

UNITED STATES DEPARTMENT OF LABOR
BULLETIN OF THE WOMEN'S BUREAU, No. 73

VARIATIONS IN
EMPLOYMENT TRENDS
OF WOMEN AND MEN

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[PUBLIC—No. 259—66TH CONGRESS]

[H. R. 13229]

An Act To establish in the Department of Labor a bureau to be known as the
Women's Bureau

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of Labor a bureau to be known as the Women's Bureau.

SEC. 2. That the said bureau shall be in charge of a director, a woman, to be appointed by the President, by and with the advice and consent of the Senate, who shall receive an annual compensation of \$5,000. It shall be the duty of said bureau to formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment. The said bureau shall have authority to investigate and report to the said department upon all matters pertaining to the welfare of women in industry. The director of said bureau may from time to time publish the results of these investigations in such a manner and to such extent as the Secretary of Labor may prescribe.

SEC. 3. That there shall be in said bureau an assistant director, to be appointed by the Secretary of Labor, who shall receive an annual compensation of \$3,500 and shall perform such duties as shall be prescribed by the director and approved by the Secretary of Labor.

SEC. 4. That there is hereby authorized to be employed by said bureau a chief clerk and such special agents, assistants, clerks, and other employees at such rates of compensation and in such numbers as Congress may from time to time provide by appropriations.

SEC. 5. That the Secretary of Labor is hereby directed to furnish sufficient quarters, office furniture, and equipment for the work of this bureau.

SEC. 6. That this act shall take effect and be in force from and after its passage.

Approved, June 5, 1920.

UNITED STATES DEPARTMENT OF LABOR

JAMES J. DAVIS, SECRETARY
WOMEN'S BUREAU
MARY ANDERSON, Director

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BULLETIN OF THE WOMEN'S BUREAU, NO. 73

**VARIATIONS IN
EMPLOYMENT TRENDS
OF WOMEN AND MEN**



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**UNITED STATES
GOVERNMENT PRINTING OFFICE
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4. All manufactures.
5. Chemicals and allied products.
6. Iron and steel and their products.
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APPENDIX B. STATE CLASSIFICATION OF WAGE EARNERS IN 1923

APPENDIX C. VARIATIONS IN MEN'S AND WOMEN'S EMPLOYMENT IN IRON AND STEEL AND TEXTILE MANUFACTURING

**APPENDIX A.—SCHEDULE FORM, DIVISION OF LABOR STATISTICS,
OHIO**

[FRONT OF SCHEDULE]

Return promptly. Retain duplicate. See instructions on reverse side.

STATE OF OHIO DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF LABOR
STATISTICS

REPORT FOR YEAR ENDING DECEMBER 31, 1924

- NOTES:** A. If engaged in more than one industry, use a separate sheet for each. Report on Ohio operations only.
 B. If operating in more than one county, separate reports must be made for each county.
 C. Send for additional copies of this form if you need them.
 D. When it is impossible to give an exact answer to an inquiry, enter the best possible estimate and add to the answer "E."
 E. Your report is not acceptable to this department until each of the following 11 questions has been answered.

In correspondence, please refer to this file number.

1. Name of firm and establishment
 (Answer for both when names differ)
 2. Address of principal office: Street and number; post office
 3. Location of operations covered by this report
 (Give both city and county location. See notes B and C at top of form)
 4. Nature of business (if manufacturing, name principal products)
 (See notes A and C at top of form)

5. Give date if plant changed hands during year 1924
 Give name and address of former owner
 Give name and address of present owner
 6. Number of days in operation during year 1924
 7. Number of hours normally worked—

8. Number of persons employed on 15th of each month. If data are not obtainable for the 15th of the month, enter data for the nearest representative day.

	Office help	Other help	
		Male	Female
a. Per day or shift.....			
b. Per week.....			

Number employed on the 15th of—	Wage earners (include both time and piece workers)		Bookkeepers, stenographers, and office clerks		Sales people (not traveling)	
	Males	Females	Males	Females	Males	Females
Jan.....						
Feb.....						
Mar.....						
Apr.....						
May.....						
June.....						
July.....						
Aug.....						
Sept.....						
Oct.....						
Nov.....						
Dec.....						

8. Give total wage and salary payments in dollars only during year 1924, including bonuses and premiums and value of board and lodging, if furnished (do not include salaries of officials):
- a. To wage earners..... \$.....
 - b. To bookkeepers, stenographers, and office clerks.....
 - c. To salespeople (not traveling).....
 - d. To superintendents and managers.....
 - Total of above items.....

10. Classified weekly rates of wages and salaries for week of greatest employment during year.
IMPORTANT.—Please note that it is weekly rate of wage rather than actual weekly wage which is asked for under this question. See instructions for question 10 on the back of this form.
 If your pay roll shows rates for 2 weeks or for 1 month, divide rates for 2 weeks by 2 and the rates for a calendar month by 4. Include both time workers and piece workers. In reporting rates of piece workers use a normal week's earnings as a basis. Bonuses and premiums, if any, should be prorated and included with rates of wages or salaries. If board or lodging is furnished in addition to wages or salaries, estimate the value and include in reporting rates of wages or salaries. In reporting for retail stores do not report for week of special sales or week during holiday period.

APPENDIX A.—SCHEDULE FORM

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[FRONT OF SCHEDULE—continued]

Classified rates of wages per week for the week ending—, 1924	Wage earners (include both time and piece workers)				Bookkeepers, stenographers, and office clerks				Sales people (not traveling)			
	Males		Females		Males		Females		Males		Females	
	Adults (18 years of age or over)	Young persons (under 18 years of age)	Adults (18 years of age or over)	Young persons (under 18 years of age)	Adults (18 years of age or over)	Young persons (under 18 years of age)	Adults (18 years of age or over)	Young persons (under 18 years of age)	Adults (18 years of age or over)	Young persons (under 18 years of age)	Adults (18 years of age or over)	Young persons (under 18 years of age)
Under \$5.....												
\$5 but under \$10.....												
\$10 but under \$12.....												
\$12 but under \$15.....												
\$15 but under \$20.....												
\$20 but under \$25.....												
\$25 but under \$30.....												
\$30 but under \$35.....												
\$35 but under \$40.....												
\$40 but under \$50.....												
\$50 or over.....												

11. IMPORTANT.—If manufacturing, give total value of products manufactured in 1924. Value reported should be in dollars for all products f. o. b. factory, less selling expense \$

Give name and value of different articles manufactured.

Name	Value	Name	Value	Name	Value
.....	\$.....	\$.....	\$.....

(Do not use this space.)

This is to certify that the answers to the inquiries on this sheet are complete and correct to the best of my knowledge and belief.

Signed

By

(Name)

(Official capacity)

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[BACK OF SCHEDULE]

GENERAL EXPLANATIONS AND INSTRUCTIONS FOR ANNUAL INDUSTRIAL REPORT OF ALL OPERATIONS IN OHIO DURING 1924

For authorization and penalties see section 885 of the General Code, section 4 of the act defining the powers, duties, and jurisdiction of the State Liability Board of Awards, and section 22, paragraph 10, and sections 24 and 43 of the act creating the Industrial Commission of Ohio.

Questions 1 to 7.—These questions are self-explanatory.

Question 8.—The total wage and salary payments during the year should be given separately for each of the four classes of employees indicated under 8a, 8b, 8c, and 8d. Do not include officials of the company.

Question 8a.—Wage earners: Include mechanics of all kinds, factory employees, shop foremen, laborers, laundry employees, cleaners and caretakers in buildings, employees of alteration departments and of delivery departments in stores, cash girls, check boys, farm hands, etc.

Question 8b.—Bookkeepers, stenographers, and office clerks: Include bookkeepers, typists, stenographers, copyists, timekeepers, draftsmen, filing clerks, sales office employees, cashiers, etc.

Question 8c.—Sales people (not traveling): Include the selling force in stores and other establishments. Do not include traveling sales people. Office clerks handling sales should be included under 8b rather than under this heading.

Question 8d.—Superintendents and managers: Include all superintendents and managers but not shop foremen. Shop foremen should be included under 8a.

Question 9.—The information desired is the number of persons, under each of the classifications given, in your employ on or near the 15th of each month, as shown by the pay-roll records. Employees should be grouped under the same classifications as in 8a, 8b, and 8c. Superintendents and managers should not be reported under question 9.

Question 10.—Under this question we wish you to select the week of greatest employment, except as noted in regard to retail establishments, and enter your people in the proper column opposite the weekly wage which they would have received had they been in your employ full time during the entire week selected.

The usual timekeeper's rate book, in which is shown the amount earned per week at each rate per hour and each number of hours per week, will be of great assistance in bringing hourly rates to a weekly basis.

Enter sales people who work on a strictly commission basis opposite their average weekly rate of wage for the year.

Employees should be grouped under the same classifications as in 8a, 8b, and 8c. Superintendents and managers should not be reported under question 10.

Question 11.—This question is self-explanatory.

Fill this form as indicated above and return it as promptly as possible to the division of labor statistics in the inclosed self-addressed envelope.

THE DEPARTMENT OF INDUSTRIAL RELATIONS.

APPENDIX B.—STATE CLASSIFICATION OF WAGE EARNERS IN 1923¹

GENERAL GROUPS

- Agriculture.
- Construction.
- Fisheries.
- Manufactures:
 - Chemicals and allied products.
 - Food and kindred products.
 - Iron and steel and their products.
 - Leather and leather products.
 - Liquors and beverages.
 - Lumber and its products.
 - Metals and metal products other than iron and steel.
 - Paper and printing.
 - Rubber products.
 - Stone, clay, and glass products.
 - Textiles.
 - Tobacco manufactures.
 - Vehicles.
 - Miscellaneous manufactures.
- Service.
 - Trade, retail and wholesale.
 - Transportation and public utilities.

DETAILS OF CLASSIFICATION

AGRICULTURE

- Dairy farming.
- Florists, fruit growers and nurserymen; seedmen; hothouses.
- General farming.
- Operating farm machinery, not by farmers; threshing; ensilage cutting; corn shredding; hay baling.
- Agriculture not otherwise classified.

CONSTRUCTION

- Brick, stone and cement work; mantle setting.
- Electrical contracting.
- Erecting or installing machinery.
- General contracting, includes wrecking.
- Oil, gas, and water; drilling or producing.
- Painting and decorating.
- Plastering, includes lathing.
- Plumbing and steam fitting.
- Sand and gravel excavating.
- Sheet-metal work and roofing.
- Street, road, and sewer contracting; water mains; grading, excavating, and teaming.
- Ventilating and heating.
- Construction not otherwise classified.

FISHERIES (no subheads)

MANUFACTURES

- Chemicals and allied products:
 - Baking powder and yeast.
 - Blacking, cleaning, and polishing preparations.
 - Bluing.
 - Bone, carbon, and lamp black.

¹ This list includes many items for which no figures appear in the 1923 report.

Chemicals and allied products—Continued.

Chemicals, acids, and wood distillation; sulphuric, nitric and mixed acids, not including turpentine and rosin charcoal.

Dyestuffs and extracts.

Explosives.

Fertilizers, tankage.

Ink, printing and writing.

Oil, linseed, lubricating, and cottonseed, and oil cake.

Paint and varnish.

Patent medicines and drug compounds, includes drug grinding.

Petroleum refining.

Salt.

Soap, candles, grease and tallow.

Chemicals and allied products not otherwise classified.

Food and kindred products:

Bakery products.

Canning and preserving.

Coffee, spices, and peanuts, roasting and grinding.

Confectionery.

Cordials, sirups, and flavoring extracts.

Dairy products and ice cream.

Flour-bail and grist-mill products; grain elevators and small businesses connected with them.

Food preparations; breakfast foods; stock foods; macaroni; ice cream cones.

Glucose and starch.

Oleomargarine.

Slaughtering and meat packing.

Sugar.

Vinegar and cider.

Food and kindred products not otherwise classified.

Iron and steel and their products:

Blast-furnace products.

Boilers and tanks.

Bolts, nuts, washers, and rivets.

Burial vaults, steel.

Calculating machines, includes cash registers; time clocks and locks; gas and water meters.

Cutlery and tools.

Doors and shutters, iron and steel.

Files.

Forgings.

Foundry and machine-shop products; bells; plumbers' supplies; steam fittings; hardware; structural-steel fabrications.

Gas engines and tractors.

Horseshoes not made in steel works or rolling mills.

Locomotives not made by railroad companies.

Nails and spikes, cut, wrought, and wire.

Pipe, wrought.

Pumps and windmills.

Safes and vaults.

Saws.

Scales and balances.

Screws, machine and wood.

Sewing machines, cases and attachments.

Springs, coil.

Springs, steel car and carriage.

Steel works and rolling mills.

Stoves and furnaces.

Tin plate and terneplate.

Typewriters and parts.

Wire.

Wirework, wire rope, and cable.

Iron and steel and their products not otherwise classified.

Leather and leather products:

Belting, leather.

Boots, shoes, cut stock and findings.

Gloves and mittens, leather.

Leather and leather products—Continued.

Leather, tanned, curried, and finished.
 Saddlery and harness.
 Trunks and valises.
 Leather and leather products not otherwise classified.

Liquors and beverages:

Liquors, malt.
 Liquors, vinous.
 Malt.
 Mineral waters and beverages.
 Liquors and beverages not otherwise classified.

Lumber and its products:

Baskets, wood, rattan, and willow.
 Billiard tables and materials.
 Boxes, cigar.
 Boxes and packing crates.
 Coffins and undertakers' goods.
 Cooperage and related goods.
 Furniture.
 Furniture, wicker and reed.
 Lasts.
 Looking-glass and picture frames.
 Matches.
 Wood pulp.
 Saw-mill and planing-mill products.
 Show cases.
 Wood bending, turning, carving.
 Wood preserving.
 Lumber and its products not otherwise classified.

Metals and metal products other than iron and steel:

Babbitt metal and solder.
 Brass, bronze, and aluminum products.
 Clocks, watches, and materials.
 Copper, tin, and sheet-iron products, includes stamped and enameled ware.
 Electro plating.
 Galvanizing.
 Furniture (metal) and office fixtures.
 Gas and electric fixtures and lamps and reflectors.
 Gold and silver, leaf and foil.
 Jewelry, includes reducing and refining.
 Lead, bar, pipe, and sheet.
 Needles, pins, hooks and eyes.
 Silverware and plated ware.
 Smelting and refining, aluminum, brass, and copper.
 Smelting and refining not from the ore.
 Metals and metal products other than iron and steel not otherwise classified.

Paper and printing:

Bags, paper.
 Boxes, fancy and paper; drinking cups.
 Card cutting and designing.
 Engraving and die sinking.
 Envelopes.
 Labels and tags.
 Paper, includes stationery.
 Photo-engraving.
 Printing and publishing.
 Stereotyping and electrotyping.
 Type founding and printing materials.
 Wall paper.
 Paper and printing not otherwise classified.

Rubber products:

Druggists' sundries and toys, rubber.
 Tires and tubes.
 Rubber garments.
 Rubber products not otherwise classified.

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Stone, clay, and glass products:

Brick and tile, clay.
 Cement.
 Concrete products.
 Crucibles.
 Burial vaults, concrete.
 Emery wheels and other abrasives, includes sand and emery cloth.
 Glass.
 Glass cutting and ornamenting.
 Lime.
 Marble and stone work; stone yards.
 Mirrors.
 Pottery, terra-cotta, and fire-clay products.
 Statuary and art goods.
 Stone and clay, crushing and grinding.
 Wall plaster, includes hydrated lime.
 Stone, clay, and glass products not otherwise classified.

Textiles:

Awnings, tents, and sails, includes auto fabrics.
 Bags other than paper.
 Buttonholes.
 Carpets and rugs.
 Clothing, men's, includes shirts and coat pads.
 Clothing, women's, includes corsets.
 Cordage, twine, jute and linen goods.
 Cotton goods and small wares.
 Custom tailoring, men's and women's.
 Dyeing and finishing textiles, includes sponging.
 Flags, banners, and regalia.
 Furnishing goods, men's.
 Gloves, cloth.
 Hats and caps other than felt, straw, or wool.
 Horse clothing.
 Hosiery and knit goods.
 Mattresses, pillows, and cotton felts.
 Millinery and lace goods, includes artificial flowers and feathers.
 Oilcloth and linoleum.
 Shoddy.
 Silk and silk goods, includes throwsters.
 Upholstering materials.
 Waste.
 Wool pulling, includes scouring.
 Woolen, worsted, and wool-felt goods, includes fur and felt hats.
 Textiles not otherwise classified.

Tobacco manufactures:

Chewing and smoking tobacco and snuff.
 Cigars and cigarettes.
 Tobacco rehandlers.

Vehicles:

Airplanes and parts.
 Automobiles and parts.
 Bicycles, motor cycles, and parts.
 Carriages and sleds, children's.
 Carriages, wagons and materials, includes repairing.
 Cars, steam and street railroad, not including operations of railroad companies.
 Ship and boat building.
 Wheelbarrows.
 Vehicles not otherwise classified.

Miscellaneous manufactures:

Agricultural implements.
 Artists' materials.
 Belting and hose, woven and rubber.
 Brooms and mops.
 Brushes.
 Buttons.
 Coke.

Miscellaneous manufactures—Continued.

Dairymen's, poulterers', and apiarists' supplies.
 Dentists' supplies.
 Electrical machinery, apparatus, and supplies.
 Enameling and japanning.
 Engravers' materials.
 Fancy articles.
 Fire extinguishers, chemical.
 Fire arms and ammunition.
 Fireworks.
 Foundry supplies.
 Fuel, manufactured.
 Fur goods.
 Hair work.
 Hand stamps, stencils, and brands.
 House-furnishing goods, miscellaneous.
 Ice, manufactured.
 Instruments, professional and scientific.
 Jewelry and instrument cases.
 Lapidary work.
 Models and patterns other than paper.
 Mucilage and paste.
 Munitions.
 Musical instruments and materials other than pianos and organs.
 Optical goods.
 Paving materials.
 Pens, fountain, stylographic, and gold.
 Photographic apparatus and materials.
 Pianos, organs, and materials.
 Roofing materials.
 Signs and advertising novelties.
 Soda-water apparatus.
 Sporting and athletic goods.
 Steam packing.
 Surgical appliances and artificial limbs.
 Toys and games.
 Umbrellas and canes.
 Washing machines and clothes wringers.
 Window shades and fixtures.
 Miscellaneous manufactures not otherwise classified.

SERVICE

Advertising.
 Banks.
 Barbers and hair dressers.
 Bowling alleys and parks.
 Garages.
 Hospitals.
 Hotels.
 Laundries and dry cleaners.
 Office buildings, includes window cleaning.
 Photographers.
 Professional.
 Restaurants.
 Saloons.
 Schools and colleges.
 Shoe repair.
 Social agencies.
 Theaters.
 Undertakers.
 Service not otherwise classified, includes horseshoeing, cemetery care, etc.

TRADE, RETAIL AND WHOLESALE

Offices.
 Retail delivery, milk, ice, and water.
 Stores, retail and wholesale.
 Yards, lumber, coal, and scrap.
 Trade not otherwise classified.

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TRANSPORTATION AND PUBLIC UTILITIES

Drayage and storage, includes livery stables and teaming.

Electric light and power.

Electric railroads.

Gas, illuminating and heating.

Natural gas.

Pipe lines (petroleum).

Steam railroads (intrastate).

Stockyards.

Taxicab service.

Telegraph and telephone, includes messenger service.

Transportation by water, includes stevedoring.

Waterworks.

Transportation and public utilities not otherwise classified.

APPENDIX C.—VARIATIONS IN MEN'S AND WOMEN'S EMPLOYMENT IN IRON AND STEEL AND TEXTILE MANUFACTURING

The report in earlier pages of this volume has shown in a general way some of the outstanding variations in trends of men's and women's employment and has illustrated the influence of different factors in causing these variations. With so great a mass of material as that involved in the monthly employment figures by sex for a period of 11 years in 54 classifications,¹ obviously it is impracticable to give a detailed analysis of each set of figures and curves. Nevertheless, in many instances such analysis will yield most significant information regarding the many economic factors that influence employment trends. To illustrate the importance of detailed information about the industry in any attempt to interpret the real meaning of the trends of employment indicated in the curves and figures, there is presented in the pages following an analysis of the figures for two industrial classifications—the manufacture of iron and steel and their products and the manufacture of textiles.

These two classifications represent two very different situations, as far as women's employment is concerned. In iron and steel manufacturing women form a very small percentage of the wage earners, but their proportionate importance has tended to increase during the 11-year period under discussion, and changes and developments in industrial practices of recent years indicate that women may become a more essential part of the working force in the industries that form a part of or are allied with this leading industrial classification in Ohio.

In the manufacture of textiles women form by far the greater part of the working force. Their proportionate importance in the industry as a whole changed practically not at all during the 11-year period 1914 to 1924. In fact, textile manufacturing has been for many years one of the chief strongholds of wage-earning women, and the comparative variations in employment for men and women in this classification should afford examples of the influence of factors very different from those applying in iron and steel manufacturing, where women's employment is comparatively new and unimportant.

THE MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS.

The manufacturing group that is of the greatest importance in the State of Ohio is the iron and steel industry. In fact, the production of iron and steel and the manufacture of their products is one of the basic industries in the United States. With it are clearly interrelated other great industries, from which it buys materials, as fuel, certain minerals, transportation services, etc., or to which it sells its products. There is no manufacturing industry that does not consume iron or steel or their products in one form or another and in varied quantities.

The conditions and fluctuations in other industries, therefore, are quickly reflected in the iron and steel industry, while the latter, in turn, influences other industries to a very marked degree. Therein lies the reason why the iron and steel industry is counted as belonging to the "basic group" of the Nation's industries and why it is considered as being a "barometer of trade." The trend of employment in this industry should, therefore, be of more than local significance. In fact, figures showing the employment of men and women in this basic industry are indicative of trade and industrial activity throughout a very broad field.

Especially is this true in Ohio, for this State contributes a large part of the total iron and steel output of the country.

Within the State itself the industry assumes an even more important position, so that employment figures may become of even greater significance when they are considered from the viewpoint of the State.

In the first place, the industries classified by the Ohio Division of Labor Statistics cover a wide range of industrial activity, from the basic process in the

¹ For four of the classifications figures from 1914 to 1918 were not available.

making of pig iron to the production of finished articles for consumption use. The list of specific industries so included in 1923 is as follows:

Blast-furnace products.	Pipe, wrought.
Boilers and tanks.	Pumps and windmills.
Bolts, nuts, washers, and rivets.	Safes and vaults.
Burial vaults, steel.	Saws.
Calculating machines (including cash registers, time clocks and locks, and gas and water meters).	Scales and balances.
Cutlery and tools.	Screws, machine and wood.
Doors and shutters, iron and steel.	Sewing machines, cases and attachments.
Files.	Springs, coil.
Forgings.	Springs, steel car and carriage.
Foundry and machine-shop products.	Steel works and rolling mills.
Gas engines and tractors.	Stoves and furnaces.
Horseshoes, not made in steel works and rolling mills.	Tin plate and terneplate.
Locomotives, not made by railroad companies.	Typewriters and parts.
Nails and spikes, cut, wrought, and wire.	Wire.
	Wire work, wire rope, and cable.
	Iron and steel and their products, not otherwise classified.

In view of the scope of this list it is not surprising that more than one-fourth of all the wage earners in the industries of the State are engaged in the production of iron and steel and their products.³ For this reason the figures showing trend of employment for the industry as a whole will repay careful analysis as an index of conditions throughout the State. As an example of variations between the trends of employment for men and for women the figures for iron and steel are less important in view of the very small proportion of women employed. Nevertheless, the figures and curves for this industry make possible an illustration of the significance of total figures when one of the component groups is very much in the minority. They provide also an opportunity to study the comparative effects on the two sexes of the war, the 1920-21 depression, and the steel strike of 1919, in an industry that was, of all the industries in the State, probably the most seriously affected by each of these events.

From the standpoint of women's employment it will be necessary also to consider certain branches of this industrial classification, as in the majority of individual industries included women form so unimportant an element in the labor force.

Of the various branches of the iron and steel industry, foundries and machine shops and steel works and rolling mills employ the largest numbers of workers. Together they employed over two-thirds of the men in the iron and steel group of the State in 1923. Women, however, are but a small proportion of the total working force in this group of industries, being only 3 per cent of the average number of wage earners in 1923. More women were employed in foundries and machine shops than in any other branch of the industry, but here, too, only a small proportion of the total working force of those plants was made up of women. The next largest group of women was that engaged in the manufacture of bolts, nuts, washers, and rivets, and here they formed approximately one-sixth of the wage earners. Although the number of women employed in the manufacture of screws was smaller than in any of these other groups, they formed a much larger proportion of the working force in this branch of the industry than in the others, one-third of the total in 1923. Therefore, the industrial groups last mentioned—the manufacture of bolts, nuts, washers, and rivets and the manufacture of screws—have been selected for supplementary analysis.

Seasonal fluctuations.

The figures on employment for the years 1914 to 1924 indicate no normal seasonal movement of employment of any significance for either sex. In this respect, therefore, the curve for the total is representative of conditions for each sex.

Nor does the lack of seasonality in the iron and steel group seem to arise from a balancing of the slack and dull seasons of the individual industries of which it is composed. For none of these industries do the figures for either sex indicate any fluctuations that tend to reappear each year.

³ U. S. Bureau of the Census. Biennial Census of Manufactures: 1923, pp. 1242-1252.

There were years in which there were wide differences between minimum and maximum employment of both men and women, but such differences were due ordinarily to conditions peculiar to the year rather than to recurring seasonal factors. Changes from periods of great depression to periods of prosperity, or the reverse movement, had more effect on employment of both men and women than had seasonal demand.

Secular trend in iron and steel industry in Ohio.

The upward secular or long-time trend in the growth of the iron and steel industry in Ohio from 1914 to 1924 had more bearing upon the trend of employment than had any small seasonal fluctuations.

During the severest depression in 1921 employment fell by 600 persons below the lowest level in 1914. The average for the year 1924 shows a growth of employment over the year 1914 of 64,000 persons. On the whole, discounting the big fluctuations due to the war, depressions, and strikes, there has been a steady secular trend upward, and this upward movement has been more marked for women than for men.

Another factor that would materially affect the employment figures for the period under consideration is that labor-saving devices and improved machinery were being introduced in great volume into iron and steel mills and metal-working establishments. Each year brought its own special inducements for plants to save on human labor. The war years made workers scarce and high-priced and at the same time called upon the factories to produce an additional amount of work. The years of depression, 1914, 1921, and 1924, reduced or eliminated profits and forced plants to center attention on means to reduce labor costs.

So the effort to replace labor by machinery and by more intelligent planning was never ending. And the results were successful. Fewer and fewer men became necessary to produce the same or even an increased quantity of finished material. An illustration of a plant in which the labor force was cut practically in half is as follows:

In 1916 a Cleveland factory making automobile springs employed 1,800 men, working in three shifts of 8 hours; they fabricated 2,500 tons of steel a month. In 1917, by improvement of the internal transportation system, the addition of more efficient methods of production, the introduction of labor-saving devices, and the more intelligent application of the energy expended, the factory was able to fabricate about the same amount of steel, 2,500 tons a month, with a force of only 950 men, still working in three shifts of 8 hours.³

Wire mills were enabled, by the introduction of improved material-handling machinery, to increase the size of the wire bundles handled from the 50-to-75-pound bundles in the early days to 200-pound bundles and, in 1923 or 1924, to 300-pound bundles. A mill that substituted 300-pound bundles for 150-pound bundles could discharge 25 per cent of its employees, and at the same time increase the capacity of the mill.⁴

In view of this constant and successful movement to replace labor by mechanical means, it is evident that the number of workers in the industry in Ohio did not rise so high toward the end of the period 1914-1924 as it would have done without the labor-saving installations and inventions. Although it is difficult to estimate the actual extent of the influence of such changes in manufacturing methods they are important factors for consideration in connection with any figures showing trend of employment. It is especially important to take into account these changes when examining the greater increase among women during the 11-year period. With so few women employed in the industry changes leading to greater efficiency in production probably would apply to the greatest extent among men's occupations, thereby giving women's employment a position of apparently greater importance.

General factors affecting trends of employment.

For both men and women wage earners in the iron and steel industry in Ohio the curves of employment based on the average of 1914 as 100 rose and fell from 1914 to 1924 in response to the general expansions and contractions of trade. This was the great influence shaping the course of employment in the industry. Strikes were a secondary cause; their influence was responsible for

³ Daily News Record, June 4, 1917, p. 5. Fairchild publications, New York.

⁴ Bennington, E. T. Standardization of Product Aids Handling. In The Iron Age, Jan. 26, 1925, pp. 344, 345. Iron Age Publishing Co., New York.

the sharp and sudden descent of the curve of employment for men late in 1919 and for many of the slight fluctuations in other years.

In general it is clear that the industry has a tendency to make rapid changes in the employment of both sexes. Even so, however, the declines in the employment curves due to business depression or inactivity do not show the full extent of the decline in production, for "In slack times in the iron and steel industry a larger number of men are carried on the pay roll than are required for mere production. * * * As the industry picks up, more full-time operation develops, and the output per man-hour does not rise so greatly as does the output per man."⁵

The period 1914-1924 opened with a year of marked depression. The curve of employment consequently was very low and descended in November to a point approached only once thereafter, and that in July of 1921, a time of most acute depression.

Throughout 1915 and 1916, urged upward by the tremendous growth and expansion of the industry that began shortly after the outbreak of the World War, largely due to the great volume of war orders placed with the iron and steel trade in Ohio, the curve of total employment rose in an almost unbroken line, arriving at a position about 70 points above the 1914 average. Until the close of 1916 the trend of men's and women's employment was very similar and is accurately represented by the total curve. For the next two years, however, the trend of women's employment showed great fluctuations and marked deviation both from the total curve and from that of the men.

With the exception of these two war years, 1917 and 1918, when women workers were being introduced into iron and steel plants in great numbers, and of the latter part of 1919, when the steel-strike influence was active, the employment curve of women paralleled that of men with great exactness. Differences were outweighed by similarities. It might be observed, however, that the employment of women was more sensitive than that of men, increasing in greater proportion during periods of advancing activity and decreasing with greater proportionate rapidity when the specter of depression appeared. This occurred during the periods of rising employment in the early part of 1920, in 1922-23, and in the first months of 1924; and in the periods of declining employment found after the armistice, in 1920-21, and in the middle months of 1924.

Certain of the factors that apparently have influenced a deviation in trend between women's employment and that of men are of interest in estimating the validity of the total curve as an indication of trends for both sexes. For example, in 1917 the employment curve for men showed throughout the year a slight increase and no very great fluctuation. On the other hand, the employment of women declined during the year from a high point in January and was very erratic. January showed an increase of 43.8 per cent over the preceding December, and it was the high point in 1917. The number of women on the pay roll was 7,227, or 2.8 per cent of the total, for January. Their numbers declined sharply until the low point for the year was recorded in May at 4,871, or 32.6 per cent below January.

The employment of women increased somewhat in June but dropped again slightly in July, so that from May through July it was far below the high points of employment in the spring and fall. Large increases were made in September and October, and employment in the latter month was only 9.9 per cent below January. In November and December considerable declines again were recorded, and the year ended with the number of women at 5,462, or 24.4 per cent below January.

The declaration of war by the United States in 1917 affected industries in two direct ways: First, after some weeks it greatly increased war orders, and second, it made an inordinate demand upon the man power of the country for both military and industrial purposes. The orders for war supplies continued to come from the Allies abroad and now came from the home Government in a continuous and ever-increasing stream. Accordingly, the manufacturers of war implements and other war supplies constantly had to enlarge production facilities. The producers of iron and steel and the manufacturers of their products in the State of Ohio got their due share of the orders.

As a result, the iron and steel mills and the plants manufacturing their products were busy as never before. Employment increased, as seen in the employment figures. The production of iron and steel, as a basic industry, was essential

⁵ Haney, Lewis H. Labor: Employment—Earnings—Efficiency. In *The Iron Age*, Jan. 20, 1925, p. 357. Iron Age Publishing Co., New York.

for the carrying on of the war, and therefore the men employed in this industry were exempt from conscription, which meant that the men already employed held to their jobs and new men were taken on. This explains why the employment of men increased during the year while the number and the proportion of women tended to decrease in the total group of iron and steel. Not only that, but it throws light on the fluctuations in the employment of women. Men were pressing for employment, while women could easily find more suitable work in the industries not exempt from conscription and therefore more in need of workers.

But the entrance of the United States into the war in April was not followed immediately by a stream of contracts for iron and steel products. On the contrary, there was a period of comparative quiet for two months or so—domestic buyers and foreign governments hesitated, standing aside until the United States Government should make known its wants. This uncertainty was a dominant factor in the market as late as the end of May. On June 7 it was reported in *The Iron Age*, from the Cleveland district, that iron and steel mills were taking on as little additional tonnage as possible, holding themselves in readiness for the Government's call upon them. Additional Government orders had been placed, but only for small lots. *The Iron Age* of June 14 stated that metal-working plants as a class had felt for some weeks that Washington was too slow to take advantage of the manufacturing facilities of the country. At this same time the machine-tool industry of the Cleveland district was said to be still marking time pending Government orders. By the end of June Government buying of iron and steel was steadily increasing.⁶

Production in the industry was hampered from beginning to end of the year by an insufficient fuel supply and insufficient railroad service. The lack of coke caused the pig-iron output of 1917 to fall behind that of 1916—blast furnaces were banked for days at a time waiting for coke. And steel works fell short of normal output at times because there was no coal for gas producers.⁷ All these influences played a definite part in the fluctuation in the employment curve for both men and women in this and other industries.

It is in 1918 that the greatest difference in the trends for the two sexes occurs—in fact, the employment curves show an enormous increase for the women but only a small one for the men. Nineteen-eighteen was almost entirely a war year. Orders for war supplies were more pressing than ever before. This explains the increasing employment in the manufacture of iron and steel and their products. At the same time the heavy drafts of men for military service overseas, approximately 2,500,000 men during the year, began to weigh even upon the industries exempt from conscription, and among these the iron and steel industry was constantly expanding, which meant that there was a constant need for new hands. As men became scarce, women had to be taken on. This in part explains the proportionate gain of women's employment over that of men during the year, which was, in that sense, a women's year in the iron and steel industry. The number of establishments reporting in 1918 was 1,635, an increase of only 52 over the previous year. Men's employment fluctuated even less during 1918 than during the preceding year, the minimum figure being 96.3 per cent of that for the peak. Although women did not replace men they formed an additional labor force to meet the pressure for increased production. Their employment advanced rapidly until November, when 88 per cent more women were employed than had been on the rolls in January.

The almost perpendicular rise in the employment of women was unbroken through November, in which month more than 10,000 women were employed in the manufacture of iron and steel products in Ohio, the largest number at any time during the period 1914–1924. The bulk of this increase came in foundries and machine shops and in factories normally engaged in the manufacture of calculating machines but at that time devoting a large part of their capacity to the manufacture of war materials. The gains were most conspicuous in the latter industry, with an increase of over 30 per cent in each of three successive months in the spring of 1918. Although the peak of women's employment in these factories was reached in July, the number employed throughout the rest of the year remained far in advance of employment at its opening. In the foundries and machine shops women's employment, although advancing more slowly, continued to increase steadily through November, and it was not until after the armistice that it showed any slump. The number of men employed in the iron and steel

⁶ *The Iron Age*, June 7, 1917, p. 1421; June 14, pp. 1446, 1475; and June 28, p. 1576. Iron Age Publishing Co., New York.

⁷ *Ibid.*, Jan. 3, 1918, p. 65.

group in December was slightly in advance of what it had been at the beginning of the year, in spite of the fact that by that month their employment had begun to fall off.

After 1918 the trends for men and women were very similar, with the exception of the temporary decrease for the men resulting from the steel strike in 1919. This strike, which caused a great break in the employment figures, lasted about three months, beginning September 22 and ending officially early in January.

The Ohio employment figures for September were not affected by the strike, since the call was issued for the 22d of the month. By October 15, total employment showed a drop of 44,464 (of whom 44,386 were men and 78 were women), although on October 9 the union estimated that the number of men out in the Ohio districts was 107,000.⁸ By the time the November reports were compiled, more than 25,000 men had returned to work. By December the numbers of both men and women employed were in excess of the numbers employed in September before the calling of the strike. It is evident that the employment of women was affected very little by the strike.

The effect of the 1920-21 depression was similar for women and men. Late in September, 1920, the iron and steel industry in Ohio, as elsewhere, came to the turn of the year and felt the beginning of the business recession that was to continue into the following year. Iron and steel remained active longer than did some of the other industries. Declines in silk, cotton, rubber, and wool, that started early in the year, caused a disturbance in mercantile lines in May. The automobile slump started in June. There was a sharp decline in building contracts in the first half of 1920. These and other branches of industry began their declines because of the final revolt of buyers against high prices, and the consequent very effective, though unorganized, general strike of buyers.

There was a feeling in the steel industry, in the summer and early fall, when other lines were slowing up, that for once steel was not a barometer of general trade, for signs of reaction were not noticed in steel until September. Employment in the industry in Ohio was higher at the middle of September than in August, and almost as high as in March.

Many in the trade thought that the industry would run at a good rate practically until the end of the year. "October gave a blow to all such hopes. It was proved again that the industries of the country are bound together in a way that makes prosperity in one impossible alongside of depression in another. The steel industry's readjustment might lag a little behind that of others, but it was inevitable."⁹

Women's employment in iron and steel industries began to decline in August, 1920, and their number continued to fall off with each month throughout the rest of the year. Although men's employment was less in August than in July, it increased again in September and it was not until October that the depression showed itself. However, although activity began to fall off in October, employment of men in October was only 3.7 per cent below the September figure and in some of the 25 branches under which the industry is classified in 1920 there was an increase rather than a decrease. Most of the men who were out in October had been in foundries and machine shops. Steel works and rolling mills practically held their own, while tinsplate and terneplate mills actually were taking men on. The per cent of loss was highest in the factories making gas engines and tractors. By November men were being laid off much more rapidly. About 7,000 men were let out of foundries and machine shops alone, and steel works and rolling mills also began to feel the real force of the depression, letting almost 5,000 men go in one month. Tin mills practically held their own. December saw a decrease approximately half again as great as that in November. Over 10,000 men were laid off in steel works and rolling mills alone and 10,000 more were let out of foundries and machine shops. Tinsplate and terneplate mills, which had maintained their forces well up to this time, turned off almost 2,500 workers, or more than two-fifths of their labor force of November. Blast-furnace workers dropped in number more than during any previous month. By the close of the year employment in the iron and steel industries had been hard hit, although activity had been maintained longer in these industries than in most others. In the opinion of the leading trade journals, the steel strike of 1919 served to keep activity high in the early part of the year because of the resulting scarcity of steel. Eventually slackening of work in other industries caused a reaction in the steel industry.¹⁰

⁸ U. S. Bureau of Labor Statistics. *Monthly Labor Review*. December, 1919, p. 84.

⁹ *The Iron Age*, Jan. 6, 1921, p. 2. Iron Age Publishing Co., New York.

¹⁰ *Ibid.*, p. 1.

Not only did women's employment begin to fall off earlier in 1920 than did men's, but up to the end of the year their decline had been more rapid than was the case with the men. In May women formed 3.2 per cent of the total number of wage earners in the iron and steel industry, but by the end of the year only 2.7 per cent of those employed were women.

On the whole, however, the depression of 1920-21 hit men and women in the iron and steel industry with approximately equal force. Men's employment showed a decrease of 54.8 per cent between the month of highest employment in 1920 and the time of least activity in 1921, while the number of women wage earners decreased 55.2 per cent during the same period.

In the recovery after the depression women seemed to share almost equally with men. This may have been due somewhat to the fact that partly because of the shortage of labor—its numbers being wholly inadequate to the demands of the industry as orders came pouring in—and partly because of its high cost, efforts were continued this year to find means of securing the same production at a lower labor cost. To this end, in the machine-tool industry many of the simple types of automatic machines were, in 1922, originated or modified.

The use of single-purpose or special machines, for which there was such an enthusiasm during the time of the war, was markedly diminishing in favor of the standard or all-purpose types of machine tools, but special machines still were being used to some extent, often to handle the second operation on work coming from automatic screw machines. This may have had some effect on maintaining the employment of women, for women had been, during the war, considered especially adapted for work at the special-purpose machines.

Conclusions.

Variations in employment in the iron and steel industry in Ohio were frequent and comparatively large during the period 1914-1924.

The variations were caused usually by changes in the state of trade, rising demand or falling demand. Behind this were overexpansion and overcapacity.

Strikes and lockouts were a secondary influence upon the course of employment.

Seasonal influences appeared to be absent and consequently had no effect upon employment.

The employment curve for women followed very closely that of men in the total group of iron and steel manufacturing, except for 1917 and 1918.

The proportion of women workers increased during the war years and after the war remained higher than it had been before.

The employment of women was not so adversely affected by strikes as was that of men. During the great steel strike in 1919 women's employment declined by an amount that was small in comparison with the decrease of men, so that the result was an increase in the proportion of women workers.

The employment curve of women tended to be more sensitive than that of men. It often rose comparatively higher during periods of advancing activity and declined comparatively lower during periods of depression. In almost every movement shared by the employment curves of both men and women, that of women rose or fell with comparatively greater sharpness.

During the period 1914-1924 there were in the iron and steel industry many improvements in machinery, many introductions of labor-saving devices. Consequently, for the same or a greater production toward the end of the period the employment curve did not rise so high as it had done in the earlier years.

BOLTS, NUTS, WASHERS, AND RIVETS

The manufacture of bolts, nuts, washers, and rivets not made in rolling mills is not a large branch of the iron and steel industry, but Ohio has more wage earners thus employed than has any other State.¹¹ Furthermore, it is of more importance as a woman's industry than are most of the others in the group. In 1923, foundries and machine shops were the only establishments employing a greater number of women and screw factories were the only ones in which women formed a larger proportion of the wage earners. In fact, compared with the figures for the iron and steel industry as a whole women appear to be a fairly important factor in this smaller group, as in 1914 they formed 17.3 per cent and in 1924 they were 17.5 per cent of the total employees.

In spite of the small number of establishments reporting in the group classified as manufacturing bolts, nuts, washers, and rivets (from 15 to 30) there is a very striking similarity between the general trends of employment in this industrial

¹¹ U. S. Bureau of the Census. Biennial Census of Manufactures: 1923, p. 423.

group and those for all iron and steel. In the smaller group the fluctuations both up and down are more extreme than for the larger, but the shape of the two curves, for the total employees, is remarkably similar. This is not so, however, when the trends for men and women are considered separately. The relative importance of the two sexes in the manufacture of bolts, nuts, etc. does not seem to have altered to any significant extent as it has done in the entire industry. The greater proportion of women in the smaller group naturally would result in a closer resemblance between the curve for women and the curve for all employees, but an even more potent factor in bringing about this similarity probably is the small number of establishments reporting and the consequent homogeneous character of the entire classification.

On the whole, the total curve in the manufacture of bolts, nuts, etc. could be accepted as a very reliable indication of the trend for each sex. The only period during which there appear marked differences in trend for the men and the women is the year 1918, when the men's employment stayed practically on a level throughout the year while women's increased considerably. This difference was anticipated in 1917, when men's employment decreased slightly and women's increased, and it is due, of course, to the war. From the late months of 1917 the employment of women increased until by the end of 1918 their index had about reached that of the men, a condition that had not existed since 1914.

The depression of 1920-21 did not affect the women in this industry quite so severely as it did the men, although trends for the two sexes were very similar. Decreases for the women began a couple of months earlier than for the men and the recovery of the women in 1921 began a month later.

SCREWS, MACHINE AND WOOD

Fewer workers were employed in the manufacture of screws than in most of the industries of the iron and steel group for which the Ohio employment figures were secured. However, the figures for this group are given separate consideration here because of the fact that in Ohio women form a larger proportion of the workers than in any other industry of the iron and steel group. Several branches employ a larger number of women than does the manufacture of screws, but the State employment figures show that in 1924 more than a third of all the wage earners in screws were women. Furthermore, according to the census of 1923 Ohio has more people employed in manufacturing machine screws than has any other State in the Union.¹²

Figures for this industry are available for all the years from 1914 to 1924 except 1915, when too few establishments reported to justify publishing separate figures. From the records of these 10 years there is no indication of a repeated seasonal movement in activity. Although there were years in which there was a rather wide range between minimum and maximum employment, these same variations did not tend to recur year after year but rather were due to cyclical fluctuations that varied in character from year to year.

The figures for 1914 are scarcely comparable with any of the other years for which reports were made. More establishments reported during that year than in any other and the minimum employment of men in 1914 was more than twice the maximum employment of men in any other year. The probable explanation of this has been discussed elsewhere in the report (see p. 10). In this industry, therefore, it is more satisfactory to start comparisons with 1916. In the graph showing fluctuations from month to month based on the 1914 average the changes in men's employment in the later years appear less important because of the fact that the number for the base year was very high in comparison with the other years.

The chief value of the curves for this very small group is as an illustration of the violent fluctuations and deviations from the general trends in the larger group that may be expected when a classification includes so few establishments. In a classification that covers only from three to eight establishments, employing only from 68 to 337 women over the 11-year period, the fluctuations of the curve of employment necessarily are violent and can not be considered as indicative of any but very local situations. It is apparent that in these few establishments there were great irregularities in the employment of women and that these irregularities did not affect the men, whose employment was steadier. Even so, however, study of the trend of employment within each year indicates a certain general similarity in a number of years. Women apparently increased and

¹² U. S. Bureau of the Census. Biennial Census of Manufactures: 1923, p. 427.

decreased more rapidly than did men and their increases were likely to come after and their decreases before those of men.

The numbers included probably are too small to shed much light on the effect of the war and the depression of 1920-21 on the relative trends for the two sexes. The curves for this group should be used merely as an example of the greater sensitiveness of women's employment than men's and the violent irregularities that can be looked for when the figures are so small that the effect of any local situation is not minimized by the counteracting influence of conditions in other localities.

THE MANUFACTURE OF TEXTILES

Textiles is the manufacturing group that employs the largest number and next to the largest proportion of women wage earners. In this group as a whole an average of more than 26,000 women were employed in 1924, and those women formed 66.1 per cent of all the wage earners in the group. The curves of employment in textile manufacturing illustrate, therefore, the very opposite of the situation that is shown in the manufacture of iron and steel and their products, where the women employed in 1924 amounted to only 2.9 per cent of the total employees.

The textile group as a whole, however, does not yield especially significant information when considering the differences in trend of men's and women's employment and the factors that influence these differences. For the classification "textiles" includes not only the various stages in the manufacture of the products ordinarily included under that designation but their products—articles made from cloth. The list of industries included under this classification is as follows:

Awnings.
Tents and sails.
Bags, other than paper.
Buttonholes.
Carpets and rugs.
Clothing, men's.
Clothing, women's.
Cordage, twine, lute, and linen goods.
Cotton goods and small wares.
Custom tailoring, men's and women's.
Dyeing and finishing textiles.
Flags, banners, and regalia.
Furnishing goods, men's.
Gloves, cloth.

Hats and caps, other than felt, straw, and wool.
Horse clothing.
Hosiery and knit goods.
Mattresses, pillows, and cotton felts.
Millinery and lace goods.
Oilcloth and linoleum.
Shoddy.
Silk and silk goods.
Upholstering materials.
Waste.
Wool pulling.
Woolen, worsted, and wool-felt goods.
Textiles, not otherwise specified.

It is evident, with a knowledge of the great diversity of products within this group, that the curves showing trends of employment will show little that is significant in the likeness or unlikeness between the trends of men's and of women's employment in textile manufacturing.

Examination of the curves for this industrial group reveals an astonishing degree of similarity between the employment trends for the two sexes. In no other of the groups studied is there so close a resemblance in the trends of employment for men and women. It is possible that this marked resemblance may be due in part to a tendency when men are in the minority for their employment to follow closely the development of women's employment, but more probably the similarity is due to the combination of individual industries, with conflicting trends, into the larger classification.

The possibility of such a balancing effect is well illustrated by the lack of indication of distinct seasonal trend for either sex in the curves for all textiles. In none of the years reported did the textile group show marked seasonal fluctuation. In 8 of the 11 years the number of men employed during the lowest month was 85 per cent or more of the maximum employment for the year, while for women the percentage was at least that high in 7 years. For both men and women the greatest difference between minimum and maximum employment came in 1920 and was due to the general business depression rather than to sharp changes of a seasonal character.

During most of the other years there tended to be two peaks of employment, spring and fall, but the contrast with the slack months was not startling. Probably this tendency is due primarily to the prominent part that the clothing industry forms of the larger textile group. The figures for textiles are the result of combining those for industries that have marked busy and slack seasons at certain times of the year with others whose seasons are in direct contrast or just miss of coinciding, as well as those that show no tendency for brisk and slow months to succeed each other in the same order each year. The spring and fall

seasons for women's clothing normally begin before those of men's clothing, while hosiery and knit goods have a single extended season with a tendency for employment to be at its lowest in December, January, and February, and the manufacture of cloth gloves shows no regular seasonal movement in employment. Scrutiny of seasonal changes in other subindustries that employ considerable numbers of workers indicates the variety of conditions that exists within the textile group. The manufacture of millinery and lace goods has two definite busy seasons, but ordinarily the spring season comes earlier than in the two main clothing groups, while the two busy seasons in custom tailoring come somewhat later than in the ready-made-garment industry. The manufacture of cordage, twine, jute, and linen and the manufacture of woolen, worsted, and wool-felt goods show very little seasonal variation. These examples indicate the way in which some industries tend to balance others within the same group and to lessen the extent of fluctuation in the textile group as a whole. It is probable that a person out of work because of the slack season in one branch of the textile classification is able to secure work in another branch whose busy season is on when he is out of work. Thus the combined figures really fail to indicate the seriousness of the fluctuations.

Taking the textile groups as a whole, apparently the war had little effect on the employment of either men or women. Here again it is probable that this is due to the combination of conflicting figures for various groups. However, it is interesting to see that for this group as a whole the only marked fluctuation of employment came as a result of the depression of 1920-21, when employment for both men and women started to decrease in April, 1920, and reached a low point in January of the following year. From the middle of 1923 on there was a tendency to a decrease in employment but it was not nearly so severe as the decrease in 1920. In both cases the decreases applied alike to men and women. There was also a short slump in employment at the close of the war, in the last months of 1918, but the amount lost was rapidly regained during the latter half of 1919 and employment for both men and women reached a high point in the early months of 1920.

For this industrial group the curve for the total gives an almost completely accurate picture of the trends for either sex. As a significant indication of the trends for an industrial group, however, the curves for all textiles combined probably are not of great value, as the classification covers too varied a group to be fitted into an apparently limited industrial classification, while at the same time it does not include a sufficiently great variety of products to make the classification representative of a broader and more generally significant grouping.

The clothing industry.

Among the varied industries that are included in the classification of textiles by far the most important is the manufacture of men's and women's clothing. The manufacture of men's clothing employed in the year 1924 an average of 13,139 wage earners, of whom 70.6 per cent were women. This was not far from one-third of all the wage earners included in the textile group, and the women in the manufacture of men's clothing formed more than one-third of the women wage earners in the larger classification. Closely allied to the manufacture of men's clothing is the manufacture of women's clothing, and although it does not rank so importantly a very considerable proportion of the wage earners in textiles are employed in the manufacturing of women's clothing. In 1924 the average employment in this industry was 4,748, of whom 73.4 per cent were women, and this was 11.8 per cent of all wage earners in textiles. These two industries form outstanding examples of the so-called women's industries, and, as such, examination of their employment curves should throw much light on whether or not the similarity indicated in the all-textiles curves between the trends for the two sexes can be considered typical for these more limited, but far more significant, classifications.

For there are certain conditions that are characteristic of the clothing trades. In the first place, small manufacturing units prevail. In 1914 there were 14,953 establishments in the United States engaged in these industries, 85.2 per cent of which employed not more than 50 wage earners, almost two-thirds employing not more than 20. Only 24 establishments in all had more than 1,000 employees.¹⁴ Establishments in Ohio have been, in general, of greater size than those in New York or in the United States as a whole.

¹⁴ U. S. Bureau of the Census. *Census of Manufactures: 1914*, vol. 2, p. 177.

The manufacturing units are not in the hands of great corporations. On the contrary, a large proportion of the plants belong to or are under the control of individuals. Of the 5,564 women's clothing establishments in the United States in 1914, 42.9 per cent were under individual control, 16.8 per cent were operated by corporations, and 40.2 per cent were under other forms of ownership, such as partnerships, cooperative associations, etc. Of the 4,830 men's clothing establishments in the country in 1914, 52.2 per cent, or more than half, were under individual control, 14.8 per cent were operated by corporations, and 33 per cent were under other forms of ownership.¹⁴

Among these many small establishments there is little teamwork. Lack of organization in the industry, lack of cooperation among the manufacturing units and among the various markets, were named by one of the leading men's clothing trade journals¹⁵ as being responsible in part for the sorry plight of the industry in the years of business depression beginning in 1920. This authority also said that the clothing industry was the only important one without a central, organized system of technical and business information, which accounted largely for the crudities of the business. The many independent manufacturers have not been governed by a clear and comprehensive purpose that would have enabled them to control certain conditions to the benefit of their industry.

A third characteristic of the men's and women's clothing industries is that they employ a larger proportion of women than of men as wage earners. Over 68 per cent of the average number of wage earners in 1919 were women.¹⁶

Fourth, in the needle industries at least, the number of highly skilled workers is small. Most of the operations require a degree of skill that is easily acquired.¹⁷

Fifth, the clothing industries are seasonal, some of them highly so. Since most people buy their clothes for the summer in April and May and their winter clothes in October and November, the industries that supply this clothing naturally are seasonal industries, working to capacity during the months just previous to the buying seasons, then slowing down until the approach of the next season causes renewed activity.

In the men's clothing industry in Ohio the employment figures for 1914-1924 show that February, March, and April were months of increasing employment, the increase sometimes beginning earlier, in January, sometimes extending later, into May. After a period of decreased employment, activity recommenced, and the months of August, September, and October witnessed increasing employment, which sometimes reached its height in November.

In the women's clothing industry the Ohio employment figures show that January to March was the period of greatest activity, in preparation for the spring buying season, the second peak of employment being reached in July, August, or September. Frequently from 1,000 to 1,500 more workers were employed at the height of the season than during the dullest month preceding or following it.

From these figures it is evident that the two busy seasons in the women's garment industry tend to occur earlier than the corresponding seasons in the manufacture of men's clothing and to be more sharply defined.

This is true in Ohio because the men's clothing industry in this State does a good deal of special-order business, in which the manufacturer sells directly to the individual who wears the suit, so that he gets his orders only a short time before the wearing season.

The manufacture of men's clothing tends to be less sharply seasonal than that of women's clothing. In each of the nine years for which data were supplied by the Ohio Division of Labor Statistics, except two, the per cent that minimum employment was of maximum was higher for men's clothing than for women's, indicating that employment was steadier and did not suffer such large increases and decreases as did employment in the women's clothing branch.

This is accounted for originally by the different demands that men and women have in buying clothes. Men's garments have become standardized along certain lines that change little from season to season, while women's garments change a great deal.¹⁸

The differences in the seasonal character of the two industries and the demand that they make on their men and women wage earners would not appear, therefore,

¹⁴ U. S. Bureau of the Census. *Census of Manufactures: 1914*, vol. 3, pp. 179, 188.

¹⁵ *Clothing Trade Journal*. July, 1924. Editorial. New York.

¹⁶ U. S. Bureau of the Census. *Fourteenth census: 1920*. vol. 9, *Manufactures*, 1918, p. 1143.

¹⁷ *See Experience with Trade Union Agreements—Clothing Industries*. National Industrial Conference Board. Research Report No. 36. The Century Co., New York. June, 1921. p. 8.

¹⁸ Bryner, Edna. *The Garment Trades*. Survey Committee of the Cleveland Foundation. Cleveland, Ohio. 1916. p. 29.

where figures are combined for the two. Instead, the tendency would be to flatten out the curve so that the seasonal tendency for both industries would appear to be much less marked. It is because the seasonal character of the clothing industry presents such problems from the standpoint of both men and women workers that the employment figures showing trends for the two sexes are especially important. In studying these figures, moreover, it is well to bear in mind that in respect to the seasonal problem the clothing industry is in a better situation in Ohio than in many other localities, and the difference in trends for the two sexes resulting from seasonal demands therefore would be less apparent.

Manufacturers of men's and women's clothing in Ohio have made determined efforts to bridge over the dull seasons and to make employment more constant throughout the year. It was said in 1918 that Cleveland appeared to be the only women's clothing manufacturing center of any significance in which certain methods were applied successfully for the regularizing of employment.¹⁹

Dovetailing of products is the principal method adopted. There are several forms of this. One form is the manufacturing of simpler or lower-priced garments during the slack season. This is possible because the seasons for products in the lower grades do not coincide with those for goods in the higher grades.

Another form of dovetailing is used by some firms that manufacture several different lines of goods. One house makes eight lines of lighter garments for women and shows practically no seasonal fluctuation.

Manufacturing one other line at such times as will fill in the slack season of the principal line is a third form of dovetailing. The dress and waist factory that supplemented this line with petticoats was an early example.

The manufacture of garments for stock is still another type of dovetailing. For this purpose there is selected a garment so staple and so much in demand that it can be made without regard to style or season. The foremost example of this is the blue serge suit.²⁰

One large Cleveland men's wear house makes the suit during slack periods when last season's contracts have been filled and before orders have come in for the next season. The entire force is then engaged in making blue serge suits, lighter weight for summer and heavier weight for winter. There are six weeks in the fall and eight weeks in the summer thus occupied.²¹

A policy adopted by some Ohio firms to regularize employment is that of extensive advertising of a few specific styles. This advertising creates a large and permanent demand for a few styles and thus enables firms to manufacture in advance of sales without incurring great business risks.

Some firms have adopted the policy of demanding longer delivery dates, to obviate the necessity of temporary short-time expansion.

Another method used is that of engaging in some contract work for an allied trade during the slack season of the year, and of giving the overflow during the busy season to contract houses in order to avoid putting additional people on the pay roll.²²

The Clothing Trade Journal for May, 1924, speaks of the wonderful results obtained by two firms from specializing on a few lines in place of the old-fashioned endless diversity of styles and models. It does not, however, disclose where the firms are located. The paper says:

A complete line of 150 models reduced to 24; another cut from 60 to 8; 30 to 60 layers cut at one time, instead of as few as 3 or 4 under the old system; overhead reduced one-tenth and production and selling costs one-third; prices lowered, sales doubled, profits increased; production continuous the whole year around; salesmen on the road 12 months of the year; number of customers from two to seven times greater than before—these are some of the remarkable benefits reaped.²³

There are two large clothing firms in Cleveland, one of which may have been described in the paragraph above, that have been very successful in achieving continuity of employment. One of them, manufacturing men's clothing, had had in 1921 continuous production of from 45 to 51 weeks a year for several years. This result was secured by standardizing products, adjusting them to a large class of consumers who valued durability and service above style. By concentrating its advertising on this product, by giving proper inducements to its retail distributors in return for their accepting deliveries over an extended period

¹⁹ Emmet, Boris. Labor Survey of Cleveland Cloak Industry. U. S. Bureau of Labor Statistics. Monthly Labor Review, August, 1918. p. 221.

²⁰ U. S. Department of Labor. United States Training Service. Training Workers in the Women's Cloak, Suit, and Skirt Industry. Bul. 17. 1919. pp. 67-68.

²¹ Bryner, Edna. The Garment Trades. Survey Committee of the Cleveland Foundation. Cleveland, Ohio. 1916. p. 78.

²² Emmet, Boris. Labor Survey of Cleveland Cloak Industry. U. S. Bureau of Labor Statistics. Monthly Labor Review, August, 1918. p. 222.

²³ Clothing Trade Journal. May, 1924. p. 71. New York.

instead of at the opening of the season, the plant managed to have continuous work.

The other firm manufactures women's garments. This company has closely coordinated its selling policy with its production policy under scientific management. It follows the rule of "selling what it makes" instead of "making what it sells." Months before the selling season it determines the number and kinds of garments it wants to make the following season in order to keep its plant at capacity production. Designs are approved and quantity manufacture is begun. The company has inspired its retailers with confidence in its judgment, the reliability of its promises, and the value of its merchandise. Its salesmen are given their quota and expected to sell it. Usually they do so. They are helped because the goods of the company are sold under a trade-mark, widely known to the public through national advertising. In the long run the firm is eminently successful in maintaining production 51 weeks in the year, one week, during which workers have a vacation with pay, being devoted to plant repair.²⁴

The unions in their agreements with employers have attempted always to do what they could to distribute employment more evenly throughout the months of the year. They have made equal distribution of work and no overtime during the dull season part of their contract. They have constantly endeavored to raise wages to such an extent that the annual income of a garment worker would enable him to maintain his family in comfort and decency, considering that most of the workers are either totally or partially unemployed about 21 weeks yearly. They have tried to reduce the hours of work so as to make room for the employment of a larger number of workers who otherwise would be unemployed.²⁵

There was inaugurated in 1921 in Cleveland an agreement between the union and employers in the women's clothing industry under which the employers guaranteed to the workers a certain number of weeks of employment each year. This is discussed in greater detail below, under the heading "Cleveland plan."

Although equal distribution of work in dull seasons is the rule, in many cases it becomes necessary finally to lay off some workers. In Cleveland several firms have a regular method of laying off so as to work as little hardship as possible. "One method is to distribute the lay-off among the workers, each being laid off from four to six and one-half weeks, one or two weeks at a time. * * * Another method is to lay off the workers in proportion to the period of service they have had with the firm, those longest with the firm having 100 per cent of employment during the year. Some firms maintain that the extra workers they take on in busy seasons are only makeshifts, not of a grade of skill that would warrant keeping them."

In Cleveland methods of laying off are supplemented sometimes by devices to assist workers over the dull seasons. "In one establishment the workers are paid a regular weekly wage, and account is kept of what they do at piece rates. What they make above their regular weekly wage is held back each week and paid in a lump sum at the end of the season to tide them over the dull period."²⁶

The results of these various methods of regulating employment in Ohio are apparent in a study of the regularity of employment in the women's ready-to-wear-garment industry undertaken by the United States Bureau of Labor Statistics in 1915. This study gives a comparison of regularity of employment in this industry as it occurred in Cleveland, New York, Chicago, and Boston. This survey used variation in the amount of pay roll from week to week as the index of unemployment. The average weekly pay roll for the year, found by dividing the annual total pay roll for the establishment by 52, was taken as the standard, 100 per cent.²⁷

In the cloak, suit, and skirt industry the greater irregularity in the trade in New York was found to be very marked. Cleveland showed the greatest regularity of employment, with Boston ranking second, Chicago third, and New York fourth. Cleveland's range of variation from the average weekly pay roll was 74 per cent, as compared with 121 per cent in New York. The number of weeks during which the variation was at least 20 per cent amounted to 21, as compared

²⁴ Stone, N. I. *Continuity of Production in the Clothing Industry*. The American Labor Legislation Review. March, 1921. pp. 29-31.

²⁵ Reisberg, Elias. *Combating Seasonal Unemployment in the Women's Garment Industry*. American Federationist. September, 1927. pp. 1078-1083.

²⁶ Bryner, Edna. *The Garment Trades*. Survey Committee of the Cleveland Foundation. Cleveland, Ohio. 1916. pp. 76-78.

²⁷ U. S. Bureau of Labor Statistics. *Regularity of Employment in the Women's Ready-to-Wear-Garment Industries*. Bul. 183. 1916. pp. 11-12.

with 38 in New York. Violent fluctuations occurred in only two weeks of the year, as compared with eight weeks in New York.

The report said that Cleveland should rank next to New York in irregularity if specialization were the only cause of irregularity, since the Ohio city was second to New York in the extent to which its manufacturers confined themselves to the one broad line of cloaks, suits, and skirts. But Cleveland had two steadying factors—the somewhat cheaper quality of the goods made and the method of selling goods.²⁸

This difference in method of selling was described as follows:

New York City is, as far as women's garments are concerned, what is technically called a "buying" market; that is, the goods are sold on the premises of the manufacturer to buyers who come for the purpose of purchasing. Cleveland, on the other hand, is a "selling" market; that is, the goods are disposed of by traveling salesmen who secure orders from buyers outside the city. These salesmen make every effort to secure orders as far in advance of the season as possible, a method that diminishes the manufacturer's risk and tends to regularize production.²⁹

In the dress and waist industry, Cleveland showed greater regularity of employment than did New York, but less than did Boston, while its position in regard to Chicago could not be exactly determined.³⁰

Other factors that undoubtedly were partly responsible for the greater regularity of employment in Cleveland were the relatively larger size of establishments in Ohio than in the country as a whole and the greater proportion of regular factories as distinguished from contract shops, for it was brought out in the Bureau of Labor Statistics survey that large-scale production tends to regularize employment and that steadier employment is found in regular factories than in contract shops. Data on the size of establishments and the proportion of regular factories in the women's clothing industry will be found in the section of this report devoted to the women's clothing industry.

Although no study is available comparing regularity of employment in the men's clothing industry in Ohio with that of other States, all the evidence tends to show that employment in this industry has been steadier in Ohio than in New York or many of the other clothing centers. Among the facts pointing to this conclusion are the following: Seasonal variations shown by the curve of employment from 1914 to 1924 are very slight; establishments in Ohio are of relatively larger size than in the country as a whole, much larger than in New York City, where most of the firms are of medium size or small, the industry being particularly in the hands of small manufacturers;³¹ Ohio has a larger proportion of regular factories and a smaller proportion of contract shops than are found in the United States as a whole; in a survey made in Cleveland of 15 of the largest manufacturing industries, the men's clothing industry led all the others in regularity of employment.

This greater regularity in the clothing industries of Ohio in comparison with other localities should be borne in mind constantly when the Ohio figures showing trends of employment for men and women wage earners are studied. If the seasonal curve is more accentuated for women than for men in Ohio, it may be supposed that an even greater difference will appear between the seasonal trends for the two sexes elsewhere.

THE MEN'S CLOTHING INDUSTRY

The men's clothing industry in 1914 ranked seventeenth among the industries of Ohio according to value of product and thirteenth according to number of wage earners employed.³² In 1919 the industry took fifteenth place according to both value of product and number of wage earners.³³

Cincinnati and Cleveland are the two great centers in the State for the making of men's clothing. Cincinnati employed in 1923 one-half of all the men's clothing workers in Ohio, and Cleveland more than one-third,³⁴ so that over five-sixths of the men's clothing made in the State was manufactured in these two cities. The percentage of women employed in making men's clothing is high. In fact, this industry can be called one of the outstanding women's industries. In Ohio, during the period from 1914 to 1924, there were about 70 per cent of

²⁸ U. S. Bureau of Labor Statistics. *Regularity of Employment in the Women's Ready-to-wear Garment Industries*. Bul. 183. 1916. p. 78.

²⁹ *Ibid.*, p. 66.

³⁰ *Ibid.*, p. 80.

³¹ U. S. Department of Commerce. Bureau of Foreign and Domestic Commerce. *The Men's Factory-Made Clothing Industry*. Miscellaneous Series, No. 34. 1916. p. 145.

³² U. S. Bureau of the Census. *Census of Manufactures: 1914*. vol. 1, p. 1148.

³³ U. S. Bureau of the Census. *Fourteenth census: 1920*. vol. 2, *Manufactures*, 1919. p. 1142.

³⁴ U. S. Bureau of the Census. *Biennial Census of Manufactures: 1923*. pp. 1404, 1406.

women workers to about 30 per cent of men workers. Because of this great preponderance of women and because of the extremely seasonal character of the work the figures showing trends of employment for the two sexes will illustrate the effects of some very important factors.

Since size of establishment has its relation to regularity of employment, and since form of ownership throws some light upon size of establishment, it is of interest to examine the prevailing forms of ownership in the industry.

The percentage of men's clothing establishments owned by corporations is slightly higher in Ohio than for the country as a whole, for in the same year, 1919, almost three-tenths of the establishments were in the hands of corporations as against one-fifth in the United States. Almost one-half were owned by individuals and one-fourth by other forms, including partnerships. Furthermore, 66.9 per cent of all the men's clothing workers in Ohio were employed in corporate-owned factories.³⁵

In 1914 the average number of wage earners to an establishment (found by dividing total average number of wage earners by number of establishments) was 39 in Ohio, 28 in New York, 27 in Massachusetts, 59 in Illinois, and 20 in Pennsylvania.³⁶ In 1923 the average was 75 in Ohio, 26 in New York, 33 in Massachusetts, 92 in Illinois, and 35 in Pennsylvania.³⁷

From this it is seen that Ohio and Illinois continued to report larger establishments than did the other States foremost in the manufacture of men's clothing.

This fact, that the men's clothing factories of Ohio tended to be of larger size than those of the rest of the country, should have had its influence in making employment in this industry somewhat steadier in Ohio, since greater regularity of employment has been found to exist in larger plants.

Regularity of employment also depends to a certain extent upon whether the establishment is a regular factory or a contract shop.

In 1923 Ohio had a larger proportion of regular factories than had the United States as a whole. Of the men's clothing establishments in Ohio, 63.8 per cent were regular factories, whereas of men's clothing establishments in the United States 59.6 per cent were regular factories. In Ohio 36.2 per cent of the establishments were contract shops, whereas in the United States 40.4 per cent were contract shops.³⁸

This fact of having a larger proportion of regular factories, combined with that of having, in general, shops of larger size and a larger proportion owned by corporations, should make employment in the men's clothing industry in Ohio more regular than in the country as a whole.

Another and a very important factor in stabilizing employment in the clothing industries is the extent of trade-union organization among the workers. The history of the employment of trade-unionism in this industry in Ohio therefore is of great significance in connection with a study of trends of employment.

Prior to 1914 the United Garment Workers had jurisdiction over the men's clothing and shirt industries. However, its membership had always been uncertain and small in these trades, whereas it kept a fairly steady membership in the overall industry. In 1914 the Amalgamated Clothing Workers of America split from the United Garment Workers and claimed jurisdiction over the men's clothing and shirt industries.

With the Amalgamated, unionism spread rapidly in the men's clothing industry. The union was accepted in New York, Chicago, and Rochester in 1919, a year in which a series of strikes occurred. By 1920 the Amalgamated wielded a preponderating influence in these three cities and in most of the other men's clothing centers. It has become a highly effective industrial union, with a membership increased to 170,000. During the prolonged period of depression in the clothing industry, beginning late in 1920, the Amalgamated lost heavily in number of members, but by 1923 it showed a slight increase.³⁹

Cincinnati and Cleveland were two men's clothing markets that remained persistently nonunion. In 1918 Cincinnati was not in "the column of organized clothing centers."⁴⁰ In 1924 it was reported that the union's attempts to organ-

³⁵ U. S. Bureau of the Census. Fourteenth Census: 1920. Manufactures, 1919, vol. 8, p. 110, and vol. 9, p. 1160.

³⁶ Ibid. Census of Manufactures: 1914. vol. 2, p. 180.

³⁷ Ibid. Biennial Census of Manufacturers: 1923. p. 288.

³⁸ Ibid., pp. 282, 288.

³⁹ Weisman, Leo. The Growth of American Trade Unions, 1880-1923. National Bureau of Economic Research. New York. 1924. pp. 50-52. Also Gilbertson, H. S. Meeting the Labor Problem in the Clothing Industry. Administration, February, 1923, pp. 181-189.

⁴⁰ Amalgamated Clothing Workers of America. Documentary History, 1914-1920. (Section 1916-1918.) p. 128.

ize the Cincinnati market met with distressingly little success. All forces appeared to combine to keep the market nonunion. The press was hostile, organized labor unfriendly, the city authorities not averse to using their influence against the union. A very important factor in the market was the large firm of A. Nash Co. By refusing to accept the union, this company contributed to "the prestige of Cincinnati as a flourishing nonunion center."⁴¹

However, during all these years, 1914 to 1924, the Amalgamated was striving to create a permanent, effective union organization of the Cincinnati market. Many strikes and lockouts occurred in the course of the long struggle. There was a hard-fought strike of about three months in 1919, following which collective-bargaining agreements were signed between the Amalgamated and a number of individual clothing firms. The union did not remain at peace very long, for a series of strikes and lockouts was brought into Cincinnati in 1920 by the open-shop wave that was then sweeping the country. Agreements were renewed with a number of houses in 1922, but on the whole the union's attempts to organize the market made little headway until the close of 1925, when an agreement was effected between the Amalgamated and the A. Nash Co.⁴²

The Cleveland market has been only partly unionized, and only since 1920, though a few agreements were signed with individual houses between 1915 and 1920. The first collective agreement in Cleveland was the indirect result of a strike terminated in February, 1920, by acceptance of the decision of an arbitrator, who recommended that an agreement be concluded. Such an agreement was made in October, 1920, between the Cleveland Clothing Manufacturers' Association and the Amalgamated Clothing Workers of America. The contract followed the Chicago contract of 1919 in the main, but omitted the trade board. It was for one year. Among the nonunion shops in Cleveland are two very large ones.

Most of the strength of the United Garment Workers is now in the overall industry, and this union has agreements with a number of individual firms in Cincinnati and Cleveland.⁴³

An examination of the Ohio employment figures shows that the proportion of women employed in men's clothing in that State during the nine years for which statistics are available remained extremely close to 70 per cent throughout. The lowest such figure was for 1914, at 68.2 per cent, or 1.8 points below 70. The year 1915 showed the next lowest percentage, 69.4. In all the other years except 1921 and 1923, which reported the highest proportions of 71.2 and 71.6 per cent, respectively, the average proportion of women remained almost stationary at a few tenths of a point above 70 per cent.

The proportion of women varied very slightly within the year. In only one of the nine years did it vary by as much as 3.4 points, and that was in 1921, the year of depression. Within the other eight years the proportion varied by less than 2 points; indeed, in one year it changed by only eight-tenths of a point.

Thus the proportion of women was far more constant in the men's clothing industry than in the women's clothing industry, where in four of the years the proportion varied by 2 to 4 points and in two of the years by as many as 6.4 points. Furthermore, throughout the period 1914-1924 the figure showing proportion of women for the year varied by only 3.4 points in the men's clothing industry though in the women's clothing industry, where the tendency was for the proportion to increase, it varied by as much as 13.7 points.

The curve of employment for wage earners in men's clothing does not at all resemble that for wage earners in all manufacturing industries in the State, except during 1924, the last year of the period. The chief difference, at once apparent, is that employment in men's clothing, instead of rising as high as 80 points above the 1914 average during the war years 1915-1918 and the two years immediately following, as did employment in the total of all wage earners in manufacturing, remained close to the 1914 average until the end of 1919. In 1920 it did go above this average, as high as 20 points above it, declining in December to below the average, but in this same year employment of wage earners in all manufacturing was for the most part about 80 points above the average, declining by December to about 25 points above the average.

In 1915 orders from Europe for war materials, giving a vast incentive to the production of all kinds of metals, caused the curve of employment in all manu-

⁴¹ Amalgamated Clothing Workers of America. *Documentary History, 1924-1926*. pp. 17-18.

⁴² The Amalgamated in Cincinnati: A Record of Struggle and Achievement. Cincinnati Joint Board, Amalgamated Clothing Workers of America. May, 1923. pp. 23-30.

⁴³ U. S. Bureau of Labor Statistics. *Development of Collective Bargaining in the Men's Clothing Industry in the United States*. Monthly Labor Review. June, 1923, pp. 1069-1108.

facturing to rise sharply almost from the beginning of the year, but the rise of employment in men's clothing was not nearly so great. This industry was a branch of the purely domestic trade, which was repressed earlier in the year by uncertainty and the fear of involvement in war. At the end of the year the industry was somewhat stimulated by a wave of purchasing that followed large earnings in industrial centers and the harvesting of record food crops.

Employment figures for men's clothing are lacking for 1916 and 1917, but considering the fact that the curves for 1915 and 1918 showed no tendency to rise above the 1914 average there is no reason to suppose that they rose far above it, if at all, in 1916 and 1917. In 1916 there was record activity throughout, due to the enormous European orders for war materials, especially food and munitions. The year was conceded by all to have been prosperous; wages were high. It is evident, from reports in Bradstreet's, that clothing manufacturers in Ohio did a business considerably above that in 1915. Without doubt, therefore, the curve of employment in 1916 was somewhat higher than in 1915. In 1917, when the United States itself was at war, the same influences were active as in 1918, and in all probability the curve of employment in men's clothing was very much the same as in 1918, that is, close to the 1914 average.

Total employment was, of course, at a high level during 1917 and 1918, because of the feverish activity in supplying food, munitions, and other manufactures to the armed forces. Men's clothing, however, was an industry that was not stimulated by the war; at any event, not in Ohio. To understand this one must realize that the clothing industry is one that suffers readily from changes in the prosperity of the consumer. "Clothing in the bulk may be a necessity, but the garments that are actually sold include a large proportion of semiluxuries, which are out of time of crisis."⁴ During the war people were forced to economize. Numerous campaigns were carried on to induce economy where it was not forced. People were urged to wear old clothes and to be proud of doing so. It is noted in Bradstreet's many times in the course of these two years that the buying of wearing apparel had failed to broaden in a degree commensurate with employment and record wages, presumably because of high prices dictating economies, because of economy campaigns, and because saving by small investors for the purpose of participating in the Liberty loans was quite general. Everywhere there was a turning away from luxuries and a tendency to forego anything that was not essential. Also, of course, there were many thousands of young men who had little or no use for civilian garb. For these reasons 1917 and 1918 saw greatly slackened production in men's civilian clothing.

It is true that the uniform trade partly filled the breach. But, though considerable work in the making of uniforms, overcoats, overalls, and other clothing for the Army was carried on in Ohio, the great bulk of these contracts were placed in New York, Philadelphia, and Baltimore.⁵ In all the long list of war contracts of \$100,000 and over placed from April 6, 1917, to June 1, 1919, covering 1,116 pages, there were only seven contracts with men's clothing houses in Ohio, and two of these were for the manufacture of canteen or breech mechanism covers. It can be assumed that Ohio did not enjoy any larger share of the clothing contracts of less than \$100,000. It was stated in the Daily News Record of January 1, 1928, that little uniform work was being done in Cleveland in proportion to the contracts being executed in the New York market.⁶

Another factor that reduced employment in the clothing industries, even when there were plenty of orders, was the inability of manufacturers at times to get as much material as was needed. Firms frequently had contracts but no goods, and they were even forced to lay off workers. As an example of the inability of companies to deliver on contracts, one men's clothing house of Cleveland received on June 7, 1917, a contract of \$148,685 for the making of wool service coats. Eight months later, on February 2, 1918, the greater part of the contract was canceled, leaving the net contract as amended at only \$25,000.⁷

During the first half of 1919 employment in the men's clothing industry in Ohio was still below the 1914 average, although employment in the total of all wage earners in manufacturing was far above such average. The war, with its

⁴ Budish, Jacob M., and Soule, George. *The New Unionism in the Clothing Industry*. Harcourt, Brace, and Howe. New York. 1920. p. 32.

⁵ United States House of Representatives. 66th Cong., 1st and 2d sessions. Select Committee on Expenditures in the War Department. Hearings. War contracts of \$100,000 and over. Serial 1, vol. 2, pp. 674-1791. Washington, 1919.

⁶ Daily News Record. Jan. 1, 1918. Fairchild publications, New York.

⁷ United States House of Representatives. 66th Cong., 1st and 2d sessions. Select Committee on Expenditures in the War Department. Hearings. War contracts of \$100,000 and over. Serial 1, vol. 2, p. 1114. Washington. 1919.

emphasis on economy, was over, but high prices were holding down sales of clothing; merchants were slow in placing orders, anticipating price reductions; the mildest winter in years discouraged the buying of heavy winter apparel; there was a good deal of unemployment, especially in centers that had specialized in war work. Throughout the country wearing apparel was one of the least favorably situated industries as regards new business coming in.

However, from about the middle of 1919 employment in the men's clothing industry rose sharply to well above the 1914 average and remained there till December, 1920. It was remarked in Bradstreet's that consumptive demand seemed to have singled out lines that had been under the ban of war necessity and that men's and women's clothing of all kinds was leading in activity. The pent-up demand of the past years and buying by returned soldiers were incentives. There were large crop yields, sold at high prices. The country was prosperous and labor well employed. Men's clothing manufacturers of Cincinnati and Cleveland reported business very good, their only difficulty being to secure enough labor and material to fill all the orders.

At the close of 1920 and in the early part of 1921 employment in men's clothing declined again below the 1914 average. In doing so it reflected the general business depression prevailing at the time. As the chairman of the board of arbitration in the clothing industry in Chicago said in one of his decisions, "The clothing industry is a very dependent one; very dependent upon the ups and downs in the general business situation."⁴⁸

The fact that employment in men's clothing rose again above the 1914 average by the spring of 1921 and remained at varying heights of from 20 to 40 degrees above this average during the remaining years of the series is due not so much to improved business and better demand for clothing as to conditions in the industry peculiar to Ohio.

One factor that alone accounted for much of the increase was the men's clothing firm of A. Nash Co., famed for its application of the "golden rule" policy. This establishment was said by the Amalgamated⁴⁹ to have been by all odds the most important and the largest factor in the Cincinnati market between 1920 and 1924. Organized in 1918, when it employed 29 persons, it grew by leaps and bounds until in 1925 it reached a volume of business of more than \$12,000,000 and employed several thousand wage earners. The number of wage earners was said to have been about 6,000 in 1924.⁵⁰ Since the average of the total number of wage earners in the industry in Ohio in 1924 was 13,139, it can easily be seen what a determining influence the growth of this firm had upon the employment curve of the industry during these years.

Another condition responsible for much of the increase in employment from 1921 to 1924 was the fact that Cincinnati, as a clothing market, was known as the place favorable to nonunion settlement. The Amalgamated had failed to unionize the market, although it had some agreements with separate houses. The influence of the A. Nash Co. was felt here, too. The Amalgamated has said⁵¹ that with regard to unionization Mr. Nash "maintained a policy of silence and inaction. . . Whatever his intentions, the leadership of his firm in the market contributed to add to the prestige of Cincinnati as a flourishing nonunion center."⁵²

In 1924 the employment curve for men's clothing in Ohio declined somewhat, very much as did that for all manufacturing, influenced by the general business depression of 1924, but it still remained well above the 1914 average, due to the factors outlined.

In the course of almost every year certain seasonal variations in the curve of employment of the men's clothing industry will be noted. The spring peak is reached anywhere in the five months February to June, and the fall peak in the five months August to December. The two points of minimum employment are reached in April, July, or August and in December or January. However, it will also be noted that the seasonal variations are not sharp nor decided, sometimes being barely perceptible or conceded by other movements. This is in marked contrast to the sharp seasonal fluctuations shown in the women's clothing industry, and is an evidence of the greater regularity of employment in the manufacture of men's clothing.

⁴⁸ Amalgamated Clothing Workers of America. Research Department. *The Clothing Workers of Chicago, 1910-1922*. Chicago Joint Board. 1922. p. 180.

⁴⁹ *Ibid.* Documentary History, 1924-1926. p. 17.

⁵⁰ *The Golden Rule's Success in Business*. Literary Digest. July 12, 1924. p. 30.

⁵¹ Amalgamated Clothing Workers of America. Documentary History, 1924-1926. p. 18.

⁵² In 1925, however, an agreement was effected between the Nash company and the Amalgamated. See *The Amalgamated in Cincinnati: A Record of Struggle and Achievement*. Cincinnati Joint Board, Amalgamated Clothing Workers of America. May, 1926. p. 102.

Perhaps the most significant thing about the trends of employment in the men's clothing industry is the degree to which they are similar for men and women. Both the long-term and seasonal trends are remarkably alike for the two sexes. The curve for the total wage earners indicates within a very few degrees the trend for each sex. It does not show the very slightly increased superiority gained by the women by the end of the 11-year period, and it does not show a somewhat more rapid and more extensive decrease among the women wage earners at the time of the depression of 1920. With these exceptions, however, it can be accepted as a remarkably accurate presentation of the situation for the two sexes.

THE WOMEN'S CLOTHING INDUSTRY

The women's clothing industry in Ohio is not so important as the men's clothing industry, but nevertheless it is an important employer of women and illustrates trends of employment for the two sexes in an industry that has very distinct seasonal problems and in which the proportionate employment of women has increased during the 11-year period.

In Ohio in 1919 the industry ranked eighteenth according to the value of its product and twentieth according to the total number of wage earners employed,⁵³ so it does not assume a leading place among the State's industries. From the standpoint of women, however, it has a more significant rank, for in 1924 the Ohio employment figures show that only seven of the individual manufacturing industries considered in this study employed more women workers and only three employed a larger proportion of women.

In this industry, as in the manufacture of men's clothing, the seasonal trends are somewhat modified in Ohio by local conditions that make for greater steadiness in employment. For example, in Ohio a far larger proportion of the women's clothing establishments were owned by corporations and a much higher percentage of the workers were employed in such establishments than in the United States as a whole. In 1919, 50.3 per cent of the Ohio establishments were owned by corporations and 30.3 per cent by individuals, while in the United States the figures were 21.3 per cent corporate owned and 35.5 per cent individually owned establishments. Of the wage earners in the industry in Ohio, 78.5 per cent, but in the United States only 37.5 per cent, were in the corporate-owned factories, and only 12.3 per cent in Ohio, but 24.4 per cent in the United States, were in plants owned by individuals.⁵⁴

Since factories owned by corporations tend to be of larger size and to be governed by better accounting systems, and since greater regularity of employment is found in such establishments, the fact that Ohio has a far higher proportion of corporate-owned establishments and of workers employed in such establishments than the United States as a whole should indicate, other things being equal, that employment in the women's clothing industry is more regular in Ohio than in the country as a whole.

The proportion of workers employed by corporations is smaller in the women's clothing industry than in the men's clothing industry for the United States; namely 37.5 per cent as compared with 56.2 per cent. However, the opposite is true in Ohio, where 78.5 per cent of the wage earners making women's clothing are found in corporate-owned factories, against 66.9 per cent of the wage earners making men's clothing.⁵⁵

Another factor making for greater steadiness of employment in the manufacture of women's clothing in Ohio is the larger size of the establishments. In 1924 the small shop dominated the women's clothing industry as compared with the period 10 years earlier. In size of establishment the industry had become decentralized and the small shop had gained on the large shop in a striking degree. This was in direct contrast to the tendency in the men's clothing field, where the average size of establishment increased during these years. Although there was a distinct decrease in size of establishment in Ohio as well as in the rest of the country during this period, the average number of employees per establishment remained considerably higher than in other States.

In Ohio the average number of wage earners to an establishment in the industry, found by dividing the total average number of wage earners by number of establishments, decreased from 58 in 1914 to 45 in 1923; in New York State it decreased

⁵³ U. S. Bureau of the Census. Fourteenth Census: 1920, vol. 9, *Manufactures*, 1919. p. 1142.

⁵⁴ *Ibid.*, vol. 8, p. 110, and vol. 9, p. 1160.

⁵⁵ *Ibid.*

from 28 to 16; in Massachusetts, from 30 to 19; in Illinois, from 34 to 20; in Pennsylvania, from 36 to 24.⁵⁵

The trend toward decentralization in the industry, in marked contrast to the trend in industry generally, is explained by the growth of submanufacturing and the fact that there were practically no changes in the technical conditions of manufacture from 1914 to 1924. Most important of all, the experiments made in scientific management and in efficiency schemes have shown that the large shop based on division of labor becomes merely a collection of small shops under one roof and that the advantages of such a large shop can be offset by the small shops in a number of ways.⁵⁷

The encroachment of the small shop upon the larger one in the various branches of the industry has gone the furthest in the older centers of the industry, namely, New York, Chicago, Philadelphia, Boston, Cleveland, and Baltimore. In the smaller communities to which the various branches of the industry migrated between 1914 and 1924 the trend was to establish medium-sized and at times even fairly large shops.⁵⁸ It will be noted from the census figures quoted that from the beginning to the end of the period 1914-1924 Ohio had women's clothing establishments of larger average size than had the other States of importance in the industry. The fact of the superior size of Ohio's establishments is brought out by other census statistics, as follows: Ohio had in 1914 a smaller proportion of women's clothing establishments employing as few as 50 wage earners than had the United States as a whole, namely 75.9 per cent against 84.8 per cent; it had a larger proportion of such establishments employing 51 to 250 wage earners than had the United States as a whole, namely 19.4 per cent against 14.3; it had a larger proportion employing 251 to 1,000 wage earners than had the United States, namely 4.1 per cent against 0.9 per cent. Also, Ohio had one establishment employing over 1,000 wage earners, and as only one establishment employing over 1,000 wage earners was reported for the United States, that one must have been in Ohio.⁵⁹

In Cleveland, though the average number of workers per cloak-and-suit shop decreased from 126 in 1914 to 66 in 1921, it still remained over three times greater than the average for New York, which was 19 workers per cloak-and-suit shop in 1921.⁶⁰

About one-fifth of the cloak-and-suit houses of Cleveland employed in 1918 about two-thirds of the total workers in that branch of the industry, indicating a considerable degree of concentration.⁶¹

Ohio had, in 1923, a much larger proportion of regular factories and a much smaller proportion of contract shops than had the United States as a whole. Of the women's clothing establishments in Ohio 92 per cent were regular factories, whereas of women's clothing establishments in the United States only 77.4 per cent were regular factories. In Ohio only 8 per cent of the establishments were contract shops, whereas in the United States 22.6 per cent were contract shops.⁶²

The final factor that should be considered in determining to what extent the employment fluctuations in a State or locality are typical of a broader field is the extent to which the industry is organized and operating under trade-union agreements.

It is in the clothing industry that perhaps the most conspicuous examples are found of trade agreements tending to regularize wages and employment and it is quite possible that in a well-organized locality trends of employment may appear far less fluctuating and seasonal than would be the case where no such trade agreements exist.

The International Ladies' Garment Workers' Union is the one great union exercising jurisdiction over the women's clothing industry.

The women's dress trade, in general, using lighter materials and requiring less skilled work, employs great numbers of inexperienced girls and has been very largely unorganized, even in New York City where the union is powerful. Women's coats and suits, however, require expert tailoring and are made very largely by men.

⁵⁵ U. S. Bureau of the Census. *Census of Manufactures: 1914*, vol. 2, p. 189; *Biennial Census of Manufactures: 1923*, p. 303.

⁵⁶ Levine, Louis. *The Women's Garment Workers*. B. W. Huebsch, Inc. New York. 1924. p. 415.

⁵⁷ *Ibid.*, p. 394.

⁵⁸ U. S. Bureau of the Census. *Census of Manufactures: 1914*, vol. 1, p. 1174, and vol. 2, p. 177.

⁵⁹ Levine, Louis. *The Women's Garment Workers*. B. W. Huebsch, Inc. New York. 1924. p. 395.

⁶⁰ Emmet, Boris. *Labor Survey of Cleveland Cloak Industry*. U. S. Bureau of Labor Statistics. *Monthly Labor Review*, August, 1918, p. 229.

⁶¹ U. S. Bureau of the Census. *Biennial Census of Manufactures: 1923*, pp. 297, 304.

The cloak-and-suit industry had been highly organized, and the union controlled the trade to a very large extent in Cleveland, Cincinnati, and Toledo.⁴³ In Cincinnati, effective collective bargaining on a large scale existed in the women's ready-to-wear industries. In 1918 more than two-thirds of the cloak and suit workers of the city were members of the union and worked under union conditions. They were organized in three locals of the International, and all trade agreements with employers were entered into in the name of the joint board that connected the locals.

There was no unionism to speak of in the house-dress, kimono, and white-goods trade. The branch last named, however, was of comparatively little importance, since of the 1,600 garment workers estimated to be in Cincinnati in 1918, about 1,200 were in cloaks, suits, and skirts and only 400 in house dresses, kimonos, and white goods.⁴⁴

In Cleveland, the International Ladies' Garment Workers' Union, beginning with an unsuccessful strike in 1911, attempted for several years to build up an organization but made little progress. In the summer of 1918 a strike was called, the demands including a higher wage and machinery for adjusting disputes. As some of the firms affected were engaged on Army contracts, Secretary of War Baker intervened, and the questions at issue were submitted to a board of referees. The awards of the referees were observed down to December 24, 1919, when an agreement was signed by the Cleveland Garment Manufacturers' Association, the International Ladies' Garment Workers' Union, and the joint board of six locals, and the board of referees. The agreement was to run for two years. It was renewed in December of the years 1921, 1922, and 1923.⁴⁵ Thus the women's clothing market in Cleveland was nonunion until the close of 1919, after which it was for the most part a union market, though there were some women's clothing firms, including the largest, that did not sign the agreement with the union.

The agreement entered into on December 24, 1919, between the Cleveland Manufacturers' Association and the Cleveland joint board of locals of the International Ladies' Garment Workers contained several new and unusual features. In fact, the agreement marked a revolution in the relations of Cleveland manufacturers and union members. The new understanding was well expressed in the preamble of the agreement:

In view of their primary responsibility to the consuming public, workers and owners are jointly and separately responsible for the cost and quality of the service rendered. It is agreed that cooperation and mutual helpfulness are the basis of right and progressive industrial relations, and that intimidation and coercion have no proper place in American industry.⁴⁶

Under the agreement a permanent board of referees was established, with power to adjust matters that could not be settled between the parties, to provide periodical wage scales for the industry, and to see that the agreement was fairly observed. The agreement contained many customary arrangements in the industry, such as the following: Inside subcontracting was eliminated, each worker to be employed directly by the firm; workers in outside shops were to receive union wages; during slack periods work was to be distributed among all workers as equitably as possible; strikes and lockouts during the agreement were forbidden unless authorized by the referees.⁴⁷

The most serious friction between employers and employees in the women's clothing industry is caused by the alternation of busy and slack seasons. In the slack season it is thought to be in the employer's interest to lay off as many as possible; in the busy season it is sometimes said to be to the interest of workers to decrease their rate of production as much as possible to keep them at work for a longer period. In an effort to eliminate this seasonal difficulty, week work was to be introduced into the shops under the agreement, but week work that was based on "fair and accurate" standards of production. The distinctive feature of the agreement was the provision that the union and the association should jointly engage and pay industrial engineers to establish by means of time studies fair and accurate standards of average production for a minimum weekly wage. Each worker was to receive additional pay for every unit he or she produced in excess of the minimum standard.⁴⁸

⁴³ National Industrial Conference Board. *Experience with Trade-Union Agreements—Clothing Industries*. Research Report No. 28. June, 1921. p. 98.

⁴⁴ Emmet, Boris. *Trade Agreements in the Women's Clothing Industries of Cincinnati and St. Louis*. U. S. Bureau of Labor Statistics. *Monthly Labor Review*, March, 1918, p. 54.

⁴⁵ National Industrial Conference Board. *Experience with Trade-Union Agreements—Clothing Industries*. Research Report No. 28. June, 1921. pp. 90-91. Also, Levine, Louis. *The Woman's Garment Workers*. 1924.

⁴⁶ Mack, William J. *Industrial Peace in Cleveland*. *The Nation*. Feb. 16, 1921, p. 262. New York.

⁴⁷ U. S. Bureau of Labor Statistics. *A Adjustment of Labor Disputes in the Garment Industries in Cleveland*. *Monthly Labor Review*, July, 1920, p. 65.

⁴⁸ Mack, William J. *Industrial Peace in Cleveland*. *The Nation*. Feb. 16, 1921, p. 263. New York.

In the two years that followed, the distinctive features of the agreement were developed and put into operation. The report of the industrial engineers was submitted in March, 1920, and in June of that year one of the plans of the engineers was put into operation. In July a joint bureau of standards was organized, maintained by the manufacturers and the workers.

At a hearing in April, 1921, a scheme for continuity of employment in the industry was adopted by the board of referees, and became the first experiment of its kind in America. The board declared that the time had come to "break up one of the vicious features of seasonal industry by providing for as much continuity of employment as possible."

Under the plan adopted, all regular workers were guaranteed 41 weeks of employment during the year. If a worker failed to receive such employment he was entitled to two-thirds of his minimum weekly wage for every week during which he was unemployed. The employer's liability was limited to $7\frac{1}{2}$ per cent of his direct labor cost for the guaranty period. To provide for the payment of unemployment benefits, each employer was to deposit each week a sum equal to $7\frac{1}{2}$ per cent of his pay roll for the week. All the guaranty funds were placed in the custody of the impartial chairman.⁶⁹

With the adoption of this scheme the essential features of the Cleveland plan were complete. After six months' operation of the employment-guaranty plan it was said that in four plants the full 20 weeks' employment guaranteed was provided and the fund was returned to the employers. A number of establishments saved the greater part of their guaranty deposit. In four plants the entire fund was consumed and in two of these the fund was insufficient and a deficit was incurred.⁷⁰ According to the manufacturers' association—

The result of the plan has, without any doubt, been an increase of work in the shops. It is true that the work has often been increased at a loss to the employer and it is a question whether some manufacturers would not rather take a loss through the employment fund. However, the incentive is direct and appealing, and appears to be the only way in which the evil of unemployment can be eradicated or limited in this seasonal industry.⁷¹

The agreement was renewed in 1921, 1922, and 1923, but only after some friction and maneuvering and due to the patient efforts of the board of referees. In May, 1923, the workers were granted an increase in wages. But in December, 1923, the board reduced the obligations of the employers. The guaranteed period of employment was reduced to 40 weeks, and the compensation of the workers during the time of unemployment was reduced from two-thirds to one-half of the minimum weekly wage. Employers were to give a surety bond to the board of referees each week for an amount equal to 10 per cent of their direct labor pay roll. The worker was not to draw on the fund until he had accumulated the full 12 weeks of permissible unemployment, but during his lay-off he could work at another job and still draw his unemployment pay. Each employer was permitted to employ once in each of the two seasons, for a period not exceeding four weeks, additional "casual" workers not to exceed 20 per cent of the workers in any department of his plant.

Also under the agreement going into effect on January 1, 1924, the joint board of standards was abolished and thus was admitted to have failed of its purpose. The failure was due to several causes, one of them being the personal element, in that the time-study men were young and inexperienced. In general, the workers felt that the standards were neither fair nor accurate and that the machinery was unduly influenced by the employers. Nevertheless, the idea of maintaining production standards under joint control of the workers and the employers still remained part of the working agreement in Cleveland.

As to the employment-guaranty feature of the Cleveland plan, Dr. Levine believes it has given the most satisfactory results.

This scheme was prompted by the two-fold purpose of making the industry partly responsible for the enforced idleness of the workers and of supplying an incentive to the employers to reduce seasonality of employment. Both purposes have been achieved in marked measure. The employers have devised various ways of keeping their employees working to the fullest extent possible. They have increased their sales force, and have cut garments ahead of sales. They have added other lines of work and have accepted orders to be made up in idle time without any profit and at times even at a slight loss. * * *

The Cleveland plan has given the workers and the employers in the Cleveland garment market six years of unbroken peace. In the words of the board of referees, it has passed out of the period of experiment.

⁶⁹ Levine, Louis. *The Women's Garment Workers*. B. W. Huebsch, Inc. New York, 1924. pp. 370-372.

⁷⁰ U. S. Bureau of Labor Statistics. *Experience Under Employment Guaranty in Cleveland Garment Industry*. Monthly Labor Review, August, 1922, pp. 365-368.

⁷¹ *Ibid.*, p. 388.

Still, its future depends on many uncertain factors. * * *. If the Cleveland market should continue to shrink in size and importance, it may soon not have a wide enough basis for the maintenance of the "plan".¹⁷

In considering what effect the operation of the Cleveland plan might have in reducing irregularity of employment as shown by the Ohio employment figures, it must be remembered that the number of wage earners who were directly or indirectly affected by the Cleveland plan was only about 3,000, while the total average number of wage earners in the industry reported to the Ohio Division of Labor Statistics was 6,091 in 1921, 5,671 in 1922, 5,883 in 1923, and 4,748 in 1924. The largest plant in Cleveland did not sign the agreement. The number of workers employed by the 28 firms that signed the agreement with the union in 1919 was about 3,000, but this decreased to about 2,000 between 1919 and 1924.¹⁸

In spite of the fact that the agreement under the Cleveland plan covered around 45 per cent of the workers reported by the Ohio employment figures, the curves of employment do not show that the seasonal trend in the industry was very greatly diminished.

In 1914 there were two periods of depression, during which the number of wage earners was reduced 10.9 and 21.9 points, respectively, below the average of that year, while the peak of employment in February was 16.4 points above the yearly average and in August it was 7.8 points above that figure.

During 1921, 1922, 1923, and 1924 such peaks and depressions were somewhat lessened but not eliminated. By 1924 the numbers for the times of greatest employment were increased only 12.6 and 2.8 points above the average for the year, while for the slack periods the numbers declined 6 and 17.6 points below such average.

The following tabulation shows, for the two periods of greatest and least employment, the deviation from the average for the year.

High and low employment in women's clothing

(Average for the year equals 100)

1914	1915	1916 and 1917	1918	1919	1920	1921	1922	1923	1924
116.4	107.1	(¹)	107.4	99.6	116.7	108.6	108.8	106.9	112.6
89.1	91.0	(¹)	97.1	90.5	98.3	101.8	94.0	101.5	94.0
107.8	107.8	(¹)	108.1	110.4	100.5	109.6	104.8	108.5	102.9
78.1	88.3	(¹)	88.3	96.5	71.0	83.9	82.0	82.4	82.4

¹ Figures not available.

It is evident from this tabulation that more detailed employment figures would be needed if the exact effect of this agreement were to be measured. In spite of the fact that the majority of workers affected by this agreement were men, and although the Ohio employment figures show a considerable degree of seasonal fluctuation, the curves indicate a great similarity in the seasonal trends for the two sexes. From this standpoint the total figures seem to give a very reliable indication of the trend for each sex.

But the total figures do not indicate a conspicuous change that had come about in the employment of women in this industry. In Ohio, from 1914 to 1924, the proportion of women employed in the women's clothing industry showed a distinct tendency to increase. The average proportion of women in 1924 was 73.4 per cent, 11.6 points higher than the proportion in 1914, which was 61.8 per cent. An increase was recorded in each year of the series (1916 and 1917 not being reported) except 1920 and 1924.

There is no evidence that the war and the drafting of men was responsible for any of the increase in the proportion of woman labor. As already stated, figures for 1916 and 1917 are lacking, but in 1918, the year in which the greatest substitution of women for men in factories took place, the proportion of women was very little higher than in 1915. In 1918 the average for women was 67.4 per cent of the total, only nine-tenths of a point higher than in 1915, three years previous.

¹⁷ Levine, Louis. *The Women's Garment Workers*. B. W. Huebner Inc., New York, 1924. pp. 372-380.

¹⁸ *Ibid.*, p. 374.

This was not so large an increase as was usually shown from year to year throughout the rest of the period. And 1919, the year of demobilization and the return of men to industry, showed an increase of 1.3 points over 1918 in the percentage of women employed. Furthermore, the average number of both men and women workers was lower in 1918 than in 1915. It may be concluded that war conditions caused no increase in the proportion of women employed in the industry and may even have contributed to the decline in their actual numbers, although a decline in number of workers was a continuing tendency in the women's clothing trade. This conclusion is in harmony with the recognized fact that the trend of woman labor during the war was away from the older food and fabric industries to the newer war-implement industries.

During the first part of the period under discussion, from 1914 to 1920, the percentage of women employed in the manufacture of women's clothing was lower than the percentage in the manufacture of men's clothing. But, with the tendencies noted for women wage earners to increase proportionately in the women's clothing industry and to remain at a more or less fixed proportion in the men's clothing industry, the average proportion of women employed became very nearly identical for the two industries in 1921: It was 71 per cent for women's clothing and 71.2 per cent for men's clothing. After that, from 1922 to 1924, with the same tendencies continuing, a higher percentage of women were engaged in the making of women's clothing than of men's.

An explanation that may account for the lower proportion of women in women's clothing during the earlier years of the period is that the making of men's garments was more fully standardized and subject to fewer changes than the making of women's garments, with the result that more women could be used to advantage; and that styles in women's garments were more changeable and their manufacture not so routine in nature, with the result that fewer women could be used than in the older and more stable branch of the work.¹⁴ The increased proportion from 1922 to 1924 of women engaged in making women's clothing is believed to be largely due to a trend toward the making of lower priced garments in Ohio, lower priced garments allowing greater standardization.

Although the long-term trend for the men and women seems to have been slightly different, resulting in an increased employment of women in the later years, there is only one time during the entire period when the trends for the two sexes appear very different. This was during the last part of 1920, when women's employment decreased more rapidly, and then in the first half of 1921 women increased more rapidly and did not experience the seasonal depression that occurred for men. Obviously this was the result of the business depression that occurred during those years. This depression apparently affected the women's clothing industry a few weeks earlier than the men's clothing industry, but the more rapid decline of women was typical of both. In the recovery from the depression the women's curve quickly resumed its normal position in relation to the men's in both industries.

On the whole, although no very extensive deviations from the total curve occurred for either sex, differences in trend were somewhat more marked in women's than in men's clothing and very much more marked than in all textile manufacturing.

Hosiery and knit goods.

A third group of industries classified as textiles in which women form a very important proportion of the wage earners is the manufacture of hosiery and knit goods. Only two of the industrial groups for which the Ohio employment figures were secured (cloth gloves and cigars and cigarettes) showed a proportion of women wage earners larger than the 76.6 per cent they formed of the wage earners in hosiery and knit goods.

In this industry, the curve of the total wage earners follows more closely the trend for women than the trend for men. In fact, the curve for the total can be considered to be accurately representative of the trends and fluctuations of women's employment throughout the 11-year period. This is due, of course, to the great numerical superiority of women among the wage earners. The men's curve does not deviate very greatly from the curve for the total but shows certain minor differences.

Periods of depression apparently hit men's employment somewhat less severely than they did women's. This is probably because, in this industry, many of the men's occupations might be classed almost as part of the "overhead." In

¹⁴ Bryner, Edna. *The Garment Trades*. Survey Committee of the Cleveland Foundation. Cleveland, Ohio. 1916. p. 19.

periods of depression work usually can be reduced easily by laying off the women, but the men, being already employed practically to the minimum extent, can not be let out without a greater dislocation of the plant.

Women constituted the major part of the working force, but in all the years since 1914 they formed a slightly smaller percentage of the total than they did in that year. In 1914 women were 80.8 per cent of all workers, on the average, while in 1924, 76.6 per cent of the employees were women. This probably is due to the increased employment of men on full-fashioned knitting machines.

Cloth gloves.

Of the industries studied under the textile classification, the group that employed the largest proportion of women in 1924 (86.5 per cent) was the manufacture of cloth gloves. Although the number of women employed was not very large (2,017 was the average for 1924), in no other industrial group for which figures were obtained was there so great a proportion of women among the wage earners. This industrial group, therefore, offers a conspicuous example of the validity of total employment figures as an indication of trends for women when women are in the majority among the employees. It is evident from a study of the employment curves for the seven years (from 1918) for which figures were obtainable, that the curve for the total number of wage earners is almost identical with that for the women only. The curves showing the fluctuations within each year indicate even more strongly than in the manufacture of hosiery that women's employment is more sensitive than men's. Apparently women are taken on more rapidly during periods of rising employment and laid off more rapidly when employment is decreasing. This probably is due—also as in hosiery manufacturing—to the fact that this is a woman's industry and men are employed to a minimum extent at all times, so that reductions in the staff of men are not made so easily as are reductions in the women's end of the work. During the entire 7-year period, apparently, there has been little permanent change in the relative importance of the two sexes, although during the period of rising employment in 1919 and 1920 the men's index increased slightly more than the women's, and in 1922 and 1923 the increases for the men lagged a little behind those of the women. On the whole, however, the developments were very similar for men and women. Unfortunately, the figures for this industry were not procurable before 1918, so the effect of the war on the relative trends of the two sexes can not be estimated. The effect of the depression of 1920-21, however, is indicated in the curves. Apparently this depression hit cloth glove manufacturing a few months later than hosiery, and more than half a year later than the manufacture of women's clothing. In fact, the beginning of the depression in the manufacture of cloth gloves coincides more nearly with the depression in iron and steel manufacturing than with the other textile groups for which figures were secured. The fact that cloth gloves are work gloves, used by trainmen and men in various forms of heavy manual work, explains this similarity in trend between the manufacture of cloth gloves and that of iron and steel.