

U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
WOMEN'S BUREAU

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



FISCAL YEAR
ENDED JUNE 30

1929



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1929

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UNITED STATES DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, July 15, 1929.

HON. JAMES J. DAVIS,
Secretary of Labor.

SIR: The eleventh annual report of the Women's Bureau, for the fiscal year ended June 30, 1929, is submitted herewith.

INTRODUCTION

The Women's Bureau has completed during the year 1928-29 several different types of studies of wage-earning women, including a survey of a State—Florida; of an industry—laundries; and of employment trends—in Ohio; besides assembling, in one report, data collected by the bureau in various States and at various times, done in the case of negro women and of women in 5-10-and-25-cent stores and developed into reports that constitute important contributions to the literature on these two subjects.

The bulletins issued from the press this year aggregate more than 1,400 pages, and 300 pages more have been seen through the various stages of printing but are not ready for release. Several reports are in manuscript form and others are in process of preparation. The statistical force is engaged in tabulating the data on women in meat-packing plants and in Hawaiian pineapple canneries; the field force is securing figures on output in relation to hours in various industries, and on conditions in the cigar industry. Data on existing and former scheduled hours in the industrial establishments of Indiana, collected by the industrial board of that State, have been tabulated by the statistical force of the bureau, as have almost a thousand domestic-service questionnaires made out by Philadelphia housewives for the women's problems group of the social order committee of the Society of Friends. Other lines of work are mentioned in subsequent pages of this report.

The year has been prolific in congresses or conferences of importance to working women, in many of which the Women's Bureau has participated (see p. 22).

An attractive and informative exhibit, depicting women's wage-earning activities in the United States, has been sent to Seville for the Iberian-American Exposition. Another accomplishment of the

year was the preparation of a motion picture showing the origin, history, and methods of work of the Women's Bureau itself.

The News Letter, reporting current events relating to wage-earning women, has been issued periodically during the year.

WOMEN'S EARNINGS IN THE COTTON-TEXTILE INDUSTRY

The subject of conditions of employment in the textile industry, always of interest and importance, is much in the public mind at the moment on account of the recent labor disturbances in certain States.

Because of this interest the bureau assembled, as described elsewhere in this report, such data from its State surveys as had to do with the hours and earnings of women in the various branches of textile manufacture.

In a desire to learn from so reliable a source as the Bureau of Labor Statistics something of the comparative earnings of women in the cotton-textile industry over a period of years, the series of studies "Wages and Hours of Labor" has been consulted,¹ with interesting results that may be summarized as follows:

Pay-roll figures of women's earnings in cotton manufacturing were secured by the Bureau of Labor Statistics—

In 1924 for 33,000 women in 114 establishments in 12 States.

In 1926 for 36,000 women in 151 establishments in 12 States.

In 1928 for 38,000 women in 158 establishments in 11 States.

Data for a few hundred women were secured in Pennsylvania in 1924 and 1926, but this State was not visited in 1928. The other 11 States were the same in the three years. These are Alabama, Connecticut, Georgia, Maine, Massachusetts, New Hampshire, New York, North Carolina, Rhode Island, South Carolina, and Virginia.

These 11 States are so thoroughly representative of the industry that in 1925 they employed 88.5 per cent of all the wage earners engaged in cotton manufacturing in the United States. The employees whose earnings were secured by the Bureau of Labor Statistics in 1928 comprised 21.2 per cent of all the cotton-mill employees reported in those States by the census of 1925, or almost 1 in 5 (18.8 per cent) of all such employees in the United States.

For the present inquiry, only the earnings of the women surveyed have been taken into consideration. The average full-time earnings per week were found to be—

In 1924, \$17.94.

In 1926, \$15.89 (a decrease of 11.4 per cent from 1924).

In 1928, \$15.66 (a decrease of 12.7 per cent from 1924).

In view of the fact that the Bureau of Labor Statistics has reported, for the United States as a whole, only a very slight change in the cost of living during these four years—in fact, from June to June there was an increase of 0.5 per cent—a decline of nearly 13 per cent in earnings can not have been a matter of indifference.

¹ Specifically Bul. 371, Wages and Hours of Labor in Cotton-Goods Manufacturing, 1924; Bul. 446, Wages and Hours of Labor in Cotton-Goods Manufacturing, 1910 to 1926; and, in the Monthly Labor Review for October, 1928, Wages and Hours of Labor in Cotton-Goods Manufacturing, 1928.

Not one of the 12 occupations for which women's earnings are reported in 1928 escaped a decline from the 1924 wage figure: 10,400 spinners; 8,100 weavers; 8,900 tenders of various kinds of machines; doffers, tiers-in, inspectors, and thousands in occupations not specified—each group shows an average for the week scheduled in 1928 lower than the average for the week scheduled in 1924, the decreases ranging from 2.5 per cent to 14.9 per cent, according to occupation. The more than 10,000 spinners had a decline of 13.8 per cent in earnings, and the 8,100 weavers had a decline of 12.8 per cent.

Since all occupations appear to have fared alike, what is the situation as regards the various States? With industrial experience less in the South than in the North by at least a half century; with quality of product very different in the two sections; with character of the labor force utterly dissimilar; with company housing common in one section and largely eliminated in the other; and with certain other noncomparable conditions—it is not surprising that the wage scales also are far from alike. The Bureau of Labor Statistics reports of wages and hours of labor whose figures constitute the basis of these comments show that average full-time earnings of women cotton-mill employees changed in the various States in the four-year period as follows:

Southern States.

Alabama—from \$11.37 in 1924 to \$11.88 in 1928, an advance of 4.5 per cent.

Georgia—from \$12.82 in 1924 to \$12.77 in 1928, a decline of 0.4 per cent.

North Carolina—from \$15.54 in 1924 to \$14.62 in 1928, a decline of 5.9 per cent.

South Carolina—from \$12.87 in 1924 to \$12.32 in 1928, a decline of 4.3 per cent.

Virginia—from \$17.98 in 1924 to \$14.99 in 1928, a decline of 16.6 per cent.

Northern States.

Connecticut—from \$20.50 in 1924 to \$17.85 in 1928, a decline of 12.9 per cent.

Maine—from \$18.59 in 1924 to \$15.71 in 1928, a decline of 15.5 per cent.

Massachusetts—from \$20.68 in 1924 to \$16.91 in 1928, a decline of 18.2 per cent.

New Hampshire—from \$23.72 in 1924 to \$20.31 in 1928, a decline of 14.4 per cent.

New York—from \$21.66 in 1924 to \$18.15 in 1928, a decline of 16.2 per cent.

Rhode Island—from \$21.64 in 1924 to \$19.47 in 1928, a decline of 10 per cent.

A glance at these and more detailed figures shows that in the Carolinas, Alabama, and Georgia the level of wages fell little or not at all between 1924 and 1928, whereas the 18,000 women reported in the northern States surveyed had weekly earnings in 1928 two to four dollars—10 to 18 per cent—less than earnings in the same occupations in 1924. As a result, for these six northern States combined, women's earnings, which had been 54.5 per cent greater than earnings in the South in 1924, were only 33.5 per cent greater than earnings in the South in 1928. This lessening of the differential between the two sections by a decline in the North instead of an advance in the South worked to the great disadvantage of women's earnings in the industry as a whole, since the southern scale itself was on a lower level at the end of the four years and, according to the census of 1920, more women were employed in the North than in the South.

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, extremes of temperature.

Sanitary drinking and washing facilities.

Dressing rooms, rest rooms, lunch rooms.

Adequate toilet arrangements—one toilet to each 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.

LABOR LEGISLATION DURING THE PAST YEAR

Although efforts were made in a number of States during the legislative season of 1928-29 to enact new labor laws for women, or to amend old ones, few of those efforts were successful. Bills amending existing hour laws were before the legislatures of Arkansas, California, Connecticut, Illinois, Minnesota, New Hampshire, New York, Pennsylvania, Rhode Island, Tennessee, Texas, and West Virginia. In all States but California and Texas, however, these failed of passage. In California the coverage of the 8-hour law was extended, and its enforcement provisions were amended; in Texas new exemptions were added to the hour law. Minimum-wage measures were

introduced in New York and Utah and an amendment to the Minnesota minimum-wage law also was introduced and rejected.

Effort was made in Massachusetts to place all manufacturing plants on a par with textile mills by prohibiting night work for women after 6 o'clock instead of after 10 as the law now provides for factories other than textile. Bills prohibiting the employment of women at night were introduced in the legislatures of New Hampshire and Rhode Island. In New York a bill to permit the employment of waitresses in the larger cities between 10 p. m. and 6 a. m. was killed in committee in both houses of the legislature.

In California the law regarding heavy weights was amended by reducing to 50 pounds the maximum weight that women are permitted to lift and a new provision was added that waitresses shall not be required to carry trays weighing 10 pounds or more up or down stairs that rise more than 5 feet.

An industrial commission was created in Massachusetts by one act and by another was specially directed to investigate conditions in textile manufacturing and unemployment in textile and other industries. New York abolished its industrial survey commission and New Jersey created a new bureau of women and children within the State department of labor, the director to be a woman appointed by the commissioner of labor. This bureau is authorized to make studies and investigations of special problems connected with the labor of women and children and to enforce the laws, rules, and regulations governing their employment.

Besides legislative enactments several important decisions have been rendered upholding State laws or affecting their application. For example, the constitutionality of the North Dakota hour law for women and the right of the California Industrial Welfare Commission to set overtime rates of pay in industries exempt from the women's 8-hour law have been sustained by local courts. In New York, in a question involving the overtime provisions of the 48-hour law—which in one section permits 9 hours on 5 days of the week, with 4½ hours on the sixth day, and in another section provides for overtime to the extent of 78 hours in any calendar year—the attorney general of that State ruled that, unless a short day of 4½ hours is allowed during the week, all hours beyond 8 on other days must be considered part of the yearly overtime allowance of 78 hours. This decision has since been nullified, however, by the appellate division of the supreme court in the first department, that court holding that an employer may distribute the 78 hours of overtime as he pleases if he posts the schedule of hours in advance as the law requires. It is understood that the question will be taken to the court of appeals by the New York State Department of Labor.

STATE STUDY—FLORIDA

A survey of the hours, earnings, and conditions of work of wage-earning women in Florida, made at the request of the governor of the State and of the Florida League of Women Voters, constitutes the nineteenth State survey made by the Women's Bureau during its 11 years' existence.

According to the census of 1920 Florida is not one of the large industrial States in the country nor does it fall in the first industrial rank in the South; nevertheless, the special character of the problems confronting its wage-earning women is indicated by the fact that the industries in the State are markedly seasonal and therefore tend to cause serious fluctuations in employment.

The 1920 census shows that a considerable proportion of the wage-earning population of Florida is concentrated in the four chief cities, which are in different sections of the State—Jacksonville, Tampa, Miami, and Pensacola—and in industrial character Tampa differs considerably from the other three. In Tampa more than 40 per cent of the women employed in 1920 were in manufacturing and less than 40 per cent were in domestic and personal service; in each of the other three cities less than 10 per cent were in manufacturing and more than 60 per cent were in domestic and personal service.

The survey made by the Women's Bureau covered 18 towns or cities and included 1,412 women in 63 hotels and restaurants and 6,432 in 100 other establishments. About three-fourths of the women studied were white, although only about two-fifths of all Florida women gainfully employed in 1920 were of this race. In general, the industrial distribution of the workers included in the survey of Florida was as follows:

Hotels and restaurants.....	946 white and 466 negro women.
Laundries.....	247 white and 713 negro women.
Stores.....	1,620 white women.
The manufacture of—	
Cigars.....	2,680 white and 155 negro women.
Food products.....	105 white and 553 negro women.
Wooden boxes.....	295 white women.

It is obvious that the migrations of tourists and of persons owning winter homes must influence business and employment in hotels and restaurants, laundries, and stores, but the tourist trade is less likely to affect the other industries that engage large numbers of women in Florida—cigar making and, to a less extent, the food industries—and these, too, show decided seasonal fluctuations.

The hours of work for women in Florida were found to be long—more than 9 hours daily for nearly 30 per cent of the white women studied in manufacturing, stores, and laundries, including 15.3 per cent who had a day of 10 hours or more. Somewhat less than 80 per cent of those reported had a week of over 50 hours, including 35 per cent with a schedule of more than 54 hours. A week of over 54 hours was scheduled for 40.3 per cent of the women in cigar factories, 42.3 per cent of those in laundries, and 84.5 per cent of those in 5-and-10-cent stores. The day in hotels and restaurants was very irregular, and over nine-tenths of the white women reported had to work 7 days in the week; 17.8 per cent had a schedule of over 60 actual working hours during the week, including more than half the kitchen helpers, a third of those in laundries, more than a sixth of the waitresses, and a small proportion of the maids. A few waitresses and kitchen helpers had a week of 80 hours or longer. Of the white women employed in hotels and restaurants that were open only during the tourist season 15.6 per cent had a week of over 60 hours; in year-round establishments 24.5 per cent had such a schedule.

Over half the negro women in the manufacturing industries and laundries and 14.6 per cent of those in hotels and restaurants had a

week of over 60 hours, and a schedule of such length applied to 21.9 per cent of those in seasonal and 10.8 per cent of those in year-round hotels and restaurants.

For 4,425 white women, the median of the week's earnings—one-half earning more, one-half earning less, than the figure given—was \$15; that for 2,824 full-time workers was \$15.60. The highest median was \$18.10, for saleswomen in general mercantile establishments; the lowest, \$9.35 for women in certain food products. For the largest manufacturing group, women in cigar making, the median was \$16.65. Those in laundries had a median of \$12.30, in bread and bakery products \$11.30, in wooden-box making \$11.05, and in 5-and-10-cent stores \$10.05. The median for 940 white women in hotels and restaurants, largely waitresses, was \$7.05, and of these 85.9 per cent—including over 90 per cent of those in seasonal and over 65 per cent of those in year-round establishments—were furnished with board, lodging, or both. While those who did not receive room or meals were paid at a higher rate, there appeared to be no regular standard based on the amount of accommodation furnished by the employer.

The median of the week's earnings of 1,266 negro women in manufacturing and laundries was \$6.65. The highest median was \$7.85 for those in laundries, the lowest \$3.60 for those in miscellaneous food products, and that for cigar makers was \$7.10. The median for negro women in hotels and restaurants, largely maids, was \$8.80, and 42.9 per cent of those reported—including over 85 per cent of those in seasonal and over 20 per cent of those in year-round establishments—had some accommodation provided.

A preliminary summary of the findings of the Florida survey has been distributed, and a complete report for publication is being written.

SPECIAL STUDIES

Women in limited-price chain department stores.

A study has been made of the women working in a type of chain store in which large numbers are employed—the limited-price chain department store. Facts have been assembled from the bureau bulletins of State surveys for well over 5,000 women in 253 stores, including, for various numbers of women, scheduled hours of work, earnings, age, marital status, living condition, and length of time in the trade. The women studied were in establishments in the following 18 States: Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Maryland, Mississippi, Missouri, New Jersey, Ohio, Oklahoma, Rhode Island, South Carolina, and Tennessee. Most of them were in 5-and-10-cent or 5-10-and-25-cent stores, a very few were selling goods up to 50 cents or a dollar. The majority were in the stores of five important chains, but a few were in independent establishments.

Because the dates of the various surveys extended over a number of years, the information on earnings has been supplemented by securing pay-roll figures in 1928, in most cases for a week in October. Such data were obtained for 6,061 women in 179 establishments in 18 States and 5 additional cities. Of these women, well over one-half (56 per cent) were employed in the same States, in most cases in the same cities, for which earnings had been reported in the earlier surveys, many identical establishments being included. In addition to

the 6,000 full-time employees, earnings were ascertained for 1,776 women whose regular work was on Saturdays only.

The numbers of women for whom various types of information were reported are as follows:

Scheduled daily and weekly hours-----	5,224 women in 18 States.
Scheduled Saturday hours-----	5,219 women in 18 States.
Age-----	3,086 women in 17 States.
Marital status-----	2,938 women in 17 States.
Living condition-----	3,047 women in 17 States.
Time in the trade-----	2,730 women in 17 States.
Earnings, State surveys, 1920 to 1925-----	3,344 women in 14 States.
Earnings in 1928-----	6,061 women in 18 States and 5 cities.

Personal data.—Most of the women in these stores were American and, as would be expected, they were very young, nearly 60 per cent being under 20 years of age and more than one-fourth under 18. In 12 States more than one-half, and in 3 States nearly one-half, were under 20. Only about 1 in 6 was 25 years of age or more, and only 1 in 31 was as much as 40.

Of those reporting marital status, 82.1 per cent were single, but in one State more than a third and in four other States about a fourth were or had been married. Of those reporting living condition, 92 per cent lived at home or with relatives. In one State the data showed the relationship of the women to those with whom they lived, and here more than 85 per cent of those with relatives were daughters living at home. In this connection the fact must not be lost sight of that studies of unmarried women living at home invariably show that a large proportion—often a considerable majority—must contribute to the support of others besides themselves in order to maintain the family at a reasonably satisfactory standard of living.

That the limited-price store has a labor force that changes rapidly is indicated by the fact that more than 40 per cent of the girls reporting time in the trade had been in the industry for less than a year, about a fourth having experience of less than six months. Not quite a fourth had been in the trade one and under two years, and less than 10 per cent had worked five years or longer.

Scheduled hours.—Hour schedules were reported for 5,224 women, nearly 40 per cent of whom had a day of 8 hours or less. In six States from 60 to 100 per cent of the women had a day of 9 hours; for all States combined 30.6 per cent had a 9-hour day.

In the limited-price stores weekly hours are of greater significance than are daily hours, as Saturday is almost always the big trading day and it is usual to keep the stores open longer than on other days. Reasonable daily hours are of especial importance in an industry in which there is no Saturday half holiday for recuperation from the cumulative fatigue ordinarily caused by too long a daily schedule; and this is of particular concern to society in a case in which so many women who are quite young are engaged, since a constant drain on their physical powers is the more likely to be communicated to the race. About a fourth of the women reporting had a schedule of 10 hours on Saturday, more than a fifth had a day of over 10 and under 12 hours, and 8 per cent—more than 400 women in five States—had a Saturday of 12 hours or more.

Not quite 6 per cent of the women reporting had a weekly schedule of 48 hours or less, roughly the equivalent of 8 hours on six days

of the week. About 12 per cent had a week of 54 hours—the equivalent of six 9-hour days. One in four of the women had a schedule of over 54 hours, close to one in six having hours of between 55 and 60. There were considerable differences among the States in the length of the week: In eight States two-thirds or more of the women had a week of 52 hours or less, while in three States three-fourths or more had a week in excess of 54 hours.

When weekly hours were compared with the legal requirements in the States studied, it was found that many limited-price stores were well ahead of the weekly-hour laws in the shortening of hours for their employees. In one State in which the legal maximum was 50 hours, less than a fourth of the women reported had a week as long as this. In five States in which the law restricted hours to nine daily with a weekly limit, over 60 per cent of the women had a schedule shorter than the maximum permitted. Hour schedules shorter than the legal maximum had been introduced into many of the stores of each of the five large chains studied—the proportion of the women affected by this shortening of hours ranging from somewhat less than one-half to three-fifths of those reporting in a single chain.

Earnings.—The earnings during a week in the last quarter of 1928, taken for 6,061 women in 18 States and 5 additional cities, showed that 7 per cent of the women earned \$18 or more. Seventy per cent of the total received less than \$15, over 40 per cent less than \$12, and over 25 per cent less than \$10. For all the women studied the median—one-half earning more, one-half less—was \$12.

Medians in the various States differed greatly, running as high as \$16 in California, the minimum permitted by law for experienced workers in that State, and as high as \$15 in Michigan, \$14 in Kentucky, in each of which figures were based upon women in stores in the largest cities in the State, and running as low as \$9 in six States—Alabama, Georgia, Kansas, Mississippi, South Carolina, and Tennessee—and below that in Maryland. In the five additional cities median earnings were \$12 in Boston, \$13 in Indianapolis, \$14 in New York and Milwaukee, and \$18 in Chicago. Girls who worked only on Saturday were paid from \$1 to \$3.50.

Women reported as working on six days in the week probably are the steadiest and most responsible; of these, the largest groups in four States earned \$10 and under \$12, in five States \$12 and under \$15, and in two States \$15 and under \$18.

In its wage surveys the Women's Bureau always inquires into rates as well as actual earnings. In 14 States and 5 cities in the present study the median of the rates was the same as the median of the earnings. In four States—Kansas, Maryland, Michigan, and South Carolina—earnings were less than rates, in two States by as much as 10 per cent. From the figures available there was some indication of variation among the different chains in the standards of the rates they fixed.

Much larger proportions of the women employed in the larger cities than of those in the smaller towns had high rates of pay, but it must be remembered that living costs may be higher in the larger places. The medians of the rates among cities of 100,000 population or less varied by no more than 6 per cent; among cities of over 100,000 they varied by about 15 per cent; but between the two

classes, cities of 50,000 and under 100,000 and cities of 100,000 and under 500,000, there was a difference of 30 per cent in the medians of rates.

In a few States the data secured give valid bases for comparisons of earnings in 1928 with earnings in 1921 and 1925; some reduction is shown in 1928 in the proportions of women receiving the lowest amounts, but no positive indication is given of a general increase in the groups having rates or earnings in the highest ranges.

In the figures assembled from the various State surveys, earnings ordinarily showed increase with length of service, although in most cases not an increase proportional to the period of years worked. Of the women who had been in the trade less than a year, about a fourth were paid \$10 or more, though none received as much as \$15. Of the women in the trade 5 and under 10 years more than three-fourths received \$10 or more and nearly a fifth earned as much as \$15.

In 14 States, studied from late 1920 to early 1925, earnings for the year were ascertained for all women who had been with the firm during the year preceding the survey. Naturally such women were the steadiest and most responsible workers, and their earnings may be taken as indicative of the best possibilities for the locality and the time of study. The medians were highest—from \$613 to \$667—in Ohio, Missouri, and New Jersey, despite the fact that these States were surveyed just after an abnormal business period, so that a good deal of the time represented by these figures was during depression. The lowest median—\$431—was in Mississippi in 1924; the next was in Alabama, studied early 1922, the figure being \$438; and the next—\$460—was in Kansas in 1920.

While each industry has problems peculiar to itself and in some cases inherent in the organization, some comparison may be made of earnings in limited-price stores with those in other chief industries in each of the 15 States in which earnings were taken at various times from 1920 to 1928. Such a comparison shows that the median of the week's earnings in limited-price stores was below that of any other industry in four States, next to the lowest in five States, and in the remaining six States was from 8.4 to 20.9 per cent above the lowest median for any industry; it was from 53.7 to 37.7 per cent below the highest median for any industry in each of these States. While it must be remembered that the limited-price department store has to contend with inexperienced and shifting labor, and that some chains endeavor to mitigate in a small degree the low wage by some form of bonus or vacation system, nevertheless there is no question that the standards of payment are very low indeed in comparison with those in many of the other industries in whatever State or year studied. While these stores sell cheaply, it is acknowledged that the large and rapid turnover of goods and other economies of organization have a large part in making this possible, the payment of a low wage to an untrained sales force being only a contributing factor.

Conditions for women in laundries.

One of the major woman-employing industries of the country is the laundry. The rapid growth of the laundry industry in size and efficiency and its importance to the woman worker and to the public were considered to warrant a survey, and with the cordial cooperation

of the Laundryowners' National Association such a survey was made and the report is in preparation for printing. The study covers hours, earnings, working conditions, and certain personal information supplied by the women laundry workers themselves.

Records were obtained from 290 of the larger general commercial laundries, doing as a rule all varieties of work, in 23 cities scattered throughout 16 States. The employees in these plants numbered 24,337, of whom 19,758, or 81.2 per cent, were women. For the study as a whole, negroes composed a little more than one-fourth of the women employed. In the South more than 4 in 5 were negroes, while on the Pacific coast there were but 16 in a total of nearly 5,600 women.

The laundry industry is essentially a daylight industry. In the 290 laundries visited only about 100 women worked at night.

Occupations.—Women's occupations in laundry work cover almost every variety of job except those of engineer and driver. Nearly two-fifths of the white women were on flat ironers, as shakers, feeders, or folders, and the next largest group was that of the markers and sorters. The negro women were found in practically every occupation where white women were employed, but the proportions in the different occupations varied. Pressing and ironing occupied a large group of negro women, while a much smaller per cent than in the case of the white women were employed as markers and sorters.

Hours.—Taking the entire group of women, the most common schedule of weekly hours was 48. This was not typical of the country as a whole, but was the prevailing schedule in the eastern and western sections, in which respectively 44 and 96.5 per cent of the women were reported as having a schedule of 48 hours. In the central or middle western cities, about 41 per cent of the women had schedules of 50 and under 52 hours, principally 50 hours, and in the southern cities about 41 per cent had schedules of over 50 and under 54 hours, the majority 52 hours and more.

Within the plants there was considerable variation in scheduled daily hours according to occupation, but selecting the most general hours for each plant, the most common daily schedules were found to be 9 hours, reported for 32 per cent of the women, and 8 hours or less, reported for 30.3 per cent. Like weekly hours, the daily schedule varied widely in the different sections of the country.

A half day on Saturday is less generally accepted in the laundry industry than in manufacturing. The compilation shows that 41.6 per cent of the women had a Saturday schedule of 8 to 10 hours. This is largely due to the Pacific coast laundries working 8 hours on Saturday as on other days, only two of the plants scheduled in that part of the country reducing hours on Saturday.

A half hour was the most common lunch period, reported for more than 60 per cent of the women.

In regard to the actual hours worked, about 70 per cent of the women had worked 48 hours or more, or on 5 days or more, in the week for which records were copied. Full scheduled hours had been worked by 50 per cent of the white and 29 per cent of the negro women. About 40 per cent of the white and over 50 per cent of the negro women had lost some time during the week, while 10 per cent of the white women and about 20 per cent of the negroes had worked overtime.

Earnings.—Wage records were obtained for 19,180 women. Over two-fifths of the white women earned \$15 and under \$20, the median—one-half earning more and one-half earning less—being \$16.10. Almost three-fifths of the negro women had earnings under \$10, the median for all the women reported being \$8.85. The 16 negro women in the laundries scheduled on the Pacific coast had earnings very similar to those of white women. Here 57.3 per cent of the 5,564 white women earned \$15 and under \$20 and 27.2 per cent had earnings over \$20.

For the 23 cities the range of the medians, \$6.75 to \$20.70 in a single industry, is unusual and significant. The medians of the white women were from \$11.95 to \$20.70, and the medians of the negro women from \$6.45 to \$17.50.

In the four chief departments or occupations the medians of the earnings of white women were as follows: Mark and sort, \$17.35; flat work, \$14.55; hand iron, \$16.60; and press, \$16.70. For the negro women they were: Mark and sort, \$11.90; flat work, \$8.65; hand iron, \$7.95; and press, \$9.50. In these occupations the earnings of pieceworkers exceeded those of timeworkers in varying degrees. The median of the earnings of full-time workers was \$17.30 for the white women and \$8.45 for the negro.

For those reporting rates, the median for the timeworkers was \$16.50 for the white women and \$9.25 for the negro women.

Conditions of work.—Conditions under which the women in laundries did their work also were considered in this study. Lighting was satisfactory in more than half the plants, but in one-third of the laundries visited no means of artificial ventilation was found. About 10 per cent of the laundries had hoods with exhausts over their flat ironers and more than one-half of those with hot tumblers and 11 per cent of those with drying rooms were equipped with exhausts.

Sanitary facilities were fairly satisfactory, although only 27 laundries had bubblers in which the water did not fall back on the orifice and more than a fifth used common drinking cups. Two-fifths of the plants had insufficient toilet accommodations.

The majority of the laundries had protection against accidents, with machines well guarded and floors in good condition, but stairs were in bad repair in 30 plants and the construction of stairways was unsatisfactory in 76.

Personal information.—Over four-fifths of the 18,369 women reporting personal information were native born, and Mexico and Canada furnished the largest groups of the foreign born.

Less than 15 per cent of the women who reported their ages were under 20 years, and nearly a fourth (23.7 per cent) were over 40 years of age. One-fourth of the women were widowed, separated, or divorced, and about 43 per cent were married.

Of the 1,851 women reporting reason for working, considerably more than 90 per cent reported necessity as the cause. More than two-fifths of the women had been in the laundry industry off and on for 5 years or more and about one-eighth had been doing laundry work for 15 years or more. About 30 per cent of the women reporting had worked in laundries only. Of 740 expressing a preference, 587 preferred laundry work to other employment. Many of these

women said the better hours and better pay were the cause of such preference, though more than half of the women preferring other industries gave the lower rates in laundries as the reason for their preferring other work.

Variations in employment trends of women and men.

The purpose of this study, made at the request of the committee on governmental labor statistics of the American Statistical Association, was to provide some basis for guiding policies as to whether employment figures should be collected and presented separately for each sex.

The figures presented in the discussion show the trends of employment for women and for men in Ohio in 54 industrial or occupational classifications over a period of 11 years, 1914 to 1924. For each of the classifications curves have been drawn that show graphically when and to what extent trends for the two sexes have differed or coincided.

Taking them in all, perhaps the most striking fact about the curves is the extent to which they indicate similarity in the trends of employment for women and men. However, there are certain periods of economic disturbance or stimulation where the course of employment for women and men has taken very divergent paths and the trends indicated by the total are representative of neither women's nor men's employment, but illustrate the neutralizing effect of combining the figures for the two sexes when the trends of their employment are in opposite directions.

Furthermore, there are certain occupational concentrations for each sex that may result in extreme similarities or differences in the course of employment. It is the significance and extent of these differences and similarities that are of foremost importance in estimating the validity for each sex of the trends indicated by the figures showing totals and not differentiating by sex.

There are four main types of differences between the two sexes that appear in the curves presented as illustrations. The first, and probably the most significant to women, is the difference in the long-term trends. In many of the classifications the figures when separated by sex show a distinct tendency toward an increasing importance of women throughout the 11-year period under consideration. In a few classifications apparently there has been a decrease in women's importance, but this is not nearly so often the case.

Another kind of difference between the trends for women and men is found in certain of the classifications that are affected by seasonal problems. In some of these there is a distinct seasonal trend for women and not for men, in others the seasonal trend for men is more extreme than that for women.

A third type of difference is that caused by some economic situation, such as the war or the depression of 1920-21, and a fourth is seen as the result of strikes that may affect women or men or both.

In the analysis of the charts the effort has been made to discover how the resemblance between the curve for each sex and the curve for the total is affected by the size of the classification; by the scope of the industries and occupations included; by the relative impor-

tance of the two sexes; by the seasonal requirements of the industries included; by the developments within industry leading to changes in product and methods of production; by the concentration of one or the other sex in certain definite occupational lines; by the influence of general economic conditions, such as the war or the depression of 1920-21; or by local situation, such as strikes, affecting more limited groups included in the classification. If certain of these factors can be shown to have a consistent and predictable effect upon the resemblance between the trends for the two sexes and that for the total it may be possible to accept as accurate the indications of the total, making such qualifications for either sex as the type of the classification and the period under discussion may require. If this can not be done, if the effect of these various factors is so erratic as to permit no generalization, the only alternative will be to require employment figures separately for each sex if the significant trends of women's employment are to be made clear.

Though employment figures from only one State, and for only 11 years, can not be considered sufficiently comprehensive to form a basis for general conclusions, they serve to indicate probabilities that may be tested by more comprehensive data.

As a general conclusion it may be said that in most classifications the curve for all employees appears to be adequately representative of the long-term trend. It does, however, fail to show changes in the relative importance of the two sexes and it does not show the different influences of seasonal employment.

Negro women in industry in 15 States.

According to the Federal census, more than a million and a half negro women were gainfully employed in 1920, a decrease of almost half a million from the figure for 1910. There was a decline in the numbers in domestic service, but the reduction was chiefly in agriculture and was due in large part to the fact that the census of 1910 was taken in April and that of 1920 was taken in January. In all other occupational groups negro women gained in numbers. The proportion in the manufacturing and mechanical industries nearly doubled, which was in striking contrast to the comparatively slight gain for women as a whole in these occupations.

The industrial advance of the negro woman is shown more vividly by the following statement: In 1910, of every 20 employed negro women, between 10 and 11 were in agriculture, between 8 and 9 were in domestic and personal service, and 1 was in other lines of work; but in 1920, of every 20 negro women between 7 and 8 were in agriculture, 10 were in domestic and personal service, and between 2 and 3 were in other work. Of those in manufacturing in 1920 the largest numbers were in tobacco, food products, textiles, and wood industries.

Studies made by the Women's Bureau have covered more than 17,000 negro women in the following 15 States: Alabama, Arkansas, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Mississippi, Missouri, New Jersey, Ohio, South Carolina, Tennessee, and Virginia. Of the women studied, 12,123 were in the manufacturing and mechanical industries, and the information in the various reports in regard to their occupational distribution, working hours, earnings, and personal history has been compiled in one bulletin. The women in manufacturing included in this compilation comprise 11.5 per cent

of the number reported by the census of 1920 as engaged in manufacturing. In the various industries they constitute from a fourth to more than a third of those reported in 1920 as in the manufacture of wood products, of hosiery, of tobacco, bags, and waste, and of glass; and from 28 to 52 per cent of those in three different food industries. More than half of those included in the study were in tobacco factories. Over 1,000 were in textile mills, nearly 1,000 in the wood industries, and nearly 900 in meat packing.

Occupational distribution.—Certain of the types of work in which negro women were found may be said to represent, for them, distinct if somewhat slow industrial progress. Large numbers were engaged in sweeping and in cleaning of various kinds and many of these have been omitted from the present study, since such occupations represent little industrial advance. Others worked at tasks that would properly be classified under general labor. This would include most of the work done in glass factories, in textiles with the exception of hosiery, in the wood industries, in tobacco rehandling, and in meat packing, in the last named of which a third of the women reported worked with casings and chitterlings; the washing of cans or dishes in bakeries, canneries, and food establishments; peeling or pitting fruit; cleaning and pressing clothing, done by over half the women reported in clothing establishments; sorting rags in rag and in paper factories; and picking out nut meats.

Some women were in employments that represented the carrying over of the older traditional occupations into the newer industrial system, such as certain sewing operations—making alterations to clothing in stores, mending or catching broken stitches by hand in hosiery and yard-goods factories, pulling bastings, or buttoning shirts for packing in clothing plants. More than 400 of those included in the study were performing operations connected with final preparation for the market, such as labeling, stamping, ticketing, inspecting, counting, checking, sorting, grading, weighing, wrapping, or packing. These were in plants manufacturing clothing, drugs and toilet goods, food products, metal products, cotton bags, tobacco, and wood products.

A considerable number of women operated machines of various kinds, many of which involved only simple operations or movements repeated indefinitely but some requiring dexterity or a degree of skill. Nearly two-thirds of the women in metal work were machine or press operators; about a third of those in clothing factories used sewing machines, but it was not possible to tell in how many cases these were power machines. Some of the women in tobacco factories used stemming machines, but although more than half of those studied were stemmers or strippers the number using machines could not be ascertained. In hosiery mills more than two-fifths of those reported were looping and seaming and some were spinning. Work on metal presses, power sewing machines, and loopers and seamers were some of the most skilled machine processes in which negro women were found.

There were a few negro women in supervisory posts or in positions involving more or less responsibility or special skill. There were two timekeepers and three supervisors having entire charge of groups of negro women; there were inspectors, core makers in metal plants,

and, in one establishment publishing a negro paper, women were engaged in all parts of the work, however skilled.

Scheduled hours.—The hours of work usually were long. Nearly three-fourths of the women reported worked 9 to 10 hours and nearly 7 per cent worked more than 10. Nearly 40 per cent had a week of 55 hours or more, including 6 per cent who worked 60 hours and over, practically all the latter being in tobacco and textiles. States in which the largest groups had a weekly schedule of 48 hours or less were New Jersey, Illinois, Kansas, and South Carolina, and those in which the largest groups had a schedule of 55 hours were Mississippi, Tennessee, and Virginia. Alabama's largest group had a schedule of 60 hours. The 8-hour day prevailed in slaughtering and meat packing and the manufacture of metal products, and it applied to a considerable group of women in cigar factories. The 10-hour industries were cotton yard goods, tobacco, and the major wood products.

Earnings.—Earnings ordinarily were low, except in the case of a few individuals. Complete State and industrial comparisons could not be carried out, as the surveys were made in years differing greatly in industrial activity and stability. In four States the median of the week's earnings of all women reported—one-half of the women earning more, one-half less—was \$5.70 or less, in two States it was \$11.30 or more; medians in the other five States for which earnings were reported ranged from \$6.10 to \$8.65. In tobacco and in hosiery, median earnings ordinarily exceeded the medians for the States in which the industry was found; in other textile industries—bags, waste, and cotton yard goods—medians for the largest groups fell below those for the State. Omitting the high earnings in one industry studied under somewhat artificial conditions in the post-war peak period of 1920, the highest medians were \$10.80 in glass factories and \$10.20 in cigar making, each in a State studied in 1922. Omitting the industries studied in years of marked business depression, in which some earnings were as low as \$3 or less, the lowest medians were \$5.55 in a box factory and \$5.80 in bag making in States studied in 1925. Year's earnings, whether in a time of depression or one of normal business activity, ran below \$300 in many cases, but there were a few individual women whose earnings ran much higher. In 1922 a hand sewer in a bag factory was able to earn during the year as much as \$895, and a press operator in a metal plant earned \$747. In 1925, a more normal business period, a twister in a tobacco factory earned \$916.

Timework and piecework.—In the industries employing the largest numbers of negro women the system of payment was by timework for the majority in slaughtering and meat packing, in the major wood industries, in glass, and in textiles. In tobacco and cigars, in nut plants, and in establishments manufacturing housefurnishings the majority were pieceworkers. The earnings of the pieceworkers presented much greater fluctuations than did those of timeworkers, and in many occupations some pieceworkers had earnings far below those of timeworkers in the same occupation. The industries in which timework prevailed provided the worker with an income more certain and uniform than piecework earnings but at a figure somewhat lower than that possible to a few individuals under the piece-

work system. In the few cases in which the same occupation was engaged in by both timeworkers and pieceworkers, the timeworkers losing no time had a median of earnings above that of pieceworkers as tobacco stemmers and as bag turners, but pieceworkers had higher earnings than timeworkers as cigar bunchers and stemmers, hosiery knitters, box stackers, and assemblers in wood plants.

Personal history of the women.—Of the women reporting age, two in five were between 20 and 30 years and slightly more than a fourth were between 30 and 40. Except for the women over 60, many of whom were tobacco stemmers and practically all of whom were in unskilled work, there was little variation in occupation that could be attributed to age. Over two-thirds of the women reporting were or had been married. These were greatly in the majority in the tobacco and the food industries, while single women formed the largest groups in the textile and the wood industries.

Some claim for the industrial stability of a considerable proportion of negro women seems justified from the data obtained. In every 10 of those whose time in the trade was reported, more than 3 had been in the trade for from 2 to 5 years, between 1 and 2 for 5 and under 10 years, and between 1 and 2 for 10 years or longer. The greatest stability was shown in tobacco and waste factories, and there was much in hosiery and in paper mills, in glass factories, and in the manufacture of wood products.

Conditions of work in spin rooms.

This report consists of two parts: (1) The effect of a change of method in the spin room on absence and turnover among women operatives, and (2) temperature readings in 15 mills.

The first of these studies gives a detailed analysis of the records obtained from four cotton mills in which the new method of operating the spinning frames—a division of labor between spinner and cleaner—had been introduced. At the time the records were taken three of these mills still were operating one or more spin rooms according to the old method. The fourth furnished records for an early summer and a winter period before and after the new method had been introduced.

In general it may be said that the new method in the spin room slightly increased the turnover but tended to lessen the time lost.

To disclose to some extent what is being achieved in heat regulation in cotton mills where careful management is anxious to have the work run as well as possible is the object of the second study in this bulletin. To some extent the heat conditions within a plant are susceptible of modification, and under similar climatic conditions one plant will keep down its heat while the temperature in another mill registers very high.

Dry-bulb readings and wet-bulb readings for 15 mills—7 in the North and 8 in the South—and covering various periods from June, 1924, to November, 1927, were reported. For most of these mills complete temperature readings for a year were available.

Causes of absence for men and for women in four cotton mills.

In a study made by the bureau in 1923 the causes of absence in cotton mills were ascertained for women but not for men. Interest in this subject has developed to such an extent that a sup-

plemental report, giving comparative data for men and women, was thought desirable, and during the past year the bureau has published in brief form the facts obtained from two northern and two southern mills that had kept somewhat detailed records of the absences in their plants.

The basic data include the daily reports made by the overseers of the mills as to the absences in the various departments and the causes of such absences. These facts were supplemented in three of the four mills by information furnished by the mill nurse regarding the types of illness causing absence. Such familiar terms as "cold," "sore throat," or "stomach trouble" were used and no more definite description of the ailments was available. Reports as to accidents in three plants also were obtained, one of them providing fairly definite information.

In each of the four mills men comprised about three-fifths of the force, but in several departments the number of women exceeded the number of men, this being especially true of the spinning rooms. It was in the spinning rooms that the greatest amount of lost time occurred.

As in the earlier study, the principal cause of lost time was the illness of the worker. This is true of the men as well as the women. The number of days lost through illness was greater for women than for men, the average in three mills being 2.8 to 5.4 days for men and 4.8 to 9.8 days for women.

Very little of the lost time in any of the mills was due to accidents. In one mill they caused less than 1 per cent of the lost time and in another the figure was 4 per cent. More men than women lost time through this cause. Records of accidents as kept by the plant nurses show very little time lost by either men or women, the largest proportion being 7.2 per cent for men in one of the mills and 1.8 per cent for women in another. Machinery was the principal cause in both mills reporting this.

It would appear that lack of work as a cause of absence affected the women in these mills somewhat more than the men.

"Home duties" and "personal reasons" were causes that differed only slightly in effect from mill to mill but affected women much more than men. Those mills that reported little time lost because of lack of work showed a higher percentage of absence for personal reasons, and those having more time lost because of lack of work had comparatively little absence due to personal reasons.

Considered in relation to season of the year the greatest amount of time lost by either men or women occurred in the autumn and winter, and during the winter months sickness was responsible for much of the time lost by men and by women.

The vague reasons "let out" and "excused" were more general in these mills in the summer or fall, and though in most instances no idea of the real cause of the absence is given these cases may be regarded as a combination of a desire for a rest or vacation on the part of the worker and a willingness on the part of the management that such rest or vacation should be taken.

From the reports of the mill nurses it appears that for men and for women the greatest number of cases of illness and of days lost through illness were caused by respiratory diseases.

LIBRARY RESEARCH

The study of material issued from other sources has been an important and essential factor in the development of the Women's Bureau. It is the desire of the bureau to make available any information of value relating to working women that can be drawn from printed records and from factual studies made by other agencies. Such sources as the State labor laws, the reports and other publications and records of the various State labor departments and the United States Bureau of Labor Statistics, the records of the Bureau of the Census, the reports of the International Labor Office, and investigations and reports made by nongovernmental organizations are studied and used in a variety of ways.

Thorough research obviously is necessary in connection with every project undertaken by the bureau, and in addition much research is involved in answering special inquiries. Among the great number of inquiries that have come to the bureau during the past year from all parts of the United States and from a great variety of sources, those outstanding have been concerned with labor laws for women, the wages and hours of labor of women, night work, and the much discussed question of married women in industry.

The News-Letter has been issued periodically throughout the year, and this record of current events relating to working women, initiated in 1921, has continued to meet with general appreciation and approval. Frequent requests have been received for extra copies and for the addition of names to the mailing list. Items reported in the News-Letter also have received widespread circulation in daily newspapers and periodicals.

Study of legislation affecting working women, both in this country and abroad, has continued, and the work on a general bibliography of women in industry has been carried forward.

What the wage-earning woman contributes to family support.

It is an acknowledged fact that wage-earning women suffer from discrimination in wages as compared with men, though it has been shown that a large proportion of women shoulder the responsibility of dependents and frequently are the chief breadwinners.

An article on the wage-earning woman's contribution to family support, written for the *Annals of the American Academy of Political and Social Science* and shortly to be published by the bureau as a bulletin, presents data on the economic responsibilities of wage-earning women and other correlated facts. Though women have always contributed their services to the home, and when illness or death came to the family some wives and daughters have had to share the responsibilities and become wage earners, not until comparatively recently have women assumed economic burdens to any striking degree. In great numbers of homes the earnings of the male wage earner are not sufficient to provide for the family and the wife or daughter must supplement them. In many cases women must supply the entire income.

Figures from a study made by the bureau on the share of wage-earning women in family support show the proportion of daughters contributing all their earnings to be 59.9 per cent, or about 25 per cent more than that of sons. The difference in the proportions

contributing as much as 50 per cent of their earnings is not so great, but it amounts to 15 per cent.

It was found in a compilation of figures from 22 studies of the bureau that 53 per cent of the 61,700 women included in the tabulation contributed all their earnings to their families, while 37 per cent contributed part, and only 9 per cent contributed nothing.

In a study of census data for four selected cities made by the bureau it was found that 21 per cent of the women were the sole wage earners in their families, and that 11 per cent of the married women and about 21 per cent of those who were single were without male wage earners. In one of every nine of more than 20,000 families a woman was the sole wage earner, and in one family in every five there was no male breadwinner.

In studies made of the women in the canning industry in the States of Delaware and Washington it was found that 9.5 per cent of the women in the former State and 5.7 per cent of those in the latter were the sole wage earners. Two-thirds of the Washington women included contributed all their earnings to the family.

In a compilation of figures on the type of dependents of some 1,800 women, made by the bureau in 1919, it was shown that one in three of the 751 single women reported a dependent mother and one in seven of the married women a dependent husband.

In a study of 843 working mothers with dependent children in Chicago, made by the Children's Bureau, 68 per cent of the families had no support from the father.

Why married women work.

Through the cooperation of a Denver store, the bureau has made a study of the histories of 103 women who applied at this store for employment during the three months May to July, 1928, and who were or had been married. Eighty-six stated that they sought work because of economic necessity, one in four of these having no income but their own earnings and nearly one-half being without a husband's support. Many had young children. Only two of all these applicants were given permanent positions in the store; four others obtained temporary work.

The employment records of the Denver Young Women's Christian Association for May to August, 1928, included 345 applicants who were or had been married. These records were examined by the Women's Bureau. Of the women reporting on these respective subjects, 90 per cent sought work through economic necessity; one-half had no income but their own earnings; 74 per cent were without a husband's support; almost half had children under 16. About 45 per cent of the applicants were successful in securing employment through the Y. W. C. A.

Women workers on part time.

Women are employed on part time in comparatively few branches of industry, but foremost among these are textile mills, stores, hotels and restaurants, and other lines of domestic service. For this reason, and because neither their earnings nor working conditions are typical, the bureau has secured data on this subject for only two groups—namely, Saturday workers in limited-price chain department stores and spare-hand workers in certain cotton mills.

Part time in cotton mills, the so-called spare-hand system, prevails generally in the South and is practiced in a few northern mills. In cotton manufacturing it is necessary to keep all machines operating, since each process depends on the one preceding, and it is for this reason that many more workers than there are standard jobs are kept on the pay rolls. When the regular workers are absent their machines are operated by "spares," and if the regular workers are absent too frequently they are "asked out" so that the part-time people may be given work. A superintendent hires as many extra people as he believes he can use during the year. Two superintendents reporting to the bureau stated that 15 and 11 per cent, respectively, of the people on their pay rolls were spares.

Frequently stores employ part-time workers on Saturdays and before Christmas or other holidays to care for the extra trade.

Data on part-time workers in limited-price chain department stores are included in a study made by the bureau and shortly to be published. The 1,776 part-time women included in the study in 17 States and 5 additional large cities were employed on Saturday only. The largest group of these women earned \$1.50 for the day's work, while the earnings of other groups ranged from \$2 to \$2.50.

There is much part-time work in hotels and restaurants, chiefly in tea rooms in department stores and in business sections where crowds must be served at the luncheon hour. The part-time women working during the rush time sometimes work as short a period as three hours.

In a study of domestic service in and around Philadelphia, the tables of which were prepared by the bureau, the largest group of part-time workers had a day of four hours, and this included women in all occupations except cooking.

Textile manufacturing in Women's Bureau surveys.

A compilation of the figures on hours and earnings in textile mills secured in 11 State surveys, and covering 38,000 to 48,000 women in several hundred plants, has been made and briefly analyzed. This compilation was presented to the Bureau of Efficiency in June, upon the request of that organization for material having to do with conditions in the textile industry.

Industrial accidents as reported by States.

The bureau has undertaken in this inquiry to learn what facts are available about accidents to men and women separately. Data on industrial accidents from the various State reports have been assembled and analyzed for whatever light this might throw on the incidence, character, causes, and means of prevention of accidents, and on fruitful questions for further accident study. Only about 20 States in any year from 1920 to 1927 have separated by sex the accidents reported, while about 10 have reported by sex and age, 5 on causes of accidents separately to men and women, and 7 on the industries in which accidents to men and women occur. Much of the information is unstandardized and noncomparable, and it is lacking in many States, yet data of this sort are essential for an understanding of the character of accidents in order to prevent them.

Industrial home work.

The need for study and regulation of the factory work being done in the home is shown in a study made recently by the bureau. This

includes a list of references on industrial home work, preceded by a discussion of the character and extent of the problem and the efforts being made for its control, based chiefly on reports of the State departments of labor.

To quote from the report:

The industrial home-work system by its very nature calls for public regulation. It is found in industries of seasonal and very irregular employment, used by employers to secure rapid expansion and contraction of their force without providing overhead and taking full responsibility for a stable group of workers. The employers are numerous, most of them operating in a rather small way with a few employees, unstable and adjusting quickly to market changes. The home workers are chiefly women, aided often by children, and engaged for the most part in simple operations. They are a group with little industrial experience, handicapped in the job market by that inexperience and by home responsibilities, sometimes by physical disabilities, and by custom. The pressure of family needs, however, brings them to seek work, while their low earnings reflect the fact that, working as individuals rather than as a group, they are poor bargainers in the labor market. Low wages, unregulated hours, poor working conditions, and child labor, are familiar aspects of this system of production, which carries with it possibilities of menace to public health.

* * * * *

The essence of the problem is to put the responsibility of the laws on the employers who give out home work. When the cooperation of the employers is secured through a campaign of education, substantial progress can be made toward elimination of some of the evils of the home-work system.

Selected reading lists.

Selected references on a number of subjects have been compiled and are available in mimeographed or printed form. The subjects comprise the health of women in industry, their hours, their working conditions, and their share in family support.

CONFERENCES

The year was prolific in conferences of special concern to women, and at a number of these the bureau was represented. Chief among them may be mentioned the following:

Women's Pan Pacific Conference, in Hawaii in August, 1928.

National Association of Colored Women, in Washington in August, 1928.

National Interracial Conference, in Washington in December, 1928.

National Association of Colored Women's Clubs, in Washington in April, 1929.

International Association of Industrial Accident Boards and Commissions, in Paterson in September, 1928.

New York State Safety Congress, in Syracuse in December, 1928.

Conference on Employer-Employee Relationships in the Home, in Washington in October, 1928.

Conference on Research in Familial Relations, in Detroit in December, 1928.

Workers' Educational Conference, in Washington in April, 1929.

National Women's Trade-Union League, in Washington in May, 1929.

Governmental Labor Officials, in Toronto in June, 1929.

National Conference of Social Work, in San Francisco in June, 1929.

DIVISION OF PUBLIC INFORMATION

The work of the division of public information has gone steadily forward during the year in the endeavor to reach the widest circulation possible for facts about women gainfully employed. News releases on all new bulletins, on speeches by the director and other members of the staff, and on special subjects have been sent out to the general newspaper lists. An increasing number of correspondents of papers, magazines, and press associations have applied to the bureau for material for articles and news stories.

Articles for many different types of publications, ranging from the most technical to the most popular, have been prepared in the division upon request. Certain magazines turn all questions about women workers over to the bureau for reply, and in turn give space to reviews of all the bureau's publications. An example of this is the attention given to one important report that appeared during the year, which was reviewed in seven major magazine articles, nine editorials, and many newspaper stories throughout the country.

Eight radio talks were written and broadcast, their titles being as follows: What Women Workers Have Done for Industry, The Two-Job Woman, Hazards to Young Working Girls, The Foreign-Born Woman in Industry, The Women of the Coal-Mining Camps, Night Work for Women, The Question of Domestic Service, and The Work of the Women's Bureau.

The two-reel motion picture, "Within the Gates," announced in the last report as just completed, was advertised by circular letter and press releases and has been lent extensively throughout the country. Eleven copies have been kept in constant circulation. Title card posters to precede local showings of the film were printed and sent out to borrowers.

A new one-reel picture, "The Story of the Women's Bureau," was completed in June. This film shows the development of the bureau itself out of the need for definite information about conditions under which women were working and for leadership in the establishment of standards for their employment. It portrays the bureau's staff at work; shows the steps by which a survey is made, from the original request to the published bulletin, and emphasizes the standards advocated by the bureau.

Two other graphic exhibits were issued: A set of five statistical charts, based on census figures, showing the industrial distribution, age, and nativity of married women workers, and two black and white posters, "The Woman Who Earns—Keeping Her Work Place Safe and Comfortable." The latter were designed to illustrate standards of comfort to insure health and of accident prevention to insure safety, and were carried out by means of selected photographs with appropriate captions in verse. Both exhibits have elicited wide interest, the married-women charts being now in their third edition and the posters in their second. In the case of the former, the contention of the bureau that the subject of married workers is of vital importance to the Nation has been amply proved, as the range of organizations and individuals applying for the charts has covered the country. In case of the standards posters, the response from employers and employers' associations has been especially marked,

but the demand has come also from unions, educators, women's clubs, libraries, churches, and many others.

Another set of charts, "Negro Women in Industry," based on Bulletin 70, is now ready for borrowers. As these five charts are done by hand and are available in only a limited number of sets, they are not to be given away but will be lent under the regular rules for loan exhibits. They show the industrial distribution, earnings, hours, and time in the trade of several thousand negro women studied by the bureau, and the industrial classification of all negro women reported by the census of 1920 as gainfully employed.

The exhibit sent to the Iberian-American Exposition in Seville, Spain, has been well received. It consists of a group of seven miniature stage sets, electrically lighted, depicting the American woman at work in agriculture, transportation, manufacture, trade, clerical, professional, and domestic and personal service. A copy of this exhibit was made with titles in English only, and this was shown at the Pacific Southwest Exposition in Long Beach, Calif., to various special women-in-industry groups, and to the National Women's Trade-Union League in convention in Washington in May, 1929. This copy is on display in the permanent exhibit room at the bureau in Washington.

Other parts of the exhibit sent to Spain, where an entire room was devoted to the bureau's work, were maps, charts, and posters, various publications, a copy of the motion picture "The Woman Worker Past and Present," and 19 framed photographs of women in various industries, all with titles in both English and Spanish.

A motograph, or moving sign, was purchased for lending purposes, and five strips for use in this machine were prepared. The reading matter on these strips consists of a brief description of the bureau's work and information regarding certain of its important standards. Other strips will be added to the series from time to time.

During the course of the year exhibits have been sent upon request into every State in the Union, to Hawaii, and to British Columbia, Sweden, Switzerland, Bulgaria, and India. They have been used by every type of organization having an interest in women gainfully employed.

PUBLICATIONS

During the year the following bulletins have come from the press:

- No. 61. The Development of Minimum-Wage Laws in the United States, 1912 to 1927.
- No. 64. The Employment of Women at Night.
- No. 65. The Effects of Labor Legislation on the Employment Opportunities of Women.
- No. 67. Women Workers in Flint, Mich.
- No. 68. Summary: The Effects of Labor Legislation on the Employment Opportunities of Women.
- No. 69. Causes of Absence for Men and for Women in Four Cotton Mills.
- No. 70. Negro Women in Industry in 15 States.
- No. 71. Selected References on the Health of Women in Industry.

The following bulletins are in the printing office:

- No. 66. History of Labor Legislation for Women in Three States; Chronological Development of Labor Legislation for Women in the United States.
- No. 72. Conditions of Work in Spin Rooms.

The following bulletins are in process of preparation for the printer:

- No. 73. Variations in Employment Trends of Women and Men.
- No. 74. The Immigrant Woman and Her Job.
- No. 75. What the Wage-Earning Woman Contributes to Family Support.
- No. 76. Women in 5-and-10-cent Stores and Limited-Price Chain Department Stores.

COMMENT AND RECOMMENDATIONS

The important task assigned to the bureau is seriously retarded by the inadequacy of its appropriation. Each year many important studies must be postponed and innumerable requests for assistance declined because the resources of the bureau are not sufficient to care for these projects. As the number of wage-earning women increases and their sphere in industry widens, the expansion of the bureau's activities should keep pace, and requests for surveys, studies, and information should be responded to with dispatch. In this way the bureau will be increasingly helpful to employer and employee, to public and private organizations, and to every person interested in the employment of women.

There are several investigations that the bureau is anxious to make, a number of these being studies of especial interest to large groups of employers, scientists, or technicians. In the following paragraphs are mentioned briefly the most important of the studies the bureau desires to undertake in the near future.

Married women in industry.

The employment of married women is a subject of great importance to-day. It is linked so closely with the welfare of the home and the family and related so definitely in the long run to the health of the race and the progress of the Nation that it has become one of the most complex problems before the country. Many urgent requests for authentic information—facts that are gathered and presented scientifically and without prejudice—have come to the bureau, but up to this time the appropriation has not been adequate for the inclusion of such an extensive investigation in the projects studied.

Occupational hazards.

Fundamental changes initiated in industrial processes within recent years call for a comprehensive study of women's employment in plants using poisonous substances. Some of these changes have brought in their wake hazards to the health and well-being of tens of thousands of women workers. Many requests for information on this subject have come to the bureau and a report on the relation between certain conditions of employment and impaired health conditions of women workers should prove invaluable in establishing good practices.

Up to this time the work undertaken by State agencies along these lines has been fragmentary and the studies have pertained almost exclusively to the occupational hazards of men.

The piecework system.

There is also great need for an investigation of the piecework system, a method by which wages are based on output rather than on

time at work. The health and efficiency of the worker are matters of such importance to all concerned that a careful analysis of the advantages and disadvantages of the system, together with a comparison of this method of work and that of timework, should prove of value to everyone interested in industrial problems.

Posture at work.

In addition to the urgent request of the association of officials of State departments of labor, a number of firms have asked the bureau to undertake a study of posture. With what success employers have met the problem of combining comfort and efficiency in a work chair of practical design and inexpensive construction should be a matter of knowledge. Facts in regard to conditions that contribute to the health and service of the worker and to the perfection of the product upon which she is employed are important from all points of view.

Women in semiprofessional and professional pursuits.

Another project that the bureau has in mind is a study of women in professional and semiprofessional pursuits. Requests for information along these lines are received constantly and these attest to the general demand for such information.

Human waste in industry.

Another study of very great importance but as yet unprovided for is the effect of fatigue on production and on the worker.

One of the major problems of present industrial conditions is connected with the great changes that are taking place in modern methods of production and the effect of these changes on the workers engaged in the actual production processes. Enormous increases in output with accompanying decreases in the number of persons required to produce a given unit have led to the placing of a different emphasis on the value of the individual as a producer. Dr. Julius Klein makes the statement that since 1920 the workers' output has increased 53.5 per cent, while during the preceding 20 years it had increased only 4.7 per cent.

Such increases are a distinct advantage to industry and to the national well-being provided only that they do not bring with them an impairment of the individual from the standpoint of health, of opportunity, and of continuity of employment. In other words, the progress that comes with modern methods of mass production can be of benefit to the Nation only if it does not involve a disastrous amount of human waste in industry.

This is a matter that is urgently in need of examination, especially where women wage earners in industry are concerned. Women are engaged largely in the occupations classed as repetitive and peculiarly susceptible to speeding up and mechanization. The effect on the individual of such speeding and mechanizing should be clearly understood, in order that proper methods may be devised and installed to prevent, wherever possible, the early impairment of the individual productive capacity through the fatigue resulting from monotony, from speed, or from other undesirable working conditions. For the final goal of increased production in industry and increased well-being in the Nation will not be reached until every safeguard is put around the worker to insure not only that she shall produce as great an output as possible but that she shall be able to continue such

production over the longest possible period of years, without the deterioration that accompanies fatigue, without the absences through illness caused by speed, strain, monotony, and with the interest and responsibility that can come only when the individual feels that she is an essential part of the industrial process and, as such, is receiving the care and direction that are her due.

This study should cover the relationship between fatigue and output and should consider those elements in industrial work that contribute chiefly to fatigue, such as long hours, bad posture, speed, monotony, noise, poor ventilation, and other faulty working conditions, and those elements that minimize fatigue and that increase output and efficiency.

Such a study should be selective and yet comprehensive and should include examination of several different types of industry in which women are employed. For this reason a considerable amount of preliminary work would have to be done in determining acceptable measurements of fatigue and acceptable applications of such measurements, and in blocking out the most desirable methods of investigation. It would be necessary to seek the cooperation of employers, of workers, and of recognized authorities in engineering, medical, psychological, economic, and industrial fields, and perhaps along other lines also. The bureau is confident that such cooperation can be secured and that a study of the character described would receive the enthusiastic indorsement of authorities in the fields mentioned.

For many years in England the Industrial Fatigue Research Board has been making continuous studies of fatigue in relation to various problems and conditions in industry, but in the United States no scientific information on a general scale regarding women is available. It seems of the utmost importance that a start should be made in collecting such data without further delay.

Respectfully submitted.

MARY ANDERSON, *Director.*

