

**UNITED STATES DEPARTMENT OF LABOR**

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# Reconversion Problems in the Buffalo Industrial Area

Prepared in the

**Division of Productivity and Technological Development**

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## Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,  
BUREAU OF LABOR STATISTICS,  
Washington, D. C., December 19, 1944.

**The SECRETARY OF LABOR:**

I have the honor to transmit herewith a report on the reconversion problems in the Buffalo industrial area. The survey, covering 40 companies which now provide about half of all jobs in manufacturing in the area, brings into relief many types of readjustment problems which must be met in the future.

This report was prepared by Celia Star Gody and Allan D. Searle, of the Bureau's Productivity and Technological Development Division.

A. F. HINRICHS, *Acting Commissioner.*

HON. FRANCES PERKINS,  
*Secretary of Labor.*



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## Reconversion Problems in the Buffalo Industrial Area

### *Summary*

Anticipated reconversion problems and post-war production and employment plans of manufacturers in the Buffalo (N. Y.) area were studied recently by the Bureau of Labor Statistics. Buffalo is a center of diversified heavy industry which has faced a labor shortage throughout the war period. The survey, covering 40 companies which now provide about half of all jobs in manufacturing in the area, brings into relief many types of readjustment problems which must be met in the future.

More than half of the surveyed plants can resume civilian production without delay, as their war products are substantially the same as their peacetime items. In the case of such firms, the principal delay in providing employment may arise from market deficiencies rather than technical reconversion problems. Only about one-fifth of the plants will have to do a great amount of retooling, but some of the largest employers are in this group. However, even where retooling may take from 6 to 9 months, partial production can continue in some instances.

Most company officials prefer that war orders be reduced gradually, believing that this procedure will facilitate the orderly resumption of civilian production and reduce the number of lay-offs necessary during reconversion. About three-fourths of the plants can utilize economically, for the supply of civilian demands, any capacity released by small cuts in war orders, but a few must be released from all war contracts before conversion can be undertaken. All companies plan to reduce working hours when the war is over, and only one small firm contemplates a workweek in excess of 40 hours. Plants with sub-contractors will cushion the impact of declines in production by curtailing or eliminating such outside work.

More than a third of the companies have formulated marketing plans or completed designs for civilian products. Six are planning entirely new products, but in no case will pre-war items be entirely supplanted. Although only a few plants need additional plant space to carry on peacetime production, about half need some new machinery or equipment, and several companies are definitely interested in purchasing Government-owned equipment now in use.

Nearly all the companies expect production costs to be below present levels but higher than during 1940. It is believed that wage rates will

remain at or near wartime figures but that overtime payments will decline. Wartime increases in material prices are considered less important than increased labor costs. At the same time, a number of technological improvements which will partially offset higher labor costs are reported.

About half of the companies anticipate the same volume of business as before the war, some expect moderate gains, and only a few foresee substantial increases. The outlook for several plants constructed during the war is doubtful.

The surveyed companies were principally in the transportation equipment, machinery, metals, chemicals, and stone, clay, and glass industries. In 1939 these industries employed 74,000 workers in the Buffalo area. Jobs for about 96,000 in these same industries after the war are implied by the post-war plans of the surveyed companies, as they are now formulated. This figure represents a substantial increase from the pre-war level, but it is 26,000 under the goal of 122,000 jobs in the same industries set as an objective by the Niagara Frontier Post-War Planning Council to insure full employment.

Women now constitute about one-third of the labor force in the plants surveyed, but after the war the proportion is expected to be only slightly above the pre-war level of 11 percent. Plants which did not employ women before the war will generally not retain them afterwards. Many women are expected to leave the labor market voluntarily, and others will be displaced by returning veterans or laid off in accordance with company and union seniority agreements.

All companies are planning to reemploy the men now with the armed services. Some firms intend to go beyond legal requirements in giving veterans special training, relaxing seniority rules, and making special placement efforts, but many problems will arise. In several plants, the number of former employees now in the armed services exceeds total pre-war employment. Companies which have had experience with returned veterans state that careful placement and follow-up are necessary.

The firms surveyed are unanimous in recommending substantial advance notice of contract reductions or revisions. All agree that quick settlement of financial claims is essential; those with subcontracts are especially concerned over possible delays. Prompt removal of unusable Government-owned equipment and materials is urged. Rapid but orderly removal of price, rationing, material, and manpower controls is also recommended. Union representatives in the area urge planning to insure full employment, including use of industry's tax refunds to meet this objective, and unemployment-insurance programs to meet interim needs. They also suggest credits to foreign nations to aid heavy industry in the United States.

Companies in the area will face a variety of problems in converting to civilian production. Nevertheless, management officials state that serious reconversion difficulties will not arise if the transition from war to peace production is planned in an orderly manner. At the same time, post-war employment may fall short of full-employment levels if present company plans are not modified. Since this area is one of diversified industry, its post-war position will probably be more favorable than that of many other areas. This case study, therefore, indicates the need for immediate Nation-wide planning if the generally accepted goals of full employment of labor and resources are to be

achieved. Evidently, full employment will not be attained without a departure from thinking in terms of pre-war production volume and a concerted attempt to develop policies which will promote a high level of post-war production.

### *Buffalo Industrial Area*

Manufacturing employment in the Buffalo region has doubled during the war period. The area is a center of heavy industry and produces a variety of basic products vital to the war program. In addition, the automobile industry, always an important segment of the area's economy, has expanded greatly as a consequence of its conversion to the manufacture of war goods—aircraft engines and parts for aircraft, ships, tanks, trucks, and shells. Finally, two very large aircraft plants are situated in the area.

Because of the great expansion in employment during the war period and because of the diversification of industry, this region furnishes an interesting case study of the problems which will be faced during reconversion and afterwards. The Bureau of Labor Statistics, therefore, at the request of the Statistics Division of the War Production Board, undertook in June and July 1944 a study of the reconversion problems and post-war outlook anticipated for the area. Information was supplied by executives of 40 important manufacturing plants, representing about half of all manufacturing employment in the area, and by officials of trade-unions, employers' associations, and Government agencies.

The Buffalo industrial area, consisting of Erie and Niagara Counties in New York State, had a population of 958,000 in 1940. About 60 percent (576,000) of the total was in the city of Buffalo, which is an important center for the manufacture of steel, automobiles, and machinery. Niagara Falls (population 78,000), with its abundance of electric power, has large chemical and electrometallurgical plants. Other communities in the area are Lockport (24,000), Lackawanna (24,000), North Tonawanda (20,000), Tonawanda (13,000), and Kenmore (19,000).

#### INDUSTRIAL COMPOSITION OF THE AREA

In peacetime, manufacturing enterprises provided nearly 40 percent of all employment in this area. Most important were the manufacture of iron and steel, which employed about 25,000 workers in 1939; chemicals (13,000); machinery, including electrical (12,000); and automobiles (10,000). Employment was also substantial in the manufacture of paper products and stone, clay, and glass products. Buffalo is a large flour-milling center and has other sizable food industries.

In 1940, more than 40 percent of the workers in the area were employed in trade and service industries serving local needs, and nearly 10 percent were in transportation and utilities. Agriculture was relatively unimportant and accounted for less than 4 percent of total employment in 1940.

Although local residents take pride in the fact that Buffalo's industries are not "war babies," the employment in new war plants is very large. The area's two largest aircraft plants alone employ a

substantial proportion of the total in all manufacturing and, in addition, there are several smaller new war plants which manufacture machine guns, landing craft, and other direct war products.

#### WARTIME CHANGES IN EMPLOYMENT AND LABOR FORCE

Figures compiled by the New York State Department of Labor from unemployment-insurance reports show that total insured employment in manufacturing industries jumped from an average of 138,000 during the year 1940 to 256,000 for the year 1943. No adequate statistics are available for nonmanufacturing employment, but the indications are that the increase during the war period has been small.

Despite the great advance in employment from peacetime levels, there has been scarcely any increase in the civilian population of the area. Estimates of the civilian population in November 1943, based on registrations for War Ration Book 4, were only 4,000 above the figure reported in the 1940 Census of Population. It is believed that persons moving into the area have numbered about 70,000, of whom 30,000 were in the labor force. The U. S. Employment Service estimates that about half of these in-migrants will remain in the area after the war.

The Negro population of this region is small, but there has been some increase during the war period. In 1940 the number was 21,000. The latest available estimate (generally considered a maximum) is 27,000, or less than 3 percent of the total.

Buffalo has expanded its industrial activity largely by recruiting women into the labor force, and its record in this respect is noteworthy. In March 1940, about 26 percent of all women over 14 were in the labor force. The U. S. Employment Service estimates that, in March 1944, 51 percent of all women over 14 were gainfully employed. Women have gone into lighter work in war plants, for the most part. The heavy industries have not been able to draw on this source of labor to the same extent, but some women are employed even in the open-hearth and blast-furnace departments of steel mills, and substantial numbers are in chemicals, rubber, and machinery plants.

#### LABOR SUPPLY AND DEMAND

The Buffalo area has suffered an acute labor shortage throughout the war period, and the War Manpower Commission established a controlled-referral plan as early as July 1943. Women were exempt from the original plan, but were included after June 4, 1944, when labor controls were tightened to provide a system of labor priorities with definite plant employment ceilings.

The local U. S. Employment Service office estimates that in June 1944 the labor shortage amounted to 12,000 workers, excluding the requirements of agriculture and construction. This figure is somewhat less than those given for earlier months, and there are other indications that the situation is becoming less critical. The shortage is more pronounced in the heavy industries—especially steel foundries and to some extent chemicals plants—than it is in the so-called “glamor plants” (such as aircraft) where the work is light and wages are relatively high. Most of the manpower reserves—the unemployed, women, in-migrants, and older workers—have already been utilized.

and some workers are transferring to nonwar occupations or leaving the labor market. The Employment Service estimates that approximately 700 women per month are currently leaving war industries, about half for nonwar jobs and the other half to return to their homes.

### *Composition of Sample Covered in Study*

This report is based largely on interviews with representatives of 40 manufacturing plants, 36 of which were in existence in 1939. In that year, the 36 plants accounted for 39 percent of the total number of employees in manufacturing establishments reported by the Census of Manufactures for the area. The 40 sample plants represented approximately half of total manufacturing employment in May 1940.

The plants in the sample employed nearly 60 percent of all the workers in the important metals and machinery industries in 1939. The study's coverage, in terms of 1939 employment, was virtually complete for the automobile industry and amounted to 46 percent for other transportation equipment. In the manufacture of iron and steel, normally the largest industry group in the area, the sample plants represented 56 percent of total 1939 employment; in nonferrous metals, 47 percent; and in machinery (including electrical), 42 percent. There was also substantial coverage in the manufacture of chemicals (57 percent of 1939 total employment), and stone, clay, and glass products (55 percent).

No companies were included in industries producing goods largely for local use or in industries (such as those producing food, clothing, leather, and wood products) in which wartime conditions have not required substantial changes. Most of the plants canvassed were fairly large employers. Among the sample plants, as in the area as a whole, there were few producers of consumer durable goods other than automobiles. Since reconversion problems for such producers are different from those of plants producing basic materials and from those of new war plants, the problems anticipated in this area may not be completely typical of those which will arise in other sections of the country.

### *Current Production and Production Plans*

#### TYPE OF PRODUCT

Practically all of the plants included in the survey are producing goods which directly or indirectly are for war use. Prime contractors manufacture aircraft, guns, aircraft engines, and landing craft. Other companies manufacture components for war items or supply industrial equipment vitally needed in war plants. Among such products are steel ingots and rolled steel, copper and copper-base alloys, ferro-alloys, heat-transfer units (for ships, aircraft, and tanks), aircraft parts, basic industrial chemicals, and war chemicals.

Although the products manufactured are essential in the war production program, in the majority of plants they are similar to those produced before the war. In general, plants producing chemicals, rubber, stone, clay, and glass products, and basic metal products have not changed their output substantially. Fabricators of metal products and producers of machinery have changed specifications

somewhat, but are not making entirely new types of product. In many cases, designs have been changed or war goods have been added to other production.

The greatest changes in output have occurred in establishments which produced automobiles and other transportation equipment before the war and in the one plant which produced radios. Two automobile plants are producing aircraft engines; a manufacturer of automobile accessories has continued the manufacture of its peacetime product but is also producing gun components. The radio company is now producing radio transmitters and receivers for military use instead of receivers for automobiles and homes.

#### EXPECTATIONS AS TO WAR PRODUCTION

Most of the plant officials interviewed believed production schedules would remain unchanged through the end of 1944. Commitments were extremely variable, however, since some companies had long-term contracts while others had a number of small contracts ending at different dates. In many plants, definite production schedules are not set in advance.

In six plants it was expected that production would decline substantially during 1944 or early in 1945. Most of these plants, which together employ about 7,500 workers, are engaged in the manufacture of components for ships. The largest company of the group, a producer of aircraft parts, had already experienced cutbacks in production schedules and anticipated further reductions.

Although most plants expected no substantial change in production schedules during the remainder of 1944, the outlook for 1945 was, in many cases, uncertain at the time of the interviews. However, two producers of basic metals expected that there would be no change in the volume of output for some time to come and a number of plants producing nonwar commodities (paper, rayon, stone, clay, and glass products) also expected that production levels would remain unaltered. Many plants reported that more war business was available to them than could be handled with their facilities, and frequently the lack of manpower was the most important factor limiting production.

### *Reconversion Plans*

#### RESUMPTION OF CIVILIAN PRODUCTION

Approximately three-fourths of the plants included in the sample can utilize economically, to supply peacetime markets, the capacity released by any small cut in war orders. The majority of these plants are making their pre-war products, and hence no problem of allocation of capacity between war and peace production is involved. A few plants which have devoted all or part of their capacity to new war items would also be able to schedule some civilian production if war production declined even a small amount. One manufacturer of automobile components could use the manpower freed by a 10 to 15 percent cutback in war orders to establish 3-shift operation on its commercial assembly line. If the reduction in war output at this plant amounted to 25 to 40 percent, however, civilian production could not be undertaken for 90 days, and if the cut were larger, for 8 or 9 months.

One-fourth of the plants would not find it financially profitable to convert any part of their facilities to civilian production unless war production were substantially reduced. In one case, a 75-percent reduction in war demand would be necessary to make feasible the production of peacetime items, as the entire plant would have to be rearranged and new equipment acquired. Two shipbuilding companies would not "break even" with less than a 50-percent drop in war work, but would undertake the production of civilian goods with a smaller decline in war output in order to obtain good will. In two plants whose continued operation after the war is uncertain, all war production would have to cease before civilian items could be scheduled.

#### INDUSTRY PLANS

The managements of almost all plants visited have devoted some thought to problems that may arise as war demand tapers off. There is considerable variation, however, in the degree to which actual plans have been formulated for resumption of peacetime production. More than half of the plants need no definite programs for reconversion, since their war products are essentially the same as their pre-war products. In some of these companies, although no definite plans have been made for post-war production, research staffs are engaged in developmental work on new products. The principal firms in this category are the chemicals plants, whose major post-war problem will be that of markets. Establishments normally dependent on the automobile industry will generally have to retool in order to resume civilian production, but they are unable to make definite reconversion plans until the situation in the automobile industry is clarified. They are proceeding on the assumption that the first post-war cars will be replicas of pre-war models.

Approximately a third of the plants have taken definite steps either to develop new products or to plan marketing methods and develop sales outlets. Only 6 companies expect to enter into the production of brand-new items, and in no case will new items entirely supplant pre-war products. Engineering is well advanced for such items as steel desks, automatic window raisers for automobiles, and air-conditioning equipment. Among other items planned are aluminum bus and passenger-car bodies, and specialized cargo vessels and tugs.

Reconversion plans are not limited to the development of new types of products, however. One radio company has completed a survey of pre-war material suppliers to ascertain possible post-war prices. Another plant has completed engineering on a new type of diesel engine for post-war use and is attempting to get orders for post-war deliveries of this and other engines. A small shipyard is designing a line of power cruisers similar to its pre-war pleasure craft; it expects to begin experimental building soon, having already obtained clearance on materials. Marketing plans have been discussed and plans made to level off seasonality of production and to maintain steady employment and high weekly earnings.

#### RECONVERSION PROBLEMS

Retooling will be a significant factor in only about a fifth of the plants included in the sample, but some of the largest employers are

included in this group. Most of the plants in the automobile industry will be compelled to do considerable retooling before production of automobiles or parts can be resumed to any significant extent. Other plants will have to retool before new products can be made.

In addition, there are problems involving disposition of Government-owned material, equipment, and facilities; acquisition of scarce materials and components; and recruitment of sufficient manpower. In one large war plant, almost all facilities are owned by the Defense Plant Corporation, a factor which inhibits post-war planning. Several other companies, including two shipyards, have Government-owned machinery or materials which will have to be removed before civilian production can be resumed. Availability of such materials as rubber, steel, tools, fractional-horsepower motors, lumber, and boat accessories will determine when some companies can resume peacetime operations. Apparently, advance notice concerning availability of materials would facilitate planning of civilian production. Recruitment of manpower is expected to be a problem only if civilian production is resumed during the war; adequate labor supplies will be available afterward.

Company officials generally emphasized that reconversion will not present serious problems if there is a gradual transition from war to peace production. If all war production were ended suddenly, difficult readjustment problems would arise.

#### TIME REQUIRED FOR RECONVERSION

Plant estimates of the time required to reconvert vary, ranging up to several years. Average reconversion time, in cases in which retooling is necessary, will probably be about 6 to 9 months, but some plants could continue production during this period. Plants in the automobile group can reconvert in from 3 to 9 months. Production of certain new items contemplated by a few companies would require a considerably longer period. In general, reconversion for the manufacture of pre-war items will require substantially less time than the change to production of new products; for example, one plant which can produce its pre-war item in 3 weeks would require 6 months for a new product—steel desks.

Plants manufacturing their pre-war items during the war could, of course, schedule civilian deliveries without delay and production would be limited primarily by markets. Almost all plants in the heavy industries (steel and chemicals), as well as several others, can continue uninterrupted production. The shipbuilding companies can resume normal production about 2 weeks after the yards are cleared of Government-owned materials. The producers of nonferrous metals would require a few weeks for reconversion, but one of them could make the transition to civilian production with no delay if foundry patterns for civilian products were made while war production continued.

#### COMMUNITY PLANNING

Post-war planning on a community basis has been initiated by business and civic organizations and by several labor unions. The Niagara Frontier Post-War Planning Council includes representatives of local government, business, and social agencies, and has prepared

a comprehensive study of the employment goals necessary for each industry if full employment is to be attained. The Buffalo Chamber of Commerce has a post-war planning committee which works closely with the Niagara Frontier Planning Council and the local Committee for Economic Development. Some city improvements are also being considered, and a study of housing needs has been made.

Post-war planning by labor unions takes the form of adapting national plans to local conditions. The national office of one C. I. O. union is distributing questionnaires to all locals, requesting information on reconversion and post-war problems. The locals in Buffalo are cooperating and, in addition, have formed a subcommittee to work with the union's New York State committee on post-war planning. Other union plans include the drive to obtain annual wage guaranties and efforts to maintain weekly "take-home" pay after the length of the workweek is reduced. The Industrial Union Council of the C. I. O. was contemplating the organization of a post-war planning committee, but plans were still in the initial stages at the time of the survey.

### *Post-War Production Prospects*

As already indicated, the types of products which will be manufactured in the post-war period will generally be the same as those made before the war, and only a few companies plan to enter into the manufacture of completely new items. New designs and new models will, however, eventually be introduced, and several companies report that improvements will be made in the quality of their products.

#### SPACE AND EQUIPMENT

Very few of the companies surveyed expect to expand plant space after the war, and, in these, the additions will apparently be modest. On the other hand, 22 of the 35 companies which are in a position to assess their post-war needs report that some new equipment will be acquired. In some cases, these purchases will represent only normal or accumulated replacement needs. A few companies, however, plan fairly extensive additions. One metals plant expects to install a new bar mill; another may add a rod mill. Other plants will purchase machine tools, foundry equipment, and welding instruments.

A number of companies indicated that they would have a definite interest in purchasing some of the Government-owned equipment now in their plants, if prices were satisfactory. One large company would prefer to rent Government-owned equipment, with the fee based on the number of hours the equipment is used, since it would not be in a position to pay full rental value immediately following the war.

#### LEVEL OF PRODUCTION

Among the plants which provided estimates of the level of post-war production, those whose normal products are automobiles and parts, machinery, and radios were the most optimistic on the probable outlook. An automobile company, for example, indicated that operations may be maintained at the present rate, even though employment has nearly doubled during the war period. Plants manufacturing chemicals and metal products foresee moderate advances in produc-

tion over pre-war records. Companies in the remaining industry groups generally anticipate that post-war operations will be at about the same rate as in 1940.

In all, 31 plants were able to furnish rough estimates of post-war production levels. Sixteen of these plants anticipate that production will be about the same as in the pre-war period, and 13 expect increases of varying amounts: 3 anticipate advances of 20 to 25 percent over pre-war levels, 5 expect even larger increases, and 5 state only that production will be "greater" than in 1940. Two plants which were not in operation in 1939 expect to continue production after the war, with sharply reduced volume.

Three of the plants visited may not remain in operation when war production ends. The plant space used by one small company is leased and will be returned to the owner company after the war. In the other two cases, all facilities are Government-owned, and the prospects for post-war operations are indefinite.

#### PRODUCTION COSTS

Nearly all the plant officials interviewed expressed the opinion that post-war production costs would be above pre-war levels, but few were able to estimate the extent of the increase. The most important factor contributing to higher costs is expected to be the rise in wage rates. It is generally believed that there will be no decline in wage rates after the war, and several management representatives expressed the opinion that there should be no such reductions. Costs of materials were also reported to have advanced substantially, although the increase is generally considered to be less important than the rise in wage rates. In several cases, administrative expenses have risen during the war period.

In most plants, production costs will probably be below present levels, however. Premium payments for overtime work and for the second and third shifts will be eliminated or substantially reduced. In addition, company officials believe that the efficiency of the available labor force will be increased. On the other hand, a few plants reported that the expected reduction in volume will result in higher costs per unit of output, since overhead costs are a significant proportion of total costs. These companies maintain that prices will have to rise above present levels.

In only 4 plants is it anticipated that costs will be below the 1940 level, and in only one of these is a substantial reduction foreseen. The declines are expected because of improvements in efficiency made during the war period.

#### WARTIME TECHNOLOGICAL DEVELOPMENTS

Part of the increase in wage rates and materials costs over peacetime levels will be offset by improved efficiency resulting from wartime technical developments. Although not all wartime developments will be applicable to civilian production, moderate advances in efficiency are expected in some instances. The improvements reported have reduced labor requirements, lowered the costs of materials, or made possible an improvement in the quality of the product.

Most significant have been the innovations in metalworking. Improvements in welding techniques and substitution of welding for

riveting have resulted in improved efficiency. Alloys have been improved and experience has been gained in welding alloyed materials. Several companies state that quality control has been improved by the use of electronic devices, including magna flux, gamma ray, and X-ray. Experience gained in working to the close tolerances necessary on war items will probably also prove of benefit in post-war production. Other developments mentioned include greater use of tungsten carbide cutting tools, stack drilling, the installation of automatic safety devices on presses, the elimination of metal top dies by the use of rubber forming blocks, and increased use of automatic machinery. In one machinery plant which is producing essentially the same type of product as in peacetime, output per man-hour has advanced 15 percent since 1940. The rise is attributed to improved tooling, more complete jiggling, and the use of tungsten carbide cutting tools, as well as to improved training of workers.

Knowledge of methods of working the light metals has made great strides during the war period. A magnesium company reports that labor requirements have been reduced and the amount of scrap decreased by the development of superior molding machines and better sand mixtures. In addition, better methods have been developed to control the hazard of fire.

Improvements have also been made in processes other than metal-working. Several chemicals plants, for example, report that there have been technical developments which will carry over into peacetime production, but few details are available.

A few companies stated that no significant technical developments had occurred in their plants during the war period, but that they hoped to make progress in this respect after the war. Some company representatives believe that the machine tools available after the war will be more efficient than those they now have, and expect increased efficiency when new equipment is purchased. Research work being conducted in some plants is expected, eventually, to be of benefit. In at least one establishment, normal technical progress has been interrupted during the war period because of the shortage of technical personnel and the difficulty of obtaining equipment and materials.

Not all wartime developments will be applicable to peacetime production, however. Thus, very substantial gains have been made in output per man-hour at one war plant, but most of the advance is attributed to the large scale of production.

#### SUBCONTRACTING

A large number of the plants canvassed have been subcontracting some of their work. In most cases, subcontracting will be eliminated or sharply reduced after the war, and only two companies plan to maintain the present proportion of subcontracting. Wherever possible, companies expect to reduce subcontracting, to weaken the impact of future cutbacks, and some have already effected such reductions.

In many plants, subcontracting plays but a minor role in present operations. The work sent out is usually machine-shop work which could and would be done in the plant if facilities and manpower were available. Such subcontracting will generally be discontinued or substantially curtailed when war production ends. Even some companies which now subcontract a substantial part of all work will retain

only an inconsequential volume of subcontracting when war production ends. Thus, one company which had subcontracted 70 percent of all work, at the height of its production program, had reduced the proportion to 30-40 percent as cutbacks were made; it is improbable that any subcontracting at all will be continued by this plant after the war. Similarly, a plant which now subcontracts work accounting for 75 percent of all expenditure on labor will continue very little subcontract work after the war.

Two companies expressed an interest in taking subcontract work for new items after the war, if such work were available. In neither case, however, had any definite plans for such work been made.

### *Post-War Employment Problems*

#### SIZE OF THE POST-WAR LABOR FORCE

Estimates of post-war employment prepared by plant officials are necessarily tentative, depending as they do on expectations as to general business conditions. Some of the company officials interviewed were prepared to make rather definite estimates of their post-war work force. Others, particularly those whose product is manufactured for sale to industrial users rather than to ultimate consumers, were reluctant to express any judgment on the size of their post-war labor force.

Rough estimates of post-war employment were available for 35 of the 40 plants included in the sample survey. Plants in the transportation-equipment group (including automobiles and aircraft) expect the greatest rise over 1939 employment—63 percent—although employment in aircraft will, of course, drop sharply from present levels. Large advances over peacetime employment are also expected by companies in the machinery (except electrical) group (49 percent) and the stone, clay, and glass group (42 percent). The chemicals, non-ferrous-metals, and electrical-machinery plants expect increases of 20 to 25 percent over 1939 employment levels. Iron and steel, the area's largest manufacturing industry in peacetime, will apparently have a post-war labor force only 7 percent larger than before the war.

Spokesmen for local groups are generally optimistic about the post-war employment outlook for the area. It is assumed that the "war babies" will present the only serious adjustment problems and that the departure of women from the labor force will be sufficient to prevent any widespread unemployment. Many other plants have expanded enormously during the war period, however, and most of them anticipate substantial reductions in force after the war.

It is interesting to compare the views on probable post-war employment expressed by plant officials with the estimates made by the Niagara Frontier Post-War Planning Council on the employment goals needed in manufacturing to provide full employment.<sup>2</sup> The Planning Council stated that 175,000 jobs would be required in manufacturing if full employment were to be achieved, and presented a distribution by major industry groups.

In several of the industry groups, the surveyed plants represented a substantial proportion of total 1939 employment. For each of these groups, the relative change in employment from 1939 to the post-war

<sup>2</sup> Niagara Frontier Post-War Employment Goals (Buffalo, May 1943).

period, as judged on the basis of the plant interviews, was applied to the total 1939 employment figure for the entire industry group as given by the Census of Manufactures. The resulting estimates of the numbers of post-war jobs implied by the present plans of employers in each industry group, compared with 1939 employment and with the Niagara Frontier full-employment goals, are shown in the accompanying table.

*Employment in Manufacturing, in Buffalo Industrial Area*

[All figures in thousands]

Industry	Employment in 1939 <sup>1</sup>	Post-war employment implied by plant interviews <sup>2</sup>	Full-employment goals <sup>3</sup>
Transportation equipment (automobiles and other).....	15.6	25.5	29.1
Electrical machinery.....	4.9	5.9	9.0
Machinery, except electrical.....	6.9	10.3	12.2
Iron and steel.....	24.9	26.8	31.9
Nonferrous metals.....	2.9	3.5	8.5
Chemicals.....	12.8	16.1	20.4
Stone, clay, and glass.....	5.6	8.0	11.0
<b>Total.....</b>	<b>73.6</b>	<b>96.1</b>	<b>122.1</b>
<b>Other industries:</b>			
Paper.....	5.5		6.2
Printing and publishing.....	6.3		6.4
Food.....	13.7		15.7
Textiles and apparel.....	6.3		6.3
Wood products.....	3.3		4.7
Rubber.....	2.8		4.1
Petroleum, coal, and leather.....	2.0		2.7
Miscellaneous.....	3.7		7.2
<b>Total.....</b>	<b>43.6</b>		<b>53.3</b>

<sup>1</sup> Census of Manufactures, 1939.

<sup>2</sup> Obtained by applying to the figures shown in the preceding column the relative change in employment, between 1939 and the post-war period, expected by the sample plants in each industry group. The sample plants in the machinery (except electrical) group accounted for 28 percent of total employment in the group in 1939. In the other industry groups employment in the reporting plants ranged from 46 to 65 percent of the group totals reported by the Census of Manufactures for 1939.

<sup>3</sup> Niagara Frontier Post-War Employment Goals (Buffalo, May 1943).

It is apparent that the current plans of manufacturers, if carried into effect without change, will yield greater employment in each industry group than was recorded in 1939. For the surveyed industries taken together, the estimated post-war figure is 96,000 compared with a 1939 total of 74,000. On the other hand, it does not appear that in any of the groups will present plans lead to employment totals as great as those considered necessary by the Niagara Frontier Post-War Planning Council to insure full employment.

Several qualifications regarding these comparisons should be noted. First, the plants were combined in broad industry groups and only a sample number was canvassed in each. To the extent that other plants may have differing plans and expectations, the comparisons may be unrepresentative. New plants may come into existence after the war which will provide additional employment opportunities not taken into account above. On the other hand, there is some evidence that the estimates made by plant officials tended to be optimistic and that the plants with the best post-war prospects were those most willing to furnish estimates. Finally, all the estimates are based on company plans as they are now formulated, and these plans may be modified at any time as circumstances justify such changes.

Even with these limitations, however, it appears clear that post-war employment in the industries represented by the sample plants is likely to exceed substantially the pre-war level. Whether this increase will meet the objective of jobs for all those in the area seeking employment is less certain. The Niagara Frontier Post-War Planning Council estimates of the number of jobs required in these industry groups are interrelated with its estimates of employment goals for trade and service and for other manufacturing industries. The goal set for total employment is based on assumptions regarding the number of persons withdrawing from the labor force and migrating from the area. To the extent that these assumptions are realized, current plans may have to be revised, if the desired goals are to be reached.

#### EMPLOYMENT DURING RECONVERSION

The technical problems of reconversion will not be serious in most of the plants visited. Most companies envision the possibility, even the probability, of a smooth transition in employment from wartime to post-war operations. A few companies, however, anticipate substantial reductions in force for periods varying from a few weeks to several months. One company, for example, estimates that during a 60-day reconversion period employment will be only 700, compared with a full-production total of 2,200. Reductions in force of 50 percent are foreseen by a few other companies which will have to do a great amount of retooling. Technical requirements will not be the sole determiners of the size of the work force during reconversion, however. In several plants the volume of employment immediately following the completion of war production may depend more on the amount of business in sight than on the technical problems of retooling.

#### LAY-OFF PROCEDURE

As lay-offs become necessary, seniority will generally determine the order of termination. It is probable, however, that seniority will be much less important in the chemicals industry than in other industries, as most of the chemicals plants in the survey either have no union agreements or have agreements with independent unions that do not stress seniority to the same degree as do nationally affiliated unions.

Practically all of the plants included in the survey are covered by union agreements. Of the 40 plants, 22 have agreements with C. I. O. unions (2 were being negotiated); 4 have agreements with A. F. of L. unions; 7 with independent unions; 2 with District 50 of the United Mine Workers of America; 1 has a C. I. O. union in the office and an A. F. of L. union in the plant; and 1 plant recognizes both an independent and an A. F. of L. union. In general, the agreements with nationally affiliated unions specify that seniority shall determine lay-offs, while those with independent unions give management more latitude to use qualifications or ability as a criterion, although a few of the companies concerned have adopted seniority as a matter of management policy.

Almost all plants will reduce hours before significant lay-offs are made; only one small company expressed a desire to maintain the 48-hour week to provide high "take-home" pay. Other companies will return to a workweek of 40 or fewer hours as soon as permitted, as an economy measure and to sustain employment.

### SKILLS AND RETRAINING

When reductions in force occur, there will be many transfers from job to job, and some retraining will be necessary. Management officials anticipate few difficulties in effecting the transfers. On-the-job training will probably be the primary method used, and retraining is expected to require from a few days to several months.

The skills required for post-war operations will be essentially the same as those needed at present, since the nature of the product will not change radically in most of the plants with the shift to civilian production. Plants which have to do extensive retooling for peacetime production will, of course, require toolmakers and skilled machinists, but in most cases the necessary workers are available. Where shifts in skill requirements occur, they will sometimes be in the direction of greater skill, sometimes of lesser skill.

Although no special retraining of the work force will generally be necessary, a number of plants expect to continue training programs introduced during the war period. Some are planning to maintain the essential features of the Training Within Industry courses after the war, and some will continue other training programs. A number of companies anticipate the need for special training programs for returning veterans. One plant expects to retrain veterans in the wartime training school established in the pattern shop. This school has been used very successfully during the war to train vocational-school graduates as patternmakers and machinists.

### EMPLOYMENT OF WOMEN

Women employees constituted 32 percent of the work force in the 40 sample plants in May 1944. In those plants in operation in 1939, the proportion was only 11 percent. Among the plants in the sample, the change between 1939 and May 1944 in the percentage of women was from 15.3 to 38.6 in transportation equipment, from 6.5 to 18.1 in chemicals, from 2.0 to 16.2 in iron and steel, from 3.3 to 13.2 in nonferrous metals, from 5.7 to 19.3 in machinery (except electrical), from 17.3 to 37.5 in stone, clay, and glass, and from 33.9 to 37.5 in electrical machinery.

Practically all companies expect very great reductions in the employment of women after the war. In nearly half the plants, management officials would prefer to have a smaller proportion employed after the war than at present. In these establishments, management officials generally consider the work performance of men superior to that of women. The work involved in the manufacture of chemicals, metals, and machinery is believed to be too heavy for women, except as a war-emergency measure. Other deterrents to employment of women are also noted. Most important is the fact that while women are suitable for certain operations, they cannot be transferred easily from one job to another if the necessity arises. If the size of the labor force is reduced substantially after the war, it will be necessary to have employees who can perform several different jobs. A few plants pointed out that turnover or absenteeism was higher among women than among men. State laws setting up special standards relating to the employment of women are also cited as reasons for discontinuing their use, particularly in chemicals, where heavy lifting or use of dangerous chemicals is involved.

Even in companies which report that the performance of women has been satisfactory, a reduction in the proportion of women is expected because of voluntary withdrawals from the labor market and the return of veterans. In some of these plants, the percentage of women will probably remain somewhat above the pre-war figure, particularly where new operations have been developed during the war to make possible a greater utilization of women. The management of one company would like to have women employees to the extent of 25 percent of the total and will keep this proportion if the union will agree. A company whose peacetime product is automobile accessories finds that women are better than men on small assemblies.

It seems clear that many women will be released as the labor force is cut and as veterans return, whether as a result of management policy or seniority arrangements. Most of the women employees have little seniority and, in addition, a few of the union agreements permit or require the release of women regardless of seniority. One agreement states that women are to be employed in the plant only for the duration. Another permits the employment of women on men's jobs only during the war, and thereafter the consent of the union is required. At a few plants, the union agreements provide for separate seniority lists for men and women.

The proportion of women employees after the war, therefore, may be only slightly greater than in the pre-war period. Of the plants sampled, the most favorable employment opportunities will exist in those industries which employed substantial numbers of women in peacetime—paper, electrical machinery (especially radio), and, to a less extent, automobiles. The Niagara Frontier Post-War Planning Council estimates that after the war 34 percent of all women over 14 will be in the labor force, as compared with 26 percent in 1940. Apparently, the manufacturers canvassed do not expect to offer very greatly increased employment opportunities for women.

#### EMPLOYMENT OF NEGROES

Although the Negro population of this area is small, several plants, particularly foundries and chemicals plants, employ substantial numbers. In some companies, no Negroes were employed before the war and, in others, the number has increased during the war period. These employees generally have little seniority and may be displaced by returning veterans. Most plant officials reported that the work performance of the Negro employees was satisfactory and that it would not be company policy to release them. Of 11 management representatives who ventured to make estimates of post-war employment of Negroes, 5 stated that there would be no great change and the other 6 expected some decreases because of the necessity for reemploying veterans.

#### EMPLOYMENT OF VETERANS

Local agencies and company officials are devoting increasing attention to the problem of reemploying veterans. Since a satisfactory employment adjustment is not always reached immediately, the local office of the U. S. Employment Service has been working with employer groups on the problem. Conferences of employment

managers with a psychiatrist, who speaks on the problems of reemploying ex-servicemen, have been arranged. Practically every plant official interviewed was emphatic in his conviction that everything possible would be done to reemploy veterans when they returned.

A number of plants expect to go beyond any legal requirements in rehiring employees who return from the service. In some cases, the company will not insist that the application for reemployment be made within 40 days after discharge, as provided by law, or it will be favorably disposed toward hiring veterans even if they are not former employees of the company. The union local at one plant expressed its desire to help rehabilitate any veterans who might need aid, even to the extent of abrogating seniority arrangements. Plans are being made by another company not only to rehire veterans but to train them for better jobs if they are qualified, since the management recognizes that morale problems may arise if men with good service experience are placed in menial tasks.

An example of detailed advance planning on reemployment of veterans is provided by a company which is considering the employment of a full-time coordinator to place and follow up war veterans. A card index is being prepared, giving the case history of each man in service and including any new skills learned since he entered the armed forces.

It is recognized that a number of problems will arise. In some plants, the number of employees in the armed forces is equal to or greater than the total pre-war employment; in others, as many as 6 or 7 men now in the armed forces held the same job prior to induction. In some establishments most of the work is heavy, and the jobs which disabled veterans can fill are limited in number. Plants which have already had experience with returning veterans agree that careful placement and follow-up are essential, and many companies expect that some retraining program will be necessary for returning veterans.

In one company, it was anticipated that very serious problems would arise if the Selective Service Act were interpreted to give veterans absolute preference. Management here believes that veterans should accumulate seniority while in the service but should have no other special preference. It was reported that the union's position agreed with that taken by management.

### *Effects of Cutbacks*

#### RECENT EXPERIENCE

While cutbacks in war production have not yet been serious, the experience thus far serves to indicate the problems which may arise when war production generally declines. At the time of the survey, 16 of the plants included in the sample of 40 had already had cutbacks in production owing to cancellation or revision of war contracts. (One company had had no cutback in the usual sense, but had finished a large war program and reverted to its normal peacetime activity.) Of the 16 plants, 11 were compelled to lay off workers; the others were able to avoid terminations by transferring employees to other work.

In all, some 5,000 workers had been laid off by June 1944. About two-thirds of those terminated had been working in 5 plants producing items for the aircraft program. Over 60 percent of the workers laid

off were women. Most of the lay-offs were temporary (for retooling) and some workers had already been recalled by June 1944.

Notice of cutbacks varied from advance warning of several months to orders for immediate cessation of work. In one instance, a subcontract for half-tracks was eliminated almost entirely, without advance notice from the prime contractor, who had himself received no notice from the procurement agency. Plant officials generally expressed the opinion that advance notice should be given whenever possible, and the indications are that those plants which received notice a month or more in advance were able to readjust both employment and production more effectively.

#### LAY-OFFS AND TRANSFERS

Ten of the 11 plants in which lay-offs were necessary selected the workers to be terminated on the basis of seniority. Plant-wide seniority was the criterion used in half of these plants, and departmental seniority or seniority by noninterchangeable occupational groups in the rest. In nine cases seniority provisions were incorporated in union agreements; one company used plant-wide seniority as a matter of company policy. In addition, one company laid off workers as the operations on which they were engaged were completed, in accordance with the provisions of a master contract with various A. F. of L. unions.

Transfers of workers usually followed the same plan as lay-offs; in some plants transfers were an important part of the employment-adjustment process. One plant eliminated its third shift, laid off 50 workers, and transferred 400; another laid off 100 and transferred 100; a third laid off 400 and transferred 200. In most instances, transfers were made at the same rates of pay. In two plants in which wage decreases were the rule, there was a tendency for workers to quit rather than to accept lower wages, as further lay-offs were anticipated and little security could be offered.

Transfers required training of workers in some instances. On-the-job training was most prevalent, lasting from 2 or 3 days up to 5 months. In general, no new skills were required and in most plants the training period took only a few weeks.

Notice of lay-offs was inadequate in a number of plants, partly because the employer had received insufficient advance notice of cutbacks. Some of the plants gave only 1 day's notice and one plant gave notice at the beginning of the shift that lay-offs were effective at the end of the shift. On the other hand, two companies gave a week's notice whenever possible.

Unions generally received notice of lay-offs farther in advance, and in some cases the unions participated in implementing the lay-off procedure. Most companies discussed the cutbacks and lay-off procedures with the unions or with the labor-management committees, but one company merely informed the union that there would be lay-offs.

*Effect on morale.*—The effect of cutbacks on the morale of workers apparently varied both with the nature of the cutback—whether temporary or permanent—and with the degree of union-management cooperation attained. In two plants with labor-management committees, morale did not suffer and at one of these plants production

per worker actually increased. The most serious effect of cutbacks on morale was found at a plant where there had been no word to workers concerning the cutbacks, the union did not participate, and there was no labor-management committee.

*Effect in the community.*—There are indications that the cutbacks already experienced have resulted in some decrease in community purchasing power, as well as in withdrawal of workers from the labor market. Union representatives expressed the opinion that lack of planning for transfers of workers from plants which had reduced production to plants which needed workers had resulted in lower morale and the return of women to their homes.

### *Suggestions for Government Action*

*Plant suggestions.*—Management representatives were unanimous in their emphasis on the desirability of speedy audit or settlement of contract claims; one subcontractor recommended settlement on a plant-wide rather than on an individual contract basis. Companies also indicated the need for adequate advance notice from Government to prime contractors, and from prime contractors to subcontractors, of changes in specifications and of contract terminations. In general, gradual tapering off of war demand was considered preferable to abrupt termination. Such gradual reduction would alleviate surplus material problems, allow adequate notice to subcontractors, unions, and workers, and permit more orderly planning for civilian production. Two companies suggested that cutbacks be made first in plants which are able to convert to other production.

Generally, wherever Government-owned equipment or material cannot be utilized for peacetime production, plants desire its removal from the premises as soon as possible. Sale of usable Government property at reasonable prices is desired by plants having such equipment, but one plant would prefer to rent the plant space and equipment from the Defense Plant Corporation. Some plants believe that the price of Government-owned equipment should be maintained, as its cheap disposal to competitors would foster "unfair competition."

Almost all of the plants making suggestions recommend that wartime material, manpower, and price controls be removed as soon as possible, but that relaxation be gradual. Rapid release of materials to plants receiving cutbacks was suggested, and one plant recommended that certain standard surplus materials be earmarked for post-war use.

Among other suggestions were recommendations for Federal aid for municipal public works, improvement of the New York State Barge Canal, and relaxation of restrictions on industrial and municipal power projects. In addition, interest was expressed in modification of present policies of contract renegotiation, so that the normal product of a company would be exempt. Elimination of the excess-profits tax was recommended, to enable industry to accumulate reserves with which to finance reconversion.

*Union suggestions.*—Union representatives, like management officials, stressed the importance of a smooth transition from war to peace production. A C. I. O. union suggested closer integration of Army and Navy plans for cutbacks with manpower controls, so that persons released in one plant could be quickly transferred to plants where workers were needed. A representative of an A. F. of L. union

suggested that the Government make immediate plans for reemployment of workers laid off by small plants—particularly machine shops—since these workers may be laid off before the large prime contractors are cut back.

Practically all union representatives emphasized the need to plan for full employment. Legislation was urged to provide for adequate unemployment compensation during reconversion, retraining programs, and payment of travel costs of workers from war centers to their homes. The need of heavy industry for post-war markets was stressed, and long-term reconstruction credits to other nations to stimulate demand for steel and other products of basic industry were suggested. The regional office of one union expressed the opinion that industries should be able to finance reconversion from tax refunds and that the Government should see that such funds are used to assure maximum employment.

