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**WOMEN'S BUREAU**  
MARY ANDERSON, Director

BULLETIN OF THE WOMEN'S BUREAU, NO. 91

# WOMEN IN INDUSTRY

A SERIES OF PAPERS TO AID  
STUDY GROUPS

(Partly revised in 1935)

By

MARY ELIZABETH PIDGEON



UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1935

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(First issued in 1915)

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MARY ELIZABETH FIDCON



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## LETTER OF TRANSMITTAL

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UNITED STATES DEPARTMENT OF LABOR,  
WOMEN'S BUREAU,  
*Washington, May 28, 1935.*

MADAM: The Women's Bureau frequently receives requests from groups of women for material on gainfully employed women arranged in such form as to be used easily for group study or for meetings. A wider knowledge among such organizations of American women of the conditions and problems of women in industry can not fail to be of benefit. This series of papers is in line with the purposes for which the bureau was created, which include the duty "to formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment." For these reasons I beg to submit for publication a revised outline for group study of the subject of women in industry, prepared by Mary Elizabeth Pidgeon, in charge of this bureau's division of research.

Respectfully submitted.

MARY ANDERSON, *Director.*

HON. FRANCES PERKINS,  
*Secretary of Labor.*

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## FOREWORD

This bulletin has been prepared in response to a request for material in such form as to be used easily by study groups of certain organizations that desire to obtain information on the employment of women and the general conditions under which they work.

Ten aspects of the subject have been considered separately. Each of these is divided into four brief statements, to be read and discussed by four persons taking part in a meeting devoted to one phase of the subject.

While this material will be all that is desired in some groups, the ingenuity of others will suggest further study. For this reason a few additional sources of information are suggested, with the idea that the leader or presiding officer for the day or period may select further readings or may read more widely and prepare some abstract of the material it is desired to present.

With practically every number here included, certain of the Women's Bureau bulletins will be found especially helpful for use in the selection of additional reading references or in the preparation of further material by the leader. Those appropriate to each number will be suggested, and any of these as well as any of the other publications available from the list of Women's Bureau bulletins at the end of the pamphlet will be furnished upon request.

The suggested bibliography that follows makes no effort to be complete or even very long, but attempts merely to include a few of the more popular works that may be especially interesting or helpful. The Women's Bureau does not furnish the books or magazines listed, and these must be secured from their publishers or from libraries. Some groups or individuals may wish to have their own copies, and in some cases where these papers have been used, libraries have cooperated in keeping material available. State organizations taking up the study would do well to purchase a few copies of each book for lending to readers at points where these can not be obtained from local libraries.

## LIST OF REFERENCES

I. Bulletins of the United States Women's Bureau. (Furnished on request. Those appropriate for each subject listed thereby.)

II. Books.<sup>1</sup>

Abbott, Edith. *Women in Industry*. D. Appleton & Co., New York, 1924.

Bent, Silas. *Machine Made Man*. Farrar & Rhinehart, New York, 1930.

Beard, Charles A., Editor. *Whither Mankind*. Longmans, Green & Co., New York, 1928.

Chase, Stuart. *Men and Machines*. The Macmillan Co., New York, 1929.

Henry, Alice. *The Trade Union Woman*. D. Appleton & Co., New York, 1915; *Women and the Labor Movement*. George H. Doran Co., New York, 1929.

Wiese, Mildred J., and Reticker, Ruth. *The Modern Worker*. The Macmillan Co., New York, 1930.

Wolfson, Theresa. *The Woman Worker and the Trade Unions*. International Publishers, New York, 1926.

III. Magazines.<sup>2</sup>

*The Woman's Press*,<sup>2</sup> National Board of Young Women's Christian Associations, 600 Lexington Avenue, New York City.

*Independent Woman*, National Federation of Business and Professional Women's Clubs (Inc.). Published at 34 North Crystal Street, East Stroudsburg, Pa.

*The Survey*, 112 East Nineteenth Street, New York City.

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<sup>1</sup> Books and magazines referred to not furnished by Women's Bureau. It is suggested that the State organization buy a few copies to lend to local groups where public library facilities are not available.

<sup>2</sup> See especially the issue for May, 1931. This contains an article referring to a number of poems by various writers that will be of interest in a study of women in industry, and quotations from some of these; the article is entitled "People Singing" and is by Delores Segelbaum, p. 298. On p. 309 of the same issue a list of books and articles on unemployment is given.

# WOMEN IN INDUSTRY

## A SERIES OF PAPERS TO AID STUDY GROUPS

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### I. THE WORK OF THE WAGE-EARNING WOMAN<sup>1</sup>

#### (a) How she went to work and what she does.

Woman's work is one of the oldest things in the world as we know it. From long before the dawn of written history, the evidence of cave and burial place gives mute testimony to the patient labor of feminine hands. In the earliest days of human association of any permanent sort, it was the woman around whom the little family group revolved.

When machines and factories came into being, the second following closely upon the heels of the first, a great part of the former occupations of the home went out of it. It was no longer good economy to hand weave the family clothing when power looms could make the cloth so much faster and, in most instances, so much more cheaply. Woman changed in a few short years from producer to consumer, and her husband's income dwindled accordingly. In the old days, she, as well as he, had been in truth a wealth creator. Now she must pay out the money he earned for the purchase of things that formerly she made. And this earning capacity did not increase at a sufficient rate to bridge the gap thus formed, nor could it keep pace with the rising cost of living.

In most countries, in consequence, as in the United States, the women, whether producers or consumers, were forced to follow their old jobs out of the home and into the factory. They became again producers beside their husbands, but now in the additional capacity of wage earner and, in most instances, carrying a double burden because they could no longer combine their two jobs into the one continuous performance of running their households.

In the United States, according to the census of 1930, there were over 10,700,000 women workers gainfully employed. There are few occupations in which no woman ever has worked. In 12 manufacturing industries women operatives and laborers outnumbered men in both 1920 and 1930. These include the clothing industries as a whole, silk mills, knitting mills, cigar and tobacco factories, and candy making.

Having blazed the trail of remunerative employment outside the home, women have stopped short at practically no type of work, although many of the jobs they perform are similar to tasks that

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<sup>1</sup> The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 3, Standards for the Employment of Women in Industry. 1928; No. 104, The Occupational Progress of Women, 1910 to 1930. 1933; and No. 115, Women at Work. 1934.

women had for ages been responsible for in the home. Now that we have outlived the era when the slogan "Woman's place is the home" was at the height of its popularity, women are found in occupations that not so long ago were unheard of or undreamed of as possible and practical ways for women to earn a livelihood.

Four or five decades ago the girl in business was a curiosity, a woman doctor or lawyer was an object of prejudice, and the woman professor was scoffed at as a bluestocking. In this country to-day are thousands of women in such vocations. There are even women who are managers and superintendents of factories, bankers and bank officials, chemists, inventors, engineers, architects, and judges. There are women chauffeurs, draymen, teamsters and expressmen, garage laborers, switchmen and flagmen on steam railroads, ticket and station agents, telegraph messengers, steam and street railway laborers, and large numbers of women working as telephone and telegraph operators; and there are greater numbers of women in other ranks, working in factories that make cloth, garments, shoes, cigarettes, and countless other articles.

In almost every factory where men work there are some women employed, and in some kinds of establishments there are many more women than men. In the clothing factories, where garments, corsets, shirts, collars and cuffs, gloves, and other articles of wearing apparel are made, and in knitting and silk mills there were employed in 1920 nearly twice as many women as men.

In most countries, in consequence, as in the United States, the women, whether producer or consumer, were forced to follow their old jobs out of the home and into the factory. They found gainfully employed besides their husbands, but now in the additional capacity of wage earner and in most instances, securing a double portion because they could no longer maintain their two jobs into the one continuous performance of running their households.

In the United States, according to the census of 1920, there are over 10,000,000 women workers, actually employed, in 12 occupations in which the women are the principal contributors, and many others in which women operatives and laborers contributed as a part of the total force. These include the clothing industries as a whole, all kinds of manufacturing, and the food, drug, and tobacco industries, and many others.

Having traced the trail of remunerative employment on the part of women, we have seen that in practically all of the principal occupations, although many of the jobs they perform are similar to those of men, they are doing them in a different way, and with a different result. The women are doing them in a way that is more efficient, and with a result that is more valuable. They are doing them in a way that is more economical, and with a result that is more profitable. They are doing them in a way that is more practical, and with a result that is more useful. They are doing them in a way that is more intelligent, and with a result that is more successful. They are doing them in a way that is more dignified, and with a result that is more honorable. They are doing them in a way that is more noble, and with a result that is more glorious. They are doing them in a way that is more heroic, and with a result that is more sublime. They are doing them in a way that is more divine, and with a result that is more eternal.

## I. THE WORK OF THE WAGE-EARNING WOMAN—Contd.

### (b) The number of women employed.

The census of 1930 showed more than 10,700,000 women gainfully occupied in April of that year. This is an enormous increase over the number so engaged in 1920, an increase of 26 per cent, which was much greater than had been expected. Nevertheless, of all the women in the country who were 10 years old or over, only a little more than one-fifth were gainfully occupied, and of every 9 employed persons 7 were men.

It is of interest to see what types of work have been engaging women to the greatest extent. Of every 10 women employed in 1930, 3 were in domestic and personal service, very nearly 2 were in clerical pursuits, something less than 2 in manufacturing, more than 1 in professional work. This accounts for 8 women or something over, and the occupations of the remaining 2 were scattered, with the largest numbers in trade and in agriculture and the group next in size, that called by the census "transportation and communication," the greatest woman occupation there being that of telephone operator.

When the last census was taken (1930), only a small proportion of all the women in paid jobs were in pursuits not followed by women for many years. The largest woman-employing occupation was that classified by the census as "servant," the next was the teaching profession, and stenographers and typists came third.

Among the various States, the proportional increase in the employment of women was greatest in California, where there were 94 per cent more women so occupied in 1930 than in 1920. Florida came next with 76 per cent, then Arizona with 63 per cent, and there were increases of between 40 and 50 per cent in Oregon, New Mexico, Michigan, West Virginia, and New Jersey. The smallest gains—less than 2 per cent—were in South Carolina and New Hampshire, and fewer than 10 per cent were added to woman employment in Arkansas, Massachusetts, Maine, Vermont, Georgia, and Rhode Island.

If we go back to 1910 to get a 20-year view, we find that in agricultural pursuits, which have employed very many women, their number has declined greatly. The same is true of mining, in which few women are at work. In every other group, however, women have made great strides. In fact, their numbers have trebled in clerical occupations and in public service (a relatively small group) and more than doubled in trade, the professions, and transportation and communication.

Among the occupations in which men have increased in number more rapidly than women in the 20 years prior to 1930 are those of farm laborers, factory foremen, janitors and cleaners, semiskilled work in chemical, electrical, paper, and certain textile factories, and

the skilled or professional pursuits of tailoring, certain occupations in the printing trades, musicians and music teachers, and artists, sculptors, and art teachers. Women have gained over men in certain jobs such as they have long held and in some of the semiskilled manufacturing processes. These include work as stenographers and typists, waitresses, bookkeepers and cashiers, office clerks, telephone operators, and operatives in clothing, tobacco, clay, glass and stone, shoe, candy, and automobile plants. They also show greater increases than men as actors, as college professors, as keepers of hotels, restaurants, boarding and lodging houses, as real estate agents, and as barbers and hairdressers. The period showed fewer women but more men becoming physicians and osteopaths.

The following table shows the percentage increase in the number of women in various occupations from 1900 to 1910. The occupations are arranged in descending order of percentage increase. The occupations in which the number of women increased most were those in which the number of women was small in 1900. The occupations in which the number of women increased least were those in which the number of women was large in 1900. The occupations in which the number of women increased most were those in which the number of women was small in 1900. The occupations in which the number of women increased least were those in which the number of women was large in 1900.

## I. THE WORK OF THE WAGE-EARNING WOMAN—Contd.

### (c) What work in the factory means.

Mary van Kleeck, the first director of the woman in industry service of the United States Department of Labor, has said—

It seems to me that it means three things that we should emphasize here. First, it represents a chance to earn a living; how good a one it offers can be discussed later. Second, industry has constituted for women what one might call an endurance test. Third, it is an opportunity for women to join in the constructive upbuilding of a better order.

In the industrial world where women are engaged in an almost bewildering variety of occupations, there is a great deal of specialization. In fact, industrial processes have become so specialized that one person is seldom able to complete an entire article. It takes about 150 different operations to make a shoe, which used to be made entirely by one person's hands. Many other products of industry are subdivided almost as much in the process of manufacture. Consequently, to-day great groups of women make but one part of one thing or perform one little operation, doing the same thing over and over and over again. For example, a woman will do nothing but stitch cuffs on sleeves, piling them up rapidly—850 pairs a day. Or she will work intensively feeding and keeping up with a machine that cuts thousands of tin discs during her 9-hour schedule. Monotony of work has increased with subdivision in industry and the loss of craftsmanship. This development has been almost inevitable. Women are not given the same trade training and opportunities as are men, and so they are the ones who perform the most repetitious jobs and upon whom the burden of monotony falls most heavily.

Scientific study has indicated that what would be classed as light work may become, where continuously repeated, more damaging physically and psychically than heavier work which affords some opportunity for variety. Speed, complexity of machinery, monotony of job, and noise seem necessarily to be associated with our modern industrial life. Since these causes of strain are with us to stay, the problem becomes one of planning hour schedules and other conditions of work so as to reduce the amount of fatigue.

Additional reading: From Women's Bureau Bulletin 36. Radio Talks on Women in Industry, pp. 8, 9, 10.



## I. THE WORK OF THE WAGE-EARNING WOMAN—Contd.

### (d) **Early industrial work of women in this country.**

The member assigned to this section of the program should secure, if possible, *Women in Industry*, by Edith Abbott. The suggested readings from which she can select are as follows:

Ch. I. The Colonial Period.

Ch. V. The Early Field of Employment [1808-1840].

Ch. VII. Early Mill Operatives; Conditions of Life and Work.

THE WORK OF THE WAGE-EARNING WOMAN - (Contd.)

(4) Family industrial work of women in the country

The family industrial work of women in the country is of the nature of the work done in the home. It is a form of work which is done in the home and is usually done for the family. It is a form of work which is done in the home and is usually done for the family.

(5) Family industrial work of women in the city

The family industrial work of women in the city is of the nature of the work done in the home. It is a form of work which is done in the home and is usually done for the family. It is a form of work which is done in the home and is usually done for the family.

## II. THE INDUSTRIAL WORLD IN WHICH WOMEN WORK <sup>1</sup>

### (a) Changing civilizations.

Many aspects of the age we live in are difficult to understand. Rapid changes are taking place in some communities, and these stand side by side with others where changes are less rapid and culture apparently is more stable. But the developments of to-day proceed on a large scale, and improved means of transportation and communication have carried us along so fast that the quick succession of changes in important centers often produces profound effects upon localities that are smaller and quite distant from the real causes of change.

In his introduction to a collection of articles by a number of thinkers who are trying to understand modern life, Charles A. Beard, formerly a professor at Columbia University, New York, classifies civilizations into three types, The agricultural, which may be slave, feudal, peasant, or freehold; the premachine urban, which includes handicraft and mercantile pursuits and political capitals; and the mechanical and scientific, such as is found in our great industrial cities. The last-mentioned type of civilization he further explains as follows:

\* \* \* machine civilization \* \* \* differs from all others in that it is highly dynamic, containing within itself the seeds of constant reconstruction. Everywhere agricultural civilizations of the premachine age have changed only slowly with the fluctuations of markets, the fortunes of governments, and the vicissitudes of knowledge, keeping their basic institutions intact from century to century. Premachine urban civilizations have likewise retained their essential characteristics through long lapses of time. But machine civilization based on technology, science, invention, and expanding markets must of necessity change—and rapidly. The order of steam is hardly established before electricity invades it; electricity hardly gains a fair start before the internal combustion engine overtakes it. There has never been anywhere in the world any order comparable with it, and all analogies drawn from the middle ages, classical antiquity, and the Orient are utterly inapplicable to its potentialities, offering no revelations as to its future.<sup>2</sup>

An interesting contrast between an agricultural and handicraft civilization and a civilization of the machine age is given in a comparison made by Stuart Chase of life among the Mexican Indians with that which is developed when machines are introduced. He says in part:

\* \* \* Houses are built of local materials, clothing is largely home grown and spun, food comes from the neighboring fields and groves, recreation is a local product in which all participate, while over the whole economic process

<sup>1</sup> The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 36, Radio Talks on Women in Industry, 1924; and No. 104, The Occupational Progress of Women, 1910 to 1930, 1933.

<sup>2</sup> Whither Mankind: A Panorama of Modern Civilization. Edited by Charles A. Beard and containing articles by 16 other modern thinkers. Longmans, Green & Co., New York, 1928, p. 15.

broods a spirit of authentic craftsmanship giving rise to some of the loveliest pottery, glasswork, masonry, and weaving which the world knows. Nobody has much; a bad harvest may cause real suffering; you and I would be profoundly uncomfortable adjusting our bathroom, steam-heat, butter-plate complexes to actual living in one of these villages; but there is enough to go around, in the basic biological sense of the term, leisure to enjoy life, economic independence within the exigencies of climate and food supply \* \* \*.

Now let us perform a drastic and—mindful of these kindly Indians—a somewhat ghastly surgical operation. Let us graft upon this community the technic which James Watt set in motion when he solved the problem of the steam engine a century and a half ago. Invested capital comes sweeping into the country and with it interest, profits, and wages. Corporations spring like mushrooms. A lumber company takes over the forest and fuel supply. Contractors undertake the building of houses. Mining concerns exploit the silver, copper, and gold of the surrounding mountains. Factories proceed to the manufacture of textiles, agricultural implements, boots and shoes. \* \* \* Self-sufficiency lies in ruins; the region is clamped into world machine economy, drawing its supplies of physical goods from the five continents and supplies of credit from New York and London.

The Indians will have a higher standard of living, more things, and a perplexing amount of new kinds of trouble. They cease to direct their own economic destinies and go to work for a boss. Money wages supplant their sometime more direct means of subsistence. From diversification they turn to specialization; from cottage craftsmanship to work on the assembly line or in the machine shop.<sup>a</sup>

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<sup>a</sup> Chase, Stuart. *The Nemesis of American Business*. Harper's Magazine, July, 1930, pp. 130-131.

## II. THE INDUSTRIAL WORLD IN WHICH WOMEN WORK—Continued

### (b) Effects of the introduction of machinery.

In America, the machine age began to have a decided effect in the sixties. Mass production got firmly under way about the beginning of the present century. Since 1899, energy has grown twice as fast as population.

The development of an industrial era has had many and varied effects, and has changed the whole fabric of human existence in countless ways, the ramifications of which often are difficult to untangle and to understand—has intensified its joys and magnified its evils.

For example, large-scale manufacture has meant excessive concentration into urban areas, with consequent congested living conditions. The census of 1930 shows that in many States the proportional increase in the population of the chief industrial cities has far outrun the corresponding increase in the population of the State as a whole. Side by side with this effect have come developments in transportation and communication that are among the marvels of the times. Thousands of workers and their families can travel distances more vast and view scenes more manifold than the people of a century ago ever could have dreamed of. The perfection of certain types of machinery has resulted in eliminating whole categories of heavy labor under which human beings formerly were subjected to incessant slavery.

The former labor supply was inclined to be immobile and the earlier processes of living proceeded at a somewhat leisurely tempo; but a myriad of changes have come with such speed that it frequently has proven difficult—sometimes quite impossible—to adjust an economic system, a set of business practices, and a method of living to these new conditions with sufficient rapidity to prevent the occurrence to large numbers of people of serious and sometimes long-continued hardships of various types. The many benefits have been followed too frequently by evils that are taking much time, careful planning, and continuous effort to reduce them.

Certain favorable attributes of the machine age are given by one of our keen thinkers as follows: A shortening of hours in the day (perhaps not in the year, as there formerly were more fêtes and holidays); a raising of real wages; a lowering of prices; and an improving of the social and political status of the worker. The unfavorable attributes he lists as—initiation of repetitive labor, which tends to reduce to a dead level of uniformity; production of cheap, plentiful, and uniform commodities, frequently with the sacrifice of quality and variety; creation of a tendency toward some class antagonism; encouragement of wastefulness, since products are made for sale rather

than for use and are made for cheapness rather than for lasting qualities.<sup>4</sup> He adds that the machine age found the masses of men living upon the land and has herded them into cities; it made peasants, serfs, domestics, and artisans alike into wage earners; it superseded the medieval guilds and drove the descendants of the artisans into factories, stores, and offices; it found the intellectuals living on the bounty of wealthy and powerful patrons and it evolved a class of persons who capitalize their wits, commercialize their talents, or engage in work within the bounds set by modern business; it found a ruthless hereditary aristocracy ruling and replaced them by more impersonal capitalists.

Two effects of machine civilization on the lives of the workers deserve especial emphasis: The loss of economic independence and the loss of joy in an expert completed task. In regard to the first, Stuart Chase says:

When the workman left his cottage and his shop for the factory he lost his economic independence. He gave up his own tools and operated tools owned by somebody else. He ceased to control his own time and his own job. So long as the force which owns the factory has no interest in labor save as a commodity, the workman is distinctly worse off than before.<sup>5</sup>

As to the second point, loss of the satisfaction that grows from a completed work well done, two writers may be quoted. Prof. John R. Commons has said in substance that—

In general it is fair to say that the factory system has depressed the economic status of artisans and elevated the position of laborers. The experiences of the shoemakers illustrate this. The extension of markets and the gradual adoption of machinery both tended to degrade the quality of the work done by journeymen cobblers. Prices were reduced in a competitive market and artisans found themselves in an impossible rivalry with factory-made goods and with the products of semiskilled workers who were able and willing to live at a lower standard. Machinery hastened the process of substituting laborers for artisans.

On the same point Stuart Chase says:

\* \* \* the old artisan saw the product of his skill culminating immediately before his eyes. Satisfaction came as he worked. The modern designer may not see the tangible product of his labor for months; indeed, may never see it. Satisfaction is delayed or completely thwarted. Similarly much specialized work of the highest skill is only one tiny part of a great process, and often the worker has no picture of the whole process or where his task fits into it. The machine has thus operated to split the psychological unity of work and result and to take away a greater or lesser amount of the craftsman's completed satisfaction.

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<sup>4</sup> Condensed from: Borsodi, Ralph. *This Ugly Civilization*. Simon & Schuster, New York, 1929.

<sup>5</sup> Chase, Stuart. *Men and Machines*. The Macmillan Co., New York, 1929, p. 329.

## II. THE INDUSTRIAL WORLD IN WHICH WOMEN WORK—Continued

### (c) Relation of women workers to the machine age.

In the development of the machine age women took their part, and they followed the industries out of the home and into the factory. The transition had a profound effect upon the whole position of women. The real change for them was not the work itself but the manner in which the work was performed and the change from an unpaid occupation to a paid one. In other words, with the development of the factory system women were transformed from the bread-winner taken for granted in the home to the paid bread-winner outside the home.

The skills of the earlier age gave way to new skills. Handwork included spinning, weaving, woodworking, pottery making, glass blowing, and the household arts. But the new skills are mainly such as have not belonged primarily to women—for example, engine driving, track inspecting, garage work, prospecting and drilling, steel construction. Other new skills woman has more readily acquired, although they differed vastly from her former pursuits—for example, stenography, telephone and telegraph operating, machine-printing work, medical work, laboratory research.

In relation to her household tasks, an industrial age produces many devices for lightening labor and simplifying life. These include such things as vacuum cleaners, refrigerators (electric or otherwise), sewing machines, canned food, and many other appliances and commodities that lighten household labor. It must be remembered, however, that many women must go outside the home to earn money, and if the labor of the wage-earning day is too exhausting, the added work that must be done at home may be, despite the new labor savers, a greater burden than it was in the years when the entire life of women was lived at home under the old conditions. Furthermore, there are many wage-earning women who can afford to buy but few of the labor-saving devices.

Stuart Chase outlines three stages through which factory machines have progressed:

First, they supplied more power to the skilled worker. They increased his output but left his job substantially unchanged.

Second, they subdivided the manufacturing process, allowing unskilled or semiskilled workers to feed them, remove the output, and carry on the few repetitive motions which their tending required. \* \* \*

Third, they replaced the unskilled worker with their own steel fingers, doing the feeding, processing, packaging, themselves. The skilled man comes back into the picture as inspector, repairer, adjuster of delicate controls. His job is interesting, nonrepetitive, requires intelligence.

It is the second and least satisfying of these stages that makes up the bulk of the work of women in factories to-day. When women go from the home to the factory they become peculiarly liable to

industrial exploitation. The industries in which they first tend to be employed are likely to pay very little. Unaccustomed to price scales outside the home, unfamiliar with the new life, unconnected with organizations that could educate and benefit, the woman worker has neither the knowledge nor the facilities to secure adequate pay and safe work conditions. Low wages and poor conditions go hand in hand. It is for this reason that, although much is being done in some places to improve the work surroundings for women and to provide for them conditions making for health, they still too often are subject to the earlier conditions described by Mr. Chase as follows:

\* \* \* The initial effect of the machine age was to hurt the worker physically and mentally. It killed him, maimed him, infected, poisoned, and above all bored him as perhaps no other culture has ever done. This effect still obtains in altogether too many areas, particularly in countries which are just developing the factory system and in backward regions of highly mechanized nations.<sup>6</sup>

In summing up the rapid movement in this new age, Professor Beard has this to say:

\* \* \* Science and the machine have changed the face of the earth, the ways of men and women on it, and our knowledge of nature and mankind. They break down barriers before us and thrust us out into infinity. Not even the Living Buddha escapes their impact, for ships, railways, motors, and air-planes carry visitors to disturb the calm of his contemplation. \* \* \* Old rules of politics and law, religion and sex, art and letters—the whole domain of culture—must yield or break before the inexorable pressure of science and the machine. Women, perhaps even more than men, find it difficult to steer by ancient headlands. Accustomed by long necessity to functions that conserve life, they suddenly discover that the modes of conservation are multiplied by science and the machine into endless complexity. \* \* \*

\* \* \* [But] by understanding more clearly the processes of science and the machine mankind may subject the scattered and perplexing things of this world into a more ordered dominion of the spirit.<sup>7</sup>

<sup>6</sup> Chase, Stuart. *Men and Machines*. The Macmillan Co., New York, 1929, p. 166.

<sup>7</sup> *Whither Mankind: A Panorama of Modern Civilization*. Edited by Charles A. Beard and containing articles by 16 other modern thinkers. Longmans, Green & Co., New York, 1928, pp. 403-404.

## II. THE INDUSTRIAL WORLD IN WHICH WOMEN WORK—Continued

### (d) Lives of the workers in the machine age.

With the growth of the present era of machinery and large-scale production there came for many workers extreme specialization in their tasks, the strain of speed in carrying out their operations, and the monotony of continuous rapid performance of one process. As one writer puts it:

\* \* \* the impersonal beat of machinery has made demands, never before approximated, upon the men and women who serve it. In the textile industry, for example, the rate of production is determined by the speed of machines. \* \* \* Human beings are subordinated \* \* \* to the motion of machinery.<sup>8</sup>

A brief paragraph from Stuart Chase in regard to some of the activities in Henry Ford's factory illustrates the extreme specialization that takes place in most modern industries:

The chassis-assembly line of Mr. Ford goes (or did for model T) at the rate of 6 feet a minute. It contains 45 stations or operations. At station No. 1 mudguard brackets are fastened to the frame; at station 10 the motor is installed. The man who puts on a bolt does not put on its nut; the man who puts on the nut does not screw it home. At station 34 the motor receives its gasoline. At 44 the radiator is filled with water; at 45 the finished car arrives in John Street.

The effect of such work tends to take away the worker's pride in his individual job. As Mr. Borsodi has said in substance:

The factory makes it almost impossible for individual workmen to develop their own personalities; condemns those capable of creative effort to repetitive work.

The modern worker is a creature of routine, which changes hardly at all from day to day and from year to year, a cog in huge factory systems of production and distribution.

Or to quote from another writer along similar lines:

\* \* \* the machine is opposed to individuality. It is ruthless, routine, patterned, and precise. It has no use for many of the qualities and attributes of man, who created it. It has no way to employ that enthusiasm and effervescent imagination which were the wellsprings of its invention.

Along the same lines Arthur Dakin, principal of the Baptist college in Bristol, England, said in a recent address:

\* \* \* Years ago a man's work was probably next to the home the greatest single factor in the development of personality. To-day it is not so. For one thing, the nature of work has changed. It no longer brings the same satisfactions. It leaves parts of personality entirely without exercise, and, moreover, often the higher parts of personality. In many situations, for example, only a minimum call is made upon a man's judgment. The reasoning processes are scarcely required at all. Thousands are never called upon to make any

<sup>8</sup> Chenery, William L. *Industry and Human Welfare*. The Macmillan Co., New York, 1922, p. 153.

decision or to display any sort of initiative, with the result that work has become less vitally connected with character, and consequently it is in the leisure hours especially that the development of personality must be cared for.

Long hours of the sort of monotonous work required in many women's jobs in factories to-day leave the worker weary and lacking in initiative.

\* \* \* A recent study of the Psychological Institute of Paris concludes that adding machines and other calculating devices constitute a distinct danger to the nervous system if operated for more than two hours a day. A picked number of intelligent girls were given monotonous cross-stitching work. They learned quickly and their initial output was very large. After a while, however, it fell below the output of the girl of average intelligence. They had been slowly bored to inactivity.

R. L. Cruden, analyzing labor conditions in Detroit, concludes that "monotony \* \* \* stifles initiative and may operate as an industrial boomerang. Men with alert minds report that after eight hours of it they can not settle down to read or to think." They must find some emotionally violent form of escape in jazz, gin, the movies, tabloid murders, cross-country motoring.

Perhaps it was instinctive for the members of the premachine age to resent the rapidly changing times, but their opposition could not delay the march of the machine age. A celebrated American poet, Stephen Vincent Benét, has thus described the fight against the advent of the newer times put up by one group:

They shot the railway train when it first came,  
And when the Fords first came, they shot the Fords.  
It could not save them. They are dying now  
Of being educated, which is the same.  
One need not weep romantic tears for them,  
But when the last moonshiner buys his radio,  
And the last, lost, wild-rabbit of a girl  
Is civilized with a mail-order dress,  
Something will pass that was American  
And all the movies will not bring it back.

To the frequently sordid pictures of what too often has happened to the worker with the introduction of machinery, there is hope of the relief that can be supplied by improving the conditions of work and life, by understanding the needs of new situations, by the action of informed public opinion, wise legislation, and more effective management to prevent abuses. Mr. Chase sounds an optimistic note as to the present age:

\* \* \* The life of any modern individual is theoretically open to more variety, but practically may be less varied, than that of an individual in other cultures. The machine is probably the greatest destroyer of standards which the world has ever seen. The temporary standards which have sprung up to fill the gap are all too often ugly and unpleasant. But there is no certainty that they will last. Indeed, the only certainty is constant change, so long as technology maintains its present pace.

\* \* \* \* \*

\* \* \* [But] Ask the traveler if he would prefer to live out his years in the Wales of the eighteenth century, or as a citizen of the modern British Empire. Unless he is an incurable sentimentalist he will prefer the varied life of the modern man to the limitations of the premachine man.

### III. MARRIED WOMEN WORKERS <sup>1</sup>

#### (a) The number of married women gainfully employed.

According to the 1930 census, there were in that year over 3,000,000 married women workers. This means that only slightly over 1 married woman in 10 is gainfully occupied, though well over 3 in 10 widowed and divorced women and 5 in every 10 single women are so employed.

It must be pointed out that the 1920 census publications classed widowed and divorced women and those with status unknown in the group with single women, so that it was not possible to ascertain the total number of women workers who had been married. For the 1930 census, two groups of matrons were reported: One includes married women living with their husbands, the other comprises those widowed and divorced. Single women formed another group, but in this were thrown all those whose marital status was not reported.

It is significant to consider what occupations married women have entered in the greatest numbers. More than one-third of them are in domestic and personal service, practically one-fifth in manufacturing, over one-tenth each in clerical work and in trade, and nearly one-tenth in the professions and in agriculture, the remainder being scattered.

Since almost two-thirds of the gainfully occupied married women were found in manufacturing and mechanical industries, domestic and personal service, and agriculture—types of work in which women have almost no opportunity for a career—it would appear that the chief reason they have sought such employment lies in the demands of economic necessity. Indeed, this point can not be too frequently emphasized, since many studies show how customary it has become for married women to be responsible for the total or partial support of others. This is even more true in a time of widespread unemployment, and in very many cases the married woman has had to go to work because the man wage earner in the family has lost his job and is not able to obtain employment.

Of all women gainfully occupied in the United States, the census of 1930 shows us that only about 29 per cent were married, about 17 per cent widowed or divorced. A decided majority of all such employed women were single.

Many surveys testify further to the fact that the married woman often bears a heavy share in the support of the family. For example, an unemployment census made in Philadelphia in 1931 showed that about 12,500 families had no earned income whatever except that obtained by the employment of the married woman, whose husband might be an invalid or among the jobless.

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<sup>1</sup>The following publications of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: Bul. 75, *What the Wage-Earning Woman Contributes to Family Support*, 1929; and recent mimeographed material on married women's employment. See also LaFollette, Cecile T. *A Study of the Problems of 652 Employed Married Women Homemakers*. Teachers College, Columbia University, 1934.

## UNMARRIED WOMEN WORKERS

(a) The number of married women jointly employed

According to the 1906 census there were in that year 1,000 married women workers. This was a slight increase over a number of years in which the number ranged from 900 to 1,000. In 1911 the number of married women was 1,200 and in 1912 it was 1,300.

It must be pointed out that the 1906 census included only single women and married women and that with some exceptions the figures in this report are for women who were not in the household. The total number of women workers who had been married before the 1906 census was 1,200. The figures in this report are for women living with their husbands. The other category of women and children, which is a separate group, but in this way the total number of women workers is not affected.

It is significant to consider that the number of women workers in the United States has increased from 1,000 in 1906 to 1,300 in 1912. This is a steady increase of 300 women workers in six years. It is also significant to note that in the period from 1906 to 1912 the number of women workers has increased from 1,000 to 1,300. This is a steady increase of 300 women workers in six years.

From about 1906 to 1912 the number of married women workers has increased from 1,000 to 1,300. This is a steady increase of 300 women workers in six years. It is also significant to note that in the period from 1906 to 1912 the number of women workers has increased from 1,000 to 1,300. This is a steady increase of 300 women workers in six years. It is also significant to note that in the period from 1906 to 1912 the number of women workers has increased from 1,000 to 1,300. This is a steady increase of 300 women workers in six years.

All women gainfully employed in the United States, the census of 1912 shows, is the only annual report which was made, about 11 per cent of the total. A small number of all such employed women were single.

The survey is based on the fact that the married women of the family have been in the market since 1911. It shows that an important number of women have entered the market since 1911. It shows that an important number of women have entered the market since 1911. It shows that an important number of women have entered the market since 1911.

The following table shows the number of women workers in the United States, by industry, in 1906, 1911, and 1912. The figures are in thousands. The figures are in thousands. The figures are in thousands.

### III. MARRIED WOMEN WORKERS—Continued

#### (b) The responsibility of married women for family support.

Readings from Women's Bureau Bulletin 75, What the Wage-Earning Woman Contributes to Family Support, by Agnes L. Peterson.

Read on pages 6-7—Inadequacy of Men's Wages.

Read on pages 10-11—Contributions by Women.

The gainful employment of the married woman is a part of the whole problem of economic change. Dr. Gwendolyn Hughes Berry, author of *Mothers in Industry*, explains this, and gives instances showing the necessity for women to help to support the family, as follows:

With the growth of towns and the development of the factory system, however, production by women and children in the home has been greatly reduced. The husband's contribution to family support, meantime, has changed from commodities ready for immediate consumption to money wages. Whether the money income earned by the father is less or greater than his former contribution in kind is not known. The fact remains that while he did not support the family alone during the period of household production, it is tacitly assumed by those who question the employment of mothers that his money wage should to-day support both him and his family.

\* \* \* As her duties in the home are cut down, the mother's economic function is becoming specialized outside the home. \* \* \*

The struggle to live on the husband's wage alone, in most industrial families, is a failure. A canvass of nearly 12,000 families in six industrial sections of Philadelphia in 1918 showed that the majority, 55 per cent, relied on income from other wage earners or from lodgers. Only 6 per cent of this entire group was of the conventional statistical type, husband, wife, and three children under 16 years of age, supported by the husband alone.

Families not supported by the father alone, as a rule, turn first to the wages of children (18.6 per cent), next to the wages of the wife (17.7 per cent), and third to income from lodgers (15.9 per cent). This canvass of almost 12,000 homes showed that in only 7.5 per cent of the total number was more than one of these sources of supplementary income utilized.

\* \* \* \* \* \* \* \* \*

"Why did you go back to work after you were married?" was one of the questions put to a group of 728 working mothers in Philadelphia. "My husband wasn't making enough," answered the largest group (29 per cent); "My husband was dead," came next (22 per cent); followed by "My husband was sick" (14 per cent); "He left me" (13 per cent); "He wouldn't support me" (11 per cent); and "I'd rather work" (11 per cent).

These answers show clearly the measure of success which has met the husband's attempts at supporting his family. The great majority of these wives, under varying degrees of economic pressure, undertook the partial or entire support of their families while the husband was living.<sup>2</sup>

Further testimony to the economic need of the married women is shown in a small study recently published by the Women's Bureau of two groups of married women who applied for jobs in Denver.

In the first group were reported 345 women who had applied to the Young Women's Christian Association. Of those giving rea-

<sup>2</sup> *Annals of the American Academy of Political and Social Science*. May, 1929, pp. 316, 317.

sons, 90 per cent were forced to work by economic necessity. Among the causes of this was the fact that the husband was dead, that he was unemployed or in irregular work, that he was in prison, that he was divorced, separated, or deserting, that his earnings were inadequate, that some financial emergency had occurred in the family. The other group comprised 103 women who had applied for jobs in a large department store in the city. Of these, 86 reported economic necessity as the reason for needing work.

An earlier study of 843 Chicago mothers published by the United States Children's Bureau showed that for nearly 70 per cent of them the father's support was withdrawn from the family, through death, desertion, illness, or for some other reason, and for another 12 per cent his earnings were irregular through seasonal employment or some other cause. Over one-fifth of these families had four or more children.

In 132 families whose total year's income was reported, the budget for the year outran the entire family income in nearly half the cases. In families not sending children to day nurseries, 45 per cent of the children were cared for by neighbors or by some relative other than the parents while the mother was at work, but for more than one-fourth of them no provision for care was made, and almost one-fourth of those looked after by other relatives were in the care of older sisters, most of whom were under 18. The family situation was unfortunate no less for mothers than for children. One-third of the women reporting had all their own housework to do in addition to their gainful employment, while a similar number did it with the help of the children, and mother after mother spoke of being worn out or "tired all the time." Over one-third of the children attending school had been absent 30 or more half days, and cases were reported of delinquency arising from the necessary neglect.<sup>3</sup>

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<sup>3</sup> U. S. Department of Labor. Children's Bureau. Publication No. 102, *Children of Wage-Earning Mothers*, by Helen Russell Wright. 1922.

### III. MARRIED WOMEN WORKERS—Continued

#### (c) The double duties of married women workers.

There are some people who believe that women go into stores, factories, and mills because they prefer that kind of labor to housework. If those theorists could take a peep into the homes of most wage-earning women, they would discover these same women after 8 or 10 hours of industrial work toiling in the home, at the stove, or over the dish pan, washtub, or sewing machine. Housework must be done before and after factory work each day, even though women get up at 4 in the morning and go to bed at midnight.

In a recent radio address, Miss Mary Anderson, Director of the Women's Bureau, said:

Because in the neighborhood there may be a family in which both a man and his wife work, perhaps drawing very good salaries, this does not mean that all the married women who are working have husbands drawing good salaries or that they are only working to earn better clothes, a new car, or a radio.

That this is not true, the findings of the Women's Bureau have clearly shown. The majority of the married women who are working are so employed because their wages are actually necessary for the support of the home and family. The figures collected by the bureau in scientifically conducted investigations show that to support a family even at a level of mere decency requires more than the income obtained by hundreds of thousands of wage-earning fathers and husbands to-day.

The records of all the employed women in one industrial city as taken in the census of 1920 were studied by the Women's Bureau, and it was found that about half of the women who were bread-winners were married women. There were more than 4,000 married women earning money in this one community. When examined closely, the records of these 4,000 married women disclosed something that seems very important. Nearly two-thirds of them were mothers who had children less than 5 years old. It was found that about half these mothers of young children earned money at home by taking in boarders or doing laundry or some other form of work that did not oblige them to leave home, so that they could care for the children and work at the same time. But the other half went out to work and spent their days in mills making woolen and worsted cloth and in factories making handkerchiefs and other articles.

Agents visited as many of these families as they could and found among every five women one who was working at night and looking out for her children during the daytime and one who just left the children alone at home to look out for each other. Sometimes the father worked at night and cared for the children in the daytime while their mother was away, and sometimes the neighbors or the landlady or relatives kept an eye on the children. Only 1 woman in 20 had some one who was paid especially to care for her young children while she was away at work.

Can you see all these mothers leaving home at 6.30 or 7 in the morning after they have washed and dressed the children and prepared their breakfasts and lunches? Can you see these mothers working all day, and can you imagine their thoughts as they wonder whether the children are all right and whether some one has seen to all the many things little children need? And at the end of the day's work in factory or mill, can you picture the home-coming of these mothers and the tasks awaiting them?

By making some provision from public funds, certain States have attempted to enable widowed mothers who are under economic necessity to remain in their homes and care for their children. Legislation making such provision has been enacted in 42 States according to a recent study made by the Children's Bureau, and the expenditure of public moneys appropriated for payment to these mothers is reported for 25 of these and the District of Columbia.<sup>4</sup> This type of measure, while in itself valuable and necessary, usually is applied to a restricted group, and, in the nature of the case, the amount of aid it furnishes is quite limited. Outside of its possibilities lie great groups of married women driven by economic need to assume the double rôle of wage earner and home maker.

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<sup>4</sup> U. S. Department of Labor. Children's Bureau. Publication No. 162. Public Aid to Mothers with Dependent Children. 1928. And manuscript revision of figures, December, 1930.

### III. MARRIED WOMEN WORKERS—Continued

#### (d) Some effects of the employment of married women.<sup>5</sup>

There has been considerable speculation as to the effect of the gainful employment of married women upon the women, upon industry, and upon society in general. To such questions, as to others that arise from social conditions that are in constant flux, there is no complete or final answer.

The effect upon industry of the work of married women has not been measured, and scarcely can be separated from that of single women. Employers or foremen have been known to state a preference for married women as the most regular workers. Some studies show considerable irregularity of women as compared to men workers in industry, their home cares often being assigned as a reason; but such a cause can not be confined to married women—single women also have many home responsibilities, frequently including the support and care of dependents.

As to the effects upon society, Dr. David Snedden, professor of educational sociology of Teachers' College, Columbia University, speaking rather of the professional or semiprofessional than of the industrial woman, has said:

It is the present writer's conviction that the economic and eutenic consequences of the outworking of married women of superior qualities may \* \* \* be considerably more favorable than otherwise. \* \* \* Substantial proportions of them are \* \* \* superior producers \* \* \*.

A considerable and growing body of well-equipped professional women are bearing out this conviction. The experience of most persons to-day testifies to acquaintance with women who are giving fine types of service to professions for which they are admirably suited and by the pursuit of which they are able to add to the family income amounts that spell for their children more expert care than they themselves, perhaps poorly equipped for household tasks, could possibly provide, and far better opportunities of education and training than the salary of one member of the family alone could give.

Another writer (Dr. Lorine Pruette) speaks of the need for married women to maintain earning capacity, since there always is the likelihood of being thrown upon their own resources. She says:

Not only does part-time employment of the married woman offer the opportunity for the development of a new home life, it lessens or destroys the appalling economic risk taken by every woman who to-day marries and devotes herself to the traditional rôle of wife. There is no security in domesticity. It is heartbreaking to see the middle-aged woman, trained for nothing except the duties of the home, venture out into the industrial world. Divorce, death, or loss of money may put her in this position, where she has

<sup>5</sup> Quotations in this section taken from articles in *The Annals of the American Academy of Political and Social Science*. May, 1929.

so little to offer organized industry and so much to suffer. The married woman who lets herself go upon the easy tide of domesticity is offering herself as a victim in a future tragedy.

The effect of the employment of married women upon the women themselves is considered by a keen student of the situation. Ernest R. Groves. Certain paragraphs of his that bear upon various aspects of this many-sided problem may be quoted as follows:

\* \* \* Not from body structure or biological function, but from a division of labor in which masculine desire had the determining influence, woman was delegated the home responsibilities and the details of parenthood. Aside from the nursing of her child, there is no part of the task of house-keeping or child nurture which man could not have carried on as efficiently as woman if the path of tradition had led him to the domestic vocation.

\* \* \* women \* \* \* are handicapped because of artificial regulations based upon the idea still persistent in much of the thinking of men that the only proper place for the woman is in the home. Excellent teachers of experience lose their positions if they marry, because of the regulations of many school systems. In one institution of higher learning the woman teacher who marries a member of the faculty automatically is removed from the staff and no questions are asked as to whether by entering matrimony she has taken over additional responsibilities of domestic character or has lost through her marriage her desire or ability to teach.

In spite of the prejudice that still persists regarding the married woman's employment, built upon the tradition of masculine dominance, fortunately rapidly passing, there are to be found an increasing number of the younger group of husbands and wives who find a richer domestic experience possible because both of them work outside the home. This thoroughly modern type of man refuses to believe that there is any psychic distinction which marriage originates that can make his wife happy in a household routine that he would find for himself unendurable.

The complications that grow out of the employment of women in business, industry, and the professions are, aside from possible effects upon the choice of motherhood, socially constructed and will be eliminated by merely increasing the number of women who work after marriage. Artificial handicaps and obstructing traditions must give way as woman's economic independence persists and increases. Meanwhile, for the individual wife, the conditions of our transitional period make her choice of wage employment a cause of difficulties that register their effects upon her personality, her philosophy of life, and her social attitudes and relationships.

#### IV. WOMEN AND UNEMPLOYMENT<sup>1</sup>

##### (a) How unemployment affects women.

The hardships of unemployment fall heavily upon women in many ways. No generalizations on the subject can be made that will cover the cases of all women, since different groups are affected variously.

There are women who must share the effect on the family of their husbands' loss of jobs, women who must assume the burden of support when the male worker is laid off or permanently displaced, and women who are themselves out of work and seeking a job for the support of themselves and sometimes of others also.

In a recent study of families known to settlement workers in 32 cities in all parts of the country, case after case is given of women who had gone to work because the husband had lost his job. None of these were in families in which unemployment was caused by illness or incompetence, but in all cases the man had been an effective—often a skilled—worker, and he was willing and anxious to take any kind of job he could get. The following were a few of the instances included:

A Boston shoe worker whose wife went into a laundry. (Three children.)

A laborer in a New York wrecking company that failed. Wife went into a restaurant. (Four children.)

A man employed by a Boston ice company. Lost his job with the increase in electric refrigerators. Wife cleaned offices. (Seven children.)

A worker in a broom factory in Louisville was displaced when the company failed because unable to buy improved machinery. Wife became a scrub woman. (Three children.)

A Philadelphia loom fixer's wife went into a shirt factory.

Wife of a Pittsburgh pipe cutter's assistant was a high-school graduate and took up canvassing when he lost his job because of the installation of new machinery. (Three children.)

A Philadelphia truck driver's wife took up office cleaning. (Seven children.)

A Boston printer whose wife is employed in a restaurant. (One child, another baby coming.)

While a larger proportion of men than of women are likely to be placed by employment agencies, there are times when relatively more women than men can get jobs. In New York a number of noncommercial employment agencies exchange record sheets daily in order to make available to others the jobs they can not fill themselves. In January, 1929, and again in June, 1930, the proportion of the persons applying to these agencies that were placed was somewhat higher for women than for men; in the latter month relatively few of either sex were placed.

But where women can get jobs and men can not, the reason for this is that women usually are paid less, and if they must assume the family support it means a definitely lowered living standard for

<sup>1</sup>The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 83, Fluctuation of Employment in the Radio Industry, 1931; No. 92, Wage-earning Women and the Industrial Depression of 1930—A Survey of South Bend, 1932; and No. 113, Employment Fluctuations and Unemployment of Women, 1928-31, 1933.

the family, already likely to be existing on too low a wage to permit saving for the emergencies of illness or unemployment.

And large numbers of women are among the unemployed. In a recent study the Women's Bureau made of the tobacco industry many women were found permanently out of work because machines that required fewer operators than before had been installed and factories had, in consequence, been closed in the smaller places. Depressed periods mean the curtailing of public as well as private funds, and school-teachers form a large group thrown out of work. In New York City alone in the fall of 1930 there were 3,842 accredited teachers on the waiting list.

When a self-supporting woman is out of a job, her situation is miserable enough. But when a mother—either the wife of a displaced man or herself the bread-winner—is out of work, her distress over the condition of her children is even more acute than that of the unemployed woman with no dependents. For, as Miss Grace Abbott, formerly Chief of the Children's Bureau, points out, what children lack this year may permanently undermine their health and the loss can not be repaired next year.

#### IV. WOMEN AND UNEMPLOYMENT—Continued

##### (b) The extent of unemployment.

As to the full extent of unemployment, only estimates can be made, based upon such information as has been collected in various places. Of course, the number of unemployed changes from week to week and month to month and is never wholly stationary. It is estimated that even in the most prosperous times there are a million unemployed, and the recent tendency to displace workers by installing improved machinery may greatly increase the number that always will be found out of work.

The American Federation of Labor reported that about one-fifth of the trade-union members in the country were out of work in the first half of 1930. And the Secretary of Labor estimated that the new industrial workers on the market every year amount to about 2,500,000, the largest groups of these being persons moving from farms to cities and boys and girls coming to working age. In a number of cities in which surveys of the situation were made prior to the 1930 census about one-tenth of the working population studied were unemployed.

The census of 1930, taken as of April 1, made an attempt to count the number of persons unemployed at that time. Of the women who ordinarily were wage earners, 4.7 per cent were unemployed.<sup>2</sup> This did not take into account those who were ill or unable to work, and these form an additional large group of unemployed, many of whom are especially destitute. Furthermore, in 29 of the 38 States that had cities of 50,000 or more, the proportions unemployed in these urban groups were higher than in the State as a whole. A later count of 19 cities of 100,000 population or over, by the census, reported 18.9 per cent of all women wage earners in these cities out of work or on lay-off.

The largest proportions of women unemployed in the State as a whole—6 per cent or more—were in Rhode Island, Massachusetts, Florida, Oregon, Michigan, and New Hampshire. In the cities the proportion of women unemployed ran above 10 per cent in New Hampshire and 6 per cent or more in 10 additional States. The smallest proportions of women unemployed in any State—about 1.6 per cent—were in Mississippi and South Dakota. The proportions of men and of women unemployed differed by less than 1 per cent in 15 of the 48 States and by only 1 to 2 per cent in 14 others.

Reports for all the States show how long persons reported had been unemployed when the census blanks were filled out. In 15 States at least one-tenth of the women out of work or on lay-off had been unemployed for about 6 months or longer; the largest proportions

<sup>2</sup> Including the two census classifications A and B: persons out of a job, able to work, and looking for a job; persons on lay-off without pay. See also Women's Bureau Bul. 113 just cited in IV (a).

out so long were in Massachusetts, Michigan, and Minnesota, the smallest in Tennessee and South Carolina. In 23 States 2 per cent or more of these women had been without a job for more than a year.

More recently, studies of unemployment have been made in the two important industrial States of Pennsylvania and Massachusetts. In Massachusetts a census taken in January 1934 shows that of the women who formerly were gainfully occupied 16.2 per cent were unemployed. In Boston 18 per cent of such women were reported out of work in 1931, and 20.1 per cent by the State census in 1934. A census taken in Pennsylvania in April 1934 shows that over 22 per cent of the women who had been gainfully occupied were unemployed at that time. The 1931 census indicated 24.2 per cent of such Philadelphia women out of work, and the State census showed 29.2 per cent of them unemployed in 1934. As ordinarily proves to be the case wherever data are available, the Pennsylvania counties containing the large industrial cities show higher unemployment of women than does the State as a whole.

The American Federation of Labor and the Industrial Union of Marine and Shipbuilding Workers of America, in a study of the unemployment of women in the United States, estimated that the number of persons unemployed at that time. Of the women who originally were gainfully occupied, 4.7 per cent were unemployed. This did not take into account those who were ill or unable to work, and these form an additional large group of unemployed, many of whom are especially destitute. Furthermore, in 20 of the 38 States that had cities of 50,000 or more, the proportions unemployed in these urban groups were higher than in the State as a whole. A later count of 19 cities of 100,000 population or over, by the census, reported 1.8 per cent of all women were without work in these cities out of 100,000.

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113 (continued on p. 29)

#### IV. WOMEN AND UNEMPLOYMENT—Continued

##### (c) Some causes of unemployment.

Why do workers suffer from unemployment? What factors make for these conditions? One cause lies in the seasonal character of certain industries. Examples of this are in candy, where peak production is required to produce Christmas candy and another smaller peak comes just before Easter, with depressions and loss of jobs for many workers at other periods of the year. The clothing industries, likewise, are subject to seasonal variations, and it is obvious that fruit and vegetable canneries have to operate with full force at certain seasons and offer no work at others.

In a number of industries that suffer from seasonal fluctuations, large groups of women are employed. In consequence, while we have seen that women can sometimes get jobs at low pay when men can not, this condition for women as an industrial class may be offset by the concentration of much of their labor in seasonal industries that mean frequent unemployment, or slack work with consequent low pay. It is reported by the International Ladies' Garment Workers Union that many of their members can find work for only about six months in the year, and William H. Green, president of the American Federation of Labor, has estimated that in the clothing industry as a whole workers are employed not over 40 weeks in the 52.

Besides the seasonal trades, other industries suffer from recurrent cycles of depression and unemployment. When times are good, buying power is widespread, a hopeful attitude is abroad, manufacturers expand sometimes too much, money values are inflated. Then, often for a variety of reasons, the market for goods begins to fall off; factories find themselves overstocked and begin to cut production and to lay off workers; workers then have less money to buy and those still having jobs spend less freely; some save their money for fear they may be next to be laid off, others that were in seasonal industries before find their slack seasons lengthened; the market contracts still more; heavy depression and unemployment are upon us.

A third general reason for unemployment is called by certain lengthy names, such as "technological unemployment," or that due to "rationalization." This occurs when improved machinery is developed to take the place of workers more rapidly than these can be adjusted to other types of jobs, or when large concerns merge and the resultant curtailed forces can produce under new organization as much or more than the larger groups of workers that were formerly employed.

A few concrete instances of the way in which the too rapid introduction of machines throws people out of work are of interest: In the manufacture of sewing-machine needles, 1 girl can now inspect as

many as 9 could before; as bean snippers in canning factories machines have made it possible for 12 women to do the work formerly done by 200; in textile mills, a machine put in use in 1919 made it possible for 1 woman to do the work formerly done by 17 drawers-in of the warp; a machine for packaging bread can now do the work of a number of women; the electric typewriter is replacing typists; and the introduction of the dial-telephone system is likely to close many jobs for girls. Such changes are bound to produce serious effects upon great numbers of workers, unless constructive planning prevents these inevitable hardships. President Green, of the American Federation of Labor, has stated that a new machine installed in the glass industry threw out of work 20 to 40 glass blowers for every machine installed, and thirty-one times as many electric-light bulbs can be made by automatic machinery as by the former hand processes. Nor is the problem confined to industrial workers. The merging of business firms or the taking over of small by large concerns—a process that is now going on at a rapid rate—sometimes throws out business executives.

Sometimes the malady of unemployment affects highly trained artists, and the loss of jobs by many skilled musicians in some of our cities because of the introduction of instruments producing music artificially has been a tragedy that has made a profound impression on the public mind.

#### IV. WOMEN AND UNEMPLOYMENT—Continued

##### (d) Methods of minimizing unemployment.

There is a theory sometimes current that a sporadic increase in buying may assist in inspiring the public confidence to a belief that recovery is beginning. However, no permanent effect is produced in this manner, and it may even stimulate a seasonal growth that may prove disastrous when succeeded by a slump. Furthermore, the women who are out of jobs or whose husbands have had lay-offs lasting for many months have no money for such buying. Very large groups of people can buy only when they have jobs, can contribute to the steadiness of the market only when a condition of stability has been restored.

For this reason it is obvious that some more permanent methods of general economic planning must be undertaken. Four very important points in a constructive program for minimizing unemployment may be mentioned here: Further attempts at regularization within the industries, the establishment of sound public employment agencies, some type of insurance against such unemployment as can not be prevented or the establishment of a reserve fund to maintain wages in times of depression, and a permanent shortening of hours of work—with sustained wages—as improvements in machinery make less labor necessary to produce commodities and services.

Many individual firms have undertaken methods of regularization, such as manufacturing for stock or making repairs when orders are slack; combining services that would reach peak demand in different seasons, as, for example, the well-known combination of supplying coal and ice; guaranteeing a certain number of weeks' pay in the year; shortening hours of work in slack seasons while maintaining regular pay—in this connection a system of payment by the year instead of by the hour or week would be a distinct improvement. Manufacturers are finding that it pays them to undertake methods of securing stable conditions, since a large proportion of those who should be able to buy are wage earners and it is only when people have work that they can afford to buy, and it is of vital importance to the development of industry that the buying power of the people be maintained. The particular methods of attaining this end vary with industry, locality, and other conditions.

There is great need for help to the worker in finding a job and a growing sentiment for the carrying on of this work by well-regulated public agencies. Secretary of Labor Frances Perkins, when industrial commissioner of New York State, found abuses arising from private employment agencies that sought to make capital out of a period of wide-spread unemployment. In some cases agents collected fees and sent men out to jobs that did not exist; in others, jobs were given and then the worker caused to lose the job in order

that the agency might collect another fee. Of course, there are private agencies that pursue honest policies, but a system maintained at public expense is necessary for the relief of the unemployed of the burden of paying a fee in order to secure employment. In certain large industrial States, such as Ohio, California, Massachusetts, New York, or Michigan, public agencies are operating with considerable success and with benefit to many workers.

Finally, relief must be provided for periods of unemployment that can not be prevented. When insurance can be issued against fire, unfavorable weather, industrial and traffic accidents, and all manner of other possibilities of calamity, even including death, certainly the risk of unemployment could be insured beneficially. In certain American industries and in certain firms with far-sighted management this already is being done with success. This system should be extended.

For this reason it is obvious that some more permanent methods of general economic planning must be undertaken. For very important points in a constructive program for minimizing unemployment may be mentioned here: Further attempts at reorganization within the industries, the establishment of sound public employment agencies, some type of insurance against such unemployment as can not be prevented or the establishment of a reserve fund to maintain wages in times of depression, and a permanent shortening of hours of work with sustained wages—as improvements in machinery make less labor necessary to produce commodities and services.

Many individual firms have undertaken methods of reorganization, such as maintaining a stock or making reports when orders are slack; combining services that would reach peak demand in different seasons as, for example, the well-known combination of supplying coal and ice; maintaining a certain number of weeks' pay in the year; shortening hours of work in slack seasons while maintaining regular pay—in this connection a system of payment by the year instead of by the hour or week would be a distinct improvement. Manufacturers are finding that it pays them to undertake methods of securing stable conditions, since a large proportion of those who should be able to buy are wage earners and it is only when people have work that they can afford to buy, and it is of vital importance to the development of industry that the buying power of the people be maintained. The particular methods of attaining this end vary with industry, locality, and other conditions.

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## V. HEALTH STANDARDS FOR WOMEN'S WORK—WORKING CONDITIONS<sup>1</sup>

### (a) Service facilities and sanitary conditions in the work place.

The physical condition of the shop or factory in which the woman worker spends a third or more of the 24 hours of each working day has definite effects that make for good or for ill health for the worker and often contribute to the state of health of her family as well.

The health and energies of an individual are bound up with the welfare and prosperity of the community. The crippling and incapacitating of human beings by industry means the undermining of the national life. This is particularly true where women workers are concerned. Sanitary and comfortable work conditions go far toward maintaining the good health and unimpaired morale of the workers, which are national assets that should be fostered.

Standards that are recommended for women's work places by the Women's Bureau include provision for pure drinking water, with individual cups or sanitary fountains; accessible washing facilities, with hot and cold water, soap, and individual towels; standard and convenient toilet facilities, with at least one installation for every 15 women; cloakrooms, rest rooms, and lunch rooms.

To the minds of persons accustomed to consider certain conveniences necessary to health and well-being, many of these points need little elaboration. The subject of pure drinking water has been so well studied in connection with the needs of school children that there is a common sentiment—in all but three States crystallized into law to some extent—against the use of the common cup and in favor of the sanitary drinking fountain or the individual cup.

That care must be taken to have fountains sanitary was shown in a well-known university several years ago when an epidemic of streptococcus was traced directly to faulty drinking fountains, which had the vertical flow on which germs are not washed away but have been found to remain as long as 25 to 48 hours. To avoid contamination, in the fountain provided, the flow of water should be at an angle, so that it can not fall back onto the orifice, and it should be equipped with an adequate guard to prevent face or hands coming in contact with the orifice. Certain other specifications that have been found most satisfactory for the construction of fountains are set forth more fully in a special bulletin of the Women's Bureau.

<sup>1</sup>The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 6, The Employment of Women in Hazardous Industries in the United States. 1921; No. 57, Women Workers and Industrial Poisons. 1926; No. 60, Industrial Accidents to Women in New Jersey, Ohio, and Wisconsin. 1927; No. 71, Selected References on the Health of Women in Industry. 1926; No. 81, Industrial Accidents to Men and Women. 1930; No. 87, Sanitary Drinking Facilities. 1931; No. 114, State Reporting of Occupational Disease. 1934. In addition, the Women's Bureau will send on request two pictorial wall charts, entitled "The Woman Who Earns; Keeping Her Workplace Safe; Keeping Her Workplace Comfortable."

Where individual cups are used, care should be taken that the supply is not allowed to become exhausted and that it is kept clean.

As regards washing facilities, where these are added not only is the employee protected but the consumer of the goods as well.

Clean hands make clean work  
 (That's a truth we can not shirk).  
 Soap and hot water and each her own towel  
 And neither the foreman nor customers growl.

In all industries workers should have facilities for washing before eating lunch and before leaving the plant, and in some occupations, especially, frequent washing of the hands is a necessity; in the handling of food, or when work involves contacting poisonous substances, it should be compulsory.

Toilet requirements should be fully defined by law, and should cover separation of facilities for men and women, privacy, the provision of at least 1 seat to every 15 workers, cleanliness, good lighting, and suitable fixtures. The Women's Bureau has in preparation a bulletin setting forth details as to the type of sanitary requirements needed, and showing what provisions are made by law in the various States.

Among its reports, the Women's Bureau has issued 34 that deal with some phase of working conditions. These cover approximately 4,700 plants and more than 325,000 women; 20 of them are state-wide industrial surveys, made in each case at the request of the State concerned. Conditions of work places as revealed by these reports present contrasts; in every State there were plants in which work conditions were excellent, and in many instances employers had gone farther than the requirements of the State law or the standards recommended by the Women's Bureau, but in many of the establishments the surroundings were such that they constituted a menace to the workers.

## V. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING CONDITIONS—Continued

### (b) Special health needs in the work place.

The improvement of the health of the workers is a national problem, and also a very personal one, and therefore a matter of interest to every worker and employer. Aside from humanitarian reasons, the employer is vitally interested from the standpoint of the efficiency of his employees. Engineers and other scientific experts are continually at work devising better methods of regulating the lighting, heating, and ventilation of workrooms, minimizing noise and vibrations, and controlling similar matters affecting health.

One of the health problems to which attention was given early was that of comfortable and hygienic seating and correct posture at work. In regard to this point the Women's Bureau has recommended the following:

Continuous standing and continuous sitting are both injurious. A chair should be provided for every woman and its use encouraged. It is possible and desirable to adjust the height of the chairs in relation to the height of machines or worktables, so that the workers may with equal convenience and efficiency stand or sit at their work. The seats should have backs. If the chairs are high, foot rests should be provided.

The necessity for providing workers with chairs that will support the body so that the best working position can be maintained with the expenditure of a minimum of energy is becoming more generally recognized, with the increasing realization of the harmful effects of fatigue.

All States but Mississippi and New Mexico make some legal provision for seats in work places, and many provide in addition that workers shall be allowed to use them. However, these laws ordinarily make no specification as to type of seat, and in many cases they do not apply to all kinds of establishments.

It is generally understood that a good work chair must provide support for the back, a seat shaped to the body, and foot support (either the floor or a foot rest), and that the height and back must be adjustable. The measurements vary according to the individual and the type of operation to be performed.

On three other points affecting the worker's health, the Women's Bureau makes the following recommendations:

Lighting should be without glare and so arranged that direct rays do not shine into workers' eyes. Ventilation should be adequate and heat sufficient but not excessive.

It is common knowledge in this day that bad air, rooms that are too cold, too hot, too humid, not well ventilated are injurious to health. They reduce not alone the worker's vitality but her efficiency as well. It is obvious that sufficient circulation of air and the elimination, as far as possible, of injurious fumes, lint, dust, or

excessive humidity are important to health. Certain occupations involve special problems not easy of solution. For example, careful attention has to be paid to eliminating dust in tobacco factories and lint in certain departments of textile mills, to minimizing the excessive heat and humidity in laundries, and to carrying off poisonous fumes from certain substances and to protect workers from flying particles in buffing and polishing. In many cases methods of disposing of these problems have been worked out effectively, and many firms have recognized the need of employing technical engineers for installing devices for this purpose; however, in some establishments the plant is not equipped with modern devices for handling matters of such importance to the worker's health.

In certain occupations where close work is required, defective lighting is likely to damage eyesight and impair health, to cause accidents, and to limit and spoil production. Studies have shown correct lighting to lessen nervous irritability and increase output and quality of product. From careful experiments in one factory it was found that in several operations production showed a rise of from 8 to 27 per cent with improved lighting. Illumination, whether natural or artificial, should be of the proper intensity for the job to be done; facilities should be well arranged and well guarded to protect from glare.

It has long been known that excessive noise produces unfavorable effects on the nervous system. One writer states that noise is often a sign of "wasted energy, of poor design, or of hurried ignorance." Although noise may be responsible for an accident or illness, it is often hard to prove the direct effects. However, recent studies have shown that definite increases in the output of typists resulted when noise was reduced. Where heavy machinery is used, some of the various methods of absorbing sound and vibration should be employed. Unfortunately, progress in the science of preventing noise has not progressed so rapidly as have the improvements in ventilation and lighting.

All States have inspection and law departments in addition to the vision for seats in work places, and many provide in addition that workers shall be allowed to use them. However, these laws ordinarily make no specification as to type of seat, and in many cases they do not apply to all kinds of establishments. It is generally understood that a good work chair must provide support for the back, a seat shaped to the body, and foot support (either the floor or a foot rest), and that the height and back must be adjustable. The measurements vary according to the individual and the type of operation to be performed.

On three other points affecting the worker's health, the Women's Bureau makes the following recommendations:

Disturbance should be without rate and so arranged that direct rays do not strike into workers' eyes. Ventilation should be adequate and best sufficient but not excessive.

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## V. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING CONDITIONS—Continued

### (c) Industrial hazards: Injuries.

As new industrial processes develop and new machinery is placed in operation, it becomes necessary to be ever on the alert to make sure that proper safeguards are taken against the risk of injury that could be prevented.

The American Engineering Council has found that the number of machine injuries per worker has increased since 1920, but believes this to be a temporary feature due to lack of sufficiently rapid adjustment to the changes that are coming so fast in the industrial world. Although accidents are relatively fewer to women than to men, the number of women injured is very large. In New York, for example, over 7,000 women in one year were compensated for accidents.<sup>2</sup>

Frequently it is very difficult to get complete reports of the number of accidents that have occurred to women, and it is almost impossible to make adequate comparisons of the various States in this respect. The Women's Bureau recently made a study of reports in the States from 1920 to 1927, and found that only 21 States at any time in these years published accident data separately for men and women. Only 11 reported age of the injured, and only 3 of these—Illinois, Massachusetts, and New York—used throughout the period the standard form recommended for reporting age and sex, by means of which various States may be compared.

The suffering and loss from injury were so evident that early in this century a movement for some form of compensation to the worker began to be crystallized into law. Such action was furthered by far-seeing employers as well as by the American Association for Labor Legislation. At present 44 States have some form of workmen's compensation legislation, and the Federal Government has given similar protection to its life-saving and postal services, longshoremen and harbor workers, and civil employees.

Money compensation is an excellent thing, but this alone is not enough. Many of the injuries that occur could be prevented. One large corporation is said to have reduced accidents 86 per cent in 13 years; one large railroad company is reported to have a record five times as favorable in this respect as the average for other large railroads.

For women in five of six States that gave reports by industry, over half the injuries were in manufacturing, and chief among these to cause injuries were the food, clothing, textile, and machinery and vehicle industries.

In three important industrial States—New Jersey, Ohio, and Wisconsin—the Women's Bureau made a detailed study of the reports

<sup>2</sup> July 1, 1926, to June 30, 1927. See Women's Bureau Bulletin 81, p. 17.

of more than 3,000 accidents that had occurred in one year. Of these, over two-thirds had affected the upper extremities. Among the machines that frequently injure women's fingers, hands, and arms are punch presses in metal factories and machine shops, power sewing and knitting machines, and cutting machines of any type. For example, girls and women were found to have been injured taking lumber from a saw, cutting leather in a heel factory, shaving soap in a soap and perfume factory, operating a flat-work ironer or an automatic cigar machine, packing food in bottles, carrying or lifting heavy weights, and in many other ways. It is possible to guard most of these machines so that fingers or other members can not be so maimed, and proprietors frequently realize that it is greatly to the interest of industry and society that such accidents shall not occur.

Nor is the guarding of machinery all that is necessary.

Well guarded now our big machines  
 But other dangers lurk;  
 Cluttered, oily floors and aisles  
 Add peril to our work.

Many injuries occur from falls on slippery floors, in cluttered aisles, on ill-lighted stairways, or in passageways. In five States in each of which accidents to women for a year's period were studied, over one-fifth of these were due to falls. And falls, it is found, result in longer periods of disability than do other types of accident.

First-aid facilities, in charge of a competent person, should be provided in every place of employment.

## V. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING CONDITIONS—Continued

### (d) Industrial hazards: Disease.

Certain occupations present greater hazards of disease than do others, and in addition the excessive speed that attends some industrial processes is likely to produce permanent nerve strain, often accompanied by abnormal muscular reactions.

Dust is an ominous destroyer, and persons employed in the dusty occupations are likely to be affected with pulmonary or bronchial troubles. Flour, starch, soapstone, talc, wood dust, bran, clay, ore, and stone dust are very prevalent in industry. Tuberculosis figures collected by the Metropolitan Life Insurance Co. in 1928 show death rates far above the average for pottery workers, stonecutters, and grinders.

In general it may be said that three chief methods ought to be developed to combat the deleterious physical effects of dust and poisonous substances used in industry: (1) Every effort should be made to reduce the amount of dust, to carry it off, or otherwise to protect the worker; (2) where less dangerous substances can be used, processes should be changed to enable their use; (3) occupational disease should be made reportable and included in workmen's compensation laws; compensation is allowed for such diseases generally or for designated diseases of this class in 12 States.<sup>3</sup>

It will be noted that the foregoing methods of minimizing occupational disease apply to men as well as to women, and such should be the case. The prohibition of women's work in occupations exposing them to these dangers will not solve the whole industrial problem if men still are affected. The finding of substitutes for poisonous substances and the inclusion of diseases arising from occupation in the compensable lists constitute more fundamental remedies.

As regards the possibility that women may be more susceptible to certain poisons than are men, in most cases sufficient data have not been gathered in this country to give proof of this fact. However, there are two substances that apparently affect women more seriously than they do men—lead and benzol. The pottery trade carries with it the greatest danger of lead poisoning for women, and American potteries have made less headway in protecting workers from maladies due to this cause than have those in certain European countries. While men also are susceptible to lead poisoning, the effects are especially injurious to women, rendering them more likely to have abortions or stillborn children and reducing the vitality of children born alive. Despite this fact, only two States have laws prohibiting

<sup>3</sup> California, Connecticut, Illinois, Kentucky, Massachusetts, Minnesota, Missouri, New Jersey, New York, North Dakota, Ohio, and Wisconsin.

or regulating women's employment in industries where they are in danger of such poisoning.\* Benzol poisoning causes anaemia and renders a healthy pregnancy almost impossible.

The poisonous trades in the United States employ a very much larger proportion of men than women, and the occupations of the latter usually expose them in a less degree than men; but it is also true that the number of women subject to the danger of industrial poisoning is much greater than it was before the war. In many cases the serious effects of the use of a new substance do not appear for a period of years, and the tracing of illness to the true cause sometimes is difficult. Every effort should be made to protect workers from poisonous substances; so far as possible, the use of other substances should be substituted for those found dangerous; in all cases occupational disease should be made reportable and compensable; and much further study should be made of the effects of various suspected poisons and of the extent to which these effects apply especially to women.

\*New Jersey and Pennsylvania.

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## VI. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING TIME<sup>1</sup>

### (a) Daily hours of work.

Recently a new musical production entitled "The Dance of the Age of Steel" was heard in Philadelphia. Sixty dancers took part in the presentation, and the press made this statement:

\* \* \* This ingenuous ballet presents a cynical survey of the grinding wheels of the machine age, ironing out individuality of effort, crowding and pounding human beings down with steam-roller impersonality, and pointing the hopeless and irreconcilable contrast between warring elements in modern life. All types—the bourgeoisie, flappers, Boy Scouts, soldiers—even such impersonal elements as coal, steel, and electricity, playing their parts in the ceaseless treadmill of modern existence.<sup>2</sup>

This opera illustrates vividly how different are the conditions of modern industry from those obtaining at the time when most articles were made in the home. The invention and development of power-driven machinery, the subdivision of processes, mass production, rapid transportation contributing to mass distribution—these and other factors have helped to mold our present complex economic life.

Such conditions tend to have a very marked effect on the human beings involved in making the goods now in demand. The factory method of manufacture described in earlier papers of this series produces types of strain unknown or infrequent in the time of home production. Some of these are due to speed, complexity of machinery, noise, subdivision of processes, and monotony of job. These things mean that the individual is overtaken by fatigue very rapidly. They make it imperative that every effort should be made to maintain reasonably short hours in factory and other occupations.

In the needle trades, for example, in some cases a girl tends a sewing machine carrying 12 needles making 4,000 stitches a minute, or 2,400,000 in 10 hours—since many work that long—often working in a bright light and with unshaded eyes, and amidst a noise that can only be described as a deafening roar.

The telephone service also may be cited as an example of work requiring great speed. The average hours are 8½, but with overtime, Sunday work, "working through," loss of relief, or "excess loading," as practiced in some exchanges, these are often exceeded. When you consider problems of monotony, speed, and noise in industry it is well to picture yourself at such work. For instance you would probably find it most fatiguing to answer 500 telephone calls day in and day out. Yet thousands of telephone operators have answered many times that many calls a day—depending upon the

<sup>1</sup> The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 18, Health Problems of Women in Industry, Revised, 1931; No. 43, Standard and Scheduled Hours of Work for Women in Industry, 1925; and No. 64, The Employment of Women at Night, 1928.

<sup>2</sup> *Le Pas d'Acier*, by Serge Prokofeff. Orchestra conducted by Leopold Stokowski, and dance led by Edwin Strawbridge. Washington Star, Apr. 12, 1931.

location and type of equipment. While many of you would find the mere plugging in a trying operation, telephone operators have had to receive each of your calls and plug in your connection, follow its completion and sometimes check up to disconnect you; far too frequently they have been held responsible in addition for poor connections over which they have had no control—long hours of work have therefore been particularly arduous. The automatic equipment will relieve telephone operators from much that was provoking and place much of the responsibility for satisfactory telephone calls upon the person calling.

Scientific study has indicated that what would be classed as light work may become, where continuously repeated, more damaging physiologically than heavier work that affords more opportunity for variety.

Extreme subdivision of industrial processes, with the resulting monotony for the worker, is one of the greatest factors calling for the reduction of the long day. This is a matter to be considered particularly in connection with women, because women are employed very largely in the industries where the subdivision is the greatest, such as the garment, the boot and shoe, the electrical-supply, and the textile industries. For example, many women are engaged in the stitching of long straight seams all day, the tacking of pockets, the pasting of lining stays in shoes, or the running of 30 or more looms in a textile mill. These operations mean the same kind of work from morning to night, from one week to the next. Spinning, weaving, or knitting means continuous walking between machines, watching, watching, for stoppage of machines and tying up broken threads. Because of the great monotony attending the work through subdivision, the continuous work must not be too long if health is to be maintained.

There is considerable scientific evidence to show that excessive fatigue, besides having deleterious physical effects, slows up the worker. Dr. H. M. Vernon, of the Industrial Fatigue Research Board in Great Britain, concludes from his studies that when hours of work are very long a reduction of hours may lead to a distinct increase of total output. Others have reached the same conclusion. Moreover, fatigue increases the danger of accident, lowers the resistance of the worker to infections and other diseases, and tends to induce various forms of nervous disorder.

The Women's Bureau recommends that no woman be employed more than 8 hours a day, and that at least 30 minutes should be allowed for lunch. How conservative a minimum this is, is shown by the fact that the late Charles P. Steinmetz, the "electrical wizard," stated that with the possible increase in the use of electricity the time will come when no one need work more than 200 4-hour days in the year. In the garment trades, for example, as much clothing as can be sold to advantage, even in good times, can be made in about 40 weeks in the year, and special arrangements have been made between employers and employees in certain of these trades to give workers relatively steady employment for a certain number of weeks at a wage reasonably suited to maintain them for the full year. In most industries, even with expanding markets, much better planning for the use of workers' time on the

job could be instituted, better work secured, and much more leisure and a higher living standard assured than now obtains. Thus far, only 12 States and the District of Columbia legally restrict any type of employment to 8 hours,<sup>3</sup> and in 6 States there is no restriction whatever in regard to the length of the workday in any industry.<sup>4</sup> And experience has shown that while many firms voluntarily make their own limitations of hours there are always some firms that will require work for too long a period unless this is prohibited by law for the sake of the workers' health.

The Women's Bureau also recommends that a rest period of 10 minutes be allowed in the middle of each work period without increase in the daily hours. Common sense would indicate the need for such rests, but in addition a considerable body of evidence exists from various scientific tests that have been made.

For example, an experiment conducted in the lifting of weights shows that a worker on "light-heavy muscular work" in an 8-hour day can not give maximum output unless he rests at least one-sixth of the time. A group of girls folding handkerchiefs produced their best output when resting 21 per cent of the total working time. These findings are confirmed by other studies.

Further, it has been found that when one's middle finger lifts a weight over and over until completely exhausted a rest of two hours is necessary for complete recovery; while if the finger is worked only half as long as this, recuperation requires only a quarter as much time as in the first case. All such investigations indicate the wisdom of providing reasonably short hours of work and suitable rest periods.

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<sup>3</sup> Arizona, California, Colorado, Kansas, Montana, Nevada, New Mexico, New York, Oregon, Utah, Washington, and Wyoming.

<sup>4</sup> Alabama, Florida, Indiana, Iowa, Minnesota, and West Virginia.

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\* Arizona, California, Colorado, Kansas, Minnesota, Nevada, New Mexico, New York, Oregon, Utah, Washington and Wyoming.  
 \* Alabama, Florida, Indiana, Iowa, Missouri, and West Virginia.

## VI. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING TIME—Continued

### (b) Hours of work in the week.

An important pioneer work, *Fatigue and Efficiency*, by Josephine Goldmark, has indicated quite clearly, as have many succeeding studies, that the individual handicapped by the physical poisons produced by fatigue can not work so rapidly or so effectively as can the person who has sufficient time for rest and recreation.

Reasonably short hours of work in the week are even more important than short daily hours, for while a worker might withstand occasional long days, the long week produces cumulative fatigue that can not be overcome.

That a shorter work week does not diminish production but rather increases it, because the worker who is not overfatigued is able to do a more effective job, has been indicated in a number of investigations. One of these was made by the Illinois Industrial Survey Commission in 1918 and had to do with a group of girls wrapping and packing soap. It was found that production in a 48-hour week was considerably above that in a 55-hour week.

The minimum weekly standard recommended by the Women's Bureau is that there should be one day of rest in seven and that, in addition, the Saturday half holiday should be the custom. With an 8-hour day this recommended standard would make a 44-hour week. This minimum standard is a very conservative one in these days when in a considerable number of industrial firms as well as in other occupations the 5-day week has been instituted.

A tragic commentary on the lack of effective economic planning instituted thus far in America lies in the fact that, while long bread lines of unemployed are to be seen in most of our cities, large numbers of our workers in industrial and other occupations still bear the strain of excessive hours of labor.

Many industrial leaders are seeing the fallacy of this situation, and it is not infrequent to note in the daily press instances of firms or of large sections of an industry adopting the 5-day week and statements of managers to the effect that such a step increased production. Of course, the salutary effect of this would be entirely nullified if it should mean in any case a reduction of the week's wages.

At the 1930 convention of the American Federation of Labor it was conservatively estimated that over 500,000 union members have a regular weekly schedule of five days. It is well known that the 5-day week has been the accepted practice for a large proportion of those in the occupation of teaching, frequently for office employees, and sometimes in stores, especially in the summer months.

With an 8-hour standard and a Saturday half holiday, 44 hours a week would be worked. A 5-day week and an 8-hour day would

produce 40 hours; while much shorter hours still undoubtedly could make for happier and more efficient living if industrial managers planned effectively and if leisure were wisely used.

Yet only in 10 States does the law place even a 48-hour restriction on the week for gainful employment in any manufacturing occupation, while 5 States make no legal restriction of daily or weekly hours, and in 2 others 70 hours a week would be possible, except for the fact that Virginia allows no work on Sunday. In 33 States the laws affecting the largest numbers of workers provide for a week of over 48 hours, 16 of these permitting over 54 hours, and 7 permitting 60 hours or more.

The findings as to increase in production with the shorter day might be taken to indicate that better planning could inject greater efficiency—as well as happiness—into the life of the home manager. A few years ago the United States Department of Agriculture induced more than 2,000 housewives to keep careful daily records of a typical week of seven days. The average hours worked were 51 in the week, while for 950 farm women they were 62. Although city families usually were smaller and had more help, women in towns of 50,000 and larger worked a little over 48 hours in the week, those in the smaller towns 51. Many more household appliances are available to-day, but many families can not afford them and in others the labor savers have tended to reduce the work of the household more definitely to a 1-worker job. There is an important difference in the work of the homemaker and the woman in industry: Housewives usually can distribute their own time; not so with the woman who works in a factory all day and has to do her housework after factory hours.

The following table shows the number of women in industry in 1917 and 1918, and the number of hours worked in each of these years. It is based on the data in the report of the Bureau of Labor Statistics, "Hours Worked in Factories and Mines, 1917-18." The table shows that the number of women in industry increased from 1,000,000 in 1917 to 1,200,000 in 1918, and that the total hours worked increased from 40,000,000 in 1917 to 45,000,000 in 1918. This indicates that the average number of hours worked per woman increased from 40 in 1917 to 37.5 in 1918.

## VI. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING TIME—Continued

### (c) The night shift.

There is a pretty little verse by Edna St. Vincent Millay that has been very popular since its appearance. It runs as follows:

My candle burns at both ends;  
It will not last the night.  
But, oh, my foes, and ah, my friends,  
It gives a lovely light.

This may be all very well for a few individuals, but it would be a bad practice for most people, and certainly for women who tend rapid and noisy machines.

Most employed women have responsibilities outside their hours at the place of business; almost always they must complete more time-consuming odd jobs than men must—they must launder some or all of their clothing, darn their stockings, and keep themselves presentable. But more than that, often they must cook and clean for a smaller or larger family and very often—whether married or single—they must bear some share, not infrequently the whole responsibility, in the care of children.

The health of the worker is all the more seriously impaired if the employment happens to be on a night shift. Then, indeed, must the candle be burned at both ends, whether the individual would wish it or not.

There is a considerable body of medical testimony to the deleterious physical effects of night work. "Outside of great emergency or absolute industrial necessity, all night work should be abolished, and more so for women than for men," says one eminent medical authority; and another states: "It is unnatural for most forms of life to work at night and attempt to sleep in the day." These opinions are echoed and reechoed by physicians, by life insurance actuaries, and by many other scientific investigators. Night work sins against nature in the loss of sleep it involves, and this loss of sleep, with its accumulating fatigue poisons, is far more deadly to the body than is starvation. For the night worker, the end is frequently ruined health, and in most cases this comes far more quickly with the woman than with the man, not only because of her different physical make-up, but because her work does not end when she leaves the factory, including, as it nearly always does, the manifold household cares that await her return home. Additional physical evils are to be found in deprivation of sunlight, most valuable of natural tonics; in frequent injury to sight; and in a higher number of accidents, due to the necessity of working under artificial light.

Investigations made by the Women's Bureau have shown that the strain and hardship of night work was intensified by the fact that hours often were very long and that in many cases provisions

were lacking for certain of the facilities important for the health and comfort of the workers, such as proper rest pauses, lunch periods, seats, etc. In addition, while wage rates generally were slightly higher than those for day workers, the amounts actually earned often were below the corresponding earnings on the day shift.

A recent example of a way in which an industry may solve the problem of the ill effects of night work has been the plan for eliminating night work for women in textile mills, proposed by the manufacturers themselves. By the first of March, 1931, when this plan was to go into effect, it had been accepted by over 80 per cent of the industry, including over three-fourths of the night runners. Leading mill managers made statements to the effect that the past experience ordinarily had been that "peaks of overproduction were followed by valleys of unemployment." Mills that had been running part time day and night had begun full-time day operation with the elimination of night work. This bears out the belief of a high official of the Cotton Textile Institute, who outlined the effect of the new plan as "increased opportunity for daywork for women under more favorable conditions \* \* \* including \* \* \* much greater regularity of employment." Thus the whole movement tends to benefit the industry as well as the workers.

The fact that such a plan can be put into effect in an industry ordinarily much more decentralized than some others is encouraging. However, much greater permanency for such a move can be assured if it is followed by legal action, for always there are likely to be some unscrupulous managers who are unwilling to take forward steps and who will place upon their employees the needless burden of unhealthful working conditions.

At present, there are only 12 States that prohibit night work for women in various manufacturing industries,<sup>5</sup> although 6 others either prohibit in some occupation or place some restriction on night work. The hours of 10 to 6 appear to be the most commonly affected by such prohibition or restriction. This is an advance over the minimum recommendation of the Women's Bureau, which is that no woman should be employed between the hours of midnight and 6 a. m. The textile plan referred to prohibits night work from 7 p. m. to 6 a. m.

<sup>5</sup> California, Connecticut, Delaware, Indiana, Kansas, Massachusetts, Nebraska, New Jersey, New York, Oregon, Pennsylvania, and Wisconsin.

## VI. HEALTH STANDARDS FOR WOMEN'S WORK— WORKING TIME—Continued

### (d) Vacations and sick leave with pay.

Executives and business men, like school children and teachers, look forward to the vacation period, and often the home maker does also, even though for her it entails much of the labor or preparation for the family outing. The head of a large company has given a concise expression of the basis on which the vacation with pay is likely to be granted—that it “is a good business proposition on the theory that a worker will more than pay for his vacation in better work.” It has been estimated that the typical cost of vacation wages in general is less than 2 per cent of the total annual pay roll of a firm. Sometimes this is charged to the overhead of the various departments, or it may be deducted from net profits of the business.

It is quite certain that every individual must have some leisure for health and happiness. “Leisure to be worth the name must be pleasurable, vivid, and tranquil,” says a recent writer. “Leisure is enjoyed when we do something by individual choice and not by coercion, and when the doing brings a sense of timelessness and enrichment \* \* \*; unoccupied time is not leisure, nor is organized play, nor speeding from point to point.”

Despite the view widely held that vacations with pay are good business, and the medical testimony to the health requirement for such an occasional rest, practices as to the arrangement for vacations vary widely. Since women are more likely than men to have jobs entailing repetition, routine, and monotony, and since their labor rarely ends with the day's work in factory, store, or office, it would seem that women in particular had need for an annual vacation.

Studies made by the American Management Association, the Federal Personnel Classification Board, the Metropolitan Life Insurance Co., the Industrial Relations Counselors, and other agencies confirm the statement that it is a very general custom to grant vacations with pay to clerical workers and to the office force in manufacturing plants.<sup>6</sup> The time allowed varies, but most commonly it is one or two weeks. Under the laws of the United States and various States and cities, about 2,000,000 public employees are given vacations.

Though vacations are extended to only a small proportion of the industrial workers, in spite of the fact that the nature of their work, with its speed, noise, and monotony, would seem to require especial attention to this matter, the practice is growing. A study published

<sup>6</sup> American Management Association. Office Executive Series No. 30. Office Working Conditions and Extra Compensation Plans, by H. J. Taylor. New York, 1928. Reviewed in Monthly Labor Review, August, 1928, pp. 34-36. Industrial Relations Counselors (Inc.). Research Series. Vacations for Industrial Workers, by Charles M. Mills. The Ronald Press Co., New York, 1927. United States Personnel Classification Board. Report on Wages and Other Conditions in Government and in Private Employment, published as House Document No. 602. Reviewed in Monthly Labor Review, August, 1929, pp. 133-140. Metropolitan Life Insurance Co. Vacations with Pay. New York.

in 1927 estimates that more than 1,000,000 industrial workers in America are given vacations with pay. The Bureau of Labor Statistics reported in April, 1929, that 71 trade agreements received by that office since 1926 provided for such vacations.

This may be done by a general shutdown of the plants—but a more satisfactory method and one employed by over three-fourths of the firms reported in 1927 is to arrange vacations for various employees at convenient intervals throughout the year.

That the plan for vacation with pay is making encouraging progress is shown by a study of the New York Bureau of Women in Industry made in 1925 and again in 1930. Over this period there was a 7 per cent increase in the proportion of plants granting vacations with pay to production workers. This increase is the more significant in that it has been measured in a year of depression.

A further matter of primary importance is the arrangement for sick leave with pay. The study made by the Personnel Classification Board and a prior study of industrial plants made by the Bureau of Labor Statistics show that sick leave is quite generally granted to office workers, although in a study made by the Merchants' Association of New York less than one-fifth of the offices reported had fixed rules as to payment. Moreover, the production worker usually does not receive payment during sickness. Some firms have a system of allowances for sickness independent of the group-insurance or sick-benefit plans that employees usually have access to.

For teachers there is a surprising variation in the amount of sick leave granted by different school systems. Of 332 cities having a population of 8,000 or more, only 15 granted no pay, 21 gave full pay for an indefinite period, 1 for six months, and in others the time varied from 5 to 40 days.<sup>7</sup>

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<sup>7</sup>U. S. Department of the Interior, Bureau of Education, Health Series No. 12. *The Health of the Teacher*, by James Frederick Rogers. 1926.

## VII. LABOR LEGISLATION FOR WOMEN<sup>1</sup>

### (a) Reasons for legislation and forces furthering it.

Labor legislation for women in the United States has become a matter of increasing importance in the past few decades as women have entered more types of gainful employment and as the development of machinery has been accelerated. The subject is one having many ramifications, due to the various types of labor laws and to the many problems involved, the vast number of women who are employed, the great variety of their occupations, and the conditions under which they work, varying with locality, industry, and individual establishment.

Men and women in industry do not have equal economic power in bargaining for better standards of hours, conditions, and remuneration. Forced into industrial life by increasing economic pressure, women are the late comers in industry and as such are in the position of being the cheapest labor in the market, thus tending to undercut the wages and conditions that have been gained by men in their longer industrial life. The fact is commonly recognized that men have gained their advantages in the industrial world largely by means of organization and have preferred this method rather than that of employing the machinery of the State. In theory, this method would appear to be desirable for women also, but women who are wage earners, with one job in the factory and another in the home, have little time and energy left to carry on a fight to better their economic status. Entering industry by the easiest and most widely open door, that of the job requiring little or no skill, women workers too often land at the bottom of the economic scale. They can not improve their conditions, because in so many instances they are not organized; and often they can not organize because their need of employment is so great that they dare not risk the loss of their jobs, no matter how poor, a loss that too often follows the unskilled workers' first attempts at organization. In view of these facts, a definite demand has developed for a method to produce scientifically and as soon as possible conditions and opportunities that more nearly equal those of men. This short cut is legislation, and such laws, though written for women only, tend surely though indirectly to benefit men as well, as every gain made by labor in any direction whatever is a gain for all labor. These laws, applying as they do to women in industry and ordinarily not to those in the professions, can not be said to hamper women in opportunities for a career. The Women's Trade Union League

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<sup>1</sup> The following bulletins of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 98, Labor Laws for Women in the States and Territories. 1932; No. 66-I, History of Labor Legislation for Women in Three States. 1932; No. 66-II, Chronological Development of Labor Legislation for Women in the United States. Revised December 1931. 1932; No. 68, Summary: The Effects of Labor Legislation on the Employment Opportunities of Women. 1928; No. 79, Industrial Home Work. 1930; No. 115, Women at Work. 1934, pp. 27-32; and No. 135, The Commercialization of the Home Through Industrial Home Work. 1935.



## VII. LABOR LEGISLATION FOR WOMEN—Continued

### (b) Hour legislation in various States.

The winter and spring months of an odd year are likely to be an "open season" for all sorts of legislation, including that relating to labor problems, because in so many of the States that have biennial sessions the legislatures meet in the odd year.

Since the history of labor legislation for women and children shows that in many States the first subject considered is the fixing of reasonably short hours, it is of interest to see how far the various States have progressed in this direction. It is difficult to summarize hour legislation, since the provisions in the various States differ so widely. In some States maximum hours are fixed at one length for some industries and at a different length for others; in some cases many industries are covered, in others only one or two relatively unimportant ones; sometimes the regulation is written into the statute law, sometimes it is in the form of a rule or order of an industrial commission or other body to which has been delegated the power to issue such regulations.

All but six States have some regulation of women's daily hours,<sup>2</sup> but six of those that regulate daily hours have set no weekly limitation,<sup>3</sup> two of them being 10-hour States that thus might permit a 70-hour week.<sup>4</sup>

Twelve States in all make some provision for the 8-hour day. In 10 of these this applies to manufacturing, stores, and laundries,<sup>5</sup> and all of the ten but New York apply this provision to hotels and restaurants (covered by a 9-hour law in New York). Four of them apply it also to telephone and telegraph operators. One of them (New Mexico) restricts the day to eight hours in most establishments except express, transportation, or public utility businesses or common carriers, which have nine hours. One State (Oregon) applies its 8-hour law only to laundries and to needlecraft occupations. Another (Kansas) has an 8-hour day only for telephone operators and women in public housekeeping (a 9-hour day in manufacturing, stores, and laundries). One State (North Dakota) has an 8½-hour day in manufacturing, stores, laundries, hotels and restaurants, and telephone and telegraph offices.

Eighteen States make some provision for a 9-hour day; in 14 of these this applies to manufacturing industries, in 15 to hotels or restaurants, in 15 to stores, and in 11 to laundries. Three of these States

<sup>2</sup> None in Alabama, Florida, Indiana, Iowa, Minnesota, and West Virginia.

<sup>3</sup> Colorado, Idaho, Illinois, Montana, Virginia, and Washington. (See footnote 4.)

<sup>4</sup> Illinois and Virginia. However, in the latter State a law against Sunday work is enforced. In Washington the industrial welfare committee has provided a 6-day week for some industries, which limits the week's hours to 48.

<sup>5</sup> Arizona, California, Colorado, Montana, Nevada, New Mexico, New York, Utah, Washington, and Wyoming.

have, in addition, 10-hour laws in some industries and five of them (as shown in the preceding paragraph) have 8- or 8½-hour laws for some industries.

The laws in 16 States make no provision in any type of occupation for a day shorter than 10 hours. Three of these (Pennsylvania, Mississippi, and South Dakota) are included with the States having the most inclusive statement found anywhere, the first applying the provision to "any place within this Commonwealth where work is done for compensation." In four States in which there is some legal restriction of hours in manufacturing, periods of work longer than 10 hours are allowed.<sup>6</sup>

Nineteen States<sup>7</sup> specifically exempt canneries from their hour regulations, and many others have other exceptions regarding seasonal industries.

Although this summary appears complicated, still it omits many of the variations that exist in the laws and other regulations, and it will serve to indicate how very difficult it is to give any adequate discussion of legal matters in a short period.

<sup>6</sup> New Hampshire, Tennessee, Vermont, and North Carolina.

<sup>7</sup> Arizona, Delaware, Idaho, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Utah, Virginia, Vermont, and Washington.

## VII. LABOR LEGISLATION FOR WOMEN—Continued

### (c) Various types of labor legislation for women.

In general, special labor laws for women deal chiefly with the following subjects: Hours of work, night work, seats for women workers, a minimum wage, the prohibition and regulation of women's work in certain occupations or industries and in home work. The laws on each of the several topics differ widely in extent, in requirements, and in application.

Hour and night-work legislation already have been discussed and minimum-wage laws will be considered later.<sup>8</sup> Twenty-one States and the District of Columbia have provided for such breaks in the hours of a woman's employment as a day of rest or one shorter work-day in the week or time for meals or rest periods during the work-day. Sixteen States have minimum-wage regulations.

The Women's Bureau strongly advocates laws requiring the furnishing of seats. To New York goes the credit for the first law, passed in 1881 and requiring seats for women "in any mercantile or manufacturing business or occupation." Following the passage of this, 14 States enacted similar legislation before 1890. To-day 47 States and the District of Columbia—all but Mississippi—have laws requiring the provision of chairs or stools for women employees in stores or factories or both.

In regard to prohibitory legislation the Women's Bureau recommends the following:

Women should not be prohibited from employment in any occupation except those which have been proved to be more injurious to women than to men, such as certain processes in the lead industries.

The first prohibitory legislation for women dates from 1872, when Illinois forbade women to work in any mine. To-day 26 States have regulated or prohibited women's employment in some industry or occupation, showing in all a total of 38 such restrictions; the remaining 22 States have no prohibitory or regulatory laws regarding any specific occupation. The most commonly prohibited occupation is mining, from which 17 States exclude women.

In regard to the lifting or carrying of heavy weights, a provision considered important by the Women's Bureau, little progress has been made in most States, but in five States women are not allowed to carry or lift heavy weights, the standards varying from 25 to 75 pounds where an exact amount is fixed. For example, in Massachusetts in manufacturing or mechanical establishments boxes, baskets, or other receptacles weighing 75 pounds or more must be equipped with pulleys, casters, or other contrivances so that they may be moved easily. In California a similar statute (as passed in 1921 and amended in 1929) requiring provision for pulleys or casters for

<sup>8</sup> Night-work legislation in No. VI; minimum-wage legislation in No. VIII.

weights of 50 pounds or more applies to mills, workshops, restaurants, and packing, canning, mercantile, or other establishments employing women.<sup>9</sup> In Washington women in manufacturing and mercantile establishments are not allowed to lift or carry "an excessive burden." The Industrial Board of Pennsylvania has ruled that women shall not be required or allowed to lift heavy weights in explosive plants and Ohio prohibits employment requiring the frequent or repeated lifting of weights in excess of 25 pounds.

Five States—Massachusetts, Minnesota, New York, Ohio, and Pennsylvania—regulate the work of women in core rooms, where the molds are made for the inside of hollow castings in the metal industries. In three States—Louisiana, Minnesota, and Missouri—women are forbidden by law to clean moving machinery.

There are several States—Kansas, Michigan, North Dakota, Oregon, Washington, and Wisconsin—whose laws in general terms prohibit the employment of women under detrimental conditions. Kansas says that women shall not work in any industry or occupation "under conditions of labor detrimental to their health or welfare"; the North Dakota, Oregon, and Washington laws are the same with the substitution of "morals" for "welfare"; Michigan provides that no woman "shall be given any task disproportionate to her strength, nor shall she be employed in any place detrimental to her morals, her health, or her potential capacity for motherhood"; and Wisconsin says that no woman shall be employed in any place or at any employment dangerous or prejudicial to her life, health, safety, or welfare.

Home-work legislation can be dated from 1885, when New York sought to end the sweating or tenement workshop system by prohibiting the manufacture of cigars and other tobacco products in tenement houses in larger cities. This law was declared unconstitutional, but 15 of the States now have laws either prohibiting or regulating home work and generally requiring cleanliness, adequate lighting and ventilation, and freedom from infectious or contagious disease.

Six States—Connecticut, Massachusetts, Missouri, New York, Vermont, and Washington—prohibit the work of women immediately before or after childbirth. In this matter, the United States is behind European countries, a number of which include this in their social insurance provisions, some even arranging for compensation for the mother during this period.

<sup>9</sup>An order of the industrial welfare commission issued in 1928, applying to fruit and vegetable canneries, fixed the maximum weight women are permitted to lift or carry at 25 pounds. An order issued in 1919 made less definite provision, not specifying the maximum weight but merely prohibiting the lifting or carrying of "any excessive burden," and applying only to mercantile establishments and factories (which by definition include laundries and dry-cleaning plants).

## VII. LABOR LEGISLATION FOR WOMEN—Continued

### (d) Certain effects of labor legislation.

The total number of women in the United States whose working hours are regulated by labor legislation amounts to about 2,750,000, only one-third of the 8,500,000 gainfully employed in 1920. Business and professional women, those in supervisory positions and, in general, in the higher ranks of opportunity, usually are not covered by labor laws. These laws have been directed toward the control of conditions in industrial, mercantile, and factory occupations. When applied to certain occupations which differ from those for which they were drawn, such as the work of conductors on street cars, pharmacists in drug stores, women in newspaper work, labor laws have proved to be a handicap in a few instances.

With the growth and development of special labor laws resulting from the efforts of various groups convinced of their value in promoting the interests of women workers, opposition also has gradually arisen among other groups, who came to view these laws as a handicap to women's occupational progress. This opposition arises not from the ranks of women in industry, to whom the laws apply, but from certain women in more professional occupations and members of a few highly skilled and well-organized trades.

The Women's Bureau has made a special investigation of the effects of labor legislation on the employment opportunities of women. This covered more than 1,600 establishments, employing more than 660,000 workers, 165,244 of them women, and personal interviews were held with more than 1,200 working women who had experienced a change in the law or who were employed under conditions or in occupations prohibited for women in some other State.

Among the industries included were those that were major employers of women: Boots and shoes, clothing, electrical apparatus, knit goods, and paper boxes. In addition, women workers in stores, restaurants, newspaper offices, street-railway transportation, elevator operating, pharmacies, the metal trades, and certain other types of employment were studied. Particular attention was given to the effects of laws prohibiting night work and those barring women from certain specific occupations, such as grinding, polishing, buffing, acetylene and electric welding, taxicab driving, and gas and electric meter reading.

The general conclusion of the survey, based on the facts as they were found, is that women are necessary to industry and, provided the laws are properly written, they are not barred from industrial work nor do they lose their jobs because of the laws; on the contrary, in practically every case they are benefited by them. Moreover, reasonable legal standards for the employment of women tend toward a marked raising of standards in industry for all workers; a shorter work-day for women results in shorter hours for men in

the industries affected. The great majority of up-to-date employers realize the value of such standards of work and often exceed them in their own plants. Many of them approve such legislation because it largely does away with the cheap, unfair competition of unscrupulous employers.

The findings seem to show that the instances of handicap, which were diligently sought by the investigators, are only instances and should be dealt with as such, without allowing them to interfere with the development of the main body of legislation. The material demonstrates again and again the impossibility of generalization, the necessity for recognizing differences in different occupations, industries, and localities. The report concludes that regulatory hour laws as applied to women engaged in manufacturing processes do not handicap them but "serve to regulate employment and to establish the accepted standards of modern efficient industrial management."

That certain forces other than legislation do handicap women is recognized in this report as follows:

In almost every kind of employment the real forces that influence women's opportunity are far removed from legislative restriction of their hours or conditions of work. In manufacturing, the type of product, the division and simplification of manufacturing processes, the development of machinery and mechanical aids to production, the labor supply and its costs, and the general psychology of the times, all have played important parts in determining the position of women. \* \* \*

In other occupations other influences have been dominant in determining the extent of women's employment. In stores a more liberal attitude and successful experimentation with women on new jobs; in restaurants the development of public opinion as to the type of service most suitable for women; in pharmacy a gradually increasing confidence in women's ability on the part of the public; in the metal trades a breaking down of the prejudices against women's employment on the part of employers and of male employees, and demonstration of women's ability along certain lines—these are the significant forces that have influenced and will continue to determine women's place among the wage earners. Such forces have not been deflected by the enforcement of legislative standards and they will play the dominant part in assuring to women an equal chance in those occupations for which their abilities and aptitudes fit them.

## VIII. WHAT THE WAGE-EARNING WOMAN EARNS<sup>1</sup>

### (a) Outworn ideas as to women's wages.

Investigations have established the fact that the great bulk of women who work in our schools, offices, stores, factories, mills, laundries, and restaurants, must earn money for the essentials of life. They must work to buy food, to pay rent, to meet doctors' bills, to obtain the other necessities of life, and, in addition, large numbers must support dependents. The old idea known as the "pin-money theory" has been disproven repeatedly under the conditions of life in the world to-day. It is not an adequate basis for the payment of women's wages.

Another fallacious idea is that for the most part women who need to work live at home and can get along on small earnings. In the first place, to fix wages on this basis leaves out of account the important minority who must be responsible for their own entire support; these constitute more than one-tenth of the women employed in 17 States surveyed by the Women's Bureau. But more important than this is the fact that if an employed woman living at home does not earn enough for her own support, she is a financial burden on her family, and to that extent the family—whether able to do so or not—must subsidize both the girl and the industry in which she works. Take, for example, a place in which it costs a girl \$15 a week to live; her employer requires all her time but pays her only \$12; the other \$3, saved by the employer, must be made up by the girl's family. When expressed in simple terms how clear this is. And if the girl's earnings are too low to permit of saving and she becomes ill or loses her job, this fact may be the final cause of submerging an already overburdened family.<sup>2</sup>

A third idea that has persisted in the past but is being disproven under modern conditions is that women are transients in their jobs—that they go to work with the intention of remaining there only a few years. Women's Bureau studies show that considerable proportions of women have been in various industrial pursuits for long periods of years. Moreover, women frequently can not leave their jobs after marriage, as has been supposed. In 17 States studied by the Women's Bureau, from 15 to 38 per cent of the employed women were classified as married and from 8 to 25 per cent were widowed, separated, or divorced. In one State the proportion of single women was only 37.3 per cent.

A survey of 22 studies made by various agencies in various States, cities, and in industrial groups covered more than 60,000 women, and

<sup>1</sup> The following bulletin of the Women's Bureau, which will be of interest in connection with this subject, will be furnished on request: No. 85, Wages of Women in 13 States, 1931.

<sup>2</sup> See Women's Bureau Bulletin 85, pp. 1 and 2.

of these well over half contributed their entire earnings to the family budget.<sup>3</sup>

The files of the bureau contain countless stories of women, both married and single, whose earnings are the sole income of the family. Among these cases are those of a cigar maker who had supported her husband and two children for six months because of the man's inability to get steady work; a family with three children in which the husband was laid up with an injury for five months; a woman employed in the meat-packing industry who said "It always takes two to earn enough to keep our family."

Naturally, fewer women than men have total dependents, the more common condition being one of joint responsibility; nevertheless, large numbers of women have such dependents. Of 1,800 women interviewed by the Women's Bureau in 1919, 1 in 3 of the single women had a dependent mother and 1 in 7 of the married women had a dependent husband. In eight studies by various agencies that covered about 17,000 women, almost 1 in 7 said they had total dependents. In a study of women who were or had been married, made in one city by the Bureau of the Census from 1920 figures the wife or widow was the only breadwinner in about 4,300 families. In a study of 843 working mothers with dependent children made by the Children's Bureau at about the same time, more than two-thirds of the families had no support from the father.<sup>4</sup>

Recently, in New York, an undersized boy of 15 killed a storekeeper in an attempted holdup. This boy's mother was endeavoring to keep her home together on \$17 a week, and a well-known writer, commenting on this fact, averred that "the abolition of poverty would pretty nearly accomplish the abolition of crime."

To sum up: Women who are at work are not merely seeking to make a little extra money; most of them must bear their whole expenses and many must support others besides; on the whole they are steady workers, often highly skillful, and very necessary to industry. Any wage that does not take these factors into account constitutes inadequate payment for the services given and inadequate income for the needs to be met.

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<sup>3</sup> See p. 12 of Women's Bureau Bulletin 75, which was recommended for use with No. III of the present series.

<sup>4</sup> See Women's Bureau Bulletin 75, pp. 18-19.

## VIII. WHAT THE WAGE-EARNING WOMAN EARNS— Continued

### (b) Some factors affecting women's wages.

Women's earnings tend to be very low. In most cases this has resulted from the tradition that certain jobs constitute "women's work," and that the work of women is of little economic value but will be given almost as freely as it was in the home. Nevertheless, many of the industrial occupations of women require great dexterity and skill, and practically all lines of women's work should be better paid.

The method of payment has considerable influence on the amounts earned. If workers are paid by the piece, those who work rapidly often are more highly paid, but the excessive speed sometimes developed is likely to undermine health. Furthermore, piecework earnings tend to be very irregular. An hourly or a weekly rate would seem to guarantee greater certainty of earnings. But it must be remembered that the amounts actually received often are considerably below the rates fixed.

New methods have brought about practices that often work to the disadvantage of employees. One of these is that used in paying individuals who work in a group formed to complete particular parts of a certain process—familiarily called by the workers a "gang," and a system in vogue in many large plants. If any member of the gang is slow or is a beginner, the work of the whole group is slowed up thereby, and all suffer loss of earnings. Whatever the method of payment, time lost because of industrial reasons—such as a breakdown in machinery or a poor run of material—or because of sickness or other personal reason, reduces the worker's earnings. In a study of women's wages in 13 States, the Women's Bureau found a very large degree of lost time. In every State from about 30 per cent to over 70 per cent of the women had earned less than their rates of pay, and sometimes earnings were more than 10 per cent below rates.\*

Naturally earnings vary widely in different times, localities, and industries, and information as to wages paid is likely to be scattering. Three States—Illinois, Massachusetts, and New York—have reported monthly on wages of women over a period of years. The Bureau of Labor Statistics separates some of its wage figures by sex. The Women's Bureau makes various special surveys that report the exact earnings of women, taken from the pay rolls of the firms where they are employed; sometimes these are supplemented by interviews with the same women in their homes. The National Industrial Conference Board, the research organization of the large manufacturing interests, also publishes data on wages separated by sex.

\* See Women's Bureau Bulletin 85, p. 67.

That women's earnings are low as compared with men's is indicated in the reports from the three States mentioned. For example, in a month taken in each of these States at the end of 1928 or early in 1929 women's weekly wages were only about 55 per cent as much as men's weekly wages. The National Industrial Conference Board studies show women's wages to be even lower than those of unskilled men.<sup>6</sup>

It is sometimes difficult to appraise what is going on in a period until that time is past, and little material is available as to the effect of depressions on women's wages. However, the New York division of women in industry compared the earnings of women placed by public employment agencies in January, 1929, and in the same month in 1931, and found that a considerable decline had occurred. For example, stenographers formerly offered \$15 to \$35 could in 1931 earn only \$9 to \$20; saleswomen formerly offered \$13 to \$25 are now offered a wage as low as \$12, though the highest runs to \$30; while sewing-machine operators before offered \$18 to \$25 could make only \$15 to \$20 in 1931.

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<sup>6</sup> See Women's Bureau Bulletin 85, pp. 154-157.

## VIII. WHAT THE WAGE-EARNING WOMAN EARNS— Continued

### (c) Women's wages and what they must buy.

The general standard the Women's Bureau recommends for the payment of women's wages is as follows:

Wages should be established on the basis of occupation and not on the basis of sex or race. The minimum wage rate should cover the cost of living for dependents and not merely for the individual.

We all know from personal experience how the purchasing power of the dollar varies with costs of living—how in 1917, for example, a dollar would go less than three-quarters as far as we had been accustomed to; and then prices advanced still further, and in 1920 the same dollar bought only one-half as much. That is what is meant by the term "real wages"—not the wage itself but the wage taking into consideration the value of the dollar.

In this way wages over a period of years may be compared, and the Women's Bureau has done this for the earnings of 79,000 women in factories in 13 States. According to 1930 values, the median of these women's earnings—and the median is the middle point, half the women receiving more and half receiving less—was below \$13 in 10 of the 13 States. And, after all, it can't be easy to live on less than \$13 a week, can it? When the many requirements to be met are considered, such sums obviously are quite inadequate.

Let us compare a few careful estimates of costs. Frances Perkins, when industrial commissioner of New York, stated that for an industrial woman in New York City the cost of room and meals alone was \$14.69 a week. This allowed nothing for clothing, doctors' bills, loss of time through illness, or the many incidental expenses generally considered minimum necessities. In 1927 the Young Women's Christian Association in Duluth gave the figure of \$17.76 as the minimum cost of a woman's budget in that city. A year later the Bureau of Labor Statistics in Texas stated, after careful study, that \$15 a week was the least a woman could exist on, and this excluded any expenditure for illness or recreation, as well as any reduced earnings in the year because of lost working time. In 1930 the Consumers' League of Cincinnati estimated that a woman's minimum living cost was \$17.50. The Industrial Commission of Colorado, in its report issued for 1928-1930, considered \$17.20 the least a woman could live on.<sup>7</sup>

In none of the 13 States for which the Women's Bureau has ascertained earnings as of a 1930 value was the median as high as these estimates.

In 21 States prior to 1933, an attempt had been made to establish by law a minimum figure for wage payments to women. Some-

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<sup>7</sup> See Women's Bureau Bulletin 85, pp. 150-154.

times this was done by a commission authorized to study the living costs of women and the situation in various industries and to fix the least amount they must be paid in order to enable the workers to live decently. Sometimes the amounts fixed varied for different industries; sometimes they had to be changed to meet the changing value of money in different years. Naturally the process was a difficult one, and its adjustment was bound to take a considerable time. In all cases the minimum set was a compromise on an amount that would not be too high for the industries to pay and ordinarily it was considerably less than the findings from the cost-of-living study on which it was based indicated as necessary; in most instances it constituted mere existence and not an acceptable living wage. In 1923, 10 years from the time the first minimum wage law became effective and consequently before the system had been in existence over a wide enough area or for a long enough period of years for its experience to be adequately measured and perfected, the United States Supreme Court, in a case involving the District of Columbia law, declared that law unconstitutional, five members of the court concurring in the decision.

This gave a great blow to the development of a method designed to secure more adequate earnings to women and thus to alleviate in some measure their frequent economic distress. Three States in which the law on the subject is worded differently from the one declared unconstitutional still are able to give some attention to the maintaining of a minimum wage for women.

Spurred by the acute conditions of a period of business depression, with the hardships it imposed upon both industry and workers, new impetus was given in 1933 to minimum wage laws of a type thought to conform to the United States Constitution where the earlier laws had not done so. Under this plan seven States, several of them important industrially, set up new machinery for the fixing of minimum wages industry by industry after the study of the particular conditions existing. These States are Connecticut, Illinois, New Hampshire, New Jersey, New York, Ohio, and Utah. (Write the Women's Bureau for other current material on the minimum wage.)

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## VIII. WHAT THE WAGE-EARNING WOMAN EARNS— Continued

### (d) Economic effects of a low wage scale for women workers.

Not only is the low wage frequently paid to women a serious matter for those who must live on the amounts received; it is an unfortunate factor in the economic life of the country, and especially is it significant when it is remembered that two in every nine wage earners are women.

Any industrial group working for less than the standard that prevails will be likely to have the effect of lowering wages for all. Industries in which low wages are paid to women are likely to pay low wages to men as well.

At its convention in Atlantic City in 1925, the American Federation of Labor made the following declaration:

We hold that the best interests of wage earners as well as the whole social group are served by increasing production in quality as well as quantity and by high wage standards which assure sustained purchasing power to the workers, and therefore, higher national standards for the environment in which they live and the means to enjoy cultured opportunities.

Many economists and thinkers to-day are using similar lines of reasoning. Dr. Glenn Frank, president of the University of Wisconsin, has given a clear statement of the present trend of thought in regard to the importance of good wages in the following words:

The simple fact is that a machine economy must, along with the making of commodities, see to it that the consuming millions have money with which to buy the products the machine economy creates. And that means higher wages than we have yet paid, shorter hours than we have yet set, and lower prices than we have yet fixed \* \* \* the logic of events is \* \* \* proving that the basic policies that will prove best for labor are the policies that will prove best for capital and vice versa.

In the entire history of business America, every general reduction of hours and every general rise in wages, however bitterly fought by business and industrial leadership at the time, has been followed by a fresh accession of business activity and general prosperity \* \* \* high wages, short hours, low prices, are now seen to be the only things that can, in the interest of the solvency of capitalism, keep our industrial order a going concern.

Addresses made at the Christmas meetings of the national social-science societies held in Cleveland in 1930 showed the shifting of interest from the production problems that used to form the basis of most economic discussion to the economics of the distribution of materials and of income.<sup>8</sup>

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<sup>8</sup> For example, Dr. William Leiserson, a nationally known arbitrator and a professor at Antioch College, said at this meeting:

\* \* \* All through the nineteenth century economists were obsessed with the idea of the niggardliness of nature and the scarcity of goods. \* \* \* Nations could not produce enough to provide for their increasing population with expanding wants. \* \* \* Now we know that nature can be controlled by man and made to yield its bounties even superabundantly. \* \* \*

\* \* \* Is it not time for economists to point the way to sound methods of controlling income distribution to stabilize wage payments in spite of fluctuating employment, as accounting scientists and management scientists pointed the way to stabilization of the incomes of the investment and management classes?—Address published in full in *American Labor Legislation Review*. March, 1931, pp. 65f.

Figures of the Federal Trade Commission indicate that about 60 per cent of our national wealth is now owned by about 1 per cent of the population. Business men, employers, economists, and workers are now realizing that, since from two-thirds to three-fourths of the buying public is made up of wage earners, if a market is to be found for the increased goods that can be produced the millions of workers must have more money to enable them to buy their share of these products and more leisure to give opportunity for their use.

The argument for a wage for women that enables them to live decently is reinforced by the economic thought of the day that recognizes the advantages to industrial society as a whole of a high wage for all workers.

## IX. VARIOUS CONNECTIONS OF WOMEN WITH THE INDUSTRIAL AND LABOR WORLD

### (a) Women in unusual occupations.

It is illuminating merely to run through the census list of the occupations in which women were engaged in 1920. In addition to all those in which women ordinarily are expected to be found, and the long lists of factory employments in which people now have become accustomed to finding women, there are many that may seem more unusual.

Perhaps it is not surprising to know that thousands of women in 1920 were "ticket and station agents"; "gardeners, florists, fruit growers, and nurserymen"; "postmasters"; or "floorwalkers and foremen in stores." But it may seem somewhat more strange that over 1,000 were "mail carriers" and "undertakers."

In addition, hundreds were classified as "shoemakers and cobblers (not in factory)," as "paper hangers," as "engravers," as "chauffeurs," and as "longshoremen and stevedores." More than 100 were "carpenters;" "lithographers;" "painters, glaziers, and varnishers" in the building trades; and workers on road and street construction and repairs.

An article by Miriam Simons Leuck in the *Annals of the American Academy* for May, 1929, gives many interesting stories of individual women in various unusual employments. She says, for example:

\* \* \* Mrs. Bella B. Toner at New Centerville, on the \* \* \* Reading Railroad, is a veteran in railroad work, having been station agent, baggage-master, telegrapher, and flagman at her post for the past 51 years \* \* \*. Mrs. Etta M. Hopkins, in charge of the Fort Wright tower (near Spokane, Wash.) of the Great Northern Railroad, has a real man's job, throwing the levers which open and close the switches, changing the signals, handing up train orders \* \* \*.

\* \* \* \* \*  
\* \* \* There are two women who have served as master, pilot, and captain of boats on this waterway [the Mississippi River] for many years. The first of these, Mrs. Mary Becker Greene, received her pilot's license in 1895, her master's in 1896, and has been in active service ever since \* \* \*. Mrs. Blanche Leathers \* \* \* is master pilot and captain of the *Natchez*, plying between New Orleans and Vicksburg \* \* \*.

One of the oldest employments open to women, outside those in the home, was the keeping of taverns and "ordinaries," and women did this in America in the seventeenth century. Occasionally a woman of that day ran a mill or even worked in a sawmill. In the early eighteenth century there were many women printers, both as compositors and at the press, and some worked in the early paper mills. Most of those in industry were in some form of textile manufacture.

In 1840 there were reported to be only 7 manufacturing occupations open to women; but in 1920 there were women engaged in all

but 35 of the entire 572 occupations listed in the census. There were even a few women reported as "blacksmiths," "loom fixers," "bag-gagemen," "furnacemen and smelters," "plasterers," "brick and stone masons," "machinists," and "iron molders, founders, and casters."

The article already cited has this to say of a woman blacksmith in New York:

\* \* \* Mrs. Sophie Penkinson, just around the corner from Broadway, has worked at her chosen field of horseshoeing and general blacksmith work for over 30 years. \* \* \* Mrs. Penkinson shoes an average of 10 horses a day; declares she has never found a horse that was hard to handle \* \* \*.

Other occupations in which women are less frequently thought of, but in which some were reported in 1920, were "tinsmith and copper-smith," "piano and organ tuner," "mechanic," "cemetery keeper," "bootblack," "porter, steam railroads," and there even were reported three auctioneers and two life-savers.

The following is a list of the occupations in which women were reported in 1920, arranged in order of the number of women engaged in each. The list is based on the census of 1920, and is not intended to be exhaustive. It is given for the purpose of showing the extent to which women are engaged in various occupations, and is not intended to show the number of women engaged in each occupation. The list is given in the following order: (1) occupations in which women were reported in 1920, and (2) occupations in which women were not reported in 1920, but in which they were reported in 1910. The list is given in the following order: (1) occupations in which women were reported in 1920, and (2) occupations in which women were not reported in 1920, but in which they were reported in 1910. The list is given in the following order: (1) occupations in which women were reported in 1920, and (2) occupations in which women were not reported in 1920, but in which they were reported in 1910.

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**IX. VARIOUS CONNECTIONS OF WOMEN WITH THE INDUSTRIAL AND LABOR WORLD—Continued**

**(b) Women as "officials and managers."**

The census figures for 1930 indicated that large numbers of women were in the field of management, or officials, or in independent business. For example, from over 5,000 to more than 10,000 were reported under each of the headings of "manufacturers", "managers and officials" in manufacturing, and "bankers and bank officials." Over 1,000 were "owners, managers, and officials" of theaters; "wholesale dealers, importers, and exporters"; "proprietors, officials, and managers" of telephone and telegraph companies; and "managers and officials of insurance companies"; smaller numbers were "loan brokers and pawnbrokers"; "commercial brokers and commission men"; "officials and superintendents" of steam railroads; and "operators, officials, and managers" in the extraction of minerals.

Then there are other occupations that obviously require specialized skill or very good judgment if they are to be effectively carried on, as for example, hunter, trapper, and guide; marshal and constable; or detective.

And when all this is said, the great body of professional women remains still to be considered—over a million of them—authors, editors, clergymen, teachers, trained nurses, dentists, draftsmen, lawyers, physicians, civil and electrical engineers, architects, and others.

No general résumé has been made of the women in executive and managerial positions, and to do so obviously would be a gigantic task. However, the numbers reported in the census give a background for discovering in some measure which are the more usual, which the more unusual, of managerial, official, professional, and semiprofessional positions, and frequent stories of the activities of individual women are to be found in such magazines as the *Woman's Journal*, the *Independent Woman*, the *Woman's Press*, and others.

It may be of interest to mention two women widely variant in talents and interests; one of whom is of special interest to labor and to management for her unusual handling of a difficult business, while the other is of importance because of her original work in the field of management and efficiency.

At the death of her father Miss Josephine Roche became the proprietor of the Rocky Mountain Fuel Co. in Colorado, and she determined to control its management herself and direct it along lines of cooperation with the mine operatives.

The company issued in 1928 an agreement reading in part:

\* \* \* Our purposes are: To promote and establish industrial justice; to substitute reason for violence, confidence for misunderstanding, integrity and good faith for dishonest practices, and a union of effort for the chaos of the present economic warfare; to avoid needless and wasteful strikes and lockouts

through the investigation and correction of their underlying causes; to establish genuine collective bargaining between mine workers and operators through free and independent organization; to stabilize employment, production, and markets through cooperative endeavor and the aid of science; to assure mine workers and operators continuing mutual benefit and consumers a dependable supply of coal at reasonable and uniform prices; to defend our joint undertaking against every conspiracy or vicious practice which seeks to destroy it; and in all other respects to enlist public confidence and support by safeguarding the public interest.

At the close of 1929, when other companies were suffering, this one reported an increase in production of 29 per cent, with a decrease of 19 cents per ton in mine costs; an increase of seven-tenths of a ton in daily production per man; and an increase of over one-fourth in average of annual earnings per worker. In addition, the company had the advantage of staunch union support and no strikes.

The other woman, Dr. Lillian M. Gilbreth, is a consulting engineer, and her prominence in the field of scientific management has been unique. Having taken a doctor's degree at Brown University, she has been active in the Taylor Society, and is an honorary member of the Society of Industrial Engineers. She has collaborated in certain of her husband's publications and has herself done some writing in this field; for example, the article on scientific management in the New International Encyclopedia is from her pen.

## IX. VARIOUS CONNECTIONS OF WOMEN WITH THE INDUSTRIAL AND LABOR WORLD—Continued

### (c) Women's labor organizations and some of their leaders.<sup>1</sup>

It is a natural human trait for persons having like interests to form associations. Those who pursued various occupations in medieval times had their craft guilds, and to-day it is considered a helpful thing for those practicing any type of profession to come in contact through organization with others similarly engaged—be it doctors, lawyers, financiers, undertakers, press representatives, road builders, dentists, or any of those in a host of other types of work.

When women began to enter factory occupations they did likewise. The earliest information we have of the organization of employed women for better work conditions goes back to about 1825, although the names of a few women workers stand out before that period. For example, Hannah Borden, whose expert weaving even when she was quite a little girl led her father to find a place for her in a mill in Fall River, Mass., of which he was a stockholder.

The girls of that day were quite spirited in demanding improvement in their work conditions. When a cotton mill in Paterson, N. J., changed the dinner hour from 12 to 1 o'clock, the woman and child workers left at noon; this was in 1828, and was the first recorded strike among women in this industry for better conditions. About six years later a female protective association was formed in Lowell, Mass., and 2,500 girls marched through the streets singing:

Oh, isn't it a pity such a pretty girl as I  
Should be sent to the factory to pine away and die.

These girls refused overtures from their employers in any way except through their union officers, and declared "As our fathers resisted \* \* \* the lordly avarice of the British ministry, so we, their daughters, never will bear the yoke which has been prepared for us." At this time some of the mill owners had constructed boarding houses, which often were very crowded and badly aired. Tuberculosis was prevalent. The boarding-house keepers had an arrangement with certain mill owners that half the girls' board would be paid them directly by the factory out of the girls' wages.

Although working women formed organizations in other localities there was no concerted movement at that time. In 1833 seamstresses and tailoresses in Baltimore organized; in 1835 the Female Improvement Society was formed in Philadelphia by members of the sewing

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<sup>1</sup> The following books would be of interest in connection with this subject: U. S. Bureau of Labor. Report on Condition of Woman and Child Wage Earners in the United States, Vol. X, History of Women in Trade Unions, by John B. Andrews and W. D. P. Bliss, 1911. Henry, Alice. Women and the Labor Movement. George H. Doran Co., New York, 1923. Wolfson, Theresa. The Woman Worker and the Trade Unions. International Publishers, New York, 1926. Wolman, Leo. The Growth of American Trade Unions, 1880-1923. National Bureau of Economic Research, New York, 1924. Ch. V.

trades; the shoe binders formed The Female Society of Lynn and Vicinity for the Protection and Promotion of Female Industry; in 1851 a shirt-sewers' cooperative union was formed in New York, and the women who were members of it quoted a poem, Hood's Song of the Shirt, as applying to themselves:

Sewing at once with a double stitch  
A shroud as well as a shirt.

The labor-reform associations sometimes worked for legislation establishing better conditions for women workers. In 1845 Miss Sarah G. Bagley, then president of the Lowell Female Labor Reform Association, testified before the Massachusetts legislative committee as to conditions in the textile mills. This is said to be the first official investigation of the condition of adult laborers, and was a move largely inspired by the activities of women.

In 1869 the first convention was held by the Daughters of St. Crispin, a shoe-workers' organization, which appears to be the earliest recorded national trade-union of women. In this year, also, women first became members of one of the 8-hour leagues that had grown up—that of Boston.

In 1881 women were allowed to become regular members in the early men's union organized on a national scale and known as the Knights of Labor; four years later a department of women's work was created which employed an investigator, Mrs. Leonora M. Barry. In the first year she visited 30 cities and spoke over 100 times; in three years the women members numbered 12,000, with a great variety of trades represented. Records of the Knights of Labor were printed and afford the basis of a consistent organization history. It has been estimated that by 1923 about 250,000 women were organized; another estimate was that in 1920 there were 396,000 women members of various trade-unions (women's, and men's and women's).<sup>2</sup>

In 1903 the Women's Trade Union League was formed, its first convention attended by seven persons, and its first president being Mrs. Mary Morton Kehew, of Boston. Perhaps the woman most responsible for its formation and growth was Mrs. Raymond Robins, who for many years gave untiring service and financial aid to the development of the organization. She was its president until 1922 when she became honorary president, the active office then being held in succession by Maud Swartz, of the International Typographical Union, and Rose Schneiderman, of the United Cloth Hat and Cap Makers, elected in 1929. By 1920 the Women's Trade Union League was organized in at least 19 cities and contained members of 53 trades. The proceedings of its seventh annual convention, held in Philadelphia in 1919, list as affiliated with the league 30 international unions, 8 State labor bodies, and 77 city central labor organizations in 27 States and Canada.

Of course, it is impossible to list all the women who have taken an important part in labor organizations, but a few of those at work in recent times may be mentioned. In 1870 Augusta Lewis, of New York, was elected corresponding secretary of the International Typo-

<sup>2</sup> Wolfson, Theresa. *Op. cit.*, p. 127; and Wolman, Leo. *Op. cit.*, p. 99.

graphical Union. The Glove Workers' International Union has had as its president Agnes Nestor; she had formerly served as its secretary-treasurer, an office later held for many years by Elisabeth Christman (now secretary-treasurer of the Women's Trade Union League). Another woman—Sarah Conboy—was, for several years following 1915, secretary-treasurer of the Textile Workers' International Union; and in 1923 Julia O'Connor was president of the Telephone Operators' Department of the International Brotherhood of Electrical Workers. At all times since its formation a woman has been on the board of the Boot and Shoe Workers' International Union; the International Ladies' Garment Workers has had a woman as officer, several women have been on its board, and women have been on the board of the Amalgamated Clothing Workers. The American Federation of Labor has appointed, at various times, several women as special organizers. Among other organizations of national scope, the American Federation of Teachers has as a vice-president Selma Borchardt, and the Federal employees' unions have women in important offices. Many more organizations and very many interesting women who have been active in labor organizations could be listed, but the space of a large volume would be required to make such information complete.

general labor. The three workers' organizations mentioned above have been active in the industrial field since the early 1930s. The Industrial Union of Marine and Shipbuilding Workers of America, the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers, and the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers have all been active in the industrial field since the early 1930s. The Industrial Union of Marine and Shipbuilding Workers of America, the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers, and the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers have all been active in the industrial field since the early 1930s.

## IX. VARIOUS CONNECTIONS OF WOMEN WITH THE INDUSTRIAL AND LABOR WORLD—Continued

### (d) Women in official administrative labor positions and women who have furthered movements for workers.

That women are taking their part as officials and inspectors is evident from the figures of the 1930 census, which report 980 women as State, 5,855 as county, and 3,109 as city officials and inspectors. Naturally their duties and the fields they cover are varied.

A very small number of these women inspect factories, under the State labor laws or regulations to insure safe and healthful conditions of work for women and children. The whole budget of a State for factory inspection—for both men and women—ordinarily constitutes a small proportion of all that is spent by the State under the head of safety; of the expenditures for protection of persons and property reported by the United States Department of Commerce in 1928, only 2.9 per cent were for factory inspection, a very small amount when the large groups of men and women workers are considered.<sup>3</sup>

Even to-day there are few women executives in State labor departments. The first woman to hold such an executive position was Mrs. Florence Kelley, appointed by the Governor of Illinois in 1893 as chief of factory inspectors in the State. A graduate of Cornell University and a member of the Illinois bar at a time when women university graduates were few and women lawyers very unusual, she did a thorough job for 4 years. After that time her originality, keen mind, and forceful personality were active for more than 30 years in the local, State, and Federal campaigns for labor laws and various other types of social legislation.

Present or past officials of the Women's Bureau in the United States Department of Labor and of the earlier Federal organizations that preceded it will be given somewhat more detailed consideration in the tenth number;<sup>4</sup> they include Marie Obenauer, Mary van Kleeck, Mary Anderson, and Agnes L. Peterson; those of the Children's Bureau include Julia Lathrop and Grace Abbott.

One great industrial State had a woman as commissioner of labor, Frances Perkins, of New York. In the same State Nelle Swartz is a member of the industrial commission and Frieda Miller director of the division of women in industry and minimum wage.

Obviously, it is not possible even to list here the women who are in labor departments and factory inspection in all the States. The Bureau of Labor Statistics lists such women in 30 States, though, of course, their duties vary widely, and their official status is scarcely ever the same in any two cases.<sup>5</sup>

<sup>3</sup> U. S. Bureau of the Census. Financial Statistics of States, 1928. Table 11, p. 78.

<sup>4</sup> See p. 77, post.

<sup>5</sup> U. S. Bureau of Labor Statistics. Monthly Labor Review, July, 1934. Labor Offices in the United States and in Foreign Countries, pp. 225-247.

In addition to these officials, and to those active in the organizations of their own trades, there have been other socially-minded persons who have worked or have formed organizations for the improvement of women's working conditions. As early as 1828, Matthew Carey, "an independent and public-spirited citizen," called attention to the low wages paid women in Philadelphia, and was a moving spirit in the organization of the women there. At about the same time or a little later Frances Wright was writing in the interest of such movements, and after the Civil War Grace Dodge was instrumental in organizing working women's clubs. In 1866 the Working Women's Protective Union was formed to aid working women in the collection of their wages. In the present time Margaret Dreier Robins and her sister, Mary E. Dreier, have given long and devoted personal energy as well as wealth in furthering the purposes of the Women's Trade Union League.

In 1886 the Working Women's Society of New York was formed with the help of Josephine Shaw Lowell and others; it aimed to further working women's organization, and to educate the public to the need of better conditions. From this grew the National Consumers' League, first arising in local branches in New York, Boston, Philadelphia, and elsewhere, and formed on the principle of interesting consumers to use only goods made under satisfactory conditions; this standard was determined after careful investigation, and approved firms were placed on a "white list" and allowed to put the distinguishing label of the society on their goods so that buyers would be sure of it. Among the persons active in forming the New York branch, in addition to Mrs. Lowell, were Maud Nathan, later its president, and Dr. Mary Putnam Jacobi, daughter of the publisher, George P. Putnam, and the first woman to become a member of the New York Academy of Medicine.

The group in New York was first formed after an investigation reported by Alice Woodbridge in the winter of 1889-90. Ten years later the league became national in scope, with Mrs. Florence Kelley as its executive secretary. Among the outstanding white lists there were prepared those for candy and hosiery manufacturers. The league was aided by two prominent lawyers, Felix Frankfurter and Louis D. Brandeis; Josephine Goldmark prepared briefs for its cases and published the results of her brilliant researches on the effects of fatigue; Carola Woerishoffer gave up a summer trip abroad to work in laundries to ascertain for the league the conditions prevailing there, and Louise Lockwood did similar work in the silk industry.

Many others could be mentioned, but one woman who is a pioneer in a scientific field must be included at all events—Dr. Alice Hamilton, who as a professor in the Harvard Medical School has devoted years of investigation and research to the problem of occupational diseases, publishing from time to time the results of her findings.

## X. WORK OF THE WOMEN'S BUREAU

### (a) Antecedents of the Women's Bureau, and formation and personnel of the bureau.

In the decade from 1900 to 1910 there was a growing recognition that women were increasing rapidly in industrial pursuits and that many problems confronting working women should be the concern of the Federal Government itself.

Almost the first official utterance of the National Women's Trade Union League, which had been created at the Boston convention of the American Federation of Labor in 1903, was the passing of a resolution requesting the Federal Government to make an investigation of women in industry. In 1906, three Chicago women—Mrs. Raymond Robins, Miss Jane Addams, and Miss Mary McDowell—went to Washington and appeared before a congressional committee to ask for an appropriation to make a special investigation of women in industry. The appropriation finally was granted by Congress, and the investigation was conducted by Charles P. Neill, then Commissioner of Labor in the Department of Commerce and Labor. The investigation extended over a period of three years, from 1907 through 1909, and covered many of the industries in which women were employed. The report was published in 19 volumes and laid the basis for an insistent demand for a bureau in the Government whose concern should be the working woman. In 1913 the Department of Labor was separated from the Department of Commerce.

A women's division was established as a subdivision of the Bureau of Labor Statistics. It was first headed by Marie Obernauer, and the reports issued by her division in this early period give evidence of a thorough and scientific approach to the work. However, her efforts for women were placed under a heavy handicap by the form of organization, for she was but one of five executives in the bureau, the other four being men. Under these circumstances it was natural that the groups interested in employment conditions affecting women should continue their work for the establishment of a separate women's bureau.

The American Federation of Labor at its conventions passed resolutions asking for the creation of a women's bureau, and the president, Samuel Gompers, and the legislative committee were active in the agitation for such a bureau. In 1916 Representative Casey, of Pennsylvania, introduced in Congress a bill to create a woman's division in the Department of Labor, but this bill did not pass.

In 1918 the increased employment of women and the Nation's great need of their work led to the institution of a Woman in Industry Service, headed by Mary van Kleeck. Having been director of the committee on women's work and of industrial studies under the Russell Sage Foundation, Miss van Kleeck brought experience in

investigation as well as a brilliant mind to her task, and when the war was over she urged upon the attention of the country's leaders the permanency of women's entrance into various occupations and the consequent need for a Federal body that should make continual study of the situation of employed women.

In this she was supported by organizations of those who saw the importance of such a move. The joint committee of the Senate and House heard representatives of the following organizations in the interest of forming the Women's Bureau:

- American Federation of Labor.
- National Women's Trade-Union League.
- National Federation of Federal Employees.
- National Consumers' League.
- National League of Women Voters.
- National Young Women's Christian Association.
- Bureau of Labor Statistics.
- United States Department of Labor.
- Children's Bureau, United States Department of Labor.
- Division of Industrial Studies of the Russell Sage Foundation.
- University of Chicago Settlement.
- Women's Executive Committees of the National Republican Committee and National Democratic Committee.
- National Republican Congressional Committee.

Accordingly, in 1920, the Women's Bureau was established in its present form, created to—

\* \* \* formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment.

In harmony with the policy of the Government, the Women's Bureau has no mandatory powers nor any laws to administer. However, it is the duty of the Federal Government to make sure that in our eagerness for expansion of industries and the ever-growing demand for more production we do not neglect the important human resources of our country, and do not exploit women. The declaration of standards and policies by the Women's Bureau has the force inherent in facts scientifically secured and presented and tends to influence the industrial standards of the several States.

Since its formation, the bureau has been headed by Mary Anderson, who had been assistant director when Miss van Kleeck was director of the then Woman in Industry Service, and had had years of experience with the Boot and Shoe Workers' Union and the Women's Trade Union League. The assistant director appointed was Agnes L. Peterson, who had served as industrial supervisor with Miss van Kleeck, and formerly had been a superintendent of the first bureau of women and children organized in any State.<sup>1</sup>

The Children's Bureau had been organized in the United States Department of Labor earlier than the Women's Bureau, and during its history has been headed by two outstanding women—first, Julia Lathrop, and later Grace Abbott; the work of these two directors, both thoroughly grounded in the principles of social work, and with valuable previous experience, is known wherever the expert care of the child is sought, be it the dependent or delinquent ward of the State, the child in industry, or the child in the home.<sup>2</sup>

<sup>1</sup> Bertha M. Nienburg succeeded Miss Peterson in 1934.

<sup>2</sup> Katharine F. Lenroot succeeded Miss Abbott in 1934.

## X. WORK OF THE WOMEN'S BUREAU—Continued

### (b), (c), and (d).

For use in this connection, make your own selections from Women's Bureau Bulletin 84, Fact Finding with the Women's Bureau. If you have not a copy of this bulletin, it can be obtained by request. Sections especially suggested are those beginning on pages 1, 9, 28, and 32.

## PUBLICATIONS OF THE WOMEN'S BUREAU

[Any of these bulletins still available will be sent free of charge upon request]

- \*No. 1. Proposed Employment of Women During the War in the Industries of Niagara Falls, N. Y. 16 pp. 1918.
- \*No. 2. Labor Laws for Women in Industry in Indiana. 29 pp. 1919.
- No. 3. Standards for the Employment of Women in Industry. 8 pp. Fourth ed., 1928.
- \*No. 4. Wages of Candy Makers in Philadelphia in 1929. 46 pp. 1919.
- \*No. 5. The Eight-Hour Day in Federal and State Legislation. 19 pp. 1919.
- \*No. 6. The Employment of Women in Hazardous Industries in the United States. 8 pp. 1921.
- \*No. 7. Night-Work Laws in the United States. (1919.) 4 pp. 1920.
- \*No. 8. Women in the Government Service. 37 pp. 1920.
- \*No. 9. Home Work in Bridgeport, Conn. 35 pp. 1920.
- \*No. 10. Hours and Conditions of Work for Women in Industry in Virginia. 32 pp. 1920.
- \*No. 11. Women Street Car Conductors and Ticket Agents. 90 pp. 1921.
- \*No. 12. The New Position of Women in American Industry. 158 pp. 1920.
- \*No. 13. Industrial Opportunities and Training for Women and Girls. 48 pp. 1921.
- \*No. 14. A Physiological Basis for the Shorter Working Day for Women. 20 pp. 1921.
- \*No. 15. Some Effects of Legislation Limiting Hours of Work for Women. 26 pp. 1921.
- \*No. 16. (See Bulletin 63.)
- \*No. 17. Women's Wages in Kansas. 104 pp. 1921.
- No. 18. Health Problems of Women in Industry. 6 pp. Revised, 1931.
- \*No. 19. Iowa Women in Industry. 73 pp. 1922.
- \*No. 20. Negro Women in Industry. 65 pp. 1922.
- No. 21. Women in Rhode Island Industries. 73 pp. 1922.
- \*No. 22. Women in Georgia Industries. 89 pp. 1922.
- \*No. 23. The Family Status of Breadwinning Women. 43 pp. 1922.
- No. 24. Women in Maryland Industries. 96 pp. 1922.
- \*No. 25. Women in the Candy Industry in Chicago and St. Louis. 72 pp. 1923.
- No. 26. Women in Arkansas Industries. 86 pp. 1923.
- \*No. 27. The Occupational Progress of Women. 37 pp. 1922.
- No. 28. Women's Contributions in the Field of Invention. 51 pp. 1923.
- \*No. 29. Women in Kentucky Industries. 114 pp. 1923.
- \*No. 30. The Share of Wage-Earning Women in Family Support. 170 pp. 1923.
- \*No. 31. What Industry Means to Women Workers. 10 pp. 1923.
- \*No. 32. Women in South Carolina Industries. 128 pp. 1923.
- \*No. 33. Proceedings of the Women's Industrial Conference. 190 pp. 1923.
- \*No. 34. Women in Alabama Industries. 86 pp. 1924.
- \*No. 35. Women in Missouri Industries. 127 pp. 1924.
- No. 36. Radio Talks on Women in Industry. 34 pp. 1924.
- No. 37. Women in New Jersey Industries. 99 pp. 1924.
- No. 38. Married Women in Industry. 8 pp. 1924.
- No. 39. Domestic Workers and Their Employment Relations. 87 pp. 1924.
- \*No. 40. (See Bulletin 63.)
- No. 41. Family Status of Breadwinning Women in Four Selected Cities. 145 pp. 1925.
- \*No. 42. List of References on Minimum Wage for Women in the United States and Canada. 42 pp. 1925.
- No. 43. Standard and Scheduled Hours of Work for Women in Industry. 68 pp. 1925.

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- No. 44. Women in Ohio Industries. 137 pp. 1925.
- \*No. 45. Home Environment and Employment Opportunities of Women in Coal-Mine Workers' Families. 61 pp. 1925.
- \*No. 46. Facts about Working Women—A Graphic Presentation Based on Census Statistics. 64 pp. 1925.
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- \*No. 48. Women in Oklahoma Industries. 118 pp. 1926.
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- \*No. 54. Changing Jobs. 12 pp. 1926.
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- No. 58. Women in Delaware Industries. 156 pp. 1927.
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- No. 60. Industrial Accidents to Women in New Jersey, Ohio, and Wisconsin. 316 pp. 1927.
- No. 61. The Development of Minimum-Wage Laws in the United States, 1912 to 1927. 635 pp. 1928.
- \*No. 62. Women's Employment in Vegetable Canneries in Delaware. 47 pp. 1927.
- \*No. 63. State Laws Affecting Working Women. 51 pp. 1927. (Revision of Bulletins 16 and 40.)
- No. 64. The Employment of Women at Night. 86 pp. 1928.
- \*No. 65. The Effects of Labor Legislation on the Employment Opportunities of Women. 498 pp. 1928.
- No. 66-I. History of Labor Legislation for Women in Three States. 133 pp. 1929.
- No. 66-II. Chronological Development of Labor Legislation for Women in the United States. 145 pp. 1929. (Revised 1932.)
- No. 67. Women Workers in Flint, Mich. 80 pp. 1929.
- No. 68. Summary: The Effects of Labor Legislation on the Employment Opportunities of Women. (Reprint of Chapter 2 of Bulletin 65.) 22 pp. 1928.
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- No. 86. Activities of the Women's Bureau of the United States. 15 pp. 1931.

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- No. 87. Sanitary Drinking Facilities, with Special Reference to Drinking Fountains. 28 pp. 1931.
- No. 88. The Employment of Women in Slaughtering and Meat Packing. 210 pp. 1932.
- No. 89. The Industrial Experience of Women Workers at the Summer Schools, 1928 to 1930. 62 pp. 1931.
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- No. 109. The Employment of Women in the Sewing Trades of Connecticut. Second and final report. (In press.) See also Bulletin 97.
- No. 110. The Change from Manual to Dial Operation in the Telephone Industry. 15 pp. 1933.
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- Pamphlet—Women's Place in Industry in 10 Southern States. 14 pp. 1931.
- Memorandum on the Practicability of Setting Maximum Standards of Work in Cotton Mills Operating Under the Stretch-out System. 4 pp. 1933.
- Labor Legislation for Women, January to June 1933. 4 pp. 1933.
- Leaflet—Why Legislate Living Wages for Women Workers? 1935.

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- No. 100. The Effect of the Depression on Women's Employment in the Cotton Industry. 1931.
- No. 101. The Effect of the Depression on Women's Employment in the Textile Industry. 1931.
- No. 102. The Effect of the Depression on Women's Employment in the Clothing Industry. 1931.
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- No. 156. The Effect of the Depression on Women's Employment in the Public Services Industry. 1931.
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