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WOMEN'S BUREAU

Bulletin No. 160

INDUSTRIAL INJURIES
TO WOMEN AND MEN
1932 TO 1934

Pamphlet

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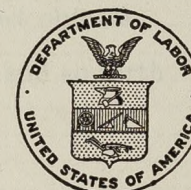
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WOMEN'S BUREAU
MARY ANDERSON, Director



INDUSTRIAL INJURIES TO WOMEN
AND MEN, 1932 TO 1934

By
MARGARET T. METTERT



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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
MEMORANDUM

INDUSTRIAL INJURIES TO WOMEN
AND MEN, 1927 TO 1934



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INDUSTRIAL INJURIES TO WOMEN AND MEN, 1932 TO 1934

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR, WOMEN'S BUREAU, Washington, May 3, 1938.

MADAM: I have the honor to transmit the fourth report issued by the Women's Bureau in its series dealing with industrial injuries to women.

Such injuries to women were an increasingly large part of the accident total in 1932 and 1933. Though in 1934, with the employment upturn in heavy industries, injuries increased more rapidly to men than to women, more than 4,000 women were injured in each of the important industrial States of Massachusetts, Missouri, New York, and Pennsylvania (1933), and in the 10 States reporting extent of disability about 150 women lost their lives in industry.

For the 3-year period covered, 1932 to 1934, 19 States made available certain data. Reports were received from 11 of the 18 States ranking highest in woman employment.

Grateful acknowledgement is made of the assistance of State officials in the collection of this material.

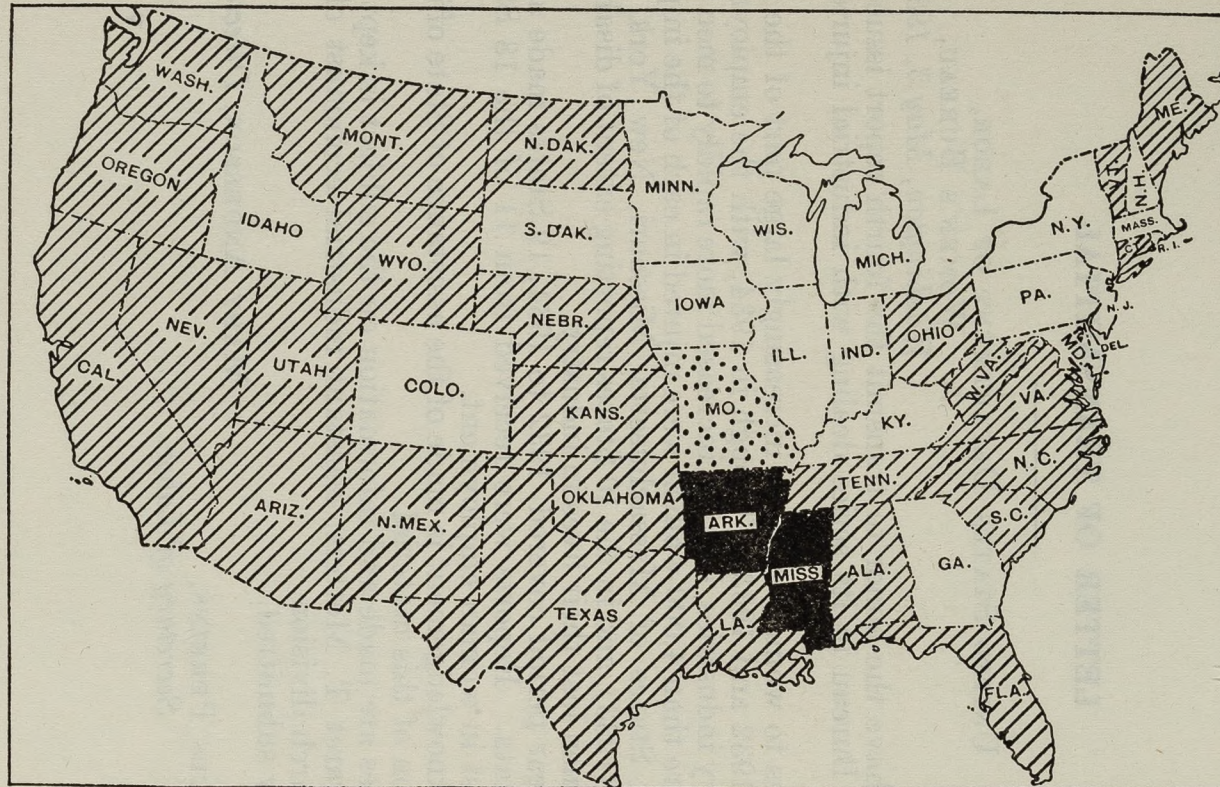
These studies are made and information on the subject is kept current by Margaret T. Mettert, assistant industrial economist of the Bureau's research division.

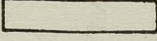
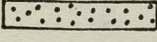
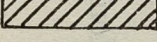

Respectfully submitted.

MARY ANDERSON, Director.

HON. FRANCES PERKINS, Secretary of Labor.

Plate I. STATES REPORTING NUMBER OF INJURED, BY SEX - 1932, 1933 and 1934



-  Data available for two or more of three years (18 States)
-  Data available for one year (1 State)
-  No data (27 States)
-  No compensation laws (2 States)

INDUSTRIAL INJURIES TO WOMEN AND MEN, 1932 TO 1934

INTRODUCTION

The efforts made today to protect the individual against the various hazards of life have a considerable background in the work done during the past 25 years to insure the worker against being mutilated or disabled in some accident of employment.

It has been estimated that the great majority of all accidents that occur in industry are preventable. State compensation authorities, employers' and workers' safety organizations, and numerous independent agencies have made much progress both in devising and installing methods of preventing accidents, and in securing some money payment to persons injured. Many individual groups and industrial plants can point with pride to their safety records.

Nevertheless, in the 10 States reporting on this subject to the Women's Bureau, about 150 employed women lost their lives in the period from 1932 to 1934 and in 2 States alone 6,000 women were permanently disabled. Through the records of workmen's compensation departments run the tragic stories of these injured women and often of their dependents.

In the 1934 reports of industrial fatalities in New York State, for example, are cited case after case of preventable accident. There is the case of a maid who pierced her thumb with a fork and died when the wound became infected; a janitress who died of an infected knee following a scratch that occurred while she was cleaning stairs; a beauty-shop operator who was fatally burned because of a short circuit in an electric dryer; a woman who died as a result of the explosion of a coffee urn; a laundry sorter who suffered a fatal infection contracted in her employment; two women circus performers who fell to their death.

Only by a knowledge of the extent of a problem can intelligent efforts be undertaken to solve it. The reporting of injuries, with their causes, severity, and other factors, is the key to their possible elimination. Such records are kept in a considerable number of States, and some of these make the information available to those who need it for purposes of developing methods of prevention. The effectiveness of this is shown by the fact that in some of the reporting States the number of persons injured in employment is gradually decreasing, although employment is increasing. No State, however undeveloped industrially, is free of the necessity for careful planning toward the prevention of accidents in industry, yet the majority tabulate the important factors affecting frequency and severity of the resulting injuries only at infrequent intervals, some of them not at all.

Realizing that the first step in prevention is to know the extent to which women suffer from industrial injuries, the Women's Bureau has brought together such data as State agencies can furnish on such accidents to women separately from those to men, and has prepared a continuing series of reports on this subject since 1927.¹ In the earliest of these it was found that only 21 States had published such material since 1920 and only seven recorded even the number of injuries for the 8 years. In the present report, 19 States have furnished facts about accidents to women, which, though available to an increasing extent, still are woefully inadequate and incomplete.

PROGRESS IN INJURY REPORTS

Comparable data about occupational injuries for men and women could be obtained for 1 or more of the 3 years 1932 to 1934 for 19 States, as compared to only 16 States in the 2 preceding years, 12 States in 1929.

The significant developments in these years in State reporting of injuries classified by sex are that New Hampshire has for the first time made available such data; Michigan and Georgia furnished information for the period 1932 to 1934, the first compiled by sex since 1929 for Michigan, 1928 for Georgia; in 1934 Missouri published the first accident report since 1927 that shows sex of injured workers; Illinois tables for the 3 years were published, whereas in the previous 2 years they were available only in unpublished form. On the other hand, lack of sufficient appropriation prevented the compilation of 1932 to 1934 accident data in Wisconsin and North Carolina, though unpublished data for Wisconsin are available.² The summary on pages 5 to 9 shows the salient facts as to injuries that affected women in the 3 years.

SOURCE AND SCOPE

Through the use of unpublished as well as published reports from State authorities this discussion can include accident data for the year 1934. The scope of the material also is increased to include 19 States as compared to 16 in 1930 and 15 in 1931, as shown on the map at the front of this bulletin.

The use of unpublished reports further made it possible to increase the number of classifications by sex for certain States. While in 1930 and 1931 cause of injury by sex was reported to the Women's Bureau by only four States, this important classification was available for eight States in one or more of the next 3 years. The industries in which injured persons worked were reported by sex by five States in 1930 and 1931, and by seven in 1932 to 1934. Pennsylvania made a detailed study of the marital status and dependents of injured women, and also classified location of injury and cost of compensation by sex for the first time. (See list on p. 3.)

¹ This report is fourth in series on industrial injuries to men and women. The earlier reports were: Bul. 81—Industrial Accidents to Men and Women; Bul. 102—Industrial Injuries to Women in 1928 and 1929 Compared with Injuries to Men; Bul. 129—Industrial Injuries to Women in 1930 and 1931 Compared with Injuries to Men.

² A number of States receive reports by sex, but neither the State collecting agency nor the Women's Bureau has been able to arrange for the statistical work necessary to handle the material.

Data on injuries classified by sex reported¹ by States for 1932 to 1934

[Calendar years or fiscal years ending in 1932, 1933, or 1934]

States reporting injuries by sex and—								
Number	Industry	Cause	Nature of injury	Location of injury	Extent of disability	Age of injured person	Wage	Amount of compensation paid
1932								
Colo. Ga. Idaho. Ill. Ind. Iowa. Ky. Md. Mass. Mich. Minn. N. J. N. Y. Pa. R. I. S. Dak. Wis.	Ga. Ill. Ind. Mich. N. J. Pa.	Ga. Ill. Ind. Iowa. Mich. N. J. Pa.	 Ind. Iowa. Mich. Pa.	 Ind. Pa.	 Ga. Idaho. Ill. Md. Mass. Mich. Minn. N. J. N. Y. Pa.	 Ill. Ind. Md. Mass. Mich. Minn. N. J. N. Y. R. I.	 Mich. N. Y.	 Ill. Mich. N. Y. Pa.
1933								
Colo. Ga. Idaho. Ill. Ind. Iowa. Ky. Md. Mass. Mich. Minn. N. H. N. J. N. Y. Pa. R. I. S. Dak. Wis.	Ga. Ill. Ind. Mich. N. H. N. J. Pa.	Ga. Ill. Ind. Iowa. Mich. N. H. N. J. Pa.	 Ind. Iowa. Mich. Pa.	 Ind. Pa.	 Ga. Idaho. Ill. Md. Mass. Mich. Minn. N. J. N. Y. Pa.	 Ill. Ind. Md. Mass. Mich. Minn. N. J. N. Y. R. I.	 Mich. N. Y.	 Ill. Mich. N. Y. Pa.
1934								
Colo. Ga. Idaho. Ill. Ind. Iowa. Ky. Md. Mass. Mich. Minn. Mo. N. H. N. J. N. Y. R. I. S. Dak.	Ga. Ill. Ind. Mich. N. H. N. J.	Ga. Ill. Ind. Iowa. Mich. N. H. N. J.	 Ind. Iowa. Mich.	 Ind. Pa.	 Ga. Idaho. Ill. Md. Mass. Mich. Minn. Mo. N. J. N. Y.	 Ill. Ind. Md. Mass. Mich. Minn. N. J. N. Y. R. I.	 Mich. N. Y.	 Ill. Mich. N. Y.

¹ Includes unpublished data furnished to the Women's Bureau.

In the period 1920 to 1934, 25 States have furnished data on injuries classified by sex. New Hampshire did so for the first time in 1933. Data are available for every year in the period only from the following seven States: Colorado, Idaho, Illinois, Indiana, Kentucky, Massachusetts, and New York.

A number of States have been seriously hampered by slashed appropriations for the valuable work of record keeping and publishing. It cannot be too often or forcibly stated that the only basis for accident prevention is accurate and readily available knowledge of the important facts about accidents—the type and nature of injury occurring, the industry responsible for its occurrence, the personal characteristics, that is, age, sex, and marital status, that may affect incidence of industrial injuries and the severity of injury.

Some advance is shown in comparing reports for the period 1932 to 1934 with those for previous years, but a glance at chart I in the appendix gives evidence of the continuing need for more reports and greater completeness. Several highly important woman-employing States never have classified accident data by sex. Of those not ranking so high in number of employed women, not one could claim to be free of hazardous conditions especially affecting women, and without a classification of data by sex the extent of this cannot be known.

Turning to the classifications available by sex for the 19 States reporting in one or more of the 3 years under discussion, there are found four whose report was for number only.³ On the other hand, one State correlated eight of the nine important subjects by sex for each of the 3 years.⁴ The States having correlations by sex with one or more of these subjects are shown in the list on the preceding page.

It is essential in measuring the efficacy of safety measures to have a rate of injury frequency based on man-hours of employment. Data on man-hours never have been available separately for men and women workers. As a consequence it never has been possible to separate the factor of varying employment levels as a cause of changing injury trends. Consideration has been given here to employment trend information from the decennial census of occupations, and from the various States in the discussion of changes in number and severity of injuries occurring.

CHARACTER OF DATA ⁵

It must be noted that, though the figures for any one State usually can be compared over a series of years, the data as between the States are not comparable. This is due to variations in basis of reporting, as for example, whether or not only compensable cases are reported, what employments are included, what length of disability is covered, period of reporting, and other factors. (The limitations of each State's tabulations are shown on chart I in the appendix. Careful perusal of this chart is necessary before any use is made of the following tables.)

The compensation status of accidents is of greatest importance in influencing the numbers tabulated. Some States require reports only of injuries that are compensable, others require reports of all injuries whether covered by the compensation law or not. Nine States tabu-

³ Colorado, Kentucky, South Dakota, and Wisconsin.

⁴ Michigan.

⁵ For more detailed discussion of the laws of the various States, see Women's Bureau buls. 81, 102, and 129.

late only cases which have been paid or are eligible for compensation, and one includes medical as well as compensable cases. Seven States tabulate all injuries reported, regardless of their compensation status (cases reported and tabulatable injuries), and one State shows all claims for compensation. One shows only "fatal and severe" cases of injury.

The minimum period of disability for which injuries are tabulated greatly affects the number of cases. Though most accidents result in slight injury, it is important for prevention that even these be reported, since if the cause is unremedied it may later have a much more serious result. Two injuries from similar causes may vary greatly in severity, and emphasis should be placed on the effort to prevent even the slightest. It is found, however, that eight of the States whose reports are used have tabulated only injuries resulting in disability of 1 week or more; nine tabulate those with resulting disability of 2 days or less, three of these showing all injuries without regard to time disabled; two States tabulate cases disabled for more than 3 days.

Where only injuries under the compensation law are reported the provisions as to employments covered vary from State to State. In general, casual employees, farm laborers, and household workers are excluded from compensation laws. Other restrictions important in affecting the numbers tabulated, as outlined in chart I in the appendix, include numerical limitations on coverage. In Georgia and Missouri⁶ employers having fewer than 10 employees are not covered by the compensation law, in Rhode Island those having fewer than six employees, in Colorado and New York⁷ fewer than four, in New Hampshire fewer than five, and in Kentucky fewer than three. In Idaho and Georgia charitable institutions are exempt. In Illinois and New Hampshire only enumerated extra-hazardous employments are covered.⁸

A further variation, though a minor one, lies in difference in reporting periods. Eight reports cover fiscal years, eight, calendar years. Three reports are for a biennial period. These have been divided by 2 to give an estimate for 1 year for this study.

While these variations in tabulated material make impossible a comparison between States of the accident hazards presented to working women, they do not make the data valueless, since those for any one State for the years 1927 to 1934 are comparable. Furthermore, analysis of accident data of even so incomplete a group of women workers suggests points of significance to those interested in prevention.

SUMMARY

States included.

Data on injuries from the following 19 States are classified for 1 or more of the years 1932 to 1934: Colorado, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, South Dakota, and Wisconsin.

The industrial ranking of the States is an indication of the significance of their accident experience. Among them are the three largest

⁶ In Missouri employments with fewer employees found to be hazardous also come under the law.

⁷ In New York all enumerated "hazardous" employments, which include principal industrial employments, are covered.

⁸ In Illinois this includes the principal industrial employments, but in New Hampshire the list is quite limited. (See chart I in the appendix.)

woman-employing States,⁹ and 8 others¹⁰ are among the first 18 States ranked according to woman employment.¹¹ Details of the findings follow.

Number of injuries (19 States reporting).

From 1932 to 1933 the number of men injured declined more than the number of women, and in the year following the number of men injured increased more than the number of women. This may be due in large part to the general decline in employment (greater for men than for women) from 1932 to 1933, while employment increased 1933 to 1934.

Large numbers of women were reported injured in the latest year of reporting (usually 1934) as follows:

Over 4,000	1,000, under 2,500	500, under 1,000	Under 500
Massachusetts	Georgia	Kentucky	Colorado
Missouri	Illinois	Maryland	Idaho
New York	Indiana	Wisconsin	Iowa
Pennsylvania	Michigan		New Hampshire
	Minnesota		Rhode Island
	New Jersey		South Dakota

In the latest year reported (usually 1934) women formed the following proportions of all persons reported injured:

10 percent or more	8, under 10 percent	5, under 8 percent	Under 5 percent
Massachusetts	Georgia	Idaho	Colorado
New Hampshire	Minnesota	Illinois	Iowa
Rhode Island	Missouri	Indiana	Kentucky
New York	New Jersey	Maryland	
		Michigan	
		Pennsylvania	
		South Dakota	
		Wisconsin	

Severity of injuries (10 States reporting).

As a rule, sufferers from the most serious injuries were men, but during the 3 years 185 women were affected by fatal or permanent total disabilities.

In three important woman-employing States, the following numbers of women suffered permanent partial disabilities:

New York reported 4,000 women permanently injured during the 3 years. New Jersey and Illinois each reported about 1,600 women permanently injured during the 3 years.

The following proportions of the injuries reported in the various States were temporary disabilities:

Males—64 to 98 percent.
Females—71 to 99 percent.

As to time lost, whether in permanent or temporary disabilities, the States reporting show no great difference between men and women, but men lost more time than women in every case but one.

Nature of injuries (four States reporting).

Bruises, contusions, or abrasions constituted the type of injury that ordinarily affected the greatest numbers of both sexes, from 14 to 38 percent of the injuries reported being of this nature. Cuts and lacerations ranked first in some cases, second in others.

Parts of body affected by injuries (two States reporting).

The upper extremities were the parts most frequently affected, whether for men or for women, but for much larger proportions of women. Next in order came the lower extremities, which were the parts injured in 20 percent or more of the cases reported for each sex in each State.

⁹ New York, Pennsylvania, and Illinois.

¹⁰ Massachusetts, New Jersey, Michigan, Georgia, Missouri, Indiana, Wisconsin, and Minnesota.

¹¹ U. S. Bureau of the Census. Fifteenth Census, 1930: Population, vol. IV, Occupations, p. 20.

Ages of injured persons (nine States reporting).

The women injured form on the whole a much younger group than the men affected, which is not surprising in view of the youth of the woman worker. The proportions of injured under 21 years of age ranged as follows:

Males—3 to 11 percent.
Females—14 to 30 percent.

The age groups showing the highest proportions of injuries in most States were as follows:

	1932	1933	1934
Males.....	26 to 30	26 to 30	26 to 30
	51 and over		
Females.....	16 to 20	16 to 20	21 to 25
		21 to 25	

Although younger persons had disproportionately large numbers of injuries, the older groups more frequently had severe disabilities. In almost every State throughout the period studied slightly larger proportions of men and women over 21 suffered fatal or permanent disabilities.

The chief cause of injuries to men, whether under or over 21 years of age, was handling objects. Women under 21 were more frequently the victims of machine accidents; those 21 and over more often were injured by falls.

Marital status and dependents of injured women (one State reporting).

More than half the injured women were single, as the following proportions show:

Single..... 52 to 55 percent.
Married..... 33 percent.
Widowed and divorced... 12 to 14 percent.

Few of the single women had dependents, but about 40 percent of those married and 25 to 30 percent of the widows had others dependent upon them for support, the average numbers of their dependents being as follows:

Of married women..... 2
Of widows..... 1.6 and 1.7

Industries in which injuries occurred (seven States reporting).

Manufacturing industries accounted for by far the major part of the injuries reported in most cases, usually for more of those to women than to men. The proportions of those injured that were engaged in manufacturing in the various States ranged as follows:

Males..... 27 to 86 percent.
Females..... 40 to 89 percent.

In the States listed below, 15 percent or more of all the injuries reported for 1 or more of the years occurred in the particular industries cited:¹²

	Males	Females
Clothing.....		Georgia Indiana Pennsylvania Illinois
Food, beverages, and tobacco.....		New Hampshire
Leather, rubber, and composition goods.....	Michigan.....	Michigan
Machinery and vehicles.....	Illinois	
Metals and metal goods.....	New Hampshire	
Paper, pulp, and paper goods.....	Georgia.....	Georgia
Textiles.....	New Hampshire....	New Hampshire

¹² Manufacturing details were not reported for New Jersey.

	Males	Females
Clerical, professional, and personal service	Illinois	Illinois Indiana Michigan New Jersey Pennsylvania Michigan
Care and custody of buildings		Illinois
Miscellaneous, including domestic service		Illinois
Construction	Georgia New Jersey	
Mining, metallurgy, quarrying	Illinois Indiana Pennsylvania	
Trade	Georgia Michigan	Georgia Illinois Indiana Michigan Pennsylvania
Transportation	New Jersey	

Causes of injuries (eight States reporting).

The States listed reported 20 percent or more of total injuries in one or more years as due to specified cause:

	Males	Females
Machinery	Michigan New Hampshire	Georgia Illinois Indiana Michigan New Hampshire New Jersey
Falls of persons		Illinois Indiana Iowa Michigan New Hampshire New Jersey Pennsylvania
Handling objects	Georgia Illinois New Hampshire New Jersey Pennsylvania	Georgia Illinois New Jersey
Stepping on or striking against objects		Indiana

Wages of injured persons (two States reporting) and compensation (four States reporting).

The wages of the injured women were characteristically below those of the men affected, and since compensation is based in part on wage, this meant the women who suffered received less for their injuries. The lowest wages usually were in 1933, and the highest in 1932. In 1934 the proportions of the men and women injured who had received weekly wages of various amounts in the two States reporting were as follows:

Weekly wage	Michigan		New York	
	Males	Females Percent	Males	Females
Under \$10	5.3	13.7	4.1	15.5
\$10, under \$15	14.3	45.4	21.1	43.8
\$40 and over	4.3	1.2	6.3	1.1

With two exceptions women's average compensation was never more than 87 percent of men's. It was less than 20 percent of men's for fatal accidents in one State. The proportions their compensation formed of men's in 1934 in the States reporting this type of information are as follows:

Extent of disability	Illinois	Michigan	New York	Pennsylvania ¹³
	Percent			
Fatal	69.8	74.3	27.7	19.8
Permanent total			105.0	
Permanent partial	80.8	49.8	87.0	¹⁴ 64.4
Temporary	70.8	69.0	63.1	59.5

DATA AS TO INJURIES

Proportion women form of all injured persons.

In general, from 1930 on an increasing proportion of the persons injured in industry were women. Over 9 percent of all injuries affected women in three States in 1931, in five in 1932, and in seven in 1933 and 1934. In 1933 only two States reported that less than 5 percent of the injured were women and five reported that over 10 percent of the total were women. In table 1 are assembled data on the industrial injuries occurring to women and to men in 1927 and in 1930 to 1934.

Two important textile States, Rhode Island and New Hampshire, rank highest in proportions of those hurt who were women, and also high are the important woman-employing States of Massachusetts, New Jersey, and Georgia. While Pennsylvania industries employ great numbers of women, the importance there of the heavy man-employing groups, steel and mining, far outweigh other industries in a consideration of accidents. Of total injuries in Pennsylvania each year less than 6 percent affected women. Similarly, the predominance of mining probably accounts for the small proportion of women among the injured in Kentucky.

While the number of injuries to women as well as men generally was decreasing in this period, those to women continue to be an important problem in many States. Over 1,000 women were injured in 1934 in each of 9 of the 16 States reported and the women who were hurt in the 16 States combined totaled close to 30,000.

Changes in number of injuries, 1927 to 1934.

Injuries continued into 1933 the decline they began in 1930, but for most States the trend was upward in 1934. Differentiated by sex, the decline from 1932 to 1933 was less for women than men in 8 of the 10 States that showed decreases for both sexes. In three States women's injuries increased considerably; in three men's injuries increased though not to so great an extent as in the States showing increased injury to women.

Every State with the exception of New York reported an increase in the number of injuries to men from 1933 to 1934. In only one State, Massachusetts, was the increase as great for women as men, and in five States there was actual decrease in the number of women's injuries.

Without question these data on industrial injuries reflect the employment trend of the period. Employment statistics show that cuts were more drastic in the heavy man-employing industries in the years 1930 to 1933, and when the trend was upward this swing began in these man-employing industries. Consequently, the great reduction of men's injuries in the early years and the greater increase in this last year may be entirely explained on the basis of numbers employed.

¹³ Latest year reported is 1933.

¹⁴ Includes permanent total cases.

TABLE 1.—Industrial injuries tabulated by sex, 1927 and 1930 to 1934, in States reporting this information for 1932, 1933, or 1934^{1 2}

[For sources of information, see chart II in the appendix]

State	1927			1930			1931			1932		
	Total	Females		Total	Females		Total	Females		Total	Females	
		Number	Per cent of total		Number	Per cent of total		Number	Per cent of total		Number	Per cent of total
Colorado.....	5,751	185	3.2	5,150	252	4.9	4,502	199	4.4	3,856	187	4.8
Georgia.....	⁴ 56,067	⁴ 414	6.8							18,126	1,650	9.1
Idaho ⁴	7,594	181	2.4	7,839	295	3.8	6,117	321	5.2	6,116	321	5.2
Illinois ⁶	53,983	(⁶)	(⁶)	42,336	2,408	5.7	33,167	2,241	6.8	25,462	1,953	7.7
Indiana.....	40,539	1,794	4.4	31,818	1,815	5.7	22,843	1,579	6.9	17,529	1,243	7.1
Iowa ⁴				7,195	315	4.4	⁸ 5,315	270	5.1	⁸ 5,315	269	5.1
Kentucky.....	26,021	497	1.9	20,758	287	1.4	14,575	198	1.4	11,741	392	3.3
Maryland.....	14,251	835	5.8	13,406	889	6.6	10,401	696	6.7	8,139	611	7.5
Massachusetts.....	64,167	5,950	9.3	61,741	5,835	9.5	50,006	4,826	9.7	42,067	4,020	9.6
Michigan.....										16,662	923	5.5
Minnesota ⁴							29,825	2,636	8.8	29,825	2,636	8.8
Missouri.....												
New Hampshire.....												
New Jersey.....	25,865	1,812	7.0	27,583	2,058	7.5	23,208	1,979	8.5	20,198	1,919	9.5
New York.....	98,984	7,399	7.5	107,312	9,579	8.9	98,424	9,391	9.5	82,433	7,884	9.6
Pennsylvania.....	160,743	5,840	3.6	144,679	6,256	4.3	111,458	5,530	5.0	85,099	4,944	5.8
Rhode Island.....	3,985	506	12.7	3,748	467	12.5	2,794	354	12.7	2,322	311	13.4
South Dakota.....				6,120	464	7.6	5,888	318	5.4	4,935	357	7.2
Wisconsin.....	20,473	816	4.0	20,070	927	4.6	16,943	876	5.2	16,195	906	5.6

State	1933			1934			Percentage change				Percent of females among—	
	Total	Females		Total	Females		1932 to 1933		1933 to 1934		Persons gain-fully occupied in 1930 ³	Persons in manufacturing and mechanical industries in 1930 ³
		Number	Per cent of total		Number	Per cent of total	Males	Fe-males	Males	Fe-males		
Colorado.....	3,829	181	4.7	4,353	194	4.5	-0.6	-3.2	+13.9	+7.2	20.1	7.8
Georgia.....	19,077	1,812	9.5	22,266	1,776	8.0	+4.8	+9.8	+18.7	-2.0	26.8	18.8
Idaho ⁴	5,870	311	5.3	5,870	311	5.3	-4.1	-3.1	(⁴)	(⁴)	13.7	4.6
Illinois ⁶	27,207	1,930	7.1	31,749	2,089	6.6	+7.5	-1.2	+17.3	+8.2	22.5	12.1
Indiana.....	⁷ 10,760	⁷ 801	7.4	17,995	1,102	6.1	(⁷)	(⁷)	(⁷)	(⁷)	18.8	11.4
Iowa ⁴	⁹ 3,632	164	4.5	⁹ 3,631	164	4.5	-31.3	-39.0	(⁴)	(⁴)	17.9	8.6
Kentucky.....	10,247	541	5.3	11,823	526	4.4	-14.5	+38.0	+16.4	-2.8	16.2	12.9
Maryland.....	7,564	610	8.1	8,435	548	6.5	-7.6	-2	+13.4	-10.2	23.4	15.5
Massachusetts.....	31,769	3,432	10.8	35,217	4,111	11.7	-25.5	-14.6	+9.8	+19.8	29.2	21.3
Michigan.....	13,156	814	6.2	18,975	1,030	5.4	-21.6	-11.8	+45.4	+26.5	18.7	7.1
Minnesota ⁴	24,173	2,321	9.6	24,173	2,321	9.6	-19.6	-11.9	(⁴)	(⁴)	20.2	10.0
Missouri.....				51,841	4,940	9.5					20.5	14.7
New Hampshire.....	1,560	181	11.6	1,964	208	14.9			+27.3	+14.9	25.9	22.3
New Jersey.....	17,559	1,907	10.9	18,537	1,795	9.7	-14.4	-6	+7.0	-5.9	24.3	15.8
New York.....	74,487	8,269	11.1	69,918	7,452	10.7	-11.2	+4.9	-5.7	-9.9	25.6	16.0
Pennsylvania.....	85,642	4,893	5.7				+1.7	-1.0			21.6	15.0
Rhode Island.....	2,109	309	14.7	2,311	320	13.8	-10.5	-6	+10.6	+3.6	29.6	26.3
South Dakota.....	3,852	251	6.5	3,998	281	7.0					15.1	6.3
Wisconsin.....	14,562	860	5.9				-10.4	-5.1			19.1	11.3

¹ For similar information for 1928 and 1929 see Women's Bureau Bul. 129, p. 12.
² For period covered and injuries tabulated see chart I in the appendix.
³ U. S. Bureau of the Census. Fifteenth Census, 1930: Population, vol. V, Occupations, p. 57.
⁴ The numbers reported for a 2-year period have been divided by 2. Hence percentage change is not available.
⁵ Excludes 104 fatal cases, not classified by sex.
⁶ For this table figures showing compensable cases occurring have been used. Only closed cases were tabulated by sex in 1927.
⁷ 9-months period, the report period being changed.
⁸ Excludes 203 cases reported for the 2-year period ending June 30, 1932, not classified by sex.
⁹ Excludes 222 cases for the period ending June 30, 1934, not classified by sex.

So long as the States fail to collect data showing man-hours of work, the employment variations cannot be eliminated, nor can the results of safety programs, changes in industrial technique, and other factors affecting number of injuries actually be evaluated. Data on man-hours of exposure have been collected in connection with studies of industrial injuries, but have not been classified by sex. Figures covering 30 manufacturing industries show a decrease in the frequency rate (average number of accidents per million man-hours worked) from 19.55 in 1932 to 19.25 in 1933 and an increase to 20.18 in 1934.¹⁵ There is no indication that the frequency rate increased more in almost exclusively man-employing than in important woman-employing industries.

Extent of disability.

In the 10 States reporting severity of injury in these 3 years, 185 women lost their lives or were permanently and totally disabled through their employment. This is a small proportion of total injuries, but it is extremely important in itself. If a picture could be drawn of the disruption of family life caused by the death or permanent and total disability of each woman, many of them homemakers as well as wage earners, the problem never would seem slight.

In the 3 years, industrial accidents left some permanent disability to over 4,000 women in New York, to almost 1,600 women in New Jersey, to over 1,600 in Illinois, and to considerable numbers in other States. Table 2 shows the extent to which the injuries suffered in 1934 were of temporary character or left more permanent effects.

TABLE 2.—Extent of disability, by sex, 1934¹

[For sources of information, see chart II in the appendix]

State	Number of injuries		Percent of injuries that were—							
			Fatal		Permanent total		Permanent partial		Temporary	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
Georgia.....	² 4,472	² 395	2.1	0.5			11.0	6.6	86.9	92.9
Idaho.....	^{3 4} 5,559	^{3 4} 311	.6	.6	(⁵)		4.0	2.6	95.3	96.8
Illinois.....	⁶ 28,980	⁶ 2,135	2.4	.2	0.2	(⁵)	⁷ 30.9	⁷ 28.1	66.5	71.7
Maryland.....	7,887	548	1.0				4.8	3.6	94.3	96.4
Massachusetts.....	31,106	4,111	.7	.1	(⁵)		2.5	1.9	96.7	98.0
Michigan.....	17,945	1,030	1.0	.4	(⁵)		6.9	8.2	92.1	91.5
Minnesota.....	^{4 8} 14,606	^{4 8} 1,514	1.2	.3	.1		7.3	4.7	91.5	95.0
Missouri.....	46,901	4,940	.1	.1	(⁵)		2.2	.8	97.7	99.0
New Jersey.....	16,742	1,795	1.2	.3	.1		30.3	28.6	68.5	71.1
New York.....	62,466	7,452	1.2	.3	.1	0.1	24.0	18.4	74.7	81.3
Pennsylvania ⁹	44,237	2,490	1.9	.2	(⁵)	(⁵)	⁸ 4.5	⁸ 3.1	93.6	96.6

¹ Similar tables for 1932 and 1933 are available in Women's Bureau files for all these States but Missouri.
² Only compensable cases.
³ Denied claims omitted.
⁴ The numbers reported for a 2-year period have been divided by 2.
⁵ Less than one-tenth of 1 percent.
⁶ Closed compensable cases.
⁷ Includes disfigurement.
⁸ Permanent total and permanent partial are combined.
⁹ For 1933, the latest year for which statistics were available.

¹⁵ U. S. Department of Labor. Bureau of Labor Statistics. Monthly Labor Review. December 1933, October 1936.

The wide variation among the States in percentage permanently injured is accounted for by differences in their compensation practices. In New Jersey, for example, many injuries are compensated as permanent partial that would in Massachusetts be compensated as temporary. Illinois classified over one-fourth of all injuries to either men or women as permanent partial, Michigan somewhat over one-twentieth. The summary following shows the average number of days lost per injury in the two States reporting such data. In Michigan days are those for which compensation is paid; in Illinois they are days lost from work.

State and extent of disability	1932			1933			1934		
	Total	Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males
Illinois: ¹									
Permanent partial ²	62.6	63.0	57.3	62.3	62.6	57.2	57.4	57.6	54.3
Temporary total.....	29.9	30.2	27.1	30.9	31.2	26.7	30.3	30.4	28.5
Temporary partial.....	5.4	5.6	.3						
Michigan:									
Permanent partial.....	276.5	278.4	240.8	337.4	328.3	500.2	337.9	344.8	236.5
Temporary.....	36.4	36.7	31.8	37.2	37.1	38.2	39.6	40.1	31.4

¹ Closed compensable cases.² Includes disfigurement.

In Illinois those whose injuries were of permanent partial character lost on the average roughly 9 to 10 weeks from work, while in Michigan they were compensated for a loss of from nearly 8 months to considerably over a year. Obviously there is a difference in the use of the permanent-partial classification in the two States.

There is one instance, Michigan 1934, where a larger percentage of women's than men's injuries were permanent. In most cases the difference in percentage of men and women in this class was slight.

None of the nine States¹⁶ reporting for each of the 3 years showed consistent increases or decreases in the proportion of permanent disabilities to both sexes. However, in 1934, five States reported increases for both men and women. In these States the increases show no great difference between the sexes.

The temporary disabilities, most important in point of numbers, vary greatly in severity. For women in Illinois these resulted in an average loss of work of roughly a month, in Michigan they averaged compensation for much the same length of time. In Michigan in 1933 women lost more time than men. In the other years, and in Illinois in all 3 years, men's disabilities lasted slightly longer than women's.

Table 2 and the summary just discussed are evidence that, except for the high percentage of fatal cases to men, differences in the severity of women's and men's injuries are not great, whether measured by severity of affection or by extent of time lost.

Nature of injury.

In this section the tabulated accidents are divided according to kind of injury suffered. In each of the four States reporting this type of information, bruises, contusions, or abrasions, or cuts and lacerations, were most prominent in point of numbers for the 3-year period.

¹⁶ The States reporting were Georgia, Idaho, Illinois, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, and New York.

Cuts, bruises, and slight punctures are especially important from the standpoint of infections. Many of these injuries, slight in the beginning, are ignored and become infected, finally resulting in serious, even permanent, handicaps. More severe injuries such as fractures and amputations rarely become infected, because proper treatment is given immediately. The importance of this fact to women is evident from table 3 and unpublished material, since the States reporting show that a very much higher percentage of women's injuries than men's become infected.

In table 3 the nature of injuries in 1934 has been summarized to show the proportions of men's and women's injuries in each group. In all States reporting, bruises, contusions, or abrasions were a more common type of injury to men than to women. A larger part of women's than of men's accidents resulted in cuts or lacerations in each State but Pennsylvania, where the difference was insignificant and where the bruise classification accounted for about a third of the disabilities suffered by women.

About equal parts of men's and women's injuries fell into the most serious classifications. This was true of amputations and dislocations. However, in each of the 3 years, fractures were a much higher proportion of the male total than of the female. This was true, too, of sprains and strains. On the other hand, danger of burns and scalds and punctured wounds tended to be a greater hazard for employed women than men.

The predominance of cuts, bruises, and burns among women indicates that the severity of women's accidents may be successfully combated by measures to enforce the use of first aid for every injury no matter how slight. Severity of many could be lessened and infections would practically disappear.

TABLE 3.—Nature of injury, by sex, 1934¹

[For sources of information, see chart II in the appendix]

Nature of injury	Indiana ²		Iowa ^{2,3}		Michigan		Pennsylvania ⁴	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
Total number reported.....	16,072	1,028	3,468	164	17,945	1,030	80,749	4,893
	Percent of total							
Amputation.....			1.1	1.2	6.3	7.8	0.9	0.7
Asphyxiation.....							.2	(⁵)
Bruise, contusion, or abrasion.....	25.4	21.3	22.7	19.5	24.4	24.3	⁶ 36.3	⁶ 33.0
Burn or scald.....	5.7	6.3	3.7	4.9	5.7	5.5	4.1	5.5
Concussion.....			.3					
Crushing.....	1.3	1.3					(⁶)	(⁶)
Cut or laceration.....	15.6	17.7	⁷ 22.0	⁷ 26.8	20.1	23.7	22.1	21.1
Dislocation.....	.6	1.0	.9	.6	.8	.6	.8	1.1
Fracture.....	10.9	6.1	11.1	7.3	20.3	14.7	10.9	8.0
Infection.....	5.5	11.2	8.3	18.9				
Puncture.....	3.3	7.2	(⁷)	(⁷)	3.9	7.7	4.9	12.2
Sprain or strain.....	18.1	15.8	19.3	17.1	16.6	13.8	17.7	15.8
All other.....	13.7	12.2	10.6	3.7	2.1	2.0	2.1	2.5

¹ Similar tables for 1932 and 1933 are available in Women's Bureau files.² Some classifying done by the Women's Bureau.³ Numbers reported for a 2-year period have been divided by 2.⁴ For 1933, the latest year for which statistics were available.⁵ Less than one-tenth of 1 percent.⁶ Bruise, contusion, or abrasion includes crushing.⁷ Cut or laceration includes puncture.

Part of body injured.

Two States, Indiana and Pennsylvania, report part of body affected, and these data also are grouped according to type of injury to the various members.

Through the 3 years fingers, hands, and arms continued to be the parts of the body by far the most frequently injured. In each State and in each year these members were affected in about two-fifths of the accidents to males and well over one-half those occurring to females.

To all other parts of the body a higher percentage of men's than of women's injuries occurred. The difference was especially marked in those affecting the head or trunk. New York has found that the most expensive injuries are those to the head;¹⁷ so while in the present study they constitute less than a tenth of men's and about a twentieth of women's injuries, they deserve particular attention. The summary following shows the proportions of the accidents that affected the various parts of the body according to the latest reports of the two States making such information available.

Part of body injured	Indiana, 1934		Pennsylvania, 1933	
	Males	Females	Males	Females
Number of injuries.....	1 16, 072	1 1, 028	80, 745	4, 893
	<i>Percent of total</i>			
Upper extremities.....	38.2	63.4	37.5	52.7
Lower extremities.....	28.1	20.7	29.1	25.5
Trunk.....	19.5	9.1	20.6	13.8
Head.....	9.1	3.5	9.3	5.4
Other and not reported ¹	5.0	3.3	3.5	2.7

¹ Injuries affecting multiple locations included in Indiana (391 men and 11 women).

Table 4 shows, in order of their importance to women, the nature of injuries most likely to affect the various parts of the body in Indiana and Pennsylvania, the two States reporting this information. Only the latest report year is shown and where variations from this occur in other years this is indicated in the following text analysis.

Pennsylvania.—Head injuries were chiefly contusions, especially in the case of women. Over one-fourth of the head injuries to men in each year and at least one-fifth of those to women were due to cuts and lacerations. About 5 percent for men, as compared to 3 percent for women, were fractures. In almost equal proportions of men's and women's cases in each year the disability was the result of burning or scalding. A very small proportion, slightly higher for women, were puncture wounds.

Injuries to hands, fingers, and arms are not likely to be so severe, but they were hurt so frequently that in point of total cost they are of great importance. That they also may be severe is evidenced by the fact that over one-eleventh of the men and about one-fourteenth of the women in this location group suffered fractures. Cuts and lacerations were the principal type of injury affecting these parts of the body, contusions ranking second for both men and women. The greatest contrast between men and women in this location group is in the propor-

¹⁷ New York Department of Labor. Cost of Compensation. Cases Closed in 1932. Bul. No. 183, p. 17.

tion that were punctures, a type of wound frequently resulting in infection. More than one-fifth of the women with disabilities of the hands, fingers, or arms had puncture wounds. About one-fourteenth of male upper-extremity injuries were of this kind.

TABLE 4.—*Nature and location of injury, by sex—Indiana 1934 and Pennsylvania 1933*¹

[For sources of information, see chart II in the appendix]

Nature of injury	All injuries		Location of injury				Trunk		Head	
			Upper extremities		Lower extremities					
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
Indiana: Number reported.....	² 16, 072	² 1, 028	6, 145	652	4, 522	213	3, 137	94	1, 462	³ 36
	<i>Percent of total</i>									
Contusion.....	25.4	21.3	21.8	16.9	38.6	33.3	21.3	31.9	11.5	-----
Cut or laceration.....	15.6	17.7	30.4	23.9	5.9	7.0	.6	-----	13.8	-----
Sprain or strain ⁴	18.1	15.8	6.5	7.2	15.4	34.3	56.6	41.5	-----	-----
Infection.....	5.5	11.2	10.7	15.3	3.3	3.3	.2	1.1	3.1	-----
Puncture.....	3.3	7.2	3.6	9.8	6.0	2.3	.4	-----	1.3	-----
Burn or scald.....	5.7	6.3	5.0	6.4	5.6	5.2	1.8	1.1	8.5	-----
Fracture.....	10.9	6.1	8.8	5.1	19.7	7.5	10.4	12.8	2.2	-----
Pennsylvania: Number reported.....	² 80, 745	² 4, 893	30, 261	2, 578	23, 532	1, 246	16, 613	673	7, 495	262
	<i>Percent of total</i>									
Contusion ⁵	36.3	33.0	30.4	24.9	47.3	37.7	28.7	45.6	49.2	62.2
Cut or laceration.....	22.1	21.1	36.9	31.4	10.2	7.8	1.2	.6	35.7	21.8
Sprain or strain.....	15.9	15.4	6.7	6.1	16.1	32.1	41.6	27.9	-----	-----
Puncture.....	4.9	12.2	7.0	20.3	6.9	5.5	.5	.1	.8	1.5
Fracture.....	10.9	8.0	9.2	7.1	15.0	10.1	11.5	10.4	5.0	2.7

¹ Similar tables for Indiana, 1932 and 1933, and for Pennsylvania, 1932, are available in Women's Bureau files.

² Total exceeds details, as only the more important groups are shown separately.

³ Not distributed, as total less than \$0.

⁴ Includes hernia.

⁵ Includes crushing.

Contusions were the principal type of wound affecting legs and feet. This type accounted for about half of the men's injuries in this location group, only two-fifths of the women's. Sprains and strains were much more prominent among women's than men's leg and foot disabilities. However, fractures were more common to men than women.

Trunk injuries to women were principally contusions, to men principally sprains and strains. For both men and women a considerable part, roughly one-tenth, of such disabilities were fractures.

Except for the greater proportion of fractures to men, there is little difference in distribution of face and neck injuries, which constitute only a relatively small group. In this class, too, the proportion that were burns or scalds was greater for men than women, while the proportion that were contusions or sprains was greater for women.

Indiana.—The three classes for which comparisons of men and women for the 3 years are possible in Indiana are trunk, upper extremities, and lower extremities. Trunk injuries in Indiana differed from

those in Pennsylvania in that sprains and strains were of first importance to women as well as men, and in the latest year reported a greater percentage of women than men suffered fractures. However, in Indiana sprains and strains are classified with dislocations, except in 1934.

As in Pennsylvania, cuts and lacerations ranked first, contusions second, among disabilities of the arms and hands, with one exception. In an excessive proportion of cases women's hands and arms were affected by puncture wounds and infections where reported. The proportion of men's cases in which arms and hands were affected by fractures exceeded those of women considerably.

Reflecting the importance of falls to women (see p. 24) is the fact that in each year more than one-fourth of their injuries to legs and feet were sprains or strains—roughly twice the male proportion. Contusions were most important to men, and first or second in importance to women.

Considering kind of injury in Indiana according to the location affected, these are the high lights:

Over three-fifths of women's burns and scalds affected their arms, hands, or fingers, while men's burns are more distributed and exceed the percentage of women affected in every other location class with one exception in each year.

For both men and women contusions are likely to affect both upper and lower extremities.

Cuts and lacerations are almost exclusively a problem of the upper extremities.

From almost two-fifths to somewhat less than one-half, the sprains and strains of women affected the legs and feet; three-fifths of those of men affected the trunk. About one-fifth to one-fourth of the women's sprains and strains affected the trunk.

From about two-fifths to somewhat less than half the fractures sustained by men affected their lower extremities; over half the fractures sustained by women, very roughly a third of those of men, affected their upper extremities.

Men were more likely than women to have puncture wounds of the legs or feet; almost nine-tenths of this type of injury to women affected their hands, arms, or fingers.

Most commonly for either sex, infections were of the upper extremities.

DATA AS TO INJURED PERSONS

Age of men and women workers.

A marked variation in the ages of injured males and females is seen in table 5, which gives the age distribution only for 1934. Unpublished material shows that in 1932 and 1933 the difference was even more striking. It is notable that the effects of injuries fall most heavily on the younger groups of women. In 1934, women 21 to 25 years old suffered the greatest number of accidents in six of the eight States reporting in 5-year groups. In two States those most susceptible were the 16-to-20-year group. In another State reporting age in 10-year groups the largest group were women 20 and under 30 years. In only one State did the largest percentage of men fall in so young a group as 21 to 25 years. In three States the largest proportion of men were 26 to 30 years old, in one State 36 to 40, and in three States 51 and over. In Indiana, reporting age in 10-year groups, the largest proportion of men were 20 and under 30, the same age as that of the major group of women in this State.

TABLE 5.—Age of injured, by sex, 1934¹

[For sources of information, see chart II in the appendix]

State and sex	Number with age reported	Percent whose age was—								
		Under 16 years	16 to 20 years	21 to 25 years	26 to 30 years	31 to 35 years	36 to 40 years	41 to 45 years	46 to 50 years	51 years and over
Illinois: ^{2 3}										
Males.....	27,980	0.1	4.3	10.2	13.7	14.3	14.8	13.8	10.9	17.9
Females.....	2,025	(4)	16.0	18.9	14.5	11.2	11.6	9.9	8.1	9.8
Indiana: ⁵										
Males.....	16,747		3.3		32.5		27.5		21.0	15.7
Females.....	1,085		13.7		45.2		19.8		12.6	8.7
Maryland:										
Males.....	7,872	(4)	7.8	16.1	16.9	13.7	13.3	10.7	8.3	13.2
Females.....	547	.4	20.7	20.3	15.0	9.5	11.9	7.5	8.0	6.8
Massachusetts:										
Males.....	31,106	.1	7.8	16.6	15.3	11.9	13.1	10.6	8.9	15.6
Females.....	4,111	.1	16.9	19.9	13.0	18.4	9.9	8.8	6.3	6.7
Michigan:										
Males.....	17,685	(4)	5.2	15.0	15.1	14.4	15.2	12.4	9.2	13.5
Females.....	1,012		13.5	22.3	19.1	12.7	12.2	7.4	4.9	7.8
Minnesota:										
Males.....	19,640	.1	5.8	17.0	17.2	15.1	14.0	10.7	7.9	12.1
Females.....	2,015	.1	17.0	27.2	17.9	9.7	9.9	7.0	4.9	6.3
New Jersey: ³										
Males.....	15,310	.1	7.4	11.2	14.7	14.3	14.1	12.3	10.4	15.4
Females.....	1,619	.1	20.6	17.4	13.3	9.1	11.2	9.2	7.0	12.2
New York:										
Males.....	58,483	.1	6.3	13.9	14.8	14.5	14.7	12.0	9.6	14.2
Females.....	6,770	(4)	15.4	20.4	14.1	11.7	11.9	9.2	7.9	9.4
Rhode Island:										
Males.....	1,913		10.0	16.0	14.1	11.0	11.9	10.5	9.1	17.4
Females.....	317		20.2	25.6	14.2	10.1	12.0	7.6	5.0	5.4

¹ Similar tables for 1932 and 1933 are available in Women's Bureau files.

² Closed compensable cases.

³ Age groupings are 21 to 24, 25 to 29, and in 5-year groups.

⁴ Less than one-tenth of 1 percent.

⁵ Age groupings are under 20, 20 and under 30, and in 10-year groups to 50 and over.

Variations occur in the age trend in industry, and without accurate knowledge of the number in each age group employed in the plants reported, it is impossible to give definitely the causes for the high incidence of accidents to young women. On the average, working women are younger than employed men, so it is not surprising that those injured are young. However, it has been found in comparison with census figures that young girls have more industrial injuries than proportionate to their number among the gainfully occupied, and women over 40 have fewer.¹⁸ Certain State studies give evidence that this is true. For example, the Industrial Accident Report of Rhode Island for April 1937 makes this statement:

Despite the tendency of present personnel agents to put an age limit on applicants for positions, the statistics of the department indicate that the largest number of injuries occur in the 18-to-25-year age class. The older men may be slower but are certainly more dependable workers and have a background of experience which guides their actions in situations where a young and less experienced operator would get hurt.

It is nevertheless true that the age of those injured, both men and women, appears to have advanced slightly in recent years. This

¹⁸ U. S. Department of Labor. Women's Bureau. Industrial Injuries to Women in 1930 and 1931 Compared with Injuries to Men. Bul. 129, p. 32.

well may be a reflection of the fact that in a time when the labor market has been crowded, the jobs go to the more mature rather than the very young workers. In 1930 and 1931 every State reporting in 5-year groupings showed the largest number of injured women to be in the 16-to-20-year class. In 1932, seven of nine States, and in 1933, four of nine States, gave the greatest proportion as under 21. In Illinois those under 21 were 24 percent of all women injured in 1930, 20 percent in 1932, and 16 percent in 1934.

Cases of injury to children under 16 were much fewer in 1934 than in previous years. There was a marked decline, usually progressive, in the number of such young persons who suffered. In Maryland, for example, in 1930, 40 boys and 26 girls, 15 or younger, were included in the accident report; in 1932 there were nine boys and seven girls so young, and in 1934 there were only two boys and two girls listed among the injured. Even more striking is the decrease in Massachusetts from 413 young boys and 85 young girls in 1930 to 43 boys and 4 girls in 1934. In New York the decrease was from 207 boys and 60 girls in 1930 to 45 boys and 3 girls in 1934. Table 6 summarizes these striking changes in the States reporting for 3 or more of the 5 years, 1930 to 1934.

TABLE 6.—Number of injuries to persons under 16 years, by sex, 1930 to 1934¹

[For sources of information, see chart II in the appendix]

State	Boys					Girls				
	1930	1931	1932	1933	1934	1930	1931	1932	1933	1934
	Illinois ²	69	45	31	39	32	3	3	8	12
Maryland.....	40	29	9	3	2	26	12	7	4	2
Massachusetts.....	413	176	94	74	43	85	35	27	13	4
Minnesota.....	(³)	44	44	22	23	(³)	1	1	1	2
New Jersey.....	89	59	44	24	14	32	7	11	4	1
New York.....	207	115	101	54	45	60	29	22	7	3
Rhode Island.....	15	6	3	3		5	2	1	1	
Wisconsin.....	238	149	(³)	(³)	(³)	34	25	13	12	(³)

¹ Indiana omitted because the age group is under 20 years and Michigan because only 2 persons under 16 were reported injured in the 3 years for which statistics are available.

² Closed compensable cases.

³ Not reported.

Without question this decline in accidents to children has been effected through the raising of age limits in industry. From 1933 to 1935 the National Recovery Administration worked toward the elimination of children under 16 from industry and children 16 to 18 from dangerous or unhealthful occupations.

Age and extent of disability.

Considered by *number* of injuries, older women appear to be the best industrial risk. This conclusion might be modified somewhat by analysis of table 7, which indicates that the more serious injuries are likely to affect employees 21 years old or over more frequently than those under 21. However, these differences were slight, especially in the case of women workers, and in several instances the younger groups of women suffered greater proportions of severe injuries than did those over 21. For example, this was true in Illinois, where in

each year injuries to girls under 21 had permanent effects in a greater percentage of cases than in the group of injuries to women 21 or older. In 1933 in Massachusetts and in 1934 in Michigan accidents affecting young girls had the more serious effects.

There is certainly no evidence in these State reports to prove that accidents involving older women are more expensive than accidents involving younger workers. If there is some tendency for older persons to suffer more severe results from their injuries, this is more than offset by the lesser frequency of accidents to them. It is also probable that older, more experienced, workers are more likely than the young and inexperienced to be placed in the most hazardous types of work. This may account entirely for the more serious effects to older persons.

TABLE 7.—Extent of disability, by sex and age group, 1934¹

[For sources of information, see chart II in the appendix]

State and age group	Males				Females					
	Number reported	Percent with disability as specified			Number reported	Percent with disability as specified				
		Fatal	Perma- nent total	Perma- nent par- tial		Tem- po- rary	Fatal	Perma- nent total	Perma- nent par- tial	Tem- po- rary
Illinois: ²										
Under 21 years.....	1,241	1.0		25.9	73.0	324		0.3	31.8	67.9
21 years and over.....	26,704	2.5	0.2	31.1	66.3	1,700	0.2		27.6	72.2
Maryland:										
Under 21 years.....	613	.5		7.7	91.8	115			3.5	96.5
21 years and over.....	7,259	.9		4.5	94.5	432			3.5	96.5
Massachusetts:										
Under 21 years.....	2,473	.2		2.3	97.4	700			2.7	97.3
21 years and over.....	28,633	.8	(³)	2.5	96.7	3,411	.1		1.7	98.2
Michigan:										
Under 21 years.....	929	1.0	.1	5.9	93.0	137			12.4	87.6
21 years and over.....	16,756	1.0	(³)	6.9	92.1	875	.5		7.4	92.1
Minnesota:										
Under 21 years.....	777	.8		5.5	93.7	232			3.4	96.6
21 years and over.....	12,322	1.1	.1	7.4	91.5	1,078	.3		4.8	94.9
New Jersey:										
Under 20 years.....	779	.4		24.4	75.2	240	.4		24.2	75.4
20 years and over.....	14,531	1.2	.1	31.1	67.6	1,379	.2		29.5	70.3
New York:										
Under 21 years.....	3,738	.7	.1	17.8	81.5	1,047		.1	14.3	85.6
21 years and over.....	54,745	1.3	.1	24.8	73.8	5,723	.3	.1	19.5	80.0

¹ Similar tables for 1932 and 1933 are available in Women's Bureau files.

² Closed compensable cases.

³ Less than one-tenth of 1 percent.

Age and cause of injury.

The New Jersey report of cause of disability according to age group brings out some interesting differences in the factors affecting men's and women's accidents. The differences between the two sexes are striking and have been consistently evident over a period of years. About three-tenths to almost two-fifths of the injuries of girls under 21, but only one-sixth to one-fifth of those to boys, resulted from the use of machinery. Similarly, one-sixth to one-fifth of older women's injuries, but only approximately one-tenth of those of older men,

were from such cause. The summary following shows the causes of injuries to the two sexes in New Jersey in 1934 according to age.

Cause of injury	Males		Females	
	Under 21 years	21 years and over	Under 21 years	21 years and over
Number of injuries reported.....	1, 147	14, 163	335	1, 284
	<i>Percent of total</i>			
Machinery.....	22.0	12.0	31.6	16.7
Falls of persons.....	10.3	19.1	17.3	41.1
Handling of objects.....	36.5	35.4	26.6	19.3
Stepping on or striking against objects.....	5.4	4.4	9.3	6.5
Explosions, electricity, heat, and so forth.....	3.8	5.3	3.9	5.1
Falling objects.....	2.8	5.8	3.3	2.0
Vehicles.....	12.1	9.3	.9	1.9
Harmful substances.....	1.8	2.8	.9	1.0
Miscellaneous.....	5.2	5.9	6.3	6.4

Another striking difference between the sexes is in the class of causes grouped under handling objects. In each year this cause affected over one-third of the men, whether under or over 21. Much smaller percentages of women's injuries were caused by handling objects, though this was a more serious problem to young girls than older women.

Falls are so predominantly a hazard of older women that where these workers are employed special consideration should be given to the prevention of conditions that result in falls. Among these may be named slippery floors, dark stairways, unprotected trap doors, unsafe step ladders, and other poor housekeeping arrangements. Boys under 21 had the lowest percentage of injuries from falls. Men over 21 had a higher proportion from this cause than girls under 21.

It is not surprising that vehicle accidents were a very minor part of women's injuries in either age group, since women are not likely to be employed as drivers. But this cause accounted for about a tenth of men's injuries and for a somewhat higher percentage of those to young boys than of those to older men.

Marital status.

Pennsylvania made a special tabulation of the marital status of injured women with temporary disabilities in 1932 and 1933. Over half the women were single, one-third married, the remainder widowed or divorced. The following summary shows that in a comparison of these proportions with the distribution of gainfully occupied women in Pennsylvania, single women suffered a much lower proportion of injuries than their numbers among the gainfully employed would indicate.

Marital status	Women gainfully employed, 1930 ¹⁹	Women injured	
		1932	1933
Number reported.....	800, 582	2, 626	2, 317
	<i>Percent of total</i>		
Single.....	66.8	52.4	55.1
Married.....	20.8	33.1	32.9
Widowed and divorced.....	12.4	14.4	12.0

¹⁹ U. S. Bureau of the Census. Fifteenth Census, 1930: Population, vol. IV, Occupations, p. 1424. The comparison is not exact, since census figures for single included those not reporting marital status and minors 15 and under 21, few of whom probably would have been in hazardous occupations.

As in Illinois in 1930, the explanation of the less frequent occurrence of injuries to employed single women may be found in the occupational differences of the marital groups.²⁰ For example, while 67 percent of the employed women were single, 84 percent of those in clerical occupations were single, 80 percent of all telephone operators were single, 83 percent of all professional workers were single. On the other hand, just under one-half of the women domestic and personal service employees were single, as were only two-thirds of those engaged in manufacturing. Thus it is evident that a large share of the more attractive and safer occupations are engaged in by single women.²¹

Dependents of injured women.

Pennsylvania alone reports on the responsibilities of the women injured in this period. No comparison with men is possible, but the following summary shows a picture of the number of people, for the most part children, who were dependent on the women with temporary injuries in 1932 and 1933,²² in their capacity not only as homemakers but as wage earners.

Status as to dependents	1932			1933		
	Single	Married	Widowed or divorced	Single	Married	Widowed or divorced
Total cases.....	1, 377	870	379	1, 277	762	278
No dependents.....	1, 372	526	282	1, 272	472	196
Cases with dependents.....	5	344	97	5	290	82
1 child.....		140	55		140	54
2 or 3 children.....		155	36		116	24
4 or more children.....		34	5		34	4
Other dependents.....	5	15	1	5		
Number of dependents.....	5	686	156	6	570	143

About two-fifths of all the married women with temporary injuries had dependents, while this was true of somewhat more than a fourth of the widowed and a much smaller part of the single women. Of the married women who had persons dependent on them, over half were responsible for the support of two or more and about one-tenth for four or more persons. Approximately three-fifths to two-thirds of the widows who had dependents had one dependent child; 5 percent had four or more. The married women who had dependents averaged two each, the widowed averaged 1.6 to 1.7 each.

INDUSTRIES IN WHICH INJURY OCCURRED

The very great majority of women's injuries occurred in manufacturing in the 3 years under consideration. In the latest year reported, this proportion was highest in New Hampshire, lowest in Illinois and Pennsylvania. It is notable also that in most cases there is a considerably higher percentage of the women than the men in manufacturing in each year. This probably may be explained in part by

²⁰ U. S. Department of Labor. Women's Bureau. Industrial Injuries to Women in 1930 and 1931 Compared with Injuries to Men. Bul. 129, p. 38.

²¹ U. S. Bureau of the Census, Fifteenth Census: 1930. Population, vol. IV, Occupations, pp. 1426-1427.

²² The 68 women having permanent injuries in 1932 had 13 dependents, the 78 having permanent injuries in 1933 had 22 dependents.

the fact that the large numbers of women in household service usually are not covered by compensation and consequently not included in reports of injuries. The differences between the percents of men and women in manufacturing were greatest in Georgia and Pennsylvania in each of the 3 years; Indiana ranked third in the last 2 years and New Jersey in 1932. The following summary shows the proportions of injuries that occurred in manufacturing industries in the various States reporting in 1934.

State	Number reported		Percent in manufacturing	
	Males	Females	Males	Females
Georgia.....	20,478	1,773	49.7	64.9
Illinois ¹	29,612	2,088	41.7	42.1
Indiana.....	15,318	1,047	52.1	64.6
Michigan.....	17,945	1,030	62.4	62.3
New Hampshire.....	1,756	208	85.6	88.9
New Jersey.....	16,742	1,795	44.5	46.1
Pennsylvania ²	80,749	4,893	30.2	43.9

¹ Compensable cases occurring.

² For 1933, the latest year for which statistics were available.

While, as has been referred to, the percentage of men reported hurt in factory occupations was smaller than the percentage of women, manufacturing was the principal source of injury to men in each State but Pennsylvania, where mining and related industries outranked all other classifications. Accidents in mining, metallurgy, and quarrying also were a large part of the male total in Illinois and Indiana.

Textile mills were responsible for from well over one-half to three-fifths of all injured women in New Hampshire and from three-tenths to well over one-third of those reported in Georgia. Food plants ranked first among manufacturing industries in accidents affecting women in Illinois, clothing factories in Indiana and Pennsylvania, machinery and vehicle factories in Michigan.

The following summary shows the industrial distribution of the injuries affecting women in industries and occupations in which as many as 5 percent of all the injuries reported in 1934 had occurred and for which detailed figures are available.

Industry	Georgia	Illinois ¹	Indiana	Michigan	New Jersey	Pennsylvania ²	New Hampshire
Number of injuries.....	1,773	2,088	1,047	1,030	1,795	4,893	208
	<i>Percent of total</i>						
Manufacturing.....	64.9	42.1	64.6	62.3	46.1	43.9	88.9
Food, beverages and tobacco.....	6.0	15.5	11.8	7.6		5.0	
Clothing.....	16.0		17.1			15.1	
Textiles.....	32.8	7.8				10.0	60.6
Metals and metal goods.....		7.3	6.5				
Machinery and vehicles.....				³ 37.0			
Leather, rubber and composition.....							13.5
Trade.....	21.8	⁴ 18.0	18.9	11.4	8.0	16.8	
Clerical and professional service.....		⁵ 7.2					
Hotels and restaurants.....	6.4		6.9			12.3	7.2
Care and custody of buildings.....				11.4			
Miscellaneous service (including domestic service).....		30.7	7.5				

¹ Compensable cases occurring.

² For 1933, the latest year for which statistics were available.

³ Foundries, machine shops, and automobiles.

⁴ Trade and finance.

⁵ Professional only.

Accidents in the trade group followed manufacturing in number of women's injuries in Georgia, Indiana, and Pennsylvania and unpublished data show that in most States a higher percentage of women's than men's accidents occurred in trade.

The principal number of injuries outside the manufacturing occupations was in the miscellaneous service group including domestic service in Illinois, and in hotels and restaurants in New Hampshire. Almost one-eighth of the injuries to Pennsylvania women were in hotels and restaurants, and these industries accounted for considerable proportions of accidents also in Georgia, Indiana, and New Hampshire.

Industry and age of the injured.

In New Jersey, the one State giving data on this subject, the various industries show striking differences not only between the men and women but between the age classes of each sex. The following summary shows these data for 1934, and the situation was similar in the earlier years.

Industry	Males		Females	
	Under 21 years	21 years and over	Under 21 years	21 years and over
Number of injuries reported.....	1,147	14,163	335	1,284
	<i>Percent of total</i>			
Manufacturing.....	54.0	44.6	66.3	42.5
Service ¹	6.2	5.9	8.7	17.8
Trade.....	15.3	10.0	11.9	6.2
Transportation and public utilities.....	13.6	16.5	.9	1.6
Construction.....	3.7	12.1		.2
Agriculture.....	3.8	2.1	.3	.4
Mining.....	.3	1.9		
Other industries.....	3.1	6.9	11.9	31.3

¹ Includes clerical and professional.

For women the greatest differences were in manufacturing, which accounted for two-thirds or more of the injuries to girls under 21 but for only two-fifths or less of those to older women, and in the service industries, where the proportion of the older women injured was approximately twice to four times as high as that of the younger.

For men the most striking variations occurred in construction, where injuries to older men predominated, and in trade and manufacturing, where greater percentages of boys were hurt. There were also consistently higher percentages of the older groups of men in transportation accidents.

The following section on cause of injury further emphasizes the differences in accident causation for men and women and points toward the factors where special attention to preventive methods will decrease the number of accidents affecting women.

CAUSE OF INJURY

Eight States reported on the agency or immediate cause leading to industrial accident in 2 or more of the 3 years under discussion. In the three preceding Women's Bureau studies no more than five States, and in 1931 and 1932 only four States, had reported cause of injury.

The following paragraphs analyze data from the eight States reporting cause of injury.

Falls of persons.

Falls are a major cause of women's injuries and are shown by these reports to rank first for at least 2 of the 3 years in five of the eight States that gave data on this subject; they were responsible for from about one-fifth to almost two-fifths of all accidents to females in these States. Although in Georgia falls were of less importance to women than either machinery or handling objects, they were the cause of one-sixth to one-fifth of all women's accidents. In two States, Iowa and Michigan, falls were the principal cause of accidents to men as well.

In every State and in each year falls caused a much larger share of women's than of men's disabilities, and in practically every State the difference was greater than in the case of accidents due to machinery. The following summary shows the data for 1934.

State	Males		Females	
	Number	Percent	Number	Percent
Georgia.....	1,819	8.9	334	19.0
Illinois ¹	4,910	16.7	676	32.6
Indiana.....	1,401	10.6	180	19.4
Iowa.....	664	19.1	45	27.4
Michigan.....	2,919	16.3	276	26.8
New Hampshire.....	214	12.2	48	23.1
New Jersey.....	3,113	18.6	653	36.4
Pennsylvania ²	12,849	15.9	1,638	33.5

¹ Compensable cases occurring. ² For 1933, the latest year for which statistics were available.

Machinery.

In Georgia, where the textile industry ranked high in number of women's accidents, more of these were due to machinery than to any other cause, and this was the agency responsible for well over a fourth of all the injuries to women reported in that State in each of the 3 years. In 1934, machinery ranked first in causing injuries to women in Indiana and in New Hampshire. It was responsible for a smaller proportion of all injuries to women in Iowa than in any other State in each year. In this class of causes there was great variation between the proportion of men and of women. In each State except Iowa, the proportion of women injured by machinery in each year was from one and a third times to more than twice the proportion of men so affected. The following summary shows the proportions of the injuries to men and women that resulted from machinery in 1934.

State	Males		Females	
	Number	Percent	Number	Percent
Georgia.....	3,088	15.1	453	25.8
Illinois ¹	3,748	12.8	381	18.4
Indiana.....	2,053	15.5	244	26.3
Iowa.....	452	13.0	24	14.6
Michigan.....	3,595	20.0	329	31.9
New Hampshire.....	411	23.4	74	35.6
New Jersey.....	2,106	12.6	346	19.3
Pennsylvania ²	6,980	8.6	917	18.7

¹ Compensable cases occurring. ² For 1933, the latest year for which statistics were available.

Corresponding with the upturn in employment and factory production in 1934, several States show an extraordinary rise in machine accidents. In Michigan an increase in the total of women's injuries of 26.5 percent from 1933 to 1934 was accompanied by an increase of 60.5 percent in injuries caused by machines. For men the increase in total injuries was 45.4 percent, in those due to machines 111.7 percent. New Hampshire reports notable differences in total and machine-caused accidents. The women's total increased 14.9 percent from 1933 to 1934 while machine-caused accidents to women increased 54.1 percent. In the same period the male accident total increased 27.3 percent, machine injuries to males increased 51.1 percent. It may be that special safety instruction and supervision is necessary for machine operators after periods of unemployment.

Handling of objects.

Women had much smaller proportions of injuries resulting from handling objects than men had. Nevertheless, one-fifth to almost one-fourth of the women reported in Georgia and one-sixth or more in Illinois, New Hampshire, and New Jersey were hurt by handling objects. In Michigan and Indiana the percentages exceeded one-tenth in every case but one, though in Iowa they were considerably less.

The heavier nature of men's work is evident in the high proportion of their injuries caused by handling objects. Heavy material is likely to be the principal source of accident from this cause.²³ In six of the eight States reporting in 1933 and in four of the seven reporting in 1932 and 1934 this was the principal cause classification for men. Each year over one-third of the men reported in New Jersey and New Hampshire were hurt through the handling of objects. The lowest proportion of men in this cause group was in Iowa, the only State reporting fewer than one-tenth each year injured from this cause.

The summary following shows the distribution of cases from this class of causes in 1934.

State	Males		Females	
	Number	Percent	Number	Percent
Georgia.....	5,758	28.2	418	23.8
Illinois ¹	8,107	27.7	364	17.6
Indiana.....	1,222	9.2	110	11.8
Iowa.....	292	8.4	6	3.7
Michigan.....	3,181	17.7	140	13.6
New Hampshire.....	605	34.5	37	17.8
New Jersey.....	5,922	35.4	374	20.8
Pennsylvania ²	21,168	26.2	871	17.8

¹ Compensable cases occurring.

² For 1933, the latest year for which statistics were available.

Stepping on or striking against objects.

There is less variation between the sexes in the proportion of injuries due to stepping on or striking against objects. Quite consistently through the 3 years the proportion of women in this group is higher than that of men in every State but Iowa and Indiana. Indiana reported a greater proportion of women in 2 of the years, 16 to 30

²³ N.Y. Department of Labor. Division of Industrial Hygiene. Handling-Material Accidents; Their Cause and Prevention. Bul. 181, p. 6., 1933.

percent of women's injuries resulting from this cause. In each year over a tenth of the women injured in Georgia were in this class.

Hand tools.

Injuries caused by the use of hand tools usually affected smaller proportions of women than men, and for both sexes in most States constituted one of the minor causes of accidents. However, in Georgia the use of hand tools resulted in over 7,000 or more than 13 percent of all male injuries from 1932 to 1934.

Explosions, electricity, heat, and so forth.

Illinois, Indiana, and New Jersey report about 5 to 8 percent of all women's injuries, and slightly less of men's, as resulting from explosions, electricity, heat, or hot substances. The percentages were much lower in the five other States. The very small proportion due to this cause in Pennsylvania, Michigan, and Georgia (not over 2 percent in each State) is accounted for by their classification of hot substances with harmful substances instead of with explosions, electricity, and heat.

Falling objects.

Women were much less likely than men to be hurt by falling objects. The States of Indiana, Iowa, Michigan, and Pennsylvania report 10 to 15 percent of all male cases as resulting from these causes. The fact that falling objects are a common hazard in the construction and mining industries accounts for the preponderance of male accidents from this cause.

Vehicles.

Vehicle injuries, common to men, are of minor importance to women. Although about a tenth of all the men reported in the important industrial States of Georgia, Illinois, Michigan, New Jersey, and Pennsylvania were hurt by vehicles, the highest proportion of women so injured, which was in Michigan, was no more than 3 percent of all women suffering from accidents in any year.

Harmful substances.

Harmful substances were reported as the cause of from 3½ to 5 percent of women's injuries in Georgia, Michigan, and Pennsylvania in the 3 years, usually for slightly larger proportions of men. As none of these States had provided compensation coverage for occupational disease at that time, only accidental injuries due to harmful substances are included.

It is injuries from this class of causes that are most likely to be under-reported, since often they are slow in disabling and difficult of diagnosis. Where the State compensation law includes occupational disease, employers and insurance carriers will be informed of the harmful substance exposure and reporting will be more complete.

Cause according to industry.

Unpublished statistics from two States, New Hampshire and Pennsylvania, give more specific information about the causes of accidents by correlating them with the industries in which accidents occurred.

Considered according to cause, over one-third of the women injured in manufacturing in Pennsylvania in 1933 attributed the reason to machinery, one-fifth to falls. On the other hand, handling objects was

the cause of injury to three-tenths of the men hurt in manufacturing pursuits. Injuries due to machinery are second for men, with something less than one-fifth of the total. A disproportionately high percentage of women's accidents in Pennsylvania in 1933 resulted from machinery and hand tools. About two-fifths of all injured women were classed in manufacturing occupations, but over four-fifths of those injured by machinery and half of those disabled by hand tools were so employed. Less than one-third of the men who suffered were in manufacturing, but almost two-thirds of the accidents due to machinery and over one-half those arising from hot and corrosive substances were in these occupations.

In trade, the industry reporting the second highest number of accidents to women, falls caused over two-fifths of those accidents and handling objects about one-fifth. One-third of the men hurt in trade occupations were injured handling objects, about one-fourth by falls.

In State and municipal service, falls were the cause in over half the women's cases. Here again handling objects ranked first in cause of accidents affecting men.

In the industry group reporting most accidents to men, mining and quarrying, falling objects caused more than a fourth of all these. Of the other industries employing men almost exclusively, handling objects was the chief cause in construction, vehicles in transportation.

The summary following shows for certain types of work the causes of the injuries to women in Pennsylvania that occurred in 1933. The picture for 1932 is very similar and variations from these figures were slight.

Cause of injury	All industries ¹	Manufacturing	Trade	State and municipal service
Number of injuries.....	4,893	2,147	823	303
	<i>Percent of total</i>			
Falls of persons.....	33.5	20.1	43.3	54.1
Machinery.....	18.7	35.0	5.6	4.0
Handling of objects.....	17.8	18.4	19.6	11.9
Stepping on or striking against objects.....	9.5	10.2	12.0	6.9
Hand tools.....	6.5	7.4	5.1	3.6
Harmful substances ²	3.5	1.7	1.8	3.3
Falling objects.....	3.0	2.7	4.5	2.6
Vehicles.....	2.0	.9	2.7	5.6
Explosives, electricity, heat, etc.....	.9	.5	.4	.7
Miscellaneous.....	4.6	3.0	5.1	7.3

¹ Total exceeds details; not all industries are shown separately.

² Includes hot substances.

In New Hampshire almost 90 percent of women's accidents in both 1933 and 1934 occurred in manufacturing, and 20 to 33 percent of these were caused by falls, an additional 28 to 38 percent by machinery. In each year handling objects caused almost one-fifth of the accidents to women in manufacturing. As in Pennsylvania, this cause was of considerably greater importance to men in manufacturing than to women, and falls were a minor source of injury to men in this industry. In hotels and restaurants falls caused half of the injuries to women in each year. Again in this industry the heavier nature of men's work is evident in the preponderance of accidents resulting from handling objects.

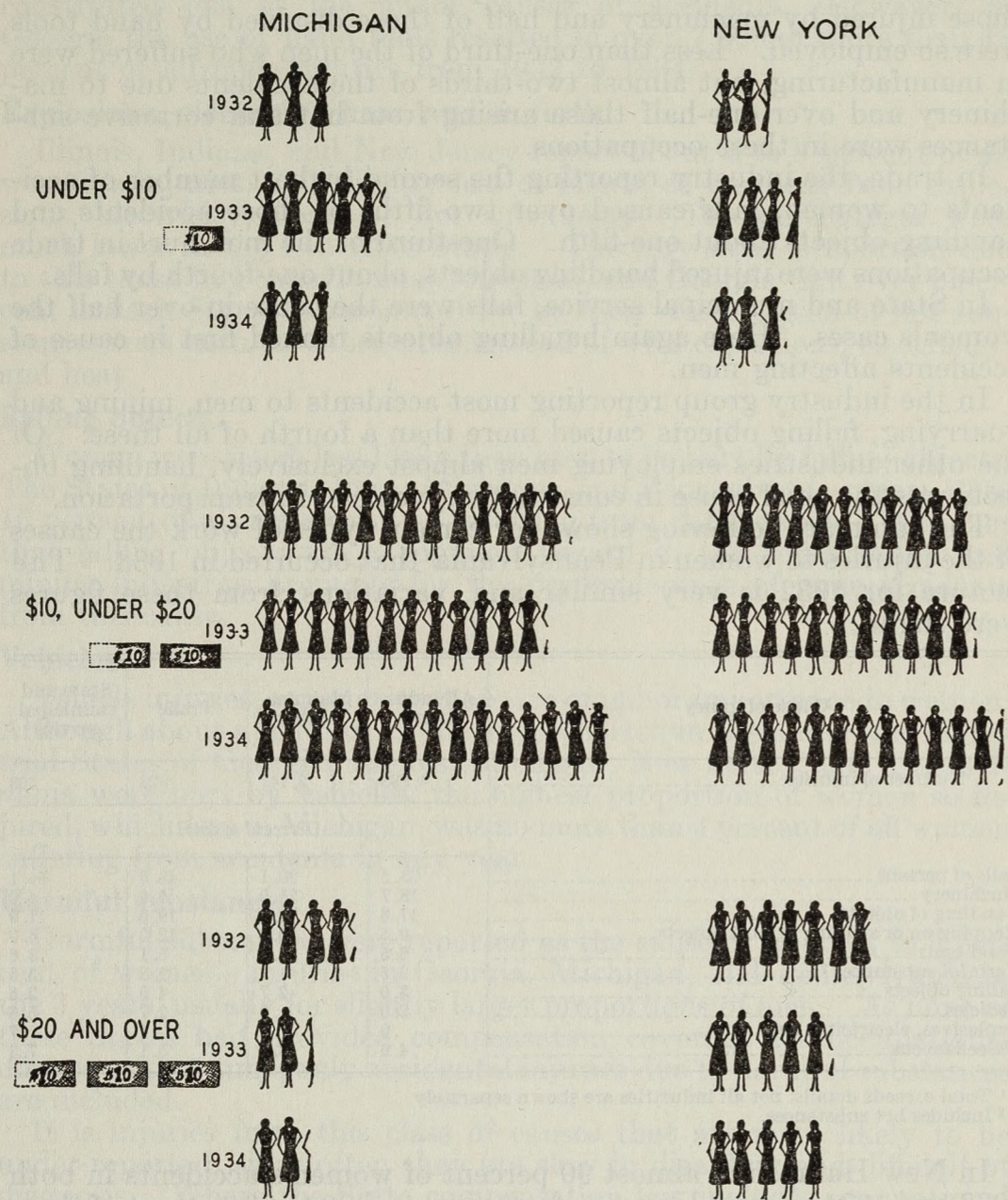


PLATE II.—WEEKLY EARNINGS OF INJURED WOMEN BEFORE INJURY, 1932, 1933, AND 1934

Each complete figure=5 percent of women injured

WAGES AND COMPENSATION

Information as to the usual weekly wages of workers receiving compensation is available for two States—Michigan and New York. Compensation is based in each State on earnings before injury. These data show the wage differences customarily found between the two sexes, women's earnings being by far the lower, and also the differences characteristic of the economic period covered in this study. The wage distribution for men and women for the 3 years is shown in table 8.

In Michigan in 1932 about 4 percent of the men as compared to 14 percent of the women received wages of less than \$10 weekly. In 1933 these had increased to 10 percent for men, about 26 percent for women. In 1934 they approximated the 1932 percentages. Somewhat smaller percentages of the workers in New York received such low wages, but the trend is similar through the 3 years. This table shows further that in each State the decrease in number in the very low wage class in 1934 is somewhat offset by an increased number in the next lowest class, \$10 and under \$15. The number in each State earning \$30 or more weekly continued to decrease through 1934.

TABLE 8.—Weekly wages at time of injury, by sex—Michigan and New York, 1932, 1933, and 1934

[For sources of information, see chart II in the appendix]

Weekly wages	1932		1933		1934							
	Michigan		New York		Michigan		New York					
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males				
Number of injuries	15,693	923	72,599	7,634	12,157	812	64,317	7,977	17,857	1,008	60,781	7,227
	Percent of total											
Under \$10	3.6	14.1	2.1	11.6	10.0	25.7	5.2	17.8	5.3	13.7	4.1	15.5
\$10, under \$15	8.2	32.1	8.3	33.0	16.2	37.2	15.9	37.9	14.3	45.4	21.1	43.8
\$15, under \$20	15.8	33.2	14.3	21.3	21.2	24.4	18.0	18.3	27.5	28.2	22.3	18.4
\$20, under \$25	22.3	9.3	18.2	15.4	20.6	6.4	18.4	12.8	22.7	6.5	18.4	11.3
\$25, under \$30	14.9	5.1	17.4	8.3	11.9	2.7	15.0	7.4	13.3	3.3	13.5	6.3
\$30, under \$35	13.5	2.5	11.7	5.3	8.7	1.2	9.2	3.3	8.7	.9	8.0	2.5
\$35, under \$40	10.1	1.5	10.3	2.6	6.1	.9	8.1	1.3	4.0	.8	6.3	1.1
\$40, under \$45	5.2	1.3	4.3	.8	2.3	.2	2.7	.4	2.0	.1	2.1	.3
\$45, under \$50	2.5	.2	5.1	.8	1.1	.5	2.9	.3	.9	.4	1.8	.3
\$50, under \$55	1.7	.1	1.8	.2	.9	.5	.9	.1	.7	.4	.5	.1
\$55, under \$60	.7	.1	1.9	.2	.4	.1	1.6	.2	.2	.2	.9	.2
\$60 and over	1.5	.5	4.6	.4	.5	.1	2.1	.2	.5	.3	1.0	.2

The compensation laws of New York and Michigan provide that a worker disabled for more than 7 days will be reimbursed at the rate of two-thirds of his average weekly wages, in New York up to a maximum benefit of \$25, in Michigan to a maximum of \$18, a week. In Pennsylvania compensation is 65 percent of wages with a weekly maximum of \$15. In Illinois compensation may be 50 to 65 percent of wages, depending on a schedule of injuries and number of dependents, and the weekly maximum varies from \$15 to \$20. In each State the amount of compensation in fatal cases depends on the number of dependents involved. This element explains in part the fact that compensation in fatal cases of women was very low as compared to compensation in men's fatal cases.

Both total and average compensation for men's and women's injuries in these four States are organized in table 9 according to severity of the affection. As far as totals are concerned, compensation for women costs little more than 3 or 4 percent of compensation paid in any State or year. This is in spite of the fact that women suffered 5 to 11 percent of all injuries in these States.

Correspondingly it appears that the average woman (regardless of extent of disability) received compensation of from less than two-fifths to well under three-fifths as much as that received by the average man. There are two exceptional cases, both applying to those who had suffered the more serious injuries classified as permanent total, one in Illinois in 1933 and one in New York in 1934, in which women injured received higher compensation on the average than did men.

Average compensation for all injuries combined decreased from 1932 to 1934 for men in each State but Michigan. For women the decrease was less, and in Michigan and New York the average for 1934 was considerably higher than in 1932. The greatest increase in both cases came from higher compensation in fatal or permanent total cases and may reflect the increase in the extent to which women wage earners become responsible for dependents during depression years.

TABLE 9.—Total and average amount of compensation paid, 1932 to 1934, by sex and extent of disability

[For source of information, see chart II in the appendix]

Extent of disability	Total amount		Average per injury			Total amount		Average per injury		
	Males	Females	Males	Females		Males	Females	Males	Females	
				Amount	Per cent of male average				Amount	Per cent of male average
	Illinois ¹					Michigan				
1932 All classes	\$7,090,062	\$278,738	\$267	\$133	49.8	\$2,765,661	\$78,192	\$176	\$85	48.3
Fatal	1,577,960	14,209	2,808	1,184	42.2	883,105	8,082	3,978	1,616	40.6
Permanent total	119,336		4,773			9,000		9,000		
Permanent partial	4,419,537	210,923	542	375	69.2	636,799	23,141	749	503	67.2
Temporary	964,477	53,561	54	35	64.8	1,236,757	46,969	84	54	64.3
1933 All classes	\$6,577,812	\$233,254	257	120	46.7	1,908,786	63,203	155	78	50.3
Fatal	1,669,214	7,209	2,848	655	23.0	540,745		3,781		
Permanent total	204,058	7,440	3,710	3,720	100.3					
Permanent partial	3,813,804	173,415	503	355	70.6	442,809	18,786	669	508	75.9
Temporary	889,235	44,940	51	31	60.8	925,232	44,417	80	57	71.3
1934 All classes	\$7,066,793	\$271,830	244	127	52.0	3,047,228	97,558	170	95	55.9
Fatal	1,999,603	7,931	2,840	1,983	69.8	739,272	11,880	3,996	2,970	74.3
Permanent total	218,518		4,552			16,055		4,014		
Permanent partial	3,920,651	212,164	438	354	80.8	907,033	30,774	735	366	49.8
Temporary	925,766	51,735	48	34	70.8	1,384,868	54,904	84	58	69.0
	New York					Pennsylvania ¹				
1932 All classes	\$26,466,660	\$1,334,707	\$355	\$169	47.6	\$10,940,379	\$212,061	\$208	\$75	36.1
Fatal	5,152,011	22,750	5,815	1,517	26.1	3,600,730	6,015	3,313	752	22.7
Permanent total	1,580,405	85,249	17,757	12,178	68.6					
Permanent partial	12,236,519	786,666	775	624	80.5	³ 2,987,982	³ 48,566	³ 1,266	³ 714	³ 56.4
Temporary	7,497,725	440,042	130	67	51.5	4,351,667	157,480	89	57	64.0
1933 All classes	23,160,795	1,513,414	350	183	52.3	8,615,484	183,120	195	74	37.9
Fatal	4,292,179	37,640	5,625	1,981	35.2	2,836,003	3,934	3,305	656	19.8
Permanent total	2,502,113	155,273	18,398	12,939	70.3					
Permanent partial	10,430,544	784,666	757	580	76.6	³ 2,302,732	³ 58,479	³ 1,164	³ 750	³ 64.4
Temporary	5,935,959	535,835	115	78	67.8	3,476,749	120,707	84	50	59.5
1934 All classes	20,732,927	1,351,156	332	181	54.5					
Fatal	4,087,124	29,264	5,553	1,540	27.7					
Permanent total	1,671,108	121,034	19,208	20,172	105.0					
Permanent partial	10,149,617	805,943	676	588	87.0					
Temporary	4,825,078	394,915	103	65	63.1					

¹ Closed compensable cases.

² Total exceeds details, as cases not reporting extent of disability are included.

³ Includes permanent total cases.

APPENDIX

CHART I.—Injuries tabulated, minimum period of disability, and employments covered by law, in the 19 States that reported the sex of injured persons in one or more of the years 1932, 1933, and 1934

[Source: State laws and reports]

State	Period covered by figures tabulated	Injuries tabulated	Minimum period of disability of injuries tabulated.	Employments covered ¹ by accident-reporting law (marked *) or compensation law (where only injuries under compensation law are tabulated)		Elective or compulsory compensation law (where only injuries under law are tabulated)
				Private	Public	
Colórado	Years ended Nov. 30, 1927, 1930 to 1934.	Compensation claims	More than 10 days	All except those having regularly less than 4 employees, farm and ranch labor, private domestic service, and casual employees not in the usual course of employer's business. Voluntary as to excepted employments.	All except elective officials, National Guard, and members of volunteer fire departments.	Election presumed in absence of written notice. ² Compulsory as to public employees.
Georgia	1927, 1932 to 1934	Cases reported ⁶	More than 7 days or requiring medical treatment.	All except those whose employment is not in the usual course of employer's business, employees of intrastate common carriers operated by steam, farm laborers, domestic servants, and employees of institutions maintained as public charities. Voluntary as to excepted employments and for those employed by employers having regularly less than 10 employees in the same business within the State.	All	Do. ³
Idaho	2-year periods ended Oct. 31, 1928, 1930, 1932, and 1934.	Closed compensable cases.	More than 1 week	All except agricultural pursuits, domestic service, outworkers, casual employment, crews of aircraft while under way, employment not carried on by the employer for pecuniary gain, and charitable institutions. Voluntary as to excepted employments.	All except judges of election, clerks of election, and jurors.	Compulsory.
Illinois	1927, 1930 to 1934	do. ³	do	"Extra-hazardous" employments as enumerated. ⁴ Elective as to other private employments including those not in usual course of employer's business. Does not apply to	All except officials and duly appointed members of fire departments in cities of 200,000 or more,	Do.
Indiana	Years ended Sept. 30, 1927, 1930 to 1932, and June 30, 1933 and 1934.	Cases reported	More than 1 day	members of fire patrols (of any board of underwriters) or to any totally blind person. *All	and totally blind persons. *All	
Iowa	2-year periods ended June 30, 1930, 1932, and 1934.	do	do	*All except mines subject to inspection by State mine inspector. ⁵	*All except elective officials.	
Kentucky	Years ended June 30, 1927 1930 to 1934.	do. ^{6 7}	do	All except those having less than 3 employees, agriculture, and domestic service. Threshing and hulling grains and seeds are within the act. Voluntary as to excepted employments.	All municipal corporations and all departments of State government having 3 or more employees. Voluntary as to others.	Election in writing by employer and employee. ²
Maryland	Years ended Oct. 31, 1927, 1930 to 1934.	Compensation claims allowed.	More than 3 days	"Extra-hazardous" employments as enumerated. ⁴ Casual employees, cutters of cordwood or firewood, ¹ farm labor, domestic service, country blacksmiths, wheelwrights, or similar rural employments excepted. Voluntary as to works not extra-hazardous and excepted employments.	All workmen employed for wages and engaged in extra-hazardous employments, including the State police force and guards of penal institutions. Voluntary as to other employments.	Compulsory.
Massachusetts	Years ended June 30, 1927, 1930 to 1934.	Tabulatable injuries ⁸	1 day or 1 shift	*All except those whose employment is not in usual course of employer's business.	*All	
Michigan	1932 to 1934	Compensable cases	More than 1 week	All	All except elective officers.	Election in writing by employer, ⁹ and presumed in absence of written notice by employee. Compulsory as to public employments.
Minnesota	2-year periods ended June 30, 1932 and 1934.	Closed cases ^{6 10}	More than remainder of day, shift, or turn ¹¹	All including commercial threshing and baling, except steam railroads, domestic servants, farm laborers, or casual employees not in usual course of employer's business. Voluntary for farm labor.	All except officials and employees of highway department.	Election presumed in absence of written notice. ² Compulsory as to public employments.

See footnotes at end of table.

CHART I.—Injuries tabulated, minimum period of disability, and employments covered by law, in the 19 States that reported the sex of injured persons in one or more of the years 1932, 1933, and 1934—Continued

State	Period covered by figures tabulated	Injuries tabulated	Minimum period of disability of injuries tabulated	Employments covered ¹ by accident-reporting law (marked *) or compensation law (where only injuries under compensation law are tabulated)		Elective or compulsory compensation law (where only injuries under law are tabulated)
				Private	Public	
Missouri	1934	Compensable and medical cases ¹²	None	All except farm labor, domestic servants, casual employees or those in employments not incidental to operation of employer's usual business, employees working in their own homes or on premises not controlled by employer, employments by employers having 10 or less regular employees unless the occupations have been determined to be hazardous, and employees receiving over \$3,600 a year. Elective as to excepted employees. Elective as to occupational disease.	All excepted from law unless they elect by law or ordinance to come under it.	Election presumed in absence of written notice. ²
New Hampshire	Years ended June 30, 1933 and 1934	Fatal and severe cases. ¹³	Not reported	Workmen engaged in manual or mechanical labor in certain hazardous employments described. Employments are: Railroads; work with or near machinery if 5 or more persons are engaged in manual or mechanical labor in the place of employment; work with electricity; work with or near explosives; work in or about quarries, mines, or foundries.	Not included	Election in writing by employer. ²
New Jersey	1927, 1930 to 1934	Closed compensable cases. ¹⁰	At least 7 days	All except casual employees	All except elective officials, those retired on pensions.	Election presumed in absence of written notice. ¹⁴ Compulsory as to public employments.
New York	Year ended June 30, 1927; calendar years 1930 to 1934.	do. ¹⁰	More than 7 days	All enumerated "hazardous" employments, ⁴ and all others having 4 or more workmen. Farm labor and domestic service excluded. Voluntary as to other employments.	All employees	Compulsory.
Pennsylvania	1927, 1930 to 1933	Cases reported	2 days	*All except casual employments	*All	Election in writing by employer, ² and presumed in absence of written notice by employee. Compulsory as to State employees.
Rhode Island	Years ended Sept. 30, 1927, 1930 to 1934.	Closed compensable cases.	At least 1 week	All except those having less than 6 employees, farm labor, domestic service, casual employees not in usual course of employer's business, and employees receiving over \$3,000 a year. Voluntary as to excepted employments.	All employees of State, cities and towns, except fire and police departments.	Presumed in absence of written notice by employee. Compulsory as to State employees.
South Dakota	Years ended June 30, 1930 to 1934.	Cases reported ⁶	None	All except farm and domestic service and employees not in usual course of employer's business. Compulsory for operation, for profit, of threshing machines, grain combines, corn shellers, corn huskers, shredders, silage cutters, and seed hullers, including traction engines used therewith. Voluntary as to excepted employments.	All except officials	Election presumed in absence of written notice. ² Compulsory as to public employees.
Wisconsin	1927, 1930 to 1933	Closed compensable cases. ¹³	More than 3 days	All except those usually employing less than 3 employees, domestic service, farmers or farm labor, and employees not in usual course of employer's business. Voluntary as to excepted employments.	do.	Compulsory. ¹

¹ Only change in features of laws given in this chart is as follows: 1933. Maryland—Cutters of cordwood or firewood excepted by session law 1933, ch. 354, sec. 3, effective June 1, 1933.

² Inducement to election is offered by abrogation of common-law defenses where employer rejects the law.

³ Also reports compensable cases occurring in 1930 to 1934. Type of injury tabulated is indicated, for this State, on each table in this report. Includes occupational diseases in certain occupations.

⁴ The principal industrial employments are included.

⁵ Reports of accidents to workers in mines are not received by the bureau of labor. All industrial accidents are reported, however, to the compensation commissioner.

⁶ Only employers subject to compensation act are required to report.

⁷ Includes injury from gas or smoke in mines or from any gas.

⁸ Occupational diseases included by court decision.

⁹ Common-law defenses abrogated where employer rejects law except in actions by household domestic servants or farm laborers.

¹⁰ Designated occupational diseases included.

¹¹ "Nondisabling cases," presumably with no time lost but with medical and hospital costs reported, are included in the tabulation.

¹² Occupational diseases included if employer so elects.

¹³ Includes occupational diseases.

¹⁴ Common-law defenses abrogated regardless of acceptance or rejection of act.

¹⁵ Common-law defenses abrogated for employers covered by compulsory features of law. Employers of fewer than 3 persons lose defense of assumed risk if they do not elect law.

CHART II.—Page references in State reports classifying accident statistics by sex, 1932 to 1934, used in tables 1 to 9^{1 2}

State	Source	Page references for table—								
		1	2	3	4	5	6	7	8	9
Colorado	Biennial report of Industrial Commission, period ended Nov. 30, 1934. (Thirteenth report.) ³	Facing 24								
Idaho	Biennial reports of Industrial Accident Board, periods ended Oct. 31: 1932 (eighth report)	87								
	1934 (ninth report)	77	77							
Illinois	Mimeographed Industrial Accident Reports of Department of Labor for calendar years:									
	1932	Series A, table 1.					Series B, table 2.			Series B, table 1.
	1933	Series A, table 4.					Series B, table 2.			Series B, table 1.
	1934	Series A, table 4.	Series B, table 1.			Series B, table 2.	Series B, table 2.	Series B, table 2.		Series B, table 1.
Indiana	Annual reports of Industrial Board, years ended:									
	Sept. 30, 1932	12, 54								
	June 30, 1933 (Year Book)	698, 711								
	June 30, 1934	13 to 19								
Iowa	Biennial reports of Bureau of Labor, periods ended June 30:									
	1932 (twenty-fifth report)	9, 12								
	1934 (twenty-sixth report)	8, 12		8, 12						
Kentucky	Annual reports of Workmen's Compensation Board, years ended June 30:									
	1932 (sixteenth report)	29								
	1933 (seventeenth report)	29								
	1934 (eighteenth report)	29								
Maryland	Annual reports of Industrial Accident Commission, years ended Oct. 31:									
	1932 (eighteenth report)	23, 24						23		
	1933 (nineteenth report)	23, 24						23		
	1934 (twentieth report)	23, 24	23, 24			23, 24		23	23, 24	
Massachusetts	Annual reports of Department of Industrial Accidents, years ended June 30:									
	1932 (twentieth report)	34, 35						34		
	1933 (twenty-first report)	34, 35						34		
	1934 (twenty-second report)	34, 35	34, 35			34, 35		34	34, 35	

Minnesota	Biennial reports of Department of Labor and Industry contain biennial reports of Industrial Commission (sixth and seventh reports) periods ended June 30: 1932 (twenty-third report)	117						117		
	1934 (twenty-fourth report)	240	240			240		240		
Missouri	Eighth Annual Report of Workmen's Compensation Commission for 1934.	12, 13	11 to 13							
New Hampshire	Biennial report Bureau of Labor (twenty-second report) for periods ended June 30: 1933 ²	17								
	1934 ²	19								
New Jersey	Mimeographed Industrial Accident Reports of Department of Labor for calendar years:									
	1932	9						8		
	1933	8						7		
	1934	10	10			10		9	10	
New York	Special bulletin of Department of Labor, No. 183, Cost of Compensation, Cases Closed, 1932.	25						62		60, 61
	Special bulletin of Department of Labor, No. 191, Cost of Compensation, Three Years—1933, 1934, and 1935:									
	1933	30						137		131, 132
	1934	30	30			139, 140		139	139, 140	133, 134
Rhode Island	Reports of Commissioner of Labor for years ended Sept. 30:									
	1932 (fourteenth report)	19						19		
	1933 (fifteenth report)	10						10		
	1934 (sixteenth report)	8								
South Dakota	Annual reports of Industrial Commissioner, years ended June 30:									
	1932 (fifteenth report)	10								
	1933 (sixteenth report)	4								
	1934 (seventeenth report)	4								

¹ For years preceding 1932, see Women's Bureau Bulletins 102 and 129.

² Data for Georgia, Michigan, Pennsylvania, and Wisconsin and New Hampshire data for women are from unpublished tables.

³ Contains also data for 1932 and 1933.

