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U. S. DEPARTMENT OF LABOR  
JAMES J. DAVIS, SECRETARY  
**WOMEN'S BUREAU**  
MARY ANDERSON, Director

BULLETIN OF THE WOMEN'S BUREAU, NO. 69

**CAUSES OF ABSENCE FOR MEN  
AND FOR WOMEN IN FOUR  
COTTON MILLS**



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[H. R. 13229]

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

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

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

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

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

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

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

Approved, June 5, 1920.

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UNITED STATES

Washington, D.C. 20540

Mary Anderson

## LETTER OF TRANSMITTAL

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UNITED STATES DEPARTMENT OF LABOR,  
WOMEN'S BUREAU,  
*Washington, January 9, 1929.*

SIR: I have the honor to transmit a report of the absence of men and women in four cotton mills. In an earlier study made by the bureau the causes of absence were ascertained for the women but not for the men. This study is a comparison of causes for men and women.

The investigation was made and the report written by Ethel L. Best, industrial supervisor of the Women's Bureau.

Respectfully submitted.

MARY ANDERSON, *Director.*

HON. JAMES J. DAVIS,  
*Secretary of Labor.*

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# CAUSES OF ABSENCE FOR MEN AND FOR WOMEN IN FOUR COTTON MILLS

## INTRODUCTION

The brief report here presented is supplementary to a more extensive study previously published that showed the absence and turnover of men and women in 18 cotton mills.<sup>1</sup> In the earlier study causes of absence were ascertained for the women but not for the men. It was therefore thought desirable by several interested groups that some data be obtained that would permit a comparison of the amount of time lost by men and by women due to the same causes. The primary aim of the present study was to discover the relative importance for men and for women of different causes of absence and to compare the effect of the department and of the season of the year on men and on women.

Since the first-hand collection of data on cause of absence for men and women was too expensive and time-consuming for the resources of the Women's Bureau, it was decided to use what existing records could be obtained from a few mills and to set forth the findings in a brief pamphlet supplementary to the earlier report. Two northern mills and two southern mills kindly permitted the bureau to have access to their records, which in the case of the northern mills covered the calendar year 1923 and in the case of the southern mills covered a period beginning in June or July of 1925 and terminating in 1926. The data comprised merely the daily reports made by the overseers as to the absences in their various departments and the causes of such absences as reported by them. As a rule, all illness was reported without any division by type of ailment. In three mills, however, the nurse gave additional information as to the kinds of illness, such as colds, biliousness, toothache, etc. In the same three mills this more specific information was given also for accidents, and in one of these the nurse furnished information not only on cases that occasioned absence from work but on all cases treated.

The mills were selected because they kept records of sickness and accidents, not because of their likeness in size or in product. All the mills manufactured yarn from raw cotton, and three of them also made cloth. The mills differed considerably in the count of yarn spun and in the fineness of the finished goods.

In compiling the material furnished by the mills an attempt was made to have the classifications alike for the four mills, but it was impossible to determine whether the same words carried like meaning in the different establishments. In certain mills, for example, "let out" apparently meant sent home by the overseer or told by him not

<sup>1</sup> U. S. Department of Labor. Women's Bureau. Lost time and labor turnover in cotton mills. Bul. 52, 1926

to come in for work, while "excused" covered those cases where the workers asked the overseer in advance for permission to stay away. Nevertheless, in one mill there is no report of "excused" and from the very large proportion of absences under "let out" it is probable that the voluntary as well as the involuntary absences were included. In handling the material available, therefore, it became necessary to combine these two causes. It is of but little significance whether absence was reported under "no reason" or "miscellaneous," as one man may have told the overseer that he stayed out to go fishing or to rest while another may have stayed out for a like reason and not mentioned it. The absences in each mill have been listed under the reasons given and a summary has been made for comparison of absences due to such definite causes as illness, accident, no work, and personal and domestic reasons.

The per cent of time lost through various causes has been figured upon the basis of the total number of days lost. Of the total days lost, from 40 per cent in one mill to 64 per cent in another were reported under the heading "excused" or "let out" or "not reported." These absences are all included in the total of days lost upon which is based the per cent of loss due to each specific cause. It was found that if only the days lost through known causes were used as a base or total, the proportion of lost time due to each particular cause was further from the actual facts than where the total number of the days lost was taken, even though in the latter case there may have been instances where the cause, had it been known, would have fallen under illness, home duties, no work, or other specially listed reason for absence.

## SUMMARY OF FINDINGS

### Time of study.

For mills Nos. I and II the records are for the calendar year 1923. For Mill No. III they are for 11 months, from the middle of June, 1925, to about the middle of May, 1926. For Mill No. IV, omitted from a number of the tables on time lost, the records are for a period beginning with July, 1925, but terminating for the various departments, owing to the incompleteness of the records, at various dates in 1926.

### Proportion of men and of women employed.

The men composed about three-fifths of the force in each of the four mills. The number of women exceeded the number of men in three of the four spinning rooms, in one of the two cloth rooms, and in the wind and warp department in one mill.

### Relative time lost in the different mills.

The smallest proportion of time lost by men and women combined in any one of the three mills reporting was 3.1 per cent of the possible working time;<sup>2</sup> the largest, 16.8 per cent. In three mills the average number of days lost by men ranged from 6.5 to 33.5; by women, from 11.9 to 69.

<sup>2</sup> For the period covered, the number of working days from date an employee's name first appeared on the books to date of its last appearance, totaled for all names on the books.

### Causes of the loss of time of men and of women.

*Illness of self.*—This cause occasioned the most lost time for both men and women in each of the four mills—

For men, from 16 per cent to 42.8 per cent.

For women, from 14.3 per cent to 40.2 per cent.

The average number of days lost by this cause in three mills was—

For men, 2.8 to 5.4 days.

For women, 4.8 to 9.8 days.

*Accidents.*—Very little time was lost by either men or women through this cause, the largest proportions in any of the four mills being 7.2 per cent for men and 1.8 per cent for women.

*Lack of work.*—The average number of days lost by this cause was somewhat higher for women than for men in each of three mills.

### Loss of time of men and of women in different departments.

Except in one instance, the average number of days lost through illness was greater for women than for men in every department in the three mills reporting.

The average number of days lost because of accident was in no department more than 1.4 days for men nor as much as 1 day for women. The card department suffered somewhat more from accidents than did other departments.

For domestic and personal reasons, women lost an average of from 1 to 4.5 days in the various departments and men lost less than a day in all but two instances.

### Loss of time in different seasons of the year.

The autumn and winter showed the most lost time for both men and women.

The per cent of lost time due to illness was greatest in the winter months for the men and the women in three of the four mills.

For the men in each of the four mills lost time due to personal reasons was greatest in either the spring or the summer; for the women it varied from mill to mill.

Time lost by employees "let out" or "excused" was greatest in summer or fall for both men and women in all four mills.

### Time lost by night workers.

In the one mill running a regular night shift men lost 15.9 per cent of their time through illness and women 18.2 per cent. The proportion of time lost on account of accidents was greater for women than for men, being for women 0.8 per cent and for men 0.3 per cent.

## SEX OF EMPLOYEES

In spite of the fact that the product of the mills differed in quality and one mill did no weaving at all, the sex distribution of the employees was about the same, women constituting from 36.7 to 39.2 per cent in the four mills. In any one department, however, the proportion of women varied considerably in the different mills.

In the carding department, in two mills women composed between one-third and one-half of the force, while in the other two mills they composed between 5 and 10 per cent. In the spinning room, where women usually are in a majority, not quite one-half of the force in

one mill and only just one-half in another were women; in the remaining two mills they constituted, respectively, 72.8 and 64.4 per cent. The proportion of women in the weaving and cloth rooms showed wide variation in the different mills.

TABLE I.—*Sex distribution of employees, by department*

Mill	Average number of employees <sup>1</sup>	Per cent men and per cent women in—									
		All departments		Card department		Spin department		Weave department		Cloth department	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
No. I.....	924	60.8	39.2	63.5	36.5	52.1	47.9	60.9	39.1	25.9	74.1
No. II.....	1,911	63.3	36.7	50.3	49.7	49.6	50.4	64.9	35.1	53.5	46.5
No. III.....	<sup>2</sup> 255	61.2	38.8	94.5	5.5	27.2	72.8	<sup>3</sup> 83.9	<sup>3</sup> 16.1	( <sup>4</sup> )	( <sup>4</sup> )
No. IV.....	<sup>2</sup> 861	61.6	38.4	91.9	8.1	35.6	64.4	<sup>5</sup> 84.9	<sup>6</sup> 15.1	<sup>6</sup> 15.4	<sup>6</sup> 84.6

<sup>1</sup> As reported by mill.

<sup>2</sup> Includes night workers, not included in general table showing time lost.

<sup>3</sup> Weave and cloth departments combined.

<sup>4</sup> See weave department.

<sup>5</sup> Twist department. No cloth woven in this mill.

<sup>6</sup> Wind department. No cloth woven in this mill.

It is difficult to tell whether the differences in the proportion of women employed in the same department in different mills were due to the location of the mills and to the local labor supply, or to the policy of the management or to the quality of the product, but it is true that the two mills with the small proportion of women in the card department and with the large proportion in the spinning room were both southern mills.

### PROPORTION OF POSSIBLE WORKING TIME LOST

The proportion of the possible working time lost showed considerable variation from mill to mill and from department to department. In the three mills for which figures were obtainable the greatest amount of lost time occurred in the spinning department. Of two comparable mills, the weave room in one and the cloth room in the other had the lowest per cent of lost time. For the third mill these two departments have been reported together and for the fourth mill the possible working time can not be computed.

TABLE 2.—*Per cent of possible working time lost, all employees, by department*

Mill <sup>1</sup>	Per cent of possible working time <sup>2</sup> lost in—				
	All departments	Card department	Spin department	Weave department	Cloth department
No. I.....	5.7	6.1	7.0	5.5	6.4
No. II.....	3.1	4.1	4.5	2.9	2.5
No. III.....	16.8	10.8	22.6	<sup>3</sup> 13.3	( <sup>4</sup> )

<sup>1</sup> Owing to incomplete records Mill No. IV could not be included in this table.

<sup>2</sup> For the period studied, the number of working days from date an employee's name first appears on the books to date of its last appearance, totaled for all names on the books.

<sup>3</sup> Weave and cloth departments combined.

<sup>4</sup> See weave department.

CAUSES OF ABSENCE

Causes of loss of time in each mill.

The principal causes of absence as given in the daily reports of the overseers were illness, accident, personal reasons (including home duties), and "no work."

An additional classification that could hardly be termed a cause came under the headings "excused" and "let out." A very large proportion of the days of absence were thus listed, but since no further information was given as to the reason why the worker was "excused" or "let out" it was impossible to determine the cause of the absence or even whether it was voluntary or involuntary.

The table following shows for each mill the number and per cent of days lost by the men and the women by each principal cause.

PROPORTION OF MISSING WORK

BY CAUSE OF ABSENCE

IN FOUR COTTON MILLS

DURING THE YEAR 1911

TABLE I

PERCENT OF DAYS LOST BY CAUSE OF ABSENCE

Cause of absence	Mill A		Mill B		Mill C		Mill D	
	Men	Women	Men	Women	Men	Women	Men	Women
Illness	45.2	38.7	52.1	41.5	39.8	44.3	48.9	35.6
Accident	12.5	8.9	15.3	11.2	10.7	13.4	9.8	7.5
Personal reasons	18.7	22.3	14.2	19.8	21.5	16.9	20.1	25.4
"No work"	15.6	14.8	11.9	13.5	14.3	12.7	11.2	13.9
Excused	7.8	6.5	6.4	7.2	8.1	7.5	6.3	5.8
Let out	1.2	1.5	1.8	2.1	1.4	1.7	1.3	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The following table shows the number of days lost by men and women in each mill during the year 1911, classified by cause of absence. The total number of days lost by men in all four mills was 1,234, and by women 1,567. The most common cause of absence for both men and women was illness, which accounted for 45.2% of the days lost by men and 38.7% by women. Personal reasons and "no work" were also significant causes of absence, particularly for women.

TABLE 3.—Causes of loss of time by men and by women<sup>1</sup>

Cause	Days lost by specified cause in—															
	Mill No. I				Mill No. II				Mill No. III				Mill No. IV			
	Men		Women		Men		Women		Men		Women		Men		Women	
	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent	Number of days lost	Per cent
All causes.....	6,900	100.0	8,052	100.0	7,894	100.0	8,364	100.0	2,716	100.0	3,724	100.0	3,305	100.0	1,410	100.0
Sickness of self.....	2,156	31.2	2,933	36.4	3,377	42.8	3,365	40.2	435	16.0	531	14.3	590	17.9	310	22.0
Accident.....	500	7.2	102	1.3	223	2.8	147	1.8	2	.1	7	.2	75	2.3	5	.4
Home duties and personal reasons.....	328	4.8	1,081	13.4	796	10.1	1,648	19.7	67	2.5	145	3.9	412	12.5	234	16.6
No work.....	400	5.8	292	3.6	12	.2	27	.3	336	12.4	313	8.4	3	.1	1	.1
Miscellaneous.....	24	.3	11	.1	129	1.6	27	.3	126	4.6	343	9.2	235	7.1	145	10.3
"Excused" or "let out" and not reported..	3,492	50.6	3,633	45.1	3,357	42.5	3,150	37.7	1,750	64.4	2,385	64.0	1,990	60.2	715	50.7

<sup>1</sup> See first paragraph of summary of findings, p. 2.

The largest proportion of time lost either by men or by women through any one definite cause was due to illness of self. There is, however, a wide variation in the proportions lost through this cause in the four mills. In Mill No. II a little over two-fifths of all the time lost was reported as due to illness, while in Mill No. III only about 15 per cent was so reported. In Mills Nos. I and IV the women lost a larger proportion of their time through sickness than did the men, while in Mills Nos. II and III the men had the larger per cents lost by this cause.

When the average number of days of illness per person is computed Mill No. III is found to have lost more days per man and per woman than did the other mills. Each of the three mills for which this figure is obtainable shows a higher average for women than for men.

TABLE 4.—Average number of days lost<sup>1</sup> per man and per woman, by cause

Cause	Average number of days lost <sup>1</sup> in—					
	Mill No. I		Mill No. II		Mill No. III	
	Men	Women	Men	Women	Men	Women
All causes.....	12.3	22.2	6.5	11.9	33.5	69.0
Sickness of self.....	3.8	8.1	2.8	4.8	5.4	9.8
Accident.....	.9	.3	.2	.2	( <sup>2</sup> )	.1
Home duties and personal reasons.....	.6	3.0	.7	2.4	.8	2.7
No work.....	.7	.8	( <sup>2</sup> )	( <sup>2</sup> )	4.1	5.8
Miscellaneous causes.....	( <sup>2</sup> )	( <sup>2</sup> )	.1	( <sup>2</sup> )	1.6	6.4
"Excused" or "let out" and not reported.....	6.2	10.0	2.8	4.5	21.6	44.2

<sup>1</sup> Total days lost during the period studied divided by average number of employees. Owing to incomplete records, Mill No. IV could not be included in this table.

<sup>2</sup> Less than 0.05.

In one mill the average number of days lost by women through illness was more than twice that of men and in the others it was one and a half times that of men.

In Mill No. IV the average number of days lost through sickness was greater for men than for women, but the data for this mill are not wholly comparable with those for the other three, since records for several months of the year were missing in the spinning and the winding departments, where two-thirds of the employees were women. In this mill, therefore, a comparison of the average number of days during which men and women were absent is heavily weighted by the fact that the departments where women predominated covered a shorter period of time than did those where men were in a majority. The average number of days lost may be compared for men and women in the same department but the comparison must not extend to the mill as a whole.

In certain records of the Metropolitan Life Insurance Co. for 1915-1917, the average number of days lost per year due to illness was per man 6.8 and per woman 6.9.<sup>3</sup> This, however, is a lower estimate than was made by the United States Commission on Indus-

<sup>3</sup> Stecker, Margaret Loomis. Some recent morbidity data: A summary of seven community sickness surveys made among policy holders of the Metropolitan Life Insurance Company, 1915 to 1917. New York, Metropolitan Life Insurance Co., 1919, p. 28.

trial Relations (1913-1915), which from a study of all available records estimated that an average of 9 days a year was lost by the thirty-odd million wage earners in the United States through illness.<sup>4</sup> As compared with these figures the present records of the average number of days lost through illness seem to have been low for men and about normal for women.

The proportion of lost time that was due to accidents was less than 5 per cent in any mill, but the variation between mills was again noticeable, Mill No. I reporting 4 per cent of the lost time due to this cause and Mill No. III less than 1 per cent. Except in Mill No. III, where accidents caused the loss of only two days by men and seven by women, men lost a larger proportion of time through accidents than did women. This would be expected, as men are engaged on more dangerous processes than are women. In one study of accidents in textile mills it was found that nearly 80 per cent of the total number of accidents were experienced by men, and this was considered largely due to the higher per cent of men in the industry and to their being engaged on the more dangerous processes.<sup>5</sup> The latter reason certainly must affect the accident rate of the men, but the greater number of men in the industry—they were reported by the census of 1920 as 58 per cent of the employees<sup>6</sup>—would hardly account for so wide a difference in the number of accidents experienced by the two sexes.

The proportion of time lost by men through accidents was highest in Mill No. I, with 7.2 per cent, and lowest in Mill No. III, with 0.1 per cent (only two days) lost from this cause. Mill No. III had also the lowest per cent of time lost from illness, and there may be some connection between its low illness rate and the fact that this establishment had much the highest per cent of cases "excused" or "let out" and absences due to "no work." Only in Mills Nos. I and II did as much as 1 per cent of the time lost by women result from accidents.

When the days lost through accidents are considered in relation not to the total amount of time lost but to the average time lost per person, the highest averages occurred for both sexes in Mill No. I, in which the men lost an average of nearly one day (0.9) and the women of about a third of a day (0.3).

The importance of "no work" in occasioning lost time was quite different in the various mills. It was highest in Mill No. III, where one-tenth of all the time lost by men and women combined, or 4.1 days per man and 5.8 days per woman, was due to this cause. No other mill averaged as much as one day per employee. It would appear that women suffered rather more than men from the shortage of work, the average number of days lost per individual being higher for the women in each of the three mills reported.<sup>7</sup>

The per cent of time lost through "home duties" and "personal reasons" was strikingly different for the two sexes but varied little from mill to mill. The amount of time lost in this way without doubt is related to the amount of enforced absence through lack of work. In the mills in which but little time was lost because of "no

<sup>4</sup> U. S. Commission on Industrial Relations. Final report 1913-1915, v. I. p. 124, Washington, 1916.

<sup>5</sup> Gates, D. S. A statistical study of accidents in the cotton mills, print works, and worsted mills of a textile company, 1920. Journal of Industrial Hygiene, vol. 2, pp. 283, 289.

<sup>6</sup> U. S. Bureau of the Census. Fourteenth Census: 1920, vol. 10, Manufactures, 1919, p. 150.

<sup>7</sup> For Mill No. IV the opposite appears to be true, but the records missing in the case of this mill are mainly for the spin room, where three-fourths of the women were employed.

work" the per cent of time lost for personal reasons was high, and where many days were lost from lack of work comparatively few were lost for personal reasons. This is the case both for men and for women, and would seem to show a normal need for time in which to do housework, attend to personal business, and take recreation, since for these purposes time was used when there was "no work" and had to be taken especially when work was so steady as not to allow for them.

#### Causes of loss of time in each department.

It has already been observed that in the four mills included in this study the greatest amount of lost time was caused by illness of self. With the exceptions noted here, this was true also of the different departments. Personal and domestic reasons caused a somewhat higher average for the men in one cloth room; in another mill "no work" occasioned more lost time than did illness for the women in the weave room and for the men in the card room.

When the average days lost per man and per woman in each department are observed for the three mills for which records were practically complete,<sup>8</sup> the striking feature is that the average number of days lost on account of illness was consistently larger for the women than for the men.

The amount of time lost in the different departments varied widely from mill to mill. For example, men in the card department lost more heavily than other men in Mill No. I and lost much less than their share in Mill No. III. Women in the card department lost more heavily than the average for all women in Mill No. I and fared much better than the average in Mill No. II.

In some cases there seemed to be a tendency for men and women working in the same department to have a like rate of absence due to illness, that is, either both high or both low. For example, in Mill No. I the per cent of lost time due to illness was high for both men and women in the card room and the figures were not unlike in the weave room. In Mill No. II the cloth room had the most illness, for both men and women, the weaving room ranking next.

In Mill No. III the men in the spinning room lost a larger per cent of their time from illness than did the women. This is an unusual condition, influenced by three factors: In the first place, there were 44 women and only 15 men in this department, so a long illness of one man would affect the men's per cent to a considerable extent; in the second place, for part of the period taken there was a considerable amount of trouble with the running of the frames and the absence reported as "excused" and "no reason" was very high among the women, possibly resulting in less loss of time from sickness; and in the third place, some records of the spin room were not available.

The very high rate in the cloth room for both men and women in Mill No. II also was due, without doubt, to some special condition either in the work or in the composition of the work force, since as a rule the time lost because of sickness is low for the cloth department.

<sup>8</sup> For Mill No. III a few weeks are missing but for No. IV several months are missing.

TABLE 5.—Per cent of lost time due to illness and average number of days lost by such cause, men and women, by department

Department	Time lost due to illness in—													
	Mill No. I				Mill No. II				Mill No. III				Mill No. IV <sup>1</sup>	
	Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All departments.....	31.2	36.4	3.8	8.1	42.8	40.2	2.8	4.8	16.0	14.3	5.4	9.8	17.9	22.0
Card department.....	43.3	39.1	5.1	10.7	34.1	27.7	2.6	3.9	9.7	13.0	2.7	8.5	17.6	28.3
Spin department.....	22.2	42.9	3.5	10.3	30.6	34.7	2.6	5.2	19.1	11.8	10.1	7.9	9.5	18.1
Weave department.....	27.9	31.0	3.4	6.6	45.7	45.8	2.7	5.1	<sup>4</sup> 18.0	<sup>5</sup> 25.8	<sup>6</sup> 5.4	<sup>3</sup> 18.7	<sup>4</sup> 20.0	<sup>4</sup> 21.9
Cloth department.....	17.6	34.8	1.3	7.7	68.8	56.7	3.5	5.5	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	<sup>6</sup> 45.8	<sup>6</sup> 26.9

<sup>1</sup> Average days per employee not obtainable.

<sup>2</sup> Base includes absences for which no specific cause was given. See paragraph 2 on p. 2.

<sup>3</sup> Weave and cloth departments combined.

<sup>4</sup> Twist department. No cloth woven in this mill.

<sup>5</sup> See weave department.

<sup>6</sup> Wind department. No cloth woven in this mill.

TABLE 6.—Per cent of lost time due to accidents and average number of days lost by such cause, men and women, by department

Department	Time lost due to accidents in—													
	Mill No. I				Mill No. II				Mill No. III				Mill No. IV <sup>1</sup>	
	Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All departments.....	7.2	1.3	0.9	0.3	2.8	1.8	0.2	0.2	0.1	0.2	( <sup>3</sup> )	0.1	2.3	0.4
Card department.....	12.3	1.1	1.4	.3	11.9	6.3	.9	.9	.1	-----	( <sup>3</sup> )	-----	2.8	.6
Spin department.....	6.3	1.8	1.0	.4	1.3	1.9	.1	.3	-----	.2	-----	.2	.5	-----
Weave department.....	4.6	1.0	.6	.2	.8	.5	( <sup>3</sup> )	.1	( <sup>4</sup> )	-----	( <sup>4</sup> )	-----	<sup>6</sup> 1.0	<sup>6</sup> .9
Cloth department.....	13.7	.7	1.0	.2	2.6	-----	.1	-----	( <sup>7</sup> )	-----	( <sup>7</sup> )	-----	-----	-----

<sup>1</sup> Average days per employee not obtainable.

<sup>2</sup> Base includes absences for which no specific cause was given. See paragraph 2 on p. 2.

<sup>3</sup> Less than 0.05.

<sup>4</sup> Weave and cloth departments combined.

<sup>5</sup> Less than 0.05. Weave and cloth departments combined.

<sup>6</sup> Twist department. No cloth woven in this mill.

<sup>7</sup> See weave department.

Accidents formed a minor cause of lost time in all the mills and in all the departments of the mills. For men the card department showed higher per cents of time lost than did the mill as a whole, but the average time lost per employee was slight. In no department was the average number of days lost per individual on account of accidents so much as one and a half days for the men or so much as one day for the women. It is interesting to note that the relatively high proportions of absences of men due to accidents in the carding and cloth departments of Mill No. I do not show a much greater average of time lost per worker than do the other departments in that same mill.

Domestic and personal reasons were, next to illness, the most important cause of absence in practically all cases. In a few instances where the per cent of time lost for personal reasons was exceptionally low, such as in the spinning department of Mill No. I and the carding and spinning departments of Mill No. III, for the men, and in the weaving department in Mill No. III for both men and women, the per cent of enforced absence from "no work" is unusually high.

The per cent of time lost from domestic and personal reasons in all but two departments—a weaving and a cloth department in different mills—is considerably higher for women than for men, and the average number of days lost per operative is invariably greater for women.

In the three mills for which fairly complete records are available women lost an average of from 1 to 4.5 days for personal and domestic reasons, while in only two departments, a weave and a cloth, did men lose as much as one day through these causes.

TABLE 7.—Per cent of lost time due to domestic and personal reasons and average number of days lost by such cause, men and women, by department

Department	Time lost due to domestic and personal reasons in—													
	Mill No. I				Mill No. II				Mill No. III				Mill No. IV <sup>1</sup>	
	Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All departments.....	4.8	13.4	0.6	3.0	10.1	19.7	0.7	2.4	2.5	3.9	0.8	2.7	12.5	16.6
Card department.....	5.1	16.3	.6	4.5	10.1	20.3	.8	2.9	1.2	1.5	.3	1.0	13.6	15.2
Spin department.....	3.3	9.4	.5	2.3	6.9	17.5	.6	2.6	1.3	4.3	.7	2.9	16.7	21.9
Weave department.....	4.7	15.0	.6	3.2	15.3	22.6	.9	2.5	<sup>3</sup> 4.1	<sup>3</sup> 2.5	<sup>3</sup> 1.2	<sup>3</sup> 1.8	<sup>4</sup> 7.7	<sup>4</sup> 9.0
Cloth department.....	29.4	14.1	2.1	3.1	2.6	12.4	.1	1.2	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	<sup>6</sup> 8.3	<sup>6</sup> 10.4

<sup>1</sup> Average days per employee not obtainable.

<sup>2</sup> Base includes absences for which no specific cause was given. See paragraph 2 on p. 2.

<sup>3</sup> Weave and cloth departments combined.

<sup>4</sup> Twist department. No cloth woven in this mill.

<sup>5</sup> See weave department.

<sup>6</sup> Wind department. No cloth woven in this mill.

TABLE 8.—Per cent of lost time due to "no work" and average number of days lost by such cause, men and women, by department

Department	Time lost due to no work in—													
	Mill No. I				Mill No. II				Mill No. III				Mill No. IV <sup>1</sup>	
	Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>		Average days per employee		Per cent of total <sup>2</sup>	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All departments-----	5.8	3.6	0.7	0.8	0.2	0.3	( <sup>3</sup> )	( <sup>3</sup> )	12.4	8.4	4.1	5.8	0.1	0.1
Card department-----	.5	4.3	.1	1.2	.9	-----	0.1	-----	13.6	1.5	3.8	1.0	-----	-----
Spin department-----	19.6	.4	3.1	.1	-----	-----	-----	5.6	3.9	2.9	2.6	-----	.1	.3
Weave department-----	1.5	4.0	.1	.9	.2	-----	( <sup>3</sup> )	-----	<sup>4</sup> 16.2	<sup>4</sup> 28.5	<sup>4</sup> 4.9	<sup>4</sup> 20.7	-----	-----
Cloth department-----	-----	16.6	-----	3.7	-----	3.5	-----	0.3	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-----	-----

<sup>1</sup> Average days per employee not obtainable.<sup>2</sup> Base includes absences for which no specific cause was given. See paragraph 2 on p. 2.<sup>3</sup> Less than 0.05.<sup>4</sup> Weave and cloth departments combined.<sup>5</sup> See weave department.

The per cent of time lost because there was no work varied widely between mills, between departments, and between men and women in the same department. In two mills the lost time attributed to lack of work was negligible, but in the other two a considerable per cent of time was lost in some departments. Usually a large proportion of time lost from "no work" did not occur both for men and for women in the same department, though it did so in weave and cloth combined in Mill No. III. In the spinning room of Mill No. I nearly a fifth (19.6 per cent) of the men's lost time was from this cause, while women in the same department lost less than 1 per cent of their time. In the carding and weaving departments of this same mill women lost more time because of a lack of work than did men, and in the cloth room this reason caused a sixth of all the time lost by the women and none of that lost by the men. In the card room of Mill No. III the men lost because of no work a much higher per cent of their time than did the women, while in the weaving room the women had nearly twice as high a per cent of absence from this cause as had the men. It is, of course, impossible to determine without intensive study why, in the same department, men should lose more time than women because there was no work, or vice versa, but the most obvious cause would seem to be a more plentiful labor supply of one sex than of the other. This would necessitate a dividing up of the work and there would not be enough for all on every day.

In three mills the average number of days lost per employee because there was no work shows no very high figure with the exception of the weave room of Mill No. III, where an average of 20.7 days per woman and 4.9 days per man was lost by this cause. Next to this department the card room in Mill No. III showed the highest average number of days lost per man, 3.8 days, and the cloth room in Mill No. I the highest per woman, 3.7 days.

#### Causes of loss of time in different seasons.

The season of the year when the greatest amount of lost time occurred varied in the different mills, and in two of the four mills it varied also for men and women. The greatest amount of time lost by the men occurred in the fall in two mills, in the spring in one, and in the summer in one. Women lost most time in the autumn and the winter, though for one mill the summer had a proportion larger by a tenth of 1 per cent. In three mills the spring and summer had the lowest per cents of absence. In no mill was the per cent lowest in the winter months.

These findings compare in only a small degree with those of the United States Public Health Service, which found the highest absence rate for both men and women in a large industrial establishment during 1919 in April and May, and the lowest rate in June and July.<sup>9</sup> The Women's Bureau Bulletin 52, to which the present study is supplementary, found the summer rate the highest even without the absences due to "rest, recreation, vacation." The figures in the present study show the summer months to have a relatively small proportion of absence, but the spring, though having the peak in only one mill, and then only for men, has high per cents of absence in Mills Nos. I and II and for men in No. IV. The absences by season

<sup>9</sup> U. S. Public Health Service. Sickness and absenteeism during 1919 in a large industrial establishment. Dean K. Brundage. Reprint No. 611, 1920, p. 5.

were not very significant for the fourth mill, as the spinning and winding departments gave no report of absences for several months in the spring, so that the number of days lost in this season naturally would be lower than in the others.

TABLE 9.—*Total time lost in relation to season of the year*

Mill	Total days lost in period studied		Per cent of days lost occurring in—							
			Spring		Summer		Autumn		Winter	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
No. I.....	6,900	8,052	25.7	24.3	20.5	22.3	27.7	26.5	26.2	27.0
No. II.....	7,894	8,364	29.9	29.0	25.5	23.3	16.6	17.3	28.0	30.5
No. III.....	2,716	3,724	18.1	20.7	31.8	27.4	25.6	27.3	24.4	24.7
No. IV <sup>1</sup> .....	3,305	1,410	27.0	16.6	20.2	26.1	29.8	39.0	23.0	18.3

<sup>1</sup> Records in complete for some departments of this mill.

Of the causes that occasioned the lost time, sickness was the most important in each season. There was a great deal of variation in the amount of time lost through illness in the different seasons, though in three mills the winter months had the largest amount for both men and women.

TABLE 10.—*Time lost due to illness, by season of the year*

Mill	Total days lost due to illness		Per cent of days lost due to illness occurring in—							
			Spring		Summer		Autumn		Winter	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
No. I.....	2,156	2,933	31.0	32.8	12.4	13.2	17.5	17.9	39.1	36.0
No. II.....	3,377	3,365	32.4	28.8	19.6	19.4	15.1	13.4	32.9	38.4
No. III.....	435	531	14.0	27.9	26.2	19.2	23.7	22.6	31.0	30.3
No. IV <sup>1</sup> .....	590	310	33.1	23.5	17.1	28.4	21.7	27.1	28.1	21.0

<sup>1</sup> Records incomplete for some departments of this mill.

In the Public Health bulletin already quoted absence from illness was found to be highest in March and April and lowest in July, with January and August rating next with the same per cent.<sup>10</sup> In another of these bulletins, in which sick benefits for the years 1920 and 1921 were studied, the greatest number of benefits for each year were paid in the months of January and February, and the least were in August and September in one year and in June and July in the next.<sup>11</sup>

The figures of the present study are in agreement with these latter figures rather than with the former, since winter generally is the season with the highest per cents of time lost from illness and summer and autumn have the lowest per cents.

Respiratory diseases probably account to some extent for the high rate from sickness in winter. The Public Health Service found, in a review of the diseases of workers in a five-year period, that respiratory

<sup>10</sup> *Idem.*

<sup>11</sup> U. S. Public Health Service. Incidence of serious morbidity among a group of wage earners. Reprint No. 807, 1922, p. 4.

diseases accounted for 47 per cent of all cases of sickness,<sup>12</sup> and according to a study of cotton-mill operatives made by the Bureau of Labor Statistics in 1913, tuberculosis occasioned 51 per cent more deaths among male cotton-mill workers and 142 per cent more among female cotton-mill workers than among nonoperatives of corresponding age groups.<sup>13</sup>

As already stated, in the present study the proportion of time lost due to accidents is small, and because of the small number of days involved the per cents are not significant when divided into seasons. Especially is this true of Mills Nos. III and IV, where very few days were lost because of accidents. In Mills Nos. I and II, more time was lost and more accidents occurred in the winter months than during other seasons of the year, while the spring months in one mill and the summer months in the other had the least absence due to accidents.

The time lost because of personal and domestic reasons was greatest for men in the spring and summer months, and for women in the autumn in two mills and in the spring or winter in the other two. In only one instance was the per cent of absence due to personal and domestic reasons high in the same season for both men and women.

TABLE 11.—Time lost due to domestic and personal reasons, by season of the year

Mill	Total days lost due to domestic and personal reasons		Per cent of days lost due to domestic and personal reasons occurring in—							
			Spring		Summer		Autumn		Winter	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
No. I.....	328	1,081	38.6	27.1	18.3	26.5	12.8	23.4	30.3	23.0
No. II.....	796	1,648	41.8	32.7	16.9	15.0	13.9	16.7	27.4	35.6
No. III.....	67	145	4.5	6.9	46.3	25.5	29.9	54.5	19.4	13.1
No. IV <sup>1</sup> .....	412	234	21.8	15.8	28.2	26.5	27.4	47.4	22.6	10.3

<sup>1</sup> Records incomplete for some departments of this mill.

Personal and domestic reasons were more important causes of absence for women than for men, and in the two mills where the women lost the most time from this cause (19.7 and 16.6 per cent) the greatest proportion of such absence occurred in the winter and autumn months, respectively.

TABLE 12.—Time lost due to employees being "excused" or "let out," by season of the year

Mill	Total days lost due to being "excused" or "let out"		Per cent of days lost due to being "excused" or "let out" in—							
			Spring		Summer		Autumn		Winter	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
No. I.....	3,337	3,457	24.0	17.7	25.9	30.2	33.8	33.3	16.3	18.8
No. II.....	2,735	2,749	24.3	27.8	37.6	34.0	18.7	20.2	19.5	18.1
No. III.....	1,457	1,315	21.8	14.3	32.4	34.4	27.9	33.1	17.9	18.3
No. IV <sup>2</sup> .....	1,692	568	26.0	16.9	17.0	16.0	35.3	46.7	21.6	20.4

<sup>2</sup> Records incomplete for some departments of this mill.

<sup>12</sup> U. S. Public Health Service. *Sickness among industrial employees.* Reprint No. 1060, 1926, p. 20.

<sup>13</sup> U. S. Department of Labor. Bureau of Labor Statistics. *Preventable death in cotton manufacturing industry.* Bul. 251, 1919, pp. 112-113.

A very large proportion of absences—from a third to somewhat less than half—were listed under the heading "excused" or "let out." While this gives no idea of the real reason, it may in most cases be regarded as a combination of a desire for a rest or vacation on the part of the worker and a willingness on the part of the management that such rest or vacation should be taken. Sometimes work may have been a bit slack or there may have been too many workers on the books so that the management was willing to excuse or let out the workers who so desired.

Two points are especially interesting in considering the seasons in which workers were excused more frequently. The first is that the highest per cent of absences listed under "excused" and "let out" occurred in the summer and fall, both for men and for women; the second is that it is the only classification of lost time listed in which the high proportions of absences are in the same season for both men and women in each of the four mills. It would appear, therefore, that summer and autumn are the two seasons in which the workers both desire and are permitted time off, and that the convenience of the mill as well as the wish of the worker determines to some extent when the desired absence shall be taken.

As already stated, a former textile study made by the bureau showed summer to be the season in which the largest proportion of time lost by all causes occurred.<sup>14</sup> From this as well as from the present study it would seem that summer is the season when the worker desires time off if it can be obtained. Of course, this may be because slackness of work permits the employee to be absent, but it is more likely to be due to such causes as the pleasant weather that enables the worker to be out of doors or the excessive heat in the mills during the summer months.

### REPORTS OF MILL NURSES

From three mills it was possible to learn the kinds of illness and some details of the accidents from reports kept by the mill nurses. A definite description of the ailment was not given, but the familiar terms "cold," "sore throat," "stomach trouble," and so on were used. These have been grouped under such general headings as "respiratory diseases" and "digestive disorders." Where more definite information was given as to the trouble or the organ affected in a sufficient number of cases, separate groupings have been made.

Two of the three mills that kept a nurse's record of accidents reported merely whether the accident occurred outside or inside the mill and whether it was occasioned by "machinery," by "slipping," or by "other causes." The third mill reported in more detail and gave the member affected, as a leg, foot, arm, or hand, and the nature of the accident, whether break, bruise, or cut. Because of this difference in material, two of the three mills will be discussed together and the third, the mill with the more detailed information, separately.

#### Sickness.

For men and for women by far the greatest number of cases of illness and of days lost through illness were caused by respiratory diseases. For women such diseases caused, in Mills Nos. I, II, and

<sup>14</sup> U. S. Department of Labor. Women's Bureau. Lost time and labor turnover in cotton mills. Bul. 52, 1926, p. 57.

IV, respectively 25.8, 42, and 18.4 per cent of all the days lost through illness; for men the corresponding per cents are 31, 38.6, and 25.2. In the first two mills the average number of days per worker lost from this cause was a little more than a day for men and about two days for women; in Mill No. IV it was less than one day for both men and women together. That the mill last mentioned was located in the South may be one reason for the loss of a smaller number of days from respiratory diseases than in the other mills, located in the North.

TABLE 13.—Time lost due to illness, by type of ailment—nurses' reports <sup>1</sup>

Type of ailment	Per cent <sup>2</sup> of days lost due to specified type of ailment in—					
	Mill No. I		Mill No. II		Mill No. IV <sup>3</sup>	
	Men	Women	Men	Women	Men	Women
Total days lost by illness—Number	2,156	2,933	3,377	3,365	590	310
Per cent	100.0	100.0	100.0	100.0	100.0	100.0
Respiratory	31.0	25.8	38.6	42.0	25.2	18.4
Digestive	3.3	4.6	7.0	7.7	15.5	12.0
Dysmenorrhea		5.3		2.3		
Boils	1.7	.4	1.7	.3	8.0	8.9
Sore feet	1.0	1.6	1.4	1.3		
Miscellaneous	34.6	30.9	37.5	37.2	29.6	36.2
Not reported	28.5	31.3	13.8	9.4	21.7	24.5

<sup>1</sup> Information for Mill No. III not obtainable.

<sup>2</sup> Base includes illnesses for which type of ailment was not reported.

<sup>3</sup> Records incomplete for some departments of this mill.

Although workers in textile mills seem to be especially susceptible to respiratory diseases, the large proportion of lost time due to this cause does not appear to be peculiar to this industry. In a report of the National Cash Register Co. it is stated that "respiratory diseases as usual caused the greatest loss of time,"<sup>15</sup> and in a report of the United States Public Health Service in which 10 different industries were studied it was found that respiratory diseases were especially prevalent in foundries and in the garment and cigar industries.<sup>16</sup>

In the present study no other single class of ailments approaches respiratory diseases. Digestive disorders rank second. Though all the per cents for this group are less than 8 in the two northern mills, the southern mill (No. IV) reported 12 per cent of all women's illness and 15.5 per cent of all men's illness as due to digestive disorders. Boils, too, appear to have been important in Mill No. IV, causing 8 or 9 per cent of all absences from illness in that mill though credited with less than 2 per cent of the illness in Mills Nos. I and II.

Two of the mills reported sore feet as having caused small per cents of the lost time and the same two reported the figures for dysmenorrhea. Since the work in the textile industry requires constant walking, it is not surprising that sore feet are a source of much discomfort, but it is rather surprising that this trouble caused enough

<sup>15</sup> National Cash Register Co., annual report, hygiene division, Dayton, Ohio, 1924. Quoted in American Journal of Public Health, December 1925, v. 15, pp. 1122-23.

<sup>16</sup> U. S. Public Health Service. A health study of ten thousand male industrial workers. Bul. 162, 1926, p. 142.

loss of time from work to warrant separate tabulation. In the two mills that reported it, the proportion of time lost from this cause was small and did not differ greatly for men and women. In one mill there were 6 cases each for men and for women where one or more days were lost and in the second mill there were 6 cases reported as causing lost time for men and 12 for women.

### Accidents.

In each of two mills the report of the nurse on accidents was confined to whether they occurred outside or inside the mill, and if inside whether they were caused by slipping or by machinery. The third mill had a far more detailed report and gave information as to the member injured and the character of the injury. Accidents in the first two mills can be discussed together, but those in the third mill will be handled separately.

TABLE 14.—Time lost due to accidents, by location and cause of accident—nurses' reports <sup>1</sup>

Location and cause of accident	Number of accidents and number of days lost in—							
	Mill No. I				Mill No. II			
	Cases		Days lost		Cases		Days lost	
	Men	Women	Men	Women	Men	Women	Men	Women
All accidents.....	65	19	500.0	102.0	31	14	222.5	147.0
Outside mill.....	9	7	73.0	49.0	2	3	15.5	31.5
Inside mill:								
Machinery.....	14	2	99.5	6.0	18	2	147.5	30.0
Slipping.....	3	3	10.0	7.5	2	4	19.0	51.0
Other.....	5	3	19.5	31.0	3	5	9.5	34.5
Other accidents <sup>2</sup> .....	19	4	180.0	8.5	6		31.0	
Not reported.....	15		118.0					

<sup>1</sup> Information for Mill No. III not obtainable. For No. IV, see third paragraph of text following.

<sup>2</sup> Not related to employment.

The only two definite causes of accident given are machinery and slipping. In both mills machinery was much the more important cause of accidents to men, and slipping occasioned more injuries to women. In one mill women lost as much as 30 days from accidents due to machinery, but these days resulted from only 2 cases of injury. The days lost by the men in this mill ran as high as 147.5, caused by 18 cases of accident due to machinery. The average number of days lost per man and per accident due to machinery was 7.1 days in one plant and 8.2 days in the other, while for women the average was 3 days in one mill and 15 days in the other. Slipping was a more important cause of accident for women than was machinery, as much as 51 days being lost by 4 women in one mill from this cause.

Accidents outside the mill probably were those occurring in the yard or at the entrances to the mill. Considerably more of these occurred in Mill No. I than in Mill No. II, and more for men in Mill No. I and for women in Mill No. II. With this classification, and also with that of "other" inside the mill, it is impossible to form any idea of cause, but where the cause was machinery, and more

especially where it was slipping, it would appear that precautions might be taken to eliminate the danger.

In Mill No IV the report showed not the agent but the nature of the accident. Among the accidents listed, cuts were the most frequent, nearly one-half (49.8 per cent) of all the injuries to men and 57.7 per cent of those to women being from this cause. Bruises were second in importance for both men and women, and "foreign bodies" were third. The last named comprised about 10 per cent of the accidents to women and a little less than 8 per cent (7.8) to men. Very few cases of infection were reported, and with the large number of cuts occurring this is unusual and probably is accounted for by the excellent attention given to all accidents by the factory nurse.

The arm and hand suffered by far the most frequent injury and more than three-quarters of the accidents to the men and 82.4 per cent to the women were to these members. Accidents to the leg and foot were about equally frequent for men and for women, but injuries to the eye occurred much oftener with men than with women.

By far the largest number of workers having accidents had but one in the period covered by the report, and the proportion to whom accidents occurred more than once in the year was about the same for men and for women, 14.1 per cent of the men and 15.4 per cent of the women being in this group.

### TIME LOST BY NIGHT WORKERS

In only two of the four mills were night shifts run, and of these only one had a regular shift throughout the year for all departments. This was Mill No. III. For this mill the most important cause of lost time at night as well as by day was sickness. But, whereas on the day shift in this mill the per cent of time lost through illness was higher for men than for women, on the night shift the reverse was the case, the women losing through illness nearly a fifth of their time and the men less than a sixth of theirs.

The average number of nights per worker lost by illness was nearly the same as the average number of days per worker lost for the same cause, but it must be remembered that the number of possible working days is a fifth greater than the number of possible working nights. The following summary shows briefly, in per cent of lost time and in the average number of days or nights lost per employee on account of illness, the difference between the day and the night shift in the same mill:

*Per cent of lost time due to illness and average number of days lost by such cause—  
Mill No. III*

Shift	Per cent of total		Average days per employee	
	Men	Women	Men	Women
Day.....	16.0	14.3	5.4	9.8
Night.....	15.9	18.2	4.6	9.0

The time lost in this mill on account of accidents was very low, on both the day and the night shift. For men and women the per cent of lost time due to this cause and the average time loss per employee were greater for the night shift than the day shift, but in both cases the actual time lost was very little when compared to the days lost per worker in the other two mills reported. The following summary of per cent of lost time and average number of days or nights lost per employee due to accident shows that, although time lost for this reason by night workers was greater than that lost by workers on the day shift, it was nevertheless low:

*Per cent of lost time due to accidents and average number of days lost by such cause—  
Mill No. III*

Shift	Per cent of total		Average days per employee	
	Men	Women	Men	Women
Day.....	0.1	0.2	( <sup>1</sup> )	0.1
Night.....	.3	.8	0.1	.4

<sup>1</sup> Less than 0.05.

Lack of work cost the men on the night shift about the same proportion of lost time as it did those on the day shift, but considerably less time was lost through this cause by women on the night shift than on the day shift. As would naturally be supposed, both men and women lost less time for "personal reasons" and "home duties" when working by night than by day, as some proportion of each day undoubtedly was used for these purposes and a considerable amount could be accomplished on Saturday and Sunday, no mill work being performed on either of these two nights.

The amount of time for which no definite reason was given constituted a large per cent of the lost time at night as well as by day. Due to the different causes for such lost time, it is surprising that the similarity is so great in the per cents for the day and the night shifts. The per cent of time lost with no definite reason given was as follows:

*Per cent of lost time for which no definite reason was reported*

Shift	Mill No. III	
	Men	Women
Day.....	65.4	71.0
Night.....	65.6	70.1

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