

331.823:396(73)

**UNITED STATES DEPARTMENT OF LABOR**  
**BULLETIN OF THE WOMEN'S BUREAU, No. 102**

**INDUSTRIAL INJURIES TO WOMEN**  
**IN 1928 AND 1929**  
**COMPARED WITH INJURIES TO MEN**

**Pamphlet**

363.  
110  
973  
MET

[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

W. N. DOAK, SECRETARY

WOMEN'S BUREAU

MARY ANDERSON, Director

BULLETIN OF THE WOMEN'S BUREAU, No. 102

INDUSTRIAL INJURIES TO WOMEN  
IN 1928 AND 1929  
COMPARED WITH INJURIES TO MEN

BY

MARIE CORRELL



UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON: 1933

363.110973 MET

UNITED STATES DEPARTMENT OF LABOR

WOMEN'S BUREAU

BULLETIN OF THE WOMEN'S BUREAU, No. 101

INDUSTRIAL INJURIES TO WOMEN

IN 1928 AND 1929  
COMPARED WITH INJURIES TO MEN



UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON, 1929

3800115498X

## CONTENTS

	Page
Letter of transmittal.....	v
Introduction.....	1
Summary.....	1
Extent of published data classified by sex.....	3
Character of published data classified by sex.....	9
Number of women injured and the proportion they formed of total persons injured, in 15 States, 1927 to 1929.....	10
Extent of disability.....	12
Nature of the injuries received.....	14
Age of injured persons.....	18
Seriousness of injury, by age.....	19
Cause of injury, by age.....	19
Industries in which injuries occurred.....	23
Causes of injuries.....	26
Wages of persons injured.....	30
Appendix—Page references in State reports classifying accident statistics by sex, 1927, 1928, and 1929, used in Tables 1 to 11.....	32

## TABLES

1. Industrial injuries tabulated by sex in 1927, 1928, and 1929, by States.....	11
2. Distribution of injuries to male and female employees by extent of disability, 1928 and 1929.....	13
3. Distribution of injuries to male and female employees by nature of injury, 1928 and 1929.....	15
4. Nature and location of injuries to male and female employees, Illinois, 1928.....	16
5. Distribution of injuries to male and female employees by age of injured, 1928 and 1929.....	20
6. Distribution of injuries to male and female employees by extent of disability and age group, 1928 and 1929.....	22
7. Distribution of injuries to male and female employees by cause and age group, New Jersey, 1928.....	23
8. Industrial distribution of injuries to male and female employees, 1928 and 1929.....	24
9. Distribution of injuries to male and female employees by cause, 1928 and 1929.....	27
10. Cause of injuries to male and female employees, Illinois, 1928 by industry group.....	28
11. Distribution of injuries to male and female employees by weekly wage, 1928 and 1929.....	31

## CHARTS

I. Extent of information on injuries to women for the period 1920 to 1929 in State reports giving the same information for men.....	4
II. Injuries tabulated, minimum period of disability, and employments covered by law, in the 15 States that reported the sex of injured persons in 1928 and 1929.....	9

CONTENTS

Table of contents listing various sections and their corresponding page numbers, including Introduction, Summary, Extent of published data, and various tables.

TABLES

Table of contents for the tables section, listing 11 tables with descriptions of their content, such as 'Industrial injuries tabulated by sex in 1927, 1928, and 1929'.

CHARTS

Table of contents for the charts section, listing two charts: 'Extent of information reported to women for the period 1920 to 1929' and 'Injuries reported during the same period of disability and employment'.

INDUSTRIAL INJURIES TO WOMEN IN 1928 AND 1929 COMPARED WITH INJURIES TO MEN

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR, WOMEN'S BUREAU, Washington, December 21, 1932.

SIR: I have the honor to submit the second of the series of reports by this bureau on the subject of industrial injuries to women. Undertaken in 1930, the series is designed not only to make public the extent to which working women are injured but to call attention to the inadequacy of accident data and the seriousness of their not being reported at least by sex, age, extent of disability, industry and occupation, and cause and nature of accident.

During the period covered by the present report, 1928 and 1929, several States showed an increase in the proportion of the total that were injuries to women. In the three great industrial States of Massachusetts, Pennsylvania, and New York the numbers of women injured in 1929 were, respectively, 5,700, 6,900, and 8,100. Such figures indicate the importance of complete and comparable data, without which no adequate program of accident prevention can be developed.

Grateful acknowledgment is made of the assistance of State officials and other authorities in the collection of this material. The report has been written by Marie Correll, of the division of research.

Respectfully submitted.

MARY ANDERSON, Director.

Hon. W. N. DOAK, Secretary of Labor.

# INDUSTRIAL INJURIES TO WOMEN IN 1928 AND 1929 COMPARED WITH INJURIES TO MEN

## INTRODUCTION

This study is the second in a series of bulletins of the Women's Bureau on industrial injuries. The first report, *Industrial Accidents<sup>1</sup> to Men and Women* (Bulletin 81), analyzed the facts on this subject available in State reports for 1927, or the most recent previous year since 1919. The present study covers the State data available for the years 1928 and 1929.

As the data stand, they furnish important information about injuries to women. There has been no attempt to make complete explanations of the differences in the data and in the trends shown by a discussion of all variations in industries, occupations, laws, and compensation policies in the States, as there is no accurate method of correlating these factors with accident data.

## SUMMARY

Data on injuries classified by sex for one or both of the years 1928 and 1929 are available in published reports of 15 States: Colorado, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Rhode Island, and Wisconsin. As these data cover the accident experience of several industrially important States, the following facts regarding the injury experience of women are significant:

### Number.

Injuries to women were actually and relatively fewer than those to men; women were a smaller proportion of the total number injured than of the total number gainfully employed. Nevertheless, more than 5,000 women's injuries were reported in each of three States in each of the years 1927, 1928, and 1929. The proportions of all injuries reported that were injuries to women ranged from 1.1 per cent in one State to 12.7 per cent in another. The 1929 figures indicate that these proportions are increasing.

### Severity.

With the exception of the most severe injuries—those that cause death or permanent total disability, comprising less than 1.5 per cent of the men's injuries in every State reporting—women's injuries are similar to men's in severity. In the case of both men and women there were slight increases in the severity of injuries in 1929 as

<sup>1</sup> It is customary to use the word "accidents" in referring to injuries to workers, but in this report the word "injuries" is used because it more accurately describes the data, occupational diseases being included in the reports of several States. Although included in the totals, occupational diseases are not discussed here. The available data classified by sex are summarized in a bulletin being prepared by the Women's Bureau, *Occupational Diseases of Women—Their Prevention and Reporting*.

compared to 1928 in three of the four States for which this can be ascertained.

#### Nature.

Analysis of the nature of the injuries received in three States suggests only minor differences in the experience of men and women workers. For both, in each State, bruises, contusions, and abrasions or cuts and lacerations are the types of injuries received by the largest number of workers. Illinois data for 1928 suggest that more of women's injuries than of men's occur to fingers, hands, and arms rather than to other parts of the body.

#### Age.

Large numbers of young people, both men and women, are injured while at work. Much greater proportions of women's injuries than of men's injuries are to young persons. In seven States from one-fifth to more than one-third of the women injured were 20 years of age or under, while the proportions of the men's injuries that were to men in this age group were from one-fourteenth to one-sixth. Another State, with age groupings that are slightly different, shows a similar experience. Data from the four States reporting on extent of disability and age show that the injuries of workers 20 years of age and under were only slightly less serious than those of other workers. According to figures from one State, the only report available, machinery is an especially important cause of accidents to younger workers.

#### Industry.

For both men and women the numbers injured in the manufacturing industries practically always are larger than those in any other industry group. Slightly larger percentages of the injuries occur in this group for women than for men. With the exception of manufacturing, the relative importance of the various industries from the point of view of the number of injuries is different for the two sexes. The group clerical, professional, and personal service ranks second for women, followed by trade, while mining, construction, and transportation are the more important groups for men.

#### Cause.

Machinery and falls cause more of women's than of men's injuries, while falling objects and the handling of objects are more important cause groups for men than for women. Data for the only State providing such figures show that machinery is an especially important cause of women's injuries in manufacturing, while falls cause large proportions of those in most woman-employing industries. Another State's experience is that most of women's serious injuries are due to machinery.

#### Wages.

As would be expected, the wage on which compensation is based averages much less for women than for men. In two States reporting in 1928 on wage and sex, Illinois and Wisconsin, 26 and 34 per cent of the women injured, as contrasted with only 2 and 3 per cent of the men, were earning less than \$15 a week at the time of the injury. In a third State, New York, with wages grouped somewhat differently, 35 per cent of the women and 3 per cent of the men were earning \$15 or less.

## EXTENT OF PUBLISHED DATA CLASSIFIED BY SEX

The published information on injuries to women in the United States is that given in the reports of certain State agencies, usually those administering compensation laws. This information is of two types, for female workers only and classified by sex. Most of the reports are classified by sex, thus furnishing the more valuable type of data. Chart I is a record of all the data published by the States on injuries to women in the period 1920 to 1929. Only data classified by sex are listed in the body of the chart, footnote references being given to special reports for female workers.

During the period 1920 to 1929, 22 States have published some facts on injuries classified by sex. Data are available for every year<sup>2</sup> in the period in the seven States, Colorado, Idaho, Indiana, Kentucky, Massachusetts, New York, and Pennsylvania. Illinois would have constituted the eighth State if its 1929 report had been issued at date of writing this bulletin. The scattered and incompletely analyzed nature of these data is indicated by the fact that only 12 States have correlated sex with age, only 12 with extent of disability, 9 with industry, 7 with cause of injury, 6 with conjugal condition, 5 with wage, and 5 with nature of injury; and even fewer States have published any information on sex and time lost, location of injury, and frequency rate.

The inadequacy of the data published from 1920 to 1927 was discussed in the first report of the Women's Bureau in this series. The present report, using the data available for 1928 and 1929, emphasizes more recent practice.

Published information about the number of women and men injured in industry during one or both years of this period is available in only 15 States—less than one-third of the total number. (See Chart I.) As unpublished data on accidents to women can be secured in only a few other cases, this means that in most States it is not possible to learn how many women each year are being injured. Only 12 States have published facts on injuries to women in 1929, a total that will become 13 when the Illinois report is issued. The significant developments of 1928 and 1929 in the reports of injuries classified by sex (Chart I) are that one State, Michigan for 1929, published such facts for the first time since 1920; two States, Iowa and Pennsylvania, that did not classify their data by sex in 1927, have done so for 1928 and 1929;<sup>3</sup> Missouri and Nebraska, that published such data in 1927, failed to do so in 1928 and 1929; and two other States, New Jersey and Georgia, that classified injuries by sex in 1928, did not do so in 1929.

<sup>2</sup> Maryland excluded because the published data are incomplete for 1922 to 1924.

<sup>3</sup> Pennsylvania, in its report of June, 1931, gives data by sex for all the years from 1916 to 1929.

CHART I.—Extent of information on injuries to women for the period 1920 to 1929 in State reports giving the same information for men <sup>1</sup>

[Asterisk (\*) indicates States giving data for 1928 or 1929. Reports are those available in published form October 1, 1931]

Type of information <sup>2</sup>	Number of States publishing	State <sup>3</sup>	Period covered by published reports <sup>4</sup>	Source			
Number injured.....	22	Alabama.....	1920 to 1922.....	First quadrennial report of Workmen's Compensation Commission, 1919-1922. Annual reports of Industrial Accident Commission, years ended June 30, 1921 and 1922. Annual and biennial reports of Industrial Commission, fourth to eleventh, periods ended Nov. 30, 1920 to 1930. Seventh and eighth annual reports of Industrial Commission, 1927 and 1928. Biennial reports of Industrial Accident Board, second to seventh, periods ended Oct. 31, 1920 to 1930. Annual report of Industrial Commission, year ended June 30, 1921; annual reports of Department of Labor, fifth to twelfth, years ended June 30, 1922 to 1929; and Labor Bulletin of Department of Labor, Vol. VII, No. 12, June, 1928. Annual reports of Industrial Board, years ended Sept. 30, 1920 to 1929. Biennial report of Bureau of Labor Statistics, period ended June 30, 1926; biennial reports of Bureau of Labor, periods ended June 30, 1928 and 1930. Annual reports of Workmen's Compensation Board, years ended June 30, 1920 to 1929. Annual reports of Industrial Accident Commission, sixth to fifteenth, years ended Oct. 31, 1920 to 1929. Annual reports of Department of Industrial Accidents, years ended June 30, 1920 to 1929. Labor and Industry, quarterly bulletin of Department of Labor and Industry, Vol. I, No. 1, December, 1930. Seventeenth biennial report of Department of Labor and Industries, period ended June 30, 1920; biennial reports of Industrial Commission: First and second, periods ended June 30, 1922 and 1924. First annual report of Workmen's Compensation Commission, Jan. 9 to Dec. 31, 1927. Biennial report of Department of Labor, 1926-1927. Industrial Bulletin of Department of Labor, vol. 2, No. 9, September, 1928, and vol. 3, No. 9, September, 1929. Special bulletins of Department of Labor: No. 126, September, 1924, Analysis of workmen's compensation cases closed July 1, 1922, to June 30, 1923; No. 142, March, 1926, Compensation awards year ended June 30, 1924; Compensated accidents, July, 1914, to June, 1922; No. 144, June, 1926, Some recent figures on accidents to women and minors; No. 146, July, 1926, Accidents compensated in year ended June 30, 1925, Cost of compensation; No. 148, January, 1927, Compensation statistics year ended June 30, 1926; No. 157, August, 1928, Compensation statistics year ended June 30, 1927; No. 160, June, 1929, Cost of compensation year ended June 30, 1928; No. 170, [June, 1931], Cost of compensation two years ended June 30, 1930; and Industrial Bulletin of Department of Labor, vol. 6, No. 7, April, 1927; vol. 7, No. 7, April, 1928; and vol. 7, No. 9, June, 1928.			
		California.....	1920 and 1921.....				
		*Colorado.....	1919-20 to 1928-29.....				
		*Georgia.....	1927 and 1928.....				
		*Idaho.....	1919-20 to 1921-22; 1922-1924 to 1928-1930.....				
		*Illinois.....	1920 to 1928 <sup>5</sup> .....				
		*Indiana.....	1919-20 to 1928-29.....				
		*Iowa.....	1925-26; 1927-28 and 1928-1930.....				
		*Kentucky.....	1919-20 to 1928-29.....				
		*Maryland.....	1919-20 to 1928-29 (1922 to 1924, incomplete periods).....				
		*Massachusetts.....	1919-20 to 1928-29.....				
		*Michigan.....	1928-29.....				
		Minnesota.....	1919-20 to 1923-24.....				
		Missouri.....	1927 (period incomplete).....				
		Nebraska.....	1927.....				
		*New Jersey.....	1927 and 1928.....				
		*New York.....	1919-20 to 1928-29.....				
		Frequency rate.....	2		*Pennsylvania.....	1920 to 1929.....	Report of Bureau of Workmen's Compensation, 1920; special bulletin of Department of Labor and Industry, No. 17, 1926, An analysis of compensated accidents to minors for the year 1924; Labor and Industry, monthly bulletin of Department of Labor and Industry, Vol. I, No. 7, November, 1922, Vol. XIII, No. 12, December, 1926, Vol. XVIII, No. 6, June, 1931.
					*Rhode Island.....	1926-27 to 1928-29.....	Reports of Commissioner of Labor for the years 1927, 1928, 1929.
Tennessee.....	1919-20.....			Eighth annual report of Bureau of Workshop and Factory Inspection, 1920.			
Virginia.....	1919-20 to 1920-21; 1921-1923 to 1923-1925. (Figures for 1920-21 include nonfatal cases only; 1921-1923 and 1923-1925, temporary total disabilities only.)			Annual reports of Industrial Commission: Second and third, periods ended Sept. 30, 1920 and 1921; biennial reports of Industrial Commission, periods ended Sept. 30, 1923 and 1925.			
*Wisconsin.....	1923 to 1929. (1923, 1924, 1925 cover injuries by machinery only.)			Labor Statistics, Vol. II, Nos. 1 and 2, January-February, 1924; Vol. III, Nos. 1 and 2, January-February, 1925; Vol. IV, Nos. 4 and 5, April-May, 1926; No. 28, July 28, 1930.			
New York.....	1925-26.....			Industrial Bulletin, vol. 7, No. 7, April, 1928.			
Pennsylvania.....	1924.....			Special bulletin of Department of Labor and Industry, No. 17, 1926, An analysis of compensated accidents to minors for the year 1924.			
Industry.....	9			California.....	1920 and 1921.....	Same as for number injured.	
				*Illinois.....	1928.....	Twelfth annual report of Department of Labor, year ended June 30, 1929.	
				*Indiana.....	1919-20 and 1920-21; 1925-26 to 1928-29.....	Annual reports of Industrial Board, years ended Sept. 30, 1920, 1921, and 1926 to 1929.	
		Kentucky.....	1919-20.....	Annual report of Workmen's Compensation Board, June 30, 1919, to June 30, 1920.			
		*New Jersey.....	1927 and 1928.....	Same as for number injured.			
		New York.....	1924-25 to 1926-27.....	Special bulletin of Department of Labor, No. 144, June, 1926, Some recent figures on accidents to women and minors; and Industrial Bulletin, vol. 6, No. 7, April, 1927, and vol. 7, No. 9, June, 1928.			
		*Pennsylvania.....	1920 to 1929.....	Report of Bureau of Workmen's Compensation, 1920; Labor and Industry, Vol. XIII, No. 12, December, 1926, and Vol. XVIII, No. 6, June, 1931.			
		Tennessee.....	1919-20.....	Same as for number injured.			
		*Wisconsin.....	1926 to 1929.....	Labor Statistics, No. 28, July 28, 1930, and No. 31, Sept. 25, 1930.			
		Cause.....	7	*Illinois.....	1928.....	Same as for industry.	
*Indiana.....	1919-20 and 1920-21; 1925-26 to 1928-29.....			Do.			
*Iowa.....	1925-26; 1927-28 and 1928-1930.....			Same as for number injured.			
*Michigan.....	1928-29.....			Do.			
*New Jersey.....	1927 and 1928.....			Do.			
New York.....	1924-25 to 1926-27.....			Same as for industry.			
Pennsylvania.....	1924.....			Labor and Industry, Vol. XIII, No. 12, December, 1926.			
Nature of injury.....	5			*Illinois.....	1928.....	Same as for industry.	
				*Indiana.....	1919-20 and 1920-21; 1925-26 to 1928-29.....	Do.	
				*Iowa.....	1927-28 and 1928-1930.....	Biennial reports of Bureau of Labor, periods ended June 30, 1928 and 1930.	
		Nebraska.....	1927.....	Same as for number injured.			
		Pennsylvania.....	1920, 1924.....	Report of Bureau of Workmen's Compensation, 1920; Labor and Industry, Vol. XII, No. 5, May, 1925.			
Location of injury.....	2	*Illinois.....	1928.....	Twelfth annual report of Department of Labor, year ended June 30, 1929.			
		Indiana.....	1919-20 and 1920-21; 1925-26 and 1926-27.....	Annual reports of Industrial Board, years ended Sept. 30, 1920, 1921, 1926, and 1927.			

See footnotes at end of table.

CHART I.—Extent of information on injuries to women for the period 1920 to 1929 in State reports giving the same information for men—  
Continued

[Asterisk (\*) indicates States giving data for 1928 or 1929. Reports are those available in published form October 1, 1931]

Type of information <sup>1</sup>	Number of States publishing	State <sup>2</sup>	Period covered by published reports <sup>4</sup>	Source
Extent of disability-----	12	Alabama-----	1920 to 1922-----	Same as for number injured.
		*Idaho-----	1919-20 to 1921-22; 1922-24 to 1928-1930-----	Do.
		*Illinois-----	1920 to 1928-----	Annual report of Industrial Commission, year ended June 30, 1921; annual reports of Department of Labor, fifth to ninth, eleventh and twelfth, years ended June 30, 1922 to 1926, 1928, and 1929; and Labor Bulletin, Vol. VII, No. 12, June, 1928.
		*Iowa-----	1925-26; 1927-28-----	Biennial report of Bureau of Labor Statistics, period ended June 30, 1926; biennial report of Bureau of Labor, period ended June 30, 1928.
		*Maryland-----	1919-20 to 1928-29 (1922 to 1924, incomplete periods)-----	Same as for number injured.
		*Massachusetts-----	1919-20 to 1928-29-----	Do.
		*Michigan-----	1928-29-----	Do.
		*Minnesota-----	1919-20-----	Seventeenth biennial report of Department of Labor and Industries, period ended June 30, 1920.
		*New Jersey-----	1927 and 1928-----	Same as for number injured.
		*New York-----	1919-20 to 1928-29-----	Same as for number injured, with the exception of special bulletin 144 and the Industrial Bulletin, vol. 7, No. 7.
		*Pennsylvania-----	1920 to 1929-----	Report of Bureau of Workmen's Compensation, 1920; Labor and Industry, Vol. I, No. 7, November, 1922, Vol. XVIII, No. 6, June, 1931.
		Virginia-----	1919-20 and 1920-21; 1921-1923 and 1923-1925-----	Same as for number injured.
		Time lost-----	4	Alabama-----
Illinois-----	1925-----			Ninth annual report of Department of Labor, year ended June 30, 1926.
New York-----	1926-27-----			Industrial Bulletin, vol. 7, No. 9, June, 1928.
Virginia-----	1921-1923 and 1923-1925-----			Biennial reports of Industrial Commission, periods ended Sept. 30, 1923 and 1925.
Age-----	12	Alabama-----	1920 to 1922-----	Same as for number injured.
		*Georgia-----	1927-28-----	Do.
		*Illinois-----	1920 to 1928-----	Annual report of Industrial Commission, year ended June 30, 1921; annual reports of Department of Labor, fifth to twelfth, years ended June 30, 1922 to 1929.
		*Indiana-----	1919-20 and 1920-21; 1925-26 to 1928-29-----	Same as for industry.
		*Maryland-----	1923, 1924, 1924-25 to 1928-29 (1923 and 1924 incomplete periods)-----	Annual reports of Industrial Accident Commission, ninth to fifteenth, years ended Oct. 31, 1923 to 1929.
		*Massachusetts-----	1919-20 to 1928-29-----	Same as for number injured.
		Minnesota-----	1919-20 to 1923-24-----	Do.
		*New Jersey-----	1927 and 1928-----	Do.
		*New York-----	1919-20 to 1928-29-----	Same as for number injured, with the exception of the Industrial Bulletin, vol. 7, No. 7.
		Pennsylvania-----	1924-----	Special bulletin of Department of Labor and Industry, No. 17, 1926, An analysis of compensated accidents to minors for the year 1924.
		*Rhode Island-----	1926-27 to 1928-29-----	Same as for number injured.
		*Wisconsin-----	1926 to 1929 <sup>6</sup> -----	Labor Statistics, No. 25, Mar. 14, 1930, and No. 28, July 28, 1930.
Conjugal condition-----	6	*Georgia-----	1927-28-----	Same as for number injured.
		Maryland-----	1919-20 to 1921-22-----	Annual reports of Industrial Accident Commission, sixth to eighth, years ended Oct. 31, 1920 to 1922.
		Missouri-----	1927 (incomplete)-----	Same as for number injured.
		Nebraska-----	1927-----	Do.
		Pennsylvania-----	1920-----	Report of Bureau of Workmen's Compensation, 1920.
		Virginia-----	1919-20 and 1920-21; 1921-1923-----	Annual reports of Industrial Commission: Second and third, periods ended Sept. 30, 1920 and 1921; biennial report of Industrial Commission, period ended Sept. 30, 1923.
Wage-----	5	*Illinois-----	1920 to 1924, 1926, 1928-----	Annual report of Industrial Commission, year ended June 30, 1921; annual reports of Department of Labor, fifth to eighth, tenth, and twelfth, years ended June 30, 1922 to 1925, 1927, and 1929.
		*Indiana-----	1919-20 to 1928-29 <sup>7</sup> -----	Same as for number injured.
		Nebraska-----	1927-----	Do.
		*New York-----	1919-20 to 1928-29-----	Same as for number injured, with the exception of special bulletin 144 and the Industrial Bulletin.
		*Wisconsin-----	1926 to 1929-----	Labor Statistics, No. 28, July 28, 1930.

<sup>1</sup> This chart does not include the following published data on women injured:

- A. Compensation per disability for eye, arm, hand, foot, and leg losses. In report of Workmen's Compensation Bureau, Pennsylvania, 1920.
- B. Machine accidents analyzed according to cities and counties in the State. Wisconsin Labor Statistics, Vol. II, Nos. 1 and 2, January-February, 1924; Vol. III, Nos. 1 and 2, January-February, 1925; Vol. IV, Nos. 4 and 5, April, 1926. Analysis of temporary disability cases to females, 1926, 1927, 1928, in Wisconsin Labor Statistics, No. 25, Mar. 14, 1930.
- C. Fatal accidents classified by industry, conjugal condition, and part of body injured; also blood-poison cases. In report of Workmen's Compensation Bureau, Pennsylvania, 1920; fatal accidents by industry, cause, and nature of injury, 1924. In Labor and Industry, monthly bulletin of Pennsylvania Department of Labor and Industry, Vol. XII, No. 5, May, 1925.
- D. Fatal cases classified by conjugal condition and number of dependents, 1919-20. In second annual report of Industrial Commission of Virginia, 1920.
- E. Special study of 102 accidents to women classified by industry and cause of injury, 1924. In fifth annual report of Court of Industrial Relations, Kansas, year ended Dec. 31, 1924.
- F. Special reports—New York Department of Labor: Some social and economic effects of work accidents to women. A study of 500 women compensated for permanent partial injuries, 1918-20. Classified according to age, wage, occupation, industry, nature of injury, location of injury, cause of accident, manner of occurrence of machine accidents, extent of disability, degree of impairment, proportion of infections, present earning capacity, ability to speak English, schooling, change of employer, experience on machines, and length of time machine operators had been on accident job. Special Bul. 127, November, 1924. An analysis of 100 accidents on power punch presses, 1923-24. Classified by number of establishments, product of plant, and nature and location of injury. Special Bul. 131. New York food-canning accidents, July 1, 1928, to June 30, 1929, cases closed, classified by age and extent of disability in New York Industrial Bulletin, vol. 9, No. 7, April, 1930.
- G. Special study—Cases of anthrax, by industry and extent of disability, 1922 to 1926. In Labor and Industry, monthly bulletin of Pennsylvania Department of Labor and Industry, Vol. XIV, No. 6, June, 1927.

<sup>2</sup> Type of injuries tabulated varies in different States and in some States from year to year.

<sup>3</sup> It should be noted that since 1919 the following 26 States and the District of Columbia have not published any accident data classified by sex: Arizona, Arkansas, Connecticut, Delaware, Florida, Kansas, Louisiana, Maine, Mississippi, Montana, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, West Virginia, Wyoming; and the following additional States did not publish such data in 1928 or 1929: Alabama, California, Minnesota, Missouri, Nebraska, Tennessee, and Virginia. Arkansas, Florida, Mississippi, and South Carolina have no compensation laws.

<sup>4</sup> The following examples illustrate the system used in indicating periods covered: 1920—calendar year; 1920-21—other than calendar year; 1920 to 1929—all calendar years, inclusively; 1920-21 to 1928-29—other than calendar years, inclusively.

<sup>5</sup> Illinois annual report for 1929 not published Oct. 1, 1931. Preliminary figures for 1929 published in Illinois Labor Bulletin, Vol. X, No. 12, June, 1931, and reports on accidents for 6 months, January to June, 1929, classified by sex, in Illinois Labor Bulletin, Vol. VIII, Nos. 8 to 12, and Vol. IX, No. 1, February to July, 1929, not included.

<sup>6</sup> Age of men injured not available for 1929.

<sup>7</sup> Wage for men not given.



*Data on injuries classified by sex published by States for 1928 and 1929*

[Calendar years or fiscal years ending in 1928 or 1929]

States reporting injuries by sex and—								
Number	Industry	Cause	Nature of injury	Location of injury	Extent of disability	Age	Conjugal condition	Wage
1928								
Colo.								
Ga.						Ga.	Ga.	
Idaho					Idaho			
Ill.	Ill.	Ill.	Ill.	Ill.	Ill.	Ill.		Ill.
Ind.	Ind.	Ind.	Ind.			Ind.		Ind. <sup>1</sup>
Iowa		Iowa	Iowa		Iowa <sup>2</sup>			
Ky.								
Md.					Md.	Md.		
Mass.					Mass.	Mass.		
N. J.	N. J.	N. J.			N. J. <sup>2</sup>	N. J.		
N. Y.					N. Y.	N. Y.		N. Y.
Pa.	Pa.				Pa. <sup>2</sup>			
R. I.						R. I.		
Wis.	Wis.					Wis.		Wis.
1929 <sup>3</sup>								
Colo.								
Idaho					Idaho			
Ind.	Ind.	Ind.	Ind.			Ind.		Ind. <sup>1</sup>
Iowa		Iowa	Iowa					
Ky.								
Md.					Md.	Md.		
Mass.					Mass.	Mass.		
Mich.		Mich.			Mich.			
N. Y.					N. Y.	N. Y.		N. Y.
Pa.	Pa.				Pa. <sup>2</sup>			
R. I.						R. I.		
Wis.	Wis.					Wis. <sup>1</sup>		Wis.

<sup>1</sup> Comparable data for men not available.<sup>2</sup> Fatals and nonfatals only.<sup>3</sup> Illinois report not published at date of closing present study, Oct. 1, 1931.

Such important information for accident prevention as the age of the injured, the cause and the nature of the injury, the extent of the ensuing disability, and the industry in which the injury occurred is even more difficult to secure. The accompanying list shows how incompletely analyzed with relation to these factors are the data published in 1928 and 1929. Colorado and Kentucky classified by sex only the total number of injuries. Not more than nine States in one year gave information by sex and any other factor, and that factor was age, in 1928. Although nine States published information on sex and extent of disability for one or both of the two years, only four—Illinois, Maryland, Massachusetts, and New York—gave age and extent of disability cross classified. This is the only cross classification available for more than one State during this period.

For one or both of the years 1928 and 1929 data by sex are available for more than one State on cause (5 States), industry (5), wage (4), and nature of injury (3). From the point of view of the analysis of data by sex it is encouraging to note that Illinois, Iowa, and Wisconsin did more of this in the most recent two years than they had done previously. New York, on the other hand, classified by sex fewer types of information than are so classified in some of its earlier reports.

CHART II.—Injuries tabulated, minimum period of disability, and employments covered by law, in the 15 States that reported the sex of injured persons in 1928 and 1929

[Source: State laws and reports; U. S. Bureau of Labor Statistics, series of reports of compensation laws, Bulletins 272, 332, 379, 423, and 496; and Monthly Labor Review, March, 1930]

State	Period covered by figures tabulated	Injuries tabulated	Minimum period of disability of injuries tabulated	Employments covered <sup>1</sup> by accident-reporting law (marked *) or compensation law (where only injuries under compensation law are tabulated)		Elective or compulsory compensation law (where only injuries under law are tabulated)
				Private	Public	
Colorado	Years ended Nov. 30, 1927, 1928, 1929.	Compensation claims	More than 10 days	All except those having regularly less than 4 employees, farm and ranch labor, private domestic service, and casual employees not in the usual course of employer's business. Voluntary as to excepted employments.	All except elective officials, National Guard, and members of volunteer fire departments. <sup>1</sup>	Election presumed in absence of written notice. <sup>2</sup> Compulsory as to public employees.
Georgia	Jan. 1, 1927, to Dec. 31, 1928	Closed compensable cases	More than 1 week	All except those having regularly less than 10 employees, common carriers engaged in interstate trade [or] commerce the motive power of which is steam, farm labor, domestic service, or employees not in the usual course of employer's business. Voluntary as to excepted employments.	All except public charities	Do. <sup>3</sup>
Idaho	Nov. 1, 1926, to Oct. 31, 1928; Nov. 1, 1928, to Oct. 31, 1930.	do.	do.	All conducted for gain except agricultural pursuits, domestic service, outworkers, casual employment, crews of aircraft while under way, <sup>4</sup> and charitable institutions. Voluntary as to excepted employments.	All except judges of election, clerks of election, and jurors.	Compulsory.
Illinois	1927-28	do. <sup>5</sup>	do.	"Extrahazardous" employments as enumerated. <sup>4</sup> Farm labor and persons not in usual course of employer's business excepted. Voluntary as to excepted employments.	All except officials and duly appointed members of fire departments in cities of 200,000 or more.	Do.
Indiana	Years ended Sept. 30, 1927, 1928, 1929.	Cases reported	More than 1 day	*All	*All	
Iowa	July 1, 1927, to June 30, 1928; July 1, 1928, to June 30, 1930.	do.	2 days	*All except mines and railway train service <sup>6</sup>	*All	
Kentucky	Years ended June 30, 1927, 1928, 1929.	do. <sup>6, 7</sup>	More than 1 day	All except those having less than 3 employees, agriculture, domestic service, and common carriers engaged in interstate commerce. Threshing and hulling grains and seeds are within the act. Voluntary as to excepted employments.	All municipal corporations having 3 or more employees. Voluntary as to others.	Election in writing by employer and employee. <sup>8</sup>
Maryland	Years ended Oct. 31, 1927, 1928, 1929.	Compensation claims allowed	More than 3 days	"Extrahazardous" employments as enumerated. <sup>4</sup> Casual employees, farm labor, domestic service, country blacksmiths, wheelwrights, or similar rural employments excepted. Voluntary as to works not extrahazardous.	All workmen employed for wages and engaged in extrahazardous employments, including the State police force and guards of penal institutions. Voluntary as to other employments.	Compulsory.
Massachusetts	Years ended June 30, 1927, 1928, 1929.	Tabulatable injuries <sup>8</sup>	1 day or 1 shift	*All	*All	
Michigan	July 1, 1928, to June 30, 1929	Compensable cases	More than 1 week	All except employees not in usual course of employer's business	All except elected officials	Election made in writing. <sup>9</sup> Compulsory as to public employees.
New Jersey	1927-28	Closed compensable cases <sup>9</sup>	do.	All except casual employees	All except elective officials and employees receiving over \$1,200.	Election presumed in absence of written notice. <sup>10</sup> Compulsory as to public employees.
New York	Years ended June 30, 1927, 1928, 1929.	do. <sup>9</sup>	do.	All enumerated "hazardous" employments, <sup>4</sup> and all others having 4 or more workmen. <sup>1</sup> Farm labor and domestic service excluded. Voluntary as to other employments.	All employees	Compulsory.
Pennsylvania	1927, 1928, 1929	Cases reported <sup>9</sup>	2 days	All except farm labor, domestic service, casual employees, and outworkers	do.	Election presumed in absence of written notice. <sup>10</sup> Compulsory as to public employees.
Rhode Island	Years ended Sept. 30, 1927, 1928, 1929.	Closed compensable cases	More than 1 week	All except those having less than 6 employees, farm labor, domestic service, casual employees, and employees receiving over \$3,000 a year. Voluntary as to excepted employments.	All employees of State, cities, and towns, except fire and police departments.	Election in writing by employer, <sup>2</sup> and presumed in absence of written notice by employee. Compulsory as to State employees.
Wisconsin	1927, 1928, 1929	do. <sup>11</sup>	do.	All except those having less than 3 employees, domestic service, farm labor, and employees not in usual course of employer's business. <sup>1</sup> Voluntary as to excepted employments. Voluntary (joint election) as to steam railroads.	All except officials	Election presumed as to employers of 3 or more persons in absence of written notice. <sup>12</sup> Compulsory as to public employees.

<sup>1</sup> Changes in laws, 1927 to 1929, are as follows: Colorado—Members of volunteer fire departments excepted by Session Law 1927, ch. 197, sec. 2, effective May 1, 1927. Idaho—Judges of election, clerks of election, and jurors excepted by Session Law 1927, ch. 106, sec. 1, effective Mar. 2, 1927; crews of aircraft while under way excepted by Session Law 1929, ch. 88, sec. 1, approved Feb. 27, 1929. New York—Employments not conducted for pecuniary gain included by Session Law 1928, ch. 755, sec. 1, effective Oct. 1, 1928. Wisconsin—Domestic service specifically excepted. Voluntary election provided for employees not in usual course of employer's business, Session Law 1929, ch. 453, sec. 3, effective Sept. 3, 1929.

<sup>2</sup> Inducement to election is offered by abrogation of common-law defenses where employer rejects the law.  
<sup>3</sup> Also reports compensable cases occurring in 1928. Includes occupational diseases in certain occupations.

<sup>4</sup> The principal industrial employments are included.

<sup>5</sup> Reports of accidents to workers in mines or in railway service are not received by the bureau of labor. All industrial accidents are reported, however, to the compensation commissioner.

152929°—33. (Face p. 9.)

<sup>6</sup> Only employers subject to compensation act are required to report.

<sup>7</sup> Includes injury from gas or smoke in mines or from any gas.

<sup>8</sup> Occupational diseases included by court decision.

<sup>9</sup> Designated occupational diseases included.

<sup>10</sup> Common-law defenses abrogated regardless of acceptance or rejection of act.

<sup>11</sup> Includes occupational diseases.

<sup>12</sup> Common-law defenses abrogated where employers reject law. Employers of less than 3 persons lose defense of assumed risk if they do not elect law.

In analyzing the injury experience of women for 1928 and 1929, the Women's Bureau has had to face, in addition to the problems of few and incompletely analyzed reports already discussed, the same lack of uniformity and resulting noncomparability of data that caused difficulty in analyzing the figures in Bulletin 81. It again emphasizes, therefore, how important it is that States should follow the standard methods of collecting, classifying, analyzing, and publishing statistics of industrial accidents that are advocated by the International Association of Industrial Accident Boards and Commissions.<sup>4</sup>

Although the number of States that publish data on injuries classified by sex is not large, several important industrial States do so, and in some cases the data are so analyzed that significant trends in the injury experience of women workers are suggested.

### CHARACTER OF PUBLISHED DATA CLASSIFIED BY SEX

The data compiled and analyzed here do not cover all injuries suffered by women workers in these States. The injury figures published vary from State to State in several important respects, making an aggregate for all the States meaningless. Descriptions of these variations in the material tabulated are given in Chart II. This chart must be consulted in any interpretation of the tables in this report.

In the first place, the data tabulated are not all for the same period, some being for calendar years, others for fiscal years the dates of which vary. For the present study, figures that cover a 2-year period have been divided by two to give an estimate for one year.

The second variation in the data tabulated is the compensation status of the injuries. In no State does the compensation law require that every worker injured shall be paid compensation, but some States receive reports of injuries not covered by the compensation law, while others receive only reports of injuries that are so covered. This difference appears in the information published by the States. The data from 5 States cover injuries reported regardless of their compensation status (cases reported and tabulatable injuries); those of 10 States cover only injuries eligible for compensation. Of these 10 States, 8 report the number of injuries that have been paid or will be paid compensation (compensation claims allowed and closed compensable cases), while the 2 others report the number of compensable cases (compensable cases and compensation claims).

The importance of the distinction between injuries reported and compensable injuries becomes clearer when the third variation in these data is considered—that is, the minimum period of disability for injuries to be tabulatable. In the 5 States in the first group mentioned, all are tabulated in which the time lost is as much as one day or shift to two days, while for the 10 States in the latter group (those reporting compensable cases) from 3 to 10 days must have elapsed. It should be noted that 8 of the 10 States have the same period—more than one week.

A fourth difference in the injuries tabulated is that occupational diseases are included by 6 States and not by the others.

<sup>4</sup> U. S. Bureau of Labor Statistics. Standardization of Industrial Accident Statistics. Br.I. 276, 1920. The revision of this bulletin has not been completed.

The employments covered by the State reports are a fifth varying factor in these data of injuries. For some States all lines of employment are covered, but for the rest there are exceptions of one kind or another. In several of these States, persons having fewer employees than a certain number (from 10 to 3) are not covered, and in most States agriculture, domestic service, and casual employments are excepted.

Finally, in some States the employers specified as affected come automatically under the compensation law, and in others operation under the law is voluntary, allowance being made for an employer to assume the entire risk of injuries to his employees. In certain States operation under the law is compulsory for some employees and voluntary for others.

These differences in the kind and scope of the data reported by the States are important to understand as aids for accurate interpretation; but examination of the data shows that the figures available are comparable if used with care. In any case, the data for the three years 1927, 1928, and 1929 are reasonably comparable, Colorado, Idaho, New York, and Wisconsin being the only States that made any change in the phases of their compensation laws analyzed here. Of course, differences in the industries in the States, in the numbers of women employed, and in the administration of the laws—factors that are impossible to evaluate completely—affect the data.

Naturally, it would not be possible to secure uniformity in the compensation laws and practices of the States, but every effort should be made to standardize the publishing of the facts about injuries so that they can be compared and interpreted to facilitate understanding of trends in the injury experience of employees and to aid in efforts for prevention.

#### NUMBER OF WOMEN INJURED AND THE PROPORTION THEY FORMED OF TOTAL PERSONS INJURED, IN 15 STATES, 1927 TO 1929

The number of injured women reported by 15 States, given in Table 1, while not large in comparison with the number of men injured, is large enough to show that employed women are not a negligible factor in the total accident experience. In 3 States in each of the years 1927, 1928, and 1929 over 5,000 women were injured. The proportion of the total injured who were women varied during this period from 1.1 per cent in Kentucky in 1928 and 1929 to 12.7 per cent in Rhode Island in 1927 and 1929. While less than 10 per cent of all injured workers reported are women, the significant trend that Table 1 shows is an increase in this proportion. For 1928 over 1927 this trend is not pronounced, but for 1929 it is definite, 8 of the 11 States having increases over 1928 or over both 1927 and 1928.

In general, the 1928 and 1929 experience verifies the conclusion reached in the first report of the Women's Bureau in this series (Bulletin 81) that the proportion of women injured is higher where a large percentage of all workers are women and where large proportions of the women workers are in manufacturing. It is impossible without data on employment and exposure to tell what caused the increase in 1929 in the proportion of all injuries reported that were injuries to women workers. Wm. J. Maguire, of the Pennsylvania Department

TABLE 1.—Industrial injuries tabulated by sex in 1927, 1928, and 1929, by States  
[For sources of information, see appendix]

State	1927			1928			1929		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
NUMBER <sup>1</sup>									
Colorado	5,751	5,566	185	5,312	5,090	222	5,467	5,281	186
Georgia	<sup>2</sup> 6,067	5,653	414	<sup>2</sup> 6,067	5,653	414			
Idaho	<sup>3</sup> 7,594	7,413	181	<sup>3</sup> 7,594	7,413	181	<sup>3</sup> 7,840	7,544	296
Illinois	52,591	50,505	2,086	51,580	49,290	2,290			
Indiana	40,539	38,745	1,794	37,714	35,913	1,801	40,931	38,787	2,144
Iowa				7,897	7,554	343	<sup>3</sup> 7,195	6,881	314
Kentucky	26,021	25,524	497	23,395	23,132	263	19,865	19,154	711
Maryland	14,521	13,686	835	13,902	13,166	736	14,147	13,410	737
Massachusetts	64,167	58,217	5,950	60,330	54,744	5,586	60,195	54,460	5,735
Michigan							35,923	34,768	1,155
New Jersey	25,865	24,053	1,812	25,980	24,139	1,841			
New York	98,984	91,585	7,399	93,565	86,545	7,020	100,462	92,371	8,091
Pennsylvania	160,743	154,903	5,840	152,498	146,489	6,009	166,657	159,728	6,929
Rhode Island	3,985	3,479	506	3,831	3,362	469	4,207	3,671	536
Wisconsin	20,473	19,657	816	21,818	21,045	773	22,630	21,728	902
PER CENT <sup>1</sup>									
Colorado	100.0	96.8	3.2	100.0	95.8	4.2	100.0	96.6	3.4
Georgia	<sup>2</sup> 100.0	93.2	6.8	<sup>2</sup> 100.0	93.2	6.8			
Idaho	<sup>3</sup> 100.0	97.6	2.4	<sup>3</sup> 100.0	97.6	2.4	<sup>3</sup> 100.0	96.2	3.8
Illinois	100.0	96.0	4.0	100.0	95.6	4.4			
Indiana	100.0	95.6	4.4	100.0	95.2	4.8	100.0	94.8	5.2
Iowa				100.0	95.7	4.3	<sup>3</sup> 100.0	95.6	4.4
Kentucky	100.0	98.1	1.9	100.0	98.9	1.1	100.0	98.9	1.1
Maryland	100.0	94.2	5.8	100.0	94.7	5.3	100.0	94.8	5.2
Massachusetts	100.0	90.7	9.3	100.0	90.7	9.3	100.0	90.5	9.5
Michigan							100.0	96.8	3.2
New Jersey	100.0	93.0	7.0	100.0	92.9	7.1			
New York	100.0	92.5	7.5	100.0	92.5	7.5	100.0	91.9	8.1
Pennsylvania	100.0	96.4	3.6	100.0	96.1	3.9	100.0	95.8	4.2
Rhode Island	100.0	87.3	12.7	100.0	87.8	12.2	100.0	87.3	12.7
Wisconsin	100.0	96.0	4.0	100.0	96.5	3.5	100.0	96.0	4.0

<sup>1</sup> For period covered and injuries tabulated see Chart II, facing p. 9.

<sup>2</sup> Excludes the 104 fatal cases, not separated by sex.

<sup>3</sup> The numbers reported for a 2-year period have been divided by 2.

of Labor and Industry,<sup>5</sup> analyzing the Pennsylvania experience with accidents to working women, concludes that probably this increase is primarily the result of women's increased industrial employment. The fact that the 1930 census<sup>6</sup> shows an increase over 1920 in the proportion of women among all gainfully employed persons for every one of the 15 States furnishing accident data classified by sex adds support to this conclusion.

Shifts in the industrial employment of men because of changing business conditions probably explain the changes in the proportion of the total injuries that were injuries to women in most of the States showing an increase in 1928. Colorado, Illinois, Indiana, and Pennsylvania, States where mining is an important industry, undoubtedly had fewer men employed in this industry in 1928; there was a decrease in the number of accidents to men, a slight increase in the numbers of women injured, and a consequent increase in the proportion of all injuries that were those of women. In New Jersey, accidents to both

<sup>5</sup> Pennsylvania Department of Labor and Industry. Labor and Industry, Vol. XVIII, No. 6, June, 1931, pp. 6 and 7.

<sup>6</sup> U. S. Bureau of the Census. Gainful Workers in the United States by Industry Groups. (News Release, Sept. 9, 1931.)

men and women increased slightly, but there was a somewhat greater proportional increase in the injuries to women.

In 1929, an active business year, most of the increases can not be explained entirely in this way, because injuries both to men and to women increased in all but two of the States showing an increase in the proportion of all injuries that were those of women. From the point of view of the number of women injured, increases or decreases similar to these proportional changes occurred in most cases. The percentage changes in the number of all accidents reported and in those for each sex, from 1927 to 1928 and from 1928 to 1929, show greater fluctuations for women than for men. For both sexes there were more cases of decreases in 1928 as compared to 1927 than of increases, 6 decreases for women and 9 for men, and 5 cases of increases for women and 2 for men. Thus there were more increases in injuries to women than there were of increases for men.

From 1928 to 1929 the change was the same for women as for men in 9 cases, 7 being increases and 2 decreases. In Colorado and Massachusetts, where the change was not the same for both sexes, women's injuries decreased in Colorado and increased in Massachusetts. The percentage increases were much larger for women than for men, being over 14 per cent in 6 States, though the largest increases for men were 9.2 per cent and 9 per cent. In Colorado the very large decrease for women, 16.2 per cent, is due to an exceptionally high figure for 1928.

Regardless of the causal explanation of these data, which show a trend of increasing injuries to women both in numbers and in the proportion they form of all injuries, they emphasize the importance of classifying accident figures by sex and the need for data on employment that would make it possible to compute frequency and severity rates. The very fact that no cause or explanation of this trend can be stated with assurance is evidence of the need for increased attention to this phase of injury experience.

### EXTENT OF DISABILITY

Not only have women proportionately fewer industrial injuries than men, but data from nine States given in Table 2 show that they have fewer of the more serious injuries—those resulting in death or permanent total disability. However, in the eight States reporting for 1928, 45 women lost their lives as the result of industrial accidents, and in the six States reporting for 1929, 27 lost their lives.

For both men and women, most of the injuries tabulated are those that have caused only temporary disability, slightly more of those to women than of those to men being of this nature. When it is considered that in Idaho, Illinois, Michigan, and New York, of the States in Table 2, these temporary injuries must have kept the employee from work more than a week or they would not have been included, they do not appear unimportant. And the fact that permanent impairment of some part of the body resulted in the cases of 441, 1,221, and 1,256 women, respectively, in Illinois in 1928 and New York in 1928 and 1929—constituting 19.3, 17.4, and 15.5 per cent of all injuries to women in the respective States and years cited—indicates the appalling consequences of industrial injuries.

TABLE 2.—Distribution of injuries to male and female employees by extent of disability, 1928 and 1929

[For sources of information, see appendix]

State	Number <sup>1</sup>										Per cent <sup>1</sup>									
	Male					Female					Male					Female				
	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary
1928																				
Idaho.....	<sup>2</sup> 7,413	59	4	327	7,023	<sup>2</sup> 181	---	---	5	176	<sup>2</sup> 100.0	0.8	0.1	4.4	94.7	<sup>2</sup> 100.0	---	---	2.8	97.2
Illinois.....	<sup>3</sup> 49,290	519	30	11,280	<sup>4</sup> 37,434	<sup>5</sup> 2,290	---	1	441	<sup>6</sup> 1,837	<sup>3</sup> 100.0	1.1	.1	22.9	<sup>4</sup> 75.9	<sup>5</sup> 100.0	0.2	(?)	19.3	<sup>6</sup> 80.4
Iowa.....	<sup>8</sup> 7,554	34	---	---	---	<sup>8</sup> 343	---	1	---	---	<sup>8</sup> 100.0	.5	---	---	---	<sup>8</sup> 100.0	.3	---	---	---
Maryland.....	13,166	92	6	603	12,465	736	---	---	31	705	100.0	.7	(?)	4.6	94.7	100.0	---	---	4.2	95.8
Massachusetts.....	54,744	336	12	1,099	53,297	5,586	---	---	98	5,484	100.0	.6	(?)	2.0	97.4	100.0	.1	---	1.8	98.2
New Jersey.....	<sup>8</sup> 24,139	314	---	---	---	<sup>8</sup> 1,841	---	5	---	---	<sup>8</sup> 100.0	1.3	---	---	---	<sup>8</sup> 100.0	.3	---	---	---
New York.....	86,545	1,106	50	15,800	69,589	7,020	23	2	1,221	5,774	100.0	1.3	.1	18.3	80.4	100.0	.3	(?)	17.4	82.3
Pennsylvania.....	<sup>8</sup> 146,489	2,058	---	---	---	<sup>8</sup> 6,009	---	7	---	---	<sup>8</sup> 100.0	1.4	---	---	---	<sup>8</sup> 100.0	.1	---	---	---
1929																				
Idaho.....	<sup>2</sup> 7,544	63	---	344	7,137	<sup>2</sup> 296	---	---	9	287	<sup>2</sup> 100.0	0.8	---	4.6	94.6	<sup>2</sup> 100.0	---	---	3.0	97.0
Maryland.....	13,410	84	---	584	12,742	737	---	---	37	700	100.0	.6	---	4.4	95.0	100.0	---	---	5.0	95.0
Massachusetts.....	54,460	352	4	1,241	52,863	5,735	1	---	111	5,623	100.0	.6	(?)	2.3	97.1	100.0	(?)	---	1.9	98.0
Michigan.....	34,768	390	4	2,221	32,153	1,155	2	---	102	1,051	100.0	1.1	(?)	6.4	92.5	100.0	0.2	---	8.8	91.0
New York.....	92,371	1,201	58	17,821	73,291	8,091	16	3	1,256	6,816	100.0	1.3	.1	19.3	79.3	100.0	.2	(?)	15.5	84.2
Pennsylvania.....	<sup>8</sup> 159,728	1,992	---	---	---	<sup>8</sup> 6,929	8	---	---	---	<sup>8</sup> 100.0	1.2	---	---	---	<sup>8</sup> 100.0	.1	---	---	---

<sup>1</sup> For period covered and injuries tabulated see Chart II, facing p. 9.

<sup>2</sup> The numbers reported for a 2-year period have been divided by 2.

<sup>3</sup> Includes 27 with extent of disability not reported.

<sup>4</sup> Includes 764 with combinations of some kinds of disability.

<sup>5</sup> Includes 6 with extent of disability not reported.

<sup>6</sup> Includes 71 with combinations of some kinds of disability.

<sup>7</sup> Less than 0.05 per cent.

<sup>8</sup> Reported only for fatals and nonfatals.

Data on extent of disability are not available for enough States to determine conclusively whether or not there was an increase in the severity of injuries to women in 1929, as well as an increase in their number; however, of the four States that give complete data by sex on the extent of disability caused by the injuries in 1928 and 1929, three—Idaho, Maryland, and Massachusetts—show that more of the women's injuries in 1929 than in 1928 caused permanent disability. In New York, though the number disabled permanently showed an increase over 1928, the proportion these formed of the total showed a decline. For men the facts are similar, except that Maryland shows a decrease in the proportion causing permanent disability and New York shows an increase. The Michigan figures for 1929 show that a larger proportion of the women's injuries than of the men's had more than temporary effects.

In summarizing, these data on the extent of disability caused by industrial injuries show, as would be expected, that women's injuries had only temporary effects more commonly than men's injuries. The more hazardous nature of certain of men's employments—for example, mining, construction, transportation—makes this a foregone conclusion. Even for men, fatalities and permanent total disabilities were less than 1.5 per cent of all injuries reported in each State; for women these were less than 0.5 per cent.

#### NATURE OF THE INJURIES RECEIVED

Three States—Illinois, Indiana, and Iowa—correlate data on nature of injury and sex.

In each of these States the group showing the largest number of injuries to men and to women was either bruises, contusions, and abrasions or cuts and lacerations. Combined, these two classes formed from 40 to 50 per cent of all the injuries during these two years. Another group describing over 10 per cent of the injuries to both men and women is sprains and strains.

Several injury groups in relation to the total show in more than one State differences between the two sexes—for example, infections; cuts and lacerations; bruises, contusions, and abrasions; and fractures. In the two States reporting infections for 1928 and the one for 1929, over twice the proportion of the women's than of the men's injuries were so classed. Larger proportions of the women than of the men suffered cuts and lacerations, while the opposite is true of fractures and of bruises, contusions, and abrasions.

Information on part of body injured and nature of injury, classified by sex by Illinois for 1928 (Table 4), helps to form a more accurate picture of the injuries that are received. With both men and women, more injuries occur to the upper extremities (fingers, hands, or arms) than to any other part of the body, and this is especially true of the women, with whom the proportion is 58.6 per cent, while for men it is 41.9 per cent. In every other location the men have the larger proportion.

Of the two largest groups of injuries from the standpoint of the nature of the injury, it will be noted that for both men and women slightly higher proportions of the bruises, contusions, and abrasions occurred to the lower extremities than to any other part of the body

TABLE 3.—Distribution of injuries to male and female employees by nature of injury, 1928 and 1929

[For sources of information, see appendix]

Nature of injury	Number <sup>1</sup>										Per cent <sup>1</sup>									
	1928						1929				1928						1929			
	Illinois		Indiana		Iowa <sup>2</sup>		Indiana		Iowa <sup>3</sup>		Illinois		Indiana		Iowa <sup>2</sup>		Indiana		Iowa <sup>3</sup>	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total.....	52,655	2,095	35,913	1,801	7,554	343	38,787	2,144	6,881	314										
Not reported and indefinite.....	708	21	768	61			742	67												
Total reported.....	51,947	2,074	35,145	1,740	7,554	343	38,045	2,077	6,881	314	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amputation.....	1,661	59	593	28	110	4	675	28	125	3	3.2	2.8	1.7	1.6	1.5	1.2	1.8	1.3	1.8	1.0
Asphyxiation.....	59										.1									
Bruise, contusion, or abrasion.....	14,108	493	7,630	318	1,482	51	8,372	366	1,457	52	27.2	23.8	21.7	18.3	19.6	14.9	22.0	17.6	21.2	16.6
Burn or scald.....	<sup>4</sup> 2,792	<sup>4</sup> 155	1,922	122	403	16	2,151	146	351	21	<sup>4</sup> 5.4	<sup>4</sup> 7.5	5.5	7.0	5.3	4.7	5.7	7.0	5.1	6.7
Concussion.....	74	8	14	1	24	3	40	1	20	1	.1	.4	( <sup>5</sup> )	.1	.3	.9	.1	( <sup>5</sup> )	.3	.3
Crushing.....	367	2	516	21			514	15			.7	.1	1.5	1.2			1.4	.7		
Cut or laceration.....	11,087	488	<sup>6</sup> 6,968	<sup>6</sup> 438	<sup>7</sup> 2,157	<sup>7</sup> 130	<sup>6</sup> 7,666	<sup>6</sup> 571	<sup>7</sup> 1,694	<sup>7</sup> 99	21.3	23.5	<sup>6</sup> 19.8	<sup>6</sup> 25.2	<sup>7</sup> 28.6	<sup>7</sup> 37.9	<sup>6</sup> 20.1	<sup>6</sup> 27.5	<sup>7</sup> 24.6	<sup>7</sup> 31.5
Dislocation.....	421	21	( <sup>8</sup> )	( <sup>8</sup> )	53	1	( <sup>8</sup> )	( <sup>8</sup> )	48	3	.8	1.0	( <sup>8</sup> )	( <sup>8</sup> )	.7	.3	( <sup>8</sup> )	( <sup>8</sup> )	.7	1.0
Drowning.....	20										( <sup>9</sup> )						( <sup>9</sup> )			
Electric shock.....	63	5			20				24		.1	.2			.3				.3	
Foreign substance in eye.....					354	3			342	5					4.7	.9			5.0	1.6
Fracture.....	8,263	187	3,172	93	795	17	3,491	99	804	19	15.9	9.0	9.0	5.3	10.5	5.0	9.2	4.8	11.7	6.1
Freezing.....	32	1			5				7		.1	( <sup>9</sup> )			.1				.1	
Gas fumes.....					22	2			17						.3				.2	
Infection.....	2,073	169			671	64			620	65	4.0	8.1			8.9	18.7			9.0	20.7
Inflammation.....	784	28			1				10	1	1.5	1.4			( <sup>9</sup> )				.1	.3
Internal injury.....			60	4	12	1	60	10	10	1			.2	.2	.2	.3	.2	.5	.1	.3
Puncture.....	2,122	163			( <sup>9</sup> )	( <sup>9</sup> )			( <sup>9</sup> )	( <sup>9</sup> )	4.1	7.9			( <sup>9</sup> )	( <sup>9</sup> )			( <sup>9</sup> )	( <sup>9</sup> )
Sickness.....	320	4									.6	.2								
Sprain or strain.....	7,598	285	<sup>10</sup> 5,663	<sup>10</sup> 228	<sup>11</sup> 1,214	<sup>11</sup> 38	<sup>10</sup> 6,125	<sup>10</sup> 249	<sup>11</sup> 1,083	<sup>11</sup> 33	14.6	13.7	<sup>10</sup> 16.1	<sup>10</sup> 13.1	<sup>11</sup> 16.1	<sup>11</sup> 11.1	<sup>10</sup> 16.1	<sup>10</sup> 12.0	<sup>11</sup> 15.7	<sup>11</sup> 10.5
Multiple injuries.....			6		180	7	1		213	5			( <sup>5</sup> )		2.4	2.0	( <sup>5</sup> )		3.1	1.6
Not otherwise classified.....	103	6	8,601	487	51	6	8,946	592	66	7	.2	.3	24.5	28.0	.7	1.7	23.5	28.5	1.0	2.2

<sup>1</sup> For period covered and injuries tabulated see Chart II, facing p. 9, except in the case of injuries tabulated for Illinois, for which State the present table shows compensable cases occurring.

<sup>2</sup> Some classifying has been done by the Women's Bureau.

<sup>3</sup> Some classifying has been done by the Women's Bureau. Numbers reported for a 2-year period have been divided by 2.

<sup>4</sup> Includes blisters.

<sup>5</sup> Less than 0.05 per cent.

<sup>6</sup> Includes cut wounds.

<sup>7</sup> Includes punctures.

<sup>8</sup> Included in sprain or strain.

<sup>9</sup> Included in cut or laceration.

<sup>10</sup> Includes dislocations and cases of hernia.

<sup>11</sup> Includes cases of hernia.



TABLE 4.—Nature and location of injuries to male and female employees, Illinois, 1928

[For sources of information, see appendix]

Nature of injury	Location of injury													
	Total reported		Head (not otherwise classified)		Face and neck		Trunk		Upper extremities		Lower extremities		Other and not classified <sup>1</sup>	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total reported.....	51,842	2,059	3,156	80	1,952	42	8,660	211	21,748	1,210	15,268	497	1,058	19
Amputation or enucleation.....	1,656	59	16	1	9				1,504	57	124	1	3	
Asphyxiation (except drowning).....	59												59	
Blister, not otherwise classified.....	104	7							94	7	10			
Bruise, contusion, or abrasion.....	14,091	492	643	30	241	6	2,649	100	4,570	163	5,805	179	183	14
Burn or scald.....	2,682	147	213	4	347	15	73	5	989	83	881	40	179	
Concussion.....	74	8	74	8										
Crushing.....	367	1	29		2		51		80	1	48		157	
Cut or laceration.....	11,081	484	1,077	24	1,095	11	204	3	7,165	394	1,495	52	45	
Dislocation.....	420	21			4		52	3	277	14	87	4		
Drowning.....	20												20	
Electric shock.....	63	5											63	5
Fracture.....	8,256	187	250	2	165	4	1,105	18	3,157	112	3,547	51	32	
Freezing.....	32	1					2		27	1	3			
Infection (septic).....	2,066	168	92	1	11		19	3	1,631	155	313	9		
Inflammation.....	783	27	486	3	11	2	51	2	135	16	89	4	11	
Puncture.....	2,117	162	256	6	16	2	43	1	936	136	861	17	5	
Sickness, general.....	281												281	
Sprain or strain (including hernia).....	7,589	285			48	2	4,386	74	1,164	69	1,982	140	9	
Not otherwise classified.....	101	5	20	1	3		25	2	19	2	23		11	

PER CENT DISTRIBUTION BY NATURE OF INJURY :

Total reported.....	100.0	100.0	100.0	100.0	100.0	(4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(4)
Amputation or enucleation.....	3.2	2.9	.5	1.3	.5				6.9	4.7	.8	.2	.3	
Asphyxiation (except drowning).....	.1												5.6	
Blister, not otherwise classified.....	.2	.3							.4	.6	1			
Bruise, contusion, or abrasion.....	27.2	23.9	20.4	37.5	12.3		30.6	47.4	21.0	13.5	38.0	36.0	17.3	
Burn or scald.....	5.2	7.1	6.7	5.0	17.8		.8	2.4	4.5	6.9	5.8	8.0	16.9	

Concussion.....	.1	.4	2.3	10.0										
Crushing.....	.7	(5)	.9		.1		.6		.4	.1	.3		14.8	
Cut or laceration.....	21.4	23.5	34.1	30.0	56.1		2.4	1.4	32.9	32.6	9.8	10.5	4.3	
Dislocation.....	.8	1.0			.2		.6	1.4	1.3	1.2	.6	.8		
Drowning.....	(5)												1.9	
Electric shock.....	.1	.2											6.0	
Fracture.....	15.9	9.1	7.9	2.5	8.5		12.8	8.5	14.5	9.3	23.2	10.3	3.0	
Freezing.....	.1	(5)					(5)		.1	.1	(3)	2.1	1.8	
Infection (septic).....	4.0	8.2	2.9	1.3	.6		.2	1.4	7.5	12.8	2.1	1.8		
Inflammation.....	1.5	1.3	15.4	3.8	.6		.6	.9	.6	1.3	.6	.8	1.0	
Puncture.....	4.1	7.9	8.1	7.5	.8		.5	.5	4.3	11.2	5.6	3.4	5	
Sickness, general.....	.5												26.6	
Sprain or strain (including hernia).....	14.6	13.8			2.5		50.6	35.1	5.4	5.7	13.0	23.2	.9	
Not otherwise classified.....	.2	.2	.6	1.3	.2		.3	.9	.1	.2	.2		1.0	

PER CENT DISTRIBUTION BY LOCATION OF INJURY :

Total reported.....	100.0	100.0	6.1	3.9	3.8	2.0	16.7	10.2	42.0	58.8	29.5	24.1	2.0	0.9
Amputation or enucleation.....	100.0	100.0	1.0	1.7	.5				90.8	96.6	7.5	1.7	.2	
Asphyxiation (except drowning).....	100.0	(4)											100.0	
Blister, not otherwise classified.....	100.0	(4)							90.4		9.6			
Bruise, contusion, or abrasion.....	100.0	100.0	4.6	6.1	1.7	1.2	18.8	20.3	32.4	33.1	41.2	36.4	1.3	2.8
Burn or scald.....	100.0	100.0	7.9	2.7	12.9	10.2	2.7	3.4	36.9	56.5	32.8	27.2	6.7	
Concussion.....	100.0	(4)	100.0											
Crushing.....	100.0	(4)	7.9		.5		13.9		21.8		13.1		42.8	
Cut or laceration.....	100.0	100.0	9.7	5.0	9.9	2.3	1.8	.6	64.7	81.4	13.5	10.7	.4	
Dislocation.....	100.0	(4)			1.0		12.4		66.0		20.7			
Drowning.....	(4)													
Electric shock.....	100.0	(4)											100.0	
Fracture.....	100.0	100.0	3.0	1.1	2.0	2.1	13.4	9.6	38.2	59.9	43.0	27.3	.4	
Freezing.....	(4)	(4)												
Infection (septic).....	100.0	(4)	4.5	.6	.5		.9	1.8	78.9	92.3	15.2	5.4		
Inflammation.....	100.0	(4)	62.1		1.4		6.5		17.2		11.4		1.4	
Puncture.....	100.0	100.0	12.1	3.7	.8	1.2	2.0	.6	44.2	84.0	40.7	10.5	.2	
Sickness, general.....	100.0												100.0	
Sprain or strain (including hernia).....	100.0	100.0			.6	.7	57.8	26.0	15.3	24.2	26.1	49.1	.1	
Not otherwise classified.....	100.0	(4)	19.8		3.0		24.8		18.8		22.8		10.9	

<sup>1</sup> This classification includes cases in which there was a generally shaken and bruised or crushed condition, not classifiable as to part of body; cases of sickness not classifiable as to part of body; cases of multiple injuries in which it was not clear which part of body was most severely injured where the parts injured were not all in any one of the 5 major groups.

<sup>2</sup> Compensable cases occurring during calendar year.

<sup>3</sup> Excludes 813 injuries to males and 36 to females for which one or both of these factors were not reported.

<sup>4</sup> Not computed; base less than 50.

<sup>5</sup> Less than 0.05 per cent.

(41.2 per cent for men and 36.4 per cent for women), while the largest proportions of the cuts and lacerations (64.7 per cent for men and 81.4 per cent for women) occurred to the upper extremities. Infections also occurred more frequently in the upper extremities, the proportions being 78.9 per cent for men and 92.3 per cent for women.

Cuts and lacerations of fingers, hands, or arms describe the largest single group of all women's injuries. Bruises, contusions, or abrasions of upper and lower extremities and of the trunk; fractures, infections, and punctures of the upper extremities; and sprains and strains of the lower extremities also were important.

These two tables suggest that, with few exceptions, the kinds of injuries received are similar for men and women, but that more of women's injuries than of men's are to the upper extremities rather than to other parts of the body.

### AGE OF INJURED PERSONS

A striking difference between the women and the men injured in industry is their age: The proportion of injured persons who are not more than 20 years old is almost three times as large for women as for men. This is due in part to the fact that a larger proportion of all women employed than of all men employed are young. That youth itself is a factor, however, appears when the age distribution of all employed women is compared with the age distribution of the injured,<sup>7</sup> as very much larger proportions of the injured women than of all women employed are less than 20 or 21 years of age.

Information on the age and sex of injured persons, available for nine States in 1928 and for five States in 1929, given in Table 5, when compared with data available in 1927, shows no significant changes in the proportion of all injuries that occur to younger workers. With the exception of Massachusetts in 1928, in all the States for which 1928 and 1929 data could be classified by comparable groups, from 16 to 50 years inclusive, the largest proportions of women's injuries are for the group 16 to 20 years.<sup>8</sup> Such a condition was true of men in only one case, Rhode Island in 1929. The exception as noted is in Massachusetts in 1928, where the proportions in two age groups—16 to 20 and 21 to 25—were similar, the latter being slightly higher, 23.3 per cent as compared to 23.1 per cent. The percentages ranged from 23.1 in Massachusetts in 1928 to 35.3 in Rhode Island in 1928. The percentages of injuries to males that occurred to youths 16 to 20 years of age in these same States in the same years ranged from 7.9 in Illinois in 1928 to 16.2 in Rhode Island in 1929. In Indiana, New Jersey, and Wisconsin, States where the age groupings given are slightly different from those elsewhere, the same tendencies appear.

For the next age group, 21 to 25 years, the proportions of the injuries to women are perceptibly larger than those to men in most of the States given. Naturally, the proportions of the men's injuries in the age groups beyond 25 years are larger than those of the women.

<sup>7</sup> See the first bulletin of this series, Women's Bureau Bul. 81, Industrial Accidents to Men and Women, p. 23.

<sup>8</sup> Georgia, Illinois, Maryland, New York, and Rhode Island for 1928; Maryland, Massachusetts, New York, and Rhode Island for 1929.

### Seriousness of injury, by age.

Data giving the age and extent of disability of persons injured (Table 6) lend additional emphasis to the importance of these large numbers of injured workers who are young, because they show that there is no pronounced difference in seriousness between the accidents to young workers and those to other persons. Though in New York in 1928 and 1929 considerably larger percentages of the injuries to persons under 21 years of age than of those to persons 21 years or over were in the temporary group, in Illinois in 1928 and in Maryland in the year following more of the younger group of women than of the older were permanently disabled. Illinois figures for 1928 show that the percentages of fatalities and permanent total injuries are practically the same for boys under 21 as for older men. Two of the three fatal cases among women in this State were girls under 21 years of age. Massachusetts for 1928 and 1929 shows no significant differences as to injury experience between men and women or between age groups, an exception to this being the proportions of permanent partial injuries in the 1928 data.

### Cause of injury, by age.<sup>9</sup>

The causes of injuries classified by age—available in this period only for New Jersey in 1928—show the importance of machinery as a cause of injuries to young persons, especially to young women (Table 7). Almost one-half (46.8 per cent) of all injuries to women under 21 were caused by machinery, while for women of 21 years and over this proportion was 23.7 per cent. For the older group of women, falls, causing 36.4 per cent of their injuries, are the most important single cause group.

Expressed in another way, women under 21, who constituted a little less than 30 per cent of the total, suffered 45 per cent of the machine injuries but only 12 per cent of the falls. The employment of large numbers of young women on machine processes and of larger numbers of older women than of younger ones in cleaning and other lines of work where falls are common, undoubtedly accounts in no small measure for these differences in the injury experience of the two groups of women.

Considering the men's injuries, it will be noted that, as was true for the women, the group of younger men (under 21) had a larger proportion of all their injuries caused by machinery and a smaller proportion by falls than had the older men, though the difference is not so great as for the two groups of women. For both groups of men, handling of objects was the largest single cause group.

Comparing the experiences of men and of women, a pronounced difference is the much larger proportion of accidents to young women than of accidents to young men that are due to machinery. Much larger proportions of the older women's than of the older men's injuries are due to machinery and to falls, while for all women the handling of objects was a much less important accident cause than it was for men.

The youth of the persons injured, according to these data, is a factor in from one-fifth to over one-third of women's injuries and

<sup>9</sup> This is a comparison of the injury experience of young workers, persons under 21 years of age, with all other workers, not with the various age groups of older workers.

TABLE 5.—Distribution of injuries to male and female employees by age of injured, 1928 and 1929

[For sources of information, see appendix]

Age	Georgia <sup>1</sup>		Illinois		Indiana		Maryland		Massachusetts		New Jersey		New York		Rhode Island		Wisconsin	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER <sup>2</sup> IN 1928																		
Total.....	5,653	414	52,655	2,095	35,913	1,801	13,166	736	54,744	5,586	24,139	1,841	86,545	7,020	3,362	469	21,045	773
Total reported.....	5,139	389	51,391	2,070	35,350	1,752	12,950	714	54,744	5,586	24,139	1,841	77,700	6,039	3,224	450	20,501	750
Under 16 years.....	66	10	93	11	---	---	57	18	309	112	72	22	208	42	18	8	<sup>3</sup> 319	<sup>3</sup> 40
16 to 20 years.....	813	134	4,073	548	<sup>4</sup> 2,456	<sup>4</sup> 362	1,476	212	5,756	1,291	2,348	517	7,415	1,518	481	159	<sup>3</sup> 3,237	<sup>3</sup> 218
21 to 25 years.....	1,017	63	<sup>5</sup> 6,040	<sup>5</sup> 294	---	---	2,295	117	9,101	1,303	<sup>6</sup> 21,721	<sup>6</sup> 1,392	12,392	1,123	504	89	<sup>3</sup> 3,192	<sup>3</sup> 126
26 to 30 years.....	874	50	<sup>5</sup> 7,094	<sup>5</sup> 302	<sup>4</sup> 12,203	<sup>4</sup> 636	2,091	98	8,071	715	---	---	11,819	775	440	39	<sup>3</sup> 2,610	<sup>3</sup> 78
31 to 35 years.....	636	38	<sup>5</sup> 7,073	<sup>5</sup> 250	---	---	1,672	63	8,063	543	---	---	10,436	601	372	43	<sup>3</sup> 2,394	<sup>3</sup> 69
36 to 40 years.....	569	29	<sup>5</sup> 7,470	<sup>5</sup> 240	<sup>4</sup> 9,129	<sup>4</sup> 344	1,622	63	6,556	567	---	---	10,152	612	361	42	<sup>3</sup> 2,307	<sup>3</sup> 75
41 to 45 years.....	364	26	<sup>5</sup> 6,636	<sup>5</sup> 164	---	---	1,209	33	5,032	344	---	---	7,807	463	275	23	<sup>3</sup> 1,900	<sup>3</sup> 48
46 to 50 years.....	347	15	<sup>5</sup> 4,959	<sup>5</sup> 112	<sup>4</sup> 6,301	<sup>4</sup> 224	999	41	4,254	364	---	---	6,511	393	290	30	<sup>3</sup> 1,619	<sup>3</sup> 43
51 years and over.....	453	24	<sup>5</sup> 7,953	<sup>5</sup> 149	<sup>4</sup> 5,256	<sup>4</sup> 136	1,529	54	7,552	347	---	---	10,960	562	483	17	<sup>3</sup> 2,923	<sup>3</sup> 53
PER CENT <sup>3</sup> IN 1928																		
Total reported.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 16 years.....	1.3	2.6	.2	.5	---	---	.4	2.5	.6	2.0	.3	1.2	.3	.7	.6	1.8	<sup>3</sup> 1.6	<sup>3</sup> 5.3
16 to 20 years.....	15.8	34.4	7.9	26.5	<sup>4</sup> 6.9	<sup>4</sup> 20.7	11.4	29.7	10.5	23.1	9.7	28.1	9.5	21.9	14.9	35.3	<sup>3</sup> 15.8	<sup>3</sup> 29.1
21 to 25 years.....	19.8	16.2	<sup>5</sup> 11.8	<sup>5</sup> 14.2	---	---	17.7	16.4	16.6	23.3	<sup>6</sup> 90.0	<sup>6</sup> 70.7	15.9	18.4	15.6	19.8	<sup>3</sup> 15.6	<sup>3</sup> 16.8
26 to 30 years.....	17.0	12.9	<sup>5</sup> 13.8	<sup>5</sup> 14.6	<sup>4</sup> 34.5	<sup>4</sup> 39.2	16.1	13.7	14.7	12.8	---	---	15.2	12.7	13.6	8.7	<sup>3</sup> 12.7	<sup>3</sup> 10.4
31 to 35 years.....	12.4	9.8	<sup>5</sup> 13.8	<sup>5</sup> 12.1	---	---	12.9	9.5	14.7	9.7	---	---	13.4	9.9	11.5	9.6	<sup>3</sup> 11.7	<sup>3</sup> 9.2
36 to 40 years.....	11.1	7.5	<sup>5</sup> 14.5	<sup>5</sup> 11.6	<sup>4</sup> 25.8	<sup>4</sup> 19.6	12.5	9.5	12.0	10.2	---	---	13.1	10.1	11.2	9.3	<sup>3</sup> 11.3	<sup>3</sup> 10.0
41 to 45 years.....	7.1	6.7	<sup>5</sup> 12.9	<sup>5</sup> 7.9	---	---	9.3	5.3	9.3	6.2	---	---	10.0	7.6	8.5	5.1	<sup>3</sup> 9.3	<sup>3</sup> 6.4
46 to 50 years.....	6.8	3.9	<sup>5</sup> 9.6	<sup>5</sup> 5.4	<sup>4</sup> 17.8	<sup>4</sup> 12.8	7.7	5.7	7.8	6.5	---	---	8.4	6.5	9.0	6.7	<sup>3</sup> 7.9	<sup>3</sup> 5.7
51 years and over.....	8.8	6.2	<sup>5</sup> 15.5	<sup>5</sup> 7.2	<sup>4</sup> 14.9	<sup>4</sup> 7.8	11.8	7.6	13.8	6.2	---	---	14.1	9.2	15.0	3.8	<sup>3</sup> 14.3	<sup>3</sup> 7.1

Age	Indiana		Maryland		Massachusetts		New York		Rhode Island		Indiana		Maryland		Massachusetts		New York		Rhode Island	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER <sup>2</sup> IN 1929																				
Total.....	38,787	2,144	13,410	737	54,460	5,735	92,371	8,091	3,671	536										
Total reported.....	38,177	2,101	13,084	713	54,460	5,735	83,635	7,129	3,416	504										
PER CENT <sup>3</sup> IN 1929																				
Under 16 years.....	---	---	64	20	309	82	207	45	28	9										
16 to 20 years.....	<sup>4</sup> 2,870	<sup>4</sup> 474	1,585	226	6,150	1,408	7,655	1,714	555	163	<sup>4</sup> 7.5	<sup>4</sup> 22.6	12.1	31.7	11.3	24.6	9.2	24.0	16.2	32.3
21 to 25 years.....	---	---	2,353	141	9,135	1,193	13,179	1,253	511	91	---	---	18.0	19.8	16.8	20.8	15.8	17.6	15.0	18.1
26 to 30 years.....	<sup>4</sup> 13,224	<sup>4</sup> 757	2,012	80	8,011	686	12,579	917	406	66	<sup>4</sup> 34.6	<sup>4</sup> 36.0	15.4	11.2	14.7	12.0	15.0	12.9	11.9	13.1
31 to 35 years.....	---	---	1,641	58	7,009	587	11,447	778	418	46	---	---	12.5	8.1	12.9	10.2	13.7	10.9	12.2	9.1
36 to 40 years.....	<sup>4</sup> 9,499	<sup>4</sup> 427	1,628	58	6,405	614	11,282	779	367	47	<sup>4</sup> 24.9	<sup>4</sup> 20.3	12.4	8.1	11.8	10.7	13.5	10.9	10.7	9.3
41 to 45 years.....	---	---	1,235	42	5,206	427	8,563	573	335	29	---	---	9.4	5.9	9.6	7.4	10.2	8.0	9.8	5.8
46 to 50 years.....	<sup>4</sup> 6,995	<sup>4</sup> 281	951	34	4,345	325	7,071	492	286	19	<sup>4</sup> 18.3	<sup>4</sup> 13.4	7.3	4.8	8.0	5.7	8.5	6.9	8.4	3.8
51 years and over.....	<sup>4</sup> 5,589	<sup>4</sup> 162	1,615	54	7,890	413	11,652	578	510	34	<sup>4</sup> 14.6	<sup>4</sup> 7.7	12.3	7.6	14.5	7.2	13.9	8.1	14.9	6.7

<sup>1</sup> The numbers reported for a 2-year period have been divided by 2. Total excludes the 104 fatal cases, sex not reported.  
<sup>2</sup> For period covered and injuries tabulated see Chart II, facing p. 9, except in the case of injuries tabulated for Illinois, for which State the present table shows compensable cases occurring.  
<sup>3</sup> Age groups are 17 and under, 18 and under 23, 23 and under 28, and in 5-year groups to 53 and over.  
<sup>4</sup> Age groups are under 20, 20 and under 30, and in 10-year groups to 50 and over.  
<sup>5</sup> Age groups are under 16, 16 to 20, 21 to 24, 25 to 29, and in 5-year groups to 50 and over.  
<sup>6</sup> 21 and over.

TABLE 6.—Distribution of injuries to male and female employees by extent of disability and age group, 1928 and 1929

[For sources of information, see appendix]

State and age group	Number <sup>1</sup>										Per cent <sup>1</sup>									
	Male					Female					Male					Female				
	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary	Total	Fatal	Perma- nent total	Perma- nent partial	Tempo- rary
1928																				
Illinois:																				
Under 21 years.....	<sup>2</sup> 3,784	37	4	703	<sup>3</sup> 3,039	609	2	-----	138	<sup>4</sup> 469	<sup>5</sup> 100.0	1.0	0.1	18.6	<sup>6</sup> 80.3	100.0	0.3	-----	22.7	<sup>7</sup> 77.0
21 years and over.....	<sup>2</sup> 44,885	465	25	10,385	<sup>3</sup> 33,986	71,617	1	1	295	<sup>4</sup> 1,316	<sup>5</sup> 100.0	1.0	.1	23.1	<sup>6</sup> 75.7	100.0	.1	0.1	18.2	<sup>7</sup> 81.4
Maryland:																				
Under 21 years.....	1,533	6	-----	72	1,455	230	-----	-----	10	220	100.0	.4	-----	4.7	94.9	100.0	-----	-----	4.3	95.7
21 years and over.....	11,417	81	6	522	10,808	484	-----	-----	21	463	100.0	.7	.1	4.6	94.7	100.0	-----	-----	4.3	95.7
Massachusetts:																				
Under 21 years.....	6,065	12	1	144	5,908	1,403	-----	-----	34	1,369	100.0	.2	( <sup>9</sup> )	2.4	97.4	100.0	-----	-----	2.4	97.6
21 years and over.....	48,679	324	11	955	47,389	4,183	4	-----	64	4,115	100.0	.7	( <sup>9</sup> )	2.0	97.3	100.0	.1	-----	1.5	98.4
New York:																				
Under 21 years.....	7,623	47	-----	1,015	6,561	1,560	2	-----	240	1,318	100.0	.6	-----	13.3	86.1	100.0	.1	-----	15.4	84.5
21 years and over.....	70,077	1,034	48	13,530	55,465	4,529	20	2	859	3,648	100.0	1.5	.1	19.3	79.1	100.0	.4	( <sup>9</sup> )	19.0	80.5
1929																				
Maryland:																				
Under 21 years.....	1,649	4	-----	81	1,564	246	-----	-----	19	227	100.0	0.2	-----	4.9	94.8	100.0	-----	-----	7.7	92.3
21 years and over.....	11,435	63	-----	499	10,873	467	-----	-----	18	449	100.0	.6	-----	4.4	95.1	100.0	-----	-----	3.9	96.1
Massachusetts:																				
Under 21 years.....	6,459	28	1	137	6,293	1,490	-----	-----	27	1,463	100.0	.4	( <sup>9</sup> )	2.1	97.4	100.0	-----	-----	1.8	98.2
21 years and over.....	48,001	324	3	1,104	46,570	4,245	1	-----	84	4,160	100.0	.7	( <sup>9</sup> )	2.3	97.0	100.0	( <sup>9</sup> )	-----	2.0	98.0
New York:																				
Under 21 years.....	7,862	56	1	1,129	6,676	1,759	3	-----	206	1,550	100.0	.7	( <sup>9</sup> )	14.4	84.9	100.0	.2	-----	11.7	88.1
21 years and over.....	75,773	1,125	55	15,396	59,197	5,370	11	3	956	4,400	100.0	1.5	.1	20.3	78.1	100.0	.2	0.1	17.8	81.9

<sup>1</sup> For period covered and injuries tabulated see Chart II, facing p. 9.  
<sup>2</sup> Includes 1 with extent of disability not reported.  
<sup>3</sup> Includes 42 with combinations of some kinds of disability.  
<sup>4</sup> Includes 14 with combinations of some kinds of disability.  
<sup>5</sup> Includes 24 with extent of disability not reported.

<sup>6</sup> Includes 695 with combinations of some kinds of disability.  
<sup>7</sup> Includes 4 with extent of disability not reported.  
<sup>8</sup> Includes 36 with combinations of some kinds of disability.  
<sup>9</sup> Less than 0.05 per cent.

TABLE 7.—*Distribution of injuries to male and female employees by cause and age group, New Jersey, 1928*

[For sources of information, see appendix]

Cause of injury	Number <sup>1</sup>				Per cent <sup>1</sup>			
	Male		Female		Male		Female	
	Under 21 years	21 years and over	Under 21 years	21 years and over	Under 21 years	21 years and over	Under 21 years	21 years and over
Total .....	2,418	21,721	539	1,302	100.0	100.0	100.0	100.0
Machinery .....	578	2,477	252	308	23.9	11.4	46.8	23.7
Falls of persons .....	255	3,600	64	474	10.5	16.6	11.9	36.4
Handling of objects <sup>2</sup> .....	783	7,580	101	229	32.4	34.9	18.7	17.6
Stepping on or striking against objects .....	155	1,485	42	107	6.4	6.8	7.8	8.2
Explosions, electricity, heat, etc. ....	118	1,086	21	53	4.9	5.0	3.9	4.1
Falling objects .....	89	1,780	17	34	3.7	8.2	3.2	2.6
Vehicles .....	300	2,118	4	26	12.4	9.8	.7	2.0
Harmful substances .....	32	469	12	10	1.3	2.2	2.2	.8
Miscellaneous and indefinite .....	108	1,126	26	61	4.5	5.2	4.8	4.7

<sup>1</sup> Closed compensable cases, calendar year.<sup>2</sup> Includes hand tools.

from one-fourteenth to one-sixth of men's injuries. As facts about the seriousness of injuries by age groups indicate that younger workers suffer almost as large a proportion of serious injuries as do older workers, their accidents can not be dismissed as being of slight importance. Finally, the data for one State suggest the importance of machinery as a cause of accidents to younger workers. Regardless of how many other conditions, such as the number of young persons employed, the kind of work done, length of time on the job, and so forth, may partially account for the accident experience of young workers (as they do for that of all workers), the characteristics of youth and its general inexperience undoubtedly are contributing factors in these accidents. Careful placement of all workers and more careful training and supervision of new workers, essential in any accident-prevention program, may help to prevent accidents to all workers, but special protection, further excluding them from dangerous occupations and from operating certain machines, seems necessary for the younger workers.

### INDUSTRIES IN WHICH INJURIES OCCURRED

Incompletely classified data on the industries in which accidents occurred in 1928 in five States and in 1929 in three States (Table 8) show the relative proportions of men's and women's injuries by industry groupings. Though these data would be more useful if there were information on the total numbers employed in these industries, so that the accident frequency could be computed, they supply important evidence as to the source of the injuries reported. For both sexes and for both years, manufacturing industries had the largest proportions of injuries in all the States but Pennsylvania in 1928, in which case mining, metallurgy, and quarrying had a slightly larger number of injuries to men than had manufacturing. In all cases, except Wisconsin in 1929, a greater proportion of the women's injuries than of the men's were in manufacturing industries—the range for men being

TABLE 8.—Industrial distribution of injuries to male and female employees, 1928 and 1929

[For sources of information, see appendix]

Industry	1928										1929					
	Illinois		Indiana <sup>1</sup>		New Jersey <sup>1</sup>		Pennsylvania		Wisconsin <sup>1</sup>		Indiana <sup>1</sup>		Pennsylvania		Wisconsin <sup>1</sup>	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER <sup>2</sup>																
Total.....	52,655	2,095	35,913	1,801	24,139	1,841	146,489	6,009	21,045	773	38,787	2,144	159,728	6,929	21,728	902
Manufacturing.....	21,706	1,045	20,475	1,218	10,543	1,074	49,859	3,001	11,214	416	22,942	1,458	57,005	3,505	12,267	472
Food, beverages, and tobacco.....			2,085	213					1,168	83	2,004	238			1,188	88
Clothing.....			79	166					(4)	(4)	83	196			(4)	(4)
Textiles.....			120	70					163	52	127	65			151	75
Metals and metal goods.....			6,192	180					4,078	92	7,131	191			5,070	101
Machinery and vehicles.....			4,213	88					947	34	5,293	132			1,150	24
Laundries and cleaning and dyeing.....			148	79					(5)	(5)	156	110			(5)	(5)
Leather, rubber, and composition.....			391	95					445	45	393	123			413	49
Paper, pulp, and paper goods.....			399	15					748	38	436	19			816	43
Printing.....			238	34					(5)	(5)	230	37			(5)	(5)
Wood and wood products.....			3,057	107					3,123	31	3,454	158			2,934	40
Stone, clay, and glass products.....			1,640	49					238	2	1,557	47			240	1
Chemicals.....			1,039	17					131	1	1,091	17			114	3
Other manufacturing.....			874	105					173	38	987	125			191	48
Clerical, professional, and personal service.....	3,655	623	592	281	7,639	7213	3,679	3196	944	263	631	329	4,061	215	884	291
Clerical and professional.....			200	50							181	70				
Hotels, restaurants.....			230	189							306	220				
Care and custody of buildings.....			120	30							124	31				
Miscellaneous, including domestic service.....			42	12							20	8				
Trade.....	4,452	294	1,954	248	1,557	142	7,307	1,033	1,696	72	2,118	316	8,282	1,231	1,841	110
Transportation and public utilities.....	3,985	98	3,086	45	3,593	53	9,519	134	2,093	7	3,276	33	8,978	134	1,987	14
Construction.....	9,643	19	5,642	7	5,470	4	18,532	43	4,271		5,665	5	20,457	35	4,017	2
Agriculture.....	262	1	253		431	15			398	15	249	1			413	13
Mining, metallurgy, and quarrying.....	8,676	6	3,774	1	603	3	51,330	9	427		3,767	1	53,671	3	316	
Other industries.....			137	1	1,303	7337	6,263	1,593	2		139	1	7,274	1,806	3	

PER CENT<sup>1</sup>

Industry	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing.....	41.4	50.1	57.0	67.6	43.7	58.3	34.0	49.9	53.3	53.8	59.1	68.0	35.7	50.6	56.5	52.3
Food, beverages, and tobacco.....			5.8	11.8					5.6	10.7	5.2	11.1			5.5	9.8
Clothing.....			.2	9.2					(4)	(4)	.2	9.1			(4)	(4)
Textiles.....			.3	3.9					.8	6.7	.3	3.0			.7	8.3
Metals and metal goods.....			17.2	10.0					19.4	11.9	18.4	8.9			23.3	11.2
Machinery and vehicles.....			11.7	4.9					4.5	4.4	13.6	6.2			5.3	2.7
Laundries and cleaning and dyeing.....			.4	4.4					(5)	(5)	.4	5.1			(5)	(5)
Leather, rubber, and composition.....			1.1	5.3					2.1	5.8	1.0	5.7			1.9	5.4
Paper, pulp, and paper goods.....			1.1	.8					3.6	4.9	1.1	.9			3.8	4.8
Printing.....			.7	1.9					(5)	(5)	.6	1.7			(5)	(5)
Wood and wood products.....			8.5	5.9					14.8	4.0	8.9	7.4			13.5	4.4
Stone, clay, and glass products.....			4.6	2.7					1.1	.3	4.0	2.2			1.1	.1
Chemicals.....			2.9	.9					.6	.1	2.8	.8			.5	.3
Other manufacturing.....			2.4	5.8					.8	4.9	2.5	5.8			.9	5.3
Clerical, professional, and personal service.....	7.0	29.9	1.6	15.6	7.2	11.6	2.5	3.3	4.5	34.0	1.6	15.3	2.5	3.1	4.1	32.3
Clerical and professional.....			.6	2.8							.5	3.3				
Hotels, restaurants.....			.6	10.5							.8	10.3				
Care and custody of buildings.....			.3	1.7							.3	1.4				
Miscellaneous, including domestic service.....			.1	.7							.1	.4				
Trade.....	8.5	14.1	5.4	13.8	6.5	7.7	5.0	17.2	8.1	9.3	5.5	14.7	5.2	17.8	8.5	12.2
Transportation and public utilities.....	7.6	4.7	8.6	2.5	14.9	2.9	6.5	2.2	9.9	.9	8.4	1.5	5.6	1.9	9.1	1.6
Construction.....	18.4	.9	15.7	.4	22.7	.2	12.7	.7	20.3		14.6	.2	12.8	.5	18.5	.2
Agriculture.....	.5	(10)	.7		1.8	.8			1.9	1.9	.6	(10)			1.9	1.4
Mining, metallurgy, and quarrying.....	16.6	.3	10.5	.1	2.5	.2	35.0	.1	2.0		9.7	(10)	33.6	(10)	1.5	
Other industries.....			.4	.1	5.4	18.3	4.3	26.5	(10)		.4	(10)	4.6	26.1	(10)	

<sup>1</sup> Some classifying has been done by the Women's Bureau.  
<sup>2</sup> For period covered and injuries tabulated see Chart II, facing p. 9, except in the case of injuries tabulated for Illinois, for which State the present table shows compensable cases occurring.  
<sup>3</sup> Totals include 276 males and 9 females with industry not reported. Per cents are based on 52,379 and 2,086.  
<sup>4</sup> Included in textiles.  
<sup>5</sup> Not obtainable. Laundries, cleaning and dyeing, and printing are combined in "Other manufacturing."  
<sup>6</sup> Governmental (754 males and 1 female), professional (335 males and 104 females), and services not otherwise classified (2,566 males and 518 females).  
<sup>7</sup> Domestic and personal service is included in "Other industries."  
<sup>8</sup> State and municipal government.  
<sup>9</sup> Includes garages.  
<sup>10</sup> Less than 0.05 per cent.

from 34 per cent to 59.1 per cent while for women it was from 49.9 per cent to 68 per cent.

The industries having the next largest proportion of injuries to women workers were those grouped as clerical, professional, and personal service, relatively unimportant employments for men from the point of view of injuries. The Indiana figures suggest that this is due to the relatively large numbers of injuries among women cleaners, janitresses, and hotel and restaurant workers. Trade also was a more important injury group for women than for men.

Construction was the industry group ranking second in men's injuries in every State listed but Pennsylvania, where, as already stated, the mining group and manufacturing outranked it. In Indiana, in both years, transportation and public utilities also had large numbers of accidents. The mining group is responsible for a large proportion of accidents in all States in which the industry is important.

The extent to which injuries to men and to women occur in the different types of manufacturing industries varies greatly. The data on numbers injured in manufacturing in Indiana and Wisconsin suggest that men's injuries are more concentrated in a few employments than are women's. In each State two industry groups caused one-half or more of the men's injuries in manufacturing—metals and metal goods and machinery and vehicles in Indiana, and the first of these and wood and wood products in Wisconsin. There was no such large proportion of women's injuries in any two industry groups.

Large proportions of the injuries occurred in the metals and metal-goods industry in both Indiana and Wisconsin for each sex and in each year. In both States the food, beverage, and tobacco group, and in Indiana clothing also caused large proportions of the injuries to women, while machinery and vehicles and wood and wood products caused more of the men's injuries.

### CAUSES OF INJURIES

The most important causes of injuries are not the same for women as for men. According to the data from five States (Table 9), machinery and falls caused the largest proportions of women's injuries in every case but Iowa in 1928, where, if the large group of miscellaneous and indefinite be excluded, falls ranked first, hand tools second, and machinery third, while the handling of objects caused the largest proportion of injuries to men.

Machinery caused a much larger proportion of the women's than of the men's injuries in every State but Iowa, where the proportions were similar. For both sexes, the largest proportions of injuries due to machinery were in Michigan in 1929, where 37.6 per cent of the women's and 18 per cent of the men's injuries were caused by machinery.

The largest proportions caused by falls of persons were 29.2 per cent for women in New Jersey in 1928 and 16.5 per cent for men in Iowa in 1929. In all but one case, Michigan in 1929, falls were a more important cause of men's injuries than was machinery; but for women there were more machine accidents than falls.

Handling of objects, in every case the cause of a larger proportion of the men's than of the women's injuries, was nevertheless an important

TABLE 9.—Distribution of injuries to male and female employees by cause, 1928 and 1929

[For sources of information, see appendix]

Cause of injury	1928								1929					
	Illinois		Indiana <sup>1</sup>		Iowa <sup>1</sup>		New Jersey <sup>1</sup>		Indiana <sup>1</sup>		Iowa <sup>2</sup>		Michigan	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER <sup>3</sup>														
Total.....	4 52,655	4 2,095	35,913	1,801	7,554	343	24,139	1,841	38,787	2,144	6,881	314	5 34,769	1,155
Machinery.....	6,931	488	3,332	395	1,052	48	3,055	560	3,889	481	1,049	52	6,257	434
Falls of persons.....	7,339	556	4,792	378	1,183	70	3,855	538	5,258	426	1,137	61	4,717	205
Handling of objects.....	12,492	336	5,833	205	495	2	6 8,363	6 330	6,305	222	466	6	7,476	193
Stepping on or striking against objects.....	5,089	232	5,884	313	390	5	1,640	149	6,066	408	381	7	3,084	108
Hand tools.....	3,777	95	1,433	90	993	52	(7)	(7)	1,507	129	756	47	1,761	42
Explosions, electricity, heat, etc.....	2,473	128	1,868	106	123	-----	1,204	74	2,087	121	130	2	443	12
Falling objects.....	5,467	61	5,604	86	1,080	19	1,869	51	6,060	98	1,070	14	4,027	42
Vehicles.....	5,618	64	2,374	25	65	-----	2,418	30	2,504	28	89	-----	3,220	21
Harmful substances.....	770	33	415	26	33	1	501	22	538	33	54	5	1,792	42
Animals.....	490	16	217	4	4	-----	-----	-----	191	6	12	-----	146	-----
Miscellaneous and indefinite.....	1,421	65	4,161	173	2,136	146	1,234	87	4,382	187	1,737	120	1,838	56
PER CENT <sup>3</sup>														
Total.....	4 100.0	4 100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	5 100.0	100.0
Machinery.....	13.4	23.5	9.3	21.9	13.9	14.0	12.7	30.4	10.0	22.4	15.2	16.6	18.0	37.6
Falls of persons.....	14.1	26.8	13.3	21.0	15.7	20.4	16.0	29.2	13.6	19.9	16.5	19.4	13.6	17.7
Handling of objects.....	24.1	16.2	16.2	11.4	6.6	.6	6 34.6	6 17.9	16.3	10.4	6.8	1.9	21.5	16.7
Stepping on or striking against objects.....	9.8	11.2	16.4	17.4	5.2	1.5	6.8	8.1	15.6	19.0	5.5	2.2	8.9	9.4
Hand tools.....	7.3	4.6	4.0	5.0	13.1	15.2	(7)	(7)	3.9	6.0	11.0	15.0	5.1	3.6
Explosions, electricity, heat, etc.....	4.8	6.2	5.2	5.9	1.6	-----	5.0	4.0	5.4	5.6	1.9	.6	1.3	1.0
Falling objects.....	10.5	2.9	15.6	4.8	14.3	5.5	7.7	2.8	15.6	4.6	15.6	4.5	11.6	3.6
Vehicles.....	10.8	3.1	6.6	1.4	.9	-----	10.0	1.6	6.5	1.3	1.3	-----	9.3	1.8
Harmful substances.....	1.5	1.6	1.2	1.4	.4	.3	2.1	1.2	1.4	1.8	.8	1.6	5.2	3.6
Animals.....	.9	.8	.6	.2	.1	-----	-----	-----	.5	.3	.2	-----	.4	-----
Miscellaneous and indefinite.....	2.7	3.1	11.6	9.6	28.3	42.6	5.1	4.7	11.3	8.7	25.2	38.2	5.3	4.8

<sup>1</sup> Some classifying has been done by the Women's Bureau.

<sup>2</sup> Some classifying has been done by the Women's Bureau. The numbers reported for a 2-year period have been divided by 2.

<sup>3</sup> For period covered and injuries tabulated see Chart II, facing p. 9, except in the case of injuries tabulated for Illinois, for which State the present table shows compensable cases occurring.

<sup>4</sup> Totals include 788 males and 21 females with cause not reported. Percentages are based on 51,867 and 2,074.

<sup>5</sup> Total includes 8 with cause not reported. Percentages are based on 34,761.

<sup>6</sup> Includes hand tools.

<sup>7</sup> Included in handling of objects.



TABLE 10.—Cause of injuries to male and female employees, Illinois, 1928, by industry group

[For sources of information, see appendix]

Cause of injury	Industry group																					
	Total reported		Agriculture and extractive industries <sup>1</sup>		Mining and quarrying; petroleum wells		Manufacturing		Construction		Transportation		Communication		Trade and finance		Professional service		Governmental service		Services not otherwise classified	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER <sup>2</sup>																						
Total.....	51,728	2,068	258	1	8,506	4	21,496	1,039	9,542	19	3,661	23	278	74	4,402	292	327	103	735	1	2,523	512
Machinery.....	6,916	487	19		352		5,077	393	664	3	191		7	1	325	24	32	10	22		227	56
Falls of persons.....	7,321	554	44		608	1	2,254	160	2,391	6	412	5	76	42	715	123	104	41	128	1	589	175
Handling of objects.....	12,467	336	48	1	1,699		5,796	166	1,999	5	1,022	2	45	3	1,180	54	62	13	96		520	92
Stepping on or striking against objects.....	5,079	230	13		747		2,043	118	1,171	1	271		22	5	450	43	29	10	73		260	53
Hand tools.....	3,767	95	23		887	1	1,355	56	668		250		18	2	314	10	18		42		192	26
Explosions, electricity, heat, etc.....	2,468	128	9		286		1,433	38	237	1	101	2	18	3	107	8	13	8	18		246	68
Falling objects.....	5,454	61	13		2,259	2	1,400	39	1,182		165		21	4	199	9	8	4	100		107	3
Vehicles.....	5,591	64	52		1,320		1,047	18	808	1	1,015	13	51	10	835	8	34	5	213		216	9
Occupational disease and industrial poisoning.....	244	4			1		209	3	11		5				13		1		2		2	1
Poisonous and corrosive substances.....	521	29	4		29		272	16	143		9		5		19	5	6	4	4		30	4
Animals.....	484	15	26		136		109	9	58	2	55		3		61		3	1	11		22	3
Miscellaneous.....	1,416	65	7		182		501	23	210		165	1	12	4	184	8	17	7	26		112	22

PER CENT DISTRIBUTION BY CAUSE OF INJURY<sup>3</sup>

Total.....	100.0	100.0	100.0	(4)	100.0	(4)	100.0	100.0	100.0	(4)	100.0	(4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(4)	100.0	100.0
Machinery.....	13.4	23.5	7.4		4.1		23.6	37.8	7.0		5.2		2.5	1.4	7.4	8.2	9.8	9.7	3.0		9.0	10.9
Falls of persons.....	14.2	26.8	17.1		7.1		10.5	15.4	25.1		11.3		27.3	56.8	16.2	42.1	31.8	39.8	17.4		23.3	34.2
Handling of objects.....	24.1	16.2	18.6		20.0		27.0	16.0	20.9		27.9		16.2	4.1	26.8	18.5	19.0	12.6	13.1		20.6	18.0
Stepping on or striking against objects.....	9.8	11.1	5.0		8.8		9.5	11.4	12.3		7.4		7.9	6.8	10.2	14.7	8.9	9.7	9.9		10.3	10.4
Hand tools.....	7.3	4.6	8.9		10.4		6.3	5.4	7.0		6.8		6.5	2.7	7.1	3.4	5.5		5.7		7.6	5.1
Explosions, electricity, heat, etc.....	4.8	6.2	3.5		3.4		6.7	3.7	2.5		2.8		6.5	4.1	2.4	2.7	4.0	7.8	2.4		9.8	13.3
Falling objects.....	10.5	2.9	5.0		26.6		6.5	3.8	12.4		4.5		7.6	5.4	4.5	3.1	2.4	3.9	13.6		4.2	.6
Vehicles.....	10.8	3.1	20.2		15.5		4.9	1.7	8.5		27.7		18.3	13.5	19.0	2.7	10.4	4.9	29.0		8.6	1.8
Occupational disease and industrial poisoning.....	.5	.2			(5)		1.0	.3	.1		.1				.3		.3		.3		.1	.2
Poisonous and corrosive substances.....	1.0	1.4	1.6		.3		1.3	1.5	1.5		.2		1.8		.4	1.7	1.8	3.9	.5		1.2	.8
Animals.....	.9	.7	10.1		1.6		.5	.9	.6		1.5		1.1		1.4		.9	1.0	1.5		.9	.6
Miscellaneous.....	2.7	3.1	2.7		2.1		2.3	2.2	2.2		4.5		4.3	5.4	4.2	2.7	5.2	6.8	3.5		4.4	4.3

PER CENT DISTRIBUTION BY INDUSTRY GROUP<sup>4</sup>

Total.....	100.0	100.0	0.5	(5)	16.4	0.2	41.6	50.2	18.4	0.9	7.1	1.1	0.5	3.6	8.5	14.1	0.6	5.0	1.4	(5)	4.9	24.8
Machinery.....	100.0	100.0	.3		5.1		73.4	80.7	9.6	.6	2.8		.1	.2	4.7	4.9	.5	2.1	.3		3.3	11.5
Falls of persons.....	100.0	100.0	.6		8.3	.2	30.8	28.9	32.7	1.1	5.6	.9	1.0	7.6	9.8	22.2	1.4	7.4	1.7	.2	8.0	31.6
Handling of objects.....	100.0	100.0	.4	.3	13.6		46.5	49.4	16.0	1.5	8.2	.6	.4	.9	9.5	16.1	.5	3.9	.8		4.2	27.4
Stepping on or striking against objects.....	100.0	100.0	.3		14.7		40.2	51.3	23.1	.4	5.3		.4	2.2	8.9	18.7	.6	4.3	1.4		5.1	23.0
Hand tools.....	100.0	100.0	.6		23.5	1.1	36.0	58.9	17.7		6.6		.5	2.1	8.3	10.5	.5		1.1		5.1	27.4
Explosions, electricity, heat, etc.....	100.0	100.0	.4		11.6		58.1	29.7	9.6	.8	4.1	1.6	.7	2.3	4.3	6.3	.5	6.3	.7		10.0	53.1
Falling objects.....	100.0	100.0	.2		41.4	3.3	25.7	63.9	21.7		3.0		.4	6.6	3.6	14.8	.1	6.6	1.8		2.0	4.9
Vehicles.....	100.0	100.0	.9		23.6		18.7	28.1	14.5	1.6	18.2	20.3	.9	15.6	14.9	12.5	.6	7.8	3.8		3.9	14.1
Occupational disease and industrial poisoning.....	100.0	(4)			.4		85.7		4.5		2.0				5.3		.4		.8		.8	
Poisonous and corrosive substances.....	100.0	(4)	.8		5.6		52.2		27.4		1.7		1.0		3.6		1.2		.8		5.8	
Animals.....	100.0	(4)	5.4		28.1		22.5		12.0		11.4		.6		12.6		.6		2.3		4.5	
Miscellaneous.....	100.0	100.0	.5		12.9		35.4	35.4	14.8		11.7	1.5	.8	6.2	13.0	12.3	1.2	10.8	1.8		7.9	33.8

<sup>1</sup> Except mining and quarrying and petroleum wells.  
<sup>2</sup> Compensable cases occurring during calendar year.  
<sup>3</sup> Excludes 927 injuries to males and 27 to females for which one or both of these factors was not reported.  
<sup>4</sup> Not computed; base less than 50.  
<sup>5</sup> Less than 0.05 per cent.

cause of injuries to women except in Iowa. Falling objects, another important cause group of men's injuries, were responsible for much smaller proportions of those to women.

That the greater importance of machinery as a cause of women's than of men's injuries is due, at least in part, to the fact that larger proportions of women's injuries than of men's are in the manufacturing industries, is suggested by Table 10, where data for Illinois in 1928 are cross classified with cause and industry. For both men and women, large proportions of all accidents (41.4 per cent and 50.1 per cent, respectively) and even larger proportions of machine accidents (73.4 per cent and 80.7 per cent, respectively) occurred in manufacturing. Of the injuries occurring in manufacturing industries a larger proportion of those to women than of those to men were due to machinery—37.8 per cent and 23.6 per cent, respectively. The 393 women's injuries caused by machinery in manufacturing are more than twice as many as any other single group of women's injuries. Handling objects, a group responsible for more of the men's injuries in manufacturing than any other single cause, was important as causing women's injuries in manufacturing also, as were falls of persons and stepping on or striking against objects.

Although these Illinois data emphasize machine injuries in manufacturing as an important group of women's injuries, the fact that in Illinois a larger proportion of all women's injuries were caused by falls (26.8 per cent) than by machinery (23.5 per cent) should be noted. These falls were distributed over nearly all the industries where women were injured; and they caused the largest proportion of the injuries to women in 6 of the 10 industry groups. More women injured by falls were employed in the service and manufacturing groups than in any other.

Data from Michigan show that machine accidents caused more of the serious injuries to women than did any other type. Machinery was the cause of large proportions of the injuries in that State in 1929—37.6 per cent for women and 18 per cent for men. Information on cause by extent of disability, available only for Michigan, shows that of the women's permanent partial injuries (the two fatals to women, neither caused by machinery, were the only injuries to women more serious than permanent partials) 93.1 per cent were caused by machinery. For men, machinery caused 68.4 per cent of the permanent partial injuries.<sup>10</sup> When it is noted also that slightly larger proportions of the women's than of the men's injuries in Michigan were of a permanent character (see Table 2) the importance of machinery as the cause of most of the serious injuries to women in this State is emphasized. In this connection it is significant to recall that data on cause and age (see Table 7) suggest that the importance of machinery as a cause of women's injuries may be partly due to the youth of many women workers.

**WAGES OF PERSONS INJURED**

Working women receive much lower wages than do working men. It follows that the compensation of injured women is much lower than the compensation of injured men. How great is this difference in wages in three industrially important States is shown in Table 11.

<sup>10</sup> Michigan. Department of Labor and Industry. Labor and Industry, Vol. I, No. 1, December 1930, pp. 33, 87.

In two States, Illinois and Wisconsin, 26 and 34 per cent, respectively, of the women injured in 1928 as contrasted with only 2 and 3 per cent of the men, were earning less than \$15 a week at the time of the injury. In a third State, New York, with a wage grouping slightly different, 35 per cent and 3 per cent, respectively, were earning \$15 or less.

TABLE 11.—Distribution of injuries to male and female employees by weekly wage, 1928 and 1929

[For sources of information, see appendix]

Weekly wage	1928 <sup>1</sup>						1929 <sup>1</sup>			
	Illinois		New York		Wisconsin		New York		Wisconsin	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER:										
Total.....	52,655	2,095	86,545	7,020	21,045	773	92,371	8,091	21,728	902
Wages not reported.....	476	10	2,271	233	7	-----	1,944	240	17	-----
Total reported.....	52,179	2,085	84,274	6,787	21,038	773	90,427	7,851	21,711	902
Less than \$10.....	191	91	3,428	394	75	25	3,443	553	76	25
\$10 and less than \$15.....	971	462	2,172	1,973	531	241	2,362	2,339	446	276
\$15 and less than \$20.....	3,619	786	6,257	1,789	2,657	285	6,507	1,914	2,506	340
\$20 and less than \$25.....	8,861	359	15,666	1,213	5,180	113	16,947	1,304	5,322	142
\$25 and less than \$30.....	9,451	164	19,919	633	3,835	63	20,573	746	3,965	61
\$30 and less than \$35.....	9,254	90	14,279	309	4,066	20	14,776	432	4,413	25
\$35 and less than \$40.....	6,012	61	7,557	166	2,225	11	8,222	233	2,347	11
\$40 and less than \$45.....	5,179	29	5,130	122	1,183	7	6,091	135	1,231	10
\$45 and less than \$50.....	3,204	14	4,462	97	529	8	5,051	98	570	12
\$50 and less than \$55.....	1,710	8	1,986	21	363	-----	2,158	29	422	-----
\$55 and less than \$60.....	721	6	1,840	24	150	-----	2,041	32	161	-----
\$60 and over.....	3,006	15	4,578	46	244	-----	5,256	36	252	-----
PER CENT:										
Total reported.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$10.....	.4	4.4	3.5	5.8	.4	3.2	3.5	7.0	.4	2.8
\$10 and less than \$15.....	1.9	22.2	2.6	29.1	2.5	31.2	2.6	29.8	2.1	30.6
\$15 and less than \$20.....	6.9	37.7	7.4	26.4	12.6	36.9	7.2	24.4	11.5	37.7
\$20 and less than \$25.....	17.0	17.2	18.6	17.9	24.6	14.6	18.7	16.6	24.5	15.7
\$25 and less than \$30.....	18.1	7.9	23.6	9.3	18.2	8.2	22.8	9.5	18.3	6.8
\$30 and less than \$35.....	17.7	4.3	16.9	4.6	19.3	2.6	16.3	5.5	20.3	2.8
\$35 and less than \$40.....	11.5	2.9	9.0	2.4	10.6	1.4	9.1	3.0	10.8	1.2
\$40 and less than \$45.....	9.9	1.4	6.1	1.8	5.6	.9	6.7	1.7	5.7	1.1
\$45 and less than \$50.....	6.1	.7	5.3	1.4	2.5	1.0	5.6	1.2	2.6	1.3
\$50 and less than \$55.....	3.3	.4	2.4	.3	1.7	-----	2.4	.4	1.9	-----
\$55 and less than \$60.....	1.4	.3	2.2	.4	.7	-----	2.3	.4	.7	-----
\$60 and over.....	5.8	.7	5.4	.7	1.2	-----	5.8	.5	1.2	-----

<sup>1</sup> In addition, Indiana reported the average weekly wage for females as \$14.25 in 1928 and \$14.13 in 1929.  
<sup>2</sup> For Illinois, compensable cases occurring, calendar year; for New York, closed compensable cases, year ended June 30; for Wisconsin, closed compensable cases, calendar year.  
<sup>3</sup> Wage groups are \$10 and under, over \$10 and including \$15, over \$15 and including \$20, and in \$5 groups to over \$60.

As the compensation payments in these three States, as in most others, are a specific percentage of the wage received, it is evident that the low wages of large numbers of women workers place them at a decided disadvantage as compared with the average man in recovering the expense of an injury through compensation. Low wages, which make the accumulation of savings to meet emergencies difficult if not impossible, are an additional handicap to the injured worker in reducing below an adequate sum the amount of compensation paid.

APPENDIX

Page references in State reports classifying accident statistics by sex, 1927, 1928, and 1929, used in Tables 1 to 11

State	Publication	Page references for table—										
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
Colorado	Biennial report of Industrial Commission, period ended Nov. 30, 1930 (eleventh report)	Facing 10										
Georgia	Seventh and eighth annual reports of Industrial Commission, Jan. 1, 1927, to Dec. 31, 1928	23				22, 23						
Idaho	Biennial reports of Industrial Accident Board, period ended Oct. 31: 1928 (sixth report)	139	139									
	1930 (seventh report)	121	121									
Illinois	Annual reports of Department of Labor, years ended June 30: 1928 (eleventh report)	84				72			74	74	74	72
	1929 (twelfth report)	84	84	78	78		84					
Indiana	Annual reports of Industrial Board, years ended Sept. 30: 1927	2, 3							7, 51	14, 55		
	1928	28, 63		19, 58		28, 63			6, 50	12, 53		
	1929	26, 61		17, 56		26, 61						
Iowa	Biennial reports of Bureau of Labor, periods ended June 30: 1928 (twenty-third report)	8, 9	7, 9	8, 9						8, 9		
	1930 (twenty-fourth report)	9, 11		9, 11						9, 11		
Kentucky	Annual reports of Workmen's Compensation Board, years ended June 30: 1927 (eleventh report)	5										
	1928 (twelfth report)	5										
	1929 (thirteenth report)	5										
Maryland	Annual reports of Industrial Accident Commission, years ended Oct. 31: 1927 (thirteenth report)	24										
	1928 (fourteenth report)	24	24			23	23					
	1929 (fifteenth report)	26	26			25	25					
Massachusetts	Annual reports of Department of Industrial Accidents, years ended June 30: 1927 (fifteenth report)	34										
	1928 (sixteenth report)	34	34			33	33					
	1929 (seventeenth report)	36	9			35	35					
Michigan	Labor and Industry, quarterly bulletin of Department of Labor and Industry, Vol. I, No. 1, December, 1930	33, 87	86, 87							33, 87		
New Jersey	Industrial Bulletin of Department of Labor: September, 1928	43, 45										
	September, 1929	27, 35	32, 35			27, 35		26, 35	26, 35	32, 35		

New York	Special bulletins of Department of Labor: No. 157, Compensation statistics, year ended June 30, 1927	56										
	No. 160, Cost of compensation, year ended June 30, 1928	32, 33	73			72	72					70
	No. 170, Cost of compensation, two years ended June 30, 1930	127	127			126	126					120
Pennsylvania	Labor and Industry, Bulletin of Department of Labor and Industry, Vol. XVIII, No. 6, June, 1931	9	9							9		
Rhode Island	Reports of Commissioner of Labor for years— 1927	12										
	1928	13				13						
	1929	14				14						
Wisconsin	Wisconsin Labor Statistics: Bulletin No. 25, Mar. 14, 1930					1						
	Bulletin No. 28, July 28, 1930	4, 11				12			12			4, 11
	Bulletin No. 31, Sept. 25, 1930								1			

## PUBLICATIONS OF THE WOMEN'S BUREAU

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

- \*No. 1. Proposed Employment of Women During the War in the Industries of Niagara Falls, N. Y. 16 pp. 1918.
- \*No. 2. Labor Laws for Women in Industry in Indiana. 29 pp. 1919.
- No. 3. Standards for the Employment of Women in Industry. 8 pp. Fourth ed., 1928.
- No. 4. Wages of Candy Makers in Philadelphia in 1919. 46 pp. 1919.
- \*No. 5. The Eight-Hour Day in Federal and State Legislation. 19 pp. 1919.
- No. 6. The Employment of Women in Hazardous Industries in the United States. 8 pp. 1921.
- \*No. 7. Night-Work Laws in the United States. (1919) 4 pp. 1920.
- \*No. 8. Women in the Government Service. 37 pp. 1920.
- \*No. 9. Home Work in Bridgeport, Conn. 35 pp. 1920.
- \*No. 10. Hours and Conditions of Work for Women in Industry in Virginia. 32 pp. 1920.
- No. 11. Women Street Car Conductors and Ticket Agents. 90 pp. 1921.
- \*No. 12. The New Position of Women in American Industry. 158 pp. 1920.
- \*No. 13. Industrial Opportunities and Training for Women and Girls. 48 pp. 1921.
- \*No. 14. A Physiological Basis for the Shorter Working Day for Women. 20 pp. 1921.
- No. 15. Some Effects of Legislation Limiting Hours of Work for Women. 26 pp. 1921.
- No. 16. (See Bulletin 98.)
- No. 17. Women's Wages in Kansas. 104 pp. 1921.
- No. 18. Health Problems of Women in Industry. 6 pp. Revised, 1931.
- No. 19. Iowa Women in Industry. 73 pp. 1922.
- \*No. 20. Negro Women in Industry. 65 pp. 1922.
- No. 21. Women in Rhode Island Industries. 73 pp. 1922.
- \*No. 22. Women in Georgia Industries. 89 pp. 1922.
- No. 23. The Family Status of Breadwinning Women. 43 pp. 1922.
- No. 24. Women in Maryland Industries. 96 pp. 1922.
- No. 25. Women in the Candy Industry in Chicago and St. Louis. 72 pp. 1923.
- No. 26. Women in Arkansas Industries. 86 pp. 1923.
- \*No. 27. The Occupational Progress of Women. 37 pp. 1922.
- No. 28. Women's Contributions in the Field of Invention. 51 pp. 1923.
- No. 29. Women in Kentucky Industries. 114 pp. 1923.
- No. 30. The Share of Wage-Earning Women in Family Support. 170 pp. 1923.
- No. 31. What Industry Means to Women Workers. 10 pp. 1923.
- No. 32. Women in South Carolina Industries. 128 pp. 1923.
- \*No. 33. Proceedings of the Women's Industrial Conference. 190 pp. 1923.
- No. 34. Women in Alabama Industries. 86 pp. 1924.
- No. 35. Women in Missouri Industries. 127 pp. 1924.
- No. 36. Radio Talks on Women in Industry. 34 pp. 1924.
- No. 37. Women in New Jersey Industries. 99 pp. 1924.
- No. 38. Married Women in Industry. 8 pp. 1924.
- No. 39. Domestic Workers and Their Employment Relations. 87 pp. 1924.
- No. 40. (See Bulletin 98.)
- No. 41. Family Status of Breadwinning Women in Four Selected Cities. 145 pp. 1925.
- No. 42. List of References on Minimum Wage for Women in the United States and Canada. 42 pp. 1925.
- No. 43. Standard and Scheduled Hours of Work for Women in Industry. 68 pp. 1925.

\* Supply exhausted.

- No. 44. Women in Ohio Industries. 137 pp. 1925.
- No. 45. Home Environment and Employment Opportunities of Women in Coal-Mine Workers' Families. 61 pp. 1925.
- No. 46. Facts about Working Women—A Graphic Presentation Based on Census Statistics. 64 pp. 1925.
- No. 47. Women in the Fruit-Growing and Canning Industries in the State of Washington. 223 pp. 1926.
- \*No. 48. Women in Oklahoma Industries. 118 pp. 1926.
- No. 49. Women Workers and Family Support. 10 pp. 1925.
- No. 50. Effects of Applied Research Upon the Employment Opportunities of American Women. 54 pp. 1926.
- No. 51. Women in Illinois Industries. 108 pp. 1926.
- No. 52. Lost Time and Labor Turnover in Cotton Mills. 203 pp. 1926.
- No. 53. The Status of Women in the Government Service in 1925. 103 pp. 1926.
- \*No. 54. Changing Jobs. 12 pp. 1926.
- No. 55. Women in Mississippi Industries. 89 pp. 1926.
- No. 56. Women in Tennessee Industries. 120 pp. 1927.
- No. 57. Women Workers and Industrial Poisons. 5 pp. 1926.
- No. 58. Women in Delaware Industries. 156 pp. 1927.
- No. 59. Short Talks About Working Women. 24 pp. 1927.
- No. 60. Industrial Accidents to Women in New Jersey, Ohio, and Wisconsin. 316 pp. 1927.
- No. 61. The Development of Minimum-Wage Laws in the United States, 1912 to 1927. 635 pp. 1928.
- No. 62. Women's Employment in Vegetable Canning in Delaware. 47 pp. 1927.
- No. 63. (See Bulletin 98.)
- No. 64. The Employment of Women at Night. 86 pp. 1928.
- \*No. 65. The Effects of Labor Legislation on the Employment Opportunities of Women. 498 pp. 1928.
- No. 66-I. History of Labor Legislation for Women in Three States. 133 pp. 1929. (Separated from No. 66-II in reprint, 1932.)
- No. 66-II. Chronological Development of Labor Legislation for Women in the United States. 145 pp. 1929. (Revised and separated from No. 66-I in 1932.)
- No. 67. Women Workers in Flint, Mich. 80 pp. 1929.
- No. 68. Summary: The Effects of Labor Legislation on the Employment Opportunities of Women. (Reprint of Chapter II of Bulletin 65.) 22 pp. 1928.
- No. 69. Causes of Absence for Men and for Women in Four Cotton Mills. 24 pp. 1929.
- No. 70. Negro Women in Industry in 15 States. 74 pp. 1929.
- No. 71. Selected References on the Health of Women in Industry. 8 pp. 1929.
- No. 72. Conditions of Work in Spin Rooms. 41 pp. 1929.
- No. 73. Variations in Employment Trends of Women and Men. 143 pp. 1930.
- No. 74. The Immigrant Woman and Her Job. 179 pp. 1930.
- No. 75. What the Wage-Earning Woman Contributes to Family Support. 21 pp. 1929.
- No. 76. Women in 5-and-10-cent Stores and Limited-Price Chain Department Stores. 58 pp. 1930.
- No. 77. A Study of Two Groups of Denver Married Women Applying for Jobs. 11 pp. 1929.
- No. 78. A Survey of Laundries and Their Women Workers in 23 Cities. 166 pp. 1930.
- No. 79. Industrial Home Work. 20 pp. 1930.
- No. 80. Women in Florida Industries. 115 pp. 1930.
- No. 81. Industrial Accidents to Men and Women. 48 pp. 1930.
- No. 82. The Employment of Women in the Pineapple Canneries of Hawaii. 30 pp. 1930.
- No. 83. Fluctuation of Employment in the Radio Industry. 66 pp. 1931.
- No. 84. Fact Finding with the Women's Bureau. 37 pp. 1931.
- No. 85. Wages of Women in 13 States. 213 pp. 1931.
- No. 86. Activities of the Women's Bureau of the United States. 15 pp. 1931.
- No. 87. Sanitary Drinking Facilities, with Special Reference to Drinking Fountains. 28 pp. 1931.

\* Supply exhausted.

- No. 88. The Employment of Women in Slaughtering and Meat Packing. 210 pp. 1932.
  - No. 89. The Industrial Experience of Women Workers at the Summer Schools, 1928 to 1930. 62 pp. 1931.
  - No. 90. Oregon Legislation for Women in Industry. 40 pp. 1931.
  - No. 91. Women in Industry. A Series of Papers to Aid Study Groups. 79 pp. 1931.
  - No. 92. Wage-Earning Women and the Industrial Conditions of 1930—A Survey of South Bend. 84 pp. 1932.
  - No. 93. Household Employment in Philadelphia. 88 pp. 1932.
  - No. 94. State Requirements for Industrial Lighting. A Handbook for the Protection of Women Workers, Showing Lighting Standards and Practices. 65 pp. 1932.
  - No. 95. Bookkeepers, Stenographers, and Office Clerks in Ohio, 1914 to 1929. 34 pp. 1932.
  - No. 96. Women Office Workers in Philadelphia. 17 pp. 1932.
  - No. 97. The Employment of Women in the Sewing Trades of Connecticut—Preliminary report. 13 pp. 1932.
  - No. 98. Labor Laws for Women in the States and Territories. Revision of Bulletin 63. 71 pp. 1932.
  - No. 99. The Installation and Maintenance of Toilet Facilities in Places of Employment. 89 pp. 1932.
  - No. 100. The Effects on Women of Changing Conditions in the Cigar and Cigarette Industries. 187 pp. 1932.
  - No. 101. The Employment of Women in Vitreous Enameling. 64 pp. 1932.
  - No. 102. Industrial Injuries to Women in 1928 and 1929 Compared with Injuries to Men. 36 pp. 1933.
  - No. 103. Women Workers in the Third Year of the Depression: A Study of 109 Students in the Bryn Mawr Summer School. 15 pp. 1933.
  - No. 104. The Occupational Progress of Women, 1910 to 1930. (In press.)
- Pamphlet—Women's Place in Industry in 10 Southern States. 14 pp. 1931.
- Annual Reports of the Director, 1919,\* 1920,\* 1921,\* 1922, 1923,\* 1924,\* 1925, 1926, 1927,\* 1928,\* 1929,\* 1930,\* 1931, and 1932.

\* Supply exhausted.



