
ABSENTEEISM
IN THE
FOOTWEAR INDUSTRY IN SOUTH AFRICA

BY

A.C. TOWNSEND

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A.C. Townsend, B.A. (S.S.), Hons. B.A.,
Personnel Research & Statistics Section,
Leather Industries Research Institute,
P.O. Box 2240,
PORT ELIZABETH.

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A.C.T.

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INTRODUCTION AND BASIC PROCEDURE.

INTRODUCTION AND BASIC PROCEDURE.

During the past three decades or more, the study of absenteeism in industry has been carried on in many different ways, by numerous investigators and in a wide range of industries. The purpose of such studies has varied; sometimes they have been stimulated by purely academic interest and have sought to investigate the relationship between absenteeism and various other measurable factors in the work situation such as age, race, sex, length of service and wage rates. Most studies, however, have been prompted by the urgent necessity to determine whether an absence problem existed within a specific factory, community or industry and to discover some effective means of dealing with it. Most studies have been empirical and pragmatic as has befitted their intentions.

Inevitably, those who have conducted studies of the latter type have asked two questions (a) how do the absence rates emerging from this investigation compare with those from other studies and (b) are they 'normal' or 'abnormal'? In other words, does the data which has been gathered indicate the existence of an absence problem?

The main purpose of this monograph is to demonstrate that the Gross Absence Rate is not an effective basis for the discovery of answers to either of these questions. It will seek, in other words, to demonstrate the truth of the following fundamental postulate:

THE GROSS ABSENCE RATE IS NOT, IN ITSELF, A SUFFICIENT BASIS FOR THE COMPARISON OF THE ABSENCE BEHAVIOUR OF ONE GROUP OF WORKERS WITH THAT OF ANOTHER OR WITH A PRE-ESTABLISHED NORM, NOR IS IT AN ADEQUATE INDICATOR OF THE PRESENCE OR OTHERWISE OF AN ABSENCE PROBLEM AMONG ANY GIVEN GROUP OF WORKERS.

Although this study will include some account of investigations into the relationship between absence rates and various socio-economic factors, it will do so primarily in order to seek support for the above postulate.

Three propositions are implicit therein:

- (a) that the Gross Absence Rate does not provide an adequate means by which to compare the absence behaviour of one group of workers with that of another;
- (b) that the Gross Absence Rate does not provide an adequate means by which to compare the absence behaviour of a given group of workers with a pre-established norm;
- (c) that the Gross Absence Rate does not, of itself, indicate the existence or otherwise of an absence problem.

Before outlining the procedure to be followed in arguing the validity of these propositions, some preliminary definitions are necessary. By "Absenteeism in Industry" is meant, quite simply, the phenomenon (as distinct from the problem) of employees failing to attend their place of employment. As will be seen later this phenomenon is made up of individual absence incidents, varying in duration from a fraction of an hour to several weeks. Expressed as a human activity it is referred to as absence behaviour and may be that of an individual employee or a group of employees.

Absence is measured either in units of time or by a tally of incidents. When measured in units of time, the hours lost are usually expressed as a percentage of the total number of hours which would have been worked by the individual or the group had no hours been lost through absence. Such percentages indicate the Gross Absence Rate. Separate rates may be calculated for absence of various types: for example, absence due to lateness, to sickness or for other reasons. Separate rates may also be calculated for individuals, departments, factories, areas, industries, or, in fact, for any specific group of workers. Absence incidents are measured by means of the Absence Frequency Rate which is the average number of absence incidents per employee during a specified period.

Use is also made of the Absence Severity Rate, which indicates the average length of individual absence incidents.

The formulae used for calculating these absence rates are listed in Appendix IV.

It is important also that the precise limits of the definitions of an Absence Problem and a Problem Absentee should be noted. For the purposes of this study:

An Absence Problem is a situation which arises within a working group when the cumulative effect of the absence behaviour of individual members of that group manifestly disorganises the functioning of the group. It is obvious that such disorganisation is most likely to occur when absence is unanticipated and recurs frequently. In other

words, it is the short absence (of a day or two or less) without prior permission, that is most likely to give rise to such problem situations. This is not to say that lengthy absence (e.g. on account of sickness) or shorter absences with prior permission, do not, to some extent, disturb factory routine. This they most certainly do, but to the extent to which they are anticipated or to which their duration may be more or less accurately predicted, the disruption which they cause may be counteracted by suitable alternate provision being made for carrying on the work of the absentee.

Problem Absentees are workers who tend frequently to stay away from work without valid excuse, generally for short periods. Their presence in sufficient numbers in any working group is likely to be the cause of an Absence Problem within the group.

BASIC PROCEDURE.

The study will be introduced by a survey of a number of studies already made by other investigators of possible relationships between absence rates and other factors in the work situation (see Appendix II). On the basis of these, a series of further postulates will be formulated.

This will be followed by an account of two statistical analyses of absence data, collected from four South African Footwear Factories, in which the broad findings of the earlier studies are tested by more recent figures. This data is original material.

It will be shown, firstly by an examination of the above-mentioned postulates, that absence is clearly affected by a considerable variety of factors, and that inasmuch as these vary widely from factory to factory, their effect upon absence rates is likely to be different in different factories. In other words the data emerging from the analyses will be used to demonstrate the validity of the first two propositions by showing that the Gross Absence Rate is affected by variations in too many factors to permit its use as a valid comparison of absence behaviour in one factory with that of another or with that of a so-called comprehensive or omnibus norm.

One of the postulates arising out of the review of previous work in the field will relate to the phenomenon already mentioned, namely that almost invariably, relatively few workers account for the greater part of the absence occurring in any factory or department. The data emerging from the two analyses will therefore also be used to confirm this and to argue therefrom the validity of the third proposition by demonstrating the inadequacy of the Gross Absence Rate per se as an indicator of the existence of an absence problem. This will be done firstly by dividing the workers in each of the factories studied, into groups according to their contribution to the total amount of lost time. All employees in each factory studied will be ranked according to the total number of hours lost by the individual concerned. They will then be divided into ten groups; thus the workers accounting for the greatest amount of lost time in each factory will be isolated.

This procedure, it is submitted, will isolate those workers who, on the basis of a straightforward examination of the number of hours lost by any particular group of workers, are most likely and hypothetically, to be regarded as the causes of the absence problem within the group, on the grounds that they contribute most weight to the high absence rate. This they most certainly do, but it will be seen to be fallacious to argue that they constitute therefore the problem element within the situation.

An attempt will then be made to determine which workers within each group examined may be regarded as problem absentees.

It will be suggested, that the Frequency Rate is a better indicator of problem absenteeism than is the Gross Absence Rate, i.e. that the number of absence incidents is a better indicator than the amount of time lost through absence, because it is obvious that frequent short absences are far more likely to have a disrupting influence on factory organisation than single extended absences.

In the final analysis, the decision as to whether any particular absence or any particular absentee is a problem cannot, however, be made on the basis of an absence rate as such. Neither the Gross Absence Rate nor the Frequency Rate are a sufficient basis, in themselves, for such a classification. Other information is always necessary. In this investigation, such additional information was not readily available and the decision had to be made purely on the basis of the statistical data available.

In a 'live' situation, however, it would be relatively easy to determine whether or not a particular absence incident is to be classified as problem absence; the decision will be made partly in the light of the reason for the absence and on the basis of whether or not that reason has been accepted as a valid excuse and partly in the light of the amount of disorganisation the absence has caused.

The diagnosis of a particular worker as a problem absentee, requires careful consideration of his absence record over an extended period, due regard being taken of the amount of time lost, the types of absence, the reasons for absence, the frequency and the distribution of absence incidents, and the personal characteristics and circumstances of the worker.

Techniques for recording and using absence data in order to discover problem absentees within any group of workers are fully described elsewhere by the writer of this thesis.⁽¹⁾

In this study however, the data available will not permit such sophisticated techniques and problem absentees will be isolated simply on the basis of their Frequency Absence Rates.

A comparison of the two groups of workers: those contributing most to the Gross Absence Rate and those with highest Frequency Rates, will then be used to support the

(1) Townsend, A.C.: "The Collection and Use of Absence Statistics" (L.I.R.I. Research Bulletin, 383, 1965)

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third proposition, namely that the Gross Absence Rate is not an adequate means whereby to indicate the existence within a group of workers of an absence problem situation.

PART ONE.

SOME SOCIOLOGICAL, ECONOMIC AND ENVIRONMENTAL FACTORS
WHICH OTHER INVESTIGATORS HAVE FOUND TO BE ASSOCIATED
WITH INDUSTRIAL ABSENTEEISM.

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The problem of industrial absenteeism is under constant investigation. As a background to the present project, fifteen such investigations were studied. These are listed in Appendix II under the Code Letters A to O. In further references to them in the chapter that follows they are indicated by these code letters. The approach generally adopted in such studies has been to attempt to relate absence rates to other measurable characteristics of the group under investigation. The findings of the various studies frequently appear to conflict with one another and in this review a selection has been made from the more firmly established conclusions and, on the basis of these, a series of postulates has been drawn up as a basis for further investigation.

These postulates deal with the relationship between the absence rate and race, sex, marital status, length of service, age, degree of skill required for job, wage rate, amount of overtime worked, and amount of time lost through short time.

A final postulate relates to the distribution of absence among the employees in the factory.

1. THE INFLUENCE OF RACE ON ABSENCE RATES.

No studies of the influence of the race on variations in the absence rate were examined apart from those relating to factories in South Africa. Moreover, relatively little data appeared to be available regarding the Non-European female worker. From a comparison of European and Non-European male workers it would appear that European workers tend to

have lower absence rates than Non-Europeans.

Mrs. White, (Studies D, E and I) found that the Gross Absence Rates of European workers were generally not very different from those for Non-European workers.⁽¹⁾ She found, however, that the length of the individual absences of European workers tended to be longer than that of Non-European workers.⁽²⁾

In Study G, Brooker found that the percentage of European males employed in a given department appeared to be significant in relation to good time-keeping.⁽³⁾

As a working hypothesis it is therefore suggested (a) that:

EUROPEAN WORKERS TEND TO HAVE LOWER ABSENCE RATES THAN
NON-EUROPEANS. ABSENCES AMONG EUROPEANS TEND TO BE
OF LONGER DURATION.

(1) Study D : p. 145

Study E : Tables I, II and IV.

but compare Study I : Tables IX and X

(2) Study D : p. 148

but compare Study E : Table V.

(3) Study G : pp. 62, 70

2. THE INFLUENCE OF SEX ON ABSENCE RATES.

Seven of the studies reviewed (A, D, E, F, H, I, J) (1) examined the relationship between sex and absence rates. A total of 117 comparisons between the absence rates of male and female workers were made in these studies. In 95% of these, female absence rates were higher than male rates, not only for absence in general but also, in the many cases where the differentiation was made, for sick absence and for other absence separately.

In 29% of the comparisons of the all absence rate, 20% of those relating to sick absence and 42% of those relating to other absence, female rates were more than twice as high as male rates.

It would appear therefore, that there is ample justification for postulating (b) that:

ABSENCE RATES FOR FEMALES ARE ALMOST INVARIABLY HIGHER THAN THOSE FOR MALES, PARTICULARLY AS FAR AS ABSENCE FOR REASONS OTHER THAN SICKNESS IS CONCERNED.

(1) Study A : pp. 9, 11
Study D : p.145
Study E : Tables I, II, IV, V and VII
Study F : pp. 33, 34, 36 and 37
Study H : p. 1
Study I : pp. 23 and 24
Study J : pp. 15 and 16.

3. THE INFLUENCE OF MARITAL STATUS ON ABSENCE RATES.

It would appear that absence rates are influenced by the marital status of the worker. The extent of that influence differs in the case of men and women respectively.

In their study of certified sickness absence among 4,542 women, (2,545 married and 1,997 single) Wyatt and Marriott and their associates found the following comparative absence rates for married and single women. (1)

TABLE 1 : COMPARATIVE ABSENCE RATES FOR MARRIED AND SINGLE WOMEN. (After Wyatt and Marriott)		
	Married	Single
<u>Number of Cases of illness per 100 Employees</u>		
All Sick Absence	98.2	66.3
Nervous & Fatigue	18.7	9.8
Accidents at Work	6.0	2.8
Accidents away	2.2	1.6
<u>Days Lost per Employee during 6 months</u>		
All Sick Absence	17.45	10.57
Nervous & Fatigue	3.94	1.95
Accidents at Work	1.10	.39
Accidents away	.46	.22
<u>Average Length of Individual Absences</u>		
All Sick Absence	17.8	15.9
Nervous	18.2	17.4
Fatigue	26.6	26.2
Accidents at Work	18.3	13.7
Accidents away	20.8	13.8

(1) Study C : pp. 7 and 12

It will be noted in the table above that in every instance quoted, the rates for married women exceed those for single women.

The same investigators found, in another study (1) that married women lost more time than single women and, as a rule, their absences were spread over a greater number of weeks. They tended to have more absences of greater length and fewer short absences than single women.

The survey of available absence studies failed to provide any satisfactory data to indicate that marital status has any effect upon the absence behaviour of male workers. No satisfactory postulate could be formulated on the basis of the data collected by Brooker (Study G). (2)

In the report of the survey of absence incidence conducted by the British Institute of Management (Study H), reference is made to an investigation by Shepherd and Walker (3) who found that single men and married men with a large number of dependents tend to have relatively high absence rates as compared with married men with a small number of dependents. (4)

(1) Study B : p. 11

(2) Study G : p. 70

(3) Shepherd, R.D. and Walker, J: "Absence from Work in Relation to Wage Level and Family Responsibility"
(British Journal of Industrial Medicine. Jan. 1958. pp. 52 - 61)

(4) Study H : p. 9

As a tentative basis for further investigation, therefore, it is suggested (c) that:

MARRIED MALES TEND TO HAVE LOWER ABSENCE RATES THAN SINGLE MALES BUT THAT SINGLE FEMALES TEND TO HAVE LOWER ABSENCE RATES THAN MARRIED FEMALES.

4. THE INFLUENCE OF LENGTH OF SERVICE WITH THE FIRM AND OF AGE ON ABSENCE RATES.

It is obvious that there must often, although not necessarily always, be some link between the age of a worker and his length of service with the firm. Workers who have served a firm for many years will obviously fall into the older age groups but it does not follow that all older workers have served the same firm for long periods. Each of these two factors: age and length of service have been studied separately and, because the conclusions to be drawn are so much more definite in the latter case (the relationship between absence and length of service) this relationship is examined first.

(i) Length of Service:

Data on this subject has been culled from three studies (C, G, I).

Mrs. White (Study I)⁽¹⁾ presented the following data based on an investigation in three Johannesburg footwear factories:

(1) Study I : p. 37

TABLE 2 : TIME LOST THROUGH ABSENCE IN THREE FACTORIES BY WORKERS WITH VARYING PERIODS OF SERVICE, AS A PERCENTAGE OF TOTAL TIME WORKED. (After White)				
	Employees	Length of Service (in years)		
		1 - 2	2 - 5	Over 5
Factory A	120	9.9%	6.0%	4.1%
B	80	8.1%	11.3%	7.8%
C	85	3.7%	2.1%	3.1%

Mrs. White suggests that these figures show that there is at least a tendency for the absence rate to decline as length of service increases. On the basis of a further analysis of her data, she also suggests that:

1. Absence among young Europeans decreases with length of service.
2. Absence among adult European Males decreases with length of service.
3. Absence rates among older European Women and older Non-European Males are erratic.

It is doubtful whether the above findings can be regarded as indicative of any relationship between absence and length of service. In Study H, however, it was found that absence rates tend to decline with length of service with the firm. (1)

Wyatt and her associates (Study C) (2) found that women who had been employed on munition work since the first year of the war had fewer but longer absences than those recruited later. They suggest that the special circumstances of war-

(1) Study H : p. 9

(2) Study C : p. 34

time may largely have accounted for this, and, in particular, that the longer absences may be a reflection of accumulated strain and war-weariness.

Brooker (Study G)⁽¹⁾ analysing a stable working force divided into 5-yearly "Length of Service" categories ranging from 0 - 5 years to 51 years or more, found a directly proportional relationship between the percentage of people with less than 10 years service and the extent of time lost.

On the basis of the foregoing it would appear possible to frame as the next hypothesis (d) that:

ABSENCE RATES TEND TO BECOME LOWER AS LENGTH OF SERVICE WITH THE ORGANISATION INCREASES.

(ii) Age:

Statistical findings from three studies (A, C & D) ⁽²⁾ are considered here: the age groupings differ in each of the studies and the results cannot, in consequence, be readily combined. Moreover different absence rates are used in each of the studies.

(1) Study G: p.70

(2) Study A: p. 9

Study C: pp. 16 -22

Study D: p. 145

TABLE 3 : DAYS LOST PER ANNUM BY MALE AND FEMALE WORKERS IN VARIOUS AGE GROUPS (STUDY A)		
Age Group	Days lost p.a.	
	Males	Females
15 - 24	3.0	4.0
25 - 44	2.9	4.4
45 - 50	2.8	5.0

TABLE 4 : SICKNESS ABSENCES OF TWO DAYS OR MORE BY WORKERS IN VARIOUS AGE-GROUPS DURING A SIX- MONTH PERIOD. (STUDY C).					
Age group	Average Number of Absences per Group	Never Absent %	Absent 3 or more times %	Average days lost	Average Length Absence (Days)
15-19	.57	55.2	1.8	9.3	16.3
20-24	.82	45.6	5.7	13.6	16.5
25-29	.95	41.6	8.6	13.8	14.5
30-34	.94	39.8	8.5	16.6	17.6
35-39	.89	42.2	7.7	16.6	18.6
40-49	.81	49.0	6.6	16.5	20.4
50-59	.54	62.2	4.5	11.9	22.0

TABLE 5 : PERCENTAGE HOURS LOST BY EMPLOYEES OVER AND UN- DER 18 YEARS OF AGE (STUDY D)		
	Under 18	Over 18
European Males	0.20	0.80
European Females	0.32	3.33
Non-European Males	0.16	0.70
Non-European Females	0.04	0.01

The figures in Table 3 above suggest that Absence Rates are lower for male workers in the "middle" age-groups and higher for younger and older workers. The figures in Table 4 indicate exactly the opposite. Lower Rates for young workers (in this case, workers under the age of 18 years) are also apparent in all groups except Non-European Females in Table 5, but the "middle" and older age groups were not separated in this study

In Study B,⁽¹⁾ Wyatt and her associates found that younger women (up to 25 years of age) lost more time than older women - an inverse relationship between age and absenteeism was particularly noticeable among married women.

In Study G,⁽²⁾ Brooker found that the percentage of employees over 35 years of age in a given department appeared to be significant in relation to good time-keeping.

Practically all the voluminous collection of sick absence data in Study L is broken down according to age of employee. Five year intervals are used and the various data are presented graphically. The variations in trend which emerge demonstrate the impossibility of making anything but the most tentative generalisations regarding the relation between age and absence rates.

(1) Study B: p.11

(2) Study G: p.70

Higher absence rates appear to be characteristic of young workers and also of those above the age of forty. The high absence rates for workers under twenty may be due largely to the fact that such employees have not been working long enough for the stabilizing effects of extended length of service to become apparent. Failing health may account for the higher rates among older workers.

It is postulated, therefore, (e) that:

ABSENCE RATES TEND TO BE LOWER FOR WORKERS BETWEEN THE AGES OF TWENTY-FIVE AND FORTY THAN FOR YOUNGER AND OLDER WORKERS.

5. THE INFLUENCE OF DEGREE OF SKILL DEMANDED AND OF WAGE RATES PAID ON ABSENCE RATES.

Here again two separate but not unconnected factors are examined. In theory, wage rates are closely related to the degree of skill demanded; in practice it is difficult to believe that the fine differentiations in wage rates are related to equally fine differentiations in the skill required to perform the job concerned. Nor can it be accepted as axiomatic that during apprenticeship or learnership, skill advances at the same regular rate as does the relevant wage rates increase. In other words, the correlation between wage levels and the degree of skill required is an "Ideal Type" of the economist's model but need not have any empirical reality. A wide range of additional factors operate outside the purely economic model.

The influence of the wage rates is a relative one and a really valid examination of its extent should take cog-

nissance of several other social and economic factors such as extent of domestic responsibilities, wage rates in other industries and the standards of living of the community from which the workers are drawn.

(a) Degree of Skill Required:

Brooker (Study G)⁽¹⁾ divided the employees covered by his study into the following "Grades" -

- Journeyman (Grade I)
- Apprentices in final year
- Other Apprentices
- Printers' Assistants - Grade II
- Printers' Assistants - Grade III
- Labourers
- Don't Know.

By examining the characteristics of individual departments grouped according to their time-keeping performance, Brooker found that departments where time-keeping was better than average showed higher percentages of Grade I employees and also of apprentices.

He states that an inversely proportional relationship seems to exist between percentage of Grade I employees or apprentices employed and extent of lost time, and a directly proportional relationship between percentage of labourers and extent of time lost. Although many other factors than degree of skill required may be involved in the classification which Brooker uses it would seem safe to assume that journeymen and apprentices would be the most skilled, and

(1) Study G: p. 70

labourers the least skilled, categories of workmen and, in consequence, to postulate (f) that:

THERE IS A TENDENCY, OTHER THINGS BEING EQUAL, FOR ABSENCE RATES TO BE HIGHER WHERE LESS SKILL IS DEMANDED.

(b) Wage Rates:

Very little statistical material was available regarding the relationship between absence rates and wage rates.

In her study of absenteeism in four Johannesburg footwear factories, Mrs. White (Study I)⁽¹⁾ presents some data relating to the absence rates of individuals within specific wage groups.

Her results, which are also broken down into race, age and sex groups, are as follows:

	Weekly Wage Rate			
	Up to 37/6	37/6 to 60/-	60/- to 90/-	Over 90/-
Eur. Males under 21	3.7	3.2	2.1	-
Eur. Males over 21	-	1.0	3.7	2.3
Eur. Females under 21	7.8	-	4.6	-
Eur. Females over 21	8.3	2.1	8.2	3.1
Non-Eur. Males under 21	3.1	4.2	1.6	-
Non-Eur. Females over 21	-	3.2	3.1	2.8

(1) Study I: Based on data in Table XII.

Although no precise information is available regarding the matter, it is suspected that some of the above categories comprise a very small number of employees and that the data could in consequence, be somewhat distorted. A downward trend in the Absence Rate as wages rise does however appear to be discernible in some of the categories.

An analysis of the "All Employee" absence rates in each wage group for each of the factories for two separate periods reveals the following:-

TABLE 7 : DISTRIBUTION OF ABSENCE RATES OF WORKERS IN VARIOUS WAGE GROUPS (After Mrs. White)	
Wage Rate	Distribution
Under 37/6	5 out of 8 Rates were under 5%
Under 60/-	6 out of 8 Rates were under 5%
Under 90/-	3 out of 8 Rates were under 5%
Over 90/-	7 out of 8 Rates were under 5%

Apart from the completely atypical "Under 90/-" group, an interesting downward trend appears. Although actual figures are not given it would appear from other data in the study that a disproportionate number of European females are employed in the "Under 90/-" group.

Brooker (Study G)⁽¹⁾ found that better time-keeping departments showed a higher than average percentage of employees in the higher ranges of the wage scale, and that,

(1) Study G: p. 70

department by department, there seemed to be a definite inverse proportional relationship between percentage of employees in the higher wage rate groups and the amount of lost time.

On the other hand, a wider study of the literature relating to absenteeism would seem to suggest that, under some circumstances high absence rates tend to be found among workers earning high wages, as well as those earning low wages. Vernon found that, when there is no fear of dismissal, the worker tends to work only sufficiently hard to earn enough to maintain a given standard of living.⁽¹⁾

"Mass Observation" refers to the fact that

"Some highly paid workers, especially those who have been in the same job for many years, set for themselves a sort of work-ceiling based on earnings (especially in the North). They knock off after attaining a certain limit. Some of the most skilled men in the heavy industries, and in for instance, glass blowing, which is still partly a handicraft requiring personal genius, preserve and highly value their aristocratic attitude of independence."⁽²⁾

The possibility must also be borne in mind that the heavy taxation imposed upon incomes above a certain level may lead the worker to prize leisure time more highly than the nett additional income which longer working hours will gain for him.

(1) Quoted by White, I.H.B: Study D: p. 162

(2) Study N: p. 235

This collection of conflicting data gives no clear lead regarding a suitable working hypothesis. A number of studies seem to suggest that absence rates tend to be lower among workers in the middle wage groups, thus it has been considered wise to postulate (g) that:

ABSENCE RATES TEND TO BE LOWEST IN THE MIDDLE WAGE GROUPS.

6. THE INFLUENCE OF OVERTIME AND SHORT TIME ON ABSENCE RATES.

Although no statistical data is presented to support the suggestion, reference is made in Study H ⁽¹⁾ to the fact that absence increases with the amount of overtime worked. To the postulates already stated therefore, the following is added: (h) that:

ABSENCE RATES TEND TO RISE WHEN OVERTIME IS WORKED AND TO FALL WHEN SHORT TIME OCCURS.

7. THE DISTRIBUTION OF ABSENCE.

The fact that the greater proportion of the overall amount of absence in a factory is caused by a relative small proportion of employees is a fact so usual and so obvious that it is seldom specifically mentioned in absence studies. As will be seen later, it is not without considerable relevance in a study of the absence situation within a factory.

(1) Study H: p. 10

From figures published by Mrs. White (Study D)⁽¹⁾ it is possible to derive the following information concerning one of the factories in which she conducted an investigation.

24.7% of Absence was caused by 1.5% of Employees
46.3% of Absence was caused by 4.9% of Employees
66.3% of Absence was caused by 11.0% of Employees
100.0% of Absence was caused by 34.1% of Employees

Arbous (Study O) found in his study that 75% of Absence was caused by 32% of the labour force.

It is therefore proposed to include the following supplementary postulate among those to be investigated, namely (i) that

A SUBSTANTIAL PROPORTION OF ALL ABSENCE AMONG ANY GROUP OF WORKERS IS GENERALLY ACCOUNTED FOR BY A RELATIVELY SMALL PROPORTION OF THE MEMBERS OF THE GROUP.

(1) Study D: Based on Table on p. 148

Many other factors affecting absenteeism are mentioned in the foregoing studies and very much more data concerning these and other factors could no doubt be culled from other sources. Sufficient has been presented however, to permit the setting forth of a series of postulates which it is proposed to examine in the light of data collected from the factory studies now to be described. These postulates are as follows:-

- a. EUROPEAN WORKERS TEND TO HAVE LOWER ABSENCE RATES THAN NON-EUROPEANS. ABSENCES AMONG EUROPEANS TEND TO BE OF LONGER DURATION.
- b. ABSENCE RATES FOR FEMALES ARE ALMOST INVARIABLY HIGHER THAN THOSE FOR MALES. PARTICULARLY AS FAR AS ABSENCE FOR REASONS OTHER THAN SICKNESS IS CONCERNED.
- c. MARRIED MALES TEND TO HAVE LOWER ABSENCE RATES THAN SINGLE MALES, BUT SINGLE FEMALES TEND TO HAVE LOWER ABSENCE RATES THAN MARRIED FEMALES.
- d. ABSENCE RATES TEND TO BECOME LOWER AS LENGTH OF SERVICE WITH THE ORGANISATION INCREASES.
- e. ABSENCE RATES TEND TO BE LOWER FOR WORKERS BETWEEN THE AGES OF TWENTY-FIVE AND FORTY THAN FOR YOUNGER AND OLDER WORKERS.
- f. THERE IS A TENDENCY, OTHER THINGS BEING EQUAL, FOR ABSENCE RATES TO BE HIGHER WHERE LESS SKILL IS REQUIRED.
- g. ABSENCE RATES TEND TO BE LOWEST AMONG THOSE IN THE MIDDLE WAGE GROUPS.
- h. ABSENCE RATES TEND TO RISE WHEN OVERTIME IS WORKED AND TO FALL WHEN SHORT TIME OCCURS.
- i. A SUBSTANTIAL PROPORTION OF ALL ABSENCE AMONG ANY GROUP OF WORKERS IS GENERALLY ACCOUNTED FOR BY A RELATIVELY SMALL PROPORTION OF THE MEMBERS OF THE GROUP.

PART TWO.

THE FACTORY STUDIES - METHODOLOGY.

PART TWO: THE FACTORY STUDIES - METHODOLOGY

In order further to test the validity of these postulates two separate factory studies were carried out by the writer. These constitute original work.

Study I (Factory "A") consisted of the detailed analysis of data drawn from the wage cards of a single footwear factory over a period of twelve months. From the data derived from these cards, several different absence rates were calculated and these were correlated with various measurable sociological and economic characteristics of the workers employed in the factories.

Study II (Factories X, Y, Z) studied specially collected absence data from three separate factories situated in three widely separated areas and largely employing different types of labour. As was the case in Study I, various absence rates were calculated but, by and large, the methods of analysis were different from those adopted in the first study.

A description of the methodology adopted and an evaluation of the data collected in each of the two studies follows.

STUDY I.

A STUDY OF ABSENTEEISM IN A SOUTH AFRICAN FOOTWEAR FACTORY
DURING THE CALENDAR YEAR, 1957

Midway through 1958 the L.I.R.I. was asked to conduct an ad hoc investigation into certain aspects of the costs of benefits available to employees in the leather industry

through the Sick Benefit Fund administered by the National Industrial Council for the Leather Industry. Some parts of this investigation necessitated an enquiry into absenteeism in general and it was out of this that the study presently being described emerged. It was not a planned experiment. It depended for its data, upon available historical records rather than upon scientifically designed questionnaires and provided clear evidence of the limited value of such an 'ad hoc' approach to the study of absenteeism.

(a) The Data:

The data upon which the study was based related to the calendar year 1957. It was drawn from the records of a factory which, during the year concerned, employed 982 different workers for periods varying from a week or two to the full working year of 48 weeks. The actual weekly labour force varied between a maximum of 763 and a minimum of 430, with a weekly average of 621 employees.

Through the courtesy of the management of the firm concerned, the writer was permitted access to the wage records for the year. In addition, through his involvement in the Sick Fund project already referred to, he enjoyed access to some of the records of the Sick Benefit Fund of the National Industrial Council of the Leather Industry for the same factory, for the same year.

From the wage cards it was possible, first of all, to complete a personal data sheet in respect of each employee

included in the group: his full name, age, residential address, marital status, number of years of service with the factory, his wage rate and his total earnings for the year. Working with each department as a separate entity, the next step was to complete schedules of straight-time and over-time worked by each employee for each week during which he was employed. From these schedules, by a series of subtractions, it was possible to determine the number of hours NOT worked by each individual during each week. The factory operated on a bonus incentive system. Work, when available, was carried on at high pressure, and, in consequence, such high pressure periods were punctuated by considerable periods of short time. The short time records which were made available indicated only the amount of short time occurring in the department in general - a figure from which there appeared to be considerable individual variation. Thus the actual amount of time lost by individual employees due to short time had to be estimated rather than accurately calculated; it was possible however, to determine by inspection, the amount of short time of various groups within the department from week to week and it seems safe to regard the resultant figures as sufficiently valid to be used in subsequent stages of the analysis. Once determined, individual short time figures were subtracted from the total hours not worked (previously calculated) and the balance was regarded as hours absent from work.

Use was now made of the receipts for sick pay issued by the Sick Fund in order to determine which of these periods of absence were the results of certified sickness; to the

figures thus determined were added certain other periods of absence immediately before or after such periods of paid sick absence which, in view of the rules under which the Sick Fund operated, could legitimately be regarded as probable periods of unpaid but nevertheless certifiable sick absence. The remaining weekly absence figures were then separated into three categories: late absence, part-day absence and other (i.e. than sick) whole-day absence.

(b) The Analysis of various Types of Absence.

The basis upon which this separation was made was as follows:

LATE ABSENCE: All individual weekly absences totalling 1 hour or less.

PART-DAY ABSENCE: All individual weekly absences longer than 1 hour, but less than 8 hours.

OTHER WHOLE-DAY ABSENCES: All the remaining absences, i.e. individual weekly absences totalling 8 hours or more.

Obviously such classification is somewhat arbitrary; some absences classified as Part-day could easily have consisted of two or more LATE ABSENCES during the same week; even the LATE ABSENCES themselves could have been the sum of a plurality of Absences during the course of the same week. OTHER WHOLE-DAY ABSENCES, the duration of which have certainly not always been multiples of $8\frac{1}{2}$ undoubtedly included both LATE and PART-DAY ABSENCES.

Each of the three categories, therefore, is likely to include some absence which rightly belongs in another. Part-day absence, for instance, is very likely to include absence incidents which could possibly have been more accurately classified as late absence had daily absence records been available. Because of this, as will be seen later, little or no use was made, in the analytical section of the study, of data relating to part-day absence.

The differentiation between sick absence and other types of absence is a commonly accepted one in studies of this nature and the reasons for this are obvious. The problems which arise from absence on account of sickness are completely different in nature and in treatment from those due to absence for other reasons.

Although there is a certain 'inevitability' about some degree of sick absence, it can, under certain circumstances, be prevented. Preventive health measures within the factory or in the community at large have often had dramatic results. The study and practice of industrial medicine have clearly demonstrated the many ways in which, by the improvement of factory working conditions, by the introduction of canteen facilities or by the use of prophylactic measures against virus and similar infections, absence as a result of ill-health can be greatly reduced. Nor must the influence of working conditions as a cause of psycho-somatic disorders be overlooked. Fatigue, for instance, caused by physical environmental factors such as noise, or psychological factors such as pressures and tensions of one kind or another, is widely recognised as a major industrial disease.

In any assessment of the absence situation, therefore, sick absence must always be considered separately from other absence. It may be regarded to some extent at least, as unavoidable and, generally speaking, as excusable. It will therefore only in rare instances be classifiable as problem absence. At the same time an exceptionally high sick absence rate could most certainly be regarded as indicative of an absence problem; it would, however, be a different kind of problem to that arising from absence for other reasons.

Normally however, when a worker goes off sick and the nature of his illness is known, the likely duration of his absence is to some extent at least, predictable and adequate provision can be made to fill the gap caused by his absence. Thus the 'problem' nature of the absence is less evident than in absences for reasons other than sickness which tend to be of shorter duration but of greater frequency and therefore very much more of a problem.

The division of other absence into whole-day and late absence is also not uncommon, because here again both cause and effect in the one type of absence is likely to be different from that in the other. Some of the weaknesses in the data which arise from the ad hoc manner in which it was collected have already been mentioned. Another such weakness is immediately apparent when it is noted that the isolation of 'late' absence simply on the grounds of duration (i.e. less than one hour) means that such absences could and probably do include absence due not to late

arrival but to early departure. Unfortunately, the form in which the data was available did not permit any distinction to be made between the two. Nor was it possible here or in the figures relating to whole-day absence to differentiate between Absence for which prior permission had been granted, absence which had subsequently been excused and absence which had not been excused.

(c) The Individual Record Cards.

Individual record cards were now prepared for each employee and all available absence and personal data was entered on these cards.

All the employees (apart from a few concerning whom data was insufficient or otherwise defective) were now grouped into three race/sex groups:

- a) European males
- b) European females
- c) Non-European males.

The last mentioned group comprised almost entirely of coloured workers, the few exceptions being Asiatics.

The workers in each race/sex group were sub-divided according to the departments in which they were employed. European supervisors of Non-European departments were not included in the survey. Four closely related departments, all operating in the same working area were combined as a single working group (See 5(a) to 5(d) in the list of departments below).

As a result of this selective process, the following 'departments' or 'working groups' emerged as the basis for further study. These departments comprised all except 27 of the 982 employees in the factory. These were mainly European Males employed in a supervisory capacity.

EUROPEAN MALES:	1.	Clicking Department	(41 employees)	
EUROPEAN FEMALES:	2.	Closing Preparation Department	(53 ")
	3.	Closing Department	(105 ")
	4.	Heeling Department	(11 ")
	5.	Shoe Room	(94 ")
NON-EUROPEAN MALES	1.	Patterns Department	(17 ")
	2.	Clicking Department	(58 ")
	3.	Roughstuff Department	(77 ")
	4.	Closing Department	(83 ")
	5.	A Composite working group comprising:		
		(a) Lasting Department		
		(b) Making Department		
		(c) Finishing Department	256	
		(d) California Finishing and Making Departments		
	6.	Heeling Department	(30 employees)	
	7.	Shoe Room	94 "	
	8.	Miscellaneous	(36 ")

From the relevant data relating to the individual employees in each department overall departmental data and, where necessary, departmental averages and percentages were calculated, together with the departmental absence rates. Two absence rates were calculated, namely the Gross Absence Rate and the Severity Rate.

Each of the rates mentioned was calculated separately for late absence, part-day absence, sick absence and other whole-day absence as well as for all absence. Thus, in all, ten separate absence rates were calculated.

The aim of this differentiation between the various types of absence and the use of two separate absence rates was to obtain the widest possible view of the absence situation within the factory.

(d) Evaluation of the two types of Absence Rate used: (1)

The Gross Absence Rate: This rate represents the amount of time lost expressed as a percentage of the time which the workers could have worked had they not been absent at all, i.e. "short time" is subtracted from possible working hours. This is the most commonly accepted measure of absence. It shows clearly the TOTAL amount of time lost as a percentage of the time during which work was available and, broken down into various types of absence, it shows the relative importance of each. It is affected by both frequency and duration of absence but it does not in itself, enable a distinction to be made between them. Its calculation necessitates the collection of detailed and accurate information regarding time worked and time lost and is essential when information is required regarding the relationship between absenteeism and output. At the same time, as has already been indicated, one of the main purposes of the present study is to demonstrate the inadequacy of the Gross Absence Rate per se as a basis for comparing the absence behaviour of one group of workers with that of another.

(1) See Appendix IV for formulae used.

The Severity Rate: The severity rate is simply a measure in units of time of the average length of individual absences. It is used to distinguish between individuals or groups where absences are of long duration and those where they are of short duration. It was on the basis of the calculation of this rate that the statement on page 19 that absences among Europeans tend to be of longer duration than those of Non-Europeans, was made. Once again detailed information regarding actual time lost must be collected before this rate can be calculated. The number of actual absences must also be known.

The value of the severity rate is that it highlights short absences and since for reasons already suggested, these are more likely to be more disruptive of normal factory routine, the rate may frequently point to an absence problem situation in any group of workers. Where data is available only regarding absence in general, a low Severity rate may alert the investigator to the presence of a disproportionate amount of late and/or part-day absence. The frequency absence rate was used in order to isolate problem absentees in Study II. The nature and value of this measure is discussed later.

(e) The Socio-Economic Characteristics available for correlation with the above absence rates.

In addition to containing the statistical information necessary to permit the calculation of the absence rates referred to above, the following information was available regarding each individual worker in the factory:

- (1) Service Category⁽¹⁾
- (2) Hours of Straight Time worked
- (3) Hours of Overtime Worked.
- (4) Working hours lost through Short Time
- (5) Years employed before 1957
- (6) Weeks employed during 1957
- (7) Age in 1957
- (8) Age when first engaged
- (9) Operation Category (2)
- (10) Marital Status
- (11) Basic Wage Rate
- (12) Total Earnings in respect of Straight Time Worked
- (13) Bonus or Incentive Scheme Earnings
- (14) Earnings from Overtime Worked
- (15) Gross Earnings
- (16) Amount contributed to the Factory Savings Scheme

(1) Service Category:

Employees were classified in the following categories:

- a) Veterans, i.e. employees whose employment by the factory commenced before the beginning of 1957. These were sub-divided into:
 - i. Surviving Veterans: i.e. those whose employment continued throughout 1957.
 - ii) Non-Surviving Veterans: i.e. those whose employment terminated during the course of 1957.
 - b) New Employees: i.e. employees who were taken on during 1957 and who remained in the employ of the Factory until the end of the year.
 - c) Transients: i.e. employees whose term of employment both began and ended during the course of 1957.
- (2) Operation Category: The actual operation in which the worker was employed was also noted from his wage card. These operations were divided into three categories: skilled, semi-skilled and unskilled.

Since the proposed correlations were to be made on a departmental basis, it was necessary to translate this individual information into a form in which it could be used to reflect the differences in the characteristics concerned from department to department.

The following departmental characteristics were therefore derived from the individual data relating to the employees within each department.

1. Percentage of Surviving Veterans in the Department
2. Percentage of Non-surviving Veterans in the Department
3. Percentage of New Employees in the Department
4. Percentage of Transients through the Department
5. Percentage of Skilled Workers in the Department
6. Percentage of Semi-skilled Workers in the Department
7. Percentage of Unskilled Workers in the Department
8. Average Age of Employees in each Department
9. Average Age at Engagement of Employees in each Department
10. Average Length of Service of Employees in each Department
11. Average Number of Weeks worked by each employee in the Department during 1957
12. Overtime as a percentage of Possible Working Hours
13. Short Time as a percentage of Possible Working Hours

From the basic wage rate and the number of hours straight-time that it would have been possible for the workers in the department to work if there had been no short time, the "possible straight earnings" of the department were calculated and this figure was taken as the base for a series of further calculations involving the various available items of data relating to earnings and savings.

Savings were also expressed as a percentage of gross earnings. These calculations made possible the derivation of the following further departmental characteristics:

14. Gross Earnings as a percentage of Possible Straight Earnings
15. Average Hourly Wage per Employee
16. Actual Straight Earnings as percentage of Possible Straight Earnings
17. Overtime Earnings as percentage of Possible Straight Earnings
18. Bonus Earnings as percentage of Possible Straight Earnings
19. Savings as percentage of Possible Straight Earnings
20. Savings as percentage of Gross Earnings

Attention was now turned to the size of the various departments. For this part of the study those departments which had previously been merged into one composite department were considered as separate departments and the total number of man/weeks worked in each department was divided by 48. Thus the next departmental characteristic was:-

21. Average Number of Employees per Week in each Department.

This however, presented only part of the picture, as the size of each department changed from week to week; in some cases the change was quite considerable and, during the course of the year some of the departments fluctuated between two extremes while some of the others dwindled away to a fraction of their original size. Actual labour turnover was calculated according to the following formula:

$$\frac{\text{Number of Leavers} \times 100}{\text{Average Size of Labour Force}}$$

In addition, the co-efficient of variation from the mean size of the department was calculated. These further calculations made possible the derivation of the following further departmental characteristics:

22. Employment Strength during the week ending 11th December 1957 as a percentage of Employment Strength during week ending 16th January, 1957.
23. Weekly Deviation from Mean Size of Department.
24. Index of Labour Turnover for each Department.

Twenty-four statistically measurable departmental characteristics were now available for correlation with eight different absence rates ⁽¹⁾ in four different employee groups:

European Females	(263 employees in 4 departments)
All Europeans	(304 " " 5 ")
Non-European Males	(651 " " 8 ")
All Employees	(955 " " 13 ")

A total of 768 correlations were possible. Of these, 65, were found to be statistically significant at the 5% level.

8 of these related to Part-day Absence and were, in consequence, largely disregarded. The significant correlations are listed in Appendix III and will be used as part of the argument when the relevant postulates are discussed. Broadly speaking, they may be summarised as follows:

(1) The Gross Absence Rate and the Severity Rate for late, sick, other whole-day and all absence.

TABLE 8 : NUMBER OF SIGNIFICANT CORRELATION CO-EFFICIENTS BETWEEN ABSENCE RATES AND THE SOCIO-ECONOMIC CHARACTERISTICS INVESTIGATED IN STUDY I		
SOCIO-ECONOMIC CHARACTERISTIC	SUB-CHARACTERISTICS INVESTIGATED (See Appendix III)	NUMBER OF SIGNIFICANT CORRELATIONS
a). Labour Stability	1 - 7	20 (+ 4)*
b). Degree of Skill	8 - 10	4 (+ 1)*
c). Age of Employee	11 - 12	11
d). Overtime/Short Time	13 - 14	7 (+ 1)*
e). Earnings	15 - 21	13 (+ 2)*
f). Size of Working Group	22	2**

* Bracketed figures indicate number of significant correlations relating to Part-day Absence. No further use was made of these.

** Not used further.

(f) The Analysis of the Distribution of Absence.

In addition to the foregoing, one other analysis of the data was made, as follows. The individual record cards for each worker were arranged in order of time lost through absence and then divided into ten equal groups, in descending volume of absence, classified as Groups I to X. It was thus possible to demonstrate the percentage of the total absence which had been accounted for by each ten per cent of the total labour force, i.e. to show the distribution of absence among the labour force. The absence rates for each of the ten groups and the contribution of each group to the total amount of absence occurring in the factory were also calculated.



STUDY TWO: A STUDY OF ABSENTEEISM IN THREE SOUTH AFRICAN FOOTWEAR FACTORIES DURING THE PERIOD OCTOBER, 1965 TO MAY, 1966.

As the first experimental study proceeded it became increasingly clear that, because of its ad hoc nature, its research value was likely to be extremely limited. It was therefore decided to institute a second study using current data collected from several separate factories. Three widely diverse factories in three different centres agreed to participate in the project and a carefully designed system of collecting the information was prepared.

(a) The Participating Factories:

Factory X: A medium-sized factory (\pm 250 employees) in one of the smaller shoemaking centres of the Republic, employing European males, European females and Non-European males. This factory has some unique sociological characteristics of very considerable interest. The workers are drawn from a closely-knit community and this undoubtedly has a bearing upon the resultant absence behaviour patterns. It is also one of the few remaining factories employing more than a handful of European male workers.

Factory Y: A large factory (\pm 600 employees) in an important shoemaking centre, employing European males, European females, Coloured males and Coloured females.

Factory Z: Another large factory (\pm 800 employees), in another major footwear producing area. Almost the entire labour force consists of Non-European males. This factory has a well-planned absence control system; after two

warnings, unauthorised absentees are dismissed. As a result, workers seldom absent themselves without good reason.

(b) The nature of the data collected and the method by which it was gathered.

In designing the project, the difficulties experienced in earlier attempts to gather satisfactory absence data were constantly borne in mind, and every effort was made (i) to ensure that only relevant data, for which an immediate and practical use could be foreseen, was collected; (ii) to design the procedures for collecting the data in such a way that information contained in the normal factory records could be transferred to them with a minimum of difficulty; (iii) to ensure as far as possible that participating factories would be able to submit the required information in manageable instalments and would not be faced with demands for a great deal of information at any particular moment; and (iv) to design the procedure for processing of the data in such a way that it would be possible for there to be an immediate feedback of absence information to the three participating factories.

By and large, these aims were achieved. Very little, if any, of the data collected proved to be redundant, and the material not used in the present report may very well be used as the basis for ancilliary publications. It is believed that objective (ii) was also successfully achieved; draft forms were submitted to participating factories and each factory was visited at least once during the course of the survey, in order to iron out difficulties and/or to assist with the actual collection of data. Except in

the case of personal information regarding employees who had not been absent at all during the survey period, all the data was collected via weekly submissions of returns and record cards. All the actual statistical data was filled in on a weekly basis and the personal information regarding absentee workers was submitted at the end of the week during which he or she was first absent. This meant firstly that the task of collecting and filling in this information was spread throughout the whole period of the survey and secondly that each returning absentee, after his first absence at any rate, was subject to an interview. It has been suggested elsewhere that the interviewing of every returning absentee is, in itself, probably one of the most effective means of absence control. Information as indicated below was fed back to participating factories as quickly as possible throughout the period.

The following information was called for in the four returns which participating firms were asked to complete:

- (i) A weekly return of the number of employees in each department of the factory and the amount of over-time and short-time.
- (ii) A weekly return of all absentees in each department and a record of the time which they had lost through each of the following types of absence:

- Late without valid excuse
- Late with valid excuse
- Certified sick absence
- Other excused absence
- Absence without valid excuse
- Absence with permission granted in advance

(iii) A record card indicating the following personal details regarding absent individuals:

Name	Marital status
Factory Number	Dependants
Department	Date when current term of employment began
Occupation	Whether previously employed by firm
Race	Wage Rate
Sex	
Age	

This record card was submitted once only, on the occasion of the worker's first absence during the period.

(iv) A notification of the termination of employment of any person reported as absent who, at any later stage of the survey, severed his connection with the company for any reason.

After the survey period had ended personal information was collected regarding those employees who had not been absent at all during the period.

From this data, weekly Departmental Absence Rates were calculated for each of the three factories and these, together with daily absence rates and various subsidiary rates for the different Race/Sex Groups were fed back to the participating factories either weekly or, in some cases, at the end of each of the following eight-week periods into which the survey was divided:⁽¹⁾

(1) See Appendix VI for examples of forms used for collecting information and transmitting results back to the factories concerned.

FACTORY	FIRST PERIOD	SECOND PERIOD	THIRD PERIOD	TOTAL WEEKS
X	26/10/65 TO 14/12/65	18/1/66 TO 5/4/66	12/4/66 TO 24/5/66	27
Y	26/10/65 TO 14/12/65	25/1/66 TO 5/4/66	12/4/66 TO 24/5/66	26
Z	26/10/65 TO 7/12/65	11/1/66 TO 5/4/66	12/4/66 TO 24/5/66	25

Examples of the kind of information supplied are given in Appendix Six.

In addition to this feed-back of information to the factories themselves: individual absence information was recorded on the back of each individual record card.

The data thus made available was also analysed with a view to its use to test the validity of the postulates listed on page 35.

(i) The data relating to individual absentees was used to test the validity of postulates one to five.

(ii) The data relating to weekly absence, short time and overtime was used to test the validity of postulate six.

(c) The Analysis of the Individual Data:

From the data recorded on the individual record cards it was possible to isolate those workers who had been absent most.

The very general phrase "had been absent most" has been deliberately used here in order to highlight a fundamental weakness in much that is said and written about excessive absenteeism.

Excessive absenteeism can mean many things, it may mean, for instance (a) A large number of hours lost through absenteeism,
or (b) A high percentage of absence among a group of workers,
or (c) Over-frequent occurrence of absence incidents.

To what extent are these synonymous with the existence of absence problems as defined on page 11, where it was suggested that an absence problem exists when the amount of unexcused absence occurring in any group of workers is sufficiently high to dislocate the functioning of the factory, or, for any other reason, to give rise to concern on the part of management.⁷

In order to give a completely satisfactory answer to this question, a great deal of information would be required.

Strictly speaking it would be necessary to conduct an intensive case study into the structure of each of the factories concerned, to discover the effect of the absence of any particular worker on production, factory morale and so on. Such a procedure would be far beyond the scope of the present study.

Instead, therefore, individual frequency rates were calculated for each worker in each factory.⁽¹⁾ In addition, the average frequency rate for each race/sex group in each factory was calculated. The distribution of the individual frequency rates and the average frequency rates for the groups were then examined and, on the basis of this examination, it was decided to fix a specific frequency rate as the dividing line between problem absence and non-problem absence. The procedure adopted in determining the dividing line in each case is described below.

Justification for this procedure is based on the claim made on page 14 of this study that this rate is a reasonable although not conclusive indication of those absentees who are most likely, by their frequent absence incidents, to disrupt factory operations.

Owing to administrative difficulties, it was not possible for Factory Z to submit sufficiently detailed information regarding individual absentees and non-absentees to allow

(1) The frequency absence rate is obtained by counting the number of times a worker is absent, irrespective of the duration of such absences, and standardising this as so many absences during a given fixed period, usually a year. In this instance, the period was that covered by the survey in the factory concerned. For example, in Factory X the frequency absence rate for a worker who was employed continuously throughout the survey period of 27 weeks was simply the number of times he was absent during that period. If he worked for fewer than twenty-seven weeks, the number of times he was absent was divided by the number of weeks for which he worked and multiplied by 27, i.e.

Frequency Absent Rate:

$\frac{\text{Number of Times Absent}}{\text{Number of Weeks worked}} \times \text{Number of weeks in Survey Period.}$

the inclusion of data from this Factory in this part of the study. What follows, therefore, relates only to Factories X and Y.

The total number of employees in Factory X was 289, and in Factory Y, 613.

The weekly returns furnished by the firms reported on the absence of the above workers on a departmental basis and thus clearly indicated the race and sex of each worker. The breakdown of the labour force of each factory by race and sex was as follows:

	Factory X	Factory Y
European Males	51	31
European Females	70	47
Non-European Males	168	467
Non-European Females	-	68
TOTAL	289	613

Personal information regarding each absentee was generally reported on the occasion of his or her first absence; personal information regarding non-absentees was collected at the end of the survey. It was not possible to collect personal information regarding the following employees:

	Factory X	Factory Y
European Males	6	2
European Females	5	5
Non-European Males	29	53
Non-European Females	-	13
TOTAL	40	73

Thus, the analyses of the relationship between absence rates and personal characteristics other than race and sex, were based on a slightly smaller number of workers than those between Absence Rates and race, Absence rates and sex, and the analysis of the distribution of absence.

Some of the above groups (e.g. European Males in Factory Y) are not large enough to provide data from which valid statistical conclusions can be drawn, but, on the other hand, the low proportion of European workers in this factory, approximates to that in the South African Footwear Industry as a whole. In Factory X, one of the few footwear factories in South Africa where European workers form a substantial proportion of the labour force, the total number of employees is relatively small.

It would have been quite impossible to have found a factory employing sufficient European workers, particularly European Males, to furnish a group of workers large enough to provide the data for a meaningful statistical analysis of absence behaviour among European workers.

(d) The basis of the isolation of "Problem Absentee" groups in factories X and Y.

In seeking to establish a dividing line between a frequency rate which was to be regarded as indicative of a problem and that which was not, several difficulties were encountered. In the first place the wide variations in the overall frequency rates for workers in the respective race/sex groups made it essential to adopt a different dividing line for each group. This meant that seven

separate sets of workers had to be divided in this way.

Taking the average frequency rate of each group as the starting point, a tentative dividing line was fixed at twice the average frequency rate for the group concerned. This was adjusted, firstly to the nearest whole number, and then further adjusted in the light of certain practical difficulties arising from the distribution of individual rates.

Table 9 shows firstly the average Frequency Rate for each of the seven Factory/Race/Sex groups, and secondly, the Frequency Rate which was, in each group, fixed as the dividing line between problem and non-problem absentees.

TABLE 9 : SUMMARY OF THE DATA USED IN DETERMINING THE DIVIDING LINE BETWEEN PROBLEM ABSENTEES AND OTHER ABSENTEES IN FACTORIES X AND Y.							
	FACTORY X			FACTORY Y			
	E.M. ⁽¹⁾	E.F.	N.E.M.	E.M.	E.F.	N.E.M.	N.E.F.
AVERAGE FREQUENCY (all employees)	.79	2.34	1.46	1.09	2.31	2.60	3.81
DIVIDING LINE BETWEEN PROBLEM ABSENTEES AND OTHER ABSENTEES	2.5	4.0	3.0	2.0	4.0	3.5	5.0

The proportion of problem absentees to all employees and all absentees varied from group to group. This is shown in Table 10.

-
- (1) E.M. = European Males
 E.F. = European Females
 N.E.M. = Non-European Males
 N.E.F. = Non-European Females

TABLE 10 : PROBLEM ABSENTEES AS PERCENTAGE OF ALL EMPLOYEES AND ALL ABSENTEES.							
	FACTORY X			FACTORY Y			
	E.M.*	E.F.	N.E.M.	E.M.	E.F.	N.E.M.	N.E.F.
PROBLEM ABSENTEES AS A PERCENTAGE OF:-							
ALL EMPLOYEES	11.8	18.5	19.1	19.4	23.4	23.7	26.5
ALL ABSENTEES	22.2	26.0	33.7	46.2	39.3	38.1	36.0

* See Footnote page 61.

The proportion of total hours lost accounted for by problem absentees also varied widely from group to group. Table 11 indicates these variations, (a) for absence due to sickness; (b) for other absence and (c) for absence of all kinds.

TABLE 11 : ABSENCE OF PROBLEM ABSENTEES AS PERCENTAGE OF ALL ABSENCE.							
	FACTORY X			FACTORY Y			
	E.M.*	E.F.	N.E.M.	E.M.	E.F.	N.E.M.	N.E.F.
ABSENCE OF PROBLEM ABSENTEES AS A PERCENTAGE OF ABSENCE OF ALL EMPLOYEES							
SICK ABSENCE	5.9	36.3	52.2	84.3	39.5	42.1	44.1
OTHER ABSENCE	58.9	60.1	73.0	89.1	68.5	72.9	67.2
ALL ABSENCE	18.4	45.2	60.8	86.6	49.5	56.7	51.3

* See Footnote page 61.

Having isolated problem absentees in this way, it was possible to compare the characteristics of non-absentees, all absentees and problem absentees in respect of each of the factors associated with absenteeism in the postulates upon which the investigation was based. The results of these comparisons appear in Part Three.

A similar analysis of the distribution of absence to that made in the first study was also made for Factories X and Y and attempt was made to show, once again, that the greater part of the absence in any particular group of workers was accounted for by relatively few individuals.

PART THREE.

THE FACTORY STUDIES - RESULTS.

PART THREE : THE FACTORY STUDIES - RESULTS.

(SUMMARY OF THE DATA EMERGING FROM STUDIES ONE AND TWO RELATIVE TO THE POSTULATES UNDER EXAMINATION)

1. THE INFLUENCE OF RACE AND SEX ON ABSENCE RATES.

There is no doubt that one of the most thoroughly established facts emerging from the mass of data gathered in studies of industrial absenteeism is that there is almost invariably a marked differentiation between absence rates for male and female workers. Moreover, absence studies in this country have often shown similar marked differentiation between absence rates for European and Non-European workers. Studies of this nature in the South African Footwear industry have generally tended to show that Gross Absence Rates for European workers have been lower than those for Non-Europeans, in the same or similar factories.

In these studies, the following postulates regarding the relationship between Absence Rates and Race and Sex were under examination:

RACE: EUROPEAN WORKERS TEND TO HAVE LOWER ABSENCE RATES THAN NON-EUROPEANS. ABSENCES AMONG EUROPEANS TEND TO BE OF LONGER DURATION.

SEX: ABSENCE RATES FOR FEMALES ARE ALMOST INVARIABLY HIGHER THAN THOSE FOR MALES. PARTICULARLY AS FAR AS ABSENCE FOR REASONS OTHER THAN SICKNESS IS CONCERNED.

The influence of race and sex on the absence rate are both clearly demonstrated by the following data relating to the factories studied.

TABLE 12 : GROSS ABSENCE RATES FOR ABSENCE OF VARIOUS TYPES FOR EUROPEAN MALES, EUROPEAN FEMALES, NON- EUROPEAN MALES AND NON-EUROPEAN FEMALES (FACTORIES A, X AND Y).					
ALL ABSENCE					
FACTORY	PERIOD	E.M.*	E.F.	N.E.M.	N.E.F.
A	Jan-Dec, 1957	3.00	6.10	3.70	-
X	Oct-Dec, 1965	2.24	4.13	1.18	-
	Jan-Mar, 1966	1.57	2.8	1.52	-
	Apr-May, 1966	1.26	2.41	0.95	-
Y	Oct-Dec, 1965	0.86	2.70	1.99	4.50
	Jan-Mar, 1966	0.82	3.24	1.61	4.96
	Apr-May, 1966	0.70	5.08	1.90	5.14
LATE ABSENCE					
A	Jan-Dec, 1957	0.05	0.09	0.12	-
X	Oct-Dec, 1965	-	-	0.04	-
	Jan-Mar, 1966	-	-	0.02	-
	Apr-May, 1966	0.01	...	0.02	-
Y	Oct-Dec, 1965	0.05	-	0.08	0.28
	Jan-Mar, 1966	0.01	0.01	0.07	0.10
	Apr-May, 1966	...	0.02	0.07	0.07
SICK ABSENCE					
A	Jan-Dec, 1957	1.90	3.40	1.90	-
X	Oct-Dec, 1965	1.65	2.99	0.68	-
	Jan-Mar, 1966	1.30	1.92	0.83	-
	Apr-May, 1966	0.84	.77	0.72	-
Y	Oct-Dec, 1965	0.25	1.66	0.98	2.90
	Jan-Mar, 1966	0.47	2.34	0.89	3.87
	Apr-May, 1966	0.56	3.09	1.03	3.27
OTHER ABSENCE					
A	Jan-Dec, 1957	1.00	2.60	1.70	-
X	Oct-Dec, 1965	0.59	1.14	0.46	-
	Jan-Mar, 1966	0.27	.97	0.67	-
	Apr-May, 1966	0.42	1.64	0.21	-
Y	Oct-Dec, 1965	0.56	1.04	0.93	1.32
	Jan-Mar, 1966	0.34	.89	0.65	0.99
	Apr-May, 1966	0.14	1.97	0.80	1.80

* See Footnote page 61.

Apart from absence among European Males employed in Factory X, there is not a single instance where the data does not indicate better attendance by males than by females and by Europeans than Non-Europeans.

As will be shown later, the European male workers in most South African footwear factories constitute an elite minority of relatively highly-skilled workers, found mainly in the clicking department. In Factory X, however, European male workers form an appreciable proportion of the total labour force and are to be found in some strength in three departments. In other words, instead of forming an elite group they are, to a far greater extent, part of the run-of-the-mill labour force and are engaged not only in high-grade clicking operations but also in other skilled and semi-skilled operations.

It is clear from the figures quoted that the postulate that European workers tend to have lower absence rates than Non-European workers and that male workers tend to have lower absence rates than female workers must be accepted as valid. In the data examined, this appeared to be the case in respect of absence due to sickness as well as in the case of absence for other reasons.

The postulate that absence among Europeans tends to be of longer duration than among Non-Europeans is tested only in respect of data concerning male workers in Factory A.

TABLE 13 : AVERAGE LENGTH OF ABSENCE IN HOURS FOR ABSENCE OF VARIOUS TYPES; EUROPEAN MALES AND NON-EUROPEAN MALES (FACTORY A)		
Type of Absence	Average Length (In Hours)	
	Eur. Males	Non-Eur. Males
Late	.53	.35
Sick	62.18	45.49
Other	15.18	16.46
All Absence	12.39	6.45

The postulate appears to hold for all absence and for late and sick absence but other whole-day absence among Non-European males is, on average of slightly longer duration than among European males.

2. THE INFLUENCE OF MARITAL STATUS ON ABSENCE RATES.

On the basis of the survey of previous studies it has been postulated that

- (a) MARRIED MALES TEND TO HAVE A LOWER ABSENCE RATE THAN SINGLE MALES and
- (b) SINGLE FEMALES TEND TO HAVE A LOWER ABSENCE RATE THAN MARRIED FEMALES.

No satisfactory data regarding marital status was forthcoming from the first study but in the second study relevant information was obtained from Factories X and Y.

(a) Data Relating to Married and Single Males.

In Factory Y as a whole, the data for European male workers and Non-European male workers gave contradictory results. The data for European males was in agreement with the postulate, that for Non-European males contradicted it, but neither in the case of European males nor Non-European

males were the differences in percentage married men among the problem absentees as compared with that among the non-absentees very large.

	Problem Absentees	Non-Absentees
European Males	83.3	87.5
Non-European Males	61.7	59.7

Whether such relationship between marital status and absence rates as is indicated by the above figures is at all meaningful is open to serious question. Several other factors are involved. In the first place, married workers are likely to be older and longer serving and the latter factor, particularly, appears to have considerable influence upon the absence rate.

When analysed departmentally, the percentage married men among the non-absentee group was higher than that among the problem absentee group in seven out of eight major departments in the factory. The excess of married over single workers in such departments being above 15% in three out of the seven departments.

The corresponding analysis of data from Factory X produced the following information:

	Problem Absentees	Non-Absentees
European Males	50.0	88.9
Non-European Males	21.9	25.0

These results, particularly as far as European workers are concerned, are more definite. They are borne out by the departmental figures where it was found that in all the departments employing European males, the percentage married men in the non-absentee group was equal to or higher than that in the problem absentee group. Among the Non-European departments, the percentage married men among the non-absentees was higher than that among the problem absentees in only two out of the six departments.

Thus there would seem to be reasonable grounds for accepting a postulate that there is at least some tendency for married men to have lower absence rates than single men. It is strongly suspected however that the influence of this factor is not very great and that its effects are most likely to be evident in groups where other factors linked with good attendance, e.g. long service, are also present.

(b) Data relating to Married and Single Females.

Among female workers, the picture would be expected to be completely different. The influence of a man's marital status upon his attendance at work is likely to be related to such factors as the increased stability of outlook and behaviour consonant with family responsibilities and the added financial commitments which such responsibilities may bring. To a woman, however, marriage brings about more fundamental changes which have far-reaching effects upon her life as a worker. This is most obviously true when marriage is followed by parenthood but

marriage is also likely to produce almost immediate changes in her attitude to her work. The weight of the economic and social pressures which drive the single woman to work tend to be lightened, at least until the family becomes so large that it demands that her earnings contribute to its support. In the meantime, physical, economic and social pressures combine to make her attendance at work less necessary and, at times, impossible.⁽¹⁾ Some of the factors involved operate differentially on married and single women or on European and Non-European women. Age and family responsibilities may also effect the situation to a perceptible degree.

It would seem probable, in the light of such reasoning, that the postulated higher absence rate among married female workers would be clearly borne out by the statistics emerging from the present studies. This, however, only infrequently is the case.

Absence data relating to married and single females was examined in three ways:

- i) Comparative absence rates for married and single females in each race group;
- ii) Percentage married women in the non-absentee and problem-absentee groups respectively.
- iii) Comparative absence rates in departments with the highest and lowest percentage married women among their

(1) For a detailed analysis of the two different rôles which married women play, see Myrdal, A. and Klein, V: "Women's Two Rôles" (Routledge and Kegan Paul, 1956)

absentees.

i) Comparative Absence Rates for Married and Single Females: These are set forth in Table 16:

TABLE 16 : COMPARATIVE ABSENCE RATES FOR MARRIED AND SINGLE FEMALES IN EACH RACE GROUP IN FACTORIES X AND Y.		
FACTORY AND RACE GROUP.	ABSENCE RATE FOR MARRIED FEMALES	ABSENCE RATE FOR SINGLE FEMALES
<u>Factory X</u>		
Eur. Females	2.95	5.16
<u>Factory Y</u>		
Eur. Females	3.70	3.40
Non-Eur. Females	5.83	2.41

In the above Table, only the figures relating to Non-European Females offer any evidence in support of the postulate that married females tend to have higher absence rates than single females.

ii) Percentage Married Women among Non-absentees and Problem-absentees: In Factory X there was only a very slight difference between the percentage married women in the Non-absentee and Problem-absentee groups (86.7% and 85.4%) respectively, i.e. with the greater percentage among Non-absentees. The postulate was, however, borne out by the figures from Factory Y where the differences were considerably larger and higher rates among married women were indicated. (91.0% of the European women in the Problem-absentee group were married as compared with 76.9% in the Non-absentee group. 55.6% of the Non-European women in the Problem-absentee group were married as compared with 33.3% in the Non-absentee group.

iii) Relationship between Departmental absence rates and the percentage married women in such departments: In Factory Y the departments employing Non-European females which had the two highest and the lowest percentage married women among their absentees, showed also the two highest and the lowest absentee rates.

Department	Percentage Married Women among Absentees.	Absence Rate
a	76.5	8.59
b	75.0	5.06
c	20.0	2.25

Further evidence of the relationship between the absence rates and the marital status of women workers emerged from comparison of the following correlation co-efficients:

CORRELATION BETWEEN ABSENCE RATE AND	CORRELATION CO-EFFICIENT	CO-EFFICIENT CORRELATION BETWEEN ABSENCE RATE AND SAME CHARACTERISTIC IF MARITAL STATUS IS HELD CONSTANT.
AVERAGE AGE	+ .67	+ .10
AVERAGE LENGTH OF SERVICE.	+ .76	+ .46

The marked drop in the correlation co-efficients when marital status is held constant would suggest that among female workers, this factor is more closely related to the absence rate than age or length of service.

Notwithstanding the findings of other investigations, and the comments at the beginning of this section, none of the foregoing data appears to present sufficient evidence upon which to base a claim that the postulate that

SINGLE FEMALES TEND TO HAVE A LOWER ABSENCE RATE
THAN MARRIED FEMALES

can be accepted as valid.

3. THE INFLUENCE OF LENGTH OF SERVICE ON ABSENCE RATES.

On the basis of previous studies it was postulated that:
ABSENCE RATES TEND TO BECOME LOWER AS LENGTH OF SERVICE
WITH THE ORGANISATION INCREASES.

In investigating the validity of this postulate use was made of data drawn from both studies.

In the first study, the departmental variables which were correlated with the absence rates included no fewer than six which were linked in some way with length of service. Four of these were based upon a division of the employees in each department into four categories:

Category A: Employees whose service began before January 1957 and which continued through the year until December.

Category B: Employees whose service began before January 1957 but terminated before the end of the year.

Category C: Employees who were engaged during 1957 and whose employment continued until the end of the year.

Category D: Employees who were engaged during 1957 but whose services were terminated before the year ended.

The number of employees in each group in each department was expressed as a percentage of the total number of employees in the department and the relationship between these and various absence rates was investigated.

Six significant correlations emerged. Only one related to the Gross Absence Rate: namely a negative correlation between the percentage Category A employees (old employees whose service continued throughout the year during which the survey was conducted) and the amount of other whole day absence ($- .62$). In other words, in departments employing a larger proportion of established workers, less whole day absence for reasons other than sickness occurred than in departments where a smaller proportion of such workers was employed. This finding serves to confirm the postulate under examination.

Two of the other five significant correlations which were disclosed between absence rates and the composition of the working group in terms of service category appear to support the present argument. These were the negative ($- .73$) and positive ($+ .93$) correlations between the severity rate for all absence and the percentage Non-European male employees in categories A and D respectively. Category A comprised old workers who remained in service throughout the period of the study (i.e. were the most stable workers in the departments concerned) while Category D comprised the transients, the least stable workers of all.

Of far greater importance were the clear and convincing negative correlations between the various absence

rates and the average length of service of employees in the various departments. The value of these figures is increased by the fact that the correlations quoted refer to the labour force of the factory as a whole rather than to specific race or sex groups. In other words, the parameters upon which the calculations are based embrace the largest possible number of cases which this particular study could provide.

Significant negative correlations were found between the average length of service in the departments and their Gross Absence Rates and their severity rates for all employees combined, both for all absence and for absence due to sickness.

TABLE 19 : CORRELATION CO-EFFICIENTS BETWEEN ABSENCE RATES AND SICK AND ALL ABSENCE.		
	GROSS ABSENCE RATE	SEVERITY RATE
Sick Absence	- .76	- .71
All Absence	- .83	- .66

The negative correlations between departmental average length of service and the Gross Absence Rate for other whole-day absence was also significantly high, (- .62).

All these clearly demonstrate an inverse relationship between long service and the absence rate.

The sixth departmental variable to be examined in this way related to short-term length of service. The average length of service in weeks during 1957 per employee in each department was calculated. This was probably the least satisfactory measure of the six since

it made no distinction between longer-serving employees who were retrenched during 1957 and those who came and went during the year.

Only two significant correlations emerged from the comparisons: both related to the severity rate. These were late absence among European females (+ .96) and all absence among Non-Europeans (- .78). In other words, the result suggested that, in conditions of labour instability, late absences among European women tend to be of shorter duration and absences of all kinds among Non-European men tend on average to be of longer duration. The latter statement is in keeping with the postulate under review.

The overall conclusion to be drawn from the six correlations investigated is completely in keeping with the postulate as framed, namely that the longer the length of service of a worker the lower his absence rates are likely to be.

In the second study, the validity of the same postulate was tested in a completely different way, namely by comparing the average length of service of those workers who had been classified as problem absentees with that of (a) all absentees and (b) non-absentees.

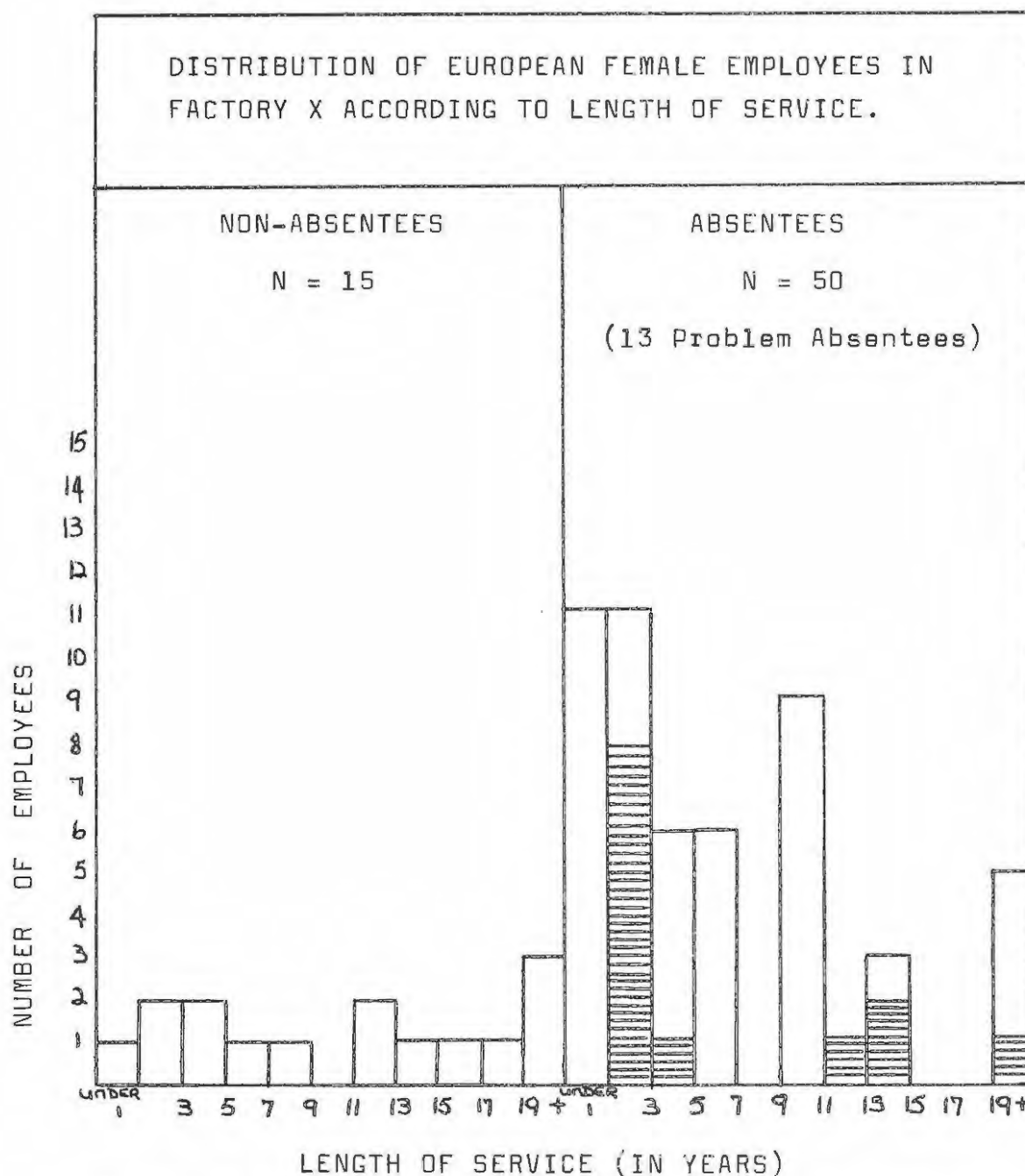
TABLE 20 : AVERAGE LENGTH OF SERVICE IN YEARS OF NON-ABSENTEES, ALL ABSENTEES AND PROBLEM ABSENTEES (FACTORIES X AND Y)			
Factory/Race/Sex Group	Non-absentees	All Absentees	Problem Absentees
<u>Factory X</u>			
Eur. Females	12.4	6.8	6.9
Eur. Males	26.6	16.2	17.6
Non-Eur. Males	6.3	5.4	5.8
<u>Factory Y</u>			
Eur. Females	17.31	6.20	3.66
Non-Eur. Females	1.20	1.50	1.46
Eur. Males	20.40	14.10	12.40
Non-Eur. Males	9.10	6.00	5.00

The above figures would seem generally to indicate that long-serving employees are characterised by lower absence rates. The average length of service of non-absentees is almost always longer than that of either problem absentees or absentees in general. The fact that the figures for Non-European females in Factory Y do not conform to the general pattern is almost certainly due to the fact that the factory concerned had only relatively recently begun to employ this type of labour and that none of these workers had yet had a significantly long period of service.

In factory X, the average length of service of all absentees is consistently shorter than that of problem absentees. This would seem to indicate that the employees responsible for problem absenteeism tended to have had longer service with the firm than those responsible for absence in general, but because the number of workers in the group is often very small, an examination of the distribution of the individual workers according to length of service indicates clearly that it is usually one or two atypical individual problem absentees who push up the average length of service of the members of the group.

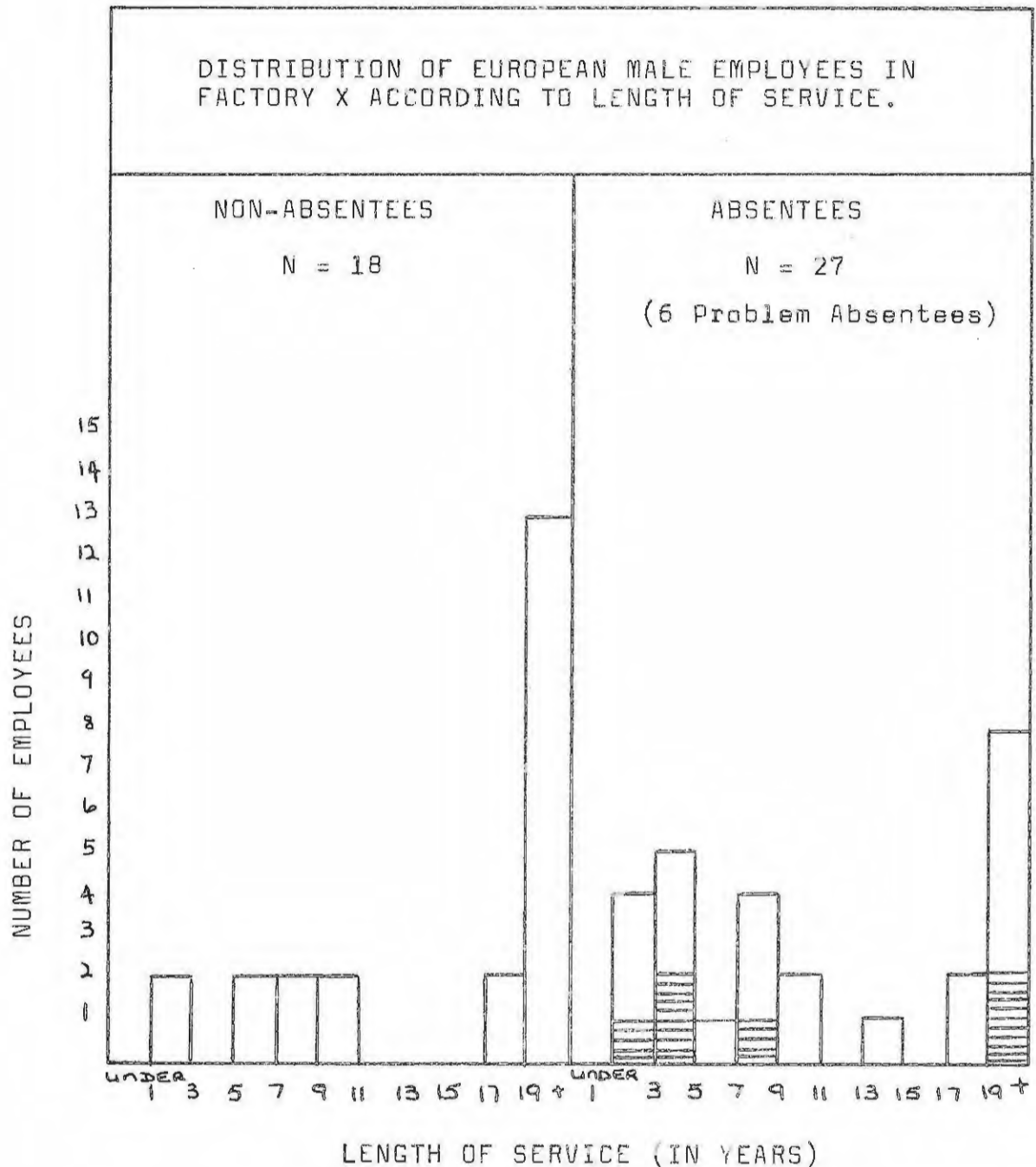
This fact is clearly apparent from the histograms (Figures (i) - (vii)) and the comments which follow each of them.

FIGURE (i)



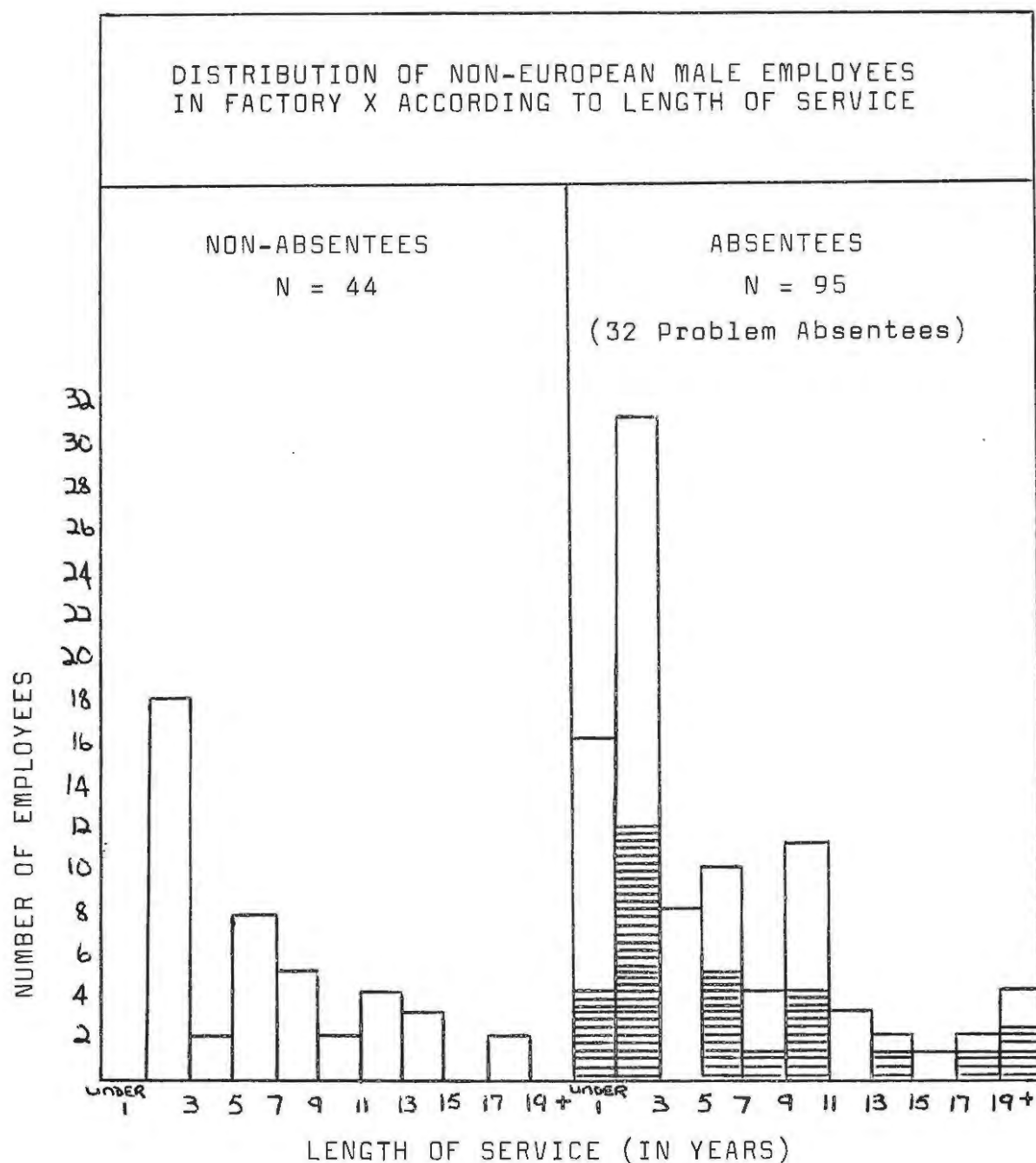
European Females in Factory X: The high average length of service among problem absentees is largely accounted for by one worker with more than 19 years of service and three with between 11 and 15. All but one of the other 9 workers in the Gross Absentee Group had less than 3 years service.

FIGURE (11)



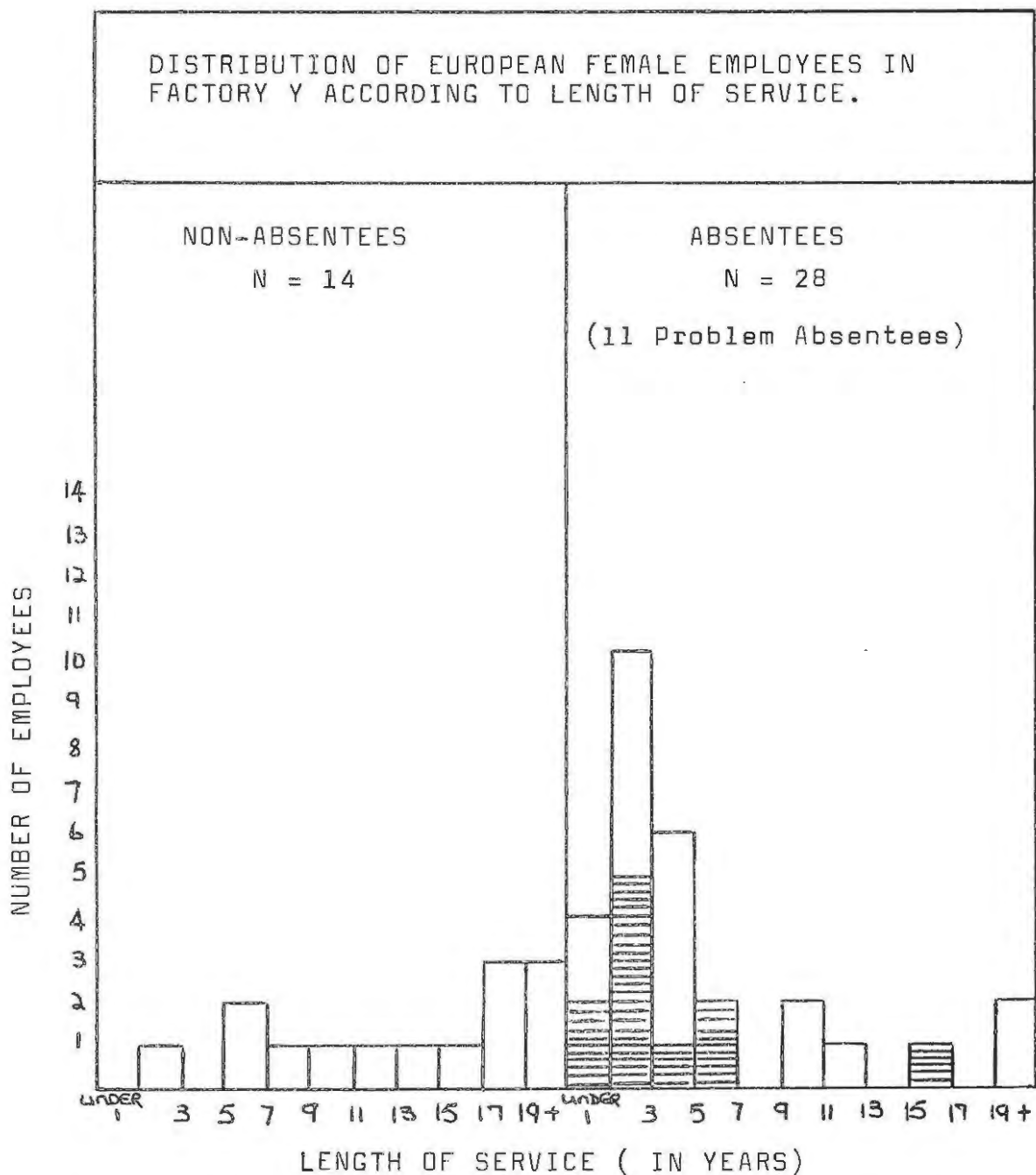
European Males in Factory X: The high average length of service of the six problem absentees in this race/sex group was accounted for largely by two workers with more than 19 years of service each. Three of the remaining four had less than 5 years service.

FIGURE (iii)



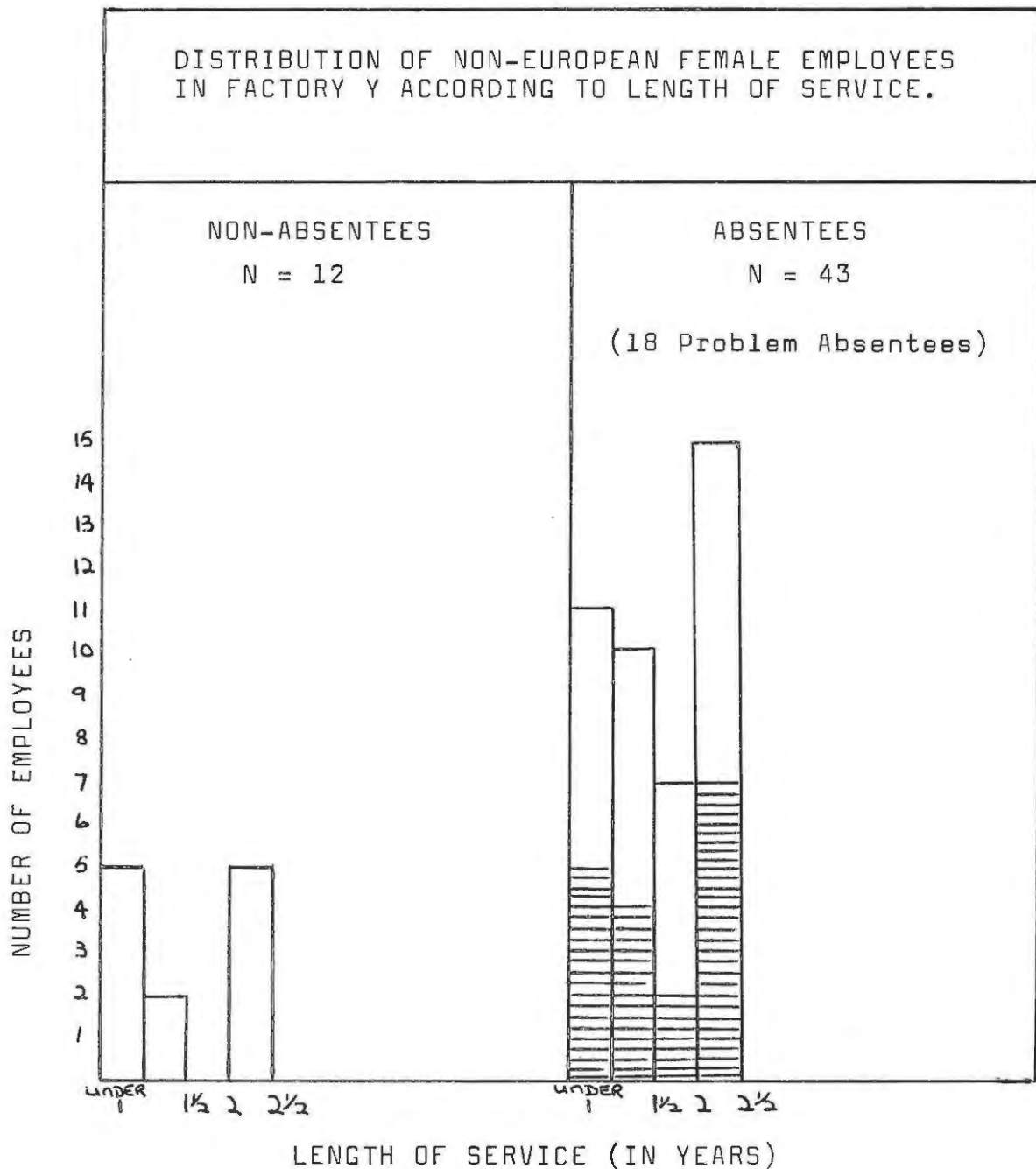
Non-European Males in Factory X: Half of the Problem absentees in this race/sex group had three years service or less; all but four had less than eleven years service. The high average length of service was largely accounted for by three workers with 17 or more years of service. It is also interesting to note that while 25% of the non-absentees had more than 10 years service, only 12½% of the problem absentees had served for that number of years or longer.

FIGURE (iv)



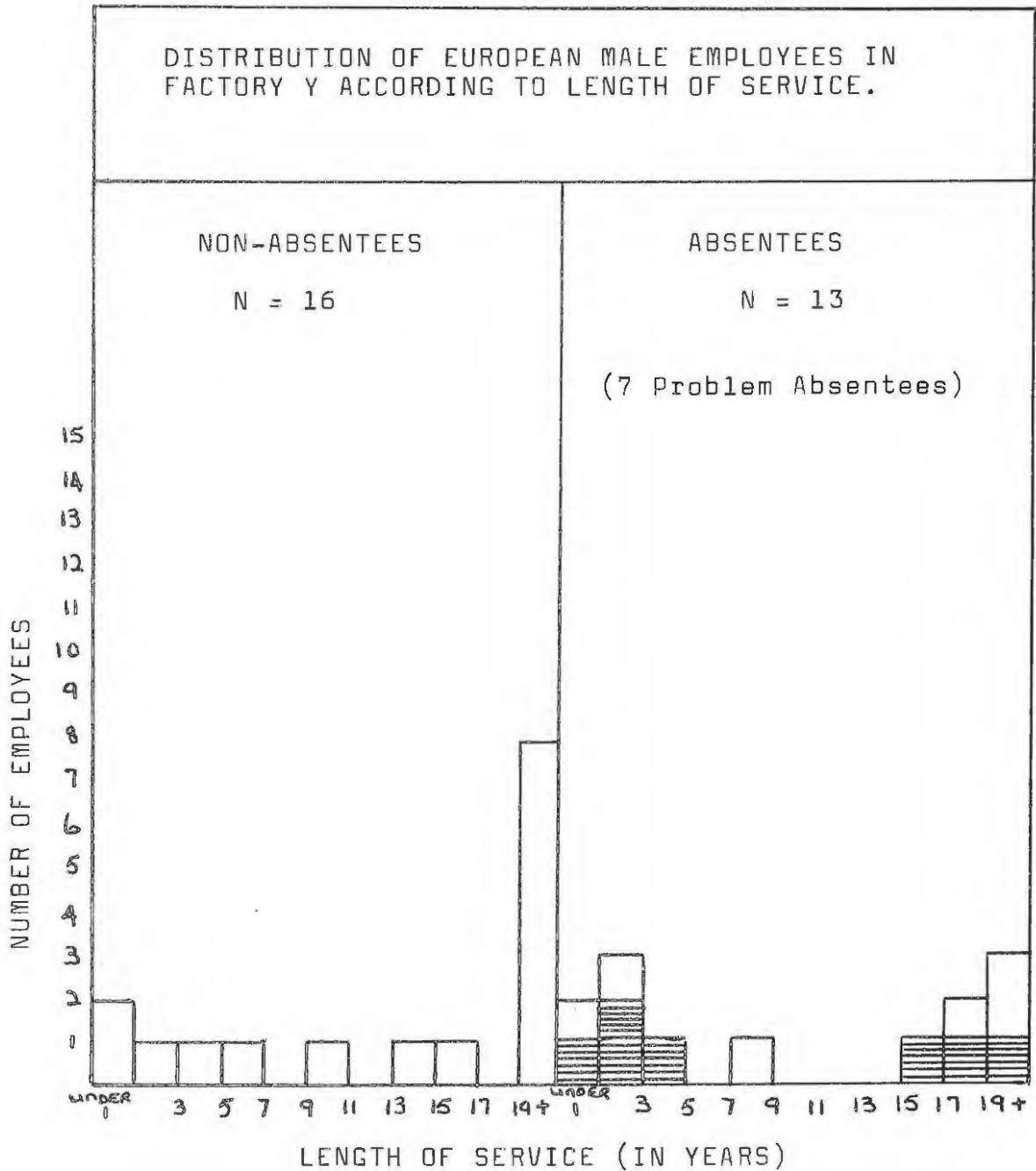
European Females in Factory Y: Here the differences, already proportionately greater than in any of the other comparisons, would have been a good deal larger had it not been for one employee with longer than fifteen years service with the firm. None of the other problem absentees in this race/sex group had more than seven years service, most of them had fewer than three.

FIGURE (v)



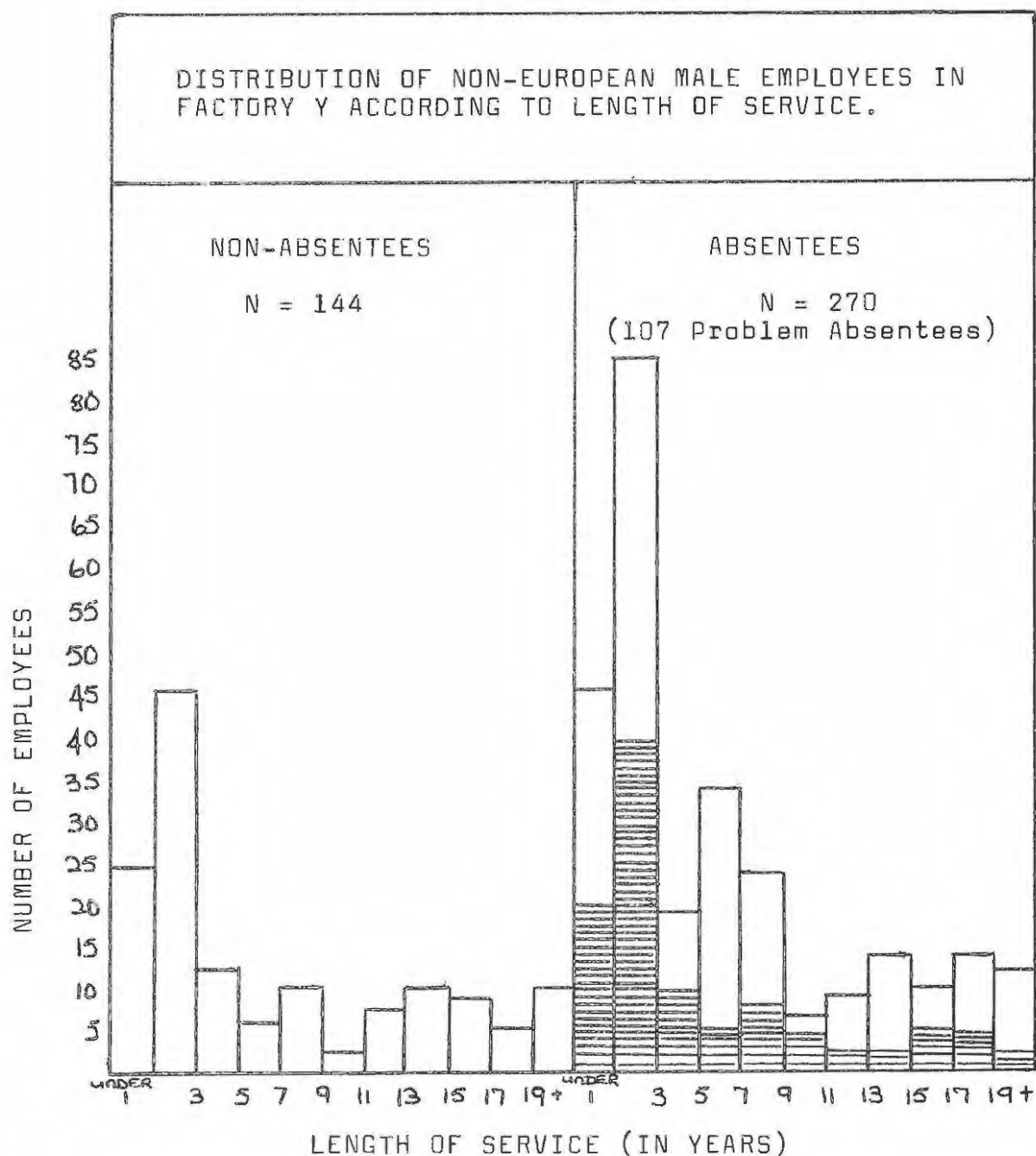
Non-European Females in Factory Y: Here the more or less even distribution of problem absentees and other absentees in each length of service category indicates that the very similar average length of service for problem absentees and all absentees is an accurate statement of the position. It will be noted that no employee in this group had served for longer than 2½ years. This was because the employment of this type of worker was a relatively recent innovation.

FIGURE (vi)



European Males in Factory Y: Non-Absentees appear to be spread throughout the various length of service categories, but exactly 50% of them have had 19 or more years service. Absentees and Problem Absentees tend to cluster in the short-term and long-term categories. The very small numbers involved make it impossible to draw any firm conclusions from the data.

FIGURE (vii)



Non European Males in Factory Y: Here a small proportion of long-serving problem absentees markedly distort the average for the group, the greater proportion of which comprises employees with three years service or less.

Taken as a whole, the evidence provided by both studies regarding the relationship between Length of service and Absence Rates, would appear to establish conclusively that absence rates are directly and strongly influenced by length of service and that as length of service increases, absence rates tend to fall.

4. THE INFLUENCE OF AGE ON ABSENCE RATES.

It was considered possible, on the basis of the review of earlier absence studies (Part I) to postulate that

ABSENCE RATES TEND TO BE LOWER FOR WORKERS BETWEEN THE AGES OF TWENTY-FIVE AND FORTY THAN FOR YOUNGER AND OLDER WORKERS.

Only data from Study II was used in the examination of this postulate. On the basis of the division of the workers in each race/sex group in factories X and Y into non-absentees, all absentees and problem absentees, two lines of investigation were followed:

(i) The calculation of the average age of the workers of each type falling into each factory/race/sex group, (Table 21).

(ii) The proportion of non-absentees, absentees and problem absentees falling into each of the three age categories:

Under 25

25 - 40

Over 40

in each such group, (Table 23).

(i) Analysis on the basis of Average Age of Non-absentees, All absentees and Problem absentees:

Factory/Race/Sex Group	Non-absentees	All Absentees	Problem Absentees
<u>Factory X</u>			
Eur. Males	49.2	36.9	34.3
Eur. Females	40.3	38.2	33.8
Non-Eur. Males	24.9	24.3	23.8
<u>Factory Y</u>			
Eur. Males	47.7	47.1	45.7
Eur. Females	50.0	41.6	37.4
Non-Eur. Males	30.2	28.9	29.2
Non-Eur. Females	23.6	29.9	29.0

Apart from the Non-European males in Factory Y, the average age of each non-absentee group lies within the age-range postulated as likely to have a higher absence rate. In most cases, the average age of the problem-absentee groups are within the age-range postulated as likely to have a lower absence rate. None of these figures, therefore, can be used to support the postulate.

The figures in Table 21 are repeated in Table 22 and corresponding data relating to the average length of service of workers in the various groups is set alongside that relating to age. It is immediately apparent that absence is far more closely related to length of service than to age. The relationship between Absence Rates and Length of Service has already been convincingly demonstrated. It would therefore seem reasonable to suggest that any relationship which may appear to exist between absence rates and the age of the workers concerned, is strongly influenced by length of service.

TABLE 22 : COMPARISON BETWEEN THE AVERAGE AGE AND THE AVERAGE LENGTH OF SERVICE OF NON-ABSENTEES, ALL ABSENTEES AND PROBLEM ABSENTEES (FACTORIES X AND Y)						
Factory/Race/ Sex Group.	Non-Absentees		All Absentees		Problem Absentees	
	Avge. Age (yrs)	Avge. Length of service (yrs)	Avge. Age (yrs)	Avge. Length of service (yrs)	Avge. Age (yrs)	Avge. Length of service (yrs)
<u>Factory X:</u>						
Eur. Males	49.2	26.6	36.9	16.2	34.3	17.6
Eur. Females	40.3	12.4	38.2	6.8	33.8	6.9
Non-Eur. Males	24.9	6.3	24.3	5.4	23.8	5.8
<u>Factory Y:</u>						
Eur. Males	47.7	20.4	47.1	14.1	45.7	12.4
Eur. Females	50.0	17.3	41.6	6.2	37.4	3.7
Non-Eur. Males	30.2	9.1	28.9	6.0	29.2	5.0
Non-Eur. Females	23.6	1.2	29.9	1.5	29.0	1.5

(ii) Analysis on the basis of a Division of the Employees according to age

The second line of investigation sought to establish the proportion of non-absentees, absentees and problem absentees falling into each of the three age categories: Under 25, 25 - 40 and over 40 in each factory/race/sex group.

The results are set forth in Table 23.

TABLE 23 : NUMBER OF NON-ABSENTEES, ABSENTEES AND PROBLEM ABSENTEES IN VARIOUS AGE GROUPS, BY RACE AND SEX (FACTORIES X AND Y)			
FACTORY X	Under 25	25 - 40	Over 40
a) <u>Eur. Males:</u>			
Non-Absentees	1	2	15
All Absentees	7	10	10
Problem Absentees	4	-	2
b) <u>Eur. Females:</u>			
Non-Absentees	3	3	9
All Absentees	8	18	24
Problem Absentees	1	10	2
c) <u>Non-Eur. Males:</u>			
Non-Absentees	25	18	1
All Absentees	59	32	4
Problem Absentees	21	9	2
FACTORY Y			
a) <u>Eur. Males</u>			
Non-Absentees	-	4	12
All Absentees	1	2	10
Problem Absentees	1	-	5
b) <u>Eur. Females</u>			
Non-Absentees	1	-	12
All Absentees	3	5	20
Problem Absentees	2	3	6
c) <u>Non-Eur. Males</u>			
Non-Absentees	50	64	30
All Absentees	93	160	28
Problem Absentees	36	64	7
d) <u>Non-Eur. Females</u>			
Non-Absentees	8	3	1
All Absentees	17	26	7
Problem Absentees	6	10	2

In order to support the postulate, it would be necessary for the data to reveal a high proportion of non-absentees and a low proportion of problem absentees in the age group 25 - 40. When the data in Table 23 is summarised (as is done in Table 24) it is clear that, apart from that relating to the European male group, it lends no support to the postulate.

TABLE 24 : PERCENTAGE NON-ABSENTEES AND PROBLEM ABSENTEES IN THE AGE GROUP 25 - 40 YEARS, BY RACE AND SEX (FACTORIES X AND Y)		
Factory/Race/Sex Group	Non- absentees	Problem Absentees
<u>FACTORY X:</u>		
Eur. Males	16.7%	-
Eur. Females	14.2%	47.6%
Non-Eur. Males	36.0%	18.0%
<u>FACTORY Y:</u>		
Eur. Males	66.7%	-
Eur. Females	-	60.0%
Non-Eur. Males	28.5%	28.5%
Non-Eur. Females	10.4%	37.9%

The over-riding influence of length of service upon absence rates has already been mentioned. It is very likely that this factor is of far greater importance than age, and the higher absence rates which some investigators have found among younger workers are, in all probability due to the fact that their period of service has not been long enough for the stabilising effect of long service to take effect.

In the same way, marital status and family responsibilities, likely to influence attendance patterns more strongly in the middle years of a worker's life may account

for the suggested tendency for absence rates for male workers between the ages of 25 and 40 to be low. In the case of female workers, family responsibilities could be expected to have the opposite effect.⁽¹⁾

It would appear therefore, that, in the data in the foregoing tables, the relationship between absence and age is obscured by too many other factors to permit its use either to prove or disprove the postulate under examination.

5. INFLUENCE OF THE DEGREE OF JOB-SKILL DEMANDED ON ABSENCE RATES.

On the basis of the examination of other studies it was postulated that:

THERE IS A TENDENCY, OTHER THINGS BEING EQUAL, FOR ABSENCE RATES TO BE HIGHER WHEN LESS SKILL IS REQUIRED.

The relationship between absence rates and the degree of job-skill required was examined in the first study when absence rates were correlated with the percentage skilled, semi-skilled and the unskilled workers in the various departments.

A negative correlation co-efficient between absence rates and the degree of skill required would be necessary in order to sustain the hypothesis. Only one such co-

(1) Reference has already been made to the work of Myrdal and Klein in this connection. See also, Weiss, Anna G: "The Cape Coloured Woman". (Unpublished M.Soc.Sci Thesis, University of Cape Town, 1950).

efficient emerged from the study namely - .71 in the Non-European male departments, when the percentage of skilled workers in the department was correlated with the Gross Absence Rate for all types of absence combined.

No investigation into the influence of degree of job-skill demanded upon absence rates was included in the second study.

The evidence in support of the postulate is weak and is limited to one case and one characteristic only, i.e. the percentage of skilled workers in the Non-European Male Departments. This is indecisive.

6. THE INFLUENCE OF WAGE RATES ON ABSENCE RATES.

The examination of other available studies of absenteeism led to the framing of the postulate that:

ABSENCE RATES TEND TO BE LOWEST AMONG THOSE IN THE MIDDLE WAGE GROUPS.

Although the data gathered in Study I was not suitable for use in examining the postulate as framed, it is of interest to note that when possible correlations between absence rates and wage rates were investigated, two significant correlation co-efficients emerged, namely those between average gross weekly earnings and all absence in departments employing European females (-.98) and between average hourly wage rates and all absence in departments employing European males and females.

In other words, (i) the greater the earnings of European women, the lower their absence rates and (ii) European males and females who held better-paid jobs tended to be absent less.

The above findings were not, however, corroborated by the data relating to Non-European workers.

Data emerging from Study II was analysed in the same way as was used in examining the relationship between absence rates and the age of workers.

Workers were classified into three categories according to their weekly wage rates; the limits of these categories varied for each race/sex group, as follows:

TABLE 25 : LIMITS TO LOW, MIDDLE AND HIGH WAGE GROUPS FOR WORKERS IN EACH RACE/SEX GROUP (FACTORIES X AND Y)			
	LOW	MIDDLE	HIGH
Eur. Males	Under R10	R10-15	R16 and over
Eur. Females	Under R6	R 6- 8	R 9 and over
Non-Eur. Males	Under R9	R 9-11	R12 and over
Non-Eur. Females	Under R6	R 6- 8	R 9 and over

Table 26 sets forth the results of this analysis:

TABLE 26 : NUMBER OF NON-ABSENTEES AND PROBLEM ABSENTEES IN EACH WAGE CATEGORY BY RACE AND SEX. (FACTORIES X AND Y)

	LOW WAGE GROUP			MIDDLE WAGE GROUP			HIGH WAGE GROUP			ALL EMPLOYEES		
	All Employees	Non-Absentees	Problem Absentees	All Employees	Non-Absentees	Problem Absentees	All Employees	Non-Absentees	Problem Absentees	All Employees	Non-Absentees	Problem Absentees
	<u>FACTORY X</u>											
Eur. Males	5	2	-	29	13	5	11	3	1	45	18	6
Eur. Females	6	1	1	20	5	4	39	9	8	65	15	13
Non-Eur. Males	71	23	18	59	17	13	9	4	1	139	44	32
<u>FACTORY Y</u>												
Eur. Males	-	-	-	20	7	6	9	9	-	29	16	6
Eur. Females	1	-	1	17	4	7	23	9	3	41	13	11
Non-Eur. Males	144	50	39	230	73	59	51	21	9	425	144	107
Non-Eur. Females	16	5	4	7	-	3	39	7	11	62	12	18

Table 27 develops some of the data in Table 26. In order to confirm the postulate that Absence Rates tend to be lowest in the middle wage groups, the figures in Table 27 should reflect a high proportion of non-absentees and a low proportion of problem absentees in the middle wage category for each race/sex group.

TABLE 27 : PERCENTAGE NON-ABSENTEES AND PROBLEM ABSENTEES IN THE MIDDLE WAGE-CATEGORY, BY RACE AND SEX. (FACTORIES X AND Y)		
	Non-absentees	Problem Absentees
<u>FACTORY X</u>		
Eur. Males	72.2%	83.4%
Eur. Females	33.3%	34.0%
Non-Eur. Males	38.6%	40.6%
<u>FACTORY Y</u>		
Eur. Males	43.8%	100.0%
Eur. Females	34.0%	63.6%
Non-Eur. Males	50.7%	55.1%
Non-Eur. Females	-	16.7%

None of these pairs of figures confirm the postulate. It would appear therefore that, whatever other investigators may have found, the data emerging from this particular investigation does not offer any evidence to support the postulate that absence rates tend to be low among workers in the middle wage groups.

Once again, it must be pointed out that factors exerting a more positive influence upon the absence rate probably over-ride the influence of the wage rate upon good or poor attendance.

7. THE INFLUENCE OF PRODUCTION PRESSURES ON ABSENCE RATES.

Although shoes are in demand throughout the year, there are certain periods during which it is necessary for factories to work overtime in order to meet the requirements of the trade. This is particularly the case with ladies' fashion footwear and such items as summer holiday wear beach sandals and similar lines. At other times, when trade falls off, some factories either lay off part of the labour force or, as an alternative, put some or all workers on short time.

The amount of overtime worked (or short time lost) varies from week to week and from factory to factory. Both may occur in the same factory during the same period because one section of the factory may be working overtime while, in another, short time may be the order of the day. Do these variations bear any relation to variations in the absence rate and if so, do they lend any support to the postulate that absence rates tend to rise when overtime is worked and to fall when short time occurs?

In the first study an investigation was made into the possible relationships between the monthly average absence rate for each race/sex group and:-

- (a) The Monthly Index of Short Time, and
- (b) The Monthly Index of Overtime.

Although longer series of variables, based upon weekly rates, might have presented a more accurate picture, the use of monthly averages had one important advantage. By working on a monthly basis it was possible to consolidate

the data so that the effect of time lags in the influence of say, overtime, on the absence rates could, at least to some extent, be smoothed out.

Significant correlations were, however, disappointingly few in number. Part-day absence among Non-European Males and among all employees in general, appeared to increase when short-time was worked (+.75;+.73); sick absence and all absence appeared to increase when overtime was worked (+.69 ; +.69). Late absence appeared to decrease when overtime was worked (-.58).

These findings are generally consistent with the postulate that absence tends to increase when overtime is worked but do not lend any support to the suggestion that short time leads to lower absence rates.

In the second study, short time occurred in neither Factory X nor Factory Y, but the weekly overtime rate was calculated for each factory. (Overtime hours worked as a percentage of possible normal working hours - i.e. number of employees x 42). Correlation co-efficients between these rates and the absence rates for all absence, sick absence and other absence were calculated. The results are tabulated below:

TABLE 28 : RELATIONSHIP BETWEEN OVERTIME AND ABSENCE (FACTORIES X AND Y)				
FACTORY	RACE/SEX GROUP	Correlation between Overtime and:		
		All Absence	Sick Absence	Other Absence
X	All Employees	+ .26	+ .35	+ .06
X	Eur. Males	+ .41	+ .29	+ .30
X	Eur. Females	+ .08	+ .12	- .02
X	Non-Eur. Males	+ .12	+ .14	+ .002
Y	All Employees	+ .27	- .14	+ .08

None of the above correlation co-efficients are significant at the 5% level except that between overtime and all absence of European males (+.41). As this is the most highly paid group of employees, it is not surprising to find that free time appears to be prized more highly than additional income and that, beyond a given point, periods of overtime may be off set by "voluntary" short time. Whether this conclusion is a valid one from the data before us is open to question. A higher correlation between overtime and "other absence" would have been more convincing.

Beyond this, the examination of the data emerging from the second study furnishes no evidence in support of the postulate under review, namely that absence tends to increase when overtime is worked. A more carefully designed experiment, focussing attention on this relationship alone, would appear to be called for before any valid conclusions could be drawn either way.

8. THE DISTRIBUTION OF ABSENCE:

The final postulate for examination in this section relates to the distribution of absence; namely that

A SUBSTANTIAL PROPORTION OF ALL ABSENCE AMONG ANY GROUP OF WORKERS IS GENERALLY ACCOUNTED FOR BY A RELATIVELY SMALL PROPORTION OF THE MEMBERS OF THE GROUP.

This would seem, at first sight, to be so obvious as to fail to merit further examination.

It is not, however, the obvious fact which is of interest, so much as the very important practical implications which arise from the fact and which will form the basis of a good deal of the argument which follows.

Data from factories A, X and Y was used to test the postulate, the procedure being to arrange all the employees, in each factory separately, in rank order of hours lost, to divide them into deciles and then to calculate the percentage of the total absence for the factory accounted for by the workers in each decile. The results were as follows:

TABLE 29 : DECILE ANALYSIS: PERCENTAGE OF TOTAL HOURS LOST THROUGH ALL ABSENCE IN EACH DECILE. (FACTORIES A, X AND Y)			
DECILE	PERCENTAGE OF TOTAL HOURS LOST		
	<u>FACTORY A</u>	<u>FACTORY X</u>	<u>FACTORY Y</u>
I	43.5	60.2	61.0
II	19.1	17.8	19.8
III	13.0	10.1	10.3
IV	9.2	6.1	5.1
V	6.5	4.6	3.0
VI	4.5	1.4	0.8
VII	2.8	-	0.1
VIII	1.2	-	-
IX	0.2	-	-
X	0.01	-	-
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

The above data clearly demonstrates the validity of the postulate. In each of the Factories, A, X and Y, at least sixty percent of the overall absence is caused by twenty percent of the employees; and, in X and Y, sixty percent of the absence is actually caused by only ten percent of the workers.

The data emerging from this analysis appear to invite further examination and comment. In the first place note should be taken of the significant difference, between Factory A on the one hand and Factories X and Y on the other, in the more general distribution of the absence in the first-mentioned and its wider 'spread' through the entire range of deciles.

The most probable reason for this is that the figures referring to Factory A cover a rather longer period than those relating to Factories X and Y. The longer the period during which absence records are collected, the greater the likelihood that individual workers, with hitherto unbroken attendance, may miss the odd day or part of a day, thus lengthening the tail of the distribution curve.

The Gross Absence Rate for the workers in each separate decile also declined progressively through the range of deciles. The figures were as follows:

TABLE 30 : DECILE ANALYSIS: GROSS ABSENCE RATE FOR ALL ABSENTEES AND PROBLEM ABSENTEES IN EACH DECILE (FACTORIES X AND Y)				
DECILE	X		Y	
	All Absentees	Problem Absentees	All Absentees	Problem Absentees
I	11.02	9.17	12.03	10.52
II	3.02	3.21	3.84	3.95
III	1.62	1.73	2.04	2.01
IV	1.02	1.38	1.04	1.22
V	.84	1.15	.62	.64
VI	.02	.54	.16	.23
VII	-	-	.02	-
VIII	-	-	-	-
IX	-	-	-	-
X	-	-	-	-

Table 31 indicates the proportion in each decile accounted for by non-problem absentees. It will be noted that, even in the upper deciles, nearly half the absence is accounted for by those whose failure to attend work cannot be regarded as the cause of absence problems.

TABLE 31 : DECILE ANALYSIS: HOURS LOST BY NON-PROBLEM ABSENTEES AS PERCENTAGE OF ALL HOURS LOST IN EACH DECILE (FACTORIES X AND Y)		
DECILE	FACTORY X	FACTORY Y
I	45.8	42.3
II	46.9	37.0
III	71.6	49.9
IV	85.0	79.2
V	91.0	85.0
VI	86.2	82.6
VII	100.0	100.0
VIII	100.0	100.0
IX	100.0	100.0
X	100.0	100.0
All Employees	53.1	44.9

The separate examination of Sick and Other Absence produced the following data:-

TABLE 32 : DECILE ANALYSIS: HOURS LOST THROUGH SICK ABSENCE BY NON-PROBLEM ABSENTEES AS PERCENTAGE OF ALL HOURS LOST THROUGH SICK ABSENCE IN EACH DECILE (FACTORIES A, X AND Y)			
DECILE	PERCENTAGE HOURS LOST		
	FACTORY A	FACTORY X	FACTORY Y
I	58.5	65.5	74.3
II	17.3	15.5	17.4
III	10.2	10.5	5.8
IV	7.0	5.1	1.6
V	4.0	3.1	0.9
VI	2.0	0.3	0.03
VII	1.0	-	-
VIII	-	-	-
IX	-	-	-
X	-	-	-
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

TABLE 33 : DECILE ANALYSIS: HOURS LOST THROUGH OTHER ABSENCE BY NON-PROBLEM ABSENTEES AS PERCENTAGE OF ALL HOURS LOST THROUGH OTHER ABSENCE IN EACH DECILE (FACTORIES A, X AND Y)			
DECILE	PERCENTAGE HOURS LOST		
	FACTORY A	FACTORY X	FACTORY Y
I	26.7	51.2	42.3
II	21.0	21.6	23.2
III	16.0	9.4	16.7
IV	11.8	7.6	10.1
V	9.4	7.1	5.9
VI	7.3	3.1	1.8
VII	4.8	-	-
VIII	2.5	-	-
IX	0.5	-	-
X	...	-	-
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

The picture is not very different to that for all absence (Table 31) except that the percentage of the total amount of sick absence in Factory A accounted for by the most frequently absent 10% of workers approximates

much more closely to the corresponding percentages in Factories X and Y. Although the distribution of "other absence" is more widely spread, by far the greater proportion of this type of absence is also found in the top two or three deciles, and the distribution curve lacks the extended tail mentioned in the case of all absence.

The similarity of the patterns of distribution of sick absence in the three factories and the greater length of the tail of the distribution curve of "other absence" in Factory A as compared with those for Factories X and Y seem to indicate that it was "other absence" which accounted for the different shape of the "all absence" curve in Factory A as compared with Factories X and Y. This point is mentioned here to allay the criticism that these figures (from Factory A in 1957) should not have been used in a survey of this kind because of the epidemic which occurred during the period covered.

An examination of the extent to which the groups of employees accounting for the most absence comprised those individuals who had been isolated as problem absentees, revealed the following:

TABLE 34 : DECILE ANALYSIS : PROBLEM ABSENTEES AS PERCENTAGE OF ALL EMPLOYEES IN DECILE (FACTORIES X AND Y)		
DECILE	FACTORY X	FACTORY Y
I	65.5	68.9
II	51.7	62.3
III	27.6	49.2
IV	13.8	19.7
V	10.3	16.4
VI	6.9	16.4
VII	-	-
VIII	-	-
IX	-	-
X	-	-

TABLE 35 : DECILE ANALYSIS: PROBLEM ABSENTEES IN EACH DECILE AS PERCENTAGE OF ALL PROBLEM ABSENTEES		
DECILE	FACTORY X	FACTORY Y
I	37.3	29.6
II	29.4	26.8
III	15.7	21.1
IV	7.8	8.5
V	5.9	7.0
VI	3.9	7.0
VII	-	-
VIII	-	-
IX	-	-
X	-	-

As was to be expected, problem absentees preponderated in most frequently absent groups, and those falling into such groups formed a large proportion of the total number of problem absentees.

These percentages should not be confused with those in Table 36 where the percentage hours lost is under consideration. Table 35 deals not with hours but with people.

Once again it is important to note (i) the way in which the above tables emphasise that much absence may be accounted for by employees other than problem absentees and (ii) how far down the scale problem absentees continue to appear.

The fact that sick absence is not generally regarded as problem absence is probably the main reason for this. The extent to which sickness accounts for the absence occurring in the various deciles is apparent from the following table.

TABLE 36 : DECILE ANALYSIS: SICK ABSENCE AS A PERCENTAGE OF ALL ABSENCE IN EACH DECILE: FOR ALL ABSENTEES AND PROBLEM ABSENTEES (FACTORIES X AND Y)				
DECILE	SICK ABSENCE AS A PERCENTAGE OF ALL ABSENCE			
	Among All Absentees		Among Problem Absentees	
	X	Y	X	Y
I	68.3	71.2	48.5	62.5
II	54.9	51.4	50.2	30.4
III	65.1	32.0	48.2	21.5
IV	53.3	18.0	17.8	29.0
V	42.3	16.6	-	9.4
VI	14.1	1.8	50.5	-
VII	-	-	-	-
VIII	-	-	-	-
IX	-	-	-	-
X	-	-	-	-
All Employees	62.8	58.4	47.8	45.8

It will be noted that there is a general but by no means universal tendency for sick absence to account for a greater proportion of all absence in the upper deciles, and, in general, to account for a greater proportion of absence among all absentees than among problem absentees, where, obviously, other forms of absence are in the ascendency.

A fuller examination of the significance of the foregoing observations to the argument which is being developed in this thesis will follow in Part Four.

PART FOUR

ARGUMENT AND CONCLUSIONS.

PART FOUR: ARGUMENT AND CONCLUSIONS.

The fundamental postulate which is being argued in this dissertation is as follows:

THE GROSS ABSENCE RATE IS NOT, IN ITSELF, A SUFFICIENT BASIS FOR THE COMPARISON OF THE ABSENCE BEHAVIOUR OF ONE GROUP OF WORKERS WITH ANOTHER OR WITH A PRE-ESTABLISHED NORM, NOR IS IT AN ADEQUATE INDICATOR OF THE PRESENCE OR OTHERWISE OF AN ABSENCE PROBLEM AMONG ANY GIVEN GROUP OF WORKERS.

In addition, the dissertation examines the validity of the nine postulates set forth on page 35 and examined in the factory studies which followed.

I. THE FUNDAMENTAL POSTULATE.

The fundamental postulate has been restated in the following three propositions:

- (a) that the Gross Absence Rate does not provide an adequate means by which to compare the absence behaviour of one group of workers with that of another;
- (b) that the Gross Absence Rate does not provide an adequate means by which to compare the absence behaviour of a given group of workers with a pre-established norm;
- (c) that the Gross Absence Rate does not, of itself, indicate the existence or otherwise of an absence problem.

The validity of these propositions is being argued on the following grounds inferable from the previous material:

(i) that, because so many different factors can be clearly shown to have an effect upon the absence behaviour of any particular group of workers, it is not possible to compare the absence behaviour of one such group with that of another, except where there is a reasonable degree of homogeneity between them in respect of such factors;

(ii) that the fact that a group of workers may have a high Gross Absence Rate does not necessarily indicate that such absence has been caused by problem absentees or has resulted in an absence problem situation.

The First Line of Argument:

The first line of argument will be developed upon an examination of the relationships which have been found to exist between the absence rate and other factors in the work situation. The findings of the earlier studies reviewed have been largely corroborated by the studies of absenteeism conducted as part of the present investigation (Studies I and II) and it is clear both from the earlier and the current investigations that the absence rate for any particular group of workers is affected by so many factors which vary from group to group and which interact with one another to such an extent, that no valid comparison can be made between the absence rate of one group and that of another except where some degree of homogeneity in respect of these characteristics exists.

In other words, it is not possible to say, from inspection of the respective absence rates, that the absence situation in Factory "A" is "good" or "bad" in comparison with that in Factory "B" unless due consideration has been given to differences between the two groups in respect of those characteristics which may have influenced the absence rate.

This line of argument will be extended to show that there can be no such thing as a "normal" absence rate with which actual rates in specific factories can be compared. In other words, that it is not possible to state that an absence rate of, say 3.0%, is normal and that when a group of workers shows an absence rate above that figure the situation is to be regarded as abnormal.

The second line of Argument:

The second line of argument rests upon the validity of the ninth postulate on page 35 namely that most absence is accounted for by a relatively small minority of the total labour force. Many of these workers who have been responsible for many hours of absence, it will be shown, cannot be regarded as problem absentees. An attempt will therefore be made to show that a high absence rate is by no means always indicative of an absence problem. Just as there are many workers who, although they lose a considerable number of hours through absence, cannot be regarded as problem absentees so, in the same way, many problem absentees may miss relatively few working hours. In other words, lengthy absences, which often push up the absence rate, are not necessarily always accountable for by

problem absentees and, conversely, a low absentee rate does not necessarily indicate a labour force free from problem absentees.

Because these two lines of argument are being developed by the use of the same data, they are to some extent being pursued simultaneously. Both depend, in the first instance, upon the validity of the postulates which were set forth on page 35 . As has already been indicated, the findings of Studies I and II have in the main, corroborated these postulates. They are summarised in the section which follows.

2. THE POSTULATES RELATING TO THE INFLUENCE OF VARIOUS SOCIO-ECONOMIC FACTORS UPON THE ABSENCE RATES -- SUMMARY AND INFERENCES.

From the examination of the data emerging from the two factory studies regarding the relationship between Absence Rates and the various factors investigated, the following inferences may be drawn.

1. Race:

POSTULATE: EUROPEAN WORKERS TEND TO HAVE LOWER ABSENCE RATES THAN NON-EUROPEANS. ABSENCES AMONG EUROPEANS TEND TO BE OF LONGER DURATION.

Results and Inferences:

It is indisputably clear from the data examined that absence rates for European males are lower than for any other group of workers in the South African Footwear Industry. There is also a tendency, discernable but not as distinctly apparent as in the case of male workers, for absence rates for European females to be lower than for Non-European females.

It is unlikely however, that these differences are simply and directly related to race as such. Economic and social factors undoubtedly have a bearing. The pattern of employment in the industry is such that the proportion of European male workers engaged in footwear manufacture has steadily declined over the past two or three decades and their places are being taken, particularly, by Non-European males. The consequence is that those Europeans remaining in the industry, tend to be men of particular skill and experience, occupying supervisory positions or working in those departments, such as the clicking room for instance, where some measure of craftsmanship is demanded. They are, in other words, a relatively stable group, something of an elite within the factory, and it is these factors, rather than race per se, that is likely to account for their low absence rate. Support for this point of view may be drawn also from the contrast in the European male absence rates in Factories X and Y respectively (See Table 12). Those for the former being roughly double those for the latter. The proportion of European male workers in Factory Y is approximately 1 in 19 while that in Factory X is about 1 in 6. In other words, the European males in Factory Y are, to far greater extent than in Factory X, members of an elite minority of the type described above.

To the extent to which the data permitted an examination of the validity of the second part of the postulate (relating to duration of absence) it appeared mainly to sustain this.

2. Sex:

POSTULATE: ABSENCE RATES FOR FEMALES ARE ALMOST INVARIABLY HIGHER THAN THOSE FOR MALES, PARTICULARLY AS FAR AS ABSENCE FOR REASONS OTHER THAN SICKNESS IS CONCERNED.

Results and Inferences:

Female workers, whether European or Non-European, were almost invariably found to have higher absence rates than male workers. This remained true irrespective of whether the absence was on account of sickness or for other reasons.

In order to find an explanation for this, there is no need to look farther than the characteristics of the respective sexes themselves, whether those characteristics be physiological, economic or social. There is little need to elaborate a point which has been frequently and adequately made elsewhere. Even in a day when a large proportion of the community's labour force is drawn from among its women, industry is still largely organised for the employment of males rather than females. Whether that organisation could be modified in such a way as to allow women more easily to play the double rôle of worker and housewife/mother is beyond the scope of the present discussion. Such modifications have been attempted on a limited scale in times of emergency, with varying degrees of success.

What is relevant here is the almost universally observable phenomenon of a considerably higher absence rate among female workers than among male workers. This is clearly due to the effect which marriage, homemaking and motherhood have upon the attendance at work of the woman worker. Under such circumstances it is unreasonable to expect women to attend work as regularly as men under present conditions of employment.

3. Marital Status:

POSTULATE: (a) MARRIED MALES TEND TO HAVE A LOWER ABSENCE RATE THAN SINGLE MALES;

(b) SINGLE FEMALES TEND TO HAVE A LOWER ABSENCE RATE THAN MARRIED FEMALES.

Results and Inferences:

The data emerging from the studies indicated that there was at least some tendency for married men to have lower absence rates than single men, but, in the main, they revealed only slight differences between the absence rates for single and married women respectively.

The probability that married males are better attenders than single males is due, no doubt, to the added economic pressures which family responsibilities impose upon the husband and father, thus making it a more urgent necessity for him to maintain his earnings at the highest possible level and to be absent only when this is unavoidable.

The failure of the data to confirm the postulate with reference to the comparative absence rates of married and single women is surprising. A possible explanation may be that the unmarried female employees in the factories concerned may have been drawn from a relatively unstable section of the working population.

4. Length of Service:

POSTULATE: ABSENCE RATES TEND TO BECOME LOWER AS LENGTH OF SERVICE WITH THE ORGANISATION INCREASES.

Results and Inferences:

The studies provided ample evidence to show that the influence of length of service upon absence rates, is strong and indisputable. It is not the fact of long service alone but also the factors which are associated with it that

account for good attendance patterns. Lengthening service with the same firm may often bring with it an increase in status and admission to a factory elite of a kind similar to that already mentioned.

5. Age:

POSTULATE: ABSENCE RATES TEND TO BE LOWER FOR WORKERS BETWEEN THE AGES OF TWENTY-FIVE AND FORTY THAN FOR YOUNGER AND OLDER WORKERS.

Results and Inferences:

It was difficult to discover convincing evidence of a direct relationship between absence rates and the age of the workers involved. That such a relationship may exist is possible but, at the same time, it is quite clear that other factors frequently over-ride the influence of age upon attendance patterns.

6. Degree of Skill Demanded:

POSTULATE: THERE IS A TENDENCY, OTHER THINGS BEING EQUAL, FOR ABSENCE RATES TO BE HIGHER WHEN LESS SKILL IS REQUIRED.

Results and Inferences:

No conclusive evidence was forthcoming regarding any relationship between absence rates and the degree of skill required but it is probable, that, generally speaking, those holding positions demanding a greater measure of job-skill are likely also to possess other characteristics, such as some degree of industrial maturity, which tend to be related to good attendance patterns.

7. Wage Rates:

POSTULATE: ABSENCE RATES TEND TO BE LOWEST AMONG THOSE
IN THE MIDDLE WAGE GROUPS.

Results and Inferences:

Here, to a greater extent than in any of the other factors examined, it proved difficult to separate the influence of the specific factor under investigation from that of a number of contextual factors and it was not possible to use the data emerging from either Study I or Study II to sustain the postulate.

8. Production Pressures:

POSTULATE: ABSENCE RATES TEND TO RISE WHEN OVERTIME IS
WORKED AND TO FALL WHEN SHORT TIME OCCURS.

Results and Inferences:

Although some of the data emerging from the first study, and one of the relationships examined in the second study, suggested a possible tendency for absence rates to rise as the amount of overtime increased, there is no justification for the drawing of firm conclusions from the figures available from either study and the postulate should, at this stage, be regarded as "not proven" as far as this investigation is concerned.

3. THE SUPPLEMENTARY POSTULATE.

The Distribution of Absence:

POSTULATE: A SUBSTANTIAL PROPORTION OF ALL ABSENCE AMONG
ANY GROUP OF WORKERS IS GENERALLY ACCOUNTED
FOR BY A RELATIVELY SMALL PROPORTION OF THE
MEMBERS OF THE GROUP.

Results and Inferences:

The validity of the postulate was clearly demonstrated by the data emerging from the studies. Use is made of the postulate in the second line of argument and its implications

are more fully developed in Appendix One.

4. CONCLUSIONS FROM THE FIRST LINE OF ARGUMENT.

Of the eight factors whose association with industrial absenteeism has been examined, three have been found, at least within the context of the factories studied, to have a discernible influence on the absence rate. These are race, sex, and length of service. The fact that the particular studies reported here do not confirm the other postulates which were suggested by an examination of other studies certainly does not invalidate their findings.

It is clear that industrial absence is an extremely complex phenomenon and that many different factors are likely to influence the individual decisions whether or not to go to work on any particular morning. In the final analysis, a decision of this nature lies behind every specific absence incident and, ultimately such decisions determine whether the absence rate for any particular group of workers will be high or low.

This is not to deny that absenteeism is not, in a sense, a group phenomenon. This it may frequently be and, one of the aims of the techniques for keeping absence statistics described in the publication already referred to (1) is in order to discover absence areas in the factory.

(1) Townsend, A.C.: "The Collection and Use of Absence Statistics" (L.I.R.I. Research Bulletin 383, 1965)

Some factors associated with high absence rates then are, purely individual, others largely social. The writer describes the adverse effect upon attendance patterns of a poor human relations climate elsewhere.⁽¹⁾

To return to those factors which fall more specifically within the scope of this investigation, the thing which is important here is not the way in which these various factors may influence the absence rate but the fact that they do influence absence behaviour. However desirable it may be, in other contexts, to be able to use known facts about the composition of a group of workers, (facts such as the race and sex composition, the age distribution or the service distribution) to be able to predict the level of absenteeism within the group, this is not the point at issue here. All that is relevant at the moment is that there are factors within the group which have an intrinsic effect upon attendance performance and therefore upon the absence rate. Because this is so, any comparisons of the attendance performance of two groups of workers which does not take into account differences in their composition, is not strictly valid.

The Gross Absence Rate, although it indicates the attendance level of the group of workers concerned over a specific period of time, does no more than that. It includes in a single figure an extremely wide range of individual absence scores. Two identical Gross Absence

(1) Townsend, A.C.: "Causes of Absenteeism in the Field of Human Relations" (L.I.R.I. Research Bulletin 375, 1965)

Rates therefore may reflect ranges of absence scores so completely different as to make nonsense of any suggestion that the absence behaviour of the respective groups is in any way similar.

The above paragraph is not just a restatement of the fundamental weaknesses inherent in the use of statistical means. True, such inherent weaknesses affect the situation but, added to them, are those specific to the present situation. The value of the arithmetical mean as a measure of the characteristics of a group depends to a very great extent upon the homogeneity of the individuals comprising the respective groups.

In the case of a complex phenomenon such as absenteeism, such homogeneity does not readily occur. Not only may the range of the individual scores within each group differ so widely that, as has already been suggested, the Gross Absence Rate fails to give a meaningful picture of the absence behaviour of the group as a whole but also the groups which are being compared may differ so widely in character, particularly in respect of factors known to be associated with good or bad attendance, that to compare their respective absence rates for any purpose except to demonstrate the influence of such factors, would be quite meaningless.

Conventional in-factory absence studies are usually conducted with a view to determining how absence performance in such factories compares with other factories in the community or in the industry as a whole. Sometimes

such comparisons are made between one factory and another; sometimes they are made between the factory concerned and the average absence rate for a group of factories. In either case, they are valueless except where all the factories concerned have highly similar labour forces. Even under such circumstances they are of little more than general interest.

It follows from what has just been said that there can be no such thing as a "normal" absence rate against which the absence rates of individual factories or departments can be measured. It may be possible, as has been suggested elsewhere, for a factory, over a period to set some sort of normal or expected level of absence, but this can be done only when at least the proportion of workers of each race and sex in the group remains relatively constant. (1)

5. CONCLUSIONS FROM THE SECOND LINE OF ARGUMENT.

If, as has just been indicated, it is only possible to postulate the existence of a 'normal' absence rate under very specific circumstances, it follows that the Gross Absence Rate cannot readily be used to indicate the existence of an absence problem within a given group of workers. Even where these particular circumstances obtain, an 'abnormally high' absence rate can never be regarded as anything more than the most tentative preliminary indicator that an absence problem situation may possibly exist.

(1) Townsend, A.C.. "The Collection and Use of Absence Statistics", L.I.R.I. Research Bulletin 383, 1965

Problem absence as defined on page 11, is unexcused absence occurring in amounts sufficiently high to cause dislocation of the factory organisation. In other words, absence for which there is a valid excuse, e.g. absence which is the result of lengthy certifiable sickness or which has been anticipated and for which it has been possible to make suitable provision, is not regarded as a problem absence. This means, obviously, that not all absence is problem absence and that not all long-term absentees are problem absentees.

Although so obvious, this fact is generally overlooked by those seeking a short-cut method to determine whether or not an absence problem exists in a particular organisation; the method, that is, of assuming that a high Gross Absence Rate is a prima facie indicator of the existence of an absence problem.

As has been indicated earlier in this study, two groups of absentees were isolated in each of the two Factories X and Y. The first comprised those workers whose absence appeared, from an inspection of their individual absence records, to be a problem to the firm for whom they worked, and the second, those who, on the basis of the same records, appeared to contribute most heavily to the total number of hours lost through absenteeism during the period.

The first group comprised those workers who, in the preceding pages, have been described as 'problem absentees' and the second group comprised those who fell into the upper deciles of the decile analysis.

It is obvious from what has already been said that these groups were not composed of the same people. The extent to which the composition differed is indicated more specifically by the figures appearing in Table 34 where it is seen firstly that one-third of the workers in the group accounting for the most absence in each of the two factories were not problem absentees and secondly that problem absentees continued to form part of each absentee group, including the group accounting for the least amount of absence during the period covered by the survey, into which absentees were divided. From Table 35 it will be seen that between forty and fifty percent of the absence in the two groups of absentees accounting for the most absence is accounted for by non-problem absentees.

In Table 30 the Gross Absence Rate for all the workers in each decile is compared with that for the problem absentees in the same decile. It is interesting to note that for workers in Decile I in each of the two factories, the Gross Absence Rate for problem absentees is lower than that for all absentees. Problem Absence, in other words, is not necessarily lengthy absence. In fact the reverse tends to be the case.

From Table 36 it will be noted that among problem absentees, only 47.8% of the absence in Factory X and only 45.8% of the absence in Factory Y is on account of sickness, whereas among absentees in general, the respective percentages are 62.8% and 58.4%. In other words, a good deal more absence for reasons other than sickness is to be found among problem absentees than among absen-

tees in general.

It is also interesting to note, in passing, that the proportion of problem absence to non-problem absence varies from factory to factory.

To summarise the foregoing: workers who may be classified as problem absentees and workers who, by reason of the number of hours which they have been away from work, have contributed most heavily to the Gross Absence Rate, are seldom likely to be the same people.

In Study II it was found that:-

- (1) The group of workers contributing most to the Gross Absence Rate included many non-problem absentees;
- (2) Problem absentees continued to appear in groups contributing relatively little to the Gross Absence Rate.
- (3) Even among the workers who were absent most (i.e. in Decile I in each factory) the Gross Absence Rate for problem absentees was lower than that for all the absentees in the decile.

It follows therefore that those workers who have lost the most time through absence and those who may be classified as problem absentees are not necessarily the same people. Nor is the amount of absence accounted for by problem absentees apparent from the Gross Absence Rate. It is therefore not possible to use the Gross Absence Rate as an indicator of the existence of an absence problem. A high Gross Absentee Rate does NOT necessarily indicate the presence of such a problem. In fact an absence problem could

conceivably even occur in a factory where the Gross Absent Rate was relatively low.

6. SUMMARY OF THE CONCLUSIONS FROM THE FIRST AND SECOND LINES OF ARGUMENT.

The argument, thus far, has sought to show that the most commonly used measure of industrial absence, the Gross Absence Rate, is inadequate.

- (a) as a basis for inter-factory comparisons of absence behaviour;
- (b) as a basis for the comparison of the absence behaviour in any given organisation with that of the average absence rate for a group of organisations or with any other so-called "norm" of absence behaviour;
- and (c) as an indicator of the existence and extent of an absence problem in any particular organisation.

The argument has been based firstly on the fact that, industrial absenteeism is related to so many other factors in the industrial situation and is affected to such an extent by the composition of the labour force concerned, that very few groups of workers are sufficiently similar to permit a valid comparison of their absence behaviour to be made on the basis of the Gross Absence Rate alone.

This being so, it is not possible to set up, except under very specific circumstances, a standard or norm against which the absence performance of specific groups of workers can be compared with a view to determining whether such performance is 'normal' or otherwise.

Because this is so, it is obviously not possible to use the Gross Absence Rate as an indicator of the presence or otherwise of an absence problem in any group of workers. In fact, it is not even permissible to use the Gross Absence Rate of the individual worker as prima facie evidence that he is a problem absentee. The reason for his absences, their frequency and the duration of individual absence incidents must all be taken into consideration before a worker may be thus labelled. If the Gross Absence Rate, per se, is not a satisfactory indicator of the existence of an absence problem in an individual, still less is it an adequate indicator of the existence of such a problem within a whole factory.

Industrial absenteeism is far too complex a phenomenon to be studied, by such an unsophisticated rule-of-thumb technique as the calculation of a single all-embracing index of the occurrence of absence within the organisation. Much more than this is required in order to make a diagnosis sufficiently accurate to permit the application of satisfactory therapeutic techniques.

APPENDICES.

ONE: SOME EMPIRICAL CONCLUSIONS.

The primary aim of this study, we have said, has been an attempt to prove two things:

- (1) that the Gross Absence Rate does not provide a valid basis for the comparison of the absence behaviour of one group of workers with that of another nor for the comparison of such behaviour with a pre-established norm; and
- (2) that it does not, in itself, indicate the presence or otherwise on an absence problem in any group of workers.

It is submitted that these aims have been successfully achieved and that the inadequacy of the Gross Absence Rate, by itself, as a measure of absence has been clearly demonstrated.

This is not to say that the Gross Absence Rate is of no value whatever as a measure of absence. Our aim has not been to discredit the rate entirely but to show its limitations and to warn against some of the ways in which, frequently, it is misused. Some such instances of misuse are implicit in the hypothesis itself.

- (1) THE USE OF THE GROSS ABSENCE RATE AS A BASIS FOR THE COMPARISON OF THE ABSENCE BEHAVIOUR OF ONE GROUP OF WORKERS WITH THAT OF ANOTHER.

Managerial discussion of absenteeism generally begins here. The Absence Rate of Firm A or Department X is compared with that of Firm B or Department Y and the group achieving the better score, i.e. the lower absence rate, is regarded as the better performer. Differences in the composition of the respective labour forces, or in the

nature and distribution of absence, are frequently overlooked. As has already been clearly shown, these MUST be taken into consideration if valid comparisons are to be made.

Similarly, in the case of comparisons with a so-called "norm". Unless the labour force under review is similar in composition to that constituting the norm, any such comparison is quite meaningless. Moreover, a labour force comprising workers drawn from a single race/sex group is the exception rather than the rule in the South African Footwear Industry; the proportionate contribution of each group to the total labour force varies from factory to factory and it would be extremely difficult therefore, to establish a norm in which adequate allowance was made for these variations.

(2) THE USE OF THE GROSS ABSENCE RATE AS AN INDICATOR OF THE PRESENCE OF AN ABSENCE PROBLEM.

Sufficient has already been said to make it quite clear that the Gross Absence Rate, of itself, is not an adequate indicator of the existence of an absence problem. Even if a norm of the kind referred to in the previous paragraph could be established, it would not follow that an absence problem existed in any particular group because its absence rate exceeded that norm.

An absence problem situation is said to exist when the occurrence of unexcused absence is sufficiently high to cause dislocation of the factory organisation. Such absence is almost invariably accounted for by workers which, in this study, have been referred to as problem absentees.

As has already been shown, a high Gross Absence Rate does not necessarily indicate the presence of problem absentees, nor does a low rate indicate that none are to be found in the working group. Moreover, given two groups with the same Gross Absence Rate, it is quite conceivable that in the one there may be a serious absence problem and, in the other, no problem at all.

In short, while the Gross Absence Rate may, under certain circumstances furnish a preliminary indication of the possible existence of an absence problem situation, such an indication is of limited practical value because of its lack of certainty and because of its lack of accuracy in locating the problem. Moreover, for reasons which have been stated earlier, in the discussion regarding the unsuitability of the Gross Absence Rate as a means whereby to compare absence rates with pre-determined norms, this rate does not give a satisfactory indication of the seriousness of any absence problem to which it may point.

Other, far more sophisticated, techniques are required to discover and evaluate problem absentees and absence problem situations.

As was pointed out at the beginning of this appendix, the intention here is not to discredit the Gross Absence Rate entirely. That the rate has its uses cannot be gainsaid but, in view of its frequent current mis-use, a re-appraisal of its true purpose and value seems to be called for.

To what useful purpose, therefore, may the Gross Absence Rate be put? We suggest that, providing due recognition is given to its limitations, it may be used in (a) absenteeism research (b) in controlled comparative investigations and (c) as a preliminary indicator of the existence of absence problem situations.

(a) THE USE OF THE GROSS ABSENCE RATE IN ABSENCE RESEARCH:

The chief danger inherent in the use of the Gross Absence Rate lies in the possibility that the statistically uninitiated may read into it more than is warranted. In other words, to be of real value, it must be supplemented by other information such as that regarding the dispersion of individual cases within the group or separate rates for different sub-groups and for different types of absence. Gross Absence Rates may also be of value where the data itself has been collected under controlled circumstances such as obtain when a specific experiment is set up. Even under these circumstances, however, its value is limited. Any effective study of absenteeism must begin with the isolation of individual problem absentees.

(b) THE USE OF THE GROSS ABSENCE RATE IN CONTROLLED COMPARATIVE INVESTIGATIONS:

As has already been indicated, the comparison of the Gross Absence Rate of one group of workers with that of another is fraught with many perils. This, however, is the use which management most frequently seeks to make of it. Comparisons are made with rates for other firms,

other departments of their own firms and so on. Of the dangers of this no more need to be said. Unless the most rigorous controls are exercised, it is possible to compare the absence rates only of groups of practically the same composition, or differing only in one respect, length of service for instance, where it is desired to ascertain the influence of the variable under examination. In actual fact this happy situation is seldom achievable; its attainment is strenuously sought after in the research situation but even there it is seldom completely reached. In the live factory situation it is even more difficult to attain.

In view of all that has already been said there is no need to further itemize non-comparable situations. It may however be of value to mention one or two further instances where, provided reasonable care is exercised, comparisons of two or more absence rates may prove to be of value:

(i) The comparison of the absence rate for the same group of workers, at different periods of time; weekly, monthly and quarterly variations in absence rate for instance. Even here however care must be exercised. Absence rates may be affected by production pressures, by the imminence of holiday periods such as Easter and Christmas, or in their wake; or by other changes in circumstances which may occur with the passage of time. An upward trend in the Absence Rate may be due, not to the emergence of a problem situation but to seasonal variations in the 'working climate'.

In addition to being affected by these environmental factors, peculiarities within a given set of absence data may make it undesirable to compare it with other absence data. A lengthy absence by one individual, for instance, may lead to a completely distorted Gross Absence Rate.

(ii) The comparison of the absence rates of two groups of workers where all but one variable are the same or are for the purpose of the investigation, held constant.

A possible use of this procedure would be to compare the rates of two sub-departments highly similar in composition and occupation (in a large factory with two closing rooms, for instance) to see whether the absence rate is affected by the quality of supervision.

(c) THE USE OF THE GROSS ABSENCE RATE AS A PRELIMINARY INDICATOR OF THE PRESENCE OR OTHERWISE OF AN ABSENCE PROBLEM IN ANY GROUP OF WORKERS.

The level of the Gross Absence Rate cannot, of itself, be regarded as an adequate indicator of the existence or otherwise of an absence problem within a group of workers. It can, however, be used under certain circumstances, as a preliminary indicator that an absence problem situation may exist in a working group. Its use in this way is essentially tentative and, should it point to the existence of a problem situation, confirmation must be sought by the application of more refined techniques. Moreover, as has already been pointed out, there may be circumstances where the absence rate may conceal rather than reveal an absence problem situation.

If these preliminary words of caution are borne in mind, it may be possible to use the Gross Absence Rate as a preliminary indicator of a problem situation within a specific factory, particularly if absence records have been kept for a reasonable period of time and if facilities exist to gather supplementary statistical information as and when the need is indicated.

Reference has already been made to the publication in which the writer of this thesis describes a technique by means of which absence statistics may be used to reveal absence problem situations.⁽¹⁾

(d) ALTERNATE METHODS OF DETECTING ABSENCE PROBLEM SITUATIONS:

In many factories, emerging absence problem situations are first noticed by management when an increasing number of empty places in the production line leads to the disorganisation of the production programme. This may often mean that increasing tendencies to absence by an individual worker or by members of a group of workers, has passed undetected until they have become so serious as to make corrective measures difficult. On the other hand, such disorganisation may result from the absence of one or two key-men for a day, or two, for perfectly good reasons, at a time when the factory is hard-pushed. In the eyes of a harassed supervisor this may magnify a quite normal

(1) Townsend, A.C.: "The Collection and Use of Absence Statistics" (L.I.R.I. Research Bulletin, 3B3; 1965).

absence situation into a "problem". The inadequacies of this method of discovering absence problem situations are obvious.

It would appear to be necessary, therefore, to consider other possible statistical methods of detecting such situations. Two such methods have been referred to in the foregoing pages:

- a) the use of the Frequency Absence Rate;
- b) the use of normal patterns of the distribution of absence.

(i) The Frequency Absence Rate:

It has already been pointed out that frequent absences of short duration by an employee or group of employees are likely to be far more disruptive to factory routine than occasional lengthy absences for which provision can be made. Short absences, moreover, have little effect upon the absence rate. Therefore absences causing the maximum factory disruption are likely to have the minimum effect on the Gross Absence Rate. One day absences can be disproportionately disturbing, and in some occupations, and in some departments of a particular factory, the dislocation of work caused by such absence will be considerable.

It would appear therefore, that absence problem situations will be most readily indicated by a measure which immediately makes apparent the number of absence incidents occurring among any given group of workers. This is exactly the purpose served by the frequency absence rate which, as will be remembered, is the means which was adopted earlier in this investigation to isolate problem absentees.

In calculating the frequency rate each absence counts as one, and one only, irrespective of duration; it is thus possible for a marked disparity to exist between frequency rates and Gross absence rates. Table 37 clearly indicates that a high departmental Gross Absence Rate can be accompanied by a low frequency rate and vice versa, as well as demonstrating that two markedly different departmental Gross Absence Rates conceal the existence of very similar frequency rates.

Factory	Dept.	Race/sex	Gross Absence Rate	Frequency Rate
X	A	Coloured males	1.72	1.56
X	B	Coloured males	.82	1.54
X	C	Eur. males	1.92	.88
X	D	Eur. males	.92	1.74
Y	J	Eur. males	.61	2.00
Y	K	Eur. females	3.54	2.31
Y	L	Eur. males	.08	2.96
Y	M	Non-Eur. females	8.59	3.28
Y	N	Non-Eur. males	.53	1.53
Y	O	Non-Eur. males	.70	9.07
Y	Q	Non-Eur. males	4.73	3.21

The data regarding Department O in Factory Y in Table 37 is a striking example of the superiority of the Frequency Rate over the Gross Absence Rate as a reflection of absence behaviour, and as a diagnostic tool in locating problem areas within the factory. This department had one of the lowest departmental Gross Absence Rates within the factory, owing to the fact that 35% of all absence was due to late absence, which is obviously of short duration. The extremely high frequency rate of Department O is a measure of the disproportionate amount of short absences that occurred in the six-months period of the study, and

a symptom of either laxity of supervision, transport difficulties among the employees or some malfunctioning of the department. The need for further investigation here would have remained undetected if the Gross Absence Rate alone had been calculated. The calculation of the frequency rate was also necessary before the existence of an absence problem could be discovered.

Because the Gross Absence Rate is calculated only on the basis of hours lost, a high rate for any particular department is not necessarily indicative of an absence problem in that department. In Factory Y, for instance, Non-European males in Department Q had the highest Gross Absence Rate of all Non-European male departments in the factory. On inspection it was apparent that this was due to the lengthy illness of one employee who was absent for fifteen consecutive weeks out of the twenty-six weeks in which data were collected, and the high Gross Absence Rate was no cause for alarm. On the other hand, a high frequency rate in a department or race/sex group immediately alerts the observer to the probable existence of an absence problem.

What is true of group absence rates is obviously true also of individual absence rates. A high Gross Absence Rate for an individual worker does not necessarily mean that he is a Problem Absentee. If, however, he has a high Frequency Absence Rate, it is almost certain that he is a problem absentee.

There would seem to be little doubt, therefore, that the frequency absence rate does offer a far more accurate and effective means of discovering the identity of workers of the type which, in this thesis, have been designated problem absentees.

(ii) "Normal" Patterns of Distribution of Absence:

The examination, earlier on, of the patterns of distribution of absence, suggested the interesting possibility that such patterns might, in themselves, prove to be useful indicators of the "normality" or otherwise of the absence situation in any particular factory. Is there, for instance, a "normal curve of distribution" of absence and could deviations from such a curve be regarded as pointers to an absence problem situation?

Table 29 shows the percentage of the total amount of time lost accounted for by each of the ten deciles into which the workers in Factories A, X and Y were divided. A remarkable degree of consistency is apparent between the patterns for the three factories, particularly between those for factories X and Y, where, in each case, approximately 60% of all the absence which occurred was accounted for by 10% of the workers and all the hours lost were accounted for by 60% of the workers. The temptation to postulate a "sixty-sixty" measure of normality is strong but obviously very premature. It is for instance, immediately apparent that an important difference in the shape of the curve for Factory A as compared with Factory X and Y, is the extended tail of the "A" curve.

This is probably for no other reason than that the period covered by the survey in Factory A covered 48 working weeks as compared with the 27 weeks in Factory X and 26 weeks in Factory Y. Quite obviously, the longer the period covered, the fewer workers there are likely to be with unbroken attendance and the more there are likely to be who have lost only a few hours, i.e. who have helped to extend the tail of the curve.

This is a matter which merits further investigation. Many factors may be involved in determining the shape of the absence distribution curve, just as many factors influence the level of the Gross Absence Rate. The same factors may, in fact, be involved in each case. It is possible, however, that the influence of these factors on the absence distribution curve may be more readily ascertainable than their influence on the Gross Absence Rate. If this is so and if, furthermore, allowance can be made for the influence of these factors on the curve, it may be a good deal easier to detect the existence of an absence problem situation from the shape of the absence distribution curve than from the Gross Absence Rate. One reason why this is likely to be so is that the absence distribution curve reflects the influence of the absence of the individual absentees far more clearly than the single comprehensive figure of the Gross Absence Rate can ever do.

Although a much greater measure of accuracy than this is essential if the roots of an absence problem are to be laid bare, it is suggested that this technique may possibly offer a better preliminary means of investigation than

the calculation of the Gross Absence Rate. As has already been said, considerable further investigation will be necessary in order to establish this.

To sum up, the Gross Absence Rate certainly has its uses as a preliminary measure of absence behaviour. It is, however, easily liable to serious misuse. The Frequency Absence Rate appears to be a far more suitable measure for detecting problem absence. Furthermore, a simple technique by means of which the distribution of absence within the group may be studied shows some promise of usefulness, but still only for the purpose of preliminary investigation. No serious study of the problem of absenteeism and no attempt at solving that problem is able to avoid a careful and continuing consideration of the individual absence records of the workers concerned.

TWO: A LIST OF OTHER ABSENTEEISM STUDIES EXAMINED IN CONNECTION WITH THIS STUDY.

- STUDY A: Smith, May; Leiper, Margaret A. and Culpin, Millais, "Sickness Absence, Its Measurement and Incidence in Clerical Work and Light Occupations", 1925-32. Medical Research Council - Industrial Health Research Board - Report No. 75, Part I. H.M.S.O. 1936.
- STUDY B: Wyatt, S, Marriott, R and Hughes, D.E.R., "A Study of Absenteeism among Women", 1942. Medical Research Council - Industrial Health Research Board - Report No. 4. H.M.S.O. 1943.
- STUDY C: Wyatt, S., Marriott, R. et al, "A Study of Certified Sickness among Women in Industry". 1942. Medical Research Council - Industrial Health Research Board - Report No.86. H.M.S.O. 1945.
- STUDY D: White, I.H.B., "A Detailed Study of Absenteeism in Fourteen Footwear Factories", 1943. Journal of the Leather Industries Research Institute, Vol. III. L.I.R.I. 1946.
- STUDY E: White, I.H.B. and Dalziel, G. "A Report on the Analysis of Sick Fund Returns for Six Factories" 1948. L.I.R.I. Personnel Research Bulletin 44. L.I.R.I. 1949.
- STUDY F: Holt, N.F., "Absence from Work in a Bank". 1952/3. Personnel Practice Bulletin. Vol. XII, No. 1 Commonwealth of Australia, Department of Labour and National Service. March, 1956.
- STUDY G: Brooker, W.M.A., "Some Factors Associated with Absenteeism in a Printing Factory". 1955 (Unpublished M.Soc.Sci. Thesis, University of Cape Town. 1959.
- STUDY H: "The Incidence of Absence", 1955/6. "Absence from Work, Incidence, Cost and Control, British Institute of Management, 1961.

- STUDY I: White, I.H.B., "A Special Study of Absenteeism in Johannesburg, 1944/5"
- STUDY J: White, I.H.B., "A Special Study of Absenteeism in Port Elizabeth, 1944/6".
Published as one volume, L.I.R.I. Personnel Research Bulletin 36. Leather Industries Research Institute, 1946.
- STUDY K: Mayo, E; Fox, - and Scott, "Absenteeism, Management's Problem". 1942/3. Harvard Business Research Studies, No. 29. Harvard University Press. 1943.
- STUDY L: "Health in Industry", 1949/52. London Transport Executive, 1956.
- STUDY M: Mayo, E. and Lombard, "Teamwork and Labour Turn-over in the Aircraft Industry in Southern California". 1943/4. Harvard Business Research Studies, No. 32. Harvard University Press. 1944.
- STUDY N: Mass Observation, "People in Production" 1941/2. John Murray, 1942.
- STUDY O: Arbous, A.G., "Research into Absenteeism, Labour Turnover and Accidents at a large Industrial Corporation". 1956. Unpublished report made available to author of this thesis.

Note Well: In the above references, the date immediately after the title of the study indicates the period during which the investigation was conducted. The second date (after the name of the publisher) indicates the date of publication.

142. APPENDIX THREE: SCHEDULE OF SIGNIFICANT CORRELATIONS EMERGING FROM AN INVESTIGATION OF RELATIONSHIPS BETWEEN CERTAIN SOCIO-ECONOMIC CHARACTERISTICS OF THE WORKERS IN GIVEN DEPARTMENTS IN STUDY I AND THE GROSS ABSENCE AND ABSENCE SEVERITY RATES FOR THOSE DEPARTMENTS.

SOCIO-ECONOMIC CHARACTERISTICS *	GROSS ABSENCE RATE					SEVERITY RATE				
	Late	Part-day	Sick	O.W.D.	ALL	Late	Part-day	Sick	O.W.D.	ALL
<u>GROUP I:</u>										
<u>Labour Stability:</u>										
(1) Surviving Veterans				D - .62		A + .95				C - .73
(2) Non-surviving Veterans	A + .97							B - .88		
(3) New employees			C - .77			A + .99				
(4) Transients	C - .95					B - .89			B - .89	C + .93
(5) Average no. of yrs. employed	C + .75		D - .76	B - .90	B - .98			D - .71		D - .66
(6) Avge. no. of weeks employed in 1957				D - .62	D - .83					
(7) Changes in size of Department		A - .96				A + .96				C - .78
								A + .96		
								B + .89		
<u>GROUP II:</u>										
<u>Degree of Skill:</u>										
(8) Skilled					C - .71	D + .71				C - .77
(9) Semi-skilled						D - .69				
(10) Unskilled								C - .73		
<u>GROUP III:</u>										
<u>Age of Employee:</u>										
(11) Average Age		D - .64			A - .99	C - .77				
(12) Average Age when engaged		D - .66		D + .57	A - .98	C - .77			A - .93	D + .73
						D + .57			B - .93	

* The nature of the various Socio-economic characteristics used in these correlations and the method of measuring them are fully discussed on page 47 of the main text of the thesis.

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SOCIO-ECONOMIC
CHARACTERISTICS *GROUP IV:Overtime/Short Time:

	Late	GROSS ABSENCE RATE Part-day	Sick	O.W.D.	ALL	Late	SEVERITY RATE Part-day	Sick	O.W.D.	ALL
(13) Overtime						A + .99		B + .90		
(14) Short-Time		A + .99			C + .72	C - .75		B - .88		A - .95 B - .96

GROUP V:Earnings:

(15) Gross Earnings					A - .98					
(16) Average Hourly Wage					B - .97					
(17) Straight Earnings		A - .98 B - .95		D - .66	C - .82 D - .66	C + .77		D - .62		
(18) Overtime Earnings						A + .99		B + .90		
(19) Bonus					A - .99					
(20) Savings (P.S.E.)										D + .55
(21) Savings (Gross)			D + .63		D + .64					

GROUP VI:Size of Department:

(22) Size of Department							B - .88 D + .94			
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* The nature of the various Socio-economic characteristics used in these correlations and the method of measuring them are fully discussed on page 47 of the main text of the thesis.

The various Race/sex groups are indicated by the following symbols:

A = European Females	B = All Europeans
C = Coloured Males	D = All Employees

FOUR: ABSENCE FORMULAE USED IN STUDIES I AND II.THE GROSS ABSENCE RATE:

$$\frac{\text{Time Lost due to Absence} \times 100}{\text{Possible Working Hours}^* - \text{Hours lost through Short Time}}$$

THE FREQUENCY ABSENCE RATE:

$$\frac{\text{Number of Times Absent}}{\text{Number of Weeks Worked}} \times \text{Number of Weeks in Survey Period.}$$

THE SEVERITY RATE:

$$\frac{\text{Time Lost due to Absence}}{\text{Number of Absences}}$$

* Possible Working Hours: i.e. The total possible straight hours worked by an employee or a department if there is neither short time nor absence.

FIVE: BIBLIOGRAPHY.

This list includes all the books and articles read or consulted in connection with the foregoing thesis apart from those listed in Appendix I, (A List of Other Absenteeism Studies Examined in Connection with this Study.)⁽¹⁾

Arbous, A.G. and Sichel, H.E., "New Techniques for the Analysis of Absenteeism Data", Biometrika, Vol. 41, Parts 1 and 2, June, 1954.

Bell, Evelyn M., "Polygons", Parts I and II, Occasional Papers of the Department of African Studies, University College of Rhodesia and Nyassaland, 1961/1963.

Brown, J.A.C., "The Social Psychology of Industry", Pelican Books, 1954.

Caplow, T., "The Sociology of Work", Minnesota Press, 1954.

Friedman, Georges, "Industrial Society", Free Press, Illinois, 1955.

Glass, Y., "The Black Industrial Worker - A Social Psychological Study", National Institute of Personnel Research, July 1960.

Hobart-Houghton, D., "Economic Development in a Plural Society", Oxford University Press, 1960.

Hunter, Donald, "Health in Industry", Pelican Books, 1958

Jacques, Elliot, "The Changing Culture of a Factory", Tavistock 1951.

Knox, John B., "The Sociology of Industrial Relations", Random House, N.Y., 1955.

Lapping, D., "Social Health Aspects of Industrial Absenteeism", S.A. Journal for Social Research, Vol. 4, No.2, December, 1953.

Machanik, G. "Absenteeism", Occupational Health Series, No.12, Office of the Workmen's Compensation Commissioner, 1958

(1) "Absence from Work, Incidence, Cost and Control", the B.I.M. publication in which Study H is reported, also contains an exhaustive and very valuable bibliography of literature relating to Absenteeism.

- "Absenteeism in Industry", The Manufacturer, Vol. 8, Nos. 1 and 2, January, February, 1958.
- Maier, Norman, "Psychology in Industry", Houghton, 1965
- Mayo, Elton, "The Social Problems of an Industrial Civilisation", Harvard University Press, 1945.
- Miller, D.C. and Form, W.H., "Industrial Sociology", Harper, 1951
- Miller, S. and Townsend, A.C., "Some Observations Arising out of an Investigation of Absenteeism in the S.A. Footwear Industry", L.I.R.I. Research Bulletin, 434, Leather Industries Research Institute, Rhodes University.
- Myrdal, A. and Kleyn, V., "Women's Two Rôles" Routledge and Kegan Paul, 1956.
- Oakley, C.A., "Men at Work", University of London Press, 1945.
- Spring-Rice, Margery, "Working-class Wives", Pelican Books, 1939.
- Tead, O., and Metcalf, H.C., "Personnel Administration, its Principle and Practice", McGraw-Hill, 1933.
- Townsend, A.C., "Some Primary Causes of Industrial Absenteeism", L.I.R.I. Research Bulletin, 374, 1964.
- Townsend, A.C., "Causes of Absenteeism in the Field of Human Relations", L.I.R.I. Research Bulletin, 375, 1964.
- Townsend, A.C., "The Collection and Use of Absence Statistics", L.I.R.I. Research Bulletin, 383, 1965.
- Townsend, A.C., "The Basic Requirements of an Absence Control Programme", L.I.R.I. Research Bulletin, 385, 1965
- (All the above were published by the Leather Industries Research Institute, Rhodes University.)
- Weiss, A.G., "The Cape Coloured Woman, within an Industrial Community and at Home", Unpublished M.Soc. Sci. Thesis, University of Cape Town, 1950.

Wyatt, S. and Marriott, R. et al, "A Study of Attitudes to Factory Work", Medical Research Council Special Report, 292, H.M.S.O., 1956.

Yoder, Dale, "Personnel Management and Industrial Relations" Prentice-Hall, 1962.

Yoder, Dale, "Personnel Principles and Policies", Prentice-Hall, 19.?

SIX: FORMS USED FOR COLLECTING INFORMATION IN STUDY II AND FOR TRANSMITTING THE RESULTS BACK TO THE FACTORIES.

(a) BASIC WEEKLY ABSENCE RETURN FROM FACTORY:

LEATHER INDUSTRIES RESEARCH INSTITUTE - SURVEY OF ABSENTEEISM - 1965/6.

WEEKLY RETURN OF ABSENTEES

FIRM..... DEPARTMENT.....
WEEK ENDING.....

NAME OF EMPLOYEE	Wednesday		Thursday		Friday		Monday		Tuesday	
	Lost Time	Reason son	Lost Time	Reason son	Lost Time	Reason son	Lost Time	Reason son	Lost Time	Reason son

PLEASE USE THE FOLLOWING CODE TO INDICATE REASONS FOR ABSENCE

- L = Late without valid excuse
- EA = other excused absence
- LE = Late with valid excuse
- UA = absence without valid excuse
- S = certified sick absence
- AP = absence with permission granted in advance (leave etc.)

(b) REPORT ON FIRST ABSENCE DURING SURVEY PERIOD.

LEATHER INDUSTRIES RESEARCH INSTITUTE - ABSENTEEISM SURVEY.

REPORT ON FIRST ABSENCE DURING SURVEY PERIOD.
(To be submitted with relevant weekly return)

NAME..... FACTORY NO.....
DEPARTMENT..... OCCUPATION.....
RACE..... SEX..... AGE..... SURVEY NO.*.....
MARITAL STATUS..... DEPENDANTS.....
DATE WHEN CURRENT TERM OF EMPLOYMENT BEGAN.....
PREVIOUS TERMS OF EMPLOYMENT: YES/NO WAGE RATE.....
MODE OF TRANSPORT TO WORKTIME TAKEN...
EMPLOYMENT TERMINATED*REASON*.....

* These spaces will be filled in by L.I.R.I. investigator as and when necessary.

(c) WEEKLY RETURN TO FACTORIES.

LEATHER INDUSTRIES RESEARCH INSTITUTE.SURVEY OF CURRENT ABSENTEEISMWEEKLY SUMMARY OF RETURNS SUBMITTED

		<u>FACTORY X</u>		<u>FACTORY Y</u>		<u>FACTORY Z</u>	
		<u>Last</u>	<u>Week</u>	<u>Last</u>	<u>Week</u>	<u>Last</u>	<u>Week</u>
		<u>Qtr.</u>	<u>Endg.</u>	<u>Qtr.</u>	<u>Endg.</u>	<u>Qtr.</u>	<u>Endg.</u>
Unexcused Late Absence	E.M.	nil	nil	.01	.04	-	-
	E.F.	..	nil	nil	nil	-	-
	N.E.M.	.03	.05	.03	.12	nil	nil
	N.E.F.	-	-	.01	.45	-	-
	ALL	.02	.03	.03	.14	nil	nil
Excused Late Absence	E.M. etc.						
Sick Absence	E.M. etc.						
Other Excused Absence	E.M. etc.						
Other Unexcused Absence	E.M. etc.						
Absence with Prior Permis- sion	E.M. etc.						
All Absence	E.M. etc.						