

## *Women in Industry*

### WAR WORK OF THE U. S. WOMEN'S BUREAU

EARLY in 1941 the Women's Bureau was formally recognized as the official agency for all matters relating to women's employment in the war effort. It had recorded the World War experience in the use of woman labor in 1917 and 1918 and, for many years thereafter, had been consulted by the Planning Division of the War Department concerning the employment of women during any future war. It was natural, therefore, that the Under Secretary of War, Robert P. Patterson, should write the Secretary of Labor, under date of March 15, 1941, " \* \* \* I shall take measures to see that the services in the War Department take up all matters of concern to woman workers with the Women's Bureau."

Since that date there has been close cooperation with the several services in the War Department to bring about the most effective employment of women in war industries. Cooperative relationships have been established, as occasion warranted, with the Navy Department, Civil Aeronautics Board, Office of Vocational Education for National Defense, National Housing Authority, Office of Defense Health and Welfare Services, National Labor Relations Board, War Production Board, State labor departments, women in labor unions, USO organizations, scores of individual employers having war contracts, and latterly with the War Manpower Commission.

### *Analyses of Jobs for Women in War Industries*

Although War Department's plans called for utilization of women in war industries and several arsenals pioneered in extending women's employment to many processes, the availability of masses of men during 1940 and early 1941 resulted in a lack of interest in woman workers on the part of private employers. It was deemed advisable to take advantage of this pre-war period to become fully informed of modern methods of producing the weapons of war, to review the background of women's employment during World War I, and to make careful analyses of jobs in relation to their suitability for women.

The work women were doing on punch presses, drilling machines, milling machines, lathes, grinders, and polishers, as well as their high record of achievement in inspection, assembly, filing, and other bench work in peacetime metal and electrical industries were well known to the Women's Bureau. The extent to which these developed skills would be useful to war-implement industries was easily demonstrated. In the last war women had proved themselves able in an emergency to make good on any job, if adequately trained. However, for practical purposes in the first year of the present war, it seemed advisable to

limit recommendations for women's employment to work comparable to what many women have done or are doing in other industries—to work the average woman can do as well as, or better than, the average man. If women were placed in such occupations only, the greatly expanded war production program could be met with a labor force composed one-fourth of women.

In the following pages is given a summary of suggestions as to possibilities of extended utilization of women in principal operations in the making of airplanes, instruments of varied types, and small arms and artillery ammunition, which was made for Government departments and private employers during 1941. Detailed descriptions of occupations are given in the body of a report on each industry. In 1942, similar occupational analyses were or are being made of pistol, rifle, and gun manufacture, machine-tool production, shipbuilding, airplane engine and propeller building, and explosives manufacture. As demands of the Army and Navy call more men from production, these analyses will be extended to other industries.

Women's employment in war industries has increased materially in the last 6 months. Most spectacular is their employment in air-frame manufacturing, where they constitute 13 percent of the productive staff as compared to less than 1 percent in 1941. Estimates of May 1942 indicate that even when office workers are included the total number of women in manufacturing war supplies is less than a million or 11 percent of the almost 8 million workers. Obviously, full utilization of women in the occupations listed below is far from being achieved.

#### AIRCRAFT ASSEMBLY <sup>1</sup>

In every department of the aircraft industry, as now organized there are varying proportions of occupations in which women may be employed as the industry expands. In all departments there are jobs deemed not suitable for women, either because the work is beyond the average woman's physical strength (570/1000 that of man) and resistance (679/1000 that of man), or because the work requires lengthy experience and training which the emergency does not permit.

However, many of the jobs which women can do most effectively are to be found in production departments, such as machine shop, the press and forming, metal fabrication, bench and stainless steel assemblies, the assembly of the fuselage, wings, control surfaces, cowling, fairing, tank, final assembly, painting, covering, heat treating, anodizing, and welding departments. From a practical standpoint at the present time, departments concerned with the design, lay-out, making and repairing of patterns, molds, templates, jigs, fixtures, tools, and experimental planes, and the service departments, require a high degree of mechanical skill and experience which few women have or could obtain in a short period. In the foundry, shipping, receiving, trucking, and maintenance, much of the work is intermittently heavy and concerned with cumbersome parts. The jobs involved in these departments, however, include not more than 15 percent of the total factory employment.

<sup>1</sup> See U. S. Women's Bureau Bulletin No. 189-1: Women's Factory Employment in an Expanding Aircraft Production Program, Washington, 1942.

As a conservative estimate it seems reasonable that at least one-fourth to one-third of the jobs in the aircraft-assembly plants might be filled satisfactorily by women.

The following is a list of the principal jobs on which women may be employed effectively:

**Machine operating:**

- Drilling, reaming, countersinking on single, multiple drills, and pneumatic drills.
- Small milling machines.
- Small turret lathes.
- Small and medium-sized punch presses.
- Small angle-bending machines and brakes.
- Light grinders.
- Riveting and dimpling machines.
- Spot welding.

**Bench work:**

- Burring and filing of all kinds.
- Soldering.
- Hand forming over templates and blocks.
- Tube cutting, bending, and assembly.
- Electrical assemblies.
- Wiring and bending.
- Subassemblies in jigs and at benches.

Hand and machine sewing of covers and fabric accessories.

Stretching of covers on plane surfaces.

Doping.

Painting—Spraying of small parts, stenciling, applying decalcomanias, masking, touch-up, etc.

Racking in paint, heat treating, anodizing, and plating departments.

Detail inspection of parts and subassemblies.

Departmental factory clerks and assistants in planning, parts control, blueprint despatching, and drafting.

Tool-room attendants.

## INSTRUMENTS—AIRCRAFT, OPTICAL AND FIRE-CONTROL, AND SURGICAL AND DENTAL <sup>2</sup>

In normal times the manufacture of instruments of the types covered was on a relatively small scale, and much of the production of aircraft and fire-control instruments was on a constantly changing and experimental basis. For many years, machining and assembly were done almost entirely by men classed as all-round skilled instrument makers. However, with increased production, jobs have been broken down and women employed to a considerable extent. The proportion of women and the jobs on which they are employed, however, differ materially from plant to plant. In some plants women are working satisfactorily on machine and assembly operations, while for the same jobs in other plants women have never been considered.

In Great Britain special training courses have been offered to women as well as men in the making and fitting of instruments. Instruction covering both theory and practical application is provided in correct use of tools, gages, calipers, verniers, micrometers, and in blueprint reading, soldering, buffing, drill presses, lathes, gear cutters, milling, precision fitting, and bench assembly. In the United States, in the defense training program in most of the cities visited, general courses in machine-shop practice and assembly were open to relatively few

<sup>2</sup> See U. S. Women's Bureau Bulletin No. 189-4: *The Employment of and Demand for Women Workers in the Manufacture of Instruments—Aircraft, Optical and Fire-Control, and Surgical and Dental*, Washington, 1942.

women. Only two plants had courses of study and specific training programs as formal instruction for employees, and in one plant only men had been admitted because the training was given primarily as part of an upgrading plan and the policy was not to consider women for job progression beyond unskilled repetitive work. In all other plants, training was on the job. Many of the beginning jobs in the machine-shop, assembly, and inspection sections have been closed to women, as these operations are regarded as the beginning step for young boys who progress to more skilled work.

The summary presented below is merely indicative of the kinds of work being done and the feasibility of extending the employment of women on the various processes.

*Aircraft instruments*

		<i>Possible extension of women's employment</i>
Assembly and bench work:		
Mechanism subassembly.....	M and W	Proportion could be in- creased.
Mechanism final assembly.....	M and W	Do.
Special assemblies—		
Diaphragm.....	M	Women could be used en- tirely.
Pitot tube.....	M	Slight probability of using.
Gyro motors.....	M and W	Proportion could be in- creased.
Autosyn electric motors.....	M and W	Do.
Closing of instruments.....	M and W	Women could be used en- tirely.
Testing and inspecting:		
Parts inspection.....	M and W	} Proportion could be in- creased if trained or up- graded from instrument- assembly operations.
Calibrating.....	M and W	
Electrical tests.....	M and W	
Cold, vibration, and run tests.....	M and W	
Final instrument inspection.....	M	

*Optical and fire-control instruments*

Optical work:

Blocking..... M and W

Grinding..... M

Polishing..... M and W

Centering..... M and W

Cementing, engraving, etching, and silvering. M and W

Cleaning and inspecting..... M and W

Assembly and bench work:

Range and height finders, panoramic sights, periscopes, plotting boards, quadrants, sextants, octants, etc.—

Minor subassemblies..... M and W

Main assemblies..... M

Binoculars, telescopes, aircraft sights, and small gunsights—

Mounting, cleaning, and inspecting optical parts. M and W

Sighting, adjusting, collimating, calibrating, etc. M

Only a few women used on single-spindle blocking and polishing.

With training, women could be used or proportion might be increased on all operations.

Subassemblies made by women are very minor; not much possibility of increasing proportion.

Proportion could be increased.

With training, women could do in part.

## Surgical and dental instruments

	Sex	Possible extension of women's employment
<b>Assembly and bench work:</b>		
Forceps, pliers, retractors, etc.....	M	Slight probability of increasing proportion.
Dental stands and chairs—		
Minor subassemblies.....	M and W	
Main assemblies.....	M	Proportion could be increased.
Dental hand pieces and fittings.....	M and W	
Clinical thermometers.....	M and W	Women employed extensively.
Special machining of dental burrs and broaches.	M and W	Do.

## General operations applicable to most instruments and small-metals production

<b>Heavy-duty machines:</b>		
Drill presses.....	M and W	Proportion could be increased.
Punch presses.....	M and W	Do.
Milling machines.....	M and W	Do.
Metal polishing and grinding.....	M	Not suitable for women.
Turret lathes.....	M	With extensive training women could be used on lighter machines. Otherwise, probability slight.
Engine lathes.....	M	
Hand screw machines.....	M	
Automatic screw machines.....	M	
Gear cutters.....	M	
<b>Secondary or light machines:</b>		
Bench, watchmakers' lathes, etc. (turning, buffing, burnishing, burring, lapping, etc.).....	M and W	Women employed quite generally and they could do more of light work.
Micromilling.....	M and W	
Sensitive drill press.....	M and W	Slight probability without extensive training.
Small automatic screw.....	M	
Hand and machine burring.....	M and W	Proportion could be increased.
Machine-shop inspection.....	M	Slight probability of employment.
<b>Painting:</b>		
Spray.....	M and W	Proportion could be increased.
Touch-up and brush.....	M and W	Women employed extensively.
Fill-in.....	M and W	Do.
Radium.....	W	
Graduating and engraving.....	M and W	Proportion could be increased.
Heat treating, plating, and anodizing..	M	Not suitable for women.
Inspecting, cleaning, wrapping for stock and shipment.	M and W	Proportion could be increased.

ARTILLERY AMMUNITION AND COMPONENTS<sup>3</sup>

Women already are employed in Government arsenals and in parts manufacture at many operations, specifically as machine operators, assemblers, inspectors, packers, and so on. The new plants will offer many similar jobs. There will be wide opportunity of further expansion of women's employment in an expanding production, both on new jobs and as substitutes for male operatives if the need arises. Undoubtedly women can carry on well over half of the operations in the manufacture of artillery ammunition. The list following shows the possibilities of extended utilization of women in making artillery ammunition.

<sup>3</sup> See U. S. Women's Bureau Bulletin No. 192-2: Women's Employment in Artillery Ammunition Plants. Washington, 1942.

	Sex	Possible extension of women's employment
<b>Metal components manufacturing:</b>		
Toolmaking, adjusting, setting up machines, etc.	M	Not suitable for women.
Machine operations.....	M and W	Proportion could be increased.
Assembly.....	M and W	Do.
Inspection.....	M and W	Do.
<b>Fuze assembly (including detonators, fuze primers, boosters, etc.):</b>		
Machine operations.....	M and W	Women could be used almost entirely.
Assembly.....	M and W	Do.
Inspection.....	M and W	Do.
Loading.....	M and W	Do.
Packing.....	M and W	Do.
<b>Propellant primers:</b>		
Body and head machine operations.	M and W	Proportion could be increased.
Assembly of body and head.....	M and W	Do.
Loading (explosives operators)—		
Head.....	W	—————
Body.....	M	Women could be used entirely.
<b>Projectile manufacturing:</b>		
Machine operations.....	M	Women could be substituted in part on lighter projectiles.
Inspection.....	M	Women could do 37-mm.
Painting.....	M	Do.
Packing.....	M	Do.
<b>Cartridge-case manufacturing:</b>		
Drawing, annealing, pickling, etc.	M	Not suitable for women.
Machine operations.....	M	Could be substituted in part.
Stamping identification.....	W	—————
Inspection.....	M and W	Proportion could be increased.
Packing.....	M and W	No further extension possible.
<b>Projectile loading:</b>		
Melting, pouring, and compressing explosives.	M	Not suitable for women.
Drilling fuze cavity.....	M	Do.
Cleaning threads and miscellaneous light jobs.	M	Women could be substituted in part.
<b>Case loading and assembly:</b>		
Inserting primer.....	M	Women could do 37-mm. and 75-mm.
Weighing and pouring powder.....	M and W	Women could be used entirely.
Crimping case to projectile.....	M	Women could do 37-mm.
Miscellaneous machine operations..	M	Women could be substituted in part.
Painting and stenciling.....	M and W	Proportion could be increased.
Packing.....	M and W	No further extension possible.
Inspection.....	M	Women could do 37-mm.

	Sex	Possible extension of women's employment
Bag loading:		
Bag sewing—		
Cutting and trimming.....	M	Women could be used entirely.
Power-machine operating.....	W	_____
Smokeless-powder bag loading—		
Weighing and loading.....	W	_____
Sewing loaded bag.....	W	_____
Black-powder bag loading—		
Weighing and loading.....	M	Not suitable for women if hopper must be filled.
Sewing loaded bag.....	W	_____
Putteeing propellant charges.....	M	Not suitable for women.
Inspection.....	M and W	Proportion could be increased.
Packing.....	M and W	Do.
Explosives manufacturing:		
Smokeless powder.....	M	Not suitable for women.
Black powder.....	M	Do.
TNT, amatol, etc.....	M	Do.
Black powder pellets.....	M	Women could be used entirely.
Tetryl pellets.....	M	Do.

SMALL-ARMS AMMUNITION<sup>4</sup>

Since the small-arms ammunition industry has a small product which is standardized as to operations and machining and which requires considerable care and attention to detail, women have been used extensively, and as the new plants get into production many more women will be employed in this branch of the defense program. In the Government arsenal at Frankford approximately 40 percent of the productive workers in 1941 were women, and as the dilution of labor increases, women undoubtedly will constitute a considerably larger proportion.

Women comprise a much larger proportion of the munition makers abroad than in the United States. Possibilities of extended utilization of women for such work are summarized in the following.

Bullet manufacturing:		
Bullet jacket:	Sex	Possible extension of women's employment
Drawing (several draws).....	M	Women could be substituted in part for men.
Annealing, pickling, and washing.	M	Not suitable for women.
Trimming.....	M and W	Proportion could be increased.
Bullet point or core—		
Melt and ingot molding.....	M	Not suitable for women.
Extruding and forming.....	M	Do.
Washing and drying.....	M	Do.
Bullet assembly.....	M and W	Women could be used entirely.
Tracer-bullet charging.....	M and W	Proportion could be increased.

<sup>4</sup> See Women's Bureau Bulletin No. 189-2: Employment of Women in the Manufacture of Small Arms Ammunition.

	Sex	Possible extension of women's employment
Case manufacturing:		
Drawing (several draws)-----	M	Not suitable for women.
Annealing, pickling, and washing.	M	Do.
Polishing-----	M	Do.
Pumping, pocketing, and heading.	M	Do.
Trimming-----	W	-----
Head turning-----	M and W	Women could be used entirely.
Body and mouth annealing-----	M and W	Do.
Tapering-----	W	-----
Chamfering-----	M	Not suitable for women.
Primer inserting-----	W	-----
Primer:		
Blanking and forming cup and anvil.	M	Women could be substituted in part for men.
Shellacking strips for foiling-----	W	-----
Pellet forming-----	M	Women could be substituted for men.
Foil and knock out-----	W	-----
Inserting of anvil-----	W	-----
Press anvils into primer cup-----	M	Women could be substituted for men.
Primer inverting-----	W	-----

### Counseling of Employers

The widespread attention given since December 7, 1941, to the calling of women as a practical source of new labor supply has constantly increased the number of calls on the Women's Bureau from individual employers requesting advice as to the occupations and the conditions of work found successful for the employment of women. As far as is possible with a limited staff, these calls are met by personal visits to the plants by industrial experts familiar with the manufacturing processes and equipment. Other requests are met by letters giving detailed information. Groups asking for experienced advice are reached by addresses made by staff members to managerial associations, safety engineers, personnel directors, and so forth. Furthermore, in order that the Bureau's accumulating knowledge not only of the potential occupations of women but of their actual efficiency in such occupations may be made to reach the largest possible number of employers, as well as the many officials engaged in recruiting women and in forming training classes, the Bureau prepares for distribution mimeographed reports on industries.

Many companies primarily engaged in making war implements, or converting their operations to war work, must have the assistance of an agency whose personnel is experienced in advising as to the needs of a woman labor force. Such requests have come to the Women's Bureau from engineering firms and arsenals and from companies producing machine tools, sheet metal, ordnance, optical goods, locomotives, iron and steel products, copper and brass products, ammunition, electrical supplies, cement, chemical products, petroleum, glass products, aircraft, automobiles, and food products.

Plant managers, superintendents, training supervisors, personnel directors, medical advisers, and others pose all sorts of questions to the Women's Bureau. Typical is the statement of a personnel director of a machine company expected in the near future to hire some



women for factory work: "Before planning, we need some specific information." Or of a woman supervisor who says: "In heading up a women's program for our company, I am anxious to secure all pertinent materials." Included in types of information asked for by such plant officials are data on the following: The kinds of jobs women can do best; the extent to which they can handle the heavier work; methods and necessary time for training and upgrading woman workers; measures of women's skill; general health conditions for woman workers and their characteristic medical needs; proper methods of seating for correct posture; safety requirements as to headgear, shoes, and uniforms; laws and regulations as to women's work; wage standards for newly developed jobs for women; preventive measures in use of industrial poisons, causes and care of dermatitis, and other health hazards. And these employers have many more needs that the Women's Bureau has to meet.

### *Conditions of Employment*

Plant management is desirous of obtaining information not only as to occupations suited to women but as to the physical requirements designed to spell efficiency in the use of a woman labor force, such as desirable arrangements of work shifts, advantageous rest periods, suitable and safe work apparel, healthful seating, adequate service facilities, and personnel requirements. To cover such matters, concerning general standards and policies to be observed, the Bureau is issuing a series of pamphlets that summarize some of the best data on subjects about which employers are asking. Already published are:

**Hazards to Women Employed in War Plants on Abrasive Wheel Jobs.**

**Night Work for Women and Shift Rotation in War Plants.**

**Women's Effective War Work Requires Time for Meals and Rest.**

**Washing and Toilet Facilities for Woman War Workers.**

**Safety Clothing for Women in Industry.**

**Lifting Heavy Weights in Defense Industries.**

These are done in such easily readable fashion that some firms have ordered them in 5,000 lots for distribution to workers. In preparation are similar pamphlets on seating, and on dermatitis. The Bureau also has prepared material requested by the War Department, to be incorporated as the section on working conditions of its health and safety manual, for the use of plant supervisors.

Many complaints have reached the Bureau from workers, in respect to conditions in plants that had always employed women but have speeded up or expanded because of war contracts. To secure a factual understanding of such difficulties, some 700 woman workers were called upon in their homes. The relationship of conditions of work to morale of woman workers was clearly discernible. The plants in which these women worked also were visited, and wherever possible needed changes were discussed with management. These personal interviews are being followed up with letters containing pertinent material for the use of the employers. That such a method achieves results may be judged from the answers received, excerpts from which follow:

We are happy to report that most of the things complained about [by employees] have been corrected. We are taking immediate steps to correct the remainder.

Mrs. ——— gave us several very constructive suggestions and it has been a pleasure on our part to have followed these instructions. We believe another visit will find a marked improvement in the handling of the matters brought to our attention.

You may be sure we are correcting the crowded toilet conditions to which you refer, as rapidly as possible.

Some of the comments of woman workers are worthy of summarizing here, as they indicate attitudes that result in plant problems and have a definite effect in lessening production:

*Wages.*—Older employees resent the fact that they worked without increases in pay for years and now new employees earn as much as they do.

A feeling existed that machine operators should receive more than bench workers because work is harder.

Confusion and lack of understanding was expressed about the system for wage increases.

*Absenteeism.*—When the plants work 7 days a week very few women on the third shift report for work Saturday night. Now, when they have Saturday nights off, few will work Sunday night.

Many of the women employed have home responsibilities and must have time off to do their housework.

Young girls take time off to shop around to find the job they like best.

Absenteeism may be caused partly by lack of interest in the job and a feeling that it is not very important. Where an absence report is required of each person when she returns to work, it is customary for the women to state that their absences are due to illnesses regardless of the cause. [The latter statement checks with the very limited amount of illness reported by woman workers to Bureau agents.]

*General conditions in plant.*—Present arrangement of eating at machine, in toilet rooms, or in automobiles is not satisfactory.

Employees would like to be able to get hot coffee in plant.

Toilets in old building are not clean and are not adequate in number but are overcrowded.

The washroom is not available for half an hour before leaving. [This seemed most annoying to workers traveling long distances in public conveyances.]

Since it is frequently cold in workrooms in old building, girls must either smuggle coats into the room or go through a lot of red tape to get permission to get their coats.

Thermos bottles have been opened for inspection when brought into the building. Heat is lost.

[There is much evidence of need for interpretation of firm policies, and for a personnel manager to whom complaints can be made and who will allay rumors and exaggerated notions.]

## *Wage Rates in Occupations of Women and Men in War Industries*

The speed with which women are employed, as well as their spread over the occupational field, changes in direct relation to the availability of male labor in each area. Today, in one plant men are working on jobs that women are doing in another plant having similar production, and in more and more cases men and women are working side by side on the same work in the same plant. In such situations, many wage-rate problems arise, calling for new scales both in union agreements and in nonunion plants. At the urgent request of woman workers, the Women's Bureau has held many conferences with trade-union officials concerning the subject. The result has been that the United Electrical, Radio and Machine Workers of America and the United Automobile, Aircraft and Agricultural Implement Workers of America have agreed that woman workers shall receive the same wages as men when they perform the same operations, and such a clause becomes a part of new local contracts.

This subject has been included in several cases before the National War Labor Board. In order to outline sharply the present situation for the Board's attention, the Women's Bureau made a detailed job analysis of the work done by women and men in several gun plants, and presented a factual statement concerning the work done by women and men and the wage rates paid on various processes. Time and again the maximum rate paid to women on comparable operations was lower than the minimum rate paid to men working on the same machine and same part. Such differences in wage rates cause much unrest among both man and woman workers. The National War Labor Board in its directive order in the case of the General Motors Corporation and the United Automobile, Aircraft and Agricultural Implement Workers of America stated:

Wage rates for women shall be set in accordance with the principle of equal pay for comparable quantity and quality of work on comparable operations.

Any dispute arising as to the question of quality, quantity, or comparability, as herein defined, shall be subject to final determination by an arbitrator appointed by the National War Labor Board; provided, however that any such dispute which involves an alleged violation of a local wage agreement shall be settled within the procedural framework of the grievance provision in the agreement.

To assist both employers and union officials, and in response to repeated requests, the Women's Bureau has prepared a bulletin giving information on various aspects of the subject of women's wage rates, showing official Government support of the "equal pay" principle, and inclusion of clauses to this effect in union agreements, and summarizing experience as to related subjects, such as standards of women's output, their special skill in the light industrial processes now so widely demanded in the manufacture of war necessities, and so forth. The Women's Bureau outlines the following as a general standard recommended in fixing women's wages in plants manufacturing war products:

1. If the job or operation is a new one, the rate should be fixed according to the job, and regardless of whether a man or a woman is to perform it.
2. If a woman is placed on a job formerly done by a man, or on a type of job customarily done by a man, she should receive the identical rate paid the man. Managements sometimes make slight changes for the purpose of improving the process, and such changes cannot be taken as a valid basis for paying a lower wage rate to women.

The largest numbers of women are and will continue to be employed in nonwar industries and services. With increased living costs, with a much higher wage standard in war-implement industries, discontent and restlessness ensue among such workers, who are essential for civilian life. Less than a third of woman workers are organized in trade-unions. For many millions of women who are not organized, legal minimum-wage rates have afforded the only means of eliminating substandard wage rates. The fixing of legal minimum-wage rates by States was essential to insure payment of a fair living wage to workers in service industries not covered by the Fair Labor Standards Act. Up to the time the President established the Office of Economic Stabilization, the Women's Bureau had been advising State authorities as to the types of legal regulations that have proved most effective in correcting injurious conditions of employment during the war period.

The Bureau also renders technical assistance on all phases of minimum-wage legislation, administration, and enforcement. This technical assistance reaches through all stages of minimum-wage activity.

For example, where a State agency desires to issue new wage orders, the Bureau cooperates in the preliminary survey of the cost of living of employed women in the State, and prepares draft wage orders to assist wage boards, incorporating standards found to be desirable by experience. Or, where a State finds it advisable to revise a wage order or one of its provisions, to meet a specific enforcement problem, the Bureau's experts suggest methods and wording; they also constantly advise with all States on enforcement methods and techniques, and in this way are able to give each State the benefit of the methods and experience of other States.

The authority vested in the National War Labor Board to approve wage increases calls for a new form of assistance by the Bureau to the 26 States having minimum-wage legislation, which may wish to increase their issuance of new wage orders or revise present orders by bringing them in line with the rising cost of living.

### *Labor Laws and Regulations Affecting Women's Work*

Immediately after the Pearl Harbor attack the War Department called on the Women's Bureau to make investigations as to the operation of certain labor regulations in the employment of women in war-implement factories. This situation was surveyed through visits to plants having large war contracts in several major industrial States. Subsequently, the Bureau participated in joint conferences of State labor commissioners and the War and Navy Departments for the preparation of acceptable basic labor standards for woman employment in plants having war contracts.

These agencies at that time designated sound labor standards as "the mechanisms of efficiency," and stated that "industrial history proves that reasonable hours, fair working conditions, and a proper wage scale are essential to high production." Subsequently, very few States found modifications of law necessary to make it possible to meet production schedules, and most of these few made only very minor changes. The Women's Bureau endorses the policy that authority to grant temporary modifications of existing laws be lodged in State labor departments and that the following procedure be observed when the quantity of temporary exemptions makes it necessary.

Each employer seeking temporary exemption from State labor laws to be required to file an application with the labor commissioner.

Each application to be thoroughly investigated by the labor commissioner to determine whether the need for such an exemption actually exists.

No permit granting an exemption to be issued to an employer who can maintain labor standards by using available labor supply, or by making adjustments in the organization of his plant.

No permit to be issued, even though trained workers are lacking, unless the employer makes satisfactory arrangements to train or to secure trained workers within a reasonable time.

No exemptions to be granted to employers not engaged in war work.

No permit to be issued if the health and welfare of the workers would be endangered thereby.

Permits to be limited to individual plants and for specified periods of time and to be revoked when exemptions are found to be unnecessary to maintain maximum war production.

In the ensuing months the Women's Bureau has observed the effect of these recommendations through plant investigations within several States, and is continually cooperating with State labor departments,

as well as with the employers, in the alleviation of conditions of women's work so unsatisfactory as to affect their health and output.

Studies are being and will continue to be made of the effects of the administration of existing legislation on the well-being of woman workers. For example, a study is about to be undertaken to determine whether benefit-payment policies of State unemployment compensation commissions are forcing women to work longer than they should immediately before childbirth, or to return to work too soon afterward, or to accept night work and other injurious job conditions whether or not they are physically fitted for them. This has been especially important at the present time because of the increasing employment of married women and the increasing birth rate.

### *Community Facilities in Industrial Areas*

Plants manufacturing or handling explosives have been located in rural areas. The Women's Bureau has made special investigation in 17 of these areas concerning the adequacy of housing, food, recreational, and other facilities for working women. Since most of these plants have been quite recently constructed, accommodations frequently were inadequate. Following such investigations, recommendations were made to the National Housing Authority concerning the housing needs of the community. Numerous conferences with assistants in that agency have been held, to the end that better housing arrangements are under way. Many conferences were held with representatives of the Office of Defense Health and Welfare Services both in the field and at headquarters. Copies of the Women's Bureau community-survey reports have been sent at their request to each of their regional directors, and every effort has been made to bring about the necessary changes in eating and recreational facilities.

As an example of results obtained, action is now being taken to provide recreational leadership and facilities for Elkton, Md., a community in which nothing had been provided for women even though their influx for work in two munition plants called for building of dormitories. In addition to the foregoing, crowded industrial areas in Connecticut to which women are migrating also have been studied. Recommendations as to housing and recreation needs will be forwarded to the proper administrative agency.

Requests from many communities made it evident that administrative agencies needed a statement of guiding principles. The Women's Bureau responded with the preparation of a small bulletin outlining the best acceptable standards for the housing, transportation, and recreation of woman war workers. In connection with the housing of woman war workers, for example, the Women's Bureau, following its investigations of communities and its conferences with other authorities in this field, recommends the following:

All types of housing for woman war workers should conform to standards essential for safety, security, health, decency, adequacy, privacy, cleanliness, and comfort.

Living quarters should be conveniently located in regard to workplaces and recreation facilities, and be in pleasant surroundings.

Room rent should not exceed 20 percent of a woman's income.

Safeguards should be set up in every community to control rents and to prevent other dangers from hit-or-miss room finding.

Single rooms are preferable, or double rooms with not more than two women each with her own bed.

Rooms (whether in private homes, boarding or lodging houses, dormitories, etc.) should be adequately furnished (including a closet with lock or a locker preferably for each occupant) and should be properly heated, ventilated, and lighted.

Bathing facilities and toilets should be modern and in good repair, arranged to give necessary privacy, conveniently located and sufficient in number (in the ratio of a modern bath, or shower, and toilet for every 5 to 7 persons; a washbasin to every 4, unless there is running water in the bedroom, then 1 for every 7).

A place on the premises for entertaining guests outside the bedroom should be available.

Eating facilities of proper kind should be conveniently located, with satisfactory inexpensive meals.

Especially for rural areas, the Bureau recommends the cooperation of local women's groups in making available satisfactory living places, and, in cases where the need develops, improved types of housing projects for women. Especially for large cities, the Bureau recommends that an organized room-registration service of a satisfactory type be created and that, where necessary, special dormitories for women be built.

### *Agricultural Woman Workers*

The transfer of vast numbers of agricultural workers to the war industries, as well as the rapid induction of others into the armed forces, has resulted in a growing demand for the employment of women in agricultural work. In the next few years, much of the work of harvesting and picking heretofore performed by migratory labor in the many local communities will have to be carried on by women. Further, women will be needed in increasing numbers not only for their traditional work of packing and canning, but also for nearly all types of regular farm work. On April 1, 1942, there were 1,328,000 woman farm workers in the United States. The anticipated employment of women in large numbers in agriculture creates many new employment problems. In interesting women in such work, the Bureau is cooperating with other Government agencies primarily concerned. In addition, the Bureau performs a function not carried on by any other agency, namely, that of formulating and helping put into practice standards for women's employment. These standards are incorporated in a bulletin entitled "Guides for Wartime Use of Women on Farms."

### *Women's Bureau, A Center of Information on Women's Work*

In a situation changing as rapidly as is the situation with respect to the employment of women, there is need for a center for dynamic technical information and expert advice on the widest variety of subjects connected with women's work—the types of work women do best or can do, the effects of industrial and economic changes on their employment, and the conditions found satisfactory for their continued performance. The Women's Bureau is such a center and has available the records of the most useful experience accumulated through years of knowledge of women's industrial activity.

This also includes close contacts with current and developing situations in Great Britain, Canada, Latin America, and other parts of the world. Bureau representatives have visited Canadian war-implement plants and have become fully acquainted with the part women are playing there in the manufacture, for example, of guns and rifles.

Staff members of the Women's Bureau have conferred personally with the leading advisers and experts on women's work in England, such as Caroline Haslett and Margaret Bondfield; regular exchanges of information between this Bureau and these officials are maintained. In these countries, longer in the war than the United States, many valuable details are being gleaned as to technical woman-power problems that are beginning to face this country.



## EMPLOYMENT IN WAR WORK OF WOMEN WITH YOUNG CHILDREN

THE maximum utilization of our labor resources in the war-production program means the recruitment and training of large numbers of women for gainful employment in occupations useful to the war effort. In order that this may be done in the most effective manner, the War Manpower Commission has declared the following basic policies as regards the employment of women with young children:

I. The first responsibility of women with young children, in war as in peace, is to give suitable care in their own homes to their children.

II. In order that established family life may not be unnecessarily disrupted, special efforts to secure the employment in industry of women with young children should be deferred until full use has been made of all other sources of labor supply.

III. Barriers against the employment of women with young children should not be set up by employers. The decision as to gainful employment should in all cases be an individual decision made by the woman herself in the light of the particular conditions prevailing in her home.

IV. Whenever it is found that women with young children are gainfully employed in essential activities, or that the labor requirements of essential activities have not been met after the exhaustion of all other sources of labor supply and that to meet such requirements women with young children must be recruited, it is essential that:

(a) Such women be employed at such hours and on such shifts as will cause the least disruption in their family life; and

(b) If any such women are unable to arrange for the satisfactory care of their children at home during their working hours, adequate facilities be provided for the day care of their children during working hours. Such facilities should be developed as community projects and not under the auspices of individual employers or employer groups.

In order to facilitate putting this policy into effect, the War Manpower Commission issued a directive on August 12, 1942, to certain Government departments and agencies, to develop, integrate, and coordinate Federal programs for the day care of children of working mothers.

The Office of Defense Health and Welfare Services of the Federal Security Agency, in consultation with such Federal departments and agencies as it may deem advisable, is directed to—

(a) Promote and coordinate the development of necessary programs for the day care of children of mothers employed in essential activities;

(b) Determine, either directly or through such Federal departments as it may designate, areas in which such programs of day care should be promoted, and the respective responsibilities of the Federal departments and agencies concerned in the development of such programs; and

(c) Take such action as may be necessary or appropriate to assure the effectuation of all such programs.

Estimates of the number of working mothers with young children and the expected requirements of essential activities for the em-