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WOMEN IN WAR

25 January 1949

COMMENTS

Page

INTRODUCTION--Colonel Charles F. Daish, CE Chief, Manpower Branch, ICAF	1
SPEAKER--Mrs. Arynes Joy Wickens, Assistant Commissioner, Bureau of Labor Statistics, U. S. Department of Labor	1
GENERAL DISCUSSION	21

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1417

WOMEN IN WAR

25 January 1949

COLONEL BAISH: General Holman, ladies and gentlemen: Our guest this morning is Mrs. Aryness Joy Wickens, Assistant Commissioner for Program Operations, Bureau of Labor Statistics, United States Department of Labor. Mrs. Wickens has been with the Bureau of Labor Statistics since 1938 and was Chief of the Prices and Cost of Living Branch from 1940 to 1945, before being appointed Assistant Commissioner.

In several preceding manpower lectures this year we have received up-to-date facts and figures on the manpower resources of the Nation and we have seen that women comprise the most important manpower reserve in the expansion of the labor force in wartime. Mrs. Wickens is very well qualified to discuss the utilization of women in wartime and will give particular emphasis this morning to women in war production and in other essential services. The subject of her lecture is "Women in War."

It is an honor and a pleasure to introduce to the Industrial College Mrs. Aryness Joy Wickens.

MRS. WICKENS: General Holman, members of the Industrial College: It is a great privilege to be here this morning, although I think perhaps I may be masquerading under false pretenses because I am not a specialist in the subject which your instructors have assigned to me this morning. I, therefore, hope you will forgive me if I make one or two points which may already have been made by some previous speakers.

The broad subject of "Women in War" is far too comprehensive to be covered in the brief space of an hour, so I should like to restrict the scope to more manageable proportions and to areas with which I personally have some familiarity. Properly, we should consider in this broad subject all the functions which women performed in the last war and which they might reasonably be expected to undertake in any future emergency. This would include the obvious tasks, first, of providing additional workers in war industries; secondly, of assisting with civilian defense; and finally, of providing recruits to the women's corps attached directly to the Armed Services, including the nurses in uniform.

Within the limitation of my own experience I cannot speak with any authority concerning either women in uniform or in civilian defense activities. For that reason, I should like to discuss only briefly the way in which these women contributed to the winning of the war and to give more attention to the employment of women as civilians in various aspects of the wartime program. I should like not only to describe the work which they did during the war, but also to indicate some of the problems with which we would be faced in duplicating that effort if another war were to break out within the near future.

RESTRICTED

2413

No one can question that the women of the United States made a magnificent contribution to the winning of the war. It is equally clear, I believe, that we did not organize during the past war to utilize their services most effectively. We groped our way. With apologies to the Armed Services, this was true both in the military and in civilian occupations. Nonetheless, by a process of trial and error, and largely as a result of uncoordinated action by hundreds of thousands of private enterprises and millions of individual women, a very great contribution was made. I am sure that there is much that we can learn from this experience in planning for another emergency, should one occur within this generation.

Women in the Armed Services

Most of you are far more familiar than I with the work of women as a part of the Armed Services and with the assistance which they gave to the Military Establishment as civilian workers.

When the war ended, there were approximately 275,000 women in uniform in the Armed Services--a very small number in comparison with the total in war industry. (Statistical Abstract of the United States, 1946, Tables 239 and 240.) By far the larger number was in the Women's Army Corps.

While the women in the WAC did a wide variety of jobs, the bulk of their work was in administrative and clerical occupations of various kinds. In 1943, for example, during the early stage of their organization, close to 44 percent were at work in such occupations. (* The War and Women's Employment, International Labor Office, 1946, Part I, Chapter VIII.) Upwards of another 20 percent were in aircraft detachments and in communications work. Others were in the food services, in supply, and in various other occupations. All told, it is reported that they served in close to 250 different occupations. It is clear that the women of the Armed Services performed a highly valuable service, and that they made it possible for a number of men to be released for military duty.

Now that the women's corps of the various military arms have come to stay, they should receive the same diligent attention as the men from you as regards recruitment, organization, and placement.

One final observation, which comes from the International Labor Office, of which comparative studies of the war and women's employment are perhaps the most comprehensive now available: It is that in the United States, women were used in fewer strictly military duties than in Great Britain, our nearest counterpart. In the Armed Services, women in the United Kingdom are said to have been given a much greater share in the defense of their country, manning antiaircraft guns, handling

RESTRICTED

3410

transport planes, bomber ferries, and even serving on board ship on the high seas. (* See The War and Women's Employment reference.) As you plan for the contingency of another war, the functions which can be assigned to women in any over-all plan should be related to the jobs which civilian women did do and can do in the Army and Navy.

Civilian Women in the Armed Services

In addition to the women in uniform, there were upwards of 735,000 civilian women engaged by the Army, the Navy, and the Marine Corps in 1945. At that time they made up 47 percent of all civilian employees in the Army and 29 percent in the Navy. (Bureau of Labor Statistics, U. S. Department of Labor. Figures cited pertain to 30 June 1945.) They were used particularly extensively after August 1942, when an order was issued that women should be allowed to replace men employees in the Army whenever possible. Thus, by mid-1943 75 percent of the Army Service Force's civilian personnel in Washington were women, and close to 40 percent of the employees of their field establishments were women. Over 105,000 women were employed at that time in the Ordnance Department, 30,000 in the Signal Corps, and 25,000 in the Army Air Force. (The War and Women's Employment, International Labor Office, 1946, p. 255.) They did a wide variety of tasks, many of them highly technical ones requiring considerable technical training. But, in the main, they did the expanded volume of clerical, stenographic, and service work, as they did in other parts of government, and they worked in ordnance plants, in much the same way as they worked in privately owned plants making war material.

In any future emergency, it seems that the experience of this war should indicate that one of the first moves made by the Armed Services should be the early recruitment and training of women civilian employees to replace men wherever that is practicable. It would probably be advisable to check the list of occupations which were performed by women in the Military Establishment during the war and then add to that list everything that is even conceivable. It might also be desirable to begin in-service programs for training key women members of the civilian staff, who in turn could train less experienced workers for civilian positions.

Nurses in Wartime

When we consider the role of women in wartime, we immediately think of the great needs for nursing service, supplied almost entirely by women. Nursing normally employs more women workers than any other profession except teaching, and a war adds heavy demands to the peacetime needs for nurses. During World War II at least one nurse in four was a member of the Armed Services. While some problems were encountered in recruiting an adequate number of nurses for the Army and Navy Nurse Corps, filling civilian needs proved even more difficult. The supply of civilian nurses declined in the face of rising demands for nursing care.

Experience during and after the war indicates that while patriotism plays a very major role in nurses' contribution to civilian as well as military service, salaries and working conditions cannot be ignored. Moreover, it emphasizes the need for a more rational use of available trained personnel, so that nurses' aides perform more duties, leaving professional nurses more time for the more difficult tasks.

During the war, the urgent needs for their help caused many older nurses and nurses with families to return to their profession either on a full or part-time basis. Salaries were low, and seemed particularly inadequate to nurses who had to pay someone to care for their families. Relatively long hours and the requirement of nightwork were also serious deterrents to the employment of married women with families. Better hours in institutions, provisions for part-time work, and even establishment of nursery centers to provide day care for nurses' children, apparently relieved the shortage appreciably in certain areas.

During the war, also, many potential nursing students were lost to other fields where girls just out of high school could earn money immediately and where pay compared favorably with that received by nurses after three or more years of training. In this respect, provision for payment of expenses under the Cadet Nurse Corps partly offset the attraction of other fields providing immediate earnings. But pay will have to be higher in the future to get recruits.

The Women's Bureau estimates that 500,000 to 550,000 professional nurses, or some 200,000 more than were available in 1946, will be required by 1960 if current standards of nursing are maintained. The 1960 needs cannot even be approached, the Bureau pointed out, if training does not proceed at the highest rate reached during the war and if graduates each year from 1951 to 1960 do not number from 43,000 to 45,000.

The largest graduating class produced as a result of increased training initiated in wartime under the Cadet Nurse Corps was attained in 1947, when 44,700 nurses were graduated. During the next few years according to estimates of the National League of Nursing Education, the number of graduates will be considerably smaller.

Women in Industry

The most important aspect of mobilization of women for a war emergency is the part which they play in industry. During the last war's very important share of the additional workers in the United States, required to produce not only the guns but the butter, were women.

In April 1940, before the U. S. entered the war, we had a total labor force in this country of about 55 million--men and women, old and young. Of these, more than 8 million were unemployed, that is, about

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44-22

46.5 million were employed. Of those, nearly 10 million were in agriculture. At that time, the labor reserves to be drawn upon for wartime expansion consisted of the unemployed, the young men not in the labor force, old men who had stopped active work, and women.

As the unemployed found jobs, and the demands for the military and for war production mounted rapidly in 1942 and 1943, vast numbers of people came into the labor force from these "reserves." From April 1940 to April 1945, the total labor force increased by over 11 million, to over 66 million. Never have we had such a phenomenal increase. An increase of about 3 million, including both men and women, would have been normal in these 5 years. Thus, the "extra" workers totaled about 8 million. Women supplied over half of these extra recruits, teen-age boys and older men the balance. All told, over 6 million women went into the labor force, including the considerable number who would normally have been expected to go to work in that 5-year period. (Labor Force, Employment, and Unemployment in the United States, 1940 to 1946.)

For the most part the women who began to work in war industry were drawn from among teen-age girls and older married women without young children to care for. Thus, out of the 4,200,000 women who went into the labor force over and above the normally expected increase, 1,500,000 were between the ages of 14 and 19 (and most of them, of course, were 16 to 19). Another 1,500,000 were between the ages of 35 and 54, while 600,000 were over 55, and only 600,000 came from the very large group of women who were 20 to 34 years of age. Thus even in wartime, when the needs of industry and the inducements to go into industry were the greatest, only one out of seven women aged 20 to 34 was employed. This is an important fact, because it indicates the limitations placed upon recruitment to industry by the home duties of the younger groups of women, particularly married women.

With all these additions to the Nation's working crew, at the war peak of employment in July 1944, it is estimated that there were 20.6 million women in the labor force. At that time they were over one-third of the total, as compared to about one-fourth in 1940.

Thus, in a very real sense, it can be said that women supplied much of the extra manpower (or womanpower) needed to win the war--certainly to provide the material. Without them, it simply could not have been done.

As you are well aware, these women, as well as the men who came into labor force, were not brought in by any system of registration, or even by any systematic recruiting program. They were induced to go into industry in a great variety of ways--by patriotic motives, economic needs, social pressure, by the fact that it was the "thing to do," and by an urge to help get the job done. Recruiting took on every possible form. Employers advertised through the press, through signs in the windows or on the factory gates, through the school system, the churches, over the radio,

~~RESTRICTED~~

3428

through the mail, and even by ringing door bells, we are told. They utilized the U. S. Employment Service throughout the country and all manner of organizations to let people know of the availability of jobs.

The extensive recruitment program brought into war plants women from many diverse fields of employment and from distant locations. There were clerks, cashiers, and buyers from wholesale and retail trade; teachers and others from the professions; domestics, personal and building service workers; and manufacturing workers from the apparel, textile, leather and other industries. There was, of course, a substantial number of housewives who entered the wartime labor force for the duration only--for patriotic reasons or to supplement family income during a period of rising costs.

One of the phenomena of the war was the extent to which whole families, as well as individuals, moved, bag and baggage, across the country to wholly new jobs in strange towns. This is a peculiarly American phenomenon. It required no force and little urging to get them to go--and something like 19 or 20 million people are estimated to have moved to go into work of various kinds. This extraordinary mobility--even willingness to move--the ready adaptability of both men and women to new scenes and new work, was one of the principal reasons, together with our large labor reserve, why a labor draft was not necessary in the United States during the last war.

Actually the reserve of manpower was not exhausted. Others could have been recruited had real necessity arisen. Of course, there were very grave shortages--of particular skills and of workers in particular areas. But the pressure on manpower here never equaled that in England, or even in Canada.

Women's Occupations in Wartime

Now, how did the war affect the kinds of jobs women held? In broad outline, the number of women engaged in the services, and particularly in domestic service, diminished both relatively and absolutely. Agriculture absorbed some more women. So did the organized service trades, the clerical occupations, and government. But the greatest expansion was in factories. About 2,270,000 women workers had been engaged in production before the war. At the peak, there were 4,800,000 women in manufacturing production. (Women in Factories, October 1939--May 1947.)

The largest net increase in factories came in the heavy industries, where the great wartime expansion took place--aircraft, shipbuilding, the iron and steel fabricating industries, machinery industries of all kinds, and the munitions factories. Only a little over 300,000 women factory workers were in these so-called "durable goods" industries in 1940; but at their peak in late 1943 over 2,125,000 women were at work there, making up almost a quarter of their production workers, as compared to less than one-tenth before the war.

The light manufacturing industries have typically employed a much larger proportion of women than the heavy industries. Traditionally women have staffed the textile mills, women's garment factories, the shoe factories, many of the food-processing industries, the tobacco factories, and even paper mills and printing and publishing establishments. In all of these lines, they formed at least 20 percent of the production force in 1940. In apparel they were close to 75 percent of the force, in textile mills and leather working, 40-45 percent. During the war, women made up an increasing share of the employment in these industries; but the rise was by no means as spectacular as in the heavy industries, and the overall expansion of these industries was not encouraged. Moreover, many of them lost employees to the higher-paid heavy industries and were forced constantly to train new recruits. However, the employment of women in these industries was already customary, the kinds of jobs were, in general, fairly well worked out.

Women's Occupations in the War Industries

Since the problems of recruitment and training were most acute in the war industries, they deserve particular attention. What kinds of occupations did women in fact engage in? To what were they best suited? And how did industry decide whether they could in fact be used on a job?

Women did almost every kind of job that you can imagine. Specific instances can undoubtedly be found where they undertook almost every industrial occupation except very heavy lifting or the highly skilled key jobs that require years of experience. Certainly as the war went on they were gradually trained to do many jobs in occupations which had previously been barred to them. They proved to be particularly adept in work requiring dexterity, precise and delicate processes, and in the repetitive kind of jobs. For example, they were used in large number in the electrical companies, in the manufacture of radio tubes and electronic devices. However, many of them were highly successful in the heavier occupations which many had thought were reserved for men. They even operated large machines when proper conveyors, automatic checks or stops, or other mechanical aids were provided.

Special studies by the Women's Bureau of the United States Department of Labor in war industries from 1941 through 1943 list the types of jobs in which women were actually engaged in war plants. Here are a few examples: Women operated a great variety of machines--drill presses, milling machines, bench lathes, light punch and forming presses. They finished machine parts; they were employed in soldering, on a great variety of electrical work such as wiring and assembling parts, winding armatures and all types of light subassembly and final assembly work. Often assembly required the use of hand tools such as pliers, screwdrivers, electric drills, and rivet presses. They were extensively engaged in bag and shell loading for artillery ammunition and in the making of bullets, cartridge cases, and other operations in small arms ammunition. Women were also used in

RESTRICTED

1428

inspection work, particularly in some of the finer inspection operations. They were used in labeling, in packaging, in a variety of technical and administrative jobs in factories, and of course in clerical and service occupations.

The Women's Bureau of the U. S. Department of Labor has detailed, industry by industry, these particular jobs which women undertook. They are also summarized, together with the work of women in the United Kingdom, in an extensive bulletin entitled "The War and Woman's Employment," issued by the International Labor Office in 1946. A list of these studies is given in the bibliography which will be distributed to you.

It should be emphasized, in general terms, that the use of women as production workers on new jobs usually required first, analysis of the job to be done, secondly, breaking each operation down into smaller, more narrowly defined work operations, and giving attention to installing labor saving devices. It was then frequently found that women could be used quite as well as men on many occupations which hitherto had been thought to be too heavy for them. This process of the subdivision of work is one of the outstanding characteristics of the mass-production process which is the basis of American industry. It is one of the things that we do best. So it was only natural that, faced with an emergency, American production engineers should proceed to rationalize the flow of work through the plants, particularly on the new wartime products for which no production lines had been set up in any case, in such a fashion that women as well as men could play an important part in those operations.

There was great variation in the type of work assigned to women in different plants, even in the same industry. For example, a survey in foundries made by the Women's Bureau of the U. S. Department of Labor in the latter half of 1943, close to the peak of the war effort, found that the percentage of production workers who were women ranged from a little less than 2 to close to 45 in various foundries. The extent to which women were recruited seemed to depend largely on such factors as the short age of men in the surrounding labor market, the extent to which the foundry was engaged in war production work, and, of course, the size of the castings that were being made. To a considerable degree it depended also upon the ingenuity of the management.

During the early stages of the war effort, before it became quite so clear that women would be needed in such large numbers in actual production operations, as opposed to their customary and accepted position in clerical work, sales and service trades, and the light industries, it took a good deal of convincing to get some plant managers to accept the idea of employing women. I think it is fair to say that this opposition was scattered--not by any means general--and often based on a sincere conviction that women really couldn't do the work, rather than on fundamental social disapproval of the idea of women working. (Of course, there are instances of that point of view, too.) But we have come a long way since the last

war with respect to women's status in American economic life, and the recruitment of women to industry in this war was undertaken in a more favorable social climate than in the First World War, when it was debated whether it was "suitable," in a social sense, for young women to work in factories or shops.

There were, however, some genuine problems. These included concern over special conditions attached to the employment of women—laws regulating hours of work, the length of the work week, special toilet and other facilities which were required by state laws or local ordinance. Then, too, some of the trade unions opposed the entry of women into membership, which, under various closed-shop or union-shop agreements, made their entry difficult. While these problems were largely overcome or satisfactory adjustments were made to them, they deserve some special consideration in any planning for a future emergency.

Trade Union Policy with Reference to Women

One problem which arose concerning women's work during the war was the policy of some trade unions with respect to permitting women to become members. In general, the industrial type unions such as the United Automobile Workers and the United Steelworkers of America have always admitted women on a par with men, so that there was no bar to their employment in the large wartime industries where unions were organized on the industrial basis. However, there were some unions, particularly of the craft type, which had typically not admitted women. Within the first year after the declaration of war some locals of the craft-type international unions announced admission of women to membership, although in many cases this was for the war period only. These included, among others, the International Association of Machinists, the Teamsters Union, the International Molders and Foundry Workers, the International Brotherhood of Boilermakers, Iron Shipbuilders, and Helpers, the Ironworkers' Union, and the United Brotherhood of Carpenters and Joiners. Railroad unions also accepted women as members, some only for the "duration." (The War and Women's Employment, p. 239.)

In general, women did not participate in union activities to the extent that men did and, with certain exceptions, they did not hold prominent offices in the internationals or most locals.

Seniority was a particular problem for both employers and the unions. Often separate seniority lists were maintained for men and women, and occasionally the unions insisted that the employment of married women be limited to the duration of the war. In general, where there were separate seniority lists for men and women, the women who were transferred to heavy-type jobs ordinarily reserved for men in peacetime accumulated seniority on their old jobs rather than on the new. It is, of course, true that equal seniority for women existed under many union agreements.

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4423

Since the war ended women have had increasing difficulty in maintaining their seniority. The memory of some of those unhappy experiences may be a check on recruiting in another war. Therefore a much more clear defined seniority policy would be in order. An early conference of trade union leaders on this subject—a conference which might recommend policy to various groups of unions—would seem advisable in any emergency.

Training

You are no doubt familiar with the types of training programs which were organized for new employees. About 2.5 million women were enrolled in various public vocational and college courses up to March 1944. These training programs were sponsored by the schools and by the War Manpower Commission. In addition, there were courses by private schools and colleges and a very extensive Training Within Industry program. In the public courses, women were trained particularly in various kinds of machine operations, welding, sheet-metal work, inspection, the reading of blueprints, the use of measuring tools. The largest number of women was enrolled in courses training for the production of aircraft, for machine shop occupations, and for shipbuilding. (The War and Women's Employment, pp. 186-7.)

Industrial plants conducted training courses, adapted to their special needs, often supplementing the school courses, for their newly recruited employees. Many of these programs were extensive and highly successful. They are described in some detail in the publication "Training Within Industry Program," issued by the War Manpower Commission.

That publication treats the problem of training all new workers alike. Perhaps the most vivid statement on this general subject comes from Mr. C. R. Dooley, of the Socony-Vacuum Oil Company, who was director of the Training Within Industry program. At the time when great emphasis was being put on training women for jobs in war plants, the Training Within Industry Program issued a bulletin entitled "Increasing War Production through Employment of Women." Some time after this bulletin was issued, Mr. Dooley was quoted in "Fortune" magazine (February 1943) as follows:

"We have so many requests from nervous employers for special material on the training of women that I've asked my secretary to go out and buy a rubber stamp to use on every printed piece we send out, reading 'This includes women, Negroes, handicapped, Chinamen, and Spaniards.' The only difference between . . . men and women in industry is in the toilet facilities."

Unfortunately it was not always true that women were admitted to these training courses on a par with men, notwithstanding Mr. Dooley's excellent advice. Some of the vocational schools which had customarily enrolled only men in their technical classes were somewhat loath to admit women for a time. Moreover, some industries held separate classes.

Further, it was often true that women were not given an opportunity to train for the more technical and supervisory jobs, thus limiting their eventual effectiveness. Many of them who became supervisors were trained on the job.

It must be agreed, I am sure, that many more women than men need to be schooled in the handling of tools, with which they are less familiar, and in techniques of handling heavy objects without undue strain.

State Laws Affecting Conditions of Women's Work

In 1941 there were 32 States and the District of Columbia in which the employment of women in industry--as opposed to the service occupations such as restaurants and hotels--was restricted to an 8- or 9-hour day, and 25 States and the District of Columbia in which employment of women was restricted to 50 hours or less per week. This included 4 States which had laws setting the maximum number of hours in the workweek under 48. There were 8 States (This includes Ohio, which prohibited nightwork for women only between the ages of 18 and 21) in which laws or regulations prohibited night work for women employed in manufacturing establishments. (In general, the definition of night is a flexible one, but as a matter of practice in American industry, the second shift ordinarily terminates either before or at midnight, so that this, as a rule, created no particular problem except where it was the desire of industry to work women on the "graveyard" shift.)

Following the first rush into war production, there was a great demand for exemption from these State labor standards and for a 7-day workweek for both men and women. Quite generally there was a relaxation of standards of working hours. In 1943, 20 States and the District of Columbia took legislative measures which permitted the extension of hours of work for women. For example, in Ohio the maximum workweek was extended from 48 to 50 hours and the workday was extended from 8 to 10 hours. In Texas, companies were granted permission to extend hours of work up to 70 a week and 10 a day, as compared with the previous legal maximum of an 8-hour day and a 54-hour week. A number of States, however, refused to permit women to work a 7-day week. (Wage and Hour Reporter, p. 394.)

The relaxation of these standards soon became a matter of considerable concern, and the Federal Government adopted and circulated recommended standards. These recommendations urged that laws be suspended or relaxed only where absolutely necessary to insure maximum production, and that wherever possible the following standards for women be adhered to: a maximum of 48 hours a week; an 8-hour day; one day's rest in seven; adequate rest and meal periods; adaptation of hours and working conditions to the age and sex of workers. However, it was made quite clear that there should be no relaxation of standards for minors under 16. (Monthly Labor Review, June 1943, p. 1120.)

1423

The Women's Bureau of the United States Department of Labor was particularly concerned to avoid an undue amount of nightwork. It issued a special pamphlet setting forth standards which could be used as guides by plants employing women on night shifts. It should be noted that all of these standards were advisory, and that the extent to which they were observed varied greatly.

As a matter of fact, the workweek for both men and women was greatly lengthened during the war, and this was one important source of the man-hours which were required to produce war material.

Hours of Work and Working Shifts

To take the case of women's working hours specifically, women in manufacturing industries in this country typically averaged 36 hours a week in 1942, as compared with about 43 hours for all employees, and by August 1944 over 3 hours a week had been added to that average for women and 5 for all employees. Although the length of the working week varied considerably, it was generally true that in the war industries women worked longer hours than in the light industries. For example, in foundries and machine shops the workweek for women averaged over 43 hours; in shipbuilding, 44.5; in the aircraft industry, 43; and in the automobile plants manufacturing a great variety of war materiel, 42.5; according to a wartime survey by the National Industrial Conference Board. It was not at all exceptional to find women working a 48-hour week.

Women also worked on all three shifts. The Women's Bureau made a survey of 60 plants in 5 important war industries at the beginning of 1943 and found that two-thirds of them employed women on two shifts and the other one-third on three shifts. More than half of these plants reported a 48-hour week; one-fifth, a 45-hour week—but they ranged up to 55 hours. In the aircraft propeller industry surveyed by the Bureau of Labor Statistics in 1942, the operation of three full shifts was the practice in all plants, and women were employed on all of them. Forty-eight percent were on the first shift; 36 percent on the second, and only 16 percent on the third. The proportion of men on the third shift was, of course, much higher. It is always difficult to have women work on the night shift. You must remember that they are being asked to do not only one job, but two. Their home responsibilities are often heavy and they cannot possibly carry both jobs unless hours are suitable. It would probably be simpler not to try to have women work extensively on the night shift.

In setting any standards of hours governing either men or women, it is important to make sure that optimum efficiency is obtained. Objective tests of efficiency during workdays and workweeks of different lengths were made in a survey by the Bureau of Labor Statistics in 1944-45. (Hours of Work and Output.) This indicated that efficiency was at its maximum in an 8-hour day and a 40- to 44-hour week, and diminished rather

rapidly beyond a 10-hour day and a 6-day week. There was, of course, a net addition to output as the length of the day increased from 8 to 10 hours and as the days worked during the week increased from 5 to 6. However, that increase was at a diminishing rate. Absenteeism became a major problem during the longer workweek. In this Bulletin the results of various combinations of workweeks are set forth with respect to production, absenteeism, and accidents as they related separately to men and to women. Absenteeism rates are higher for women than for men. This is true even in peacetime. During wartime, as the workweek was lengthened, Saturday absenteeism for women was particularly high. This, too, is largely the result of their home responsibilities, not slackening on the job. For then a 5- or 5.5-day week was found to yield greater efficiency per hour and lower absenteeism. Women at light work and operator-paced work were 4 to 5 percent less efficient during a 9- or 9.5-hour day than during an 8-hour day.

In any future emergency it would be important to have objective tests of this kind to set before plant managers, so that they might, in readjusting their shifts for greater plant utilization, plan them in such a way as to get optimum efficiency with respect to both the production line and absenteeism.

Further, there have been a number of developments in standards for women's work, including international standards, since the end of the war. The International Labor Organization is now recommending a Convention--which, if ratified by the member governments, has the effect of an international treaty--prohibiting nightwork for women in industrial undertakings. (Industrial undertakings are defined to include mines, factories, shipbuilding, generation and transmission of electric or other motive power, and construction work.) Night is defined rather flexibly, but would have the effect of barring women from the "graveyard" shifts. (The Convention defines night as a period of 14 consecutive hours within which comes a period of 7 hours--a so-called "barred period"--in which no women should work in the specified industries. The Convention specifically provides that this 7-hour barred period may be subject to selection in individual countries, to accord with their industrial practices, at any time between 10:00 p.m. and 7:00 a.m.) This Convention also provides, however, that the prohibition of nightwork for women may be suspended by a country, after consultation with a council of workers' and employers' organizations, where, in the case of serious emergency, the national interest demands it. These standards, however, will need to be taken into account in the future.

Absenteeism

I have made some reference earlier to absenteeism among women workers in the wartime labor force. There are no comprehensive studies which give a general picture of the extent of this problem. The most recent figures on peacetime rates are for some 149,000 workers in 246 manufacturing plants for whom the Bureau of Labor Statistics has reports on absenteeism in 1947.

(Monthly Labor Review, September 1948, p. 235 et seq.) These show that the absence rate (number of unscheduled absences) per calendar year is about 4.8 for women and 3.4 for men. Women are absent a longer time—about 12.7 days per year as compared with 9 days for men in the same plants.

It appears to be agreed that absenteeism among women was greater than among men during the war, and, as I have already indicated, that it increased as the workweek lengthened. This means, I think, that in any future planning it is essential to arrange working schedules so that women workers have free time for shopping and other household duties. Without this, it will be impossible to get an adequate number of women into industrial establishments.

Industrial Accidents

With reference to industrial accidents, however, women's record is better. The accident rate for women in the same plants is lower than for men. It is impossible to get sufficiently detailed comparisons to indicate whether this is true of men and women on identical jobs, or whether it is due to an important degree to the fact that women are employed in the less hazardous types of jobs. But the fact remains, from a workmen's compensation point of view, women are a better risk if you take variability of jobs into account.

Women's Wages in Wartime

Wages for women, like the wages paid men, went up materially during the war, as they have since the war's end. A rise was inevitable, with the increased demand for labor and its improved bargaining position. The rise in living costs was also a major factor in the granting of higher hourly or job rates. Then, too, both men and women got larger weekly pay envelopes as a result of the longer workweek, overtime, and premium pay of various sorts.

The earnings of women workers increased relatively more than those of men, particularly in factories, both because the women generally started at a lower rate and many of the rate increases were "across the board," granting the same number of cents per hour to all workers. The pay of unskilled men showed a similar upward trend. Moreover, women shifted from lower-paid to higher-paid industries and occupations to replace men who went into the Army and into other, more skilled jobs.

Inducements to employers to equalize rates resulted to an important extent from the War Labor Board's Order No. 16 permitting such equalization without prior approval of the Board. In a tight labor market when it was important to find additional workers, this enabled a great many upward wage adjustments for women without all the paper work involved in securing official approval of the War Labor Board.

Many stories could be told of the changed economic position of women who went into war industries, and of their "fabulous" earnings. In fact, they were not so fabulous, and many of the women--as indeed many of the men--incurred such heavy costs in moving into war jobs that they were not too far ahead of the game when the war ended. Moreover, the jobs they went back to were by no means as good. Let me give you a few personal illustrations of the work history of some of these women in war plants.

In 1945 and 1946 the Bureau of Labor Statistics began a series of "work and wage experience studies" which provide an illustrative and unique record of workers during wartime. Using a case history approach, these studies traced the occupational and earnings adjustments of individual workers from 1941 to the spring of 1946 in 10 war production centers in aircraft, shipyard, and ordnance plants, to find out the problems of war workers generally. I am drawing my illustrations from these cases.

In general, the wartime earnings of individual women in these plants substantially exceeded those (if any) which they received before the war; they were good while they lasted. The increases did not necessarily represent high wartime levels, since prewar earnings in the occupations and industries from which they were recruited were relatively low. For example, at the St. Paul aircraft propeller plant a woman production clerk received 80 cents an hour or \$41.60 for a 48-hour week; in 1941, as a clerk in a mail order house, she had earned 36 cents an hour, or \$14.40 for a 40-hour week. Then too, there was the cook who worked in Pennsylvania for 33 cents an hour but moved to Willow Run and became a riveter at the bomber plant with an hourly rate of \$1.15.

When war production was curtailed, women were among the first to be laid off, since they entered the labor market late. They also encountered more difficulty in finding peacetime jobs than the men war workers. Those shifting to other plants worked at sharply reduced rates of pay. One of the Wichita aircraft workers, who was 19 years old in 1946, had been a student until April 1944 when she worked for a month as a waitress and restaurant cashier and as a technician in a doctor's office in a small town in Oklahoma. After her husband entered the Armed Forces, she moved with her sister to Wichita, Kansas, where she found work as a "stock chaser" in an aircraft plant at \$49.50 for a 48-hour week. There she remained until laid off a week before the Japanese surrender, when she returned to Oklahoma. There she worked for about 6 weeks as a waitress earning \$18 to \$20 a week for 54 hours' work. Finally, she shifted to a flat glass plant where she was able to earn \$25.75 in 42 hours, or about half as much as in the war plant.

This is typical of much of what happened to earnings of women workers. Since the war women have lost position relatively in the labor market, both with reference to the extent of their employment in the heavier industries which in general pay higher wage rates and also in the higher paying occupations in the industries in which they have customarily been employed.

RESTRICTED

3487

Equal Pay for Equal Work

All during the war, as women were employed in increasing numbers, there was the troublesome problem of equal pay for equal work. Equal pay for equal work has long been urged as a matter of equity and of simple justice. But it has never been attained in this country, although we have come closer to it than most other large industrial nations. We have equal pay for equal work in the Federal Civil Service (as Great Britain, for example, has not), and in many plants, by practice and by agreement with the unions, equal rates on the same jobs are provided for. But this is by no means universal.

In actual operation, the most difficult problem is to determine what is "equal work," or, rather, equal cost. Industry often maintains that women cannot or do not do equal work, and that their production is not as high. They cannot lift such heavy loads, they tire more easily, and must have more frequent rest periods, it is said. Further, it is said that auxiliary costs for women workers are higher. For example, more special facilities--lavatories, rest rooms, nursing and health services, better cafeterias, etc., etc., are required, and since both absenteeism and turnover are higher, the costs of readjustment of working forces, recruitment, and training are also higher than for men.

It is very difficult to separate fact from fiction on this subject. One of the most detailed studies was made during the war by the Division of Women in Industry and Minimum Wage Laws of the State of New York in over 140 war manufacturing plants in New York State where women had replaced men. About 60 percent of these plants observed the equal pay principle; the balance did not. For the group as a whole, it was reported that women's production was equal to or greater than men's in all or some jobs in 88 percent of these war plants. This was even true in a considerable number of plants where women were paid less than men for the same job.

The Women's Bureau of the U. S. Department of Labor also made a study of over 200 war plants in 1943, and found 89 percent paying the same rates for the same job.

Wage differences between men and women are affected not only by rates for the same job, but by the higher rates for "men's jobs" as compared with so-called "women's jobs." This has been true for many years. This same New York study to which I just referred found that both entrance rates and experienced rates were higher for men's jobs than for women's jobs. I think it is fair to say that this gap narrowed to some extent during the war, both because of actual demonstrations that women could do what were regarded as "men's jobs" and because of the pressure of a tight labor supply.

The War Labor Board dealt with the problem of equal pay in a series of cases, some of which involved the maintenance of differentials agreed upon in the union contract.

This policy, best codified in two important cases in 1945, illustrates a realistic approach to the problem by an agency beset by actual on-the-job, day-by-day operating problems. This statement, contained in a press release, is, I think, worth reading in part:

"(1) Where women are working on the same jobs as men, or on jobs formerly performed by men, or on jobs performed interchangeably by men and women, or on jobs which differ only inconsequently . . . from jobs performed by men, the women should receive the same rate of pay as the men unless (a) their output is less in quantity or quality than the output of men, or (b) there are ascertainable and specific added costs to the company resulting from the use of women, such as provision for extra helpers or for rest periods not provided in the case of men. In the case of (a) or (b) appropriate adjustments in rates may be made.

"(2) Intangible alleged cost factors incident to the employment of women (such as absenteeism, lack of qualification for other work to which they are not assigned, relative inexperience in industry, legal restrictions, lack of prior training in industry, necessity of providing sanitary facilities, etc. . . .) cannot legitimately be used to reduce the rate to which women would otherwise be entitled on the basis of job content.

"(3) The rates for jobs which have historically been performed by women only, and which differ measurably from the jobs performed by men, are presumed to be correct in relation to the men's rates in the plant, especially where they are of long standing and have been accepted in collective bargaining.

"(4) This presumption can be overcome by affirmative evidence of the existence of an intra-plant inequity derived from a comparison of the content of the jobs in question with the content of the jobs performed by men. Some consideration, however, may be given in such cases, in modifying long-established rate relationships, to the collective bargaining history.

"(5) In particular cases, under a proper evaluation, there may be women's jobs which warrant a lower rate than the rate assigned to the lowest men's job, depending entirely on the circumstances.

"(6) The determination of proper rates for men's and women's jobs calls for judgment and, wherever possible, it should be made through collective bargaining." (National War Labor Board, 29 Dec 1945, p. 16.)

However, the principle of equal pay for equal work has rarely become a statutory matter in this country. Before the war only two States--Michigan and Montana--had such laws. During the war four others passed them--Washington, Illinois, New York, and Massachusetts. The Michigan

RECONVERSION

and Illinois laws cover only manufacturing industries, and the New York act applies to any employment except domestic and farm work, and employment in nonprofit organizations. Since the war three other States—New Hampshire, Pennsylvania, and Rhode Island—have passed such laws.

At the Federal level, the Women's Bureau has long urged this principle, and since the war several bills have been under discussion in Congress to effectuate equal pay in a variety of ways, but none has been passed. A bill has just been introduced during the past week into the Eighty-first Congress which would provide for equal pay for work involving equal skill. The wording of this bill is as follows:

"It shall be an unfair wage practice for an employer to discriminate in the payment of wages between the sexes by paying wages to any female employee at a rate less than the rate at which he pays wages to male employees for work of comparable character on jobs the performance of which requires comparable skills, except where such payment is made pursuant to a seniority or merit increase system which does not discriminate on the basis of sex."

There are international standards also. The International Labor Organization affirmed the principle of equal pay long before the war in various resolutions, reaffirmed it in 1947, and it is now being actively considered in connection with a Convention on Wages. By the way, the ILO uses the phrase "the principle of equal pay for work of equal value."

In summary, in the future, in my opinion, this principle will be even more firmly established than it was in the last war, and you had better be prepared to reckon with it. In any type of labor market American women are not going to be willing to do equally skilled work for less money than men are paid. They are much more aware of the value of their skills than ever before and are more consciously demanding full pay for their work.

Women in the Postwar Readjustment in Employment

Even before the war was over, employment in many of the munitions factories, and particularly in shipyards and aircraft plants, began to decline, and women were laid off in increasing numbers; in fact, they were laid off in disproportionate numbers. This was attributable to a number of factors: First, they had been taken on later than many of the men and did not have equivalent seniority; secondly, as the war drew to a close, many of them voluntarily decided that they did not want to work longer, so they left without any great reluctance. More important, however, was the fact that at the close of the war, contracts were canceled and entire plants were closed down. In those plants in which women were largely employed in making war material, they, like the men, were laid off. In reconversion activities it was often true that an entirely different kind of product requiring other skills was made by the same plant.

Thus employment of women on the production lines in the durable goods factories fell by upwards of a million, to a much lower level, but one that was two and a half times as high as before the war. In the soft goods industries, however, employment expanded after postwar reconversion made it practicable to step up production as materials became available for civilian use. In these industries, of course, the number of women employed showed a much smaller relative decline--of the order of 125,000.

As the demobilization of the Armed Services proceeded, and the men returned from overseas, there were even heavier withdrawals of women from the labor force. Men took back their jobs, to which they often had reemployment rights. Many women returned to be with their husbands, often moving away from a congested factory area. The marriage rate increased very rapidly, and so the heaviest withdrawals from the labor force were among the young unmarried women and married women without children who had gone to work in such large numbers. Women in the labor force actually dropped 3.5 million between April 1945 and April 1947.

Gradually they have been shifting back to a more nearly prewar pattern of occupations, but, as after every war, they never quite return to the same position. They make progress toward more skilled and more technical jobs. Far more women stayed in the labor market when the war was over than anyone had expected.

Women Workers in a Future Emergency

Suppose we were to be faced with an immediate emergency--what would the situation be with regard to womanpower? Simply put, it would be much more difficult than in the last war. The principal real reserve would be among women, and especially married women. Thus the problems of recruitment and of conditions of employment would center there. It is clear, moreover, that we would not depend upon as large an increase in the number of women in the labor force as we were able to muster in the last war--without very great inducements.

Let me be more specific. Close to 60 million people are employed today, and the number of persons unemployed is exceedingly small. The labor force is estimated to have averaged 62.7 million in 1948.

Now, how is that labor force distributed, and where are the reserves? The men are almost all at work. Over four-fifths of all men 14 years of age and over were in the labor force last April. The number is even larger now, since it is estimated that half a million veterans came back into the labor force in 1948. Most of the men remaining outside the labor force are teen-age students or older men, often disabled men who are retired.

However, only about 30 percent of the women are in the labor force. About two-thirds of the adult women are currently at home, not employed. Apart from students, they would, therefore, constitute the largest single

RESTRICTED

3436

source of labor in the event of an emergency. But recruiting would not be so easy as it was before. As a matter of fact, abnormally large numbers of teen-age girls and of women over 35 years of age have continued to work. As of April 1948 half of the single women 14 years of age and over were in the labor force. But there has been, since the war, a very considerable increase in the number of married women in the population and of women between the ages of 15 and 50 who have children under 5. Many married women are already at work. Close to 30 percent of the women who were married but had no children under 18 were already in the labor force in 1948. Twenty percent of the married women whose children are aged 6 to 17 are at work. Fewer of the women with one or more children under 6, however, were occupied--less than 10 percent. It is, of course exceedingly difficult, not to say undesirable, to try to draw these women with young children into active participation in full-time, paid industrial work.

This means that the labor force is much less expandable now than it was in 1940. If we assumed an emergency beginning this year and peak mobilization by 1950 under conditions similar to World War II, it is estimated that about 2.5 million "extra" women workers--that is, above the expected increase--could be recruited, as compared with over 4 million from 1940 to 1945. At the peak of mobilization, about 36 million women 14 years of age and older would still be out of the labor force. Nine and a half million would be women with young children; 12 million would be other housewives under 55 (most with older children), and over 3 million would be teen-age girls; and there would be a large group of 10.5 million older women, 55 years of age and over. This is on the assumption that same rates of entry into the labor force would apply as applied in World War II.

This means that, in order to expand potential womanpower for industry, immediate attention would have to be given to the problems of getting older women to work--a group which industry was quite reluctant to employ in the last war. It would also mean drawing women of working age with children into industry on a more nearly full-time basis. It would mean great many more community facilities, organized far more universally than they were during World War II. I refer to such facilities as those for laundry and shopping and readily accessible day care for children. It would mean factory shifts organized to provide a day for shopping and housework; it would mean extensive use of part-time workers to replace full-time workers wherever that is possible; it would mean better living conditions for women away from home. It would require a vast campaign to convince women that their services were really needed; to train and place them properly; to give them needed skills. The principle of equal pay should be recognized, as well as the principle of as little discrimination as is practicable in employment opportunities. In particular, women should be recruited and trained at an early stage for supervisory and technical jobs.

Those of you who are planning the scale of military and industrial mobilization must look a long way ahead. You must consider every contingency—not only to recruit and train personnel for the Armed Services, but to be able to supply all the intricate weapons of modern warfare. It may be, in the next war, that problems of supply and of civil defense will prove to be the more serious of the two.

As you plan to meet those problems, remember that Americans—both men and women—have to be convinced that a job is necessary and important; that they respond magnificently to a real challenge; that they can be lead, but not driven.

It is extraordinary what was accomplished in the last war with no manpower controls except the draft, and the informal controls exercised over manpower budgets by the War Manpower Commission. Manpower policy in any future emergency will be determined, in the last analysis, by the force of public opinion, exercised through the Administration and the Congress. Americans don't like controls. The speed with which economic controls were relaxed at the end of the last war is evidence of that, if any evidence were needed. And so, as you make your plans, consider first all possible voluntary measures to replace men with women wherever possible in the Armed Services, in the civilian work of the military, and in industry. Urge early curtailment of less essential occupations; urge women to train for skills that always have wide applicability—for clerical work and typing, and for the industrial skills we know are always needed, in welding, in machine-shop jobs, in the work requiring dexterity and light, repetitive operations. Urge industries to start training classes for women in their factories, in their own towns, against a future need.

But don't count on compulsory industrial placement for men or for women at an early stage. This country is vast; its industries diverse and diffuse, and difficult to plan for and control. Its initiative is great; and its abhorrence of being told what to do is colossal. It is likely to be difficult to convince the public and the Congress that it is really necessary to "draft" labor. Conviction comes only after proof that the need is real and that every voluntary means has been exhausted.

COLONEL BAISH: Mrs. Wickens is accompanied today by Miss Margaret Plunkett, who is an economist in the Women's Bureau, U. S. Department of Labor. It is a pleasure to introduce Miss Plunkett to the audience.

MISS PLUNKETT: The Women's Bureau has a great variety of publications that deal in detail with many of the subjects that Mrs. Wickens has been discussing. We should be delighted to furnish any number of those at any time.

COLONEL BAISH: Thank you very much. We are now ready for questions from the audience for Mrs. Wickens.

QUESTION: Mrs. Wickens, would you elaborate a little on how we can effectively use women in the next emergency, women with home responsibilities, and at the same time allow them to meet their home responsibilities? I am thinking of the use that the British made of women on part-time work.

MRS. WICKENS: Yes?

QUESTIONER: Half-day work.

MRS. WICKENS: I am sorry that I can't speak with any authority of the British experience, but I think this is one of the great sources of additional manpower and womanpower in the next war. It seems to me that the occupations in which women can suitably be used on a part-time basis should be urged almost at once to recruit and train such women. I am thinking particularly of stores, shops, various service occupations, such as laundries, where it is perfectly possible to train alternative helpers. There is a great deal of work in these occupations which can be put on a part-time basis.

For example, in the Bureau of Labor Statistics we have a large field service collecting information. We made over 3,000 rent surveys for OPA during the war. It may interest you to know that we did most of this with local women who could not normally work a full month or a full week, but who could work two or three days out of the month to make these surveys.

One thing you must remember, there is more than one kind of part-time work. It is not just part of a day every day, but it may be a certain number of days during the week, staggered. This is a perfectly practical thing to do. Another possibility is to carry peak loads by training people to do specific jobs, to come in and work only a day or two a month. We have done that very successfully, so I think the thing to do is to begin with occupations which easily can be handled in that way, urge those people who can work part time to shift from home work. It is not easy to do but it can be done.

QUESTION: In connection with training, granted the rules for training women are the same as for men, are women any more effective as instructors of women than men are?

MRS. WICKENS: I am not sure I can generalize about that. The reason I suggested women as teachers, not that they were better, but that they might stay with you and continue during the war emergency to train new recruits. That was my reason for suggesting women. I think success in training all depends on the individual. There are plenty of women—if they know the job and have the right personality—who can do a training job as well as men. Remember, many of our teachers are women. If you can find the women to do the instructing they may stay with you during a war, but the men will soon be gone.

RESTRICTED

1433

QUESTION: You mentioned in connection with Canadian labor, some pressure in amplifying the labor force with women. If they did anything to pressure women into work, how much more could they have done?

MRS. WICKENS: I will have to admit I can't answer that, but my memory is that they did not draft women in Canada. Is that right, Miss Plunkett?

MISS PLUNKETT: I think you are right.

MRS. WICKENS: My point was that the manpower pressure was less severe than it was in America.

A STUDENT: There was no pressure at all in Canada.

MRS. WICKENS: When I said "pressure" I meant that the Canadian labor supply was utilized more fully than ours. We had more labor reserve during the war than Canada did.

COLONEL BAISH: You seem to have answered all the questions, Mrs. Wickens. On behalf of the Commandant and the College, I wish to express our appreciation for your coming here today with a very busy schedule. Thank you very much for this fine lecture.

(22 March 1949--750)S.

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44-10

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