroom was described as too small, since one hook held the wraps of as many as three girls. Three dressing rooms had no provision for seats, not even a bench convenient to use in changing shoes. But on the whole, the dressing rooms were very clean, light, and airy, and seven had matrons or foreladies who gave them close supervision. Although some were crudely equipped, one had lockers and a few others shelves and coat hangers. Five of the cloakrooms were combined with toilet and washrooms, and six served for lunchrooms.

Lunchrooms.—In five canneries the women were expected to leave the workrooms to eat their lunches, and in such cases excellent provision had been made in the way of lunchrooms and cafeterias serving soup, coffee, sandwiches, and other popular dishes at a nominal cost, or of attractive rooms furnished with gas plate, chairs, and tables. In contrast to these was the cruder provision of a few benches in the cloakroom, where one could eat. One unheated cloakroom was so cheerless on disagreeable days that the girls ate in the workroom or sometimes went to the boiler room.

Restrooms.—Ten canneries made no provision for restrooms. Four had cloakrooms large enough to be used in case of emergency,

but they were lacking in suitable equipment. One cannery had a canvas cot folded away but available for use, while two other canneries had fully equipped first-aid rooms, with clean, attractive cot beds.

HOURS

Because of the seasonal nature of the industry and the perishability of the product, regulation of the hours of work of women in canneries has not, in general, been thought practicable. Although the great majority of the States have passed laws restricting manufacturing industries in the hours of employment of women, only a very few of these have not excepted canning and preserving establishments from the general law.

In recent years the opinion has been growing that some regulation of the canning industry in this respect is possible. An expression of this opinion is found in the hour laws in three States—Arkansas, Massachusetts, and New York—and in the orders of the industrial welfare commissions in three other States—California, Kansas, and Wisconsin. Massachusetts, although including canneries in its 48-hour law, allows these establishments to operate 52 hours in any one week, provided the weekly average for the year is 48 hours.[3] The New York 9-hour-day and 54-hour-week law applies generally to establishments canning perishable products, but the industrial commission has permitted overtime to the extent of 1 hour daily and 6 hours weekly from June 15 to October 15, and 3 hours daily and 12 hours weekly from June 25 to August 5.[4] In Arkansas a more rigid check is placed on the hours of canneries, for the State law limits the working hours of women in such establishments to 9 a day and 54 a week, and although the industrial welfare commission allows overtime on 90 days in the year, time and a half must be paid for all hours in excess of 9 a day.[5] In Kansas the order of the industrial commission covering manufacturing establishments is very elastic when applied to canneries, since overtime without penalty is permissible for six weeks during the peak of the season or for two periods not to exceed three weeks each.[6] Stricter regulations of the hours of women in fruit and vegetable canneries have been enacted in California and Wisconsin through the application of the overtime rates of pay in connection with the minimum-wage laws. In California a basic 8-hour day has been established, with punitive overtime rates of time and one-quarter after 8 hours a day and double time after 12 hours.[7] Wisconsin, too, has enforced orders which, through their

[3] Massachusetts acts of 1919, ch. 113, sec. 48.

[4] Session laws of New York, 1921, v. 1, ch. 50, sec. 173, pp. 161–162.

[5] Digest of the statutes of Arkansas, 1919 (ed. by T. D. Crawford and Hamilton Moses), ch. 117, sec. 7109, p. 1858.

[6] Kansas Court of Industrial Relations. Industrial welfare order No. 13, May 19, 1922.

[7] California Industrial Welfare Commission. Order No. 3a, Aug. 8, 1923.

successful operation, show the advisability of regulating hours of work for women in canneries. The State industrial commission in 1924 promulgated an order whereby factories canning beans, cherries, corn, or tomatoes must arrange their work so that no woman employee may be required or permitted to work more than 9 hours in any day or 54 hours in any week, except in emergencies occasioned by breakdowns, bad weather, or climatic changes, when women may be employed for 10 hours a day (60 a week) or not more than eight days during the season.[8] In 1924 also a similar order was issued for pea canneries, except that in emergencies women may work 11 hours a day.[9]

In a consideration of the figures compiled in the Washington survey it is apparent from the number of women whose weekly hours of work exceeded 60 that there was great need of State limitation. Long hours, day after day, emphasize the necessity for a revision of the hours of work for women, since so many of these wage earners are called upon to perform two jobs—one as wage earner outside the home and the other as homemaker, attending to household duties and caring for the family. The study of working hours found in this industry in Washington presents striking evidence that when the season was at its height long hours did prevail, some firms reporting even a 7-day week.

In all, 14 fruit and vegetable canneries and 3 evaporating plants are included in the report on hours and wages. None of the fruit and vegetable canneries worked a definite and uniform schedule of hours, although one firm reported a standard 11-hour day, four a 10-hour day, one a 9½-hour day, five a 9-hour day, and three an 8-hour day when the fruit "ran steady," but these are slight indications of the hours actually worked, for the fruit did not "run steady."

Since regular or scheduled hours were not characteristic of the industry, it is necessary in giving a picture of the hours of employment of the women to discuss the hours which they actually worked. The data on this subject as well as those on wages were secured from the pay rolls of the 17 plants visited. Nine of these, with 1,475 women (51.3 per cent), had a weekly pay roll, and eight establishments, employing 1,403 women (48.7 per cent), used the semimonthly basis of payment.

The pay rolls were selected by the management as representative of a typical period in the industry—rather a normal period in the

[8] Wisconsin Industrial Commission. Orders relating to the hours of labor for women employees and establishing minimum-wage rates for women and minor employees in factories which can beans, cherries, corn, or tomatoes. Form C–9, 1924.

[9] Wisconsin Industrial Commission. Orders relating to the hours of labor for women employees and establishing minimum-wage rates for women and minor employees in Wisconsin pea-canning factories, Form C–8, 1924.

output than a time when the hours were irregular and the wages low. The dates of the pay rolls varied between July 27 and September 29, the period covered being the two months wherein the high point of the industry in regard to production and numbers employed was reached.

Hours and days actually worked in canneries.

Table I in the appendix shows all those women in the fruit and vegetable canneries for whom both days and hours worked were recorded. In this instance it has been found advisable to tabulate the women having weekly payments separately from those for whom a semimonthly record was secured, because of the difficulty encountered in attempting to prorate the hours and earnings of the workers to a common basis. For each mode of payment six establishments were reported, although the weekly pay-roll data account for more than twice the number of women on the semimonthly records, since for many of those with this latter method of payment either days or hours worked were not reported, and these women could not, therefore, be used in the table requiring that both these be given.

From Table I it is readily seen that 226 women (18.4 per cent of the 1,228 on the weekly pay rolls) worked more than a 56-hour week—the legal limitation of the State for women employed in other than cannery work—and that 90 women (7.3 per cent) included a Sunday in the week's work. All but a very few of the women having a 7-day week were employed in one establishment.

The semimonthly pay rolls show 7.9 per cent of the women working a period of more than 120 hours, which, according to the 8-hour limitation of the State for industries other than those here considered, would be the number of hours for 15 possible working days. About one-tenth of all the women in this table included two Sundays in their working period. Statistics[10] have shown that a decline is noticeable in the production per hour for a 7-day week as compared with a 6-day week, and even more significant is the fact that production during the week following a Sunday worked does not show a recovery in production rate to the standard of the previous weeks without Sunday work. All of these points serve to emphasize the effect of long hours on production and on the individual—on the industry by decreased output and on the employee by cumulative fatigue.

As already noted, California, a neighboring State, has adopted a standard 48-hour week for women in canneries as well as in other industries. For about two-fifths of the women on the weekly pay rolls of canneries in Washington there was reported a week of more than 48 hours, or the equivalent of six 8-hour days, and though the

[10] Illinois Industrial Survey. Hours and health of women workers. Springfield, 1918, p. 93.

semimonthly records show only a small proportion averaging more than an 8-hour day, this is more often due to the work's being slack than to any attempt at standardization of hours.

Cases where women worked extremely long hours day after day are exceptions to the rule and but tend to prove the assertion made elsewhere in this report that it was almost impossible for a woman to work full time every day for a period as long as a half month, as the hours in the canneries were so very irregular. One of these exceptions shows hours to have been 12½, 11½, 12½, and 13½ on four consecutive days of the working period, and the 14-day schedule of another woman gives the hours she was employed in the cannery as 10½, 14, 11½, 11, 11, 14½ (Sunday, no work), 9, 12, 14, 11½, 14, 11½, (Sunday, no work), 6, and 9½, totaling 160 hours, or an average of almost 11½ hours a day. Another woman averaged more than 13 hours a day for 13 days. To be sure, there were intermissions of two Sundays for the woman with the 14-day schedule but such long hours, day after day, must soon take their toll of woman's energy and efficiency.

Hours actually worked by six-day workers in canneries.

After a consideration of the number of hours worked by the women in the several day groups, it is interesting to select one group of women and show their distribution according to the specified number of hours they were employed. Six days being regarded as a normal working week, the exact hours of the 522 women thus classified in the table are given in the following summary as representative of what might be called approximately full-time work. This analysis also shows that though all are reported as working on six days their actual hours ranged from 33 to 71.

Hours actually worked by the 522 women working on six days of the weekly pay roll

Hours	Number of women
33 and under 40	25
40 and under 48	162
48	5
Over 48 and under 56	139
56	7
Over 56 and under 60	86
60	8
Over 60	90
Total	522

Less than 5 per cent of these 6-day workers failed to work at least 40 hours, and almost one-third of them had a working period of from 40 to 48 hours; nearly five-eighths worked more than the 48 hours indorsed by authorities on the subject as a satisfactory working week

for women; 35.2 per cent were employed during the week more than 56 hours, the legal maximum in the State for other industries, while 17.2 per cent had hours of more than 60.

As elsewhere stated, Wisconsin has a maximum 60-hour law for factories canning beans, cherries, corn, tomatoes, and peas, and yet the above analysis shows that more than one-sixth of the women in Washington with a record of hours worked during a six-day week exceeded the maximum fixed by Wisconsin.

Irregularity of hours in fruit and vegetable canneries.

That great differences existed in the hours of any one day group is apparent from Table I in the appendix. By combining the weekly and semimonthly pay rolls, it is possible to give the maximum and minimum number of hours worked by the women in each of the day groups, for the given period.

The following table shows the difference between the highest and lowest number of hours actually worked by 1,759 women in the specified number of days they were employed during the pay-roll period[11] in the fruit and vegetable canneries:

TABLE 19.—*Variation in number of hours worked within one pay-roll period by women working on same number of days—fruit and vegetable canneries*

Days on which work was done	Number of women reported	Minimum number of hours worked during period	Maximum number of hours worked during period
1 day	134	1	12
2 days	125	4	22
3 days	135	8	32
4 days	190	8	45
5 days	235	8	55
6 days	550	10	70
7 days	108	19	79
8 days	40	22	80
9 days	26	21	90
10 days	35	27	95
11 days	36	43	112
12 days	30	49	126
13 days	62	89	172
14 days	51	101	160
15 days	2	121	132

This table is introduced to emphasize the extremes and great irregularities in the number of hours different women were employed when at work on the same number of days; for example, one and possibly more of the 550 who worked on each of six days were actually employed only 10 hours during this period, while one or more of the others were employed as much as 70 hours. If we take as another example those who worked on 13 days, we find the minimum number of hours worked to have been 89 and the maximum 172, this latter

[11] Based upon records of 1,228 women for whom pay rolls were on a weekly basis and of 531 on a semimonthly basis.

averaging as high as 13 hours for each of those 13 days. In some instances the minimum averages two hours or less a day.

The wide variation in the length of the working day is a factor to be seriously considered. The report of hours actually worked by each woman on each of the days in the pay-roll period and the summary giving the actual hours for one selected group are not in themselves sufficient to tell the whole story. The hours of employment of the majority of women in canneries are subject to sudden and drastic changes, and a long day may follow a short one, another long one, or several long ones. Since workdays of almost any length are permitted in this industry, it is significant to realize the extremes in the hours each woman is employed, and the following table is presented to show the maximum and the minimum number of hours of the individual worker.

TABLE 20.—*Variation in number of hours worked within one day—maximum and minimum hours of women in fruit and vegetable canneries*

Maximum number of hours worked in one day	Number of women reported[1]	Number of women with maximum hours as specified whose minimum time worked in one day was—											
		Under 1 hour	1 and under 2 hours	2 and under 3 hours	3 and under 4 hours	4 and under 5 hours	5 and under 6 hours	6 and under 7 hours	7 and under 8 hours	8 and under 9 hours	9 and under 10 hours	10 and under 11 hours	11 and under 12 hours
Total	1,151	36	82	177	319	154	144	75	57	57	41	8	1
2 and under 3	1	------	------	1	------	------	------	------	------	------	------	------	------
3 and under 4	7	1	2	3	1	------	------	------	------	------	------	------	------
4 and under 5	16	4	4	2	2	4	------	------	------	------	------	------	------
5 and under 6	18	1	4	6	3	4	------	------	------	------	------	------	------
6 and under 7	28	5	3	5	9	2	4	------	------	------	------	------	------
7 and under 8	37	4	9	9	10	3	1	1	------	------	------	------	------
8 and under 9	229	14	26	86	43	7	27	9	7	10	------	------	------
9 and under 10	188	4	13	25	65	19	10	12	14	19	7	------	------
10 and under 11	264	2	7	26	103	31	43	13	11	13	13	2	------
11 and under 12	216	1	6	11	55	45	20	31	15	9	20	2	1
12 and under 13	54	------	4	------	4	12	20	3	5	4	1	1	------
13 and under 14	71	------	4	3	21	21	16	4	2	------	------	------	------
14 and under 15	12	------	------	------	1	3	1	1	2	1	------	3	------
15 and under 16	5	------	------	------	2	------	1	1	------	1	------	------	------
16 and under 17	3	------	------	------	------	1	1	------	1	------	------	------	------
17 and under 18	1	------	------	------	------	1	------	------	------	------	------	------	------
20 and under 21	1	------	------	------	------	1	------	------	------	------	------	------	------

[1] Includes only women who worked on two or more days.

The arrangement in Table 20 shows the longest as well as the shortest workday for each of 1,151 women in the periods for which the pay rolls were taken. It was possible to get such data because the time books in some of the fruit and vegetable canneries had entries showing the number of hours worked by individual women on each day.

For only 26 of these women did the hours of their longest and their shortest day fall in the same group. Of these women, 10 had a day of 8 and under 9 hours throughout the week, 7 had a day of 9 and under 10 hours, 2 did not vary from 10 and under 11 hours, and

1 worked 11 and under 12 hours each day. All the rest of the women had varying lengths of workdays with such extremes as 1 hour one day and 13 hours another, or 3 hours on one and 15 another, or 4 hours on one and 20 on another. But the variation occurring more often than any other was 3 hours for the shortest day and 10 hours for the longest.

An analysis of the minimum and maximum daily working hours of the individual women shows also that the shortest or minimum workdays ranged from less than 1 to 11 and under 12 hours, whereas the longest or maximum days ranged from 2 and under 3 to 20 and under 21 hours. The longest days for over three-fourths of the women (77.9 per cent) were in the classifications of 8 and under 12 hours, but nearly as many had 11 as 8 hours for their longest workday. The longest day was under 8 hours for not quite one-tenth of the women, while for about one-eighth it was over 12 hours, and slightly more than 6 per cent of the women fall in the group whose longest working day was 13 and under 14 hours. For almost four-fifths of the women (79.3 per cent) the shortest day was 5 hours or less, that is, about half a day of work. This was not due to a custom established in some industries of closing a half-day Saturday, for the short hours in the cannery were just as apt to come one day of the week as another, and the lay-off was as often in the forenoon as in the afternoon. For about one-tenth of the women the shortest day of the week was less than 2 hours, a fact indicating that the women had barely got a good start when they quit; for over one-half of them (53.4 per cent) the minimum day was under 4 hours, while for only 49 of the women was the shortest workday equivalent to the 9- or 10-hour day presumed to be the standard in this industry.

Such irregularities in the hours of employment from day to day can not but mean uncertainty as to how much the pay envelope will contain at the end of the working period.

Regularity of hours in evaporators.

Evaporators have been included in this section of the report and in general have been classified with canneries because of the similarity of work in the two industries. The regularity of the day's work in evaporating plants, however, is in striking contrast to the uncertainty of hours in canneries. The following summary table for evaporators, showing the number and per cent of women who worked the various numbers of days during the week and the number working 10 hours daily, reveals the large proportion of workers found in the six-day group. The great proportion of the women (71.4 per cent) who put in a full 10-hour day is especially significant in view of the irregular hours which prevail in canneries.

TABLE 21.—*Extent of the 10-hour day in evaporating plants*

Days on which work was done	Women reporting		Women working 10 hours daily
	Number	Per cent	
Total	119	100.0	85
1 day	19	16.0	12
2 days	8	6.7	2
3 days	8	6.7	6
4 days	7	5.9	3
5 days	13	10.9	8
6 days	64	53.8	54

These evaporators were preparing apples for market and were situated in towns where there were many apple warehouses. In both the evaporators and warehouses handling apples a 10-hour day was the standard in force, but, as this fruit is not a highly perishable crop, it would seem possible to have the daily hours in these establishments reduced to 8—the standard in industries regulated by the State law.

Canneries with different hour policies.

The various canneries differed in their policies in regard to the length of time of operation, uniformity of hours being a practice rarely attempted. Information relative to the length of each of the working days of 1,231 women was secured from the pay rolls of 11 fruit and vegetable canneries. Of these 11 plants, only 1, with 243 women workers, had arranged its work so scientifically that it operated according to a standard schedule; another plant, with 181 women, had an irregular schedule but operated considerably below normal time, due to lack of forethought in securing sufficient materials and to breakdowns in machinery; while the other 9 canneries, showing 807 women on the pay rolls, were irregular as to schedule and worked long hours, the managements yielding sometimes to the temptation to preserve or can as much as possible during the rush of the season.

The following table gives a picture of the working days in the three types of canneries:

TABLE 22.—*Variation from normal schedule of daily hours of work during one pay-roll period—women in fruit and vegetable canneries*

Hours worked in one day	Days of each specified number of hours worked in—					
	No. 1: One cannery operating near standard schedule (243 women employed)		No. 2: One cannery operating irregular and subnormal schedule (181 women employed)		No. 3: Nine canneries operating irregular and long schedule (807 women employed)	
	Number of days	Per cent	Number of days	Per cent	Number of days	Per cent
Total	1,227	100.0	969	100.0	5,328	100.0
Under 1			65	6.7		
1 and under 2	14	1.1	107	11.0	21	0.4
2 and under 3	111	9.1	91	9.4	51	1.0
3 and under 4	5	.4	155	16.0	378	7.1
4 and under 5	12	1.0	170	17.5	230	4.3
5 and under 6	86	7.0	100	10.3	223	4.2
6 and under 7	7	.6	84	8.7	393	7.4
7 and under 8	34	2.8	65	6.7	311	5.8
8 and under 9	583	47.5	98	10.1	817	15.3
9 and under 10	135	11.0	22	2.3	1,547	29.0
10 and under 11	224	18.3	8	.8	663	12.4
11 and under 12	16	1.3	3	.3	445	8.4
12 and under 13			1	.1	106	2.0
13 and under 14					112	2.1
14 and under 15					22	.4
15 and under 16					5	.1
16					4	.1

A better conception of the situation may be derived by summarizing this table as follows:

Daily hours	Per cent working each specified number of hours		
	Type No. 1	Type No. 2	Type No. 3
Under 8 hours	21.9	86.4	30.2
8 hours	47.5	10.1	15.3
Over 8 hours	30.6	3.5	54.5

In type No. 1 almost one-half of the workdays were in the 8-hour group, whereas in type No. 2 more than one-half of the workdays ranged from 2 to 6 hours in length, with only about a tenth being a standard 8-hour day; and for the third type, although 15 per cent of the workdays were 8 hours in length, 54.5 per cent exceeded 8 hours, at least 13 per cent of the days being 11 hours or longer.

Following a discussion of the length of each of the days worked, the time put in during each week of the season becomes of double interest. With this idea in view data for 34 of the steadiest and best workers were selected from the material secured from the pay rolls. Moreover, the selection was based on the decision that only

plants which had operated more than 20 weeks were to be considered as representative of steady seasonal work. The 34 women chosen for this special study were employed in two canneries which had such complete records that it was possible to obtain data concerning the length in hours of each week that each woman worked. The two classifications in the accompanying table reveal the length of the weeks worked by the picked group of steady workers in a cannery whose schedule was fairly well standardized and by another picked group of steady workers in a second establishment which operated irregularly.

TABLE 23.—*Variation from normal schedule of weekly hours of work during the season—the 34 steadiest women in two fruit canneries*

Hours worked in one week	Cannery operating near standard schedule		Cannery operating irregularly	
	Number of weeks	Per cent	Number of weeks	Per cent
Total	424	100.0	353	100.0
Under 10	21	5.0	9	2.5
10 and under 20	28	6.6	30	8.5
20 and under 30	32	7.5	25	7.1
30 and under 40	69	16.3	27	7.6
40 and under 50	198	46.7	44	12.5
50 and under 60	66	15.6	66	18.7
60 and under 70	10	2.4	89	25.2
70 and under 80			36	10.2
80 and under 90			23	6.5
90 and under 100			3	.8
100 and under 110			1	.3

It is apparent from the table that the first cannery, which had standardized its work, had apparently maintained throughout its season of five to six months the same general trend of work hours that was shown for the one week scheduled in the preceding table, almost one-half of the weeks falling in the 40-to-50-hour group. The cannery operating irregularly and for long hours (included in the last group of canneries in the preceding table) kept up its overtime record for many of the weeks worked throughout the season, so that the one week selected for the current pay roll was not at all unusual but really typical of the plant. In the first cannery it appears that 62.3 per cent of the weeks worked were from 40 to 60 hours, 2.4 per cent were from 60 to 70, and none were longer than 70 hours. In the second cannery 31.2 per cent of the weeks worked were from 40 to 60 hours, 25.2 per cent were from 60 to 70, and 17.8 per cent were from 70 to 110 hours.

WAGES

As canning is considered a seasonal industry, wide variations in the weekly wages of women workers would seem a most natural conclusion. Many modifying factors, such as the seasons of the year, the occupations of the women, the time and piecework system, the hours actually worked, employment in different establishments, the skill of the worker, and the economic conditions existing in the country, all tend to cause the earnings of the individual worker to fluctuate week by week. As elsewhere stated, the management was asked to select pay-roll data for a period in which the work was normally steady, so that the records showing time worked and earnings might be considered representative of the industry.

Some of the fruit and vegetable canneries and all of the evaporators kept the pay-roll data on a weekly basis; other canneries used the semimonthly method of pay. Because of the outstanding differences, no effort has been made to combine the two.

The detailed figures for the weekly and the semimonthly period disclose the fact that irrespective of time worked the former shows a range in earnings of from less than $1 to approximately $41, while the latter reveals earnings of from less than $1 up to about $52.

In fruit and vegetable canneries and evaporators the median of the week's earnings for all women without regard to time worked was $12.10; that is, one-half of the women, or 737, received less than $12.10, and 737 received more than that amount. The median earnings for the number who may be considered as full-time workers—those working 50 hours or over, or on 6 days or more—were $15.90 a week.

The minimum rate established by California for experienced workers in canneries is $16; yet more than one-half the women who put in so-called full time in Washington canneries and evaporators received less than the amount fixed by a neighboring State as a decent living wage for women. Since the specified period for which these pay-roll data were taken is considered fairly representative of the industry, it can not be said that the earnings reported were less than those of any other pay roll in the season. Indeed, as already stated the effort was made to secure records for a busy time rather than a dull one.

The table of week's earnings (Table II in the appendix) also shows that more than three-fourths (76.3 per cent) of all the women whose wages are there classified received less than this $16 minimum of California, and that almost three-fifths (57.8 per cent) received less than $13.20, which is the minimum rate required in the State of Washington for experienced workers in industries other than seasonal.

The Industrial Welfare Committee of the State of Washington includes a proviso in its last order, which went into effect January 22, 1922, whereby "in the fruit and vegetable canning industry, at least 66⅔ per cent of such employees (pieceworkers) shall be paid not less than the minimum wage rate, and not more than 33⅓ per cent of such employees shall be paid at a weekly wage rate of less than $13.20." [12] Table III in the appendix, showing earnings of pieceworkers, indicates that more than two-thirds of those women working on 6 days and over who were paid on a basis of output received $13 or more.

An indication of the great uncertainty prevailing in the cannery industry is shown in the fluctuations in the average daily earnings of two crops. Pay-roll data were secured for apples and for beans in the same plant, covering periods when each of these products was reported at its peak. The records show 70 women canning beans and 58 canning apples, the average daily earnings of the women for these two crops being $1.48 and $2.22, respectively. An analysis of the records of 38 women whose names appear on both registers in this plant reveals average daily earnings of $1.65 for beans and $2.24 for apples; in other words, any one of these women who worked on two crops averaged 59 cents more per day when she canned apples than when "putting up" beans. Four of these 38 reported 13 days, or full-time work for a half-monthly period, on each product, and daily averages for this group amounted to $1.77 for beans and $2.12 for apples, netting the worker an additional 35 cents per day, or $4.55 for the period, when the product for full-time work was apples rather than beans.

Earnings and time worked.

It was not always possible to secure data regarding the number of hours the women worked—a fact due, in great part, to the custom in many plants of recording only days for pieceworkers—so that it has been necessary to divide the weekly and semimonthly wage tables into two sections, one correlating earnings with hours worked and the other correlating earnings with days worked. Where both hours and days worked were reported, the hour data have been recorded.

[12] Washington Industrial Welfare Committee. Order No. 29, nov. 22, 1921.

TABLE 24.—*Median earnings in fruit and vegetable canneries and evaporators, by time worked*

Time worked	Weekly pay roll			Half-monthly pay roll		
	Number of women reported	Per cent distribution	Median earnings	Number of women reported	Per cent distribution	Median earnings
	A. WOMEN WHOSE TIME WORKED WAS REPORTED IN HOURS					
Total	1,364	100.0	$12.30	610	100.0	$13.65
Under 10 hours	94	6.9	1.95	59	9.7	1.25
10 and under 20 hours	136	10.0	3.65	65	10.7	3.85
20 and under 30 hours	117	8.6	6.90	68	11.1	6.45
30 and under 40 hours	172	12.6	9.80	63	10.3	9.90
40 and under 50 hours	338	24.8	12.45	43	7.0	12.40
50 and under 60 hours	326	23.9	14.75	48	7.9	14.80
60 and under 70 hours	174	12.8	17.80	27	4.4	18.55
70 and under 80 hours	7	.5	(1)	23	3.8	19.30
80 and under 90 hours				47	7.7	23.05
90 and under 100 hours				46	7.5	24.50
100 and under 110 hours				42	6.9	27.25
110 and under 120 hours				36	5.9	33.00
120 and under 130 hours				20	3.3	34.65
130 and under 140 hours				12	2.0	(1)
140 and under 150 hours				4	.7	(1)
150 and under 160 hours				4	.7	(1)
160 and under 170 hours				2	.3	(1)
170 and under 180 hours				1	.2	(1)
	B. WOMEN WHOSE TIME WORKED WAS REPORTED IN DAYS					
Total	111	100.0	$10.05	791	100.0	$11.25
1 day				60	7.6	1.20
2 days	17	15.3	3.70	59	7.5	2.55
3 days	15	13.5	5.60	70	8.8	4.20
4 days	15	13.5	9.40	69	8.7	6.70
5 days	38	34.2	11.65	54	6.8	8.00
6 days	26	23.4	14.25	68	8.6	10.60
7 days				90	11.4	12.90
8 days				81	10.2	16.95
9 days				45	5.7	17.90
10 days				43	5.4	15.50
11 days				55	7.0	17.90
12 days				52	6.6	18.50
13 days				38	4.8	21.50
14 days				7	.9	(1)

[1] Not computed, owing to small number involved.

Of the 1,974 women for whom records of earnings and hours worked were furnished, more than two-thirds (69.1 per cent) were on a weekly basis of pay, the remaining 30.9 per cent having a half-monthly record.

Less than three-eighths (37.2 per cent) of the 1,364 women who were paid weekly and whose time was reported in hours worked 50 hours or more, or what might be considered a full week in canneries, and the median earnings for this group were $16.35 (see appendix, Table II). As the majority of the women did not get in a whole week's work, the median week's earnings for all women were lowered to $12.30.

Of the women paid half monthly whose hours were reported, comparatively few—a little less than one-fifth—worked 100 hours or

more, or what might be called two full weeks. In fact, not far from one-half of the women failed to work as many as 50 hours in this half-month period. There is much more lost time in a semimonthly period than in a weekly one, and it may have been easier to choose a pay roll representative of a full time working period for one good week in August than for the longer period, as busy seasons are indeed short. Compared with the $12.30 median week's earnings, the median of $13.65 for a half month seems astonishingly low, unless one bears in mind that almost two-thirds of the women (64.9 per cent) did not work during the half-month period beyond the limit of the weekly group—70 and under 80 hours.

For 902 women employed in fruit and vegetable canneries, the time books did not show the actual number of hours worked in the pay period, but only the number of days on which the women were employed; therefore, their earnings could not be included in the preceding discussion. Of all the women in the day group, 12.3 per cent had weekly payments, while more than seven times as many (87.7 per cent) received their wages twice a month.

Appendix Table II shows that of the smaller group, almost three-fifths worked on five and six days. None of the women in this group were reported as working on either one or seven days. The median earnings for all these women on the weekly pay rolls amount to only $10.05. Very few of the half-monthly group of women classified by days worked had full-time work. Only about 12 per cent were employed on 12 days or more and not far from one-half did not work more than six days during the half-month period; it naturally follows, therefore, that the median earnings for the half-month period would be proportionatly much lower than for the weekly period.

It is interesting to note that the median earnings were higher in both weekly and semi-monthly periods when time records were kept by hours than when kept by days. This is apparent from the following summary:

	Median week's earnings	Median half-month's earnings
Time worked reported in hours	$12. 30	$13. 65
Time worked reported in days	10. 05	11. 25

Earnings of timeworkers and pieceworkers.

The pay rolls showed many more pieceworkers than timeworkers the exact numbers being 1,845 women paid on output and 604 paid on a time basis.

TABLE 25.—*Median earnings of women on timework and on piecework, by days worked—fruit and vegetable canneries and evaporators*

Days on which work was done	Timeworkers			Pieceworkers		
	Number of women	Per cent distribution	Median earnings	Number of women	Per cent distribution	Median earnings
	A. WOMEN IN ESTABLISHMENTS PAYING BY THE WEEK					
Total	476	100.0	$12.25	793	100.0	$11.30
1 day	43	9.0	2.30	72	9.1	2.15
2 days	24	5.0	4.00	84	10.6	3.75
3 days	37	7.8	5.65	73	9.2	6.70
4 days	29	6.1	9.60	109	13.7	10.10
5 days	56	11.8	12.20	167	21.1	12.10
6 days	257	54.0	14.35	284	35.8	14.10
7 days	30	6.3	17.15	4	.5	(1)
	B. WOMEN IN ESTABLISHMENTS PAYING BY THE HALF MONTH					
Total	128	100.0	$22.40	1,052	100.0	$10.40
1 day	5	3.9	(1)	102	9.7	1.10
2 days	8	6.3	(1)	80	7.6	2.60
3 days	2	1.6	(1)	96	9.1	4.20
4 days	9	7.0	(1)	103	9.8	6.15
5 days	8	6.3	(1)	65	6.2	7.70
6 days	7	5.5	(1)	85	8.1	10.40
7 days	3	2.3	(1)	98	9.3	12.35
8 days	15	11.7	14.90	90	8.6	16.30
9 days	11	8.6	(1)	54	5.1	17.15
10 days	5	3.9	(1)	57	5.4	15.30
11 days	12	9.4	(1)	70	6.7	18.50
12 days	10	7.8	(1)	62	5.9	18.85
13 days	21	16.4	32.75	61	5.8	24.15
14 days	12	9.4	(1)	29	2.8	32.50

[1] Not computed, owing to small number involved.

On account of the large number of pieceworkers for whom hours worked were not reported, all the data in this table are on the basis of days on which work was done. For both piece and timeworkers the table shows a decided peak in the number of women working on six days; more than one-half of all the timeworkers and about three-eighths of the pieceworkers were so reported.

On the half-monthly pay rolls there were eight pieceworkers to every timeworker, 1,052 and 128, respectively, being the actual numbers involved. About two-thirds of the timeworkers were reported as working on eight days or over, while only two-fifths of the pieceworkers showed employment for such a period. For the weekly pay rolls the median earnings of timeworkers ($12.25) are only a little in advance of the median earnings of pieceworkers ($11.30). The semimonthly pay rolls, however, show quite a discrepancy between the median earnings of the timeworkers and those of the pieceworkers, the former being $22.40 and the latter $10.40. The pieceworkers' median is even slightly less than the median of the pieceworkers on the weekly pay rolls.

A glance at the great number falling in the first four day groups (36.2 per cent) and the straggling figures occurring thereafter would account for the low median of all the women reporting piecework. For timeworkers, however, the opposite is true, as few of these women are found in the first few day groups, and there is a great bulking in the later groups. Towards the end of the half-monthly period, the proportion of timeworkers is much greater than that of pieceworkers. This fact would seem to show that when work is slack, preference is given to a timeworker rather than to one paid on a basis of output. For this reason the women find timework more desirable than piecework.

In general, the foregoing analysis shows that the work of those paid by the hour or day was steadier than the work of those paid by output, but a better idea of this difference is obtainable from the following summary:

Number of days worked	Timeworkers		Pieceworkers	
	Number	Per cent	Number	Per cent
Weekly pay roll:				
Under 6 days	189	39. 7	505	63. 7
6 days	257	54. 0	284	35. 8
Over 6 days	30	6. 3	4	. 5
Total	476	100. 0	793	100. 0
Half-monthly pay roll:				
Under 13 days	95	74. 2	962	91. 4
13 days	21	16. 4	61	5. 8
Over 13 days	12	9. 4	29	2. 8
Total	128	100. 0	1, 052	100. 0

Earnings by occupation.

For comparatively few of the women employed was the occupation specified on the pay rolls. However, it was possible to collect wage data for some women working in the preparation of fruit or vegetables, and for some who were engaged in canning. There are sufficiently large numbers reported to be representative of these two rather inclusive occupational groups, each of which was classified also according to timework and piecework.

The following arrangement shows the actual time worked by time and pieceworkers in each occupation group during the pay period, which was a week in some plants and half a month in others.

TABLE 26.—*Number of women on timework and on piecework, and their median week's earnings, by number of hours worked—preparation and canning operations in fruit and vegetable canneries and evaporators*

Hours worked and basis of payment	Preparation			Canning		
	Women		Median earnings	Women		Median earnings
	Number	Per cent		Number	Per cent	
Grand total	304		$12.70	95		$14.30
Timework	114	100.0	14.45	41	100.0	16.05
Piecework	190	100.0	11.95	54	100.0	13.45
Under 50 hours—Total	166		9.85	47		9.90
Timework	47	41.2	8.85	14	34.1	7.00
Piecework	119	62.6	10.05	33	61.1	10.50
50 and under 65 hours—Total	137		16.10	47		16.70
Timework	67	58.8	16.25	26	63.4	16.70
Piecework	70	36.8	14.00	21	38.9	16.50
65 hours and over—Total	1		(1)	1		(1)
Timework				1	2.4	(1)
Piecework	1	.5	(1)			

[1] Not computed, owing to small number involved.

In the first place, it is interesting to note how much better, on the whole, the canning jobs were paid than were the preparation jobs. The median for all the women engaged in canning processes is $14.30, as compared with the $12.70 median for those on the preparation work. However, since about one-half of all the women in both jobs were employed in the less-than-50-hour classification, this is the most representative of the hour groups specified in the table. Furthermore, with more than three-fourths (76.2 per cent) of the women employed in preparation, the most representative wage is for the women in preparation processes who worked less than 50 hours. The median for this group is $9.85.

The table shows that more than 60 per cent of the pieceworkers in each job worked less than 50 hours, and almost that proportion of the timeworkers in each job worked from 50 to 65 hours. Among the timeworkers in canning operations 65.9 per cent worked 50 hours or more, while among the pieceworkers only 38.9 per cent worked that long. Likewise, in preparation jobs, 58.8 per cent of timeworkers put in 50 hours or more, while only 37.4 per cent of the pieceworkers worked such hours. This is additional evidence of the theory that timeworkers had steadier work or more chances to work than had pieceworkers.

Daily earnings.

Another and briefer summary of earnings for those engaged in preparation processes and canning is based on day's rather than on week's earnings and shows the average daily earnings for canners ($2.63) to have been slightly higher than it was for preparers ($2.38). The averages in this case were obtained by dividing the total earnings of all the women concerned by the total number of days on which they worked.

Occupation	Number of women	Average daily earnings
Preparation	485	$2.38
Canning	143	2.63

Hourly rates and earnings.

For 976 women paid on the basis of output for whom the pay rolls gave definite details of hours worked and actual week's earnings, it was possible to compute average hourly earnings.

The hourly rates were given on the pay rolls for 940 women paid on a time basis. The following table is a comparison of hourly earnings, computed from the actual earnings of 976 pieceworkers and the hourly rates given for 940 timeworkers.

TABLE 27.—*Number of women on timework and on piecework, and their average hourly earnings—fruit and vegetable canneries and evaporators*

Average hourly earnings [1]	Timeworkers		Pieceworkers	
	Number of women	Per cent	Number of women	Per cent
Total	940	100.0	976	100.0
10 and under 15 cents			33	3.4
15 and under 20 cents	1	0.1	109	11.2
20 and under 25 cents	2	.2	154	15.8
25 and under 27½ cents	21	2.2	97	9.9
27½ cents	783	83.3	137	14.0
Over 27½ and under 30 cents	1	.1	123	12.6
30 and under 35 cents	95	10.1	136	13.9
35 and under 40 cents	34	3.6	57	5.8
40 and under 45 cents	2	.2	41	4.2
45 and under 50 cents	1	.1	27	2.8
50 and under 55 cents			32	3.3
55 and under 70 cents			30	3.0

[1] In the case of timeworkers, actual rates.

Contrasted with the large group of pieceworkers with earnings under 27½ cents is the small number of timeworkers, 2.6 per cent, whose rate per hour was below that figure. Contrasted also with the rather even distribution of pieceworkers with earnings in the

groups between 15 and 35 cents is the great concentration of timeworkers (83.3 per cent) at the 27½ cent rate. There were 45.7 per cent of the pieceworkers earning over 27½ cents an hour, whereas only 14.1 per cent of the timeworkers had rates above this. The pieceworkers' earnings ranged from 10 cents an hour for one woman to 69 cents for another, but there were almost as many women earning less (393) as earning more (446) than the minimum wage rate of the State.

Included among those paid on the time basis were several forewomen and their assistants, 12 of whom were paid from 30 to 35 cents an hour and 14 of whom were paid from 35 to 40 cents an hour. One forewoman was paid at the rate of 45 cents, the highest rate quoted for any timeworker.

Time worked and earnings during the season.

Data on the amount earned during the season were obtained for 231 women in 14 fruit and vegetable canneries and evaporators, the records of the steadiest and best workers having been selected for this study of season's earnings. Because of the basis of selection, neither the amount of time worked by these women nor the wage was representative of the average cannery worker. The period of employment is unquestionably greater than the time worked by the majority of the employees' and the earnings indicate the maximum possibilities for the season.

The following summary shows the full length of the operating time, or the over-all period, in the canneries in which were employed the women whose season's earnings were recorded:

Operating period	Number of women	Operating period	Number of women
10 weeks	10	30 weeks	60
13 weeks	9	31 weeks	16
18 weeks	9	35 weeks	26
23 weeks	7	48 weeks	18
24 weeks	11		
26 weeks	47	Total	231
27 weeks	18		

The operating period in the several plants ranged from 10 weeks for 10 women to 48 weeks for 18 women. Four-fifths of the women whose season's earnings were reported worked in plants with an operating period of a half year or more.

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The actual number of days worked by this picked group of workers gives a much more definite picture of employment. Such information was secured for 133 women and has been classified as follows:

Days worked	Women	
	Number	Per cent
30 and under 40	1	0.8
40 and under 50	15	11.3
50 and under 60	10	7.5
60 and under 70	10	7.5
70 and under 80	10	7.5
80 and under 90	24	18.0
90 and under 100	15	11.3
100 and under 110	17	12.8
110 and under 120	12	9.0
120 and under 130	4	3.0
130 and under 140	6	4.5
140 and under 150	5	3.8
150 and under 160	3	2.3
160 and under 170	1	.8
Total	133	100.0

The longest period of employment was for one woman with a record of between 160 and 170 working days. Only 19 of the steadiest women had employment on 120 days or more, more than one-half worked less than 90 days, and about two-fifths worked 80 and under 110 days.

The more detailed figures show a striking descrepancy between the number of days worked by the women during the season and the length of their operating period. Of these 133 women, 96 or 72.2 per cent worked in plants having an operating period of 26 weeks or more. If each week in this period had had six working days, the total time would have amounted to 156 days or more. Only 4 of the 96 women, however, had worked on as many as 150 days, while 44 had been employed on 100 days or more.

The earnings of the 231 women whose wage records for the season were obtained ranged from the $50-and-under-$100 group to the $550-and-under-$600 group, inclusive (Table IX in the appendix), the median being $225.60. The more detailed figures, classified in $10 groupings, reveal the median earnings of the women reported with 100 days or more of employment to be $295.

PART IX

WOMEN WORKERS IN FISH CANNERIES

FACTS ABOUT THE INDUSTRY

It is of interest to know that the first goods to be canned commercially in America were lobsters and salmon. The art of canning dates back to 1795, when it was discovered by a Frenchman who succeeded in preserving foods in sealed glass containers. In 1810 an English patent was taken out for the process, and shortly after the knowledge of the process was brought to America.

The first salmon cannery in the United States was started in Sacramento in 1864, and the first one on Puget Sound was built in 1877. In 1919 the United States fostered 4,280 canning establishments, 410 of which were listed as canning fish, 66 of these being located in the State of Washington.[1] Consequently, to-day fish canning occupies a place which can be favorably compared with the other important industries of America. According to the Census of Manufactures, Washington ranks second among the States in the number of fish canneries[1] and third in the value of products.[2]

Washington regulates the fishing of salmon in Puget Sound waters by establishing a closed period during the summer and fall in every week from Friday at 4 p. m. to Sunday at 4 a. m., amounting to 36 hours. This regulation prevents fishing, but does not keep the canneries from operating. It rather makes it possible to catch up in the canning of the fish already on hand, and in rush seasons extra quantities of fish are unloaded at the cannery on Friday, so that the canners do not lack for raw material during the weekly closing. Moreover, the State has established as a conservation measure another closed season when the run of salmon is at its height; that is, during the run of the pink or hump-back salmon. This interferes with canning, as it extends over a week or more, and when this closed season is over most of the fish have passed the straits and fishing sites and gone into the inland streams. Accordingly, fishing is dull again. After September 8, when the closed season began in 1923, and until November, when the fish canneries in Puget Sound closed for the winter, the number of canning lines was reduced frequently to one or two, and the number of employees reduced accordingly. One large cannery employed its force of women only through the peak weeks, laying them off with the beginning of the closed season on September 8.

[1] U. S. Bureau of the Census. Fourteenth census: 1920. v. 10, Manufactures, 1919, pp. 81–82, tables 22–23.
[2] U. S. Bureau of the Census. Fourteenth census: 1920. v. 10, Manufactures, 1919, p. 82.

It is important to call attention to the fact that in 1923 the market was so glutted with fish that the canneries were not equipped to handle them all, that for a week fishing was necessarily curtailed, and that according to report thousands of fish went to waste after being caught.

The process of fish canning is of particular interest. The "iron chink"—a machine which has replaced the former hand butchering and is fed and operated by a few men—cleans the fish, cutting off head, tail, and fins, and removing viscera, after which operation the fish is put into tanks of constantly changing water. The next process is locally called sliming. This is a final washing of the fish. A little scrubbing is still necessary, and perhaps trimming or scraping with a knife. When engaged in this occupation, the workers stand before deep tanks of water. It is a heavy and wet job, necessitating continual handling of the large fish, and the workers' hands are constantly wet with the cold water. Floor racks to stand on protect the feet from the floor, but slimers invariably wear rubber boots and oil cloth or rubber aprons which are furnished by the firms. As it is usually damp and chilly in the fish house, the workers wear sweaters to keep warm. Good pay is the only compensation for this job.

From the slimers the fish is ready for "the canning line." It is first fed into a machine equipped with gang knives which cut it into lengths that correspond to the height of the cans being used, and the automatic filling machine thrusts a piece of fish into the can as it rolls in place before the plunger of the machine. The can then moves along the conveyor where workers examine it to trim off ragged edges or refill a too large space left in the machine filling. This job is known as mending or trimming. Then the cans are watched, as they travel over the automatic weigher and on the conveyor to the capping and seamer machines that securely fasten the cap down. Finally they are placed in the immense iron crates and are run into steam pressure retorts for cooking.

The proportion of men employed in the fish canneries is greater than in the fruit and vegetable canneries. The census shows that only about one-fifth of the industry's wage earners in Washington are women.[3] In the 14 fish canneries visited, however, there were employed on inside work in the canneries 552 men, 524 women, and 22 minors under 16 years, which shows the numbers of men and women to have been about the same.

The occupations of the women.

In general it may be said that the women employed in the fish canneries, as in fruit and vegetable canneries, have nothing to do with the final processing or cooking of the product, nor are they

[3] U. S. Bureau of the Census. Fourteenth census: 1920. v. 10, Manufactures, 1919, p. 82.

concerned much about the initial cleaning of the fish, these occupations being left to the men. Though some women of strong physique are engaged in sliming, the majority of the women feed cans into the can chute and perform jobs on the canning line—that is, the feeding, trimming, mending of the cans, and the watching of the capping machine.

In the warehouse, also, women help with labeling, sometimes by hand, sometimes on the machine, and occasionally they are employed on the machine which lacquers the inside of the cans.

Specially fine grades of fish are still packed by hand, so that the woman hand packer replaces the machine filler and also the girl who examines and mends the can after the machine filler has done its part.

WORKING CONDITIONS

Buildings.

In the distance the salmon canneries look like large barns along the shore line, built out over the water. Because of the open structure of the building and the concentration of most of the operations on the first floor, it is very apparent that there is no problem of adequate exits and stairways. In one cannery as many as 12 women were at work above the first floor, and in several plants the stairways were reported unsatisfactory. For example, one of the stairways leading to a can loft where three girls were working was so narrow, steep, and slippery from condensing steam as to constitute a hazard for the three women workers. An inclined runway which led to the can loft in another cannery also was reported as very slippery.

General arrangement of the workrooms.

The walls and ceilings of the canneries visited were of unfinished wood. Natural light was adequate where most of the women were at work. All the canneries were wired for electricity, and the usual lights were the incandescent bulbs, unshaded, and suspended at some distance above the heads of those employed. In some of the inner recesses of warehouses and toward the center of the larger cannery rooms a few electric lights were necessary during the day.

There was ample space, except for the women employed on the canning lines. Especially where two or more parallel lines were being operated, the workers in order to reach the positions at the inner lines had to bend under belts and squeeze through narrow spaces around the fish-cutting machine, an arrangement perhaps not dangerous but awkward and inefficient.

The floors of the fish canneries were not tight, but had narrow spaces between the floor boards, a plan which was quite useful in draining off much of the water that would otherwise have made the floors impassable, for water was being hosed over some sections of the plant almost constantly. The floors at best were damp, some-

times wet, but never dirty. Racks usually were provided for workers who had to stand in the dampest places, but in some canneries there were not enough for all the women who needed them.

Seating.

An inspection of the canneries showed that proper attention had not been given to the question of seating. The following summary gives the jobs of the women and their positions while performing these jobs:

Occupation	Total	Sit	Stand	Sit or stand
Slimers	127		127	
Feed cans into chute	33	9		24
Work on can lines [1]	218	12	131	75
Hand pack	48		48	
Work in warehouse [2]	88	7	61	20
Miscellaneous	9		8	1
Total [3]	523	28	375	120

[1] Includes filling, trimming, mending, watching capping machine.
[2] Includes labeling and lacquering.
[3] Occupation not reported for one woman.

The work of 28 women had been so arranged that they sat continuously; 375 women had to stand, with no opportunity to sit while on the job; but a more fortunate group of 120 could sit or stand, and so vary their positions at work, this arrangement being the most restful and therefore the most satisfactory. All the hand packers and slimers stood, and 127, or about one-third of all the women who stood, were slimers.

The work of the 75 women on the canning line and of the 20 women in the warehouses who could sit or stand at their jobs, according to preference, was similar to the work of the 131 women on the canning line and of the 61 in warehouses in other plants who were compelled to stand all the time. Consequently, since some managers in canneries have been able to supply seats and arrange the work so that more of the women employees can sit for at least a part of the time, it would seem possible for all such managers to do the same. In one place the hand labelers sat to label a few cases of cans and then stood to label the next few. An empty case was placed on top of the filled case, and the labelers stood as the pile grew too high to reach easily while sitting. Some of the work required at the beginning of the can line where the cut pieces of fish were pushed into the automatic filler was especially hard to do. Two firms had planned the work so that the women in these positions alternated at regular intervals with women whose work was lighter. Even where the women could sit at their work, the seats provided were far from adequate. In 11 canneries packing boxes had been brought in from

the warehouse to serve as seats for the women, but in 4 of these canneries there were also some stools. In one place the girls were using a truck, and in another a table, to rest on while they labeled—mere makeshifts, yet showing the possibility of being seated at work, which the firm, in its failure to supply seats, had evidently regarded as a standing job. Not one firm had provided chairs or seats in any way adjustable to changing heights of tables or workers. In two canneries no women were sitting at the time of the visit, nor were there seats conveniently near them. However, there was always a possibility of the employee's finding a packing box for herself.

Temperature.

There is no artificial heat in a fish cannery; the colder the better for the product, but not for those preparing the product for market. The canning season continues approximately through August, September, and October. Before the end of the season the days are getting cold, and even in August the fire in the dressing room is a great comfort. But in addition to the temperature, there is the open-work structure of the wet floors of a building stretching out over the water. The penetrating chill of the atmosphere can not be overcome altogether by additional clothing, for one must have freedom of movement and the hands must be free for the wet work. One cannery was visited late in August and again at the end of the season. At the time of the first visit the weather was bright with sunshine; but at the second it was foggy and raw, and one woman slimer gave up the job, saying she had had enough of the cold and wet work and at that moment preferred starvation without work to freezing. Two canneries visited had tried to obviate the suffering from cold by arranging relief systems. In one plant the forewoman herself acted as relief if necessary, and in the other an extra girl had been hired to give each of the other girls a chance to go at regular intervals to the rest room to get warm, and the watchman kept them supplied with hot bricks.

On cold days the steam increases, but even in August there was steam enough to impede the vision of girls in two can lofts, and it was also bad along one canning line. These can lofts were built like galleries, open on one side with the cook room just below, so that the can lofts were the natural channels of escape for the steam from the cookers—a thoughtless arrangement if one desires good ventilation in the can loft.

Sanitation and service facilities.

Washing facilities.—A convenient and adequate supply of washing conveniences is most important in the fish canneries, for whenever the women wash their hands they also wash off their rubber aprons and the white canvas gloves quite universally worn. Washing, therefore, is more of an operation than just holding the hands under

the faucet. Only one cannery did not provide a sink especially for the women, the idea in that case being that many of them lived so near that they could go home to wash. Instead, however, the women, like those in another cannery where the faucet in the wash-bowl was broken, washed their hands, gloves, and aprons at the tap in the workroom where the hose was attached. Frequently the slimers washed both hands and aprons under the constantly flowing water supply at the tanks where they worked. Among the washing facilities provided in the various plants were porcelain bowls, iron sinks, and two wooden trough-like sinks, one of the last being supplied with but two faucets, and both troughs being far from clean. The washroom was invariably combined with dressing rooms and cloakrooms or toilets, and was conveniently arranged. Hot water was supplied in only three canneries, and soap and roller towels in five canneries. In one case towels were changed twice daily; in another, as often as needed—according to the manager's statement, but at the time of the visit they were filthy.

Drinking facilities.—Drinking water was conveniently located in more than one place in the canneries, sometimes in the cannery proper, in the warehouse, and in the dressing room or washroom. Bubble fountains—none of them sanitary—had been installed in six canneries, and no individual drinking cups were supplied by any cannery firm. One canner explained, "They can use tin cans," but in spite of the convenience of cans there were common drinking cups in use in seven canneries.

Toilets.—In 6 of the 14 canneries the only toilet accommodations were privies, most of them with seats made in a very primitive fashion, overhanging the tidewater. In remote places this might be expected, but hardly in towns of commercial importance, although this method of waste disposal is permitted by sanitary engineers. One toilet with modern plumbing and three of the privies were reported to be dirty. In one privy where long hopper plumbing seats had been installed, but without strong and adequate water pressure for flushing, the condition was worse than that of the privies with the primitive seats.

In the matter of cleaning, four canneries with matrons constantly supervising the dressing rooms and toilets deserve special commendation. In these cases the toilets were swept daily. Some were scrubbed every day, some only two or three times a week. In others the cleaning was quite casual; in three it was done by the women, if done at all, and in another by one of the men once a week if he had time. One canner seemed quite puzzled by the question as to the provision for cleaning, and suggested that "the toilet was, maybe, hosed out as needed."

All the toilets were light, well ventilated, conveniently located, and separate for men and women. The number of toilets was usually

adequate for the women employed. Paper was furnished in only six toilets.

Cloakrooms.—Cloakrooms large enough to serve as dressing rooms are a great convenience in shaking out wet aprons and taking off rubber boots; yet it too often happened that the small combination toilet and washroom became, by the addition of only a few nails in the wall, also a cannery cloakroom, and of course inadequate, so that wall hooks in the cannery proper were utilized for the overflow of aprons and occasional sweaters.

In contrast to these crowded places, one cloakroom had individual lockers, several had shelves, and one had a large open closet in which to hang wet aprons. All but two of the plants had equipped the cloakroom with seats; although in two these were nothing but boxes, the majority had convenient and comfortable seats.

The rooms were well lighted and ventilated, but they were difficult to keep clean. Matrons did effective service in this respect in five plants. Four other plants maintained a fairly high standard of cleanliness, but the remaining five failed miserably.

Lunchrooms.—If any room with a table, benches or chairs, and a stove on which one may heat coffee be designated as a lunch room, seven of the fish canneries may be said to have had such. Occasionally the equipment included a few dishes, and coffee was made daily by a matron. At least there was a place to eat even if the lunch room, so called, was combined with a cloakroom or dressing room. But in the other seven fish canneries where there was no such provision made, the girls did not stay in the wet, cold cannery to eat. They retired to a corner of the warehouse, and sat on boxes or low trucks. On pleasant days, if they preferred, they could go out on the docks and eat in the sunshine.

As for restrooms, there were none, except as a cloak and lunchroom, by the addition of chairs or benches, also served as a place to rest.

HOURS

In fish canneries, as in fruit and vegetable canneries, the scheduled hours of the firms were most irregular, for the plants were dependent on the "run of fish" and operated at any time.

Twelve canneries furnished pay-roll data on earnings and time worked to the agents of the Women's Bureau. For one other an inspection of the plant was made, but no records were available, since this firm contracted with an employment agency for the Indian and oriental help necessary and kept no records of individual pay. One firm had two plants—a canning establishment in which the women were paid on a weekly basis and a warehouse a few blocks distant, in which the semimonthly method of payment prevailed.

The report shows that wage data were secured for 639 women engaged in fish canneries; of these, 45.9 per cent were on a weekly,

19.1 per cent on a half-monthly, and 35.1 per cent on a monthly basis. One of the 12 plants visited "paid on demand," so that the operating period which the earnings covered had to be considered in order to tabulate the workers in the proper group—weekly, semimonthly, or monthly.

Hours and days actually worked.

An effort was made to secure information regarding the length of the working day and the actual time worked during the pay-roll period for the women employees. As many as 97.3 per cent of the total number of women for whom pay-roll data were secured appear in appendix Table IV, in which days and hours worked were reported for those employed on a weekly, a half-monthly, or a monthly pay-roll period.

Unpublished data show that almost three-fourths (72.4 per cent) of the women on the weekly pay rolls for whom both days and hours were reported worked less than 48 hours. This is of course due to "the run of fish" rather than to any regulation of the hours of work in the canneries. For the same reason, as many as 18.3 per cent of the 279 women showed a working period in excess of the 56 hours which constitute the legal limitation of the State for other than seasonal industries.

Appendix Table IV shows that about one-fifth (20.4 per cent) of the women on the weekly pay roll were reported as working on seven days of the week. The table also reveals that about three-sevenths of those having Sunday work had weekly hours of between 65 and 70, which fact seems conclusive of long working days during the week for which the pay roll was taken, a period in most cases considered by the managers as representative of the work of the industry.

The data from the half-monthly pay rolls, with only 120 women reporting days and hours worked, disclose a wide range of hours for the period, from 2 to 185. A glance at the monthly pay-roll data shows that almost one-third of the women there tabulated were reported as working from one to seven days inclusive, and the number of women included in this group only emphasizes the extreme irregularity in the work of fish canning, especially in the longer operating periods. The fact so often stressed in the section devoted to fruit and vegetable canneries, that long operating periods do not necessarily indicate a corresponding increase in the proportion of days worked, is also an axiom of the present industry. For this reason, when the pay roll was for a longer time than one week, the management had difficulty in selecting a period that was good and at the same time typical of the industry. The great irregularity and uncertainty in this work are due to the natural dependency of the industry on "the run of fish."

Hours actually worked by six-day workers.

The following summary on the number of hours actually put in by the women who performed their jobs on six days in the plants with a weekly pay roll is of interest in an analysis of the hours of work in fish canneries:

Hours worked	Number of women
Under 33	60
33 and under 40	6
40 and under 48	4
Over 48 and under 56	12
56	2
Over 56 and under 60	10
Over 60 and under 70	9
70 and over	2
Total	105

Altogether 105 women are represented, and their hours range between 18 and 73. Fifty-seven per cent of them worked under 33 hours—an average of less than 5½ hours a day; two-thirds of the women are reported as working less than 48 hours. A more vivid picture of the irregularity of the hours of the industry can be obtained from the more detailed figures, which show that three-eighths of the 105 women had a record of 20 but under 23 hours of work for their six days of employment, an average of between 3 and 4 hours a day.

Irregularity of hours in fish canneries.

By combining the weekly, semimonthly, and monthly pay rolls, so as to illustrate the vast range in the hours worked on any one day, a table similar to the one made for fruit and vegetable canneries is here presented. It shows the highest and lowest number of hours worked by the women during each of the specified number of days they were employed in the pay-roll periods recorded for fish canneries.

TABLE 28.—*Variation in number of hours worked within one pay-roll period by women working on same number of days—fish canneries*

Days on which work was done	Number of women reported	Minimum number of hours worked during period	Maximum number of hours worked during period	Days on which work was done	Number of women reported	Minimum number of hours worked during period	Maximum number of hours worked during period
1 day	43	2	15	16 days	7	91	167
2 days	27	6	22	17 days	7	104	148
3 days	38	8	37	18 days	10	113	187
4 days	45	12	54	19 days	9	107	189
5 days	43	15	61	20 days	9	129	191
6 days	116	19	73	21 days	11	147	188
7 days	72	21	77	22 days	9	148	180
8 days	29	47	85	23 days	7	167	182
9 days	14	46	98	24 days	2	187	220
10 days	30	45	115	25 days	3	194	207
11 days	11	55	119	26 days	2	182	204
12 days	17	84	127	27 days	3	210	239
13 days	23	85	147	28 days	2	201	212
14 days	12	101	184	29 days			
15 days	12	67	185	30 days	9	220	249

The great differences existing in the hours worked during each specified number of days are apparent. Even though seasonal industries are known to entail much uncertainty in the number of hours worked, such a range as that shown strongly emphasizes the enormous irregularity in the fish-canning industry.

Of the 43 women employed on one day, one or more worked only 2 hours, whereas some put in as many as 15 hours. When it is realized that this one day was all that these women worked during the current pay-roll period, the great difference in the hours would seem to be doubly significant. The minimum and maximum number of hours of the women working on 10 days are 45 and 115 hours, respectively, a strikingly wide range. The 14-day group shows 101 hours as the period of employment of one or more women, an average of less than 8 a day, while the maximum number of hours worked by any woman was 184, or an average of 13$\frac{1}{7}$ hours for each of the 14 days worked.

Beyond 19 days the extremes are not so great, the difference between the highest and lowest hours being much less than for those shown in the first groups of the table. This fact is undoubtedly due to the smaller number of women reported for the longer periods, for naturally 3 or 9 women would not show so great a variance as would be the case where 40 or 100 were considered

Not all of the plants kept a record of the length of each day worked by each employee. Information of the hours actually worked during the pay-roll period was secured for 85 women. From these data the following tabulation has been made, showing the shortest as well as the longest day worked:

TABLE 29.—*Variation in number of hours worked within one day—maximum and minimum hours of women in fish canneries*

Maximum number of hours worked in one day	Number of women reported	Number of women with maximum hours as specified whose minimum time worked in one day was—									
		1 and under 2 hours	2 and under 3 hours	3 and under 4 hours	4 and under 5 hours	5 and under 6 hours	6 and under 7 hours	7 and under 8 hours	8 and under 9 hours	9 and under 10 hours	10 and under 11 hours
Total	85	3	25	13	3	11	19	6	1	3	1
6 and under 7	3	-------	2	1	-------	-------	-------	-------	-------	-------	-------
7 and under 8	2	-------	2	-------	-------	-------	-------	-------	-------	-------	-------
8 and under 9	10	-------	2	7	1	-------	-------	-------	-------	-------	-------
9 and under 10	11	-------	8	2	-------	-------	-------	-------	-------	[1] 1	-------
10 and under 11	5	-----	2	-------	-------	-------	1	1	-------	1	-------
11 and under 12	6	-------	4	-------	1	-------	-------	1	-------	-------	-------
12 and under 13	4	-------	1	1	1	1	-------	-------	-------	-------	-------
13 and under 14	7	-------	-------	2	-------	2	2	1	-------	-------	-------
14 and under 15	8	-------	1	-------	-------	6	-------	-------	-------	-------	1
15 and under 16	3	-------	-------	-------	-------	-------	3	-------	-------	-------	-------
16 and under 17	16	1	1	-------	-------	2	12	-------	-------	-------	-------
18 and under 19	1	-------	-------	-------	-------	-------	1	-------	-------	-------	-------
21 and under 22	1	-------	-------	-------	-------	-------	-------	-------	1	-------	-------
22 and under 23	8	2	2	-------	-------	-------	-------	3	-------	1	-------

[1] One woman whose maximum and minimum hours were the same—9½ hours.

Only one of the 85 workers shows no deviation in the length of her day, the more detailed data revealing a 9½-hour day as her uniform schedule for the three days on which she worked during the week. There are more women shown in the 2-and-under-3-hour classification than in any other minimum hour group. It is interesting to note that 42.4 per cent of all the women for whom maximum and minimum hours are reported have their shortest day fall in the groups of 5 but less than 8 hours, yet the longest period of these same women falls anywhere between 10 and 23 hours. Three of these women had a minimum day of 7 and under 8 hours, with a maximum on one or more days as high as 22 hours. Sixteen women show 16 and under 17 hours as a maximum day's work and nearly one-third of the total number tabulated reveal at least one day of from 16 to 23 hours during the pay-roll period secured.

It seems very difficult for a worker to adapt herself to such extremes as one hour's employment on one day and 16 hours on another, or 2 hours one day and 22 hours another, yet the table shows that such hours—for a minimum and a maximum day—are not at all uncommon in the life of a fish canner.

Canneries with different hour policies.

The lack of uniformity in the length of the workday in the various fish canneries also is obvious. In contrast to the 8-hour standard required by law in this State in industries other than seasonal, the following table, giving the length of workdays in canneries operating a standard, an irregular and subnormal schedule, and an irregular and long schedule seems additional proof of the irregularity of the hours worked in this industry:

TABLE 30.—*Variation from normal schedule of daily hours of work during one pay-roll period—women in fish canneries*

Hours worked in one day	Days of each specified number of hours worked in—					
	No. 1: One cannery operating near standard schedule (62 women employed)		No. 2: One cannery operating irregular and subnormal schedule (23 women employed)		No. 3: Three canneries operating irregular and long schedule (56 women employed)	
	Number of days	Per cent	Number of days	Per cent	Number of days	Per cent
Total	321	100.0	127	100.0	371	100.0
1 and under 2					3	0.8
2 and under 3	16	5.0	20	15.7	3	.8
3 and under 4	1	.3	37	29.1	7	1.9
4 and under 5	22	6.9	12	9.4	8	2.2
5 and under 6	24	7.5	8	6.3	19	5.1
6 and under 7	26	8.1	4	3.1	57	15.4
7 and under 8	40	12.5	16	12.6	21	5.7
8 and under 9	26	8.1	6	4.7	24	6.5
9 and under 10			17	13.4	51	13.7
10 and under 11	166	51.7	2	1.6	31	8.4
11 and under 12			4	3.1	44	11.9
12 and under 13			1	.8	27	7.3
13 and under 14					19	5.1
14 and under 15					22	5.9
15 and under 16					4	1.1
16 and under 17					20	5.4
18 and under 19					2	.5
21 and under 22					1	.3
22 and under 23					8	2.2

In five fish canneries the hours worked on each day of the current pay period were secured for 141 women. Cannery No. 1 operated very consistently on a 10-hour schedule throughout the season, and not one woman worked more than 10 hours daily even in the busiest week; 51.7 per cent of the days in this cannery were 10 hours long, all the other days being shorter. The 7-hour day group for this plant is the next largest, and it includes 25 cases of Sunday work, all on the same day, the longest Sunday this fish cannery operated during the season.

Cannery No. 2, with shorter working days, shows what a poor catch of fish means in the possibilities of work for the women employed in the cannery, almost 45 per cent of their days being 2 and less than 4 hours in length, while less than one-third were 4 and under 8 hours.

In contrast to these short days are the long days of cannery work that follow a good catch of fish as shown in the results of a busy period in the three canneries tabulated in the last column of the table. For this group, 39.6 per cent of the days worked were over 10 hours long, and 8.4 per cent were 16 hours or more.

The usual warehouse work is not included in the preceding discussion of hours, except as it was combined with other cannery work. Labeling is not work on a perishable product; therefore warehouses are subject to the State's legal limitation of 8 hours a day and 56 hours a week.

The hours reported for a very busy period for 22 women in one warehouse with a 6-day week showed that 89.7 per cent of the days worked were exactly 8 hours long and that only 10.3 per cent of them were less than 8 hours.

Occasionally the women were shifted during the day from cannery to warehouse work or vice versa, as the conditions of the work demanded it, and in such cases the pay-roll records were not usually kept so as to distinguish the hours worked in one department from those worked in another. One canner naively explained that, although the hour limit in warehouses was supposed to comply with the State law limiting the day to 8 hours, he could transfer the women into the cannery, where the work was on a perishable product, and the longer working hours permitted there would exempt him from the legal limitation of the State law.

The time worked by two women in two fish canneries illustrates the stress of hours during the peak. One worker began on the 16th of August with 11 hours, and continued with 9, 11 (no Sunday work), 11, 11, 11, 11, 16, 18, 6 (Sunday), 16, 16, 16, 11, 11 hours, totaling, in the 15 days worked, 185 hours. One Sunday was her only relief, and the next Sunday was for her a comparatively short day of 6 hours. The other woman, beginning August 23, worked 12 hours, and then 14¾,

14½, 8½ (Sunday), 18, 14, 13½, 12, 13, 11⅓, 8 (Sunday), 21¼, (Labor Day), successively, on the different days through September 3, a period including Labor Day and two Sundays but with no let-up in the work. This record shows a total of 161 hours for the 12 working days, an average of $13\frac{5}{12}$ hours a day.

The tremendous strain in fish canning lasted for about three weeks; it was preceded by dull times and followed by the closed season, after which employment dropped to as great extremes in undertime as there had been in overtime hours. For example, in the second week of August, just before the big run of hump-back or pink salmon, quite a normal schedule for the daily hours worked was 4, 5, 2½, 7½, 7½, and 4. The record of one woman throughout her 24 working days begins with the longest peak day in the season, and runs as follows: 22½, 9½, 9½, 11¾, 7¼, 10½, 11¼, 6¼, 6¼, 9¾, 6, 6, 1¾, 10¾, 9¼, 10¾, 8¼, 7½, 5¼, 4, 3, 4½, 2, and 4 hours. Although this record averages 7.8 hours a day, the actual hours worked on each day of the period show such uncertainty and extremes that it does not seem possible for a worker ever to become accustomed to the irregularities. The hours of another woman, in her 30 working days of an operating period beginning the last of July and continuing through September, were as follows: 3¾, 10, 14, 8, 1½, 3½, 4, 4, 7½, 5½, 12, 8, 14, 16, 12, 17, 21, 4, 9, 10, 10, 9, 15, 9, 6, 5, 6, 3, 3, 3. This woman did hand packing, which was not steady work, so that she was idle a few more days than were some others who worked on machine packing in the same period.

WAGES

Pay rolls in fish canneries were based upon time records for a week, a half month, and a month. Just as the section on fruit and vegetable canneries presents separate tables for each type of pay roll reported, the earnings of the 639 women reported in fish canneries have been treated and tabulated according to the length of pay period in the establishment in which they were employed.

In only one of the fish canneries visited were pay-roll records not available. Here even the women employed were paid by the Chinese boss who had contracted with the firm to supply the labor needed. The pay-roll data kept in Chinese had not been submitted in English at the time the inspection was made. As the women were Indians and mostly non-English speaking, this cannery has been omitted from the discussion of wage data.

Six of the canneries kept their pay rolls on a weekly basis, three on a semimonthly, three on a monthly, and one cannery paid "on demand," the pay period for the women employed therein varying in length from one day to the entire season. For the plant paying on

demand, the working periods were divided into pay-roll groups comparable with those of other canneries, but the records of several women whose pay period was for more than a month were not included in the tabulation of wages.

The pay rolls of two firms having a monthly basis of pay covered two weeks of the very busiest season in August, preceded by two weeks of dull days; and the pay roll of another firm, comprising almost 14 per cent of all the women employed on the monthly basis, was for the month of July—a decidedly dull period. At the time of the inspection the August pay roll had not been completed.

The pay rolls of two of the firms using the semimonthly basis of pay covered the last two weeks of August, and another pay roll comprising only 5 per cent of the total number of women employed on the semimonthly basis covered the first two weeks in August—a comparatively poor fishing time; as in the case of one firm paying by the month, the pay roll had not been made up for the peak period in August at the time of the inspection.

For three of the firms paying on a weekly basis, the pay rolls covered only the busiest days in the latter part of August or the first part of September; two others included some of the usual peak days in August with the preceding day or so of average or normal work; and only one pay roll—including about 18.8 per cent of all those on a weekly basis—was for a subnormal week. Three plants operated seven days during the weekly pay-roll period. Taken as a whole, the data for the rush season more than overbalance the data for dull weeks, but the total results may be considered a fair average for hours and wages of the entire fish cannery season.

Earnings and time worked.

Because of the irregularities in the working hours in fish canneries, it is necessary to consider the earnings of the women in connection with the time which they actually worked during the pay-roll period. Such a correlation is presented in detail in Table V in the appendix, but is summarized in Table 31. The time worked by the women on the weekly, half-monthly, and monthly pay rolls is presented in these tables in hours only. No tabulation of earnings by days worked has been made, since for all but a very few of the women in the fish canneries the hours of employment were reported.

TABLE 31.—*Median earnings in fish canneries, by time worked*

Hours worked	Weekly pay roll			Half-monthly pay roll			Monthly pay roll		
	Number of women reported	Per cent distribution	Median earnings	Number of women reported	Per cent distribution	Median earnings	Number of women reported	Per cent distribution	Median earnings
Total	279	100.0	$12.50	120	100.0	$22.90	223	100.0	$39.55
Under 10	18	6.5	1.90	7	5.8	(1)	14	6.3	(1)
10 and under 20	31	11.1	5.70	5	4.2	(1)	17	7.6	4.95
20 and under 30	72	25.8	7.80	6	5.0	(1)	13	5.8	(1)
30 and under 40	51	18.3	12.65	2	1.7	(1)	8	3.6	(1)
40 and under 50	36	12.9	16.00	9	7.5	(1)	17	7.6	16.40
50 and under 60	30	10.8	17.00	7	5.8	(1)	6	2.7	(1)
60 and under 70	39	14.0	21.30	16	13.3	20.25	7	3.1	(1)
70 and under 80	2	.7	(1)	23	19.2	22.70	5	2.2	(1)
80 and under 90				3	2.5	(1)	4	1.8	(1)
90 and under 100				13	10.8	(1)	12	5.4	(1)
100 and under 110				12	10.0	(1)	13	5.8	(1)
110 and under 120				9	7.5	(1)	15	6.7	39.85
120 and under 130				6	5.0	(1)	8	3.6	(1)
130 and under 140							8	3.6	(1)
140 and under 150							8	3.6	(1)
150 and under 160							11	4.9	(1)
160 and under 170				1	.8	(1)	8	3.6	(1)
170 and under 180							15	6.7	70.25
180 and under 190				1	.8	(1)	14	6.3	(1)
190 and under 200							3	1.3	(1)
200 and under 210							3	1.3	(1)
210 and under 220							4	1.8	(1)
220 and under 230							2	.9	(1)
230 and under 240							1	.4	(1)
240 and under 250							7	3.1	(1)

[1] Not computed, owing to small number involved.

Of the total number of women in the table (622), 279 were on the weekly pay rolls, 120 on the semimonthly, and 223 on the monthly.

Since the vast majority of the workers in the fish canneries had hourly rates, varying usually from 30 to 45 cents, and since the table is arranged in ascending scale of 10-hour groups, it is natural that the earnings for each group increase as the actual hours worked increase. The only reason the earnings do not show a uniform advance is because of the varying proportion of low and high rates in the groups.

Considering first the weekly pay-roll period we find about one-fourth of the women (25.8 per cent) in the 20-to-30-hour group, and more than 61 per cent reported as employed less than 40 hours. About one-fourth (25.4 per cent) of the women are revealed as having worked a so-called full-time week (50 hours or more), with resulting median earnings of $20.65. While the median earnings for all the women amount to only $12.50, the discrepancy of $8.15 in the medians of those working full time and the total number of workers is due to the great number of women who were employed only a few hours during the week.

The half-monthly basis of pay is shown in the next section of the table, the largest proportion of women being found in the 70-to-80-hour classification, a group representing probably somewhat more than

one-half of the possible working hours of the semimonthly pay-roll period. The median earnings for these women were $22.70. Over three-fifths (62.5 per cent) of these 120 women on the half-monthly pay rolls worked less than 80 hours. This amount of short-time employment naturally lowers the median earnings for all the women; these are $22.90 for the period, or only a few cents more than the median earnings of the 70-to-80-hour group.

The numbers included in the monthly pay-roll period are not massed in any hour group, but are spread rather evenly throughout the various classifications. About three-eighths of the women reported on these pay rolls are shown as working more hours than were put in by the semimonthly workers, the median earnings of this group of monthly workers being $67.35, as compared with the median of $39.55 for the total 223 women included in the period of a month.

Just as the time covered by the semimonthly pay rolls involves the possibility of more poor days than does the weekly pay roll, so the monthly records disclose more dull periods than the semimonthly pay rolls show. When possible the pay rolls were selected to cover the peak of the run of fish, which occurred in the last few days of August, and the longer time the pay-roll period covered, the more poor days of early August it contained. But for this very reason the semimonthly and monthly pay rolls present a more accurate picture of employment, in the actual hours worked over a period of good and poor days, than does the week during the hectic rush. On the other hand, this weekly period shows the greatest possibility of peak employment and earnings.

Such an analysis as the following gives the proportions of women on the weekly, the semimonthly, and the monthly pay rolls, whose length of actual time worked would be equivalent to the hours usually considered in a week's, a half-month's, or a month's pay-roll period. Practically all of the women on the weekly basis worked during the week a period of less than 70 hours; more than two-fifths of the number reported on a semimonthly basis are in the group employed during the time which covered the one week's pay period, while three-eighths of those in the firms paying monthly are shown as working less than 70 hours during the whole length of the pay-roll period.

Hours worked	Per cent working specified hours			
	Total—all periods	Weekly pay-roll period	Semimonthly pay-roll period	Monthly pay-roll period
Under 70	66.1	99.3	43.3	36.8
70 and under 130	20.1	.7	55.0	25.6
130 and under 250	13.8	----------	1.7	37.7

Timework and piecework.

There is very little piecework in the fish canneries, this method of employment being limited chiefly to hand packing and to some of the labeling. Only 31 women were paid on the output basis, according to pay-roll data taken, while 537 were paid on a straight hour basis. In addition to these, 70 worked some of the time on an output basis, and the rest of the time were paid according to hourly rates.

Daily earnings, by occupations.

It has been possible to compute the average daily earnings of 462 women by occupational groups, these figures being presented in the following summary:

Occupation	Number of women	Average daily earnings
Timework:		
Cleaning	125	$3.47
Canning line	157	2.68
Can loft	10	2.91
Warehouse	79	2.47
Piecework:		
Hand packing	15	4.62
Labeling	7	2.17
Miscellaneous basis of pay	69	2.89

The highest average daily earnings of any group are the $4.62 for hand packers. This high average is probably influenced by the standard in one plant which employed women throughout the season as pieceworkers on this job. The next best paying job, affecting a rather large number of women, was fish cleaning, with the daily average of $3.47 for 125 women. The unpublished figures show that one of the steadiest cleaners, who worked on 30 days in a monthly period, totaling 248 hours, earned $119.34, or an average of $3.98 a day.

The most usual job for women in the fish canneries is work on the canning line. The average daily earnings of the 157 women engaged in this occupation were $2.68. More detailed figures reveal that the steadiest woman on the canning line for a monthly period worked 249 hours in 30 days, earning $100.78, or an average of $3.36 a day.

Hourly rates.

On some of the pay rolls the hourly rate as well as the kind of work was designated, and the following table presents such records for 435 timeworkers in fish canneries:

TABLE 32.—*Number of women and their hourly rates of pay in various occupations in fish canneries*

Occupation	Number of women reported	Number of women whose hourly rate of pay was—								
		25 cents	28 cents	30 cents	35 cents	40 cents	45 cents	50 cents	55 cents	60 cents
Total	435	13	6	106	123	149	19	17	-------	2
Per cent distribution	100.0	3.0	1.4	24.4	28.3	34.3	4.4	3.9	-------	0.5
Cleaning	94	-------	-------	1	1	59	15	16	-------	2
Canning line	155	1	1	31	79	40	3	-------	-------	-------
Warehouse	63	8	-------	33	14	8	-------	-------	-------	-------
Can chute	8	1	-------	5	-------	2	-------	-------	-------	-------
Occupation not reported	115	3	5	36	29	40	1	1	-------	-------

In general a little over one-third (34.3 per cent) of the women whose rates were reported were paid 40 cents an hour, somewhat over one-fourth (28.3 per cent) had a rate of 35 cents an hour, and a little less than one-fourth (24.4 per cent) were rated at 30 cents an hour. Altogether only 19 women had a rate of less than 30 cents, but this number was equalized by the 19 women with rates of 50 cents or over.

Besides the women who had one definite rate there were 129 who had more than one rate in the current pay-roll period. This number includes a few who worked on as many as three hourly rates. Occasionally the rate changed for the same kind of work, but more often the change in rate accompanied a change in occupation.

The rates for cleaning were far higher than those for any other occupation, as 62.8 per cent of the cleaners received 40 cents an hour, and practically none received less than this rate; two cleaners were paid a rate as high as 60 cents an hour. The women on the canning line fared next best, 51 per cent of them getting a 35-cent rate, while about one-fourth were paid 40 cents an hour. Other occupations did not pay so well, since 52.4 per cent of the warehouse workers (exclusive, of course, of piece-rate labelers) and 62.5 per cent of the few women employed in the can loft were on a 30-cent rate.

Time worked and earnings during the season.

Information concerning season's earnings was secured for 125 of the best and steadiest workers in nine fish canneries.

The following summary shows that the operating period of the establishments in which these women were employed was comparatively short, as might be expected from the nature of the industry.

Operating period	Number of women
4 weeks	19
9 weeks	7
10 weeks	12
12 weeks	9
17 weeks	62
18 weeks	13
19 weeks	3
Total	125

None of the women were in plants operating for more than 19 weeks, and only 3 women had so long an operating period. At the other extreme were 19 women in canneries which had only 4 weeks of operation. About one-half the women worked in plants operating for a stretch of 17 weeks. It is apparent from this that the season in these canneries was, on the whole, considerably shorter than that of the fruit and vegetable canneries.

Data on the actual time of employment for 110 women in the fish canneries may be summarized as follows:

Days worked	Women	
	Number	Per cent
Under 20	5	4. 5
20 and under 30	28	25. 5
30 and under 40	7	6. 4
40 and under 50	12	10. 9
50 and under 60	21	19. 1
60 and under 70	9	8. 2
70 and under 80	16	14. 5
80 and under 90	8	7. 3
90 and under 100	4	3. 6
Total	110	100. 0

None of the women were employed on as many as 100 days during the season. Only about one-fourth worked on 70 days or more, whereas not far from one-half (47.3 per cent) worked less than 50 days, and two-thirds worked less than 60 days.

The more detailed figures reveal that there was considerable difference between the amount of time actually worked by the women and the operating period in the plants. For example, of the 62 women working in plants operating during a period of 17 weeks—which would consist of approximately 100 working days if work were available on 6 days of each week—none were employed on as many as 100 days, 11 worked on 80 to 100 days, 24 on 60 to 80 days, 21 on 40 to 60 days, and the rest for even less time. The other classifications of operating periods contained such small groups of women as to make discussion of little worth.

According to Table IX in the appendix the earnings of the 125 women whose wages for the season were recorded ranged from under $50, the amount earned by 5 women, to between $350 and $400, the sum earned by 1 worker. The median for the whole group was $137.95. From figures more detailed than those appearing in the report, it has been possible to ascertain that the median for the 58 women who worked on 50 days or more was $190.

PART X

WOMEN WORKERS IN CLAM CANNERIES

FACTS ABOUT THE INDUSTRY

One of the most important factors in the clam industry is not the uncertainty of the raw product, as in salmon fisheries with their fluctuating peak loads and dull days, but an increasingly poor pack and a growing shortage of clams in the past few years. Commercial clamming is limited by law to the months of March, April, and May, and the diggers must be citizens who are licensed by the State. In spite of these precautions, the razor clams, whose habitat is along the beaches north and south of Gray's Harbor, are becoming scarcer each year, so that in 1923 some of the canneries did not operate during the clam season.

The year book of the Pacific Fisherman in discussing the clam season of 1923 says:

> The razor clam pack of the Washington-Oregon coast district was little more than half that of 1922, being the smallest in three years. * * * The number of diggers was probably the greatest on record, as it is estimated that at some times there were between 1,200 and 1,500 at work on the beaches. Unfavorable weather held production down to practically nothing during the first month of the season, and competition for raw material became very keen. * * * Even at that many diggers found the work unprofitable, and left the beaches before the first of May. The weather improved somewhat in May, but even then there was considerable surf running at times of extreme low tide, and the canneries seldom operated at anything like capacity.[1]

Personal experiences related by the workers in the canneries also served to emphasize the decline in the clam industry. For example, one woman who made about $70 in three months in 1923, remembered very distinctly the $150 she had made four years before for her first season's work in clams. Likewise, the operator whose output fell from 10,000 cases one year to 3,000 another was disturbed by the striking decrease in earnings for the latter season.

However, the State bureau of fisheries is now engaged in scientific research work in order to be able to make recommendations that in time will conserve the declining source of supply and restore the razor clam business to its former prosperity.

Reports of high wages made in occasional past years still attract migrants who are venturesome enough to take the risk. The beaches

[1] Pacific Fisherman Year Book, January, 1924, p. 89.

are near large timber districts, but casual laborers come also from the agricultural districts and live in summer shacks on the beach through the raw spring days.

The houses that the migrant laborers occupy are owned largely by the cannery companies. They are mere shacks, often built close together in a little settlement at the water's edge, sometimes over the tide flats. Deductions for the rental of the shacks amounting to $4 or $6 usually are made from the month's earnings. Not infrequently $2.50 is deducted from the month's pay for rent of one room, but sometimes by "crowding together" the workers have their rent reduced to $1.50 or even $1.25 a month. All transient clam diggers and cleaners expect to pay for their quarters, a situation quite unlike that in the orchards and berry fields. The necessity of paying for such essentials as scissors and rubber boots is responsible for other reductions in earnings.

The life of workers in the clam industry in general is apt to be rather haphazard and uncertain. It is customary for the employers to give orders on the grocery, and it sometimes happens that an employee leaves the cannery owing his rent and grocery bill. One employer in explaining the difficulty of holding the force in 1923 said:

> The diggers and their families sometimes arrive penniless, and the storms come with high surf and they are in absolute need. It is necessary to back them up, so that they can pull through, hoping they'll live within their expected earnings. We try to keep them perked up to the end of the season, and hope they'll have enough to get out.

Two girls having heard of the high wages possible in this industry tried work in clam canneries in 1923 for the first time. Fortunately they had friends who accommodated them in a shed, so that they had no rent to pay. They lived economically—"there was no chance to spend anyway"—and at the end of three months they had barely $10 and were obliged to pay a considerable part of that for carfare home.

Occupations of the women.

The women come chiefly for inside work in the canneries, but some of the foreign women wade into the surf and dig with the men. Occasionally the wife picks up the clams while her husband digs, for digging is heavy work and requires a strong physique. In the cannery, after the clams are steamed so that the shells open readily, the women clean the clams, using scissors to cut away the waste parts. Usually the clams are cleaned by two sets of women; from the initial clipping at the first sink, the clams are given a final and more careful inspection at what is called the second sink. The women employed on the canning line or in the warehouse work by the hour, and their jobs are not unlike those in other canneries.

The cleaning is done at sinks whose surface usually slopes from the worker, so that much of the water is drained away. Nevertheless,

women who work in this industry must at best put up with certain inconveniences, due largely to the conditions of cold and dampness, which are characteristic of clam canneries. From experience the women learn to wear wool socks, overalls, canvas leggings, high boots, and sweaters, but even then it is difficult to keep dry and warm.

Since the survey of the Women's Bureau in Washington was made during the closed season in the clam industry, none of the clam canneries were seen in operation, and accordingly no inspections could be made of the conditions under which women were employed in these canneries. Seven employers furnished pay-roll data, however, and 66 women who lived in the immediate vicinity of the canneries in Aberdeen, Hoquiam, Westport, and Copalis Beach were called upon in their homes. These resident women described their work in the canneries, emphasizing the discouragements of an apparently dying industry.

EARNINGS AND TIME WORKED IN ONE MONTH

A comparison with other seasonal industries, of the data on earnings and time worked of the women employed in the razor clam canneries, is complicated by the fact that the standard pay period in all clam canneries was a month, whereas in most of the plants in the other industries the week or the half month was the standard, and in only a few cases was it the month.

Since the clam season was nearer normal during the month of May, 1923, the records of this month for 158 women employed in 9 clam canneries were taken as a basis for the women's earnings and time of employment. Although May was a much better month than March or April in the canneries, Table VI in the appendix shows that even in May the women lost a great deal of time.

For only 46 women was the time worked reported in hours, their median earnings for May being $18.75. The two women with the maximum number of hours to their credit during the month are in the 116-and-under-117-hour group, this time being equivalent to about 14½ days of 8 hours each. The actual earnings of these women fell between $46 and $47. Only 17 women worked 50 hours or more, this group showing median earnings of $30.50, while the remaining 29 women, who worked during the month less than 50 hours, which is the equivalent of a full-time week in some more standardized industries, had a median of $12.50.

The time records for 112 women were given in days, the range of days on which they worked during the month being 1 to 24. Their median earnings for the month were $18.65. Only one woman was employed for 24 days and she earned $110.48. A very small group, 17 women, worked on 18 days or more, their earnings ranging from $39.45 to $110.48, with a median of $59.25. A considerably larger group of women, 54, showed a record of employment on 10 to 18 days, with average earnings of $26.50.

The hour records give a much more vivid picture of undertime than do the day records, since the days varied considerably in length. The spasmodic nature of the work is shown in the following time record of one woman who worked steadily whenever there was a chance:

Date	Hours worked	Date	Hours worked
May 1	4	May 22	4
May 3	5¾	May 26	2½
May 4	2	May 28	5
May 5	4½	May 30	6
May 8	4½	May 31	7½
May 15	5		
May 17	7¾	Total (13 days)	63½
May 19	5		

SEASON'S EARNINGS

Records of the earnings of 101 women who drew pay in each of the three months, March, April, and May, were secured (Table VII in the appendix). Their earnings, ranging from $12 to more then $100, showed a median of $52.40. In an industry with so much undertime the correlation of time worked with earnings is most important. Hour records were secured for only 17 women, their hours ranging from 81 to 142, inclusive, during the three months. The median earnings for this group were $50.75. For 28 other women, all of whom were cleaners, records of the number of days on which they worked were obtained; the minimum number of days on which any woman worked was 8 and the maximum was 34. Twenty of them (71.4 per cent) were employed less than 30 days, that is, less than one-third of the period included in the open season. The whole group of 28 cleaners had a median of $42.

The following statement, showing the number of days on which three of the representative canneries operated, indicates how impossible it was for the women to work much more than one-third of the season:

Month	Number of days operated		
	Plant No. 1	Plant No. 2	Plant No. 3
March	6	8	11
April	7	12	11
May	13	15	13
Total	26	35	35

The record for the maximum number of days of employment was that of the woman who worked 11 days in March, 10 days in April, and 13 days in May.

PART XI

WOMEN WORKERS IN APPLE AND PEAR WAREHOUSES

FACTS ABOUT THE INDUSTRY

The 19 fruit warehouses visited by the agents of the Women's Bureau in October, 1923, were situated in the Yakima and Wenatchee Valleys, a section devoted to the fruit orchards from which the warehouse supply must, of course, come. These warehouses, used for the packing and storage of apples and pears, were located chiefly at the railroad centers; a few were in the orchards, but these were not so substantially built and were used by the grower to pack his own fruit for immediate shipment or delivery to the commercial warehouses located in the towns. In the 19 warehouses were employed 650 women, 459 men, and 4 girls under 16 years, making a total of 1,113 employees.

Occupations of women.

The sorting of the fruit is invariably done by women, who examine the fruit for color, shape, and imperfections as it passes on moving belts or conveyors. The distance occupied by the hand sorters is rarely over 12 feet in length, and on both sides of the belts the women stand or sit as close together as possible, with barely elbow room, while they watch the rolling apples or pears and put them, according to the grade of the fruit, in the appropriate places on the conveyors. This sorting requires constant attention and careful handling, for on it depends the uniformity of quality in the packed boxes.

Most of the warehouses have installed delicate mechanical devices that size the fruit, so that the packer has no responsibility for the quality or size of the apples or pears that drop gently into his bins, for grades A, B, and C fall mechanically into their proper places. Men as well as women are packers, wrapping each apple or pear in paper and placing it methodically in the box, the size determining the arrangement in rows, as the uniform size of the fruit also determines the number of pears or of apples per box.

The rate of pay for sorting, important as the job is, does not compare with the rate for packing. A few managers remarked upon their difficulties with the turnover among sorters, but did not know whether to attribute it to the nature of the job, the lower wage, or the difficulty of a sorter's ever advancing to be a packer, the rule

apparently being, once a sorter, rarely a packer. Occasionally the constant watching of the procession of slow-moving fruit makes the girls dizzy, but this condition usually wears away after the experience of a few days' work.

Packing fruit has become a skilled trade, and some packers follow the ripening fruit from southern California to Washington, but the majority of the women employed as packers were residents of the State. The packers have a habit of speeding up. As it is a piece-work job, some of the most rapid have acquired the title of "speed fiends." They work at a terrific pace while the season lasts. It is a generally accepted fact that the high-speed years are limited to a very few, so that the packer feels he must work hard while he can. Sometimes a rythmic swaying of the entire body accompanies the motions of picking up an apple from the bin on one side, and a piece of paper with the other hand, wrapping the fruit and thrusting it into the box. The complete operation is done more quickly than it can be described. Such speeding is impossible in packing pears, because the shape of the fruit makes it more difficult to handle than a round apple. The pear must be centered accurately in the wrapping paper, and due regard must again be given to the shape when it is packed in the box, in order that all the pears be laid alike.

WORKING CONDITIONS

In addition to the strain which so frequently accompanies packing, there are certain characteristic problems in connection with the working conditions which especially affect the comfort and well-being of the women employed. These are the seating and crowding of the sorters, the lighting of their work places, and the temperature of the workrooms, conditions due largely to the nature and arrangement of the work but partly to the perishability of the product.

Buildings.

The warehouses and packing sheds were large barnlike structures with unfinished walls and ceilings, usually of wood, sometimes of brick or cement. In one case they were painted white. The floors also were of wood, with the exception of two cold-storage packing rooms in which they were of cement. There was no problem as to insufficient exits, and the women's work was generally on the first floor. In only two warehouses did women work above the second floor, and stairs were used by the women employed in only six buildings. None of these stairways were enclosed by walls, and one was especially steep and narrow and darkened by apple boxes piled high around it. Two others were so narrow that two people could not pass conveniently. They were all in good repair, equipped with handrails, and normally light.

General arrangement of workrooms.

That the usual custom of crowding in as many as possible at the sorting section of the belt complicates discipline and detracts from the efficiency of the sorters, was the opinion of a very few managers who were trying out other arrangements of work that gave each sorter more space and that placed more responsibility for the work upon the individual sorter. But the following description of the crowded condition in one warehouse is still representative:

> The sorters work in very cramped quarters next to the belt. They are on a raised platform of very awkward height. A rail at the back keeps the girls from falling off. The girls at the outside end of the table must jump down to let the girls farther down the line pass out

Seating.

The provision made for seats for women workers was reported for 14 warehouses. In these were 244 women packers who stood continuously, working under pressure for 10 hours a day, the hours being 7 a. m. to 6 p. m. There was no provision made for them to sit, and if they had half a minute of respite from their work the only seats available for a brief rest were stray packing boxes. For 94 of the 386 sorters employed in these warehouses there was absolutely no provision made for seating, while the work of 126 was so arranged that they could either stand or sit, and 166 sat continuously. The seats furnished the sorters were mainly packing boxes, placed on end to bring the workers up high enough for the belts. Consequently, many of the women were perched on the edge of the boxes, and even this arrangement was better than nothing. Stools were provided in one warehouse and narrow benches in five.

Foot rests are needed to relieve the strain from an unnatural sitting posture. In some plants the girls used the rungs of the stools, table rails, and low boxes for foot rests, but in seven of the establishments they seemed unable to improvise even such crude foot rests. These problems may seem small matters, but they are therefore easily adjusted, and they are as necessary for the health and comfort of seasonal as of regular workers.

Lighting.

Electric lights invariably are suspended over the sorting table, for the job requires the best of light and the warehouses are not, as a whole, naturally well lighted. Ordinarily there are windows on only one side of the room, where both sorters and packers work, although sometimes there are windows at both ends of a long, narrow room. The six warehouses reported as having sufficient natural light in the packing rooms were exceptions; one had windows on three sides; another, in addition to good window lighting, had a skylight over the work line; and another had a monitor roof.

Even the artificial lights were not always satisfactory. The following description could be applied to more than one sorting table: "A powerful light was suspended so that the light shone in the workers' eyes. It could easily have been adjusted." One girl in another plant had remedied the glare by pinning a paper shade around a drop light. In contrast to these unsatisfactory arrangements are the following descriptions:

Electric lights needed over sorting table continuously, but blue daylight bulbs are used and placed at a satisfactory height, so that there is no discomfort to workers.

Lights over sorting table are under one large shade and dropped so low that workers' heads are above it and their eyes are well protected.

Temperature.

With rare exceptions the workrooms were not regularly heated in spite of the fact that long before the packing season is over the weather gets very cold in the apple-orchard districts of the State. The rooms should not be too warm, on account of the fruit; nevertheless by the installation of a steam pipe under the floor where the packers and sorters work and by the maintenance of the temperature at about 60°, one firm had proved that it was possible to add much to the comfort of the girls and at the same time not to injure the fruit. One employer showed with just pride how he had shut out some cold by putting down a double floor, siding the walls and ceiling of the workroom, so that two stoves, one at each end of the room, kept the place moderately warm. The temperature in one room, on the day of the visit in September, was 55°. "Later," the manager said, "we'll inclose the sorting section in a small canvaslike tent and put an electric stove under the table." In another warehouse a sorting section, even with an electric heater, was only 54° on the day of the visit. One room had a stove which, the manager admitted, was quite insufficient, since late in the fall the temperature in this plant was frequently only 40° to 45°. One superintendent explained in detail how he stretched a canopy of building paper over and around the sorting table to keep in the heat from the oil stove placed under the table.

There is so much more motion in packing than in sorting that the packers do not feel the cold so much; consequently more effort is made to keep the sorters warm.

Pears are a much more delicate fruit to handle than are apples, and the harvest keeps the workers at a tension while it lasts. Most of this fruit is put in cold storage at once before it is packed for shipping. Later, since the fruit would deteriorate if taken from cold storage and packed in a warmer atmosphere, it must be packed also in cold storage, after which it is shipped in refrigerator cars to avoid atmospheric changes. But the packing of pears in cold-storage

rooms is far from pleasant. The desirable temperature for such work was stated to be, by the superintendents of three plants visited, variously "from 38° to 40°," "from 45° to 52°," and "50° or lower." These cold-storage rooms are sealed, electrically lighted, and without ventilation. Some women working in a place which had a concrete floor were seen standing in packing boxes, the bottoms of which were lined with wrapping papers at least an inch thick. They had taken this precaution in addition to wearing the heaviest kind of hosiery and boots. In August the girls wore heavy underwear and warm sweaters, and even then were able to keep warm with difficulty.

Sanitation and service facilities.

Washing facilities.—Five of the warehouses had no facilities for washing, although one of these maintained an extensive camp, conveniently near, which had adequate washing equipment. Another establishment had a hydrant outside the door which could serve for washing purposes. In the warehouses reported as having some washing facilities within the plant, most of the washbowls were in the toilet rooms, but two were located in the workroom and were used in common by men and women. None of the plants supplied hot water; seven supplied soap; seven supplied towels. Of the last named, four furnished paper towels and three roller towels.

Drinking facilities.—Drinking water was supplied conveniently near the workers in most of the warehouses. Nine of the plants had bubble drinking fountains, but only two had bubblers of the sanitary type. The common cup was in evidence in five warehouses, and paper cups were supplied in two. Some of the women brought their own drinking utensils—in some cases a tin can or a milk bottle. In one warehouse the only supply of drinking water was in the small toilet compartment.

Toilets.—The condition of the toilet conveniences for the women varied from plant to plant. Five had outdoor privies that were not carefully kept. One of these was across the road from the plant, and another was across the railroad tracks, the latter having no hook or lock on the door. Two plants had toilets with septic tanks and the other 12 had modern plumbing, which was clean and in good repair in all but 3. All the toilets were separate for men and women, and with but one exception all were decently inclosed. No dark toilet rooms were reported; most of them had natural and adequate ventilation, although one did ventilate into the warehouse only. The majority of the toilet rooms were clean, the degree of cleanliness depending, however, upon the firm's practice of having them cleaned once or twice a year, swept once or twice a week, or scrubbed daily, and of holding the janitor responsible for the condition or permitting

a haphazard supervision. The number of women per toilet seat varied with the season, as in one warehouse of usual size where the number of women for one seat supplied fluctuated in three months from 12 or 15 women to 50. For one plant a maximum of 100 women to one toilet seat was reported. At the time of the visit to the warehouses at least eight toilets with inside plumbing averaged 25 or more women per seat.

Other service facilities.—One firm boasted of a restroom, which served primarily as a cloakroom and which contained tables and benches but was devoid of a cot or comfortable chair. In another plant was an abandoned office which could have served general utility purposes, since it was equipped with a stove. One firm had provided a lunchroom and insisted that employees leave the workroom to eat their lunches. In two other warehouses there were cloakrooms which were not combined with toilet rooms, but nails in the walls of the workrooms and toilet rooms were the customary accommodations for wraps. Perhaps the almost universal absence of lunch rooms and cloakrooms is due to the eagerness of the girls to get out of the cold warehouses at noon when the weather permits, and into the bright sunshine, even if only onto the loading platform of the warehouse; and also to the custom of not removing their wraps for work, but of putting on extra ones in an endeavor to keep warm while at work. However, these are not ample excuses for the failure to provide a comfortable place for emergencies and for the sharp cold days in the later fall.

HOURS

In general the 10-hour day was the standard practice throughout the fruit warehouses, though a few firms observed a day of 9 hours on Saturday, thus making 59 and 60 hours as a full-time weekly schedule.

To get a picture of the working hours in this industry, however, it is more enlightening to analyze the actual hours worked by the women, because, although irregularities in the daily schedule were not so characteristic of this industry as of canneries, data gathered for individual workers showed such deviation from the 10-hour day as to prove that both overtime and undertime were not uncommon.

All but 1 of the 19 establishments visited during the course of the survey furnished pay-roll data concerning earnings and time worked on a weekly basis; consequently, in order to avoid identification of the one warehouse which had a semimonthly system of pay, the earnings of the women employed by this firm were prorated. All the tables in this section are, therefore, shown for a weekly basis. Wage reports were copied for a total of 656 women workers in ware-

houses, 541 of whom were packing and sorting apples and 115 of whom were engaged on pears. For many of these women the time worked was entered either in days or hours, but for 421 of them (64.2 per cent) both the number of days and the number of hours were given. (Table VIII in the appendix.)

Time worked during the week.

Table 33 shows the hours worked by the 421 women in the several day groups of the pay-roll period. About 47 per cent of the number are in the over-50-and-not-over-60 hour group, all but five of the women in this classification working a 6-day week. Almost three-fifths were employed the full week of 6 or 7 days, although only nine women worked on 7 days. About one-fourth were employed less than 5 days.

TABLE 33.—*Variation in number of hours worked within one pay-roll period by women working on same number of days—apple and pear warehouses*

Days on which work was done	Number of women reported	Number of women employed on specified number of days who worked—							
		5 and not over 10 hours	Over 10 and not over 20 hours	Over 20 and not over 30 hours	Over 30 and not over 40 hours	Over 40 and not over 50 hours	Over 50 and not over 60 hours	Over 60 and not over 70 hours	Over 70 and not over 73 hours
Total	421	27	33	21	25	62	197	55	1
1 day	26	26							
2 days	34	1	33						
3 days	23			20	3				
4 days	22			1	21				
5 days	64				1	58	5		
6 days	243					4	192	47	
7 days	9							8	1

The more detailed figures show that of these 421 women for whom days and hours were reported, about 46 per cent put in 59 hours or more during the week for which the pay roll was taken.

From the table it appears that only 7 women fell below what is generally considered the normal time of the industry on the day they worked, that is, 20 hours' work on 2 days, 30 hours on 3 days, and so on, while 56 women, or 13.3 per cent, worked more than normal time on the days they worked in the time reported. More detailed figures show that the only group of any size who worked overtime were the 47 women who worked from 61 to 70 hours on 6 days; 43 of these had hours of 65 or less. Unlike the women employed in canneries, the 243 women in the 6-day group for whom hours also were reported did not have so wide a range of hours, showing between 50 and 71. The large number appearing in the normal 59 and 60 hour groups of the period (32.5 per cent) strongly emphasizes the prevailing 10-hour day of the industry.

Length of days worked.

The pay rolls of five apple warehouses showed the actual hours worked by 122 women on each day of the week for which the pay roll was copied. The following table gives the longest and the shortest day for each of these workers:

TABLE 34.—*Variation in number of hours worked within one day—maximum and minimum hours of women in apple and pear warehouses*

Maximum number of hours worked in one day	Number of women reported	Number of women with maximum hours as specified whose minimum time worked in one day was—											
		1 hour	2 hours	2½ hours	4 hours	5 hours	6 hours	7 hours	7½ hours	8 hours	8½ hours	9 hours	10 hours
Total	122	1	1	1	1	53	2	5	5	5	7	7	34
9 hours	1					1							
10 hours	77			1	1	42	1	4	5		5	2	16
11 hours	3					1							2
12 hours	35		1			4	1	1		5	2	5	16
13 hours	6	1				5							

The table shows that 16 women had a uniform day of 10 hours during the period covered by the pay roll. For each of the other 106 women there was a variance in hours worked on the different days of the weekly record. By far the largest group for whom the daily working hours were reported shows a minimum day of 5 hours; almost four-fifths of these 53 women put in one or more days of 10 hours, while almost one-tenth of them had at least one working day of as much as 13 hours. Although not presenting the striking irregularities so noticeable in canneries, one day's work of 5 hours and another of 13 hours must be disconcerting, to say the least, and yet almost one-fifth of the women who show a minimum day of 5 hours had a long day of 11, 12, or 13 hours.

In great contrast to the irregular hours prevailing in canneries, warehouses show that over three-fifths of the women had either a uniform day or a maximum day of 10 hours. Thirty-five of the women, almost 30 per cent, were reported as working one or more days of 12 hours, yet in the one week reported they showed other days of 2, 5, 6, 7, 8, 9, and 10 hours.

With the 10-hour day standard in the industry, it is surprising to find that 44 of the women reported worked on some day or days 11 hours or more and that for 6 of this number there were reported one or more days as long as 13 hours. Of the 35 whose maximum day was 12 hours in length, 16 had no day shorter than 10 hours in the pay period.

Such an arrangement as the following shows the number of women and the length of their shortest and longest working days during the week for which the pay roll was taken, the summaries being in descending scale according to the number of women reported.

The shortest workday, arranged in order of number of women employed, was as follows:

Length of day	Women employed	
	Number	Per cent
5 hours	53	43.4
10 hours	34	27.9
8½ hours	7	5.7
9 hours	7	5.7
7 hours	5	4.1
7½ hours	5	4.1
8 hours	5	4.1
6 hours	2	1.6
1 hour	1	.8
2 hours	1	.8
2½ hours	1	.8
4 hours	1	.8
Total	122	100.0

The longest day arranged in similar order is here presented:

Length of day	Women employed	
	Number	Per cent
10 hours	77	63.1
12 hours	35	28.7
13 hours	6	4.9
11 hours	3	2.5
9 hours	1	.8
Total	122	100.0

WAGES

In a study of the earnings of the women in this section of the report it will be more significant to consider employment on pears separately from that on apples, because of the different rates of pay in force for the two types of work. It is also interesting in each case to correlate the earnings of the women with the two important occupations in which they were employed—sorting and packing—since sorting in both the pear and apple warehouses was paid by the hour, while packing was paid by the piece.

In this discussion of full-time work it seems advisable to consider as so-called full-time workers only the women who had been employed more than 50 hours instead of those with a record of 50 hours and over, the classification used for full-time workers in the fruit and vegetable canneries and in the fish canneries. This different method of treatment is due to the fact that, because of the 10-hour daily schedule customary in the industry, all steady workers who put in six or seven days worked more than 50 hours.

Earnings for sorting and packing apples.

The rates for sorting apples ranged from 30 cents to 45 cents an hour. The earnings of sorters in the apple warehouses reported are presented in correlation with time worked in Table VIII–A in the appendix. The hours are arranged in groups of 10, corresponding to the usual 10-hour day.

The next to the last group in the table, over 60 and under 70 hours, includes eight women who worked on seven days, while the others accumulated during six days the overtime which raised the total for the week above the usual 60 hours. The unusual amount of overtime happened in the case of two sorters who worked 12 hours daily on the first five days of the week and 10 hours on the sixth day.

The median earnings for all the apple sorters, regardless of the time they worked, were $18.45, and for those working over 50 hours, $20.90. Only 26 per cent of the apple sorters, or about one-fourth, are included in the groups of 40 hours or less, leaving three-fourths who worked periods which correspond to their employment on five, six, or seven days. It is not surprising, therefore, to find the difference in the median earnings of all workers and of those working a full-time week to be only $2.45.

Earnings records were available for about one-half as many apple packers as sorters. The work in apple warehouses requires more sorters, sometimes a third more, and as men are seldom employed as sorters, although frequently as packers, the ratio of one packer to two sorters in the numbers represented in women's wages follows the organization of women's work in the warehouses. (Table VIII–C in the appendix.)

The packers were a steady lot of workers while the season lasted. Only one-sixth of them worked less than five days, and over two-thirds worked the full-time week of six or seven days. Since packing is a piecework job, paid at the rate of 5, 5½, and 6 cents a box, the speed and endurance of each packer set the limit to her earnings. The highest earnings, not only in packing apples, but in any group of workers included in the survey, were the $69 received by a 6-day worker for packing apples.

The median week's earnings for all the apple packers, regardless of time worked, were $31.05, and for full-time workers—those working on six and seven days—$35.85. Though the median for all packers falls within the $31-to-$32 group, at least one-fourth of them actually earned $39 or more. Practically one-half of the full-time workers earned $36 and over. At the other extreme are four women for whom work on six days was reported to have paid less than $20. These women may not have worked the full 10-hour day, although there was no record to prove this, or they

may have been learners or slow workers. However, according to unpublished data, in any instance, earnings as low as $12 or as high as $69 a week were not common occurrences in the life of the packer, and they are quoted as extremes in the warehouse industry.

Earnings for sorting and packing pears.

The rate for sorting pears was usually 30 cents an hour. This would make the normal pay for a 10-hour day $3, or $18 for a 6-day week. The wage table for pear sorters is arranged in hour groups corresponding to the hours in the normal 1 to 6 day working week. (Table VIII–B in the appendix.)

Of the 62 pear sorters, 42 worked what might be considered a full-time week on six or seven days, that is, over 50 hours. This leaves only about one-third who worked 50 hours or less during the week. The median of weekly earnings for all pear sorters was $18.05, while for those working over 50 hours the median was $18.35.

As already stated, packing pears and apples in the fruit warehouses is a piecework job, paid at a rate of 5 to 6 cents a box. As the warehouse pay rolls did not always show a record of the hours worked by the packers, the wage tables for packers have been uniformly made up on the basis of the day as a unit of time.

Of the 53 women who packed pears, over three-fourths worked on five and six days, and almost three-fifths worked six days or a full week. There were no 7-day workers in pear packing during the week for which the pay roll was taken—a week selected by the management as representative of the industry. The median earnings for all pear packers, regardless of the number of days on which they worked, were $25.85, and the median for those working on six days was $31.30. The women packing pears earned better wages than did sorters, the median for all pear packers being $7.80 more than that for all pear sorters, and for full-time packers $12.95 more than for full-time sorters. (Table VIII–D in the appendix.)

Among the pear sorters, more than one-half (53.2 per cent) are in the group earning $18 and under $19, but the packers are much more evenly distributed throughout the wage groupings.

Comparison of earnings for work on apples and pears.

It is interesting to compare the earnings of women for the two kinds of fruit, according to occupation. In the first place, sorting the fruit being a job paid for by the hour, the difference in the earnings of those sorting apples and pears is explained by the difference in the hourly rates of the current pay roll. As already stated, the rate for sorting apples ranged from 30 cents to 45 cents an hour, but 30 cents was the only rate paid for sorting pears. This difference

in rates is shown in the following summary for the 352 apple sorters and 62 pear sorters for whom an hourly rate was reported:

Hourly rate	Number of women receiving each specified rate who sorted—	
	Apples	Pears
30 cents	138	62
35 cents	108	----
40 cents	100	----
45 cents	6	----
Total	[1] 352	62

[1] For 6 women two rates of pay were reported.

The range in earnings for packing pears is from $3 to $43, whereas the range for the same occupation in apples is from $4 to $70. The numbers are spread quite evenly over the range in each case, but they bank more heavily in the lower groups for pears; 24.5 per cent of pear packers, in contrast to 16.9 per cent of the apple packers, are below $20. Nearly one-seventh (about 15 per cent) of the apple packers received more than $45 for the week reported, whereas no packer of pears earned as much as $45 a week.

A summary table giving the number of women sorters and packers and their median earnings is here presented:

TABLE 35.—*Median earnings of women sorters and packers in apple and pear warehouses, by time worked*

Time worked	Women employed (on apples)			Women employed (on pears)		
	Number	Per cent distribution	Median earnings	Number	Per cent distribution	Median earnings
	SORTERS					
Total	353	100.0	$18.45	62	100.0	$18.05
Under 10 hours	14	3.9	(1)	----	----	----
10 hours	10	2.8	(1)	3	4.8	(1)
Over 10 and under 20 hours	22	6.1	5.20	3	4.8	(1)
20 hours	8	2.2	(1)	----	----	----
Over 20 and under 30 hours	8	2.2	(1)	----	----	----
30 hours	12	3.4	(1)	1	1.6	(1)
Over 30 and under 40 hours	9	2.5	(1)	5	8.1	(1)
40 hours	10	2.8	(1)	1	1.6	(1)
Over 40 and under 50 hours	27	7.5	15.65	2	3.2	(1)
50 hours	28	7.8	15.80	5	8.1	(1)
Over 50 and under 60 hours	99	27.7	20.50	9	14.5	(1)
60 hours	64	17.9	18.85	25	40.3	18.50
Over 60 and under 70 hours	45	12.6	26.05	8	12.9	(1)
70 hours	2	0.6	(1)	----	----	----
	PACKERS					
Total	183	100.0	$31.05	53	100.0	$25.85
1 day	4	2.2	(1)	2	3.8	(1)
2 days	9	4.9	(1)	4	7.5	(1)
3 days	6	3.3	(1)	4	7.5	(1)
4 days	12	6.6	(1)	1	1.9	(1)
5 days	27	14.8	26.75	13	24.5	(1)
6 days	115	62.8	34.70	29	54.7	31.30
7 days	10	5.5	(1)	----	----	----

[1] Not computed, owing to small number involved.

This shows apple and pear sorters in hour groups corresponding to the hours in the normal 1-to-7-day working week, together with the pear and apple packers according to day groups in the period.

Of the 656 women employed in the fruit warehouses for whom wage records were obtained, 406, or over three-fifths, worked on six and seven days of the week. This figure includes the women reported as working over 50 and not over 70 hours. The proportion of full-time workers—those working over 50 hours or on six days or more—is found to be highest in apple packing, where 68.3 per cent of those reported show a week of six and seven days. Next in order come the 67.7 per cent of pear sorters ranking as full-time workers, followed by 58.7 per cent of the apple sorters and 54.7 per cent of the pear packers. None of the women who packed pears worked more than six days of the week for which the pay roll was taken, and in both occupations as in both fruits the greatest number of women are concentrated in the 6-day working period. The regularity of hours worked in the warehouses is in striking contrast to the irregular hours of the workers in the canneries; in the former the work was standardized on a 10-hour basis, this being possible because the product is not so perishable as most of the crops used by canners.

That packing paid much better than sorting and that work on apples was much more lucrative than that on pears is shown by a comparison of the medians given in the accompanying table. The median week's earnings for apple packing were $31.05, whereas the median for pear packing was $25.85. Apple sorting had a median of $18.45 and pear sorting a median of $18.05. This inequality is attributed to a difference in the operation; the shape of the pear is such that it must be placed exactly in the center of the wrapping paper, and all pears must be packed uniformly in the box with stem ends pointing the same way. Again and again packers would state that they preferred packing apples, not only because they were easier to handle but because they meant better pay. As packing pears and apples in the fruit warehouses is a piecework job, naturally greater speed can be made by the girls when packing round apples than when wrapping and packing the irregular-shaped pears.

Unpublished material reveals that six fruit warehouses where both pears and apples were packed furnished a pay roll for a representative week for pear packers as well as one for apple packers. The names of 37 women who packed fruit appeared on both these pay rolls, and the average daily earnings for packing apples were $5.85, and for packing pears, $5.26, showing a discrepancy of 59 cents between the two. A comparison of the earnings of all the women packers on these two pay rolls—86 women employed on pears and 52 on apples, the 37 women described being included in each—shows a daily average for pear packing of $5 and a daily average

for apples of $5.70.[1] Every comparison that could be made from pay-roll data bears out the statements of the girls that they could not make so much packing pears as packing apples.

Time worked and earnings during the season.

Records were obtained of season's earnings for 152 of the steadiest workers in 15 apple and pear warehouses. The range in the operating periods of the plants in which these women were employed was less that that in either the fruit and vegetable canneries or the fish canneries, a fact brought out by the following summary:

Operating period	Number of women
8 weeks	21
9 weeks	35
11 weeks	12
12 weeks	20
13 weeks	20
14 weeks	6
16 weeks	22
17 weeks	16
Total	152

The operating periods ranged from a minimum of 8 weeks to a maximum of 17 weeks, not far from three-fifths (57.9 per cent) of the women having been in plants whose time of operating did not exceed 12 weeks.

Data obtained on the actual number of days on which these 152 women worked may be summarized as follows:

Days worked	Number of women
Under 20	3
20 and under 30	20
30 and under 40	25
40 and under 50	48
50 and under 60	27
60 and under 70	14
70 and under 80	6
80 and under 90	7
90 and under 100	2
Total	152

None of the women worked as many as 100 days, whereas over three-fifths (63.2 per cent) were employed for less than 50 days and slightly more than four-fifths for less than 60 days, larger proportions with such short-time employment than was found in either the fruit and vegetable or the fish canneries. There is a decided concentration of the warehouse workers in the 40-and-under-50-day group, almost one-third of the total number.

The more detailed figures reveal considerable difference between the operating period of the plants and the actual period of employ-

[1] Except for this comparison of pear and apple earnings, only one pay roll from each of these six firms—that for apple packing—has been used in the tables in this section.

ment of the women. For example, one-fourth of the women were in plants with an operating period of 16 or 17 weeks, or from 96 to 102 possible working days, whereas only 2 of the 152 women were employed on as many as 90 days. More than one-half of the women worked in plants which operated for 12 weeks or more—that is, 72 or more working days—and 9.9 per cent of the women worked 70 days or over.

Despite the fact that the season was shorter than that in the canneries, the earnings of the women compare very favorably with the earnings in the canneries. The median for the 87 sorters in the warehouses ($156.80) surpasses the median for the women in the fish canneries ($137.95), and the median for the 65 warehouse packers ($235) exceeds the median for the women employed in the fruit and vegetable canneries ($225.60). Moreover, the median earnings of the women who worked on 50 days or more were $197.80 for sorters and $315 for packers, both of these exceeding the median of the women reported with 50 days or more of employment in the fish canneries.

PART XII

LABOR TURNOVER IN CANNERIES AND WAREHOUSES

There was nothing haphazard in the bookkeeping in the fruit warehouses or the canneries. In fact, the books were so uniformly well kept that at the end of the season it was possible to check over the records and know how many days each employee had been at work; whether she had been employed 1 day or 50. It seemed advisable to get attendance records for some of the representative plants, since one of the problems in the canning industry is the coming and going of employees. The high labor turnover is a constant worry of the canner. For the most part the plants visited were in small towns or cities where there was a supply of women eager to work a little, as in many cases they had no opportunity to earn a penny except during the canning season. A few canneries were so located that they could not depend entirely upon the immediate neighborhood. These provided substantial quarters for a few families, and sold bus tickets at a reduced rate, or even transported the workers in a conveyance, hoping thus to be sure of steadier workers. But in spite of these measures the cannery labor force was not stable, and the turnover was high.

Closely allied with the question of labor turnover in the canneries is that of the seasonal nature of the products handled and the uncertainty of crop deliveries, resulting in uncertainty for the workers as to dependable employment. This situation varies, to be sure, with the different classes of establishments discussed in this report. Fish canneries and apple warehouses represent the two extremes, the former the most uncertain, with dull or hectic days and nights, the latter the most certain, with a fairly standard labor force. What the day's work in a fish cannery will be can never be foreseen until the boats come in, whereas in an apple warehouse when the work is once started it can be so organized as to proceed almost without interruption 10 hours a day for about two months, because the harvest has been closely estimated and the product is not so perishable as many others. Between these two extremes of fish canneries and apple warehouses are conditions in the fruit and vegetable canneries. In these establishments, by means of canning a succession of crops, beginning with spinach or early berries and cherries and continuing with string beans, pears, and apples, which are the most important canned products, the season is prolonged over many months. There is an

overlapping of harvest periods with some crops; for example, one cannery had work on beans and berries at the same time, another was finishing berries and beginning pears, and still another had beans to can after pears had come into the market. This of course tends to equalize the labor force, but the peak season in cherries or pears requires many more women than does the peak season in apples, so that there is not work for all the women throughout the six months' season.

On the whole, it is not surprising that there is no such thing as a standard labor force in the canneries. In one week a heavy crop is harvested, and the next week it is almost gone, so that the plant, instead of operating three canning lines, may operate but two, and one-third of the women may find themselves laid off until the peak of the harvest in the next crop. Even within the same week there may be full-time work on some days and no work on other days. The fluctuation in the actual numbers of women employed from week to week is, therefore, due in part to the conditions in the industry, and women interviewed who needed regular employment stated that cannery work was most unsatisfactory on this account, the instability of the labor force reflecting the seasonal variations in cannery organization. On the other hand, the canners complained of their constantly changing labor force, a greater anxiety in other years than in 1923, for at the time of the survey the supply was adequate though individuals were still shifting. Fortunately for the industry, housewives who can not work all the year but are eager to work for some weeks or months form the great bulk of the women employed in the preparation of the crops for canning. The canners depend upon this group of women not employed in normal industries, and would have difficulty in running their canneries without them. But as the women have never acquired in their homes the business habit of regularity, the employers can not expect it of them in industry, especially in work having such irregularities as canning. The natural result is that for several days the women work steadily, perhaps even keeping at the job a few weeks, and then they are gone, discouraged, it may be, by the thinness of the pay envelope after a slack week, satisfied perhaps with what earnings they have made, or compelled by more urgent needs at home to leave a wage-earning job. Other women go to a cannery with the intention of earning enough to buy some household equipment that they see no other way of getting—perhaps an electric washer or a vacuum cleaner—and after a few weeks they too have left, having earned enough for their present desires. School girls work for part of the vacation so as to have money for the purchase of their winter clothes; then they leave and other workers must fill their

places. For the most part the work is unskilled, of a kind familiar to the women all their lives. If it were skilled work and the pay were proportionately higher they might be contented to remain throughout the season.

Both the canner who wants dependable employees and the employee who wants regular work have their troubles, which are illustrated in the tables presented in this section.

FRUIT AND VEGETABLE CANNERIES

Despite the fact that work can be fairly well stabilized in the fruit and vegetable canneries, the accompanying table, giving the number of days worked by the women in three canneries and an evaporator, shows considerable variation from one plant to another.

TABLE 36.—*Days worked during the season, women in three fruit and vegetable canneries (plants 1, 2, and 3) and one evaporator*

Number of days on which work was done	Number and per cent of women working on each specified number of days in—							
	Plant 1 (longest time worked by any woman, 269 days)		Plant 2 (longest time worked by any woman, 139 days)		Plant 3 (longest time worked by any woman, 130 days)		Plant 4: Fruit evaporator (longest time worked by any woman, 37 days)	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	387	100.0	191	100.0	272	100.0	170	100.0
1 or 2	32	8.3	1	0.5	46	16.9	33	19.4
3 and under 7	55	14.2	3	1.6	46	16.9	44	25.9
7 and under 13	63	16.3	11	5.8	44	16.2	36	21.2
13 and under 19	56	14.5	12	6.3	37	13.6	18	10.6
19 and under 25	49	12.7	12	6.3	16	5.9	15	8.8
25 and under 31	30	7.8	11	5.8	17	6.3	10	5.9
31 and under 37	21	5.4	18	9.4	13	4.8	9	5.3
37 and under 43	14	3.6	20	10.5	12	4.4	5	2.9
43 and under 49	12	3.1	13	6.8	4	1.5		
49 and under 55	15	3.9	12	6.3	9	3.3		
55 and under 61	3	.8	10	5.2	4	1.5		
61 and under 67	2	.5	14	7.3	7	2.6		
67 and under 73	2	.5	6	3.1	2	.7		
73 and under 79	1	.3	1	.5	4	1.5		
79 and under 85	2	.5	2	1.0	1	.4		
85 and under 91	3	.8	5	2.6	3	1.1		
91 and under 97	3	.8	1	.5	1	.4		
97 and under 103	2	.5	4	2.1				
103 and under 109	3	.8	4	2.1	3	1.1		
109 and under 115	1	.3	6	3.1	2	.7		
115 and under 121	2	.5	4	2.1				
121 and under 127	1	.3	11	5.8				
127 and under 133	1	.3	4	2.1	1	.4		
133 and under 139	1	.3	5	2.6				
139 and under 145	2	.5	1	.5				
145 and under 151	1	.3						
151 and under 157	1	.3						
187 and under 193	1	.3						
193 and under 199	1	.3						
199 and under 205	1	.3						
218 and under 224	1	.3						
224 and under 230	1	.3						
230 and under 236	1	.3						
236 and under 242	2	.5						
266 and under 272	1	.3						

The most striking fact shown by this arrangement of attendance records is that 79, or almost one-tenth of all the cannery women reported tried work on only one or two days and then quit their jobs. The situation in plant 3, where about one-sixth of the women worked only a day or two, approximately one-third worked not over 6 days or the equivalent of a week, one-half worked not over 12 days, and more than five-eighths worked not over 18 days, though the plant was in operation more than five months, is amazing. This plant, like plant 2, was convenient to a resident labor supply of women who had almost no other convenient place to work. The two plants were operating the same number of canning lines, were canning the same kinds of crops, and were so near each other that they were subject to the same soil and crop conditions. The women in the two plants were of the same type—chiefly housewives and high-school girls. The only explanation for the differences in steadiness of employment is that plant 2 had organized its sources of supply of raw product so that it was coming in steadily to the cannery, which meant that the girls had regular work, while in plant 3 the supply was uncertain from day to day, frequently the days being so short that the girls were dissatisfied with their earnings, became discouraged, and gave up entirely, and new girls had to be found for the work. In plant 2, however, although it had not so high a percentage of short-time workers as plant 3, 14 per cent of the girls did not work over three weeks, and here the superintendent felt the fault was with the women. The majority were not regularly wage earners, they knew nothing of factory discipline, and although it was very informal, they had not the freedom enjoyed for years in their own homes, many of them being middle-aged housewives. Finding conditions very different, they soon became discouraged and left after a brief trial of the work.

In plant 1 more than one-fifth of all the 387 women hired during the year worked only from 1 to 7 days; about three-eighths worked not over 12 days, and one-half (53.2 per cent) had gone after working 18 days or less. Only 40 women worked as much as 55 days in this plant, while in plant 2, with its much smaller number of women, there were 78 who worked at least 55 days. The difference in the operating period of plant 1 which was not closed during the entire year, accounts for the 10 women who worked more than 150 days. As a matter of fact, however, only 17.2 per cent of the women in the three plants worked as much as 55 days, or about 9 weeks, the condition in this respect being best in plant 2, where 40.8 per cent of the women, compared with about 10 per cent in plants 1 and 3, had this record.

An evaporator, plant 4, is included with the canneries. The only crop prepared for market by this firm in 1923 was apples, and here work was very regular through the season of the apple harvest; but the work of the women—unskilled—was the same as the work in fruit canneries, and the rate of pay was similar. However, the record of attendance at work among the women in the evaporator is worse than the record in fruit canneries, for in the former more than three-fourths of the 170 women employed during the season of about seven weeks had quit their jobs by or before the end of their eighteenth day of service, a period of time equivalent to three weeks, and in this case there was no uncertainty in the crop, for apples were plentiful and not perishable, and the work was a steady 10-hour-day routine. There seems no adequate explanation unless this unskilled work has unconsciously grown to be regarded by the casual laborer as a substitute for intermittent daywork.

FISH CANNERIES

Probably there is less of a standard labor supply for fish canning than for other types of canneries. Although the high wages paid in fish canneries do attract some women away from more regular and dependable occupations, the season for work in fish canneries is too much of a gamble for women who feel the compulsion of year-round work and can find steady employment elsewhere. The possibility of working in these canneries is limited to three or four weeks for most women, this being due to tremendous variations in the demand for labor. Although there is in general the possibility of some work in July, August, and September, the peak of the season occurs during the latter part of August and the first week in September, coincident with the great run of pink or humpback salmon.

The situation in the fish-canning industry is well illustrated by the conditions in 1923. For the first six weeks of the season, during July and until the middle of August, the fishing was dull and a small force only was needed; then for about three weeks the canneries ran to full capacity, after which fishing became gradually poorer. In other words, before the great run of humpback salmon the fish canneries operated only one canning line, but during the peak of the season several plants were operating three lines, occasionally more, and as the catch of fish increased the number of girls was doubled, even trebled. For a week, during the run of humpbacks in September, the fishing season was closed, as usual, and everyone was laid off except perhaps some warehouse employees, and when fishing opened again the peak of the run was over, the number of canning lines was gradually reduced to one, and the force needed to can the fish also was decreased.

On the other hand, the fish canners, like the fruit and vegetable canners, were exasperated by the great numbers of women, employed in good faith for urgent work, who left after working a day or two. Of the 568 women engaged by six fish canneries during the season of 1923, 83, or 14.6 per cent, left after their first or second day of work. As the women employed in the fish canneries live in the neighborhood and know the conditions of work, it does not seem possible that they try it out "just to see what it is like," as women in fruit canneries have admitted doing. After a long day, however, some may find it harder or more disagreeable than they had anticipated and may have to give it up.

That the length of the season varied greatly from fish cannery to fish cannery is obvious from the following table:

TABLE 37.—*Days worked during the season, women in fish canneries*

Number of days on which work was done	Number and per cent of women working on each specified number of days in—											
	Plant 5 (longest time worked by any woman, 93 days)		Plant 6 (longest time worked by any woman, 88 days)		Plant 7 (longest time worked by any woman, 78 days)		Plant 8 (longest time worked by any woman, 91 days)		Plant 9 (longest time worked by any woman, 44 days)		Plant 10 (longest time worked by any woman, 28 days)	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	110	100.0	190	100.0	108	100.0	62	100.0	17	100.0	81	100.0
1 or 2	12	10.9	38	20.0	15	13.9	9	14.5	2	11.8	7	8.6
3 and under 7	15	13.6	47	24.7	16	14.8	16	25.8	1	5.9	20	24.7
7 and under 13	14	12.7	21	11.1	14	13.0	12	19.3	------	------	21	25.9
13 and under 19	7	6.4	14	7.4	15	13.9	2	3.2	3	17.6	14	17.3
19 and under 25	10	9.1	15	7.9	10	9.3	------	------	4	23.5	11	13.6
25 and under 31	8	7.3	11	5.8	8	7.4	------	------	2	11.8	8	9.9
31 and under 37	5	4.5	10	5.3	8	7.4	2	3.2	------	------	------	------
37 and under 43	7	6.4	8	4.2	6	5.6	2	3.2	4	23.5	------	------
43 and under 49	3	2.7	6	3.2	2	1.9	1	1.6	1	5.9	------	------
49 and under 55	6	5.5	5	2.6	8	7.4	2	3.2	------	------	------	------
55 and under 61	4	3.6	8	4.2	3	2.8	------	------	------	------	------	------
61 and under 67	6	5.5	2	1.1	1	.9	1	1.6	------	------	------	------
67 and under 73	4	3.6	1	.5	------	------	1	1.6	------	------	------	------
73 and under 79	5	4.5	------	------	2	1.9	5	8.1	------	------	------	------
79 and under 85	2	1.8	2	1.1	------	------	4	6.5	------	------	------	------
85 and under 91	1	.9	2	1.1	------	------	4	6.5	------	------	------	------
91 and under 97	1	.9	------	------	------	------	1	1.6	------	------	------	------

Plant 10, which had the shortest season of all the fish canneries, employed women for only about four weeks, including the time of the heavy run of humpback salmon. Plant 9 had a shorter season than most canneries of this type and stopped operating before the end of the open season for fishing. Plants 5, 6, 7, and 8 opened before the big run of humpback salmon that came the latter part of August, operating a few days now and then through July. Due to these unusual seasonal conditions in salmon canning, employment for more

than 24 days extended beyond the peak season, when in many canneries the number of employees was necessarily reduced. Accordingly it is not surprising to find a decreasing number of women working more than 24 days. In the first four typical plants the peak employment was from 3 to 13 days; in plant 5 more than one-fourth (26.4 per cent) of all the women were included in this employment period, in plant 6 over one-third (35.8 per cent), in plant 7 over one-fourth (27.8 per cent), and in plant 8 not quite one-half (45.2 per cent). That a few women worked for 80 days and longer was probably because warehouse work continued after the canning was done.

FRUIT WAREHOUSES

In marked contrast with the large percentage of women working only a few days in the canneries is the following record in some of the fruit warehouses:

TABLE 38.—*Days worked during the season, women in fruit warehouses*

Number of days on which work was done	Number and per cent of women working each specified number of days in—					
	Plant 11 (longest time worked by any woman, 80 days)		Plant 12 (longest time worked by any woman, 48 days)		Plant 13 (longest time worked by any woman, 48 days)	
	Number	Per cent	Number	Per cent	Number	Per cent
Total	116	100.0	34	100.0	11	100.0
1 or 2	10	8.6	2	5.9	1	9.1
3 and under 7	10	8.6			1	9.1
7 and under 13	20	17.2	7	20.6	1	9.1
13 and under 19	11	9.5	2	5.9	1	9.1
19 and under 25	5	4.3	2	5.9		
25 and under 31	10	8.6	1	2.9	1	9.1
31 and under 37	16	13.8	3	8.8	1	9.1
37 and under 43	3	2.6	3	8.8	2	18.2
43 and under 49	12	10.3	14	41.2	3	27.3
49 and under 55	3	2.6				
55 and under 61	2	1.7				
61 and under 67	4	3.4				
67 and under 73	5	4.3				
73 and under 79	3	2.6				
79 and under 85	2	1.7				

Plant 11 had a longer season than the other two because it packed pears with a small force of girls for a few weeks in the late summer, and therefore the numbers of women are spread over a longer period than in plants 12 and 13, which packed steadily about eight weeks through the apple harvest. In plant 12 one-fourth of the women left after working 12 days or less, but, on the other hand, one-half of them worked through into the last two weeks of the season. The

numbers of women employed in plant 13 were so small that the distribution of numbers is interesting only because it indicates the tendency to remain to the end of the season.

COMPARISON OF INDUSTRIES AS TO LABOR TURNOVER

The accompanying summary of the three tables presented in this section shows the proportion of women in each plant who worked less than one-fourth of the greatest number of days worked by any one woman, the proportion who worked one-half or more, and the proportion who worked three-fourths or more of this period. It is not possible to analyze these figures to show how much of this record of undertime employment was due to the innate conditions of the industry and how much was due to the prevalent shifting among employees.

TABLE 39.—*Time worked during the season, women in canneries and warehouses*

Item	Fruit and vegetable canneries and fruit evaporator				Fish canneries						Fruit warehouses		
	Plant 1	Plant 2	Plant 3	Plant 4	Plant 5	Plant 6	Plant 7	Plant 8	Plant 9	Plant 10	Plant 11	Plant 12	Plant 13
Number of women employed during season	387	191	272	170	110	190	108	62	17	81	116	34	11
Greatest number of days worked by any woman during season	269	139	130	37	93	88	78	91	44	28	80	48	48
Women working less than one-fourth of this time:													
Number	352	60	211	101	57	131	61	39	3	27	53	9	3
Per cent	91.0	31.4	77.6	59.4	51.8	68.9	56.5	62.9	17.6	33.3	45.7	26.5	27.3
Women working one-half or more of this time:													
Number	14	53	20	39	31	26	19	18	8	32	33	21	7
Per cent	3.6	27.7	7.4	22.9	28.2	13.7	17.6	29.0	47.1	39.5	28.4	61.8	63.3
Women working three-fourths or more of this time:													
Number	7	33	6	18	12	5	3	14	5	17	14	17	5
Per cent	1.8	17.3	2.2	10.6	10.9	2.6	2.8	22.6	29.4	21.0	12.1	50.0	45.5

Fluctuations in the labor force are further emphasized in the following arrangement, Table 40, showing the numbers of women whose names appeared on the 1923 pay rolls of three fruit and vegetable canneries, one fruit evaporator, two fish canneries, and three apple and pear warehouses.

TABLE 40.—*Number of women's names appearing on pay-roll records of 1923—canneries and warehouses*

Date of pay roll	Number of names
Plant 1: Fruit and vegetable cannery (operating 52 weeks and employing a total of 387 women):	
Jan. 5	30
12	16
19	16
26	14
Feb. 2	15
9	21
16	24
23	23
Mar. 1	27
8	23
15	22
22	36
29	41
Apr. 5	34
12	4
19	4
26	4
May 3	4
10	13
17	14
24	13
31	14
June 7	5
14	10
21	11
28	4
July 5	140
12	255
19	236
26	191
Aug. 2	16
9	23
16	113
23	160
30	141
Sept. 6	136
13	132
20	106
27	68
Oct. 4	20
11	29
18	26
25	29
Nov. 1	29
8	28
15	28
22	27
29	26
Dec. 6	25
13	24
20	19
27	7
Plant 2: Fruit and vegetable cannery (operating 24 weeks and employing a total of 191 women):	
June 30	140
July 15	151
31	150
Aug. 15	145
31	137
Sept. 15	81
30	76
Oct. 15	57
31	58
Nov. 15	48
30	41
Plant 3: Fruit and vegetable cannery (operating 24 weeks and employing a total of 272 women):	
May 31	20
June 15	62
30	105
July 15	94
31	104
Aug. 15	37
31	93
Sept. 15	89
30	81
Oct. 15	79
31	86
Nov. 15	6
Plant 4: Fruit evaporator (operating 7 weeks and employing a total of 170 women):	
Nov. 11	65
18	66
25	63
Dec. 2	60
9	78
16	90
23	49
Plant 8:[1] Fish cannery (operating 10 weeks and employing a total of 17 women):	
July 15	7
22	7
31	9
Aug. 10	14
17	14
24	13
31	12
Sept. 7	7
Plant 9:[1] Fish cannery (operating 5 weeks and employing a total of 81 women):	
Aug. 11	5
18	30
25	49
Sept. 1	63
8	53
Plant 11: Fruit warehouse (operating 14 weeks and employing a total of 116 women):	
Aug. 20	12
27	26
Sept. 3	33
10	44
17	47
24	41
Oct. 1	45
8	40
15	60
22	61
29	58
Nov. 5	57
12	59
19	56
Plant 12: Fruit warehouse (operating 10 weeks and employing a total of 34 women):	
Sept. 28	20
Oct. 5	22
12	25
19	24
26	25
Nov. 2	22
9	22
16	23
23	22
30	19
Plant 13: Fruit warehouse (operating 9 weeks and employing a total of 11 women):	
Sept. 30	10
Oct. 15	9
31	8
Nov. 15	7

[1] Includes all pay-roll dates, regardless of number of days actually in operation.

Plant 1 of the group of canneries operated throughout the year, but during nine months of the year the number of women was cut down to a force averaging less than 20. For the other three months, that is, July, August, and September, the number averaged 132, and at one time—July 12—almost doubled that figure. In the first half of August there was a tremendous falling off, due probably to harvest conditions and the failure of the management to have a dovetailing crop which would have stabilized the employment. During the year, 387 women passed in and out of this plant. Plants 2 and 3

did not operate at all until May or June and were closed again by December. However, the proportion of women employed in the late days of fall was greater in plants 2 and 3 than in plant 1. At the end of October plant 3 was still employing 81.9 per cent and plant 2 was employing 38.4 per cent of the maximum number, whereas plant 1 had only 11.4 per cent as many women employed as at the peak. Plant 2 still had more than 27 per cent of its maximum number when it closed (the end of November), 191 women having come and gone during the 24 weeks since the end of June. The chief break in this plant was in early September, when it arranged its equipment for apple canning and settled down to only one crop. Plant 3, besides beginning and ending with few employees, had one slack period, the first two weeks in August. Except for this drop the numbers were from 80 to 100, with little variation, yet in the 24 weeks of operation 272 women were employed.

The conditions in an apple evaporator make it possible to plan for a somewhat standardized force during the short season. The crop is more certain, and peeling is done by machinery, so that the force of women who feed the peelers and trim the apples is quite constant. The numbers in plant 4, therefore, did not vary much from week to week; for four weeks of the seven weeks of operation the range was from 60 to 66 only, yet it was necessary to hire 170 women to maintain this fairly steady force.

In regard to the fish canneries, plant 9, in operation only five weeks, reached its peak of employment at the end of August and closed a week later with almost the entire force at work to the last. Plant 8, employing only a small number of women, was in operation for 10 weeks, but for one-half of the time the women at work constituted only one-half of the maximum number.

In the fruit-warehouse group, plants 12 and 13 show a fairly even condition of employment in apple sorting and packing. Plant 11 handled two crops—pears during the first few weeks and apples after September. The foreman in this warehouse attributed much of the apparent changing of employees to the fact that he had had so many different girls for pear packing, which is less popular with the workers than apple packing, because it pays less. "They come and go, then," he said, "and the best apple packers don't wear themselves out on pears before the apples come in." During apple packing he had little trouble except with sorters, but even with this latter group he had less trouble than with the workers on pears.

PART XIII

OCCUPATIONAL HISTORIES OF THE WOMEN WORKERS

To complete the factors that determine the characteristics of the group of women employed in the canning and fruit industries, it is necessary to become familiar with their occupational histories—the type and duration of the work in which they had previously been employed. It is essential to know whether the greatest number of this group were habitual followers of the seasonal occupations in the canning and fruit industries or whether they were followers of occupations that were steadier and more regular in their nature. It is important to understand whether those who had selected regular occupations, that is, occupations that are not, by nature, seasonal, had worked regularly throughout their periods of work history or whether they had worked for short periods of time only and had become irregular workers on regular jobs. A consideration of these facts is necessary in order to determine whether these women belonged to the group of women who must earn their own living or to the group who are adding to a family income and helping to share family responsibilities or earning extra money, the necessity for which may be gravely important. The fact that a group of workers have responsibilities which prevent them from working more than a few weeks or months during an entire year is insufficient reason for ignoring or even minimizing the importance of their contributions. Seasonal-occupation followers and irregular workers have too long been considered a group whose earnings are not believed to be used for serious purposes. Seasonal workers are essential to seasonal industries. It is of vast importance to a fruit cannery to be able to mobilize its army of cutters and packers upon very short notice at the time the fruit is ripe and before it is overripe. Getting the workers together means saving the crop.

REGULAR, IRREGULAR, AND SEASONAL OCCUPATIONS

According to Table 41, nearly one-half (48 per cent) of the workers engaged in seasonal work in the canning and fruit industries covered by the survey had previously been engaged in regular occupations. A little more than 42 per cent had done nothing but seasonal work all their lives; about 6 per cent had been working in occupations which are irregular in nature, and the remaining few had worked both regularly and irregularly. Although, as stated, nearly one-half

of this whole number (48 per cent) were regular workers, stopping from time to time to take up seasonal occupations, an examination of the work histories of this group shows a comparatively small amount of time spent in actual employment. Those who had an over-all work period [1] of less than 6 months averaged but 2 months in regular work and 1 month in seasonal work. The groups having over-all periods of from 6 months to 1 year averaged 4.7 months in regular work and 2.3 months in seasonal work. The women in the next over-all employment group—1 to 2 years—showed a higher average of regular work (6.4 months) but a lower average of seasonal work (1.8 months). After this period, as would be expected, there is a steady increase in the average number of months of regular work and average of seasonal work with the increase in the length of time of employment. The women working from 5 to 10 years worked on regular jobs only a little over 3 years. The largest group of regular workers, those whose work histories show an over-all period of from 10 to 20 years, averaged less than 6 years in actual time in regular work. Even those working 40 years and over had less than 19 years of regular work to their credit. The average total time in regular work for all these groups together is only a very little over 5 years. And so it becomes evident that, although nearly one-half of the workers who selected seasonal occupations in the canning and fruit industries were workers coming from steady and regular occupations, they were not workers who had been employed steadily and regularly throughout their life period of work history.

Of the 2,172 women included in Table 41, 42 per cent are those seasonal workers who had done nothing but seasonal work. The total amount of time they had to their credit as wage earners also is low. The average length of time spent in seasonal work slightly increases as the period of industrial work history increases. This shows the tendency of the worker to return year after year to these seasonal occupations. This tendency was true of the regular and irregular workers as well as of the seasonal group. The greatest amount of time spent in seasonal work by any group in the table—a little more than 3 years—was spent by the group of women who had done seasonal work only and whose work period was between 20 and 30 years. So it becomes evident that the total amount of time spent by these workers in seasonal employment is very small.

The time spent in irregular work—that is, work in which employment usually lasts but a few days at a time—extends over a greater period, but the total time worked would doubtless be little.

In spite of the fact that these 2,172 women whose employment is shown in Table 41 can not be classed as a group of steady workers,

[1] The over-all work period is here taken as the time from the first job until the date of the survey.

though they returned year after year to their seasonal occupations, the importance and the necessity of their work should not be minimized. It is unfair to say that they were merely earning unnecessary "pin money." Home duties were largely responsible for women becoming irregular or seasonal workers. Family illness, unemployment of the wage earner, unsafe investments, money for educational purposes—all are important reasons why women select irregular employment. The privilege and ability to work increase self-respect, and it would doubtless be impossible to determine the actual values at critical times obtained by adding to family incomes by such methods. Moreover, as before stated, the labor of these women for a few weeks or months is essential to the industry.

TABLE 41.—*Character of other employment, as regular or irregular, by over-all period of employment—all industries*

Over-all period of employment (period of occupational history)	Women reporting		Average number of months of employment at—			Seasonal workers who had been employed at—															
						Regular occupations				Irregular occupations				Both regular and irregular occupations					Seasonal work only		
	Number	Per cent	Regular occupations	Irregular occupations	Seasonal occupations	Number	Per cent	Average number of months of regular work	Average number of months of seasonal work	Number	Per cent	Average number of months of irregular work	Average number of months of seasonal work	Number	Per cent	Average number of months of regular work	Average number of months of irregular work	Average number of months of seasonal work	Number	Per cent	Average number of months of seasonal work
Total	2,172	100.0	59.2	105.5	6.0	1,042	48.0	60.4	5.1	126	5.8	101.1	7.0	85	3.9	44.2	112.2	6.3	919	42.3	6.7
Under 6 months	344	15.8	2.0	3.5	1.1	24	7.0	2.0	1.0	2	.6	3.5	.3	----	----	----	----	----	318	92.4	1.1
6 months and under 1 year	7	.3	4.7	----	2.3	7	100.0	4.7	2.3	----	----	----	----	----	----	----	----	----	----	----	----
1 and under 2 years	260	12.0	6.3	9.2	3.1	75	28.8	6.4	1.8	5	1.9	8.6	1.3	1	.4	1.0	12.0	.3	179	68.8	3.7
2 and under 3 years	198	9.1	12.6	17.5	5.0	76	38.4	12.9	3.1	15	7.6	18.7	3.3	4	2.0	6.8	13.0	7.0	103	52.0	6.5
3 and under 5 years	312	14.4	21.5	27.9	6.0	145	46.5	22.2	4.0	23	7.4	30.8	6.6	10	3.2	11.3	21.3	4.7	134	42.9	8.2
5 and under 10 years	375	17.3	36.1	43.2	8.2	209	55.7	37.1	4.8	28	7.5	44.6	8.1	13	3.5	20.0	40.4	5.1	125	33.3	14.1
10 and under 20 years	334	15.4	66.1	97.3	8.5	242	72.5	68.9	5.7	22	6.6	107.5	9.6	25	7.5	39.2	88.3	6.0	45	13.5	24.4
20 and under 30 years	197	9.1	96.6	157.9	8.5	157	79.7	102.0	6.3	13	6.6	183.2	5.8	15	7.6	40.6	136.0	10.3	12	6.1	38.6
30 and under 40 years	99	4.6	132.5	256.8	7.9	74	74.7	139.0	8.4	10	10.1	308.4	5.5	13	13.1	95.0	217.1	4.4	2	2.0	23.1
40 years and over	46	2.1	216.6	356.6	11.0	33	71.7	226.8	10.8	8	17.4	327.1	12.3	4	8.7	132.0	415.5	7.1	1	2.2	24.0

The proportion of workers who had never been engaged in either regular or irregular occupations, but who had always been followers of seasonal occupations during their entire period of work histories varied little in the different fruit and canning industries. The variation is approximately 10 per cent, as is seen in the following summary:

Industry	Number of women reporting	Per cent of workers who had been engaged in seasonal occupations only
Berry fields	507	36. 5
Prune orchards and driers	117	39. 3
Apple and pear orchards	139	41. 7
Apple and pear warehouses	357	39. 5
Fruit and vegetable canneries	900	46. 4
Fish and clam canneries	152	46. 7

The more detailed figures reveal that these seasonal workers averaged in total time during their entire work periods from 3.3 months to 8.4 months in these different industries. The group of women found in the prune orchards and driers show the smallest average, while those in the warehouses show the greatest.

According to Table 42, nearly three-fourths (72.9 per cent) of the 1,042 women who had been engaged in regular occupations reported but one kind of work, 20 per cent reported two kinds of work, 5 per cent three, and only 1.4 per cent over three kinds. The largest group of the 760 women who had been employed in but one occupation were those whose period of work history had been between 10 and 20 years. This large group of women having had throughout their work history but one occupation is marked evidence that the group of regular workers was not for the most part composed of women who had tried various kinds of work, but of those who had started and stopped the same occupation many times or who had long intervals of unemployment. Also, by far the largest majority of the women engaged in irregular occupations were those who had had but one kind of work.

TABLE 42.—*Number of occupations in other employment, by over-all period of employment—all industries*

Over-all period of employment (entire occupational history)	Number of women reporting	Number of women who had been employed at—																					
		Regular occupations							Irregular occupations				Regular and irregular occupations				Seasonal work only						
		All occupations		1 occupation		2 occupations	3 occupations	More than 3 occupations	All occupations		1 occupation		2 occupations and over	All occupations		1 or more occupations		All occupations		1 occupation		2 to 5 occupations	5 to 8 occupations	8 occupations and over
		Number	Per cent	Number	Per cent				Number	Per cent	Number	Per cent		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent			
Total	2,172	1,042	100.0	760	100.0	212	55	15	126	100.0	108	100.0	18	85	100.0	85	100.0	919	100.0	248	100.0	424	158	89
Under 6 months	344	24	2.3	23	3.0	1	------	------	2	1.6	2	1.9	------	------	------	------	------	318	34.6	244	98.4	74	------	------
6 months and under 1 year	7	7	.7	7	.9	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
1 and under 2 years	260	75	7.2	71	9.3	4	------	------	5	4.0	5	4.6	------	1	1.2	1	1.2	179	19.5	4	1.6	171	3	1
2 and under 3 years	198	76	7.3	64	8.4	12	------	------	15	11.9	13	12.0	2	4	4.7	4	4.7	103	11.2	------	------	92	8	3
3 and under 5 years	312	145	13.9	112	14.7	28	5	------	23	18.3	20	18.5	3	10	11.8	10	11.8	134	14.6	------	------	67	64	3
5 and under 10 years	375	209	20.1	149	19.6	39	17	4	28	22.2	23	21.3	5	13	15.3	13	15.3	125	13.6	------	------	13	73	39
10 and under 20 years	334	242	23.2	158	20.8	62	18	4	22	17.5	19	17.6	3	25	29.4	25	29.4	45	4.9	------	------	6	10	29
20 and under 30 years	197	157	15.1	108	14.2	39	7	3	13	10.3	10	9.3	3	15	17.6	15	17.6	12	1.3	------	------	1	------	11
30 and under 40 years	99	74	7.1	47	6.2	18	6	3	10	7.9	9	8.3	1	13	15.3	13	15.3	2	.2	------	------	------	------	2
40 years and over	46	33	3.2	21	2.8	9	2	1	8	6.3	7	6.5	1	4	4.7	4	4.7	1	.1	------	------	------	------	1

ACTUAL TIME OF SEASONAL WORK DURING A 12-MONTH PERIOD

To be able to determine the actual time of employment in seasonal occupations that vary to some extent from year to year, it is necessary to study intensively a given period. Table 43 and Table 44 show the average time and the actual time worked during a 12-month period.

TABLE 43.—*Average number of weeks in seasonal work during a 12-month period, by industry*

Industry	Women reporting		Average number of weeks in seasonal work
	Number	Per cent	
Total	2,841	100.0	7.4
One branch of industry only—			
Berry fields	533	18.8	3.8
Prune orchards	124	4.4	1.7
Apple and pear orchards	111	3.9	5.1
Apple and pear warehouses	302	10.6	7.7
Fruit and vegetable canneries	994	35.0	9.2
Fish and clam canneries	262	9.2	6.7
One or more branches in addition to—			
Berry fields	65	2.3	9.7
Prune orchards	46	1.6	8.3
Apple and pear orchards	67	2.4	8.9
Apple and pear warehouses	107	3.8	11.1
Fruit and vegetable canneries	172	6.1	8.8
Fish and clam canneries	58	2.0	9.6

TABLE 44.—*Number of weeks worked during a 12-month period, by industry*

Industry	Women reporting		Number and per cent of women in each specified industry who had worked during a 12-month period—															
			Less than 1 week		1 and under 2 weeks		2 and under 5 weeks		5 and under 10 weeks		10 and under 15 weeks		15 and under 20 weeks		20 and under 25 weeks		25 weeks and over	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	2,841	100.0	288	10.1	317	11.2	678	23.9	807	28.4	375	13.2	179	6.3	102	3.6	95	3.3
One branch of industry only—																		
Berry fields	533	18.8	57	10.7	97	18.2	229	43.0	118	22.1	25	4.7	7	1.3	-------	-------	-------	-------
Prune orchards	124	4.4	65	52.4	23	18.5	32	25.8	2	1.6	2	1.6	-------	-------	-------	-------	-------	-------
Apple and pear orchards	111	3.9	7	6.3	13	11.7	42	37.8	40	36.0	4	3.6	2	1.8	-------	-------	3	2.7
Apple and pear warehouses	302	10.6	30	9.9	19	6.3	64	21.2	100	33.1	50	16.6	26	8.6	7	2.3	6	2.0
Fruit and vegetable canneries	994	35.0	82	8.2	114	11.5	148	14.9	293	29.5	165	16.6	69	6.9	62	6.2	61	6.1
Fish and clam canneries	262	9.2	43	16.4	31	11.8	54	20.6	65	24.8	40	15.3	17	6.5	8	3.1	4	1.5
One or more branches in addition to—																		
Berry fields	65	2.3	-------	-------	1	1.5	15	23.1	22	33.8	11	16.9	12	18.5	2	3.1	2	3.1
Prune orchards	46	1.6	-------	-------	2	4.3	21	45.7	11	23.9	4	8.7	2	4.3	1	2.2	5	10.9
Apple and pear orchards	67	2.4	1	1.5	3	4.5	8	11.9	34	50.7	11	16.4	7	10.4	2	3.0	1	1.5
Apple and pear warehouses	107	3.8	1	.9	2	1.9	17	15.9	32	29.9	23	21.5	18	16.8	10	9.3	4	3.7
Fruit and vegetable canneries	172	6.1	1	.6	10	5.8	41	23.8	61	35.5	30	17.4	16	9.3	9	5.2	4	2.3
Fish and clam canneries	58	2.0	1	1.7	2	3.4	7	12.1	29	50.0	10	17.2	3	5.2	1	1.7	5	8.6

Only 17 per cent of the regular workers appear in Table 43; that is, only 17 per cent of the entire group of women who had been doing regular work and 3 per cent of those who had been doing irregular work carried over their regular and irregular work into the last 12-month period, the period selected for intensive study.

Almost 82 per cent of the entire group of women in all industries did not change seasonal industries during the whole 12-month period. This shows a tendency of the women workers to remain with the industry until the season is over, or until they are compelled to stop doing seasonal work entirely. Factors which influence labor turnover and shifting of jobs have been discussed in another section of this report. Among women who had worked in but one seasonal industry, workers in the fruit and vegetable canneries show the greatest average length of time of seasonal employment during the 12-month period. This maximum average time was a little over 9 weeks. According to Table 44, a little over 10 per cent of the women worked less than one week in seasonal work and over 3 per cent worked between 25 weeks and one year. The largest group of women in any one of the time classifications, 28.4 per cent, worked between 5 and 10 weeks. Table 43 shows that the average employment of all workers in seasonal work was a little more than 7 weeks. This does not mean, however, that each one of these days was a full day's work or that each one of these weeks was a complete wage-earning week. Rarely in most of these seasonal industries was there full-time employment.

BEGINNING AND PRESENT AGE OF WORKERS

The present age of workers engaged in these seasonal industries is discussed at more length in another section. Table 45 shows that the largest number of workers in any of the age groups were the 535 women between the ages of 20 and 30, these constituting somewhat less than one-fourth of the total number reporting on age. It is significant to consider the total time of employment of all the women included in this report as a class, in recognition of the fact that they were not, generally speaking, normal wage earners, at work to earn a living, but it is especially interesting to analyze the group whose ages were between 40 and 50 years. Nearly 27 per cent of these women showed less than six months in total time worked, and over 50 per cent had been employed less than three years. Of the women between the ages of 50 and 60, nearly one-fourth had worked less than one year. Moreover, 44.8 per cent of the entire group of women had worked less than one year. Almost regardless of age, then, these workers that made up the pay rolls of the canning and fruit industries showed a very small period of actual employment. However, this class of women belongs to the wage-earning group and is essential to a seasonal industry which, in order to market its perishable goods, must mobilize its army of workers quickly.

TABLE 45.—*Number of years worked in all employment, by age at time of survey*

Age at time of survey	Number of women reporting	Number and per cent of women of each specified age who had worked—																	
		Under 6 months		6 months and under 1 year		1 and under 3 years		3 and under 5 years		5 and under 10 years		10 and under 20 years		20 and under 30 years		30 and under 40 years		40 years and over	
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	2,235	711	31.8	291	13.0	467	20.9	241	10.8	280	12.5	152	6.8	54	2.4	28	1.3	11	0.5
Under 18 years	324	226	69.8	54	16.7	34	10.5	8	2.5	2	.6	------	------	------	------	------	------	------	------
18 and under 20 years	269	126	46.8	55	20.4	70	26.0	14	5.2	4	1.5	------	------	------	------	------	------	------	------
20 and under 30 years	535	94	17.6	78	14.6	174	32.5	90	16.8	83	15.5	16	3.0	------	------	------	------	------	------
30 and under 40 years	447	107	23.9	57	12.8	78	17.4	67	15.0	84	18.8	51	11.4	3	.7	------	------	------	------
40 and under 50 years	361	98	27.1	26	7.2	59	16.3	36	10.0	58	16.1	53	14.7	22	6.1	9	2.5	------	------
50 and under 60 years	210	37	17.6	14	6.7	39	18.6	18	8.6	37	17.6	23	11.0	21	10.0	15	7.1	6	2.9
60 years and over	89	23	25.8	7	7.9	13	14.6	8	9.0	12	13.5	9	10.1	8	9.0	4	4.5	5	5.6

Although the over-all industrial history period, or the interval from the time of starting work to the time of the interview, was long in the lives of a large proportion of these workers, the actual time of employment was very short. Table 46 shows that there were 106 women, or 3.8 per cent, who started to work before the age of 12 years; 593, or 21.3 per cent, who began work between the ages of 12 and 16; 628 women, or 22.6 per cent, who began between the ages of 16 and 18; or a total of 1,327 women, 47.8 per cent of the entire group, starting employment before the age of 18 years. Of the 106 who began work before the age of 12 years, 40, or about 38 per cent, were under 18 years of age at the time the study was made, and 12 of these 40 had begun before the age of 10. There were nearly 12 per cent of the total number reporting who did not work before the age of 40. Curiously enough, it is not the women who were 40 years of age or over at the time of the interview who began work under 18 years, but the greater number in this classification were those who gave their present age as under 25 years.

TABLE 46.—*Age at time of survey, by age at beginning work*

Age at beginning work	Number of women reporting	Number of women beginning work as specified whose age at time of survey was—							
		16 and under 18 years	18 and under 20 years	20 and under 25 years	25 and under 30 years	30 and under 40 years	40 and under 50 years	50 and under 60 years	60 years and over
Total	2,775	398	344	377	277	554	461	250	114
Per cent distribution	100.0	14.3	12.4	13.6	10.0	20.0	16.6	9.0	4.1
Under 10 years	38	12	5	4	4	3	5	5	
10 and under 12 years	68	28	9	8	5	10	4	3	1
12 and under 14 years	201	52	36	30	14	30	20	12	7
14 and under 16 years	392	122	74	55	35	52	31	17	6
16 and under 18 years	628	184	141	109	54	58	48	26	8
18 and under 20 years	377		79	99	55	75	46	17	6
20 and under 25 years	281			72	71	79	34	16	9
25 and under 30 years	131				39	59	25	6	2
30 and under 40 years	339					188	108	34	9
40 and under 50 years	206						140	53	13
50 and under 60 years	85							61	24
60 years and over	29								29

BEGINNING OCCUPATIONS

In Table 47 are included 545 of the 607 berry pickers, or those who reported the age at which they had started to work and the first occupation in which they had been engaged. Almost one-half of the women (48 per cent) reported that their first job had been seasonal work in canneries or on ranches. Another group, almost one-fourth (24 per cent), had engaged in domestic service at the beginning of their wage-earning career.

Table 47, which also correlates age at beginning work with the first occupation performed by the women, shows that about 44 per cent who started to work before they were 18 years old began with seasonal work, and nearly a third began with domestic service. Of the 25 women who had begun work before the age of 12, 14 reported seasonal work and 9 domestic service as their first occupation.

About 12 per cent of the women had begun to work for wages at 40 years of age or older, the great bulk of this group, or over three-fourths, having started on seasonal work.

TABLE 47.—*Age at beginning work and industry in which first employed—women in the berry fields*

First employment	Number of women reporting	Number of women whose first employment was as specified who began work at—											
		Under 10 years	10 and under 12 years	12 and under 14 years	14 and under 16 years	16 and under 18 years	18 and under 20 years	20 and under 25 years	25 and under 30 years	30 and under 40 years	40 and under 50 years	50 and under 60 years	60 years and over
Total	545	12	13	45	91	85	71	59	24	80	45	14	6
Seasonal agricultural work	262	9	5	20	38	38	14	17	12	58	36	10	5
Domestic service	135	2	7	15	31	24	16	16	6	12	3	2	1
Restaurant or hotel work	32	------	1	3	7	4	6	7	1	1	2	------	------
Mercantile work	23	------	------	2	2	8	4	5	------	2	------	------	------
Professional work	23	------	------	------	1	2	8	9	1	2	------	------	------
Manufacturing	16	------	------	2	5	1	4	1	1	------	1	1	------
Clerical work	14	------	------	------	2	2	8	------	------	1	------	1	------
Miscellaneous	40	1	------	3	5	6	11	4	3	4	3	------	------

CHIEF OCCUPATIONS

It is difficult to select the chief occupations of workers whose total period of employment had been as brief as that of most of the women who were engaged in seasonal work at the time of the interview. In Table 48 and Table 49, however, the term "chief occupation" has been applied to the job in which the worker had spent the longest period of time. Seasonal work heads the list of the types of work characterized as the chief occupation, since over one-half of the women had spent more time in this type of work than in any other. Domestic service is second on the list, and restaurant and hotel service third. None of the other varied occupations listed as the main job included as many as 100 women. Ninety of the women reported mercantile work, 90 school teaching, and 88 manufacturing jobs as their chief occupation. Regardless of the regularity and stability of the women at these so-called chief occupations, the data already presented on occupational histories of these women show that despite the selection

of regular occupations the total time of actual employment in such work was extremely short.

TABLE 48.—*Chief occupation of the women interviewed, and number for whom such work was regular or irregular*

Occupation or industry	All women reporting		Regular workers		Irregular workers	
	Number	Per cent	Number	Per cent	Number	Per cent
Total	2,720	100.0	1,072	100.0	232	100.0
Seasonal fruit and canning work	1,416	52.1				
Domestic service	368	13.5	285	26.6	83	35.8
Restaurant and hotel work	157	5.8	143	13.3	14	6.0
Mercantile work	90	3.3	77	7.2	13	5.6
School teaching	90	3.3	89	8.3	1	.4
Manufacturing	88	3.2	84	7.8	4	1.7
Day work	75	2.8	51	4.8	24	10.3
Clerical work (office)	74	2.7	68	6.3	6	2.6
Sewing and millinery	73	2.7	51	4.8	22	9.5
Nursing (trained or practical)	62	2.3	35	3.3	27	11.6
Laundry work	44	1.6	37	3.5	7	3.0
Telephone operating	37	1.4	36	3.4	1	.4
Own establishment	26	1.0	25	2.3	1	.4
Outdoor work other than specified	21	.8	20	1.9	1	.4
Nursing children	19	.7	8	.7	11	4.7
Camp work	19	.7	12	1.1	7	3.0
Other	61	2.2	51	4.8	10	4.3

REASONS FOR LEAVING CHIEF OCCUPATIONS

In all, 2,220 women reported on their reasons for leaving their chief occupations. The largest group of these women, over three-fifths, had left because the job was a temporary one. The next largest group, about 16 per cent, had left to be married, and almost 5 per cent had given up their main job to do outdoor seasonal work. A few women, less than 100 in each case, had left for various other reasons, such as "moved to another location," "for better pay," "more desirable work," "change," "illness," "home duties," "vacation," "to do more regular work," and "educational opportunities."

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TABLE 49.—*Women's reasons for leaving chief occupation—all industries*

Chief occupation	Number of women reporting	Number of women whose reason for leaving chief occupation was—										
		Work temporary	To do outdoor seasonal work	To do more regular work	For better pay, more desirable work, change	Marriage	Moved to another location	Illness	Home duties	Vacation	Educational opportunities	Other personal reasons
Total	2,220	1,431	110	12	64	360	73	44	35	22	11	58
Per cent distribution	100.0	64.5	4.9	0.5	2.9	16.2	3.3	2.0	1.6	1.0	0.5	2.6
Seasonal fruit and canning	1,416	1,416										
Domestic service	242	4	41	6	15	124	17	3	4	5	4	19
Restaurant and hotel work	97		8		9	55	11	3	4	2	1	4
Mercantile work	54	2	4	1	4	22	8	7	3	1	1	1
School teaching	64				2	39	4	3	5	5	2	4
Manufacturing	58	4			4	19	9	6	2	1	1	12
Day work	32	1	17		7	4	1	1		1		
Clerical work (office)	51	1	8	2	1	22	7		4			6
Sewing and millinery	44		6		3	15	2	12	1	2		3
Nursing (trained or practical)	33	1	9	1	2	6	2	3	4	2		3
Laundry work	30				4	17	2	2	1	1		3
Telephone operating	24		3		2	14	4	1				
Own establishment	5				2	1	1					1
Outdoor work other than specified	11		2		2	4	1		1			1
Nursing children	11		3	2	1	4				1		
Camp work	10		1		2	2	1	1	2			1
Other	38	2	8		4	12	3	2	4	1	2	

PART XIV

INDUSTRIAL ACCIDENTS AND DISEASES

TYPES OF DISEASE

During interviews with the women employed in the canneries, as well as with some of the physicians in the sections where the cannery employees lived, repeated reference was made to "fruit poison" and "fish poison" of various sorts. A burning rash and the loss of fingernails were described as of quite common occurrence. Without any known abrasion of the skin tissues, a low-grade infection of the outer skin sets in, resulting frequently in the loss of the fingernail. Fruit-acid poisoning usually yields to antiseptic treatment, so that most of the pain is over in 7 to 10 days.

The workers expect this poisoning and speak of it as if it were a necessary evil, accepting it naturally as one of the hazards of the industry. Repeatedly employers said that they did not know how many cases there were. "The girls don't complain, but when they do we, of course, have our doctor." This difficulty is so prevalent in the cannery districts that the workers know the remedies prescribed and treat themselves and each other. If the worker is unusually susceptible to one fruit acid or another, she frequently stops working for that part of the season. As one woman explained, "I quit during the run of pears." Another woman learned from experience that the rash caused by loganberries or raspberries was too irritating for her to try to work on them again. A third woman was affected only the first year she worked, and at that time her arms and chest were so bad that she lost two weeks from her job. It never occurred to her to say anything about it at the cannery, and she did not know about the workmen's compensation law. Finger stalls and rubber gloves for the prevention of infections have never been worn successfully. They are a hindrance in the work, and, as more than one woman explained, they are expensive, since in a very short time the fingers of the gloves are pricked or cut, and then they are useless. The fuzz on peach skins frequently causes a most annoying irritation. The girls who pick or pack this fruit sometimes wear masks, but oftener put a heavy coat of talcum on all exposed skin surfaces and wear canvas gloves. It is easier to control this irritation than that arising from the acid in fruit juices.

There are also cases of eczema-like poisoning among fish workers, but this milder form is more prevalent among fruit workers. A bad case of clam poisoning was reported by one woman who had been a cleaner in the clam industry. Before engaging in this occupation she had taken the precaution of having her hands in good condition and had even had them examined by a physician. By the second day of employment, however, blisters had begun to appear between her fingers. The infection spread to the hands and arms, until they ached so badly that the woman was unable to sleep. It was only after considerable difficulty that she was cured of the trouble.

Infection among employees in fish canneries often develops suddenly into virulent blood poisoning from a most innocent prick of a fish bone. A case of this sort was described in detail by both the physician and the patient. Early in the morning a slimer scratched her hand slightly on a bone; the abrasion was treated, and, assured that it would be all right, she continued working. By noon her hand ached badly, and she could hardly get her canvas glove on, but she "didn't want to be a piker, especially when they had such a terrible lot of fish on the floor," and she worked until about 8 p. m. Before morning she was in the hospital and she was in a critical condition for several days.

RECORD OF STATE DEPARTMENT OF LABOR AND INDUSTRIES

The canners themselves had no data on the frequency of poisoning, and physicians knew only of cases here and there. The State Department of Labor and Industries, however, had some authentic information, probably not comprehensive, for it is safe to assume that many minor cases are never called to the attention of firm or physician and therefore are not reported. However, the information covers enough cases to show the trend of disabilities in the industry, and the figures are probably the only authentic data available on this class of injuries in the country.

Fruit warehouses, fish canneries, and the canning, preserving, and pickling of fruit and vegetables are included in the industry classifications for which the industrial insurance law of the State of Washington determines the rates for industrial insurance and medical aid. The law requires all physicians practicing in the State to file with the industrial insurance commission reports of cases treated by them which come within the jurisdiction of this law. Using these reports as a basis, the director of the Washington Department of Labor and Industries most generously furnished the Women's Bureau data upon 168 injuries received in 1923 by employees in the fish, fruit, and vegetable canning industries. Such data included the causes, nature, and extent of injuries for which claims were filed from these industries. In addition to the reports for 1923, special attention was

called to a few of the cases filed in 1922 which had been particularly obstinate. One of these was a poisoning case which had developed while the patient was slicing apples and had lasted over a period of six months; another similar infection caused by peeling apples had continued 12 months.

Disability due to specific causes.

The following is a summary of the records furnished by the Washington State Department of Labor and Industries:

TABLE 50.—*Number of cases of injury and number of days lost in fruit warehouses and fish canneries, and in canning, preserving, and pickling of fruits and vegetables, by nature of injury (Records of State Department of Labor and Industries for 1923)*

Nature of injury	Number of cases			Number of days lost			
	Total	Male	Female	Total	Average per case	Maximum per case	Minimum per case
Total	168	74	94	3,403	20.3		
Bruise	8	3	5	141	17.6	59	3
Burn or scald	9	6	3	208	23.1	55	6
Cut, laceration	16	7	9	246	15.4	75	4
Bruise with infection	8	3	5	147	18.4	60	5
Burn or scald with infection	1		1	15	15.0	15	15
Puncture, scratch, cut, laceration, with infection	49	21	28	847	17.3	71	5
Blister with infection	3		3	53	17.7	36	7
Fruit or fish poison or infection	42	9	33	914	21.8	78	3
Miscellaneous infection	2	2		21	10.5	14	7
Strain and sprain	18	14	4	381	21.2	67	8
Dislocation	1	1		9	9.0	9	9
Fracture	4	3	1	116	29.0	66	10
Amputation	3	3		155	51.7	80	33
Hernia	2	2		124	62.0	71	53
Miscellaneous	2		2	26	13.0	20	6

In the foregoing tabulation of the nature of the injury and the consequent time lost, one of the most striking facts shown is the frequency of poison and infection cases compared with other kinds of injuries.

The classifications in Table 50 as to the nature of the injury may be summarized in three groups, as follows:

Nature of injury	Number of cases				Days lost	
	Total		Male	Female	Number	Per cent
	Number	Per cent				
Total	168	100.0	74	94	3,403	100.0
Bruise, burn, cut	33	19.6	16	17	595	17.5
Bruise, burn, cut, blister with infection, and fruit or fish poison or other infection	105	62.5	35	70	1,997	58.7
Strain, sprain, dislocation, fracture, hernia, miscellaneous	30	17.9	23	7	811	23.8

This shows clearly that the men sustained most of the injuries in the third group, including sprains, fractures, and amputations; that the women suffered most from the injuries in the second group, comprising infections and poisons; and that of all cases reported, for both men and women, over three-fifths (62.5 per cent) are in the second group.

Time lost on account of injuries.

Of the total time lost due to these injuries, amounting to 3,403 days, almost three-fifths (58.7 per cent) was due to infections that developed from cuts, burns, and blisters, or from the prevalent fish or fruit poison. The aggregate time lost by these 105 seasonal workers in 1923 through poison or infection amounted to almost five and one-half years.

From Table 50 it is evident that the average number of days lost by each of the 168 cases reported was 20.3, practically three weeks. Some of the workers actually lost not over 3, 4, 5, 6, or 7 days, but cases suffering from the same general causes lost as high as 55 and 75 days.

Causes of injuries.

The following is a list of causes to which the 168 injuries were attributed:

Causes of injury	Number of cases
Equipment used in preparation of the product:	
Hand tools—	
Fruit or vegetable	23
Fish	4
Product not reported	5
Power driven—	
Fruit or vegetable	8
Fish	2
Product not reported	2
Other machinery	1
Other tools	1
Toxic or irritating substances:	
Fruit or vegetable infection	38
Fish infection	6
Handling objects:	
Fish bones	8
Other sharp objects	14
Heavy objects	11
Other objects	2
Fall of persons:	
Slipping	14
Other	4
Fall of objects:	
Striking against objects; struck by object	9
Hot substances	10
Miscellaneous	6
Total	168

About one-fourth (27.4 per cent) of the injuries were due to the tools or machines used in peeling, cutting, or otherwise preparing the product for the canning process. Approximately one-fourth (26.2 per cent) were attributed to the handling of the raw product and were reported as "working in berries, fruit infection in hands," "fish posioning, both arms," "both arms infected from handling apples," "peeling pears, skin infection of fingers," "handling salmon, hands infected," and "handling fruit, fingers became infected around nails." The eight instances reported of injuries definitely attributed to fish bones have been classed separately under "handling objects" and were not included in the general group, "toxic or irritating substances." That there should have been 14 injuries due to slipping, 10 to hot substances, and 14 to handling other sharp objects besides fish bones is not surprising in an industry in which wet, slippery floors are so common, in which the cooking process demands so much heat, and in which the use of tin and glass is so necessary.

Of interest at this point is the following quotation:

> Slippery floors are responsible for a fair share of accidents varying from hard bruises to fractures of the wrist, arm, and leg. The slippery floor is one of the conditions which should be abolished. At one time it was thought to be unavoidable, owing to the water used in preparation, to overflow from syruping and filling machines, etc. A brining, syruping, or filling machine which has no provision to receive and retain the overflow or the contents of a battered or overturned can, is no longer a necessity and does not fill one of the requirements of proper sanitation. There are decidedly better and cleaner methods of distributing the products to the tables and removing the filled cans, than by the truck and tray system, so there is little need of water, juice, and pieces of fruits and vegetables upon the floor. The best preventative of accidents from slipping is a dry floor, and this is attainable with care and proper equipment. Open gutters should not be permitted; instead flush irons or wood gratings should be provided. Wherever overflow is unavoidable, as in front of boiling kettles, blanchers, etc., slat gratings should be provided. It is not possible to avoid all water, overflow, or bits of fruits and vegetables on the floor, but there can be a great reduction in the amount in most plants.[1]

Extent of injuries.

Practically all of the 105 cases of skin infection and poison were confined to the fingers, hands, wrists, and arms, although in one case it affected the face and neck, and in another the infection spread throughout the entire system. In about one-sixth of the cases the arms and wrists were affected, while in approximately one-half the cases the infection did not spread beyond the fingers and thumbs. Almost two-thirds of the bruises, burns, and cuts that did not develop an infection also were located on the fingers, hands, and arms. The three amputation cases due to accidents were of fingers. The usual

[1] Bitting, A. W. Some safety measures in canning factories. National Canners' Association. Research Laboratory. Bulletin 1, June 1914. p. 13.

strains, sprains, dislocations, and fractures were largely due to accidents and affected the trunk, arms, and legs of the injured.

PREVALENCE OF FRUIT AND FISH INFECTIONS

No effort was made to trace the number of these cases that proved compensable nor the amount of compensation paid, as this is not a compensation study. A discussion of these valuable and authentic reports has been introduced here because they show a condition more prevalent in the fish, fruit, and vegetable canning industry than is generally recognized by the public, although fortunately the State of Washington pays compensation for skin infections that arise from handling these toxic or irritating substances.

That the skin affections from which some of the employees suffer in the Washington canneries from handling fish and peeling or cutting raw fruit and vegetables are not peculiar to this locality is evidenced by reference to authorities on occupational disease, especially of the skin. In such discussions there is no definite description of the skin diseases as found among workers in the fish or fruit canneries of the United States, but there are descriptions of diseases in similar trades. These are quoted in the following paragraphs because of the close resemblance to the more aggravated cases for which claims for compensation were made in Washington.

In an important volume dealing with industrial health there is the following reference to a condition found among French confectioners which is not unlike that found among the cannery workers in Washington, although the results of the inflammation are more severe among the former than among the latter:

> Poncet, Albertin, Chaussende, and other French writers have described a form of inflammation of the nails occurring in confectioners. This has been observed chiefly in the workmen employed in the great factories of southern France in making sugared fruits. The eruption has been attributed by many to the chemical acids contained in the juice of the fruits, into which the hands are dipped; others consider that it is due to the saccharine solutions and that it is analogous in its causation to the usual "sugar-bakers' eczema." There can be no doubt that the cold and hot water into which the fingers are constantly dipped acts as a contributing factor, at least, in the etiology. The affection begins in the form of erosions and fissures about the nail fold, followed by inflammation, ulceration and granulations, together with a sero-purulent secretion. The nail is often loosened from its nail bed and is destroyed. The course is very chronic, lasting for years, with subacute intervals. The characteristics are: Its affecting a number of the nails simultaneously, the discoloration of the nails, the granulations about the nail fold, and the flattening of the nail phalanx. Poncet considers that the onychia is sufficiently characteristic to warrant its serving in legal medicine, as a means of identification. The middle and ring fingers are those first affected. After the fall of the nail the extremities of the fingers take on a characteristic form, a spatulate shape, which is lasting. Strauss has reported three cases of this affection, together with a good description.[2]

[2] Kober, G. M., and Hayhurst, E. R. Industrial health. Philadelphia, P. Blakiston's Son & Co., 1924. p. 911–912.

Dr. R. Prosser White in a recent study of occupational affections of the skin states that—

> The structural delicacy of the edges of the skin beneath and around the nails, the webs and sides of the fingers, the backs of the hands and bends of the elbows, singles out these parts to the first and most severely attacked, if irritated. Such a distribution is strongly suggestive of traumatism.[3]

In this same volume Doctor White describes the eruption found among the workers in the fruit-preserving industry in France, referred to in the preceding quotation from Kober and Hayhurst. He also gives the following quotation from Kober and Hanson:

> In the United States it is stated that persons employed in manufacturing oil of orange peel suffer greatly from erythematous, papular, and vesicular eruptions of the skin, especially of the hands.[4]

Of interest in this connection is a statement of Doctor White's quoting Oppenheimer:

> This trouble is closely akin to dermatoses venetata. A like trouble, though not so severe, is seen in asparagus peelers in preserving factories.[5]

During the limited time of the survey it was not possible to make a first-hand and comprehensive study of the occupational diseases characteristic of the industries covered—a subject which is a study in itself—but even the fragmentary information given in this section will help to give a general idea of some of the hazards to which women workers in canneries are exposed.

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[3] White, R. Prosser. Occupational affections of the skin: their prevention and treatment, with an account of the trade processes and agents which give rise to them. Ed. 2, London, H. K. Lewis & Co. (Ltd.), 1920. p. 36.

[4] Kober, G. M., and Hanson, W. C. Diseases of occupation and vocational hygiene. Philadelphia, P. Blakiston's Son & Co., 1916. p. 368.

[5] White, R. Prosser, Op. cit., p. 173.

APPENDIX A.—GENERAL TABLES

TABLE I.—*Hours worked within one pay-roll period by women in fruit and vegetable canneries and fruit evaporators, by number of days on which work was done*

A. CANNERIES PAYING BY THE WEEK

Days on which work was done	Number of women reported	Number of women whose time worked in the current pay-roll period was—																
		Under 5 hours	5 and under 10 hours	10 and under 15 hours	15 and under 20 hours	20 and under 25 hours	25 and under 30 hours	30 and under 35 hours	35 and under 40 hours	40 and under 45 hours	45 and under 50 hours	50 and under 56 hours	56 hours	Over 56 and under 60 hours	60 and under 65 hours	65 and under 70 hours	70 and under 75 hours	75 and under 80 hours
Total	1,228	10	59	50	70	53	59	72	90	178	152	201	8	99	107	13	5	2
1 day	85	9	48	28														
2 days	91	1	11	21	41	17												
3 days	101			1	29	26	35	10										
4 days	136					10	17	21	38	47	3							
5 days	203						7	38	30	28	56	44						
6 days	522							3	22	101	90	115	7	86	85	12	1	
7 days	90									2	3	42	1	13	22	1	4	2

B. EVAPORATORS PAYING BY THE WEEK

Total	119	2	6	13	3	3	2	6	4	3	5	14		4	54			
1 day	19	2	5	12														
2 days	8		1	1	3	3												
3 days	8						2	6										
4 days	7								4	3								
5 days	13										5	8						
6 days	64											6		4	54			

TABLE I.—*Hours worked within one pay-roll period by women in fruit and vegetable canneries and fruit evaporators, by number of days on which work was done*—Continued

C. CANNERIES PAYING BY THE HALF-MONTH

Days on which work was done	Number of women reported	Number of women whose time worked in the current pay-roll period was—															
		Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	130 and under 140 hours	140 and under 150 hours	150 hours and over
Total	531	58	64	66	50	36	27	12	19	36	43	41	36	20	12	4	7
1 day	49	43	6														
2 days	34	12	19	3													
3 days	34	1	15	17	1												
4 days	54	1	16	21	16												
5 days	32	1	4	10	6	10	1										
6 days	28		3	4	5	9	7										
7 days	18		1	5	6	3	1	2									
8 days	40			3	8	7	10	4	5	3							
9 days	26			2	4	2	3	1	4	8	2						
10 days	35			1	4	3	4	1	8	9	5						
11 days	36					1	1	3	2	12	12	2	3				
12 days	30					1		1		3	12	7	4	2			
13 days	62									1	12	24	14	4	4	1	2
14 days	51											8	15	13	7	3	5
15 days	2													1	1		

TABLE II.—*Earnings of women in fruit and vegetable canneries and evaporators, by time worked*

A. ESTABLISHMENTS HAVING WEEKLY PAY-ROLL PERIODS—TIME WORKED REPORTED IN HOURS

Earnings	Women reported		Number of women earning each classified amount who worked—								
	Number	Per cent	Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	50 hours and over
Total	1,364	100.0	94	136	117	172	338	326	174	7	507
Per cent distribution		100.0	6.9	10.0	8.6	12.6	24.8	23.9	12.8	0.5	37.2
Median earnings	$12.30		$1.95	$3.65	$6.90	$9.80	$12.45	$14.75	$17.80	(1)	$16.35
Under $1	10	.7	10								
$1 and under $2	46	3.4	38	8							
$2 and under $3	75	5.5	35	39	1						
$3 and under $4	47	3.4	9	32	6						
$4 and under $5	47	3.4	1	37	7	2					
$5 and under $6	38	2.8	1	12	18	5	2				
$6 and under $7	42	3.1		5	30	6	1				
$7 and under $8	37	2.7		1	27	6	1	2			2
$8 and under $9	43	3.2			8	27	4	3		1	4
$9 and under $10	67	4.9			4	50	10	3			3
$10 and under $11	63	4.6			4	43	6	9	1		10
$11 and under $12	137	10.0		2	3	11	112	9			9
$12 and under $13	102	7.5			3	9	73	16	1		17
$13 and under $14	106	7.8			1	2	41	61	1		62
$14 and under $15	106	7.8			1	2	24	78	1		79
$15 and under $16	58	4.3			2	1	16	36	3		39
$16 and under $17	99	7.3				3	10	23	63		86
$17 and under $18	36	2.6			1	2	2	10	21		31
$18 and under $19	37	2.7			1	1	4	9	22		31
$19 and under $20	24	1.8				1	4	9	10		19
$20 and under $21	22	1.6					8	6	8		14
$21 and under $22	13	1.0					2	2	9		11
$22 and under $23	18	1.3					5	4	7	2	13
$23 and under $24	8	.6					3	2	3		5
$24 and under $25	8	.6					2	4	1	1	6
$25 and under $26	15	1.1					1	9	5		14
$26 and under $27	10	.7				1	3	2	3	1	6
$27 and under $28	6	.4					1	4		1	5
$28 and under $29	8	.6						4	3	1	8
$29 and under $30	5	.4					1	3	1		4
$30 and under $35	23	1.7					2	13	8		21
$35 and under $40	7	.5						4	3		7
$40 and under $45	1	.1						1			1

[1] Not computed, owing to small number involved.

B. ESTABLISHMENTS HAVING WEEKLY PAY-ROLL PERIODS—TIME WORKED REPORTED IN DAYS

Earnings	Women reported		Number of women earning each classified amount who worked on—				
	Number	Per cent	2 days	3 days	4 days	5 days	6 days
Total	111	100.0	17	15	15	38	26
Per cent distribution		100.0	15.3	13.5	13.5	34.2	23.4
Median earnings	$10.05		$3.70	$5.60	$9.40	$11.65	$14.25
$2 and under $3	3	2.7	3				
$3 and under $4	9	8.1	8	1			
$4 and under $5	10	9.0	6	3	1		
$5 and under $6	7	6.3		6	1		
$6 and under $7	3	2.7		1	2		
$7 and under $8	6	5.4		2	2	2	
$8 and under $9	6	5.4		1		3	2
$9 and under $10	11	9.9			4	7	
$10 and under $11	7	6.3		1	3	3	
$11 and under $12	13	11.7			2	6	5
$12 and under $13	6	5.4				5	1
$13 and under $14	5	4.5				2	3
$14 and under $15	11	9.9				3	8
$15 and under $16	5	4.5				4	1
$16 and under $17	1	.9				1	
$17 and under $18	5	4.5				2	3
$18 and under $19	2	1.8					2
$19 and under $20	1	.9					1

TABLE II.—*Earnings of women in fruit and vegetable canneries and evaporators, by time worked*—Continued

C. ESTABLISHMENTS HAVING HALF-MONTHLY PAY-ROLL PERIODS—TIME WORKED REPORTED IN HOURS

Earnings	Women reported		Number of women earning each classified amount who worked—														
	Number	Per cent	Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	130 and under 140 hours	140 hours and over
Total	610	100.0	59	65	68	63	43	48	27	23	47	46	42	36	20	12	[2] 11
Per cent distribution		100.0	9.7	10.7	11.1	10.3	7.0	7.9	4.4	3.8	7.7	7.5	6.9	5.9	3.3	2.0	1.8
Median earnings	$13.65		$1.25	$3.85	$6.45	$9.90	$12.40	$14.80	$18.55	$19.30	$23.05	$24.50	$27.25	$33.00	$34.65	(1)	(1)
Under $1	24	3.9	24														
$1 and under $2	25	4.1	23	2													
$2 and under $3	25	4.1	12	11	2												
$3 and under $4	28	4.6		23	5												
$4 and under $5	23	3.8		15	6	2											
$5 and under $6	31	5.1		13	13	4	1										
$6 and under $7	19	3.1		1	17	1											
$7 and under $8	24	3.9			16	4	3	1									
$8 and under $9	16	2.6			6	8	2										
$9 and under $10	20	3.3			2	14	2		2								
$10 and under $11	29	4.8			1	22	4	2									
$11 and under $12	14	2.3				6	5	2		1							
$12 and under $13	17	2.8				1	11	1	1	2	1						
$13 and under $14	16	2.6					9	5	1	1							
$14 and under $15	27	4.3				1	2	16		1	4	2	1				
$15 and under $16	14	2.3					2	9		2	1						
$16 and under $17	11	1.8					1	5	2		1	1	1				
$17 and under $18	7	1.1					1	2	2			1	1				
$18 and under $19	22	3.6						1	10	3	3	2	2	1			
$19 and under $20	17	2.8						1	6	5	3	1	1				
$20 and under $21	13	2.1						2	1	2	1	5	2				
$21 and under $22	8	1.3								3	3	1		1			
$22 and under $23	15	2.5						1	2		6	5	1				
$23 and under $24	14	2.3								1	8	3	2				
$24 and under $25	13	2.1									4	4	4	1			
$25 and under $26	9	1.5										6	2	1			
$26 and under $27	15	2.5									2	8	3	1	1		
$27 and under $28	9	1.5									2		4	3			
$28 and under $29	9	1.5										1	4	3	1		
$29 and under $30	11	1.8								2	4	2	1		2		
$30 and under $31	7	1.1									1		4	1	1		

$31 and under $32	6	1.0									1	2	1	1	1			
$32 and under $33	10	1.6											3	5	1	1		
$33 and under $34	10	1.6									1	1	2	4	1	1		
$34 and under $35	9	1.5										1	1	4	3			
$35 and under $36	2	.3												1		1		
$36 and under $37	9	1.5												3	3	3		
$37 and under $38	3	.5											1		1	1		
$38 and under $39	5	.8									1		1	2		1		
$39 and under $40	3	.5												1		2		
$40 and under $45	12	2.0												2	5	2		3
$45 and over	9	1.5												1				8

[1] Not computed, owing to small number involved.
[2] Four women have hours between 140 and 150, four between 150 and 160, two between 160 and 170, and one over 170.

TABLE II.—*Earnings of women in fruit and vegetable canneries and evaporators, by time worked*—Continued

D. ESTABLISHMENTS HAVING HALF-MONTHLY PAY-ROLL PERIODS—TIME WORKED REPORTED IN DAYS

Earnings	Women reported		Number of women earning each classified amount who worked on—													
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days
Total	791	100.0	60	59	70	69	54	68	90	81	45	43	55	52	38	7
Per cent distribution		100.0	7.6	7.5	8.8	8.7	6.8	8.6	11.4	10.2	5.7	5.4	7.0	6.6	4.8	0.9
Median earnings	$11.25		$1.20	$2.55	$4.20	$6.70	$8.00	$10.60	$12.90	$16.95	$17.90	$15.50	$17.90	$18.50	$21.50	(1)
Under $1	26	3.3	24	2												
$1 and under $2	51	6.4	33	18												
$2 and under $3	31	3.9	2	18	9	1	1									
$3 and under $4	44	5.6		15	23	5	1									
$4 and under $5	33	4.2	1	6	14	9	3									
$5 and under $6	36	4.6			13	11	6	4	2							
$6 and under $7	32	4.0			5	12	8	4	2				1			
$7 and under $8	38	4.8			4	15	8	6	5							
$8 and under $9	25	3.2				6	7	6	3	2			1			
$9 and under $10	34	4.3			1	3	10	8	6	2	1	3				
$10 and under $11	34	4.3				3		10	12	1	4	2	2			
$11 and under $12	46	5.8			1	4	3	11	6	6	5	5	3	2		
$12 and under $13	38	4.8					2	7	10	6	1	5	6	1		
$13 and under $14	31	3.9						2	12	5	3	5	1	2	1	
$14 and under $15	22	2.8					2	1	9	4			4	2		
$15 and under $16	26	3.3					3	1	1	8	2	3	3	3	2	
$16 and under $17	32	4.0						2	3	7	1	3	3	7	6	
$17 and under $18	33	4.2						2	3	7	6	1	4	6	4	
$18 and under $19	24	3.0						3	3	2	3	1	2	6	4	
$19 and under $20	17	2.1							2	2	3	1	3	5	1	
$20 and under $21	20	2.5							2	4	5	4	3	1	1	
$21 and under $22	12	1.5							3	1	2	1	1	4		
$22 and under $23	17	2.1								5	1	3	3	1	3	1
$23 and under $24	18	2.3						1	1	5		3	3	1	4	
$24 and under $25	17	2.1							2	2	1	1	3	5	2	1
$25 and under $26	6	.8							1	2	2					1
$26 and under $27	6	.8								3	1			1	1	
$27 and under $28	9	1.1								2	1	1	2	1	2	
$28 and under $29	9	1.1							1	4			2	1	1	
$29 and under $30	3	.4									1		1	1		
$30 and under $35	10	1.3							1	1	2	1	2	1	1	1
$35 and under $40	5	.6											2	1	1	1
$40 and under $45	4	.5													3	1
$45 and over	2	.3													1	1

[1] Not computed, owing to small number involved.

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators, by number of days on which work was done*

A. ESTABLISHMENTS PAYING BY THE WEEK

Earnings	Timeworkers										Pieceworkers									
	Women reported		Number of women earning each classified amount who worked on—								Women reported		Number of women earning each classified amount who worked on—							
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	6 days and over	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	6 days and over
Total	476	100.0	43	24	37	29	56	257	30	287	793	100.0	72	84	73	109	167	284	4	288
Per cent distribution		100.0	9.0	5.0	7.8	6.1	11.8	54.0	6.3	60.3		100.0	9.1	10.6	9.2	13.7	21.1	35.8	0.5	36.3
Median earnings	$12.25		$2.30	$4.00	$5.65	$9.60	$12.20	$14.35	$17.15	$14.85	$11.30		$2.15	$3.75	$6.70	$10.10	$12.10	$14.10	(1)	$14.15
Under $1	4	.8	4								6	0.8	5	1						
$1 and under $2	8	1.7	8								36	4.5	28	8						
$2 and under $3	34	7.1	30	4							39	4.9	23	15	1					
$3 and under $4	10	2.1	1	8	1						43	5.4	12	24	7					
$4 and under $5	20	4.2		5	15						35	4.4	2	21	8	4				
$5 and under $6	12	2.5		6	4	2					28	3.5	1	5	13	6	2	1		1
$6 and under $7	9	1.9		1	6	2					34	4.3	1	4	11	14	3	1		1
$7 and under $8	6	1.3			2	4					29	3.7		1	9	9	5	5		5
$8 and under $9	15	3.2			9	3	2		1	1	26	3.3			5	5	8	8		8
$9 and under $10	20	4.2				6	11	3		3	51	6.4			3	15	26	7		7
$10 and under $11	13	2.7				2	5	6		6	51	6.4		1	4	14	15	17		17
$11 and under $12	77	16.2				8	8	61		61	61	7.7		3	3	9	23	22	1	23
$12 and under $13	40	8.4					10	30		30	55	6.9		1	2	8	13	31		31
$13 and under $14	34	7.1				1	12	20	1	21	59	7.4			1	2	9	47		47
$14 and under $15	32	6.7				1	5	24	2	26	46	5.8			1	3	14	27	1	28
$15 and under $16	18	3.8					2	14	2	16	24	3.0			2	5	6	11		11
$16 and under $17	64	13.4						56	8	64	23	2.9				2	8	11	2	13
$17 and under $18	21	4.4						14	7	21	16	2.0			2	1	5	8		8
$18 and under $19	17	3.6					1	14	2	16	13	1.6			1	3	1	8		8
$19 and under $20	4	.8						2	2	4	14	1.8				1	5	8		8
$20 and under $21	2	.4						1	1	2	13	1.6				3	5	5		5
$21 and under $22	7	1.5						7		7	4	.5					2	2		2
$22 and under $23	5	1.1						4	1	5	9	1.1				1	4	4		4
$23 and under $24											7	.9					2	5		5
$24 and under $25	2	.4						1	1	2	6	.8					2	4		4
$25 and under $26											12	1.5				1	2	9		9
$26 and under $27	1	.2							1	1	8	1.0				1	4	3		3

(1) Not computed, owing to small number involved.

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators, by number of days on which work was done*—Continued

A. ESTABLISHMENTS PAYING BY THE WEEK—Continued

Earnings	Timeworkers										Pieceworkers									
	Women reported		Number of women earning each classified amount who worked on—								Women reported		Number of women earning each classified amount who worked on—							
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	6 days and over	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	6 days and over
$27 and under $28											4	.5				1		3		3
$28 and under $29	1	.2							1	1	7	.9						7		7
$29 and under $30											4	.5					1	3		3
$30 and under $31											6	.8				1	1	4		4
$31 and under $32											6	.8					1	5		5
$32 and under $33											5	.6						5		5
$34 and under $35											5	.6						5		5
$35 and under $36											3	.4						3		3
$36 and under $37											1	.1						1		1
$37 and under $38											2	.3						2		2
$39 and under $40											1	.1						1		1
$40 and over											1	.1						1		1

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators, by number of days on which work was done*—Continued

B. ESTABLISHMENTS PAYING BY THE HALF MONTH

Earnings	Timeworkers																
	Women reported		Number of women earning each classified amount who worked on—														
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	13 days and over
Total	128	100.0	5	8	2	9	8	7	3	15	11	5	12	10	21	12	33
Per cent distribution		100.0	3.9	6.3	1.6	7.0	6.3	5.5	2.3	11.7	8.6	3.9	9.4	7.8	16.4	9.4	25.8
Median earnings	$22.40		(1)	(1)	(1)	(1)	(1)	(1)	(1)	$14.90	(1)	(1)	(1)	(1)	$32.75	(1)	$38.75
Under $1	1	0.8	1														
$1 and under $2	5	3.9	4	1													
$2 and under $3	2	1.6		2													
$3 and under $4	2	1.6		2													
$4 and under $5	1	.8		1													
$5 and under $6	5	3.9		2	1	1	1										
$6 and under $7	5	3.9			1	3	1										
$7 and under $8	2	1.6				2											
$8 and under $9	1	.8				1											
$9 and under $10	1	.8								1							
$10 and under $11	8	6.3				2	1	3	1	1							
$11 and under $12	4	3.1					2		1	1							
$12 and under $13	3	2.3					1	2									
$13 and under $14	3	2.3						1	1	1							
$14 and under $15	6	4.7						1		4	1						
$15 and under $16	1	.8					1										
$16 and under $17	1	.8								1							
$17 and under $18	1	.8					1										
$18 and under $19	3	2.3										1	1	1			
$19 and under $20	2	1.6									1	1					
$20 and under $21	4	3.1								2		2					
$21 and under $22	1	.8											1				
$22 and under $23	5	3.9								2				1	1	1	2
$23 and under $24	1	.8									1						
$24 and under $25	1	.8														1	1
$25 and under $26	2	1.6													2		2
$26 and under $27	6	4.7									1		1	1	3		3

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators by number of days on which work was done*—Continued

B. ESTABLISHMENTS PAYING BY THE HALF MONTH—Continued

Earnings	Timeworkers															
	Women reported		Number of women earning each classified amount who worked on—													
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	13 days and over
$27 and under $28	1	.8													1		1
$28 and under $29	2	1.6											1	1			
$29 and under $30	7	5.5								2	3	1		1			
$30 and under $31	2	1.6									1				1		1
$31 and under $32	3	2.3									1		1		1		1
$32 and under $33	3	2.3												1	2		2
$33 and under $34	2	1.6									1		1				
$34 and under $35	4	3.1											2		1	1	2
$35 and under $36	2	1.6											1	1			
$36 and under $37	2	1.6											1	1			
$37 and under $38	1	.8												1			
$38 and under $39	4	3.1									1		1			2	2
$40 and under $45	8	6.3												1	6	1	7
$45 and under $50	8	6.3											1		1	6	7
$50 and over	2	1.6													2		2

[1] Not computed, owing to the small number involved.

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators, by number of days on which work was done*—Continued

B. ESTABLISHMENTS PAYING BY THE HALF MONTH—Continued

Earnings	Pieceworkers															
	Women reported		Number of women earning each classified amount who worked on—													
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	13 days and over
Total	1,052	100.0	102	80	96	103	65	85	98	90	54	57	70	62	61	29	90
Per cent distribution		100.0	9.7	7.6	9.1	9.8	6.2	8.1	9.3	8.6	5.1	5.4	6.7	5.9	5.8	2.8	8.6
Median earnings	$10.40		$1.10	$2.60	$4.20	$6.15	$7.70	$10.40	$12.35	$16.30	$17.15	$15.30	$18.50	$18.85	$24.15	$32.50	$26.20
Under $1	49	4.7	47	2													
$1 and under $2	69	6.6	48	21													
$2 and under $3	49	4.7	5	29	11	2	2										
$3 and under $4	68	6.5	1	20	33	11	2	1									
$4 and under $5	48	4.6	1	5	19	20	2	1									
$5 and under $6	56	5.3		3	19	16	9	5	4								
$6 and under $7	38	3.6			4	15	10	4	3		1		1				
$7 and under $8	54	5.1			5	21	11	9	6	1	1						
$8 and under $9	36	3.4			2	7	9	8	4	3	1	1	1				
$9 and under $10	43	4.1			1	4	10	10	8	3	4	3					
$10 and under $11	42	4.0			1	3		12	14	3	3	4	2				
$11 and under $12	50	4.8			1	4	3	13	6	7	5	6	3	2			
$12 and under $13	44	4.2					2	9	11	7	2	5	7	1			
$13 and under $14	34	3.2						2	10	6	4	7	2	2	1		1
$14 and under $15	30	2.9					2	2	9	5		1	5	5	1		1
$15 and under $16	30	2.9					3	1	1	8	4	5	3	3	2		2
$16 and under $17	35	3.3						2	3	7	1	4	5	6	7		7
$17 and under $18	34	3.2						2	3	8	6		4	6	4	1	5
$18 and under $19	32	3.0						3	3	1	3	4	4	7	5	2	7
$19 and under $20	22	2.1							2	2	3	2	6	5	2		2
$20 and under $21	27	2.6							2	4	5	4	6	4	1	1	2
$21 and under $22	13	1.2							3	1	2	1	1	5			
$22 and under $23	21	2.0								5	1	3	5	3	3	1	4
$23 and under $24	20	1.9						1	1	5		3	4	1	4	1	5
$24 and under $25	20	1.9							2	2	2	1	4	4	4	1	5
$25 and under $26	7	0.7							1	2	1				2	1	3
$26 and under $27	11	1.0								3	1			2	4	1	5

TABLE III.—*Earnings of women on timework and on piecework in fruit and vegetable canneries and evaporators, by number of days on which work was done*—Continued

B. ESTABLISHMENTS PAYING BY THE HALF MONTH—Continued

Earnings	Pieceworkers															
	Women reported		Number of women earning each classified amount who worked on—													
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	13 days and over
$27 and under $28	14	1.3								2	1	1	2	2	4	2	6
$28 and under $29	13	1.2							1	4			2		5	1	6
$29 and under $30	4	.4									1		1	2			
$30 and under $31	9	.9							1		1	1	2	1	3		3
$31 and under $32	3	.3									1			1		1	1
$32 and under $33	6	.6								1					2	3	5
$33 and under $34	1	.1										1					
$34 and under $35	4	.4													1	3	4
$35 and under $36	1	.1														1	1
$36 and under $37	5	.5													3	2	5
$38 and under $39	1	.1														1	1
$39 and under $40	2	.2													1	1	2
$40 and under $45	6	.6													2	4	6
$45 and under $50	1	.1														1	1

TABLE IV.—*Hours worked within one pay-roll period in fish canneries, by number of days on which work was done*

A. CANNERIES PAYING BY THE WEEK

Days on which work was done	Number of women reported	Number of women whose time worked in the current pay-roll period was—														
		Under 5 hours	5 and under 10 hours	10 and under 15 hours	15 and under 20 hours	20 and under 25 hours	25 and under 30 hours	30 and under 35 hours	35 and under 40 hours	40 and under 45 hours	45 and under 50 hours	50 and under 55 hours	55 and under 60 hours	60 and under 65 hours	65 and under 70 hours	70 and under 75 hours
Total	279	7	11	8	23	55	17	35	16	23	13	14	16	14	25	2
1 day	20	7	11	2												
2 days	13			3	8	2										
3 days	21				5	4	7	3	2							
4 days	32			3	4	7	3	4	4	3	4					
5 days	31				5	2	3	3	7	3	6	1		1		
6 days	105				1	39	4	19	3	3	1	9	15	8	1	2
7 days	57					1		6		14	2	4	1	5	24	

B. CANNERIES PAYING BY THE HALF MONTH

Days on which work was done	Number of women reported	Number of women whose time worked in the current pay-roll period was—														
		Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	161 hours	185 hours
Total	120	7	5	6	2	9	7	16	23	3	13	12	9	6	1	1
1 day	7	7														
2 days	2		2													
3 days	7		3	4												
4 days	3				2		1									
5 days	5			2		1	2									
6 days	1					1										
7 days	10						2	4	4							
8 days	18					1	2	10	4	1						
9 days	6							2	3	1						
10 days	23					6			12		2	3				
11 days	5										5					
12 days	11										5	5			1	
13 days	14									1	1	4	7	1		
14 days	6												2	4		
15 days	2													1		1

TABLE IV.—*Hours worked within one pay-roll period in fish canneries, by number of days on which work was done*—Continued

C. CANNERIES PAYING BY THE MONTH

Days on which work was done	Number of women reported	Number of women whose time worked in the current pay-roll period was—																								
		Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	130 and under 140 hours	140 and under 150 hours	150 and under 160 hours	160 and under 170 hours	170 and under 180 hours	180 and under 190 hours	190 and under 200 hours	200 and under 210 hours	210 and under 220 hours	220 and under 230 hours	230 and under 240 hours	240 and under 250 hours
Total	223	14	17	13	8	17	6	7	5	4	12	13	15	8	8	8	11	8	15	14	3	3	4	2	1	7
1 day	16	10	6																							
2 days	12	3	8	1																						
3 days	10	1	2	7																						
4 days	10		1	4	5																					
5 days	7				2	5																				
6 days	10			1	1	6		1	1																	
7 days	5						1	1	3																	
8 days	11					4	4	2		1																
9 days	8					2		1	1	2	2															
10 days	7							1			2	3	1													
11 days	6						1				1	1	3													
12 days	6									1	1		1	3												
13 days	9										2	1	1	1	2	2										
14 days	6											3	2							1						
15 days	10							1			2	1	3	1	1		1									
16 days	7										2	1	2		1			1								
17 days	7											2		1	2	2										
18 days	10												1			2	2	2	1	2						
19 days	9											1	1	1	1		2	1	1	2						
20 days	9													1	1		2	1	2	1	1					
21 days	11															1	2	1	4	3						
22 days	9															1	2	2	4							
23 days	7																	1	3	3						
24 days	2																			1			1			
25 days	3																				2	1				
26 days	2																			1		1				
27 days	3																						2		1	
28 days	2																					1	1			
30 days	9																							2		7

TABLE V.—*Earnings of women in fish canneries, by time worked*

A. CANNERIES PAYING BY THE WEEK

Earnings	Women reported		Number of women earning each classified amount who worked—								
	Number	Per cent	Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 75 hours	50 hours and over
Total	279	100.0	18	31	72	51	36	30	39	2	71
Per cent distribution		100.0	6.5	11.1	25.8	18.3	12.9	10.8	14.0	0.7	25.4
Median earnings	$12.50		$1.90	$5.70	$7.80	$12.65	$16.00	$17.00	$21.30	(1)	$20.65
$1 and under $2	10	3.6	10								
$2 and under $3	3	1.1	3								
$3 and under $4	9	3.2	4	5							
$4 and under $5	4	1.4	1	3							
$5 and under $6	11	3.9		11							
$6 and under $7	10	3.6		7	3						
$7 and under $8	47	16.8		5	42						
$8 and under $9	18	6.5			15	3					
$9 and under $10	2	0.7			2						
$10 and under $11	9	3.2			3	5	1				
$11 and under $12	7	2.5			1	6					
$12 and under $13	20	7.2			1	18	1				
$13 and under $14	17	6.1			1	6	10				
$14 and under $15	10	3.6			4	3	2	1			1
$15 and under $16	15	5.4				5	4	6			6
$16 and under $17	14	5.0				2	4	8			8
$17 and under $18	6	2.2				3	1	2			2
$18 and under $19	7	2.5					5	2			2
$19 and under $20	11	3.9					3	3	5		8
$20 and under $21	17	6.1					4	1	12		13
$21 and under $22	11	3.9						1	8	2	11
$22 and under $23	7	2.5					1	3	3		6
$23 and under $24	3	1.1						3			3
$24 and under $25	5	1.8							5		5
$25 and under $26	2	.7							2		2
$26 and under $27	4	1.4							4		4

[1] Not computed, owing to small number involved.

TABLE V.—*Earnings of women in fish canneries, by time worked*—Continued

B. CANNERIES PAYING BY THE HALF MONTH

Earnings	Women reported		Number of women earning each classified amount who worked—													
	Number	Per cent	Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	160 hours and over
Total	120	100.0	7	5	6	2	9	7	16	23	3	13	12	9	6	[2] 2
Per cent distribution		100.0	5.8	4.2	5.0	1.7	7.5	5.8	13.3	19.2	2.5	10.8	10.0	7.5	5.0	1.7
Median earnings	$22.90		(1)	(1)	(1)	(1)	(1)	(1)	$20.25	$22.70	(1)	(1)	(1)	(1)	(1)	(1)
Under $1	2	1.7	2													
$1 and under $2	2	1.7	2													
$2 and under $3	3	2.5	3													
$4 and under $5	3	2.5		3												
$5 and under $6	1	.8		1												
$6 and under $7	2	1.7		1	1											
$7 and under $8	3	2.5			3											
$9 and under $10	4	3.3			2	2										
$12 and under $13	1	.8					1									
$14 and under $15	2	1.7					1		1							
$15 and under $16	2	1.7						2								
$16 and under $17	1	.8						1								
$17 and under $18	7	5.8					6	1								
$18 and under $19	5	4.2							5							
$19 and under $20	1	.8							1							
$20 and under $21	5	4.2						1	4							
$21 and under $22	7	5.8					1	1		5						
$22 and under $23	10	8.3						1		9						
$23 and under $24	2	1.7							1	1						
$25 and under $26	1	.8							1							
$26 and under $27	2	1.7									2					
$27 and under $28	3	2.5							1	1		1				
$28 and under $29	2	1.7										1	1			
$29 and under $30	3	2.5							1	1			1			
$30 and under $31	1	.8													1	
$31 and under $32	4	3.3							1	1			2			
$32 and under $33	2	1.7										1	1			
$33 and under $34	4	3.3								3				1		
$34 and under $35	2	1.7										1		1		
$35 and under $36	3	2.5								1		1	1			
$36 and under $37	2	1.7								1			1			

$37 and under $38	4	3.3									1	1		1	1		
$39 and under $40	1	.8												1			
$40 and under $41	2	1.7										1		1			
$41 and under $42	4	3.3										2	1				
$42 and under $43	3	2.5										2			1		
$43 and under $44	3	2.5										1		1	2		1
$44 and under $45	4	3.3											1				
$45 and under $50	2	1.7										1					
$50 and under $55	1	.8											3				
$60 and under $65	3	2.5															
$90 and under $100	1	.8									?						

[1] Not computed, owing to small number involved.
[2] One woman worked between 160 and 170 hours and earned $48.30, and one worked between 180 and 190 hours and earned $92.50.

TABLE V.—*Earnings of women in fish canneries, by time worked*—Continued

C. CANNERIES PAYING BY THE MONTH

Earnings	Women reported		Number of women earning each classified amount who worked—																						
	Number	Per cent	Under 10 hours	10 and under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	130 and under 140 hours	140 and under 150 hours	150 and under 160 hours	160 and under 170 hours	170 and under 180 hours	180 and under 190 hours	190 and under 200 hours	200 and under 220 hours	220 and under 250 hours
Total	223	100.0	14	17	13	8	17	6	7	5	4	12	13	15	8	8	8	11	8	15	14	3	7	10
Per cent distribution		100.0	6.3	7.6	5.8	3.6	7.6	2.7	3.1	2.2	1.8	5.4	5.8	6.7	3.6	3.6	3.6	4.9	3.6	6.7	6.3	1.3	3.1	4.5
Median earnings	$39.55		(1)	$4.95	(1)	(1)	$16.40	(1)	(1)	(1)	(1)	(1)	(1)	$39.85	(1)	(1)	(1)	(1)	(1)	$70.25	(1)	(1)	(1)	(1)
Under $1	3	1.3	3																					
$1 and under $2	4	1.8	3	1																				
$2 and under $3	3	1.3	3																					
$3 and under $4	5	2.2	5																					
$4 and under $5	8	3.6		8																				
$5 and under $6	4	1.8		3	1																			
$6 and under $7	6	2.7		5	1																			
$7 and under $8	5	2.2			5																			
$8 and under $9	2	.9			2																			
$9 and under $10	2	.9			2																			
$10 and under $11	1	.4				1																		
$11 and under $12	4	1.8			1	2		1																
$12 and under $13	5	2.2				4	1																	
$13 and under $14	5	2.2			1		4																	
$14 and under $15	3	1.3				1	2																	
$15 and under $16	1	.4						1																
$16 and under $17	5	2.2					4		1															
$18 and under $19	3	1.3					2	1																
$19 and under $20	3	1.3					3																	
$21 and under $22	3	1.3						2		1														
$22 and under $23	2	.9						1	1															
$23 and under $24	1	.4										1												
$24 and under $25	4	1.8					1		3															
$25 and under $26	2	.9							1	1														
$26 and under $27	2	.9								1			1											
$27 and under $28	1	.4							1															
$28 and under $29	1	.4								1														
$31 and under $32	1	.4								1														
$32 and under $33	2	.9										2												
$33 and under $34	3	1.3										1		2										

$34 and under $35	2	.9								2														
$36 and under $37	5	2.2									3	1	1											
$37 and under $38	5	2.2								2		2	1											
$38 and under $39	1	.4											1											
$39 and under $40	8	3.6									4	1	3											
$40 and under $41	2	.9										1	1											
$41 and under $42	7	3.1									1	5	1											
$42 and under $43	4	1.8										2		2										
$44 and under $45	1	.4												1										
$45 and under $50	9	4.0											4	3		2								
$50 and under $55	10	4.5											1	2	4		3							
$55 and under $60	11	4.9													4	2	2	1		1			1	
$60 and under $65	15	6.7														4	4		6		1			
$65 and under $70	10	4.5															1	6	1	1			1	
$70 and under $75	12	5.4															1	1	4	5		1		
$75 and under $80	14	6.3																	3	7	2		2	
$80 and under $85	1	.4																				1		
$85 and under $90	7	3.1																				5	2	
$90 and under $95	2	.9																	1				1	
$95 and under $100	1	.4																					1	
$100 and under $120	2	.9																					2	

[1] Not computed, owing to small number involved.

TABLE VI.—*Month's earnings of timeworkers in clam canneries, by time worked*

A. TIME WORKED REPORTED IN HOURS

Month's earnings	Number of women reported	Number of women earning each classified amount who worked—										
		Under 20 hours	20 and under 30 hours	30 and under 40 hours	40 and under 50 hours	50 and under 60 hours	60 and under 70 hours	70 and under 80 hours	80 and under 90 hours	90 and under 100 hours	100 and under 101 hours	116 and under 117 hours
Total	46	8	7	3	11	7	4	1	1	1	1	2
Median earnings	$18.75											
$1 and under $2	1	1										
$5 and under $6	2	2										
$6 and under $7	1	1										
$7 and under $8	3	2	1									
$8 and under $9	2	1	1									
$9 and under $10	3		3									
$10 and under $11	2	1	1									
$12 and under $13	1			1								
$13 and under $14	1			1								
$14 and under $15	2		1		1							
$16 and under $17	1				1							
$17 and under $18	1				1							
$18 and under $19	4			1	3							
$20 and under $21	3				3							
$21 and under $22	2					1	1					
$22 and under $23	2				1	1						
$26 and under $27	3					2	1					
$27 and under $28	2				1		1					
$28 and under $29	1							1				
$30 and under $31	1					1						
$31 and under $32	2					2						
$33 and under $34	2						1		1			
$37 and under $38	1									1		
$40 and under $41	1										1	
$46 and under $47	2											2

TABLE VI.—*Month's earnings of timeworkrs in clam canneries, by time worked*—Continued

B. TIME WORKED REPORTED IN DAYS

Month's earnings	Number of women reported	Number of women earning each classified amount who worked on—																						
		1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	15 days	16 days	17 days	18 days	19 days	20 days	21 days	22 days	24 days
Total	112	2	4	5	8	11	3	3	2	3	3	4	7	17	8	3	3	9	2	3	3	7	1	1
Median earnings	$18.65																							
Under $1	1	1																						
$1 and under $2	2	1	1																					
$2 and under $3	6		3	2		1																		
$3 and under $4	1			1																				
$4 and under $5	1						1																	
$5 and under $6	4				2	2																		
$6 and under $7	4			1	1	1				1														
$7 and under $8	6			1	2	1	1	1																
$8 and under $9	3					3																		
$9 and under $10	3				1			2																
$10 and under $11	4					1				1				2										
$11 and under $12	2						1						1											
$12 and under $13	2												1					1						
$13 and under $14	7				1	1				1	1		1		1		1							
$14 and under $15	2													2										
$16 and under $17	2					1										1								
$17 and under $18	4				1									3										
$18 and under $19	3											1	1	1										
$20 and under $21	2								1			1												
$21 and under $22	4								1						2		1							
$23 and under $24	3											1	1		1									
$25 and under $26	2										1	1												
$27 and under $28	3													2	1									
$28 and under $29	1															1								
$29 and under $30	6													4	1			1						
$30 and under $31	3												2	1										
$36 and under $37	6													2	2		1	1						
$38 and under $39	1																	1						
$39 and under $40	2										1										1			
$41 and under $42	1																			1				
$45 and under $46	2																	1				1		
$46 and under $47	3															1			2					
$49 and under $50	2																	2						
$51 and under $52	1																			1				
$55 and under $56	2																	1					1	

TABLE VI.—*Month's earnings of timeworkers in clam canneries, by time worked*—Continued

B. TIME WORKED REPORTED IN DAYS—Continued

Month's earnings	Number of women reported	Number of women earning each classified amount who worked on—																						
		1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	9 days	10 days	11 days	12 days	13 days	14 days	15 days	16 days	17 days	18 days	19 days	20 days	21 days	22 days	24 days
$58 and under $59	2																	1				1		
$59 and under $60	2																			1		1		
$62 and under $63	1																					1		
$66 and under $67	1																				1			
$67 and under $68	1																					1		
$70 and under $71	1																					1		
$75 and under $76	1																				1			
$81 and under $82	1																					1		
$110 and under $111	1																							1

TABLE VII.—*Season's earnings of women in clam canneries, by time worked*

Season's earnings	Number for whom season's earnings were reported	Women whose time worked was reported in hours								Women whose time worked was reported in days					
		Number reported	Number earning each classified amount who worked—							Number reported	Number earning each classified amount who worked on—				
			80 and under 90 hours	90 and under 100 hours	100 and under 110 hours	110 and under 120 hours	120 and under 130 hours	130 and under 140 hours	140 and under 150 hours		5 and under 10 days	15 and under 20 days	20 and under 25 days	25 and under 30 days	30 and under 35 days
Total	101	17	3	3	1	3	2	4	1	28	1	3	9	7	8
Per cent distribution		100.0	17.6	17.6	5.9	17.6	11.8	23.5	5.9	100.0	3.6	10.7	32.1	25.0	28.6
Median earnings	$52.40	$50.75								$42.00					
$12 and under $15	1									1	1				
$15 and under $20	1														
$20 and under $25	4									2			2		
$25 and under $30	10									4		2	2		
$30 and under $35	8	3	3							5			2	1	2
$35 and under $40	5	1		1						1			1		
$40 and under $45	7	1		1						3		1			2
$45 and under $50	8	2			1	1				2					2
$50 and under $55	10	3		1		2				3			2	1	
$55 and under $60	10	1							1	3				3	
$60 and under $65	6	2						2							
$65 and under $70	10	2					2			3				2	1
$70 and under $75	6	2						2		1					1
$75 and under $80	5														
$80 and under $85	1														
$85 and under $90	3														
$90 and under $95	1														
$95 and under $100	3														
$100 and under $105	2														

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TABLE VIII.—*Earnings of sorters and packers in apple and pear warehouses, by time worked*

A. APPLE SORTERS

Earnings	Women reported		Number of women earning each classified amount who worked—														
	Number	Per cent	Under 10 hours	10 hours	Over 10 and under 20 hours	20 hours	Over 20 and under 30 hours	30 hours	Over 30 and under 40 hours	40 hours	Over 40 and under 50 hours	50 hours	Over 50 and under 60 hours	60 hours	Over 60 and under 70 hours	70 hours	Over 50 hours
Total	358	100.0	14	10	22	8	8	12	9	10	27	28	99	64	45	2	210
Per cent distribution		100.0	3.9	2.8	6.1	2.2	2.2	3.4	2.5	2.8	7.5	7.8	27.7	17.9	12.6	0.6	58.7
Median earnings	$18.45		(1)	(1)	$5.20	(1)	(1)	(1)	(1)	(1)	$15.65	$15.80	$20.50	$18.85	$26.05	(1)	$20.90
$1 and under $2	6	1.7	6														
$2 and under $3	3	.8	3														
$3 and under $4	15	4.2	5	9	1												
$4 and under $5	10	2.8		1	9												
$5 and under $6	5	1.4			5												
$6 and under $7	11	3.1			5	6											
$7 and under $8	4	1.1			2	1	1										
$8 and under $9	4	1.1				1	3										
$9 and under $10	8	2.2						7	1								
$10 and under $11	9	2.5					3	4	2								
$11 and under $12	2	.6					1		1								
$12 and under $13	11	3.1						1	1	8	1						
$13 and under $14	8	2.2							2		6						
$14 and under $15	5	1.4							2	1	2						
$15 and under $16	27	7.5									7	18	2				2
$16 and under $17	9	2.5								1	2		6				6
$17 and under $18	24	6.7									4	8	12				12
$18 and under $19	41	11.5									2		1	37	1		39
$19 and under $20	23	6.4									1		16		6		22
$20 and under $21	29	8.1										2	26		1		27
$21 and under $22	29	8.1											6	22	1		29
$22 and under $23	14	3.9									2		12				12
$23 and under $24	12	3.4											11		1		12
$24 and under $25	11	3.1												5	6		11
$25 and under $26	6	1.7													6		6
$26 and under $27	13	3.6											6		7		13
$28 and under $29	3	.8											1			2	3
$29 and under $30	1	.3													1		1
$30 and under $31	7	2.0													7		7
$31 and under $32	6	1.7													6		6
$33 and under $34	2	.6													2		2

[1] Not computed, owing to small number involved.

TABLE VIII.—*Earnings of sorters and packers in apple and pear warehouses, by time worked*—Continued

B. PEAR SORTERS

Earnings	Women reported		Number of women earning each classified amount who worked—										
	Number	Per cent	10 hours	Over 10 and under 20 hours	30 hours	Over 30 and under 40 hours	40 hours	Over 40 and under 50 hours	50 hours	Over 50 and under 60 hours	60 hours	Over 60 and under 62 hours	Over 50 hours
Total	62	100.0	3	3	1	5	1	2	5	9	25	8	42
Per cent distribution		100.0	4.8	4.8	1.6	8.1	1.6	3.2	8.1	14.5	40.3	12.9	67.7
Median earnings	$18.05		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	$18.50	(1)	$18.35
$3 and under $4	3	4.8	3										
$5 and under $6	3	4.8		3									
$9 and under $10	2	3.2			1	1							
$10 and under $11	1	1.6				1							
$11 and under $12	3	4.8				3							
$12 and under $13	1	1.6					1						
$13 and under $14	2	3.2						2					
$15 and under $16	5	8.1							5				
$16 and under $17	3	4.8								3			3
$17 and under $18	6	9.7								6			6
$18 and under $19	33	53.2									25	8	33

[1] Not computed, owing to small number involved.

C. APPLE PACKERS

Earnings	Women reported		Number of women earning each classified amount who worked on—							
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days	7 days	6 and 7 days
Total	183	100.0	4	9	6	12	27	115	10	125
Per cent distribution		100.0	2.2	4.9	3.3	6.6	14.8	62.8	5.5	68.3
Median earnings	$31.05		(1)	(1)	(1)	(1)	$26.75	$34.70	(1)	$35.85
$4 and under $5	3	1.6	3							
$5 and under $6	2	1.1	1	1						
$7 and under $8	1	.6				1				
$8 and under $9	2	1.1		2						
$9 and under $10	2	1.1		2						
$10 and under $11	1	.6		1						
$11 and under $12	2	1.1		1			1			
$12 and under $13	4	2.2			1	2		1		1
$14 and under $15	3	1.6		1		2				
$16 and under $17	2	1.1			1		1			
$17 and under $18	4	2.2		1		1	1	1		1
$18 and under $19	2	1.1					1	1		1
$19 and under $20	3	1.6			2			1		1
$20 and under $21	3	1.6			1	2				
$21 and under $22	2	1.1					2			
$22 and under $23	7	3.8				3	1	3		3
$23 and under $24	3	1.6				1		2		2
$24 and under $25	6	3.3					1	5		5
$25 and under $26	8	4.4					4	4		4
$26 and under $27	4	2.2			1		2	1		1
$27 and under $28	6	3.3					3	3		3
$28 and under $29	9	4.9					2	7		7
$29 and under $30	6	3.3					3	3		3
$30 and under $31	6	3.3					1	5		5
$31 and under $32	8	4.4					1	7		7
$32 and under $33	6	3.3						6		6
$33 and under $34	5	2.7						4	1	5
$34 and under $35	7	3.8					2	5		5
$35 and under $36	4	2.2					1	3		3
$36 and under $37	4	2.2						4		4
$37 and under $38	7	3.8						4	3	7
$38 and under $39	5	2.7						4	1	5
$39 and under $40	4	2.2						4		4
$40 and under $45	15	8.2						14	1	15
$45 and under $50	11	6.0						10	1	11
$50 and under $55	6	3.3						6		6
$55 and under $60	2	1.1						2		2
$60 and under $65	4	2.2						1	3	4
$65 and under $70	4	2.2						4		4

[1] Not computed, owing to small number involved.

TABLE VIII.—*Earnings of sorters and packers in apple and pear warehouses, by time worked*—Continued

D. PEAR PACKERS

Earnings	Women reported		Number of women earning each classified amount who worked on—					
	Number	Per cent	1 day	2 days	3 days	4 days	5 days	6 days
Total	53	100.0	2	4	4	1	13	29
Per cent distribution		100.0	3.8	7.5	7.5	1.9	24.5	54.7
Median earnings	$25.85		(1)	(1)	(1)	(1)	(1)	$31.30
$3 and under $4	1	1.9	1					
$5 and under $6	1	1.9	1					
$11 and under $12	2	3.8		2				
$12 and under $13	1	1.9		1				
$13 and under $14	1	1.9			1			
$14 and under $15	3	5.7			2		1	
$15 and under $16	1	1.9		1				
$17 and under $18	2	3.8			1		1	
$18 and under $19	1	1.9					1	
$20 and under $21	6	11.3				1	2	3
$21 and under $22	2	3.8					1	1
$22 and under $23	1	1.9					1	
$24 and under $25	2	3.8						2
$25 and under $26	3	5.7					1	2
$27 and under $28	2	3.8					1	1
$28 and under $29	2	3.8					1	1
$29 and under $30	6	11.3					3	3
$31 and under $32	5	9.4						5
$32 and under $33	3	5.7						3
$33 and under $34	1	1.9						1
$34 and under $35	1	1.9						1
$35 and under $40	4	7.5						4
$42 and under $43	2	3.8						2

[1] Not computed, owing to small number involved.

TABLE IX.—*Season's earnings of selected women in fruit and vegetable canneries and evaporators, in fish canneries, and in fruit warehouses*

Earnings	Women in fruit and vegetable canneries and evaporators		Women in fish canneries		Women in fruit warehouses			
					Sorters		Packers	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	231	100.0	125	100.0	87	100.0	65	100.0
Median earnings	$225.60		$137.95		$156.80		$235.00	
Under $50			5	4.0				
$50 and under $100	14	6.1	37	29.6	14	16.1	3	4.6
$100 and under $150	35	15.2	27	21.6	25	28.7	8	12.3
$150 and under $200	45	19.5	28	22.4	33	37.9	11	16.9
$200 and under $250	42	18.2	20	16.0	13	14.9	15	23.1
$250 and under $300	23	10.0	7	5.6			16	24.6
$300 and under $350	27	11.7			1	1.2	4	6.2
$350 and under $400	20	8.7	1	.8	1	1.2	4	6.2
$400 and under $450	9	3.9					2	3.1
$450 and under $500	6	2.6					1	1.5
$500 and under $550	4	1.7						
$550 and under $600	6	2.6						
$650 and under $700							1	1.5

APPENDIX B.—SCHEDULE FORMS

Schedule 1

[*This schedule was used in personal interviews with the women workers*]

WOMEN'S BUREAU, U. S. DEPARTMENT OF LABOR — RURAL SURVEY

S. No._____ State_____ County_____
Worker_____ Address_____
Employer's name_____
Worker's permanent address_____

WORKER: 1. W B O N F (spec.)_____
2. Yrs. in U. S.____ 3. Lit., No. 4. Sp. Eng., No._____
5. S M W S D. 6. Age____ 7. Res. Mig. Day_____
8. Rooms alone; with others_____
9. Provision for privacy_____
10. Home duties_____
11. With relatives, friends, adrift_____
12. Contrib. all, part, none, dep_____
FAMILY: 13. (*a*) Total_____; (*b*) Under 6_____;
(*c*) 6 to 15_____; (*d*) 16 and over_____

14.	Relationship	Occupation	Location

PRESENT JOB: 15. Field, shed, cannery_____
16. How engaged: Farmer, row boss, agent, other_____
17. Contract No. 18. Reason for coming_____
19. Inducements offered_____
20. Who supplies (*a*) Trans.: N. Far. Fam. Other; (*b*) House: Far. Fam. Other;
(*c*) Credit: Far. Fam. Other; (*d*) Oth. perquisites_____
21. (*a*) Usual daily hours_____; (*b*) Lunch_____;
(*c*) Sunday_____; (*d*) Split trick_____
22. Overtime: (*a*) Hours_____; (*b*) Frequency_____
_____; (*c*) Pay_____
_____; (*d*) Job_____

23.	Occupation (sched. year)	Crop	Duration	Method and rate of payment	Pay period	Strain, exposure, or accident

24. Date of last pay day_____

25.

Day of week	Hours worked	Wages paid	Occupation	Crop
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Informant____
Date_____
Agent_____

HOUSING: 26. Wood, brick, canvas, other_____
27. No. rooms_____ 28. No. households_____
29. Equipment furnished: Beds, No; Tables, No; Chairs, No; Stove, No; Shelves, No; Other conveniences_____
30. Light: Electric, gas, kerosene, candle, other_____
31. Ventilation: (*a*) Means: G F P; (*b*) Use: G F P_____
32. Screens, No. 33. Garbage collected, No_____
34. Toilet, None; (*a*) WC, privy; (*b*) Distance from house_____ (*c*) No. families using_____
35. Water: (*a*) Dr. w., Dg. w., Cist., Brk., Spg., Other; (*b*) Distance from house_____

INDUSTRIAL HISTORY:

36.

Occupation	Industry	Duration	Age	Reason for leaving

Schedule 2

[This schedule was used in interviews with the ranchers]

WOMEN'S BUREAU, U. S. DEPARTMENT OF LABOR

RANCHER'S INTERVIEW

S. No._____ State_____ County_____ Name_____
Address_____ Association_____

1. Shelter No._____ Mo. occup. each year_____
   Loc_____ Age_____
   Conv_____ Capacity_____
   Drain_____ Fam. grps_____
   Mat_____ Fam. rooms_____
2. Provision for condition:
   Light, nat_____
   Light, artif_____
   Ventilation_____
   Screens_____
   Toilet, field_____
   Toilet, camp_____
3. Policy of management:
   Repairs_____
   Camp clean_____
   Social life_____
   Bath convs_____
   Laundry convs_____
   Garbage_____
4. Water: Source_____ Depth_____
5. Crops:
   Total acreage—

Crop	Acreage
Conv. camp	Field

LABOR

L. M. N. F. R._____
7. How obtained_____
   Scarce_____ Plentiful_____
8. Agreement: Freq. of payment_____ Fixed guarantee_____
   Housing_____ Fuel_____ Transp_____
   Food_____ Other_____
9. Policy of supervision_____
10. Is work steady_____
11. Number of workers desirable for present outlook_____
12. Is number of workers large enough for present demand_____
13. Is number same for successive crops per acre_____
14. Rate of pay_____
15. Rate of pay_____
16. Usual hours_____ Meals_____

Schedule 3

[Pay-roll information was copied onto this card, one card being used for each woman employee]

U. S. DEPARTMENT OF LABOR, WOMEN'S BUREAU

Establishment	Employee's No.	Department	
Name		Male / Female	Age
Address		Conjugal condition	
Occupation		S / M / W / D / N R	

Rate of pay	Piece	Hour	Day	Week	½ Month	Month	Additions
		$0	$	$	$	$	$

Days worked	Regular weekly hours	Hours worked this period	Overtime hours	Undertime hours	Earnings: This period	Earnings: Computed for regular time	Deductions
					$	$	$

Country of birth	Began work (Age.)	Time at work	In this trade	This firm

At home	Board	Pay-roll period
		---- Days ending

Schedule 4

[*This schedule was used to record earnings for each pay-roll period during the season*]

U. S. DEPARTMENT OF LABOR, WOMEN'S BUREAU

Agent _____
Date _____

Cannery: Name _____ Address _____
Worker: Name _____ Address _____

Crop	Occupation	Date	From	To	Rate

Rates: Piece _____ Time _____

Date	Wages	Hours or days worked during week	Date	Wages	Hours or days worked during week
1			27		
2			28		
3			29		
4			30		
5			31		
6			32		
7			33		
8			34		
9			35		
10			36		
11			37		
12			38		
13			39		
14			40		
15			41		
16			42		
17			43		
18			44		
19			45		
20			46		
21			47		
22			48		
23			49		
24			50		
25			51		
26			52		

Total $_____ Weeks worked _____ Weeks not worked _____
Average weekly wage _____ Average for 52 weeks _____

PUBLICATIONS OF THE WOMEN'S BUREAU

BULLETINS

[These bulletins and reports will be sent free of charge upon request]

No. 1. Proposed Employment of Women During the War in the Industries of Niagara Falls, N. Y. 16 pp. 1918.
No. 2. Labor Laws for Women in Industries in Indiana. 29 pp. 1918.
No. 3. Standards for the Employment of Women in Industry. 7 pp. 1919.
No. 4. Wages of Candy Makers in Philadelphia in 1919. 46 pp. 1919.
No. 5. The Eight-Hour Day in Federal and State Legislation. 19 pp. 1919.
No. 6. The Employment of Women in Hazardous Industries in the United States. 8 pp. 1919.
No. 7. Night Work Laws in the United States. 4 pp. 1919.
No. 8. Women in the Government Service. 37 pp. 1920.
No. 9. Home Work in Bridgeport, Conn. 35 pp. 1920.
No. 10. Hours and Conditions of Work for Women in Industry in Virginia. 32 pp. 1920.
No. 11. Women Street Car Conductors and Ticket Agents. 90 pp. 1920.
No. 12. The New Position of Women in American Industry. 158 pp. 1920.
No. 13. Industrial Opportunities and Training for Women and Girls. 48 pp. 1920.
No. 14. A Physiological Basis for the Shorter Working Day for Women. 20 pp. 1921.
No. 15. Some Effects of Legislation Limiting Hours of Work for Women. 26 pp. 1921.
No. 16. See Bulletin 40.
No. 17. Women's Wages in Kansas. 104 pp. 1921.
No. 18. Health Problems of Women in Industry. (Reprint of paper published in the Nation's Health, May, 1921.) 11 pp. 1921.
No. 19. Iowa Women in Industry. 73 pp. 1922.
No. 20. Out of print.
No. 21. Women in Rhode Island Industries. 73 pp. 1922.
No. 22. Women in Georgia Industries. 89 pp. 1922.
No. 23. The Family Status of Breadwinning Women. 43 pp. 1922.
No. 24. Women in Maryland Industries. 96 pp. 1922.
No. 25. Women in the Candy Industry in Chicago and St. Louis. 72 pp. 1923.
No. 26. Women in Arkansas Industries. 86 pp. 1923.
No. 27. The Occupational Progress of Women. 37 pp. 1922.
No. 28. Women's Contributions in the Field of Invention. 51 pp. 1923.
No. 29. Women in Kentucky Industries. 114 pp. 1923.
No. 30. The Share of Wage-Earning Women in Family Support. 170 pp. 1923.
No. 31. What Industry Means to Women Workers. 10 pp. 1923.
No. 32. Women in South Carolina Industries. 128 pp. 1923.
No. 33. Proceedings of the Women's Industrial Conference. 190 pp. 1923.
No. 34. Women in Alabama Industries. 86 pp. 1924.
No. 35. Women in Missouri Industries. 127 pp. 1924.
No. 36. Radio Talks on Women in Industry. 34 pp. 1924.
No. 37. Women in New Jersey Industries. 99 pp. 1924.
No. 38. Married Women in Industry. 8 pp. 1924.
No. 39. Domestic Workers and Their Employment Relations. 87 pp. 1924.
No. 40. State Laws Affecting Working Women. 55 pp. 1924. (Revision of Bulletin 16.)
No. 41. The Family Status of Breadwinning Women in Four Selected Cities. 145 pp. 1925.
No. 42. List of References on Minimum Wage for Women in the United States and Canada. 42 pp. 1925.
No. 43. Standard and Scheduled Hours of Work for Women in Industry. 67 pp. 1925.
No. 44. Women in Ohio Industries. 136 pp. 1924.
No. 45. Home Environment and Employment Opportunities of Women in Coal-Mine Workers' Families. 61 pp. 1925.
No. 46. Facts About Working Women—A Graphic Presentation Based on Census Statistics. 64 pp. 1925.
No. 47. Women in the Fruit-Growing and Canning Industries in the State of Washington. 223 pp. 1626.
No. 48. Women in Oklahoma Industries. (In press.)
No. 49. Women Workers in Family Support. 10 pp. 1925.
No. 50. Effects of Applied Research upon the Employment Opportunities of American Women. (In press).
No. 51. Women in Illinois Industries. (In press).

First Annual Report of the Director. 1919. (Out of print.)
Second Annual Report of the Director. 1920. (Out of print.)
Third Annual Report of the Director. 1921.
Fourth Annual Report of the Director. 1922.
Fifth Annual Report of the Director. 1923.
Sixth Annual Report of the Director. 1924.
Seventh Annual Report of the Director, 1925.