

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

[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

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BY

MARIE CORRELL



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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 Accidents¹ 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

¹ 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 year¹ 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;² 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.

¹ Maryland excluded because the published data are incomplete for 1922 to 1924.

² 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 *

[Asterisk (*) indicates States giving data for 1929 or 1920. Reports are those available in published form October 1, 1931]

Type of information *	Number of States publishing	State *	Period covered by published reports *	Source
Number injured.....	22	Alabama.....	1920 to 1922.....	First quadrennial report of Workmen's Compensation Commission, 1919-1922.
		California.....	1920 and 1921.....	Annual reports of Industrial Accident Commission, years ended June 30, 1921 and 1922.
		*Colorado.....	1919-20 to 1928-29.....	Annual and biennial reports of Industrial Commission, fourth to eleventh, periods ended Nov. 30, 1920 to 1930.
		*Georgia.....	1927 and 1928.....	Seventh and eighth annual reports of Industrial Commission, 1927 and 1928.
		*Idaho.....	1919-20 to 1921-22; 1922-1924 to 1928-1930.....	Biennial reports of Industrial Accident Board, second to seventh, periods ended Oct. 31, 1920 to 1930.
		*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; and Labor Bulletin of Department of Labor, Vol. VII, p. 12, June, 1928.
		*Indiana.....	1919-20 to 1928-29.....	Annual reports of Industrial Board, years ended Sept. 30, 1920 to 1929.
		*Iowa.....	1926-26; 1927-28 and 1928-1930.....	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.
		*Kentucky.....	1919-20 to 1928-29.....	Annual reports of Workmen's Compensation Board, years ended June 30, 1920 to 1929.
		*Maryland.....	1919-20 to 1928-29 (1922 to 1924, incomplete periods).....	Annual reports of Industrial Accident Commission, sixth to fifteenth, years ended Oct. 31, 1920 to 1929.
		*Massachusetts.....	1919-20 to 1928-29.....	Annual reports of Department of Industrial Accidents, years ended June 30, 1920 to 1929.
		*Michigan.....	1928-29.....	Labor and Industry, quarterly bulletin of Department of Labor and Industry, Vol. I, p. 1, December, 1930.
		Minnesota.....	1919-20 to 1928-24.....	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.
		Missouri.....	1927 (period incomplete).....	First annual report of Workmen's Compensation Commission, Jan. 9 to Dec. 31, 1927.
		Nebraska.....	1927.....	Biennial report of Department of Labor, 1926-1927.
		*New Jersey.....	1927 and 1928.....	Industrial Bulletin of Department of Labor, vol. 3, No. 9, September, 1928, and vol. 3, No. 9, September, 1929.
		*New York.....	1919-20 to 1928-29.....	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.

		*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, 1924, 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	Eight annual report of Bureau of Workshop and Factory Inspection, 1930.
		Virginia...	1919-20 to 1920-21; 1921-1922 to 1923-1924. (Figures for 1920-21 include nonfatal cases only; 1921-1922 and 1923-1924, 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, 1922 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.
Frequency rate.....	2	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.....	3	California...	1920 and 1921	Same as for number injured.
		*Illinois...	1924	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 1922 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, 1930, Same 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...	1920 to 1929	Labor Statistics, No. 28, July 28, 1930, and No. 31, Sept. 25, 1930.
Cause.....	7	*Illinois...	1924	Same as for industry.
		*Indiana...	1919-20 and 1920-21; 1925-26 to 1928-29	Do.
		*Iowa...	1925-26; 1927-28 and 1928-1929	Same as for number injured.
		*Michigan...	1924-25	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.....	8	*Illinois...	1924	Same as for industry.
		*Indiana...	1919-20 and 1920-21; 1925-26 to 1928-29	Do.
		*Iowa...	1927-28 and 1928-1929	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. 8, May, 1925.
Location of injury.....	9	*Illinois...	1924	Twelfth annual report of Department of Labor, year ended June 30, 1929.
		Indiana...	1919-20 and 1920-21; 1925-26 and 1928-29	Annual reports of Industrial Board, years ended Sept. 30, 1920, 1921, 1922, and 1927.

See footnotes at end of table.

INDUSTRIAL INJURIES TO WOMEN IN 1928 AND 1929

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.								
Idaho					Idaho	Ga.	Ga.	
Ill.	Ill.	Ill.	Ill.	Ill.	Ill.	Ill.		Ill.
Ind.	Ind.	Ind.	Ind.		Ind.	Ind.		Ind. ¹
Iowa		Iowa	Iowa		Iowa ²			
Ky.								
Md.					Md.	Md.		
Mass.					Mass.	Mass.		
N. J.	N. J.	N. J.			N. J.	N. J.		N. Y.
N. Y.					N. Y.	N. Y.		
Pa.	Pa.				Pa. ³			
R. I.						R. I.		
Wis.	Wis.					Wis.		Wis.
1929 ¹								
Colo.								
Idaho					Idaho			
Ind.	Ind.	Ind.	Ind.		Ind.			Ind. ¹
Iowa		Iowa	Iowa					
Ky.								
Md.					Md.	Md.		
Mass.					Mass.	Mass.		
Mich.		Mich.			Mich.			
N. Y.					N. Y.	N. Y.		N. Y.
Pa.	Pa.				Pa. ¹			
R. I.						R. I.		
Wis.	Wis.					Wis. ¹		Wis.

¹ Comparable data for men not available.² Fatais and nonfatalis only.³ 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.

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.⁴

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.

⁴ U. S. Bureau of Labor Statistics. *Standardization of Industrial Accident Statistics*. B.L.S. 256, 1929. 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

INDUSTRIAL INJURIES TO WOMEN IN 1928 AND 1929 11

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:									
Colorado	5,751	5,598	153	5,322	5,080	222	5,487	5,281	126
Georgia	17,087	5,653	414	16,067	5,653	414			
Idaho	7,594	7,413	181	7,594	7,413	181	7,540	7,544	286
Illinois	52,591	50,506	2,085	51,580	49,390	2,190	40,631	38,787	2,144
Indiana	40,539	38,745	1,794	37,714	34,913	1,801	40,631	38,787	2,144
Iowa				7,397	7,354	343	7,195	6,881	314
Kentucky	25,621	25,524	497	28,395	28,132	263	19,865	19,154	211
Maryland	14,521	13,685	835	13,903	13,166	736	14,147	13,410	137
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	25,565	24,053	1,512	25,960	24,139	1,821			
New York	98,964	91,385	7,579	98,555	86,545	12,010	100,463	92,371	8,091
Pennsylvania	190,743	154,903	5,640	152,498	146,480	6,018	165,657	159,728	6,929
Rhode Island	3,865	3,479	386	3,831	3,362	469	4,207	3,671	536
Wisconsin	20,473	19,657	816	21,818	21,045	773	22,630	21,725	905
PER CENT:									
Colorado	100.0	98.8	3.2	100.0	95.8	4.2	100.0	96.6	3.4
Georgia	100.0	98.2	1.8	100.0	93.2	6.8			
Idaho	100.0	97.6	2.4	100.0	97.6	2.4	100.0	98.2	1.8
Illinois	100.0	96.0	4.0	100.0	95.6	4.4	100.0	94.5	5.5
Indiana	100.0	96.6	3.4	100.0	95.2	4.8	100.0	95.6	4.4
Iowa				100.0	95.7	4.3	100.0	95.7	4.3
Kentucky	100.0	98.1	1.9	100.0	96.9	3.1	100.0	94.5	5.5
Maryland	100.0	94.2	5.8	100.0	94.7	5.3	100.0	94.5	5.5
Massachusetts	100.0	90.7	9.3	100.0	90.7	9.3	100.0	90.3	9.7
Michigan							100.0	96.8	3.2
New Jersey	100.0	98.0	2.0	100.0	92.9	7.1			
New York	100.0	92.5	7.5	100.0	87.5	12.5	100.0	91.9	8.1
Pennsylvania	100.0	80.4	19.6	100.0	80.1	19.9	100.0	85.8	14.2
Rhode Island	100.0	89.8	10.2	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

¹ For period covered and injuries tabulated see Chart II, facing p. 2.

² Excludes the 104 fatal cases, not separated by sex.

³ The numbers reported for a 2-year period have been divided by 2.

of Labor and Industry,⁴ 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 census⁵ 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

⁴ Pennsylvania Department of Labor and Industry. Labor and Industry. Vol. XVIII, No. 6, June, 1931, pp. 6 and 7.

⁵ U. S. Bureau of the Census. Gainful Workers in the United States by Industry Groups. (News Release, Sept. 4, 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 ¹										Per cent ¹									
	Male					Female					Male					Female				
	Total	Fatal	Per- manent total	Per- manent partial	Tem- porary	Total	Fatal	Per- manent total	Per- manent partial	Tem- porary	Total	Fatal	Per- manent total	Per- manent partial	Tem- porary	Total	Fatal	Per- manent total	Per- manent partial	Tem- porary
1928																				
Idaho.....	7,413	50	4	327	7,023	181	—	—	5	176	100.0	0.8	0.1	4.4	94.7	100.0	—	—	2.8	97.2
Illinois.....	40,200	519	30	11,280	37,434	2,200	5	1	441	1,837	100.0	1.1	.1	22.9	75.9	100.0	0.2	(?)	19.8	80.4
Iowa.....	7,554	34	—	—	—	343	1	—	—	—	100.0	.5	—	—	—	100.0	.8	—	—	—
Maryland.....	13,198	92	0	603	12,495	736	—	—	31	705	100.0	.7	(?)	4.6	94.7	100.0	—	—	4.2	95.8
Massachusetts.....	54,744	330	12	1,069	53,297	5,586	4	—	98	5,484	100.0	.0	(?)	2.0	97.4	100.0	.1	—	1.8	98.2
New Jersey.....	24,139	314	—	—	—	1,841	6	—	—	—	100.0	1.3	—	—	—	100.0	.8	—	—	—
New York.....	80,545	1,100	50	15,800	68,589	7,020	23	2	1,221	5,774	103.0	1.3	.1	18.3	80.4	100.0	.3	(?)	17.4	82.3
Pennsylvania.....	140,489	2,058	—	—	—	6,009	7	—	—	—	100.0	1.4	—	—	—	100.0	.1	—	—	—
1929																				
Idaho.....	7,544	63	—	344	7,137	206	—	—	0	287	100.0	0.8	—	4.6	94.6	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	.0	(?)	2.3	97.1	100.0	(?)	—	1.9	98.0
Michigan.....	24,708	390	4	2,221	22,163	1,155	2	—	102	1,061	100.0	1.1	(?)	6.4	92.3	100.0	0.2	—	8.8	91.0
New York.....	92,371	1,201	58	17,821	73,291	8,091	10	3	1,260	6,810	100.0	1.3	.1	19.3	79.3	100.0	.2	(?)	16.5	83.2
Pennsylvania.....	159,728	1,992	—	—	—	6,929	8	—	—	—	100.0	1.2	—	—	—	100.0	.1	—	—	—

¹ For period covered and injuries tabulated see Chart II, facing p. 9.² The numbers reported for a 2-year period have been divided by 2.³ Includes 27 with extent of disability not reported.⁴ Includes 704 with combinations of some kinds of disability.⁵ Includes 6 with extent of disability not reported.⁶ Includes 71 with combinations of some kinds of disability.⁷ Less than 0.05 per cent.⁸ Reported only for fatalities and nonfatalities.

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 ¹										Per cent ¹									
	1928					1929					1928					1929				
	Illinois		Indiana		Iowa ²		Indiana		Iowa ²		Illinois		Indiana		Iowa ²		Indiana		Iowa ²	
	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	708	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.....	69										.1									
Bruise, contusion, or abrasion.....	14,108	493	7,630	318	1,482	51	8,372	360	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.....	2,792	155	1,622	122	403	16	2,151	146	351	21	6.4	7.5	5.5	7.0	5.3	4.7	5.7	7.0	6.1	6.7
Concussion.....	74	8	14	1	24	3	40	1	20	1	.1	.4	(³)	.1	.3	.9	(³)	(³)	.3	.8
Crushing.....	367	2	516	21			514	15			.7	.1	1.5	1.2			1.4	.7		
Cut or laceration.....	11,087	488	6,668	438	2,157	130	7,666	571	1,684	99	21.3	23.5	19.8	25.2	28.6	37.9	20.1	27.5	24.8	31.5
Dislocation.....	421	21	(³)	(³)	53	1	(³)	(³)	48	3	.8	1.0	(³)	(³)	.7	.3	(³)	(³)	.7	1.0
Drowning.....	20						4				(³)						(³)			
Electric shock.....	63	5			29	3			24	5	.1	.2			.3	.9		.8		1.6
Foreign substance in eye.....					354	795	17	3,491	99	804	15.9	9.0	9.0	5.3	10.5	5.0	9.2	4.8	11.7	6.1
Fracture.....	8,205	187	3,172	93							.1	(³)						.1		
Freezing.....	32	1			5	2			7	1					.3	.6		.2		
Gas fumes.....					22				17											
Infection.....	2,073	160			671	64			620	65	4.0	8.1		8.9	18.7			9.0	20.7	
Inflammation.....	784	28			1						1.5	1.4		(³)						
Internal injury.....			60	4	12	(³)	60	10	10	1			.2	.2	.2	.3	.2	.5	.1	.3
Puncture.....	2,122	163			(³)	(³)		(³)	(³)	(³)	4.1	7.9		(³)	(³)			(³)	(³)	
Sickness.....	320	4									.6	.2								
Sprain or strain.....	7,598	285	5,663	228	1,214	38	6,125	249	1,083	33	14.6	13.7	16.1	13.1	16.1	11.1	16.1	12.0	15.7	10.8
Multiple injuries.....			6		180	7	1		213	6			(³)		2.4	2.0	(³)	3.1	1.6	
Not otherwise classified.....	103	6	8,601	487	51	6	8,946	592	60	7	.2	.3	24.5	28.0	.7	1.7	23.5	28.5	1.0	2.2

¹ 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.² Some classifying has been done by the Women's Bureau.³ Some classifying has been done by the Women's Bureau. Numbers reported for a 2-year period have been divided by 2.⁴ Includes blisters.⁵ Less than 0.05 per cent.⁶ Includes cut wounds.⁷ Includes punctures.⁸ Included in sprain or strain.⁹ Included in cut or laceration.¹⁰ Includes dislocations and cases of hernia.¹¹ 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 ¹	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER ²														
Total reported.....	51,842	2,059	3,155	80	1,082	42	8,660	211	21,748	1,210	15,268	407	1,059	19
Amputation or amputation.....	1,058	59	10	1	0	—	—	—	1,504	57	124	1	3	—
Asphyxiation (except drowning).....	59	—	—	—	—	—	—	—	—	—	—	—	50	—
Bilister, not otherwise classified.....	104	7	—	—	—	—	—	—	04	7	10	—	—	—
Bruiies, contusion, or abrasion.....	14,001	492	648	30	241	6	2,640	100	4,570	163	5,805	170	183	14
Burn or scald.....	2,682	147	213	4	347	15	73	5	980	83	881	40	170	—
Concussion.....	74	8	74	8	—	—	—	—	—	—	—	—	—	—
Crushing.....	367	1	20	—	2	—	51	—	80	1	48	—	157	—
Cut or laceration.....	11,041	484	1,077	24	1,005	11	204	3	7,168	304	1,405	52	45	—
Dislocation.....	420	21	—	—	4	—	52	3	277	14	87	4	—	—
Drowning.....	20	—	—	—	—	—	—	—	—	—	—	—	20	—
Electric shock.....	63	5	—	—	—	—	—	—	—	—	—	—	63	5
Fracture.....	8,258	187	280	2	105	4	1,105	18	3,157	112	3,647	31	32	—
Frosting.....	32	1	—	—	—	—	3	—	27	1	3	—	—	—
Infection (septic).....	2,006	168	92	1	11	—	19	3	1,631	155	313	0	—	—
Inflammation.....	763	27	480	3	11	2	51	2	135	16	80	4	11	—
Puncture.....	2,117	168	253	6	16	2	43	1	936	156	551	17	0	—
Stomach, general.....	281	—	—	—	—	—	—	—	—	—	—	—	281	—
Sprain or strain (including hernia).....	7,689	235	—	—	48	2	4,384	74	1,164	69	1,082	140	0	—
Not otherwise classified.....	101	5	30	1	3	—	25	2	19	2	23	—	11	—
PER CENT DISTRIBUTION BY NATURE OF INJURY ³														
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 amputation.....	8.2	2.9	.5	1.3	.5	—	—	—	6.9	4.7	.8	.2	.3	—
Asphyxiation (except drowning).....	.1	—	—	—	—	—	—	—	—	—	—	—	5.0	—
Bilister, not otherwise classified.....	.2	.8	—	—	—	—	—	—	.4	.6	.1	—	—	—
Bruiies, contusion, or abrasion.....	27.2	28.9	20.4	37.5	12.3	—	30.0	47.4	21.0	13.5	38.0	35.0	17.3	—
Burn or scald.....	5.2	7.1	8.7	8.0	17.8	—	.8	2.4	4.5	6.9	5.8	5.0	16.9	—

Concussion	.1	.4	2.8	10.0									
Crushing	.7	(9)	.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	(9)												1.9
Electric shock	.1	.2											6.0
Fracture	15.9	9.1	7.9	2.5	6.5		12.8	8.5	14.5	9.3	23.2	10.3	3.0
Freezing	.1	(9)					(9)		.1	.1	(9)		
Infection (septic)	4.0	8.2	2.0	1.3	.6		.2	1.4	7.5	12.8	2.1	1.8	
Inflammation	1.5	1.3	15.4	3.8	.0		.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	5.0	3.4	.5
Sickness, general	.5												20.6
Sprain or strain (including hernia)	14.6	13.8			2.5		50.0	35.1	5.4	5.7	13.0	28.2	.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	90.6	7.5	1.7	.2	
Asphyxiation (except drowning)	100.0												100.0	
Blisters, not otherwise classified	100.0	(4)							90.4		9.0			
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	0.7	5.0	9.9	2.3	1.8	.6	64.7	81.4	13.5	10.7	.4	
Dislocation	100.0	(5)			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	0.6	33.2	59.9	43.0	27.3	.4	
Freezing	100.0	(4)												
Infection (septic)	100.0	100.0	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	16.3	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	

¹ 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.

¹ Compensable cases occurring during calendar year.

^a Excludes 813 injuries to males and 36 to females for which one or both of these factors were not reported.

* Not computed; base less than 50.

* Less than 0.25 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,⁷ 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.⁸ 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.

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

⁸ 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.*

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

* 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		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 IN 1928																		
Total	5,633	414	52,655	2,095	35,918	1,801	18,166	738	54,744	5,686	24,189	1,841	55,545	7,020	3,302	469	21,045	773
Total reported	5,139	390	51,391	2,070	35,350	1,782	12,980	714	54,744	5,686	24,139	1,841	77,700	5,089	3,224	450	20,801	760
Under 16 years	66	10	93	11	—	—	87	18	309	112	72	22	208	42	18	8	819	40
16 to 20 years	813	134	4,073	544	2,450	202	1,470	212	5,759	1,291	2,346	517	7,415	1,518	481	150	2,937	218
21 to 24 years	1,017	63	8,040	291	—	—	2,205	117	9,101	1,303	21,741	1,352	12,392	1,123	504	80	2,192	126
25 to 30 years	374	80	7,034	304	12,208	645	2,091	98	8,071	715	—	—	11,819	775	440	89	2,010	78
31 to 35 years	936	38	7,073	260	—	—	1,072	63	8,083	643	—	—	10,436	601	372	48	2,394	69
36 to 40 years	569	20	7,470	340	6,120	344	1,922	68	6,556	507	—	—	10,182	612	361	42	2,307	75
41 to 45 years	364	20	6,636	104	—	—	1,200	38	6,092	344	—	—	7,807	463	275	23	1,900	48
46 to 50 years	347	16	4,959	112	6,301	224	909	41	4,244	304	—	—	6,511	303	290	30	1,010	43
51 years and over	453	24	7,953	149	6,255	130	1,520	54	7,552	247	—	—	10,900	562	483	17	2,922	63
PER CENT 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	2.9	.2	.5	—	—	.4	.2	.6	.2	.3	.1	.3	.7	.6	.1	1.6	.3
16 to 20 years	15.8	31.4	7.9	26.5	6.9	20.7	11.4	20.7	10.5	23.1	9.7	28.1	9.5	24.9	14.9	25.3	15.8	29.1
21 to 24 years	19.8	16.2	11.8	14.2	—	—	17.7	16.4	16.6	23.8	90.0	70.7	15.9	18.4	15.6	19.8	16.5	16.8
25 to 30 years	17.0	12.9	13.8	14.6	34.5	39.2	16.1	18.7	14.7	12.8	—	—	15.2	12.7	13.6	8.7	12.7	10.4
31 to 35 years	12.4	9.8	13.8	12.1	—	—	12.0	9.8	14.7	9.7	—	—	13.4	9.9	11.8	9.6	11.7	9.2
36 to 40 years	11.1	7.5	14.5	11.0	25.8	19.6	12.5	9.8	12.0	10.2	—	—	13.1	10.1	11.2	9.3	11.8	10.0
41 to 45 years	7.1	5.7	12.9	7.9	—	—	9.3	5.3	9.3	6.2	—	—	10.0	7.0	8.5	5.1	9.3	6.4
46 to 50 years	6.8	3.9	9.6	3.4	17.8	12.8	7.7	6.7	7.8	5.5	—	—	8.4	6.5	9.0	6.7	7.0	8.7
51 years and over	8.8	6.2	15.5	7.2	14.0	7.8	11.8	7.6	13.5	6.2	—	—	14.1	9.2	15.0	8.8	14.5	7.1

Age	Indiana		Maryland		Massachu- setts		New York		Rhode Island		Indiana		Maryland		Massachu- setts		New York		Rhode Island	
	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male
NUMBER ¹ IN 1929											PER CENT ² IN 1929									
Total.....	38,787	2,144	13,410	787	54,400	5,735	52,871	5,091	3,671	530										
Total reported.....	38,177	2,101	13,084	718	54,460	5,735	52,035	7,120	3,416	504	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 16 years.....			64	20	809	82	207	45	28	9			.6	2.8	.6	1.4	.2	.6	.8	1.8
16 to 20 years.....	* 2,870	* 474	1,585	225	6,180	1,405	7,655	1,714	855	163	* 7.5	* 22.6	12.1	31.7	11.3	24.0	0.2	24.0	16.2	32.3
21 to 25 years.....			2,359	141	9,135	1,103	13,179	1,253	611	91			18.0	19.8	10.8	20.8	15.8	17.6	18.0	18.1
26 to 30 years.....	* 13,224	* 787	2,012	80	8,011	686	12,570	917	400	60	* 34.6	* 36.0	15.4	11.2	14.7	12.0	16.0	12.9	11.9	13.1
31 to 35 years.....			1,641	58	7,009	587	11,447	778	418	46			13.5	8.1	12.9	10.2	13.7	10.9	12.2	9.1
36 to 40 years.....	* 9,499	* 427	1,628	58	6,405	614	11,292	770	367	47	* 24.9	* 20.8	12.4	8.1	11.8	10.7	13.8	10.9	10.7	9.3
41 to 45 years.....			1,235	42	5,206	427	8,503	573	335	20			9.4	5.9	9.6	7.4	10.2	8.0	9.8	5.8
46 to 50 years.....	* 6,995	* 281	951	34	4,345	325	7,071	492	294	19	* 18.8	* 13.4	7.8	4.8	8.0	5.7	8.5	6.9	8.4	5.8
51 years and over.....	* 5,559	* 182	1,615	54	7,890	413	11,652	578	510	34	* 14.6	* 7.7	12.3	7.6	14.5	7.2	13.9	8.1	14.9	6.7

¹ The numbers reported for a 2-year period have been divided by 2. Total excludes the 104 fatal cases, sex not reported.

² 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.

³ Age groups are 17 and under, 18 and under 23, 23 and under 28, and in 5-year groups to 53 and over.

⁴ Age groups are under 20, 20 and under 30, and in 10-year groups to 50 and over.

⁵ Age groups are under 16, 16 to 20, 21 to 24, 25 to 29, and in 5-year groups to 50 and over.

⁶ 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 ¹										Per cent ¹									
	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	3,784	87	4	708	3,030	600	2	138	460	100.0	1.0	0.1	18.6	80.3	100.0	0.3	22.7	77.0		
21 years and over	44,865	465	25	10,885	33,960	1,617	1	205	1,310	100.0	1.0	.1	33.1	78.7	100.0	.1	18.3	81.4		
Maryland:																				
Under 21 years	1,333	0	0	72	1,261	260	0	10	220	100.0	.4	0	4.7	94.9	100.0	0	4.3	95.7		
21 years and over	11,417	81	0	829	10,588	484	0	21	463	100.0	.7	.1	4.6	94.7	100.0	0	4.3	95.7		
Massachusetts:																				
Under 21 years	8,065	12	1	144	7,909	1,403	0	34	1,369	100.0	.3	(²)	2.4	97.4	100.0	0	2.4	97.6		
21 years and over	48,679	324	11	963	47,699	4,183	4	64	4,119	100.0	.7	(²)	2.0	97.8	100.0	.1	1.8	98.4		
New York:																				
Under 21 years	7,623	47	0	1,018	6,605	1,560	2	240	1,318	100.0	.6	0	13.3	86.1	100.0	.1	15.4	84.5		
21 years and over	70,077	1,014	48	18,530	51,499	4,536	20	850	3,686	100.0	1.5	.1	10.3	79.1	100.0	.6	(²)	10.0	89.6	
1929																				
Maryland:																				
Under 21 years	1,440	4	0	81	1,354	240	0	19	227	100.0	0.3	0	4.9	94.8	100.0	0	7.7	92.3		
21 years and over	11,435	63	0	409	10,926	407	0	18	449	100.0	.5	0	4.4	95.1	100.0	0	8.9	91.1		
Massachusetts:																				
Under 21 years	6,480	24	1	187	6,293	1,400	0	27	1,403	100.0	.4	(²)	2.1	97.4	100.0	0	1.8	98.2		
21 years and over	48,001	324	3	1,104	46,894	4,243	1	84	4,160	100.0	.7	(²)	2.3	97.0	100.0	(²)	2.0	98.0		
New York:																				
Under 21 years	7,863	56	1	1,120	6,742	1,740	3	306	1,434	100.0	.7	(²)	14.4	84.9	100.0	.2	11.7	88.1		
21 years and over	75,773	1,135	55	18,590	57,128	4,370	11	930	4,400	100.0	1.5	.1	10.3	78.1	100.0	.3	17.8	82.0		

¹ For period covered and injuries tabulated see Chart II, facing p. 9.² Includes 1 with extent of disability not reported.³ Includes 42 with combinations of some kinds of disability.⁴ Includes 14 with combinations of some kinds of disability.⁵ Includes 21 with extent of disability not reported.⁶ Includes 605 with combinations of some kinds of disability.⁷ Includes 4 with extent of disability not reported.⁸ Includes 85 with combinations of some kinds of disability.⁹ 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 ¹				Per cent ¹			
	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	265	2,600	64	474	10.5	16.6	11.9	36.4
Handling of objects ²	763	7,580	101	229	32.4	34.9	18.7	17.6
Stepping on or striking against objects	155	1,455	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

¹ Closed compensable cases, calendar year.² 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		New Jersey		Pennsylvania		Wisconsin		Indiana		Pennsylvania		Wisconsin	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER																
Total	18,655	9,065	15,018	1,801	24,180	1,841	140,480	8,000	91,045	778	114,787	3,144	150,796	8,090	21,728	102
Manufacturing	21,708	1,048	10,475	1,311	10,848	1,074	40,860	8,001	11,314	410	22,049	1,471	57,005	8,605	12,267	472
Food, beverages, and tobacco	2,105	218	218	218	218	218	218	218	1,100	85	2,004	218	218	218	1,100	85
Clothing	70	70	70	70	70	70	70	70	(1)	(1)	70	70	70	70	(1)	(1)
Textiles	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127
Metals and metal goods	6,109	101	101	101	101	101	101	101	4,074	84	7,181	101	101	101	5,070	101
Machinery and vehicles	4,918	70	70	70	70	70	70	70	4,047	84	5,908	101	101	101	5,070	101
Chemical and allied products	148	70	70	70	70	70	70	70	(1)	(1)	148	101	101	101	(1)	(1)
Leather, rubber, and composition	101	101	101	101	101	101	101	101	445	84	208	101	101	101	(1)	(1)
Paper, pulp, and paper goods	100	100	100	100	100	100	100	100	748	84	408	101	101	101	408	101
Printing	100	100	100	100	100	100	100	100	(1)	(1)	100	101	101	101	(1)	(1)
Wood and wood products	8,087	107	107	107	107	107	107	107	1,100	84	8,484	101	101	101	2,084	101
Stone, clay, and glass products	1,040	40	40	40	40	40	40	40	101	84	1,040	40	40	40	101	84
Chemicals	1,080	17	17	17	17	17	17	17	101	84	1,080	17	17	17	101	84
Other manufacturing	874	100	100	100	100	100	100	100	178	84	874	100	100	100	178	84
Electrical, professional, and personal service	8,085	808	808	808	808	808	8,085	808	808	808	808	808	8,085	808	808	808
Electrical and professional	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808
Police, fire, and other	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808
Care and custody of buildings	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808
Miscellaneous, including domestic service	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808	808
Trade	4,455	804	1,044	804	1,044	804	1,044	804	1,044	804	1,044	804	1,044	804	1,044	804
Transportation and public utilities	8,085	808	808	808	808	808	8,085	808	8,085	808	8,085	808	8,085	808	8,085	808
Construction	8,085	808	808	808	808	808	8,085	808	8,085	808	8,085	808	8,085	808	8,085	808
Agriculture	8,085	808	808	808	808	808	8,085	808	8,085	808	8,085	808	8,085	808	8,085	808
Mining, metallurgy, and quarrying	8,085	808	808	808	808	808	8,085	808	8,085	808	8,085	808	8,085	808	8,085	808
Other industries	8,085	808	808	808	808	808	8,085	808	8,085	808	8,085	808	8,085	808	8,085	808

PER CENT¹

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	57.6	43.7	58.3	34.0	49.0	53.3	53.8	59.1	68.0	55.7	50.5	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	0.2					(1)	(1)	.2	0.1			(1)	(1)
Textiles.....			.3	2.9					.8	0.7	.3	8.0			.7	8.3
Metals and metal goods.....			17.2	10.0					19.4	11.9	18.4	8.0			23.3	11.2
Machinery and vehicles.....			11.7	4.0					4.6	4.4	18.6	6.2			5.3	2.7
Laundries and cleaning and dyeing.....			.4	4.4					(1)	(1)	.4	3.1			(1)	(1)
Leather, rubber, and composition.....			1.1	5.3					2.1	3.8	1.0	5.7			1.9	5.4
Paper, pulp, and paper goods.....			1.1	.8					5.6	4.9	1.1	.9			3.8	4.8
Printing.....			.7	1.9					(1)	(1)	.6	1.7			(1)	(1)
Wood and wood products.....			8.6	5.9					14.8	4.0	8.9	7.4			13.8	4.4
Stone, clay, and glass products.....			4.8	2.7					1.1	.3	4.0	2.2			1.1	.1
Chemicals.....			2.9	.9					.0	.1	2.8	.8			.8	.3
Other manufacturing.....			2.4	5.8					.8	4.9	2.5	5.6			.9	5.3
Clerical, professional, and personal service.....	7.0	20.0	1.6	15.6	7.0	11.0	2.5	3.3	4.5	34.0	1.0	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		.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	13.6	6.8	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.....	7.0	4.7	8.0	2.5	14.9	2.0	0.5	2.2	9.0	.0	8.4	1.5	5.6	1.9	9.1	1.0
Construction.....	18.4	.0	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.....	16.0	.3	10.5	.1	2.8	.2	35.0	.1	2.0		9.7	(10)	33.6	(10)	1.5	
Other industries.....			.4	.1	5.4	18.3	4.3	28.5	(10)		.4	(10)	4.0	20.1	(10)	

¹ Some classifying has been done by the Women's Bureau.

² 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.

³ Totals include 276 males and 9 females with industry not reported. Per cents are based on 82,379 and 2,066.

⁴ Included in textiles.

⁵ Not obtainable. Laundries, cleaning and dyeing, and printing are combined in "Other manufacturing."

⁶ Governmental (754 males and 1 female), professional (336 males and 104 females), and services not otherwise classified (2,560 males and 518 females).

⁷ Domestic and personal service is included in "Other industries."

⁸ State and municipal government.

⁹ Includes garages.

¹⁰ 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 ¹		Iowa ¹		New Jersey ¹		Indiana ¹		Iowa ¹		Michigan	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
NUMBER ¹														
Total.....	62,055	2,005	35,918	1,601	7,554	843	24,130	1,841	28,787	2,144	6,881	814	84,760	1,155
Machinery.....	5,931	458	3,332	894	1,052	48	8,055	560	3,440	481	1,049	52	6,257	434
Falls of persons.....	7,339	550	4,702	378	1,183	70	8,855	538	5,258	420	1,137	61	4,717	313
Handling of objects.....	12,492	354	5,835	205	435	2	8,363	330	5,806	272	466	8	7,470	108
Stepping on or striking against objects.....	5,089	232	5,444	313	200	5	1,040	149	5,066	406	241	7	5,064	106
Hand tools.....	5,777	95	1,433	90	998	52	(?)	(?)	1,507	120	766	47	1,761	43
Explosions, electricity, heat, etc.....	2,473	128	1,898	106	123	-----	1,204	74	2,087	121	130	3	443	13
Falling objects.....	5,467	61	5,604	86	1,060	10	1,600	51	5,080	98	1,070	14	4,027	43
Vehicles.....	5,618	64	2,374	25	63	-----	2,418	80	2,604	29	80	-----	5,220	31
Harmful substances.....	770	33	415	26	33	1	501	22	538	36	54	5	1,702	49
Animals.....	490	16	217	4	4	-----	-----	-----	101	6	12	-----	146	-----
Miscellaneous and indefinite.....	1,421	65	4,161	178	2,130	140	1,234	87	4,382	187	1,737	120	1,838	66
PER CENT ¹														
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
Machinery.....	13.4	23.5	9.3	21.9	13.9	14.0	12.7	30.4	10.0	22.4	15.2	16.0	18.0	37.6
Falls of persons.....	14.1	26.8	13.3	21.0	15.7	20.4	10.0	29.2	13.5	19.0	15.5	10.4	13.6	17.7
Handling of objects.....	24.1	10.2	16.2	11.4	5.0	.0	34.6	17.9	16.3	10.4	6.8	1.9	21.8	16.7
Stepping on or striking against objects.....	9.8	11.2	15.4	17.4	5.2	1.5	0.8	8.1	15.9	19.0	6.6	2.2	8.9	9.4
Hand tools.....	7.8	4.6	4.0	5.0	13.1	15.2	(?)	(?)	3.9	6.0	11.0	16.0	8.1	8.6
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	4.5	14.3	5.5	7.7	2.8	15.6	4.6	15.6	4.8	11.6	8.0
Vehicles.....	10.8	3.1	6.6	1.4	.9	-----	10.0	1.6	0.8	1.3	1.3	-----	9.3	1.8
Harmful substances.....	1.5	1.0	1.2	1.4	.4	.8	2.1	1.2	1.4	1.8	.8	1.6	5.4	5.0
Animals.....	.9	.8	.6	.2	.1	-----	-----	-----	.5	.3	.2	-----	.4	-----
Miscellaneous and indefinite.....	2.7	3.1	11.6	9.6	28.3	42.0	5.1	4.7	11.2	8.7	25.2	88.2	5.8	4.5

¹ Some classifying has been done by the Women's Bureau.² Some classifying has been done by the Women's Bureau. The numbers reported for a 2-year period have been divided by 2.³ 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.⁴ Totals include 788 males and 21 females with cause not reported. Percentages are based on 51,867 and 2,074.⁵ Total includes 8 with cause not reported. Percentages are based on 34,761.⁶ Includes hand tools.⁷ 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 ¹		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 ¹																						
Total.....	51,728	2,068	358	1	8,506	4	21,406	1,039	9,542	19	3,661	23	278	74	4,402	292	827	103	735	1	2,528	512
Machinery.....	6,916	487	10	-----	352	-----	5,077	393	684	3	191	-----	7	1	825	24	89	10	22	-----	227	56
Falls of persons.....	7,321	554	44	-----	608	1	2,254	180	2,391	6	412	5	76	42	715	123	104	41	128	1	589	178
Handling of objects.....	12,467	336	48	1	1,699	-----	5,796	166	1,999	8	1,022	2	45	3	1,180	54	62	18	96	-----	520	92
Stepping on or striking against objects.....	6,070	230	13	-----	747	-----	2,043	118	1,171	1	271	-----	22	5	450	43	20	10	73	-----	260	53
Hand tools.....	3,767	95	23	-----	887	1	1,355	58	668	-----	250	-----	18	2	314	10	18	-----	42	-----	192	28
Explosions, electricity, heat, etc.....	2,468	129	9	-----	285	-----	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	30	1,182	-----	165	-----	31	4	199	9	8	4	100	-----	107	3
Vehicles.....	6,891	64	52	-----	1,320	-----	1,047	18	808	1	1,016	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	-----	10	5	6	4	4	-----	30	4
Animals.....	484	15	26	-----	136	-----	109	9	56	2	55	-----	3	-----	61	-----	8	1	11	-----	22	3
Miscellaneous.....	1,416	65	7	-----	182	-----	501	23	210	-----	165	1	12	4	164	8	17	7	26	-----	112	22

PER CENT DISTRIBUTION BY CAUSE OF INJURY¹

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	
Machinery.....	13.4	23.5	7.4	-----	4.1	-----	22.6	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	-----	10.6	15.4	25.1	-----	11.3	-----	27.3	56.8	16.2	42.1	31.8	39.8	17.4	-----	23.3	24.2
Handling of objects.....	24.1	16.2	18.6	-----	20.0	-----	37.0	18.0	20.9	-----	27.9	-----	10.2	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	8.0	-----	8.8	-----	9.5	11.4	12.5	-----	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	8.4	5.5	-----	5.7	-----	7.6	5.1
Explosions, electricity, heat, etc. Falling objects.....	4.8	6.2	3.5	-----	3.4	-----	6.7	8.7	2.6	-----	2.8	-----	6.5	4.1	2.4	2.7	4.0	7.8	2.4	-----	9.6	13.3
.....	10.8	2.9	5.0	-----	26.0	-----	6.6	3.8	12.4	-----	4.5	-----	7.0	5.4	4.6	3.1	2.4	3.9	13.0	-----	4.3	.6
Vehicles.....	10.8	8.1	20.2	-----	15.5	-----	4.9	1.7	8.5	-----	27.7	-----	18.2	13.5	19.0	2.7	10.4	4.9	29.0	-----	8.6	1.8
Occupational disease and indus- trial poisoning.....	.6	.2	-----	-----	(*)	-----	1.0	.3	.1	-----	.1	-----	-----	-----	.3	-----	.3	-----	.3	-----	.1	.2
Poisonous and corrosive sub- stances.....	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	-----
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	6.5	3.5	-----	4.4	4.3

PER CENT DISTRIBUTION BY INDUSTRY GROUP²

Total	* 100.0	* 100.0	0.5	(*)	15.4	0.2	41.5	50.2	18.4	0.9	7.1	1.1	0.5	3.0	3.5	14.1	0.5	5.0	1.4	(*)	4.9	24.8
Machinery	100.0	100.0	.3	-----	5.1	-----	73.4	80.7	9.5	.6	2.8	-----	.1	.2	4.7	4.9	.5	2.1	.3	-----	3.3	11.8
Falls of persons	100.0	100.0	.6	-----	8.3	.2	30.8	28.0	32.7	1.1	5.6	.9	1.0	7.6	9.8	22.2	1.4	7.4	1.7	-----	8.0	31.6
Handling of objects	100.0	100.0	.4	.3	13.6	-----	40.5	40.4	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	58.0	17.7	-----	0.0	-----	.5	2.1	8.3	10.5	.5	-----	1.1	-----	8.1	27.4
Explosions, electricity, heat, etc.	100.0	100.0	.4	-----	11.0	-----	58.1	29.7	9.6	.8	4.1	1.6	.7	2.3	4.3	0.3	.5	6.3	.7	-----	10.0	53.1
Falling objects	100.0	100.0	.2	-----	41.4	3.3	26.7	63.9	21.7	-----	8.0	-----	.4	0.6	5.0	14.8	.1	0.6	1.8	-----	2.0	4.9
Vehicles	100.0	100.0	.9	-----	23.6	-----	18.7	38.1	14.5	1.6	18.2	20.3	.9	15.6	14.9	12.5	.6	7.5	3.5	-----	3.9	14.1
Occupational disease and industrial poisoning	100.0	(*)	-----	-----	.4	-----	55.7	-----	4.5	-----	2.0	-----	-----	-----	5.3	-----	.4	-----	.8	-----	.8	-----
Poisonous and corrosive substances	100.0	(*)	.8	-----	5.6	-----	52.2	-----	27.4	-----	1.7	-----	1.0	-----	8.6	-----	1.2	-----	.8	-----	5.8	-----
Animals	100.0	(*)	5.4	-----	28.1	-----	22.5	-----	12.0	-----	11.4	-----	.6	-----	12.0	-----	.6	-----	2.3	-----	4.6	-----
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	33.5

¹ Except mining and quarrying and petroleum wells.² Compensable cases occurring during calendar year.³ Excludes 927 injuries to males and 27 to females for which one or both of these factors was not reported.⁴ Not computed; base less than 50.⁵ 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 fatalities 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.¹⁰ 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.

¹⁰ Michigan. Department of Labor and Industry. *Labor and Industry*, Vol. I, No. 1, December 1929, pp. 22, 27.

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 ¹						1929 ¹			
	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	428	394	75	25	443	553	78	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	758	6,257	1,789	2,657	285	6,507	1,914	2,506	340
\$20 and less than \$25.....	8,561	359	15,866	1,213	5,180	113	18,947	1,304	5,322	142
\$25 and less than \$30.....	9,451	164	19,919	633	3,835	63	20,573	740	3,065	61
\$30 and less than \$35.....	9,254	90	14,279	309	4,066	20	14,776	432	4,413	26
\$35 and less than \$40.....	6,012	61	7,657	166	2,225	11	8,222	233	2,347	11
\$40 and less than \$45.....	5,179	29	6,130	122	1,183	7	8,091	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	373	---	2,158	29	422	---
\$55 and less than \$60.....	721	6	1,840	24	150	---	2,041	52	161	---
\$60 and over.....	3,006	15	4,578	46	244	---	8,256	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	1.5	5.8	.4	8.2	1.5	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	11.6	37.7
\$20 and less than \$25.....	17.0	17.2	18.8	17.9	24.6	14.6	18.7	18.6	24.5	15.7
\$25 and less than \$30.....	18.1	7.9	23.6	9.3	18.2	8.2	22.5	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	---

¹ In addition, Indiana reported the average weekly wage for females as \$14.25 in 1928 and \$14.13 in 1929.

² For Illinois, compensable cases occurring, calendar year; for New York, closed compensable cases, year ended June 30; for Wisconsin, closed compensable cases, calendar year.

³ 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.	28				21, 23						
Idaho	Biennial reports of Industrial Accident Board, period ended Oct. 31:											
	1928 (sixth report)	189	139									
	1930 (seventh report)	121	121									
Illinois	Annual reports of Department of Labor, years ended June 30:											
	1928 (eleventh report)	84										
	1929 (twelfth report)	84	84	78	78	72	84		74	74	74	72
Indiana	Annual reports of Industrial Board, years ended Sept. 30:											
	1927	2, 8										
	1928	28, 69		19, 58		28, 68			7, 51	14, 55		
	1929	20, 61		17, 50		20, 61			0, 60	12, 53		
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)	8										
	1928 (twelfth report)	8										
	1929 (thirteenth report)	8										
Maryland	Annual reports of Industrial Accident Commission, years ended Oct. 31:											
	1927 (thirteenth report)	24										
	1928 (fourteenth report)	21	24			21	24					
	1929 (fifteenth report)	20	20			20	25					
Massachusetts	Annual reports of Department of Industrial Accidents, years ended June 30:											
	1927 (fifteenth report)	84										
	1928 (sixteenth report)	84	84			85	85					
	1929 (seventeenth report)	80	9			85	38					
Michigan	Labor and Industry, quarterly bulletin of Department of Labor and Industry, Vol. I, No. 1, December, 1930.	83, 87	80, 87							83, 87		
New Jersey	Industrial Bulletin of Department of Labor:											
	September, 1928	43, 45										
	September, 1929	27, 33	32, 35			27, 35		20, 35	20, 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.....	23, 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 23, 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., 1923.
- 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. 1934.
- No. 36. Radio Talks on Women in Industry. 34 pp. 1924.
- No. 37. Women in New Jersey Industries. 90 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.

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INDUSTRIAL INJURIES TO WOMEN IN 1918 AND 1924-1935

- No. 44. Women in Ohio Industries. 137 pp. 1925.
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- *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.
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- 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 Canneries 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.
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- No. 89. The Industrial Experience of Women Workers at the Summer Schools, 1928 to 1930. 62 pp. 1931.
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- 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.

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