

UNITED STATES DEPARTMENT OF LABOR

W. N. DOAK, Secretary

WOMEN'S BUREAU

MARY ANDERSON, Director

THIRTEENTH ANNUAL REPORT OF THE  
DIRECTOR OF THE  
WOMEN'S BUREAU



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OF THE  
DIRECTOR OF THE WOMEN'S BUREAU

UNITED STATES DEPARTMENT OF LABOR,  
WOMEN'S BUREAU,  
*Washington, July 15, 1931.*

Hon. W. N. DOAK,  
*Secretary of Labor.*

SIR: The thirteenth annual report of the Women's Bureau, for the fiscal year ended June 30, 1931, is submitted herewith.

**INTRODUCTION**

In compliance with its authority under act of Congress to investigate and report upon all matters pertaining to the welfare of women in industry, the Women's Bureau has continued its policy of securing, by scientific methods, information on the wages, hours, and conditions of employment of America's working women and making it available to the public in nontechnical form.

At the moment, it is not too much to say that the bureau's chief interest, like that of other economic organizations, is the depression and its effects, and within the past 12 months several reports of unusual significance bearing directly on the disturbed condition of industry and employment have been completed. Chief among these are two that anticipated somewhat the depressed period: (1) A study of women in the cigar and cigarette industries, from a field survey in 1929-30, made because of the effects on their employment of the introduction of machines; and (2) a study of fluctuation of employment in the radio industry, made as soon as 1929 employment records were available, because of the constant complaint of such condition by women interviewed in another connection; while a third was a house-to-house canvass in the industrial wards of South Bend and Mishawaka, Ind., made in August and September of 1930, to secure the recent industrial histories of wage-earning women as a background for specialized surveys to show the effects of industrial changes. Each of these reports constitutes a definite contribution to the material being sought by economists, legislators, employers, social workers, and prognosticators.

**SPECIAL STUDIES**

Wage-earning women and the industrial conditions of 1930. (In preparation for printing.)

As a background for the specialized surveys that should comprise the bureau's study of the effects on women of new methods of work, a survey was made in August and September, 1930, of the industrial

city of South Bend, Ind., and the adjoining town of Mishawaka, comprising practically one community. This locality was selected with the advice of a consulting committee composed of Miss Mary van Kleeck, director of industrial studies, Russell Sage Foundation, Dr. Lillian M. Gilbreth, consulting engineer, and Mr. Lawrence W. Wallace, engineer, a member of the committee on technological employment of the United States Employment Service.

When the field work began, business was far below normal, and the survey designed to secure the women's industrial histories resolved itself into a study of unemployment and part-time employment.

All told, 3,245 women reported on their employment status earlier in the year, that is, the preceding 12 months, and at time of survey.

The study was concerned primarily with individual women, but included in the schedule were questions having to do with the family—sex and age distribution and employment status. The number of families of two or more members that reported was 2,576, comprising 11,316 persons.

It had been customary in these families for large proportions of the members to be gainfully occupied. Taking the families of 2 to 6 persons, which constituted 78.4 per cent of all the total membership of these families, adults and children, was 7,849, and 4,740 of these persons (60.4 per cent) ordinarily were wage earners and had been employed at some time within the past 12 months.

At an earlier time within the 12 months, only 219 families had been dependent upon 1 wage earner each, but at the time of interview there were 765 in which only 1 person was working. For all but five of the latter, the relationship of the sole wage earner was learned; in 371 cases it was the husband or father, in 228 cases it was the wife or mother, in 120 cases it was a daughter, in 20 cases it was a sister or other woman, and in 21 cases it was a son or other man.

In 134 families in which the husband was not employed, the wife was the sole wage earner. In one case the wife of a man laid off applied at the same place and was given his job at half his hourly rate. (This policy was confirmed later by the company.)

In about 100 cases a woman was the only person working in a family of five or more members. In 108 families there was no one working, even part time, and in 1,214 families, although there was some one at work, no one had a steady job.

About one-third of the women had escaped lay-offs, but the other two-thirds lost an average of six and one-half weeks per woman. The lowest average was for women in the wearing-apparel group (four weeks); more than 250 women in the plants making automobiles and parts had been totally unemployed for an average of nine weeks. Saleswomen, clerks, or restaurant and laundry workers averaged two months or more of idleness.

Of all women reporting, about 18 per cent had been idle from two to six months, and 83 women had worked less than half the year. Seven hundred women had been reduced only in number of days worked per week; but both hours per day and days per week had been curtailed for more than 1,100 women.

Some 1,700 women reported reduced earnings. More than 60 per cent of 1,195 women in manufacturing industries had had a 20 and

under 50 per cent decrease in earnings. These decreases had been brought about principally by the reduced hours already referred to, but reduced rates or reductions in both hours and rates had been only too frequent.

Comments from the schedules run like this:

Rate cut from 40 cents to 28 cents an hour.

Wage rates cut from 3 cents to 2 cents a dozen.

Wages \$20 a week when work was good. When it got slack they cut rates from 45 cents to 30 cents an hour. Earnings now about \$5 to \$6 a week.

Rate cut 50 cents to 40 cents a thousand. Formerly on full time, earned \$15 to \$16. Then on part time, reduced to \$10 to \$12; and now, since rate cut, to \$8.

In November was making around \$20 a week. Sometimes as low as \$5 to \$6 a week now.

And there are scores of similar comments in other schedules. Many clerks, saleswomen, and domestic and personal-service workers had had cuts in the rate per hour, per day, or per week.

Schedules from employers making wearing apparel provided wage and hour data for 2,315 women on the pay rolls in a week of September, 1929, and for 2,036 on the pay rolls in a week of September, 1930. In 1929 the median of the earnings—half the women being above this point and half below—was \$18.21; in 1930 the median was \$13.25. In 1929 the median of the hours of work was 45.7; in 1930 the median was 39.2. Only 9.8 per cent of the women were paid less than \$10 during the selected week in September, 1929, but in 1930 almost one-fourth of them (23.4 per cent) received less than \$10.

Wage and hour data were reported for 111 women employed in certain laundries in September, 1929, and for 91 in 1930. The median of the week's earnings showed less of a decline than did that for the clothing industry, being \$13.04 in 1929 and \$11.59 in 1930. In 1929 only 11.7 per cent of the women were paid less than \$10; in 1930, 31.9 per cent received less than \$10. Median hours had declined from 45.2 to 39.7.

Wearing-apparel industries predominate, but adding to those the 320 women in plants making automobiles and parts and the 111 in laundries gives a total of 2,746 women whose earnings and hours worked for a week in September, 1929, were secured. The median earnings were \$17.80. In September, 1930, 2,483 women were reported, and these had a median of \$13.35. The median of the hours had fallen from 45.1 to 39.2. In 1929 only 9.9 per cent of the women were paid less than \$10 for the week, while in 1930 the earnings of about 24 per cent were below that figure.

Women's comments on seasonality are illustrated by the following:

For short periods we speeded all day, evenings, and Sunday to keep up with orders, and then there would be what seemed like interminable days with no work.

The questionnaire called for information on the women's industrial experience during the past five years. The work histories were limited to this brief period because this would be ample material for a general occupational background in a study of recent trends in industry. Special emphasis was placed on the 12 months immediately preceding the interview, stressing changes in operations, variations in wages and hours, lay-offs, both permanent and temporary, and part-time employment. For 1,444 women reporting on number of sep-

arations, such separations had been more frequent in the past 12 months than in all the 4 years preceding.

Nearly four-fifths of the women had worked in only one industry during the past 5 years; about one-third (1,051) had been employed 4 to 5 years in only one line of work; almost two-thirds had had only one job during the 5 years; and 70 per cent of those who had begun work at least 5 years before had never changed their jobs.

Home buying was the custom in some parts of South Bend. Real-estate developments had made it alluring. Families in the clutch of installment payments were terrified lest they lose their homes and all they had put into them.

Of 1,145 families supplying data on home ownership, 22 per cent owned their homes, 34 per cent were buying, 31 per cent were renting, and the remainder lived in lodgings. Thirty per cent of the families that owned their homes usually had three or more wage earners. Of those buying, less than 20 per cent had that many.

One schedule reads:

Husband was laid off in March after 17 years with one firm. Has had no steady work since. Eight in family. Two other families now share this house so as to cut down the rent for all.

Fifty-three of the unemployed married women had had to take their families and go to live with relatives, and 12 widows had become dependent on their children. The comment of one young woman was: "We've all moved home and are living off the old folks."

About 44 per cent of the women were married, and practically 10 per cent were widowed, separated, or divorced. Thirty per cent of the married women, in contrast to 17 per cent of the widows and 14 per cent of the single women, were unemployed at time of interview. Some firms had made it a policy to release married women first, then single men and women, and men with families last.

It seemed to be the opinion of residents of the community that employment was only slightly below par before the spring of 1930. In answer to the inquiry as to steadiness of employment in the first half and in the second half of the 12-month period, about 57 per cent of the women had worked the whole of the first six months but only 32 per cent had worked the whole of the second. Heaviest reductions had taken place in the summer of 1930, largely in the clothing industry. The automobile cut began in 1929 and the data show improvement.

Of 481 women out of work for industrial reasons who replied to the question "Are you looking for work?" about three-fourths said "yes," and practically one-sixth said "It is no use; there is no work in town."

#### Women in the cigar and cigarette industries.

*Cigars.*—As a part of the bureau's general survey of new methods of work and their effects on women workers, a study was made in 1929 and 1930 of women in the cigar and cigarette industries. During the past decade the change from hand to machine work in cigar manufacturing has been marked. The introduction of the automatic cigar-making machine, which turned out on an average 3,000 cigars a day, was slow at first; but as cheaper labor could be used in operating the machine, its universal use became only a matter

of time. As the number of machines increases, the number of workers employed in cigar making is materially reduced, and men are replaced by women to a great extent. Within the next few years the greater bulk of cigars probably will be a machine-made product.

Use of the machine has closed down many small plants scattered over the country, and concentration of production is now carried on in large plants, modernly equipped and run with up-to-date economies. This is illustrated in the present study. Although the hand plants were very much in the majority, the size of the machine plants was greater. In 16 of the 17 plants in which machine work was carried on, there were 300 or more employees; while in only 9 of the 76 plants in which all or most of the work still was done by hand were as many as 300 employed. In 6 of the 17 machine plants there were 500 but less than 1,000 workers, and in 4 there were 1,000 or more. In 15 of these 17 plants, women formed from 75 to 95 per cent of the employees.

Furthermore, machines are available that automatically sort cigars into the various shades of color, and other machines wrap cigars in tin foil.

Ninety-six plants in 11 States were included in the cigar study. These supplied pay-roll data for 22,579 women. Of 14,097 white women in the cigar-making departments (only one negro was there employed), almost two-fifths (38.6 per cent) made the product by machine.

Cards calling for age, marital status, and other personal information were filled in by 11,666 women, more than half of those reported on the pay rolls, and by 2,516 for whom no pay-roll data were secured. Year's earnings were obtained for 514 women who had worked for at least 44 weeks of the year immediately preceding the copying of the records.

In addition to the obtaining of information through visits to the factories, home visits were made to 1,150 women who had been employed in cigar plants and had been deprived of their jobs. From these home visits, much valuable information regarding the women's work histories, number of jobs held, periods of unemployment, reasons for leaving jobs, and changes in the industry has been made available. Some of these women at the time of interview had been reemployed in the cigar industry, some were engaged in other work, and others still were unemployed.

Of the women reporting on personal cards in the factories, 13,846 gave information as to their age. More than one-half (52 per cent) of these women were less than 25 years of age, one-third were 25 and under 40, and only one-seventh were as much as 40. Of the group under 25, well over one-half were under 20 and one in four were under 18.

A somewhat smaller group (12,543) reported as to nativity and color. Three-fourths were native born. Of the native born less than one-tenth were negro.

Almost all the women giving personal information reported as to marital status. Exactly one-half were single and practically two-fifths were married; only about 11 per cent were widowed, separated, or divorced.

Of those who reported the time they had worked in the trade, about one-fourth had been employed less than 2 years, about the same pro-

portion 2 but less than 5 years, a slightly smaller proportion 5 but less than 10 years, and nearly three-tenths had been employed for 10 years or more.

For practically all the women, the method of payment was reported. Almost one-eighth of the white women were paid on time rate, almost seven-eighths on piece rate, and the remainder on both time and piece. About one-fourth of the negro women were paid on time rate and nearly all the remainder on piece rate.

For the 20,824 white women for whom pay-roll information was available, the median of the week's earnings—half receiving more and half less—was \$16.30. The range of medians was from \$11.40 for those in the shipping department, through stripping, leaf, and packing, to \$17.90 in the cigar-making department, where more than two-thirds of the white women were employed. For the women making cigars by hand, the median was \$16.65; for those operating machines, \$19.90. The median earnings for the whole group of negro women (1,755) were \$10.10. They varied little for those in the leaf and stripping departments, in which all but 15 of the negro women were employed.

Although the median shows much regarding the standards of wage payments made to women, the specific amounts received are more enlightening. Slightly over one-sixth of the white women received less than \$10 for the week, almost one-fourth \$10 but less than \$15, three-tenths \$15 but less than \$20, and the remainder \$20 or over. Among the negroes, almost one-half earned less than \$10, somewhat fewer earned \$10 but less than \$15, and the remainder \$15 or over.

For practically seven-eighths of the white women with time worked reported, records were by the day. Of these, nearly five-sixths had worked on five days or more. For the whole group of such workers the median of the week's earnings was \$17.15 and for those who worked on five and one-half days it was \$20.10.

Of 2,211 white women with time worked reported in hours, three-fifths had worked for 48 hours or more. The median earnings for the group as a whole were \$14.40, and for those who worked 48 but less than 54 hours they were \$16.70.

For over five-sixths of the negroes with time worked reported the records were in days. The median of the week's earnings for the whole group was \$9.95, and for those who worked five and one-half days it was \$10.85.

Of the negro women whose records were in hours, more than four-fifths had worked 48 hours or more. The median earnings for the whole group were \$12.70, and for those who worked 54 but less than 60 hours they were \$13.40.

For the white women who worked full time—that is, on five days or for 40 hours or more—the median earnings were \$17.95. For the negro women working full time, the median earnings were \$10.70.

Week's earnings and age were available for 11,394 women, 10,687 white and 707 negro. The median of the earnings of this group of white women was \$17.55. As age increased, the median earnings increased from \$8.55 for those less than 16 years of age—found largely in one plant and engaged in learning one process—to \$19.05 for those 20 but less than 25. From that on the median shows a

decrease. For the group of negro women the median was \$10.55, the highest being \$11.10 for those who were 20 but less than 25.

A close relation was noted between week's earnings and the time that the women had worked in the trade. For the most part, as experience increased, earnings progressed also. About one-fourth of those who earned less than \$5 per week had been less than six months in the trade, but less than 3 per cent of those who earned as much as \$20 a week had been employed so short a time.

Pay-roll records for one year were secured for 514 women who had worked at least 44 weeks of the year immediately preceding the interview. Of these, about one-sixth earned less than \$600, almost three-tenths \$600 but less than \$800, more than one-third \$800 and under \$1,000, and about one-fifth \$1,000 or over. Those in the stripping department had the lowest year's earnings, and those in the making department the highest.

To determine whether the women who had lost their jobs in cigar factories were reemployed there or were being absorbed into other industries, and to secure other pertinent information regarding the women workers, visits were made to the homes of 1,150 women who had been deprived of their jobs in cigar factories in 1925 or since that date. An analysis of the data shows the effects on the women of the abandonment of factories, through transfer of plants to other localities, or through the merging of plants, and also the changes within still existing factories due to the introduction of machines.

Most of the displaced women were experienced cigar workers and a large part of them were well past their youth. Of the 1,085 reporting on the time employed in the industry, one-half had been so employed for 10 years or longer, almost one-fifth for 20 years or more. Three-fifths of the women reporting were 30 years of age or older; almost one-third were 40 or more. Since they had been deprived of their jobs, 1 in 8 of the 1,150 women replying to the question concerning their employment status said they had had no work. Almost seven-eighths of those who had subsequent jobs had lost some time due to other industrial reasons.

The readjustment had caused about three-tenths (29.4 per cent) of those reporting amount of time lost due to industrial reasons to lose 50 per cent or more of the time since their first lay-off. Even in cities in which some opportunities for work in cigar factories still existed, over one-fourth of the women who found subsequent employment had lost 50 per cent or more of their time.

Of those who had some other employment, more than one-third had never been able to return to the trade in which they were experienced. Even those who were able to return to their trade could not always find work in the particular occupation in which they were experienced. However, more than one-half (52.7 per cent) of the jobs taken by the displaced women had been in cigar making, nearly three-tenths had been in some other branch of manufacturing, and, with the exception of a few scattered miscellaneous occupations, business ownerships, and home work, all the remaining jobs were in stores, laundries, hotels and restaurants, or other domestic and personal service.

A comparison of wages before and after such change shows a drop for the women who remained in the cigar industry and a much

greater decline for those forced to accept work in which they were not experienced.

*Cigarettes.*—In the cigarette as well as in the cigar industry there have been many changes in the processes of manufacture due to the introduction of machines. These machines have made possible the production of a much greater quantity of cigarettes without a proportionate increase in the working force. During the past 30 years the output of cigarettes has increased almost 40 times.

This survey of women working in cigarettes covered 12 factories, in 5 cities, in the 3 States of Kentucky, North Carolina, and Virginia. Pay-roll data were obtained for 5,798 women, 3,668 white and 2,130 negro. Cards giving personal information were filled in by 2,012 of these, and by 385 others for whom no pay-roll data were obtained.

Of the 2,397 women reporting personal information, all but 19 reported on their nativity. All but 5 of these women were native born, and one-eighth of the native born reporting color were negroes.

More than two-fifths of those who reported as to marital status were single, almost as many were married, and the remainder were widowed, separated, or divorced.

Of those reporting, almost one-half were under 25 years. The age distribution was similar to that of the women working in cigars.

More than one-fifth of those who reported the time they had worked in the trade had been employed less than 2 years, about one-fourth for 2 but less than 5 years, and slightly more than one-half for 5 years or more. More than 10 per cent had worked in the trade for 15 years or more.

Very different proportions of the 3,668 white and 2,130 negro women for whom pay-roll data were obtained were employed in the specified departments. In the leaf department were found about one-sixteenth of the white women, as compared with 96.9 per cent of the negro women. Almost one-fourth of the white women were in the making department, while less than one-third of 1 per cent of the negroes were so employed. Nearly two-thirds of the white women worked in the packing department, where only about 1 per cent of the negro women were employed.

More than one-half of the white women were timeworkers and about two-fifths were pieceworkers. The median of the week's earnings of the white women who were paid on a time basis was \$15.60; of those on piecework, \$18.65. In the leaf department, the median earnings were higher for those who were paid a time rate, and lower for those on a piece basis, than for the whole group. In the making and packing departments, the pieceworkers received the higher earnings. With less than two-fifths of the negro women on timework and nearly three-fifths on piecework, the timeworkers obtained higher median earnings for the group as a whole, and those who were paid at piece rates had considerably lower median earnings.

For the 3,668 white women, the median of the week's earnings was \$17.05, the range being from less than \$1 to \$37. Less than one-tenth had earnings below \$10, nearly three-fourths received \$10 and under \$20, and the remainder \$20 or over. The lowest median was for those in the leaf department, \$11.35, and the highest for those

in the packing department, \$17.75. The median earnings of the 2,130 negro women were \$8, the figure for those in the leaf department, in which most of them were employed.

Of the white women reported, about two-fifths had time worked recorded by the day; for more than one-half it was by the hour. Among the negro women the proportions were very similar.

The median of the week's earnings of the white women with records in hours was \$15.65; for those with days worked reported, \$18.70. For the negro women with records by the hour, the median earnings were \$8.55; and for those by the day, they were \$8.45. For both white and negro women with records by the day, the maximum was received by those working on 5½ days.

The median earnings for the 1,819 white women for whom age also was reported were \$17.85. The term median, as explained previously, means that one-half earned more and one-half earned less than the amount specified. The lowest median was \$14.35, for the girls 16 and under 18 years of age, and the highest was \$18.50, for those 25 and under 40. From that on, as the age increased, the median earnings decreased. For the white women in the making department the median earnings were \$16.10, and for those in the packing department, where the largest proportion were employed, they were \$18.95.

Of the women who had been deprived of their jobs in the cigarette industry a smaller proportion—about two-fifths—than of those in cigars had been employed in the industry for 10 years or more. A larger proportion of younger women in cigarettes than in cigars had been separated from their jobs, for only something over two-fifths of those reporting in cigarettes, as compared with three-fifths of those in cigars, were 30 years of age or over; only one-sixth were 40 years or more. Of the women who reported as to their employment status since losing their jobs in the cigarette industry, more than one-fifth had not been reemployed in any line of work since that time and only about 4 per cent had been employed all the time; almost three-fourths of those who had found work had been employed only part of the time. Of those who reported the time lost due to industrial reasons, more than two-fifths had lost 50 per cent or more of the time that had elapsed since they lost their jobs.

As compared with the women who had lost their jobs in cigars, a much smaller proportion of the women who had been employed in cigarettes found subsequent employment in the same industry. Only about 8 per cent had worked exclusively in cigarettes, and another small proportion had worked in the cigarette and other industries as well.

The women who had been deprived of their jobs in cigarettes had experienced the same reduction in wage on subsequent jobs as those who had been displaced in cigars. The median earnings for the last cigarette job for 170 women who had lost their jobs in the cigarette industry were \$21.05, while for 96 of these who reported their first work and earnings in some other industry the median was \$14.10. Those 30 years of age or more had suffered a greater loss than had the younger women.

#### Fluctuation of employment in the radio industry.

The attention of the Women's Bureau was first directed to the employment situation in the radio industry in the latter part of 1929

by statements of young women who were or had been employed in plants making radio receiving sets and tubes. Attracted by promising newspaper advertisements, these women had found various kinds of work in radio factories, where employment had been, on the whole, satisfactory while trade was good, and they could work a full week; but later, when they lost their jobs, or had work for only a small part of the week, they realized how precarious is employment in the radio industry.

To get a picture of employment in the industry as a whole, plants engaged in the manufacture of receiving sets, tubes, other parts, and accessories were visited in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Kentucky, Indiana, Michigan, and Illinois. As radio manufacturing is concentrated largely around the cities of New York and Chicago, much of the valuable information acquired was furnished by plants in these districts. Altogether, employment data were obtained from 26 firms making receiving sets, from 15 making tubes, and from 10 making parts or accessories. Authorities of the United States Department of Commerce and of the Radio Manufacturers Association agree that figures presented in this report cover firms that produced 80 to 90 per cent of the sets and at least 90 per cent of the tubes made in 1929.

With permission of the employers, whatever records the individual firms already had in the way of labor audits were copied, but in several instances original compilations had to be made of employment records or weekly pay-roll books so as to obtain the primary data. Personnel managers, pay-roll clerks, and auditors were helpful, occasionally doing the routine counting of names on the pay roll or otherwise preparing the information desired. Without such assistance the study could not have been made.

In the majority of radio plants it was possible to get figures for at least 2 years, and in some cases the records went back for 5, 6, and even 8 years.

The greatest difficulty was caused by the lack of uniformity in the available records. There were daily sheets of employment, weekly, semimonthly, and monthly records, and some were based on average employment while others were for one definite date.

In this study the three main branches of the radio-manufacturing industry, sets, tubes, and parts and accessories, are treated separately. With few exceptions, a table and chart for each firm showing the numbers of men and women employed from month to month appear in the appendix. The number of years covered varies from firm to firm, depending on the data that were available in the offices and occasionally upon the number of years the firm had been in operation.

In all cases the peak months were August, September, and October, 1929. In September as many as 55,000 persons were working in 24 factories making receiving sets, and the number was practically as great in October, but by December about 32,000 were no longer employed. In the plants whose figures are reported by sex, the per cent of decline was 57.5 for total employees, 53.1 for men, and 63.5 for women.

All told, in 1929 more than 42,000 men and women employed during the peaks in 38 receiving-set and tube factories were off the pay-roll lists at the ensuing dates of minimum employment.

The difference was proportionately greater in the radio-set than in the radio-tube factories, and the total number of women affected was much larger than the number of men.

There is monotony in the regular rise and fall, occurring year after year, in the employment curve of each individual firm, emphasizing the extent to which radio labor is subject to seasonal lay-offs, a condition that has prevailed since the beginning of the industry and that shows no signs of improvement. Radio, like automobiles, is often referred to as being one of the newer industries that are absorbing labor laid off by the slack in other lines. But if such industries, in turn, are to make very irregular and intermittent demands for employees, the result will be a greatly enlarged supply of shifting labor, moving about as one industry after another offers them a few weeks' work.

That such extreme fluctuation is not unavoidable is shown by the employment figures of a firm where the manufacture of radio sets is combined with that of another article, to which the workers are transferred when radio work is slack. The steadyng effect on employment is striking, no plant approaching this one in regularity. In 1929, the per cent that the minimum employment formed of the maximum was 70.4 for men in this plant and 68.6 for women; in the same year the best figure in any plant making only radio products was 58.3 per cent for men and 42.8 per cent for women.

**The employment of women in slaughtering and meat packing. (In press.)**

A significant study completed during the year deals with the employment of women in an important woman-employing industry—that of slaughtering and meat packing. The request for this study came from a volunteer committee of the National Conference of Social Work, and was incident to the fact that in an industry subject to such great irregularity in the receipt of raw materials, considerable fluctuation in employment and frequent changes in daily and weekly hours take place and seem almost unavoidable in some departments, though managements have exerted much effort toward the regularization of conditions. Because of these facts, members of the social agencies that desired the survey had found themselves continually meeting economic distress in their communities. How generally such problems obtained, the extent of the fluctuations affecting employment and earnings of women, and the family situation and family responsibilities, economic and personal, of these women had not been ascertained previously.

The report describes occupations and working conditions; presents tabular material showing lay-offs and other separations, and fluctuations in employment, hours, and earnings within the period of a year; correlates earnings with hours and other personal factors; and analyzes data on family responsibilities, economic status of the families of women employed in this industry, and the task-and-bonus system in operation in a number of plants.

Data were collected in 34 plants in 13 cities in 9 States. A week's record was copied from the companies' pay rolls for 5,101 women. This included in each case some or all of the following: Hours actually worked, any time on vacation, rate of pay, and actual earn-

ings—regular, bonus, and guaranteed. The year's earnings of a selected group of 2,003 women who had worked from 44 to 52 weeks were taken from the pay rolls.

The employment records of the firms were consulted to ascertain the personal history of the women then employed—their nativity, time in the United States if foreign born, race, age, and marital status. These data covered 6,133 women.

To obtain a more complete picture of the workers' general economic status, family responsibilities, and industrial history, including past jobs, periods of unemployment, and irregularity of work, visits were made to the homes of 897 of the women for whom information had been secured in the plants, for the most part in Chicago, East St. Louis, Kansas City, Omaha, and St. Joseph. Opportunity was afforded for comments on the present job and reasons for working.

Data taken for 1,904 women in three localities—Sioux City, St. Paul, and Ottumwa—represented every woman on the pay roll within the year, whether for 1 week or 52, and included her earnings and hours worked in every week employed and the record of her lay-offs and other breaks in employment.

Of the 5,873 women with nativity and race reported from the employment records, more than one-half were native white, about one-third foreign born, and about one-eighth colored (including a very few Indians). Of the foreign born with country of birth reported, 60 per cent were of Slavic origin—from Czechoslovakia, Lithuania, Poland, Russia, Ukrainia, and Yugoslavia.

Of 5,785 whose ages were ascertained, more than two-fifths were 20 and under 30. Of 5,789 whose marital status was obtained, more than one-half were married and over one-tenth were widowed, separated, or divorced.

Testimony to the fact that women are not mere transient workers is shown in reports on industrial experience made by 760 women visited in their homes. Of these, more than one-half had worked in meat packing 5 years or longer, nearly one-fifth having a record of 10 years or more.

The median of actual week's earnings taken from the pay rolls for 5,093 women was \$16.85—one-half receiving more and one-half less than this amount. The range was from less than \$5 to \$40 or more, neither extreme being representative. Practically one in three of the women (32.5 per cent) were paid less than \$15, one-tenth of all (10.3 per cent) receiving less than \$12. The median for native white women was \$16, for foreign born \$18.75, for colored \$16.55, a variation due largely to differences in occupation. Of 4,959 women whose average of actual hourly earnings was reported, nearly one-third averaged 30 and under 35 cents, one-fourth 35 and under 40 cents, and about one-fifth 40 and under 45 cents.

Some form of bonus payment was found to be very largely in use, although one large firm and most of the smaller firms had only the usual timework and piecework systems. Of 5,101 women reported, nearly three-fourths were employed in firms having the task-and-bonus system in some departments, and of these over three-fourths had received a bonus in the current week. There was found a lack on the part of the workers of a general understanding of the bonus system in use, and this sometimes engendered distrust of its adminis-

trators; in addition, there was considerable evidence to the effect that the system had proved as unsatisfactory as piecework in producing the strain due to excessive speed.

In practice, the 40-hour guaranty, instituted some years ago in an attempt to minimize the irregularities incident to the industry, applies rather infrequently to women, since most of the departments in which its payment is most necessary usually employ men, and the existence of the guaranty introduces an incentive toward more careful planning, more frequent shifting of workers from a slack to a busy department. In the current week for which earnings were taken, which was not at the peak season of the year, over three-fourths of the women reported had worked more than 40 hours.

The median of the year's earnings of 2,003 women whose names had appeared on the pay rolls in at least 44 weeks of the year studied was \$899. Of these, 1,573 had worked 50 weeks or longer, with a median of \$919. Of 1,817 women in 24 plants whose policy was to grant vacation with pay after specified terms of service, about one-third had received such vacations, in the great majority of cases of a week's duration.

Data were secured on the fluctuations in employment, hours, and earnings of 1,904 women in Sioux City, St. Paul, and Ottumwa—all those whose names had been on the pay rolls at any time within the year of study. The same type of data were secured for 739 women in East St. Louis and Omaha. The numbers employed in the minimum week in the four largest of these cities ranged from 54.5 per cent to 72.1 per cent of those employed at the maximum. In Sioux City and St. Paul the minimum numbers of hours worked per woman in any week were respectively 65.3 and 78.4 per cent of those in the maximum week. Correspondingly, earnings per woman in the minimum week in these two cities were respectively 66.2 and 77.9 per cent of earnings in the maximum week.

Both in Sioux City and in St. Paul, over 80 per cent of the women reported had had some breaks in employment in the year, and 29.8 and 36.1 per cent of the women, respectively, had been off the pay rolls for 27 weeks or more. In Sioux City more than half, and in St. Paul almost half, of the breaks in employment with cause reported were due to the women being laid off. About 40 per cent of the women in Sioux City and about 31 per cent of those in St. Paul had been laid off at some time, and in each city somewhat over one-tenth of the lay-offs were followed by an absence of 36 weeks or longer.

Almost all the plants visited provided cool drinking water. The common cup was used very rarely, but only three of the plants visited had installed bubblers of a sanitary type throughout the entire establishment.

In all food industries, and particularly in certain departments in meat packing, frequent washing of the hands is important. All the plants visited had both hot and cold water, although in some cases the type of equipment was crude; the sausage, smoked-meat, sliced-bacon, and canning departments usually had washing facilities in the workrooms as well as in the wash or toilet rooms. All establishments provided soap in some or all of the workrooms, and three-fourths of them made some provision of individual towels. In certain cases only common towels were provided.

Some sliced-bacon departments had rigid requirements in regard to uniforms. Some plants did laundering for some or all departments, or offered a rough-dry service; but there were cases where the service was so poor that few cared to use it. In a few instances girls complained of the cost of uniforms; in some establishments dresses, aprons, rubbers, heavy shoes, and caps were sold to workers at cost or less.

Of the 28 plants for which toilet facilities were reported, 21 had a satisfactory ratio of toilet seats—that is, one to every 15 women employed; however, some of these were unsatisfactory because their location was inconvenient to large numbers of women.

All the plants reported had cloak-room facilities for their employees, though in all but four the dressing room was combined with another service facility, usually lunch room and lavatory, sometimes entailing uncomfortable crowding. Only four had separate rest rooms; eight had no rest facilities whatsoever.

All plants provided some lunch-room facilities, and in all but a few it was possible to obtain at least a hot drink. In about three-fourths of the establishments cafeterias furnished a variety of foods at low prices.

The first-aid and medical services in the plants ordinarily were superior to those commonly found in industry. The meat-packing industry shows a high incidence of minor accidents, due chiefly to knife cuts or punctures; falls, too, are likely to occur, owing to the slippery floors. In addition, there are the strains of constant standing and of work at high tension. The continual immersion of hands in water, excessive dampness and humidity in some rooms, and frequent poor ventilation constitute health hazards that are hard to measure because their effects are cumulative.

#### A survey of laundries and their women workers in 23 cities.

Among the bulletins that have come from the press in the past 12 months is the study of power-laundry work, made with the cooperation of the Laundryowners National Association. Practically 20,000 women were at work in the 290 laundries surveyed.

More than four-fifths of the women whose nativity was reported were native born; negroes constituted one-fourth of all. Unlike most manufacturing industries, a larger proportion of the women were at least 40 years of age than were under 20. Women who were or had been married constituted about two-thirds of the white and seven-tenths of the negro women.

Less than 9 per cent of the women worked as much as 10 hours a day and about three-tenths had hours of 8 or less. Not far from one-half had weekly hours of 48 or less. This unusual condition was due largely to the inclusion of certain Western States.

For the white women reported as working full time on the payroll records copied, the median of the week's earnings was \$17.80; for the negroes it was \$10.25.

Besides the usual inquiries, the inspection of working conditions covered heat and humidity and the guarding of machines. One-third of the plants had no artificial ventilation. In the temperature readings, taken by means of a sling psychrometer, one-fourth of the dry-bulb readings were 80° or more. Only 7 plants had flat-work ironers without guards, but 92 had unguarded extractors and 44 had unguarded presses.

**The employment of women in the pineapple canneries of Hawaii.**

The employment status of women in the pineapple canneries in Hawaii was the subject of a survey by the Women's Bureau in 1928. Seven canneries that together produced about six-sevenths of the total pack of that year were visited. They employed over 9,000 workers, about one-half of whom were women.

The average workday during the busy season was 10 hours, with all overtime—and 9 in every 10 women exceeded 60 hours in the week of peak employment—paid at the rate of time and one-half. That only two of the canneries surveyed had excessive overtime indicates that extremely long hours are not an inevitable accompaniment of the canning industry.

Working conditions in the Hawaiian canneries were found generally to compare most favorably with those on the mainland. The buildings were modern, airy, clean, and well equipped.

Fifty per cent of the women were under 20 years of age, extra help during the peak months being largely school pupils.

The median of the earnings for a busy week in July in the Honolulu plants was \$9.90; the median of a month's earnings on the island of Maui was \$20.75. In the absence of cost-of-living figures it is not possible to pass on the adequacy or inadequacy of such earnings.

**OTHER STUDIES****The industrial experience of women workers at the summer schools, 1928 to 1930. (In press.)**

The bureau has collaborated with the Affiliated Summer Schools for Women Workers in Industry—at Bryn Mawr, Barnard, Wisconsin, and the Southern School in North Carolina—in a study of the work history and economic status of 609 students attending the schools in 1928, 1929, or 1930. The program of the summer schools requires a continuous analysis of the problems of women workers in industry and the relation of those problems to their industrial background.

A considerable number of these women were foreign-born garment workers in New York City; another group were southern textile workers. That they were a relatively mature and experienced group, probably at the height of their earning power, appears from the fact that their average age was 24.6 years and the average of their years in industry was eight. Seven-eighths of them were in the manufacturing and mechanical industries, principally the clothing trades and millinery. More than 39 per cent were union members.

For about 600 women who reported the weekly wage rates of their latest jobs, the median—half receiving more and half less—was \$21.38; for the various years it was \$21.67 in 1928, \$23.15 in 1929, and \$20.15 in 1930. The proportions of the women who earned under \$16 in these three years were, respectively, 18.2 per cent, 20.8 per cent, and 26.2 per cent. The totals of a year's earnings, based on wage rates and weeks worked, averaged \$861 in 1928, \$887 in 1929, and \$793 in 1930. Part-time employment—largely due to the garment trades—had been more general in 1930 than in the earlier years studied, the proportions of women who had experienced it being 56.6 per cent in 1928, 58.7 per cent in 1929, and 71.5 per cent in 1930.

Small numbers of women had part-time weeks for practically the entire year, but the average was 12.7 weeks in 1928, 13.9 in 1929, and 14.2 in 1930.

Almost 70 per cent of the women lived at home or with relatives. Of 459 reporting on contributions to the family support, only 10.7 per cent were not giving such assistance; half the women were contributing 50 per cent or more of their earnings, 2 in 5 of these turning in all they received.

#### Household employment in Philadelphia. (In preparation for printing.)

The bureau has cooperated with the women's problems group of the social order committee of the Society of Friends in a study of household employment in Philadelphia and environs. The employers' questionnaire, covering in detail their requirements and how they are met, the hours of work, wages paid, living conditions, and various employment policies, with sex, age, nativity, and other information concerning their employees, was returned by 954 householders, who together employed 2,833 men and women, almost three-fourths of whom were women. That the employees should average 2.97 per employer indicates that a large number of households were far from representative of American homes in general, though the range was from a "family" of one person with five full-time employees and two day workers to the family of seven persons having one day worker.

More than two-thirds of the women employees were at least 30 years of age; just over one-half were single.

Three-fifths of the women lived at the place of employment, most of them having rooms of their own and the use of a bath. Almost one-half of those whose recreation quarters were reported upon had no room but the kitchen in which to receive friends.

Over-all hours, from the beginning to the end of the day's work, were long; nearly three-fifths of the women had an over-all of at least 12 hours. Actual hours at work were tabulated for 630 cooks, general houseworkers, waitresses, chambermaids, and nursemaids; nearly three-fifths worked 10 hours or more, about 1 in 12 working at least 12 hours.

About three-fifths of the women were paid by the week, about one-fourth were day workers, and the remainder were paid by the month or the hour.

The largest group of women living in were paid from \$14 to \$20 a week.

The wage paid most generally to day workers—84.1 per cent receiving such amount—was \$3 and under \$4.

Contrary to the generally accepted conclusion that household employees change jobs frequently, more than two-fifths of the 1,103 women for whom this was reported had been with their present employers two years or more.

A study of noncommercial employment agencies made in conjunction with this survey showed that they had accomplished very little in the standardizing of hours and living conditions, but some of them had made an effort toward the standardization of wages.

The writer of the report has no hesitation in saying that there is far too little efficiency among household employers, and that the need is clear for applying principles of scientific management to home-making duties.

**Activities of the Women's Bureau of the United States.**

A bulletin describing in small compass the history, methods, and accomplishments of the bureau is a reprint of an article prepared by the assistant director for presentation to the Second Pan-Pacific Women's Conference, in session in Honolulu in August of 1930. Amended slightly to make it suitable for general use, and comprising but 15 pages, this constitutes an informative handbook for wide distribution.

**Oregon legislation for women in industry. (In press.)**

In 1929 the bureau published, as part of its Bulletin 66, the history of labor legislation for women in Massachusetts, New York, and California. In the present study the history of such legislation in Oregon from its earliest days to the present year is made available. All legislation affecting employed women is covered, special attention being given to the origin, administration, and effects of minimum-wage legislation in the State, the author of the present report having been secretary to the original industrial welfare commission.

**STUDIES IN PROGRESS**

Work continues on the bureau's chief study of the past year, human waste in industry. This many-sided survey pertains to new methods of work and their effects on women workers. It covers on the one hand industrial changes that make for displacement and unemployment, and on the other hand conditions that make for physical deterioration, by fatigue, speeding, monotony, occupational accident or disease, and other health hazards.

In process of tabulation and of continued field survey is a study of office employment in businesses having large numbers of clerical workers.

The statistical findings in the study of the effects on women's health of spray enameling in certain industries are being analyzed and put into report form.

About 20,000 questionnaires sent out by the National Federation of Business and Professional Women's Clubs and returned by members in 47 States and the District of Columbia are now in the bureau for tabulation. The chief emphasis is to be placed on the status of the woman of 40 years of age or more.

**WORK OF THE RESEARCH DIVISION**

The study of material obtained from sources other than that of field investigation has been an essential factor in the development of the Women's Bureau. These sources are of the two types ordinarily used in research work: Primary and secondary. The former includes such material as statutory enactments, correspondence with officials and other authorities, and the use of original records, published and unpublished; the latter is made up largely of data derived from the factual studies of other agencies and from publications containing information on some aspect of the employment of women.

During the year, research activities have included five main types of work: The preparation of major reports for publication; the compiling of memoranda of a less exhaustive character; the continual observation and notation of changes in statutes and rules affecting employed women; the issuance of a monthly news letter; and the

answering of inquiries involving some special research and arrangement of material.

#### Industrial accidents.

The bureau's study of industrial accidents, in which were compiled the accident data published by sex during the eight years 1920 to 1927 by the States in which injuries to men and to women were presented separately, came from the press. The experience with industrial injuries in 21 States shows that large numbers of women are injured while at work; for example, in 1927 or the latest year reported, the women injured were over 5 per cent of all injured persons in 9 of the 21 States, and in 1 State as many as 7,000 women had been compensated for injuries in one year. Furthermore, a much larger proportion of the women injured than of the men were under 21 years of age.

Most of the accident reports published failed to give the sex of the injured. Of the 21 States that did so report in the period studied, the data varied so greatly in character that hardly any States could be compared, and aggregate data are out of the question. Much of this variety could be avoided by compilation and analysis in the standard form recommended by the International Association of Industrial Accident Boards and Commissions, the unrevised draft of which is available in Bulletin 276 of the United States Bureau of Labor Statistics. Reporting as far as possible in such a uniform way would give tremendous impetus to cooperative efforts for accident prevention. Minimum requirements in this respect would appear to be classification of complete and comparable data by sex, age, industry and occupation, cause, nature and location of injury, and extent of disability.

The bulletin constitutes the first of a series of studies on this subject, of which the succeeding number, now in preparation, will contain data on women's industrial injuries for 1928 and 1929.

#### Wages of women in 13 States.

The great majority of the State surveys made by the Women's Bureau have included the earnings of women ascertained directly from plant pay rolls. The continued demand for a general assembling of such information, together with the fact that available data on women's wages are very fragmentary, led to the publication of a bulletin presenting the findings of the bureau in 13 of its State studies, covering 100,967 white and 6,120 negro women in 1,472 factories, stores, and laundries.

Considerable proportions of the numbers of women reported by the 1920 census in certain of the important industries are included in the study.

The surveys from which the data are derived covered various localities and a varied period ranging from 1920 to 1925. Therefore, the figures given can not be said to represent the exact sums receivable at some other period. The relationships shown between the earnings of women and other correlated factors are too uniform to admit of doubt as to their thoroughly representative character; and the general indications that the report gives are of great value in regard to women's wages.

*White women in manufacturing.*—Earnings by hours worked were reported for 29,030 white women in nine industrially important

States. On the whole, the higher earnings were received by the women with the shortest hours and the lowest earnings by those with the longest hours.

The proportion of full-time workers ranged in the various States from about 26 to about 55 per cent. In 10 of the 13 States less than half the women had worked full time in the week covered. In all but one State the earnings of the full-time workers were considerably (9.5 to 26.7 per cent) above the average. In each State a large proportion of the women (44 to 63 per cent) worked undertime. Overtime workers constituted from less than 0.5 to as much as 22 per cent of all; in 11 States the per cent was less than 10, and in 6 of these it was less than 5.

Both rates and earnings were reported for 13,240 women. The proportions of women who had received less than their rates ranged from about 33 per cent in one State to 70 per cent in another. The median of the earnings was 1.2 per cent below the median of the rates in the State with the least difference and 16.2 per cent below in the State with the greatest difference.

In 10 of the 13 States more than one-half the women in manufacturing were pieceworkers; in 4 of these more than three-fourths. In general, the week's earnings of pieceworkers were higher than those of timeworkers, but there was definite indication of the great irregularity of piecework earnings.

Earnings and age were correlated for 39,141 women in manufacturing industries. In every State, from about one-half to almost two-thirds of the women were under 25. The women 20 and under 25 constituted from 20 to 30 per cent of the total. The proportions of women who earned \$15 or more showed a slight decline after 30 years and a marked decline after 40.

Earnings and experience were correlated for 35,670 women in manufacturing industries in 11 States. In 4 States more than 20 per cent, and in 7 States from almost 10 to almost 20 per cent, had been 10 years or more in their trade.

Year's earnings were secured for more than 8,000 women who had remained with the employer the whole of the past year and had worked at least 44 of the 52 weeks. The medians ranged from \$400 in one State to \$915 in another. In the four States having medians of over \$800, more than 20 per cent of the women had actual earnings of \$1,000 or more in the year.

Correlations of the same general character were made for the smaller numbers of women in stores and in laundries.

*Negro women in factories and laundries.*—Earnings by hours worked were reported for 3,141 negro women in manufacturing and for 2,958 in laundries. Two-thirds of those in manufacturing were in cigar and tobacco factories.

The proportion of full-time workers ranged from about 22 per cent to about 57 per cent in manufacturing and from 21 per cent to 66 per cent in laundries. Median earnings of full-time workers ranged in manufacturing from \$6.23 to \$10.90 per week, and in laundries from \$5.95 to \$11.63. The proportion of women working undertime ranged in manufacturing from 36 per cent to 65 per cent and in laundries from 25 per cent to 61 per cent. In one State no overtime by negro women was reported; in others it affected up to 22

per cent of the women in manufacturing in one State and up to 51 per cent of those in laundries in another.

The median of earnings was below the median of rates in manufacturing by from 2.4 per cent to 14.6 per cent and in laundries by from 3.9 per cent to 17.5 per cent. Earnings were nearer to rates in laundries than in manufacturing.

Piecework predominated in manufacturing and timework in laundries. In manufacturing, the medians of the earnings of timeworkers ranged from \$4.95 to \$12.38 per week; of pieceworkers, from \$3.93 to \$10. The medians of timeworkers in laundries ranged from \$5.66 to \$9.89. In three States where there were enough pieceworkers in laundries for the computation of a median, earnings were from about 10 to more than 60 per cent above those of timeworkers.

Earnings and age were correlated for 838 negro women in manufacturing and for 1,434 in laundries. Among the former, 24.8 per cent were under 25 years and 28.2 per cent were 40 or more; among the latter, 44.1 per cent were under 25 and only 15.6 per cent were as much as 40.

Earnings of negro women in manufacturing bore little relation to experience. In laundries, women who had worked 5 and under 10 years earned from 8 to 12 per cent more than those who had worked 1 and under 2 years.

For 172 negro women in manufacturing and for 297 in laundries, year's earnings were secured. The medians in the various States ranged from \$263 to \$563 in manufacturing and from \$306 to \$550 in laundries.

#### Working conditions handbooks.

Three of the major reports published or in progress at this time relate to certain phases of conditions under which women work and are intended to constitute, when in published form, general handbooks of the best available standards and practices on the subjects covered. In each case, a résumé of State requirements is given and such recommendations as are based on scientific study of the subject are reviewed. Most helpful cooperation in the preparation of these handbooks on working conditions, and of the material on accidents already discussed, has been given the bureau by State officials.

*Sanitary drinking facilities with special reference to drinking fountains.*—One of the recommendations made by the bureau early in its history, and still valid, is that "Drinking water should be cool and accessible, with individual drinking cups or sanitary bubble fountain provided." In line with this, the bureau has published this year a study of sanitary drinking facilities, with special reference to drinking fountains, which develops and amplifies this subject by the suggestion that drinking fountains should be angle-jet and should be designed and constructed to meet the standards of the American Public Health Association, and by additional suggestions regarding the proper location, maintenance, and use of drinking facilities. In this connection, a review is given of bacteriological examinations of drinking fountains showing that all vertical-jet fountains retain disease germs from the water that flows back upon the orifice, and even many angle-jet fountains can be contaminated by improper use. Individual drinking cups may be satisfactory if furnished free by the employer. If such cups are of paper, the supply should be adequate;

they should be protected from dirt or other contamination, and means of disposal should be provided.

The Women's Bureau reports show that the drinking facilities offered to employees in places where women are employed require more careful attention than they are receiving. Of 1,506 establishments inspected in 21 States, 56 per cent had either no drinking facilities or common drinking cups. Although bubbling drinking fountains were in use in over 40 per cent of the plants, angle-jet fountains (the only kind that can be kept sanitary) were used exclusively in less than 4 per cent. Since such conditions prevail, it seems important that labor and health authorities take some action to prevent the use of insanitary facilities.

The importance of this publication is attested by the support it has received among technical experts in the field of sanitary engineering.

The significance of the following letter is clear:

FEBRUARY 26, 1931.

The SURGEON GENERAL,

Bureau of the Public Health Service, Treasury Department,

Washington, D. C.

SIR: By direction of the secretary, I acknowledge receipt of your memorandum of the 4th instant, outlining 10 essential features which you suggest should serve as a guide in future installations both in Washington and throughout the United States.

In reply, you are advised that specifications for drinking fountains to be installed in the future by this department will be in accordance with the essential features suggested.

Respectfully,

(Signed) FERRY K. HEATH,  
Assistant Secretary of the Treasury.

The bureau has included in this handbook summaries of the statutes on the subject—primary sources of State regulation—and has examined the published reports of State departments of labor and boards of health in order to ascertain what laws, rules, regulations, orders, or recommendations are in existence. Further, direct correspondence was carried on with the State agencies to verify the findings and obtain any other information available. In addition, such standards as have been adopted or indorsed by national public health and engineering authorities were examined in detail.

The study shows that in 45 States and the District of Columbia the responsible agencies have recognized the importance of sanitary drinking facilities by making some prohibition of the use of the common cup, although in 5 of these the provision does not apply to manufacturing and mercantile establishments, so that in these States most places of employment are omitted. In 18 States and the District of Columbia the boards of health or departments of labor have taken the additional step of recommending the use of angle-jet rather than vertical-jet drinking fountains, although in no case is this a statutory provision.

*The installation and maintenance of toilet facilities in places of employment.* (In preparation for printing.)—This handbook is intended to give a summary of State requirements on the subject of toilet facilities in work places, and to indicate the standards considered important for the health and comfort of the employees. For each State, a summary is given of the regulations on this subject—whether in the form of statutes, rules or orders, or recommendations—and, in addition, the establishments covered and the authority responsible for enforcement are indicated. Analysis of the provi-

sions as to adequacy, privacy, and sanitary construction and maintenance is intended to indicate the most satisfactory standards to be sought.

#### Women's place in industry in 10 Southern States.

At the invitation of the National Women's Trade Union League, the director of the bureau addressed that organization in convention at Greensboro, N. C., in March of the present year. This opportunity was used to present a brief review of the history of industry in the South, something of its economic background, the changed conditions in the employment of women, and the present trends in hours, wages, legislation, and the abolition of night work. This address has been published by the bureau in pamphlet form for distribution.

#### Outline for group study of women in industry.

In response to a considerable demand for material on the situation of women in industry, prepared in such form that it can be used by groups desiring readable information on this subject, the bureau has prepared a series of short papers to be published together in bulletin form. The material is so arranged that it can be used either in part or entire, and references are given that can be followed further by those desiring fuller information. The subjects covered are designed to give an idea of what the wage-earning woman is doing; the industrial world in which she works; her hours of labor, her wages, and other matters of importance to her health and welfare.

#### News Letter.

Throughout the year, current activities relating to employed women in this and other countries have been reviewed in the monthly News Letter. The information given in this form includes legislative enactments in the various States and countries, and the findings of investigations relative to hours, wages, working conditions, occupations, budgets, and health and safety problems; trade unions; notes on conferences and meetings of interest; changes in personnel among women labor officials in the States; and other current material obtained by correspondence and by the constant following of publications touching matters that affect employed women.

Besides the material sent out in the News Letter, the bureau is continually compiling and summarizing, in such form as to be available for use, reports of investigations and other data touching various phases of the subject of the employment of women and the general economic and industrial situations affecting their work.

#### Special memoranda prepared and inquiries answered.

In addition to the preparation of major reports, and the following of legislative sources, research material has been collected, evaluated, analyzed, and arranged in answer to the many requests for information in regard to a great variety of matters connected with the employment of women. Data have been compiled for an average of approximately 25 such inquiries a month. These have come from all parts of the United States and from other countries as well; they have come in each case with considerable frequency from officials of the Federal and the State Governments, employers and employers' associations, labor organizations, newspaper and magazine editors, professors or other officials connected with schools, school systems, colleges, and universities, from libraries, educational

research organizations, and various national and local groups interested in the conditions under which women work.

*Specific problems related to the health of employed women.*—Several memoranda have been prepared during the year on various phases of the health and general welfare of employed women. One of these has to do with rest pauses, the granting of which is a policy included in the standards recommended by the bureau. Arrangement for such pauses appears especially important on repetitive and monotonous jobs such as those on which many women are employed. The bureau has summarized briefly findings on this subject from six sources, five of which were published in 1927 or thereafter. On the whole, conclusions from the experiments made were to the effect that the introduction of regular rest pauses, after scientific study of the operation, generally results in the improvement of quality and quantity of output, the estimate being made that such a policy is capable of producing an increase in output varying from 2 to 10 per cent; one notable experiment showed a marked decrease in absenteeism and turnover after the institution of rest pauses.

Another matter of great importance to the general well-being of women workers is that of an annual vacation with pay. The bureau has brought together brief summaries of the findings of 6 studies on this subject, 1 of which is a comprehensive survey, including data through 1927, the other 5 being made since that time.

Another problem of importance to the employer, to women, and to society in general—and one on which increasing attention is being focused—is that of a time allowance before and after childbirth without loss of job. The bureau has summarized the laws or orders on this subject existing in six States, including the length of time granted before, the time after, the industries covered by the law, and for four States the penalty for violation. The time allowed by these laws runs up to eight weeks. Other countries provide longer periods, up to a year being allowed in at least one and 12 weeks or more in nearly half the cases; foreign laws frequently provide for an additional allowance of time where there is medical testimony that the case so requires.

Material was prepared by the bureau for the study of legal protection of female workers, from the point of view of medicine and social hygiene, being made in various countries by the Medical Women's International Association. This included a review of legal prohibitions of women's employment in injurious trades; statements as to the number of States known to require some physical examination for entrance to certain trades (6 States); number making some provision for accident insurance (44 States); number requiring posting of notice of known dangers to health under certain conditions (5 States); and available findings as to the special susceptibility of women to poisoning by benzol, lead, carbon monoxide, and in other ways.

#### LABOR LEGISLATION FOR WOMEN IN 1930-31

An important activity of the division of research is the following of the progress of labor legislation in the various States and the keeping of a detailed record of any action that relates to women. With legislatures meeting in all but four States in 1931, many bills were under consideration that directly affected working women.

Though little positive action resulted, in more than half of the States better regulation of daily and weekly hours was attempted; and in a number, efforts were made to prohibit the work of women at night or to amend existing night-work legislation. A few legislatures had minimum-wage or fair-wage bills before them; and in some, efforts were made to restrict the employment of married women.

North Carolina replaced its old hour law, applying to men and women and providing an 11-hour day for both and a 60-hour weekly limitation for women but not for men, with a new law applying only to women and continuing the 11-hour daily provision but reducing weekly hours to a maximum of 55. The law covers factories, manufacturing establishments, and mills, and exempts seasonal industries and agricultural work.

In New York an amendment to the overtime provision of the law relating to women's hours of work in mercantile establishments passed both houses of the legislature without a dissenting vote. The amendment assures better means of enforcement by requiring that a copy of the overtime notice, which must be posted, shall have been delivered to the commissioner of labor four hours before the beginning of overtime work. It also reduces the amount of overtime allowed and at the same time provides flexibility for the merchants in conducting their business. This is achieved by allowing the employer three elections of schedule each year instead of one, by permitting one 10-hour day in the 48-hour week if weekly hours are not increased, by allowing a limited amount of overtime with the 48-hour week provided an equal amount of time off is given under specified conditions, and by making special provision for inventory outside of regular store hours.

The wording of the Arizona 8-hour law has been revised and an exemption added for women in railroad yard offices in which not more than three females are employed. Arkansas has exempted railroads whose hours are regulated by Federal law.

Two new orders having the force of law and affecting women in the motion-picture industry have been issued by the California Industrial Welfare Commission. One of these, amending an order of 1926, regulates working conditions and provides a basic 8-hour day for "extras" (defined as performers who receive a wage of \$15 or less a day or \$65 or less a week), with regulation of pay for overtime allowed in case of emergency up to 16 hours. The second of the 1931 orders provides a basic 8-hour day, 6-day, 48-hour week for all other women employed in the motion-picture industry who are receiving \$40 a week or less. Time and one-half must be paid for work over 8 hours and up to 12 and double time for any hours in excess of 12.

The Louisiana law, effective in July, 1930, reduced women's hours, with certain exceptions, from 10 a day, 60 a week, to 9 a day, 54 a week. In Maine the hour law was amended to allow laundries to employ women more than 9 hours a day. The maximum 54-hour week, however, still governs.

It was thought that impetus would be given toward legal restriction of night work of women by the voluntary action of the Cotton Textile Institute in eliminating women and minors from night operations in their mills. Undoubtedly increased agitation for such legislation followed this action, particularly in the South, but no new laws have yet been enacted. On the other hand, Nebraska amended

its law to permit the employment of women from 6 o'clock in the morning until 12.30 at night instead of until 10 o'clock, as had been the case. Daily and weekly hours—9 and 54—are unchanged. Furthermore, an amendment to the night-work law of Porto Rico permits the employment of women in the packing, canning, or refrigeration of fruits or vegetables—excepting those who are pregnant—between 10 o'clock at night and 6 o'clock in the morning, if they have not worked during the day and if the hours of labor do not exceed 8 a day and 48 a week.

In Massachusetts the legislature authorized the appointment of an unpaid commission to investigate the operation of the minimum-wage law and to report to the general court by the first Wednesday in December, 1931. An act of the Massachusetts General Court provides a penalty for the employment without monetary compensation of any woman or minor in any factory, workshop, manufacturing, or mercantile establishment.

The minimum-wage law of South Dakota was amended to require that the wage shall be paid in cash or check. Another enactment in the same State authorizes the secretary of agriculture to enforce the laws relating to the employment of women and children and to file complaints against violators.

In Oregon a State welfare commission has been set up by 1931 legislation to supersede the board of inspectors of child labor and the industrial welfare commission. The commissioner of the bureau of labor is designated as the secretary and executive officer.

The North Carolina Legislature has authorized the reorganization of the department of labor and has established within the department a division of standards and inspection that in part is empowered to study and investigate special problems connected with the work of women, to enforce the laws, rules, and regulations governing their employment, and to conduct research and promulgate rules and regulations governing work places and working conditions in general.

In addition to a law requiring the provision of suitable seats for women workers, New Mexico has adopted legislation creating a labor commissioner and a labor and industrial commission of three members. The duties of the commissioner include inspection of places of employment and enforcement of labor laws, violations to be reported to the district attorney for prosecution.

#### DIVISION OF PUBLIC INFORMATION

With the steady progress of bureau activities come increasing demands for information about its work and all matters pertaining to wage-earning women. As many such requests are from sources desiring technical and statistical material in simple form, it is necessary to interpret data collected in the bureau's studies and investigations and contained in its reports, and in many instances to translate such data into popular form, with emphasis on the human-interest aspects. Such popularization of facts and figures is the work of the division of public information.

Three series of articles—one entitled "Uncle Sam and the Woman Worker," another a group of eight articles on the bureau's statistical methods and studies, and the third a series of nine entitled "Fact Finding with the Women's Bureau"—were prepared for newspaper use. The last named has been issued as a bulletin, to be sent out in

response to the large number of requests for information about the bureau's activities and to extend common knowledge on the subject of women in industry. Several radio talks on the bureau's work, on the problems of women workers, including unemployment as it affects women workers, and on women in Government service, were prepared and delivered by the Director or used by the Secretary of Labor. A special Labor Day message was sent out. In all, about 50 articles were prepared in this division.

#### Exhibits.

The preparation and circulation of exhibit material, such as models, motion pictures, maps, charts, posters, and folders, has always formed an important feature in the bureau's program. The need for such equipment is evidenced by the many requests for exhibit material constantly coming to the bureau, due largely to the increasing stress that is being laid upon visual education and to the fact that certain classes of persons unaccustomed to considering statistical and technical material, and unable to grasp its significance, will readily grasp the essentials of problems presented pictorially. These displays are lent free of charge, the borrower paying transportation charges on all material that can not be mailed under frank. Certain wall exhibits are not only sent free but given for permanent use. All exhibits are used intensively and extensively, going to every State in the Union and occasionally to foreign countries.

Because of the destruction of certain models and mechanical equipment at the time of the fire in the bureau last summer, effort has been made during the year to replace the losses. Accordingly, a new travel sign or motologue, with legends descriptive of the bureau's functions and certain problems within its scope, has been purchased and is now available for use. New film projectors have been added to the bureau's equipment.

A display that has been prepared and will be ready for circulation in a few weeks is entitled "Steps to Safety and Efficiency for Wage-Earning Women." Another deals with the woman worker in the South, this having been prepared for and used at a convention in North Carolina in March, since which time it has been kept in constant circulation in the various parts of the country.

A series of charts based on data collected by the bureau from 5-and-10 and other limited-price shops in many parts of the country during the period 1920 to 1928 has been printed and is being distributed to all who request the material.

The circulation of sets of large colored wall maps illustrating labor laws for women in the individual States has always constituted an important feature. Distribution of this type of material will continue, and in addition it has been arranged to have small maps for desk use or as illustrations in periodicals and newspapers.

Still another type of exhibit, of which use is made in many ways, comprises pictures of women in various industrial processes, illustrating good working conditions found in up-to-date establishments. These pictures are actual photographs taken in plants throughout the country. A file of these pictures is maintained in the bureau in order that copies with appropriate captions may be given or lent to individuals, periodicals, and organizations for illustrative and educational purposes. Approximately 50 pictures of this type have been

made recently under the supervision of bureau representatives and will be added shortly to its files.

#### Motion pictures.

The bureau's three motion pictures have been unusually active. The requests for their use have numbered 151 during the year. A new picture of approximately three reels is in process of preparation and will be available for distribution in the early fall. This is entitled "Behind the Scenes in the Machine Age."

#### CONFERENCES

During the past year the bureau was represented at the following conferences or conventions:

Second Pan-Pacific Women's Conference, Honolulu, August, 1930.

New England Federation of Women's Clubs, New Haven, September, 1930.

International Association of Industrial Accident Boards and Commissions, Wilmington, September, 1930.

American Federation of Labor, Boston, October, 1930.

President's Unemployment Committee, Washington, October, 1930.

Society of Industrial Engineers, Washington, October, 1930.

District of Columbia Unemployment Committee, Washington, October and November, 1930.

Association of Illuminating Engineers, Richmond, October, 1930.

White House Conference on Child Health and Protection, Washington, November, 1930.

Pennsylvania Unemployment Committee, Philadelphia, November, 1930, and January, 1931.

National Catholic Welfare Council, Washington, December, 1930.

American Association for Labor Legislation, Cleveland, December, 1930.

National Committee on Employer-Employee Relationships in the Home, Washington, January, 1931, and New York, April, 1931.

Conference on Permanent Preventives of Unemployment, sponsored by Protestant, Catholic, and Jewish social-service organizations, Washington, January, 1931.

National Women's Trade Union League, Greensboro, March, 1931.

Commission on Interracial Cooperation, Atlanta, March, 1931.

National Council of the League of Women Voters, Washington, April, 1931.

Unemployment Conference of the Young Women's Christian Association, Pittsburgh, April, 1931.

Governmental Labor Officials, Boston, May, 1931.

Eastern Interstate Conference on Labor Legislation, Harrisburg, June, 1931.

The last named, called by the Governor of Pennsylvania, was especially significant because, for the first time in history, authorities of the various States (10 were represented) met for the purpose of discussing uniform labor legislation and the possibility of formulating and recommending necessary minimum standards for the protection of workers.

#### PUBLICATIONS

The bulletins issued from the press this year aggregate more than 780 pages. Three others are in the form of galley proof. These bulletins are as follows:

No. 78. A Survey of Laundries and Their Women Workers in 23 Cities. 166 pp.

No. 80. Women in Florida Industries. 115 pp.

No. 81. Industrial Accidents to Men and Women. 48 pp.

No. 82. The Employment of Women in the Pineapple Canneries of Hawaii. 30 pp.

No. 83. Fluctuation of Employment in the Radio Industry. 66 pp.

No. 84. Fact Finding with the Women's Bureau. 37 pp.

No. 85. Wages of Women in 13 States. 213 pp.

No. 86. Activities of the Women's Bureau of the United States. 15 pp.

- No. 87. Sanitary Drinking Facilities, with Special Reference to Drinking Fountains. 28 pp.
- No. 88. The Employment of Women in Slaughtering and Meat Packing. (In press.)
- No. 89. The Industrial Experience of Women Workers at the Summer Schools, 1928 to 1930. (In press.)
- No. 90. Oregon Legislation for Women in Industry. (In press.)
- Pamphlet. Women's Place in Industry in 10 Southern States. 14 pp.

### **STANDARDS FOR THE EMPLOYMENT OF WOMEN**

The bureau continues to recommend its reasonable standards of hours, wages, working conditions, and employment relations, and feels a growing confidence in its ability to furnish guidance and be of genuine assistance in putting such suggestions into practice. These standards, agreed upon for the employment of women on Government contracts during the war, and indorsed by representative employers and working women alike, are briefly as follows:

#### **Hours.**

- A day not longer than eight hours.
- A half holiday on Saturday.
- One day's rest in seven.
- At least 30 minutes allowed for a meal.
- A 10-minute rest period in the middle of each half day without lengthening the day.
- No employment of women between midnight and 6 a. m.

#### **Wages.**

Rates based on occupation and not on sex nor race, the minimum to cover cost of healthful and decent living and to allow for dependents.

#### **Working conditions.**

- Cleanliness.
- Good lighting, ventilation, and heating.
- Machine guards, handrails, safe condition of floors, devices for drawing off dust and fumes.
- Fire protection.
- First-aid equipment.
- A chair for each woman. Change of posture—neither constant standing nor constant sitting.
- Prevention of overstrain and of overexposure to dust, fumes, poisons, and extremes of temperature.
- Sanitary drinking and washing facilities.
- Dressing rooms, rest rooms, lunch rooms.
- Adequate toilet arrangements—one toilet to every 15 workers.

#### **General.**

- A personnel department, responsible for the selection, assignment, and transfer or discharge of employees.
- Women in supervisory positions and as employment executives where women are employed.
- Provision for workers to share in control of conditions of employment.
- Opportunity for workers to choose occupations for which best adapted.
- No prohibition of women's employment except in occupations proved to be more injurious to women than to men.
- No work to be given out to be done at home.
- Application to and cooperation with Federal and State agencies dealing with labor and conditions of employment.

### **COMMENT AND RECOMMENDATIONS**

There has never been a time when studies of employment conditions, of occupational shifting, migration, displacement, of the effects of such factors as sex, age, and training were needed so much as now. The bureau feels very seriously its responsibility toward

America's women, at work or temporarily unemployed, who now constitute 2 in 9, instead of 2 in 10 as in the year 1920, of all persons gainfully occupied in the United States. Furthermore, in the 13 years of the bureau's existence the members of the staff have acquired a considerable understanding of the employers' problems and points of view. The bureau appreciates, more than could an agency not acquainted with the field, that many employers have given much thought and effort to programs designed to protect their workers from the uncertainty of employment that has developed as a result of mechanization and so-called efficiency systems. Unfortunately, however, the bureau knows also that the majority of employers have not recognized either the gravity of the problem or their own responsibility in its solution.

In a national crisis brought about partly by changes and dislocations in industry that have thrown on the labor market hundreds of thousands of unemployed men and women, it seems reasonable that the Federal department that is charged with the duty of studying just such conditions as these should hesitate seriously to curtail its activities. Rather, if in any way possible, its activities should be doubled or trebled.

As regards the Women's Bureau specifically, the large numbers of employed women (to repeat, 2 of every 9 employed persons), their importance as mothers of the race, as breadwinners in homes having no employed men, and as a labor supply considered cheap and plentiful by employers whose business straits call for economies, make it incumbent on the Women's Bureau, the only agency definitely charged with activities in this field and authorized to act in their interest for the Federal Government, to pursue its studies of what industry is doing to American women—how they are affected by its changes in methods of production, its migrations and consolidations, its demands and compensations, its hazards, its replacement of men by women, and of both men and women by machines.

In this purpose of finding out what is happening to working women, the bureau's studies are of vital importance. The examination of employers' pay rolls and employment records is a privilege extended to few investigators. The frank answers by women interviewed in their homes regarding their family responsibilities and economic status, their reactions to the recent upheavals in the industries they had looked upon as providing their life work, and confidences along other lines yield valuable human statistics. Correlated with age, marital status, nativity, and other personal information, they constitute a body of facts not in the possession of any other agency, whether private, State, or Federal, and exceedingly important to the industrial and economic welfare and development of the United States if we believe that the homes form the basis of our national well-being.

In the past, the Women's Bureau has been so handicapped by insufficiency of funds that it has not been able to consider the launching of certain types of study until the present year, when, through the interest of the President, additional funds were made available. Examples of these types of study, each part of the broad inquiry into human waste in industry, are (1) The effects on women of new methods of work, frequently referred to as technological changes in industry, and (2) the effects on women of combinations of com-

panies or plants and of the moving to new locations of factories or operations. Obviously, such studies must be planned on long range, and some assurance must be given that they can be carried on to at least a reasonable degree of completeness.

Women employees' progress (or decline) from one occupation to another, on the one hand, and the compensations of the considerable number who have remained 10, 15, or 20 years in one line of work, on the other hand; the extent to which women leave home in search of jobs or to follow their jobs when industries migrate; what becomes of women displaced in the evolution of industry—all these are inquiries of great importance, not only to working women but to the Nation, and more properly the duty of the Women's Bureau than of any other agency.

Among the conditions of employment that should be the subjects of study are certain factors contributing to fatigue, such as piece-work and other systems conducive to speeding, problems of strain as increased by changes in methods of payment, air conditions, lighting, lifting, and posture at work. The study of the effects on women of work involving the use of toxic substances must be continued, as must other important inquiries to which the bureau has devoted some attention in the belief that it would serve women better by looking into a number of conditions that called for correction rather than by devoting all its energies to studies along two or three lines.

Piecework has repeatedly been recommended as a subject for study in the bureau's annual reports. Clearly related to health and efficiency and of vital importance to the worker, the employer, and the community of which these form a part, this matter should be given scientific attention at the earliest possible date.

For years the bureau's recommendations have suggested also a study of women's posture at work, including the possibility of combining a fair degree of comfort with unhampered efficiency in a chair of practical design and inexpensive construction. Machines are being designed constantly without any consideration for the operators' comfort, though attention to this would add little to costs and would abundantly pay in efficiency. The bureau has been requested by the Association of State Departments of Labor to undertake such a study, and a number of firms have urged it to do so.

There is great need of authentic information—collected and presented without bias—on the subject of the employment of married women. All material gathered points to the fact that large numbers of married women must share the husband's responsibilities. Research makes very clear that many thousands of married men are employed at wages below the level necessary for the maintenance of a family, and the necessity of rising above the lowest subsistence level must be met by other resource.

May I say in closing that it is the bureau's earnest desire to co-operate in the perfecting of an efficient organization that shall make impossible any overlapping of activities among the various bureaus of the department. A comparison of the publications of the Women's Bureau with both Federal and State reports will show that there has been no duplication, even with a loose application of the term, in the past.

Respectfully submitted.

MARY ANDERSON, *Director.*

