

CHANGE TO THE QUALITY OF LIFE OF BLACK MINeworkERS IN SOUTH AFRICA

by

Peter de Vries

Submitted in partial fulfilment of the requirements
for the degree of Doctor of Philosophy in the
Faculty of Social Science, University of Natal

1983

So foul a sky clears

not without a storm

King John, Act IV, Scene II

William Shakespear

PREFACE

This thesis is the original work of Peter de Vries. It is a study of a specific institution within a society; however, the study has implications beyond that institution which could have wider relevance to the society as a whole.

In many respects a gold mine could be viewed as South African society in microcosm, for it has many of the same structures and features of its macro-society. In most societies it would be inappropriate to regard an industrial setting as the microcosm of the larger society as, in most societies, people are hardly aware of authority or of the legal system. The principal source of contact with such systems for most people would be of an irritant kind, associated with parking and traffic misdemeanours. This does not apply to the black person in South Africa, where freedom of movement, place of residence, position at work, use of public facilities, etc. are severely circumscribed. In fact, it is not unusual for black persons to be accosted by the police from time to time to determine whether they are permitted to be where they are, or to be removed from premises by white officials. Moreover, most white persons abrogate unto themselves the right to give instructions to any black person, a situation not unfamiliar on a mine.

In the South African macro-society and the mine micro-society the top echelon of jobs, the best living conditions, salaries, hours of work, conditions of employment, opportunities for advancement and other privileges are reserved for whites, and blacks have no authority to effect changes to these conditions.

It is postulated that change in South Africa for blacks is likely to take a form similar to change on a mine. Consequently, by studying change to the quality of life of black workers on a mine, useful insights may be gained into the reactions of black persons to change in the macro-society.

TABLE OF CONTENTS

	<u>PAGES</u>
PREFACE	(i)
TABLE OF CONTENTS	(ii)
LIST OF TABLES	(ix)
LIST OF FIGURES	(xviii)
APPENDIX I	(xx)
APPENDIX II	(xxii)
APPENDIX III	(xxix)
APPENDIX IV	(Lxxxviii)
APPENDIX V	(xc)
APPENDIX VI	(xciv)
APPENDIX VII	(xcvii)
REFERENCES	(cLxxxix)
 CHAPTER 1 INTRODUCTION	 1
(a) Researching social change in the mining industry	1
(b) Previous research	2
(c) The structure of the thesis	2
 CHAPTER 2 THEORETICAL BACKGROUND TO RESEARCHING SOCIAL CHANGE IN THE MINE SOCIAL SYSTEM	 4
2.1 Introduction	4
2.2 The Social System of a Mine Viewed in terms of the Social Contract	5
(a) Background	5
(b) The roots of the social contract	6
(c) The principles of the social contract in industry	7
(d) The obligations arising from the social contract	8
(e) Reciprocity	9
(f) Reneging on the social contract	11
(g) The mines expectations of black mineworkers	11
(h) The black mineworkers' expectations of the mines	12
(i) Perceptions of legitimacy	13
2.3 Social Order and Social Control	13
(a) Social order	13
(b) Social control	15

(c) Reasons for social control	16
2.4 Theories of Social Change	17
2.5 The Concept of Social Conflict	18
(a) Defining the concept	18
(b) The role of the researcher in conflict research	20
(c) Underlying causes of social conflict	21
(d) Conflict on mines	21
2.6 Workers' Reactions to Changes in the Mine Social System	23
(a) Background theory	23
(b) Reasons for workers' reactions to change	24
(c) A practical example	25
2.7 Summary	27
CHAPTER 3 THE NATURE OF THE MINE SOCIAL SYSTEM	28
3.1 Mines as Total Institutions	28
(a) Conformity to the model	28
(b) The reason for administering mines as total institutions	31
(c) Hierarchy and power	34
(d) The total institution put to black mineworkers' advantage	36
3.2 The Nature of the Power of the Mine Administration	36
(a) Definitions	36
(b) The power scale	37
3.3 The Compliance of Black Mineworkers	38
(a) The scale of compliance	38
(b) Norms of compliance	40
3.4 Value Capabilities of Black Mineworkers	42
(a) Moral imperatives	42
(b) Platform to propogate their cause	45
(c) Solidarity	45
(d) Black workers' reaction to controls	46
3.5 The Model Depicting the Major Forces in the Mine System	46
CHAPTER 4 QUALITY OF LIFE THEORY	49
4.1 Introduction	49
4.2 Description of the Concept	49
(a) Facets to be investigated	49
(b) Evaluation of quality of life conditions	51

(c) Type of deprivations experienced	52
(d) Expectations and aspirations	52
(e) Measurement of quality of life	52
4.3 Social Indicators	53
(a) A theoretical perspective	53
(b) Evaluation of social indicators	60
(c) Selection of social indicators	62
(d) The aggregation of indicator data	62
(e) Criteria for social indicators	63
CHAPTER 5 AIMS AND PROPOSITIONS	64
5.1 Aims	64
5.2 Propositions	65
CHAPTER 6 METHODOLOGIES EMPLOYED IN THE INVESTIGATIONS	71
(a) Structured questionnaire with quantification scale	72
(b) Comparative studies	75
(c) Monitoring of opinion data verified with measurements of the physical environment	81
(d) Monitoring of behaviour using formal mine records	84
(e) Open-ended interviews	86
(f) Paired-comparison technique using fixed constructs	89
(g) Logging daily activities and open-ended interviews	90
(h) Triangulation study.	93
CHAPTER 7 FINDINGS : BLACK MINeworkERS' ASPIRATIONS	96
7.1 Introduction	96
(a) Background	96
(b) The concept of aspirations	96
7.2 Findings from the Empirical Study	97
(a) Black mineworkers' mining aspirations	97
(b) Long-term perspectives	106
7.3 Data from other Research Studies	114
(a) Withdrawal from work	114
(b) Financial and retirement plans of black mineworkers	114
(c) Future scenario for employment and rural development	117
7.4 Summary	119
CHAPTER 8 FINDINGS : MEASUREMENT OF SOCIAL INDICATORS OF QUALITY OF LIFE	121
8.1 Introduction	121

8.2 Macro-level Indicators	122
(a) Wages	122
(b) Grievance resolution	123
(c) Work procedures	123
(d) Summary	123
8.3 Micro-level Indicators	124
(a) Introduction	124
(b) In the hostel prior to work	124
(c) En route to work and at work	132
(d) In the hostel after work	135
(e) Summary	145
8.4 Definitional Indicators	147
8.5 Inferential Indicators	147
(a) Introduction	147
(b) Disciplinary action	149
(c) Grievances raised and requests made	151
(d) Exits from the mine	152
(e) Evaluation of inferential indicators	153
(f) Physical environmental factors	155
(g) Inferences	155
8.6 Qualitative Indicators : Impressionistic Views	155
8.7 Qualitative Indicators : Survey using Unstructured Questions	159
(a) Introduction	159
(b) The findings	160
(c) Summary	168
8.8 Qualitative Indicators : Survey using Reference Groups	169
(a) Introduction	169
(b) Analysis	170
(c) Mineworkers' reference groups	171
(d) Administration of the questions	172
(e) Comparison between mines	172
(f) Comparison with their past situation	173
(g) Comparison with secondary industry	174
(h) Comparison between own mine, other mines and secondary industry	174
(i) Perceptions of progress	176
(j) Summary	176

8.9	Qualitative Indicators : Ranking of Satisfaction and Dissatisfactions	177
(a)	Introduction	177
(b)	Factors detracting from their quality of life	179
(c)	Factors contributing to their quality of life	181
(d)	Summary	183
8.10	Quantitative Indicators	183
(a)	Introduction	183
(b)	General trends	184
(c)	Before work	185
(d)	Travel to and from work	186
(e)	At work	193
(f)	Total time	196
(g)	After-work activities	196
(h)	Ripple effects	203
8.11	Overall Summary of Social Indicator Studies	203
CHAPTER 9	FINDINGS : CASE STUDIES ON THE REASONS FOR WORKER MILITANCY	208
9.1	Introduction	208
9.2	Militancy over the Introduction of a Death-benefit Scheme for Black Mineworkers	209
(a)	Background	209
(b)	White decision-makers' perspectives	209
(c)	The communication of the death-benefit scheme	210
(d)	Black mineworkers' perspectives	210
9.3	Militancy over the Limited Action by Mine Management on Valid Grievances	213
(a)	Viewpoints of white mining officials	213
(b)	Findings of the survey	214
(c)	The quality of work life : remuneration, bonuses and overtime	216
(d)	Management style	222
(e)	The quality of hostel life	227
(f)	Communication of grievances and worker representation	234
(g)	The events leading up to the disturbance.	241
CHAPTER 10	FINDINGS : PROSPECTS FOR STRUCTURAL CHANGE	244
10.1	Introduction	244
10.2	Potential to Bring about Change	245

(a) Workers' views of future change	245
(b) Workers' views of grievance procedures	250
(c) Workers' views of the black personnel assistant	252
(d) Summary	257
10.3 Outlook for Structural Change	257
(a) Forces pressuring mine management to change	258
(b) Resources available to black mineworkers to pressure for change	270
(c) The accumulation of forces and resources for change, coupled with the accommodation of reactionary elements	274
(d) Summary	276
CHAPTER 11 DISCUSSION OF FINDINGS	277
(a) The quality of life of the black mineworker	277
(b) Have the propositions been supported?	280
CHAPTER 12 CONCLUSIONS	285

APPENDIX I	RESULTS OF STATISTICAL TESTS CARRIED OUT ON VARIABLES	(xx)
APPENDIX II	DEFINITIONS OF TERMS USED IN THE CODING SHEET	(xxii)
APPENDIX III	A DAY IN THE LIFE OF FIFTY-TWO BLACK UNDERGROUND MINeworkERS	(xxix)
APPENDIX IV	WHAT THE MINES ARE DOING FOR THE BLACK WORKER	(Lxxxviii)
APPENDIX V	ISSUES RAISED BY ISIBONDAS AT COMMITTEE MEETINGS	(xc)
APPENDIX VI	COPY OF MEMORANDUM FROM HOSTEL MANAGER TO PERSONNEL MANAGER, DECEMBER 1978	(xciv)
APPENDIX VII	TABLES AND FIGURES FROM THE TEXT OF THE THESIS	(xcvii)

LIST OF TABLES

	<u>Page</u>
TABLE 1: Criteria used in the categorization of two sample mines as popular and unpopular ...	78
TABLE 2: Distribution of the sample by mine and by the supervisory or non-supervisory job category	79
TABLE 3: Demographic characteristics of the sample ...	80
TABLE 4: Whether black mineworkers would choose mining a) as a career if they had a free choice - number of times option was selected	98
TABLE 4: Whether black mineworkers would choose mining b) as a career if they had a free choice - reasons given for selecting mining	98
TABLE 4: Whether black mineworkers would choose mining c) as a career if they had a free choice - reasons given for not selecting mining	98
TABLE 5: What work other than mining would black mineworkers choose if they had a free choice.	99
TABLE 6: Whom black mineworkers regarded on their a) mines as better off and the reasons therefor Responses of Supervisors	101
TABLE 6: Whom black mineworkers regarded on their b) mines as better off and the reasons therefor Responses of Non-Supervisors	102
TABLE 7: Supervisors' job aspirations for their sons a) Analysed by Supervisors' Fathers' jobs	103
TABLE 7: Supervisors' job aspirations for their sons b) Analysed by Non-Supervisors' fathers' jobs ..	104
TABLE 7: Supervisors' job aspirations for their sons c) Some reasons given for job aspirations for their sons	105
TABLE 8: What jobs and life did black mineworkers a) aspire to in five years? Number of times each option was selected	107
TABLE 8: What jobs and life did black mineworkers b) aspire to in five years? Some comments recorded on options	108
TABLE 9: Black mineworkers' goals for work outside a) mining. Number of times each goal was mentioned	110
TABLE 9: Black mineworkers' goals for work outside b) mining. Some reasons recorded for goals	111
TABLE 9: Black mineworkers' goals for work outside c) mining. Job distribution of black mineworkers in two mine overseers' sections	112

TABLE 10: Black mineworkers' goals for when they stopped a) working. Number of times goals were mentioned..	113
TABLE 10: Black mineworkers' goals for when they stopped b) working. Some comments made on the goals	113
TABLE 11: Age distribution of black mineworkers in two mine overseers' sections	115
TABLE 12: Retirement plans of 92 Xhosa-speaking mineworkers on one gold mine	118
TABLE 13: Opinions of black mineworkers about hostel rooms	127
TABLE 14: Flow of black mineworkers through change houses	128
TABLE 15: Flow of black mineworkers through dining halls at breakfast	131
TABLE 16: Percentage of black mineworkers taking breakfast in different hostel blocks	131
TABLE 17: Time taken from getting up in the morning to clocking in	133
TABLE 18: Usage of change house at time of large influx of black mineworkers from underground	136
TABLE 19: Opinions of black mineworkers about change houses	136
TABLE 20: Time taken for black mineworkers to be served in dining halls at peak periods	139
TABLE 21: Flow of black mineworkers through dining halls.	139
TABLE 22: Attendance at main meal	139
TABLE 23: Food preparation for main meal	140
TABLE 24: Opinions of black mineworkers about food	144
TABLE 25: Food complaints raised in hostel meetings on four mines over three-month period	144
TABLE 26: Opinions of black mineworkers of self-cleaning of rooms	146

TABLES 27 to 50 are to be found in Appendix VII

TABLE 27: Region of origin of black mineworkers	
TABLE 28: Mother tongue of black mineworkers	
TABLE 29: Black mineworkers' families: Size of the homestead	
TABLE 30: Black mineworkers families: Number of wage earners	

TABLE 31:	Black mineworkers' families: Number of dependents
TABLE 32:	Black mineworkers' non-mining experience
TABLE 33:	Reasons for disciplinary action against black mineworkers
TABLE 34:	Reasons for disciplinary action against black mineworkers analysed by shaft
TABLE 35:	Disciplinary action against black mineworkers analysed by mine overseers' section
TABLE 36:	Absences without permission by black mineworkers a) on Section Z analysed by age
TABLE 36:	Absences without permission by black mineworkers b) on Section Z analysed by level of schooling
TABLE 36:	Absences without permission analysed by c) region of origin
TABLE 36:	Absences without permission analysed by the d) return category
TABLE 36:	Absences without permission by black e) mineworkers on Section Z analysed by job category
TABLE 37:	Disciplinary action against black mineworkers analysed by job category
TABLE 38:	Nature of the disciplinary action taken against team leaders
TABLE 39:	Nature of the grievances and requests raised by team leaders
TABLE 40:	Types of grievances and requests raised by black mineworkers
TABLE 41:	Types of grievances and requests raised by black mineworkers analysed by shaft
TABLE 42:	Grievances lodged and requests made by black mineworkers analysed by mine overseers' section
TABLE 43:	Requests for transfer made by black a) mineworkers in Section R, analysed by age
TABLE 43:	Requests for transfer made by black b) mineworkers in Section R, analysed by level of schooling
TABLE 43:	Requests for transfer made by black mine- c) workers in Section R, analysed by region of origin

TABLE 43:	Requests for transfer made by black mine- d) workers in Section R, analysed by the return category
TABLE 43:	Requests for transfer made by black mine- e) workers in Section R, analysed by job category
TABLE 44:	Reasons for black mineworkers leaving the mine
TABLE 45:	Reasons for black workers leaving the mine analysed by shaft
TABLE 46:	Normal exits of black mineworkers analysed by mine overseers' section
TABLE 47:	Abnormal exits of black mineworkers analysed by mine overseers' section
TABLE 48:	Black mineworkers' exits from two mine over- seers' sections and the reduction works, analysed by the lengths of their workstays
TABLE 49:	Dismissals of black mineworkers analysed by mine overseers' sections
TABLE 50:	Some environmental factors which could have contributed to worker behaviour analysed by mine overseers' sections

TABLES 51 to 60 are in the text

TABLE 51:	Black mineworkers' likes of mine work	160
TABLE 52:	Black mineworkers' dislikes of work supervision	161
TABLE 53:	Black mineworkers' dislikes of mine practices	162
TABLE 54:	Black mineworkers' dislikes of wages	163
TABLE 55:	Black mineworkers' dislikes of the job	164
TABLE 56:	Black mineworkers' dislikes of assaults	165
TABLE 57:	Black Mineworkers' likes of mine life	165
TABLE 58:	Black mineworkers' dislikes of food	166
TABLE 59:	Black mineworkers' dislikes of accommodation .	167
TABLE 60:	Black mineworkers' dislikes of hostel supervision	168

TABLES 61 to 73 are to be found in Appendix VII

TABLE 61: Groups in mining with whom black mineworkers compared themselves

TABLE 62: Some responses given by black mineworkers when comparing themselves with groups in mining

TABLE 63: Groups outside of mining with whom black mineworkers compared themselves

TABLE 64: Some responses given by black mineworkers when comparing themselves with groups outside mining

TABLE 65: Favourable aspects of other mines mentioned
1a) Number of times each aspect was mentioned, total for both mines

TABLE 65: Favourable aspects of other mines mentioned,
1b) how the popular mine compared with other mines

TABLE 65: Favourable aspects of other mines mentioned
1c) how the unpopular mine compared with other mines

TABLE 65: Favourable aspects of other mines mentioned,
2 some of the actual responses recorded

TABLE 66: Unfavourable aspects of other mines mentioned,
1a) Number of times each aspect was mentioned, total for both mines

TABLE 66: Unfavourable aspects of other mines mentioned,
1b) How the popular mine compared with other mines.

TABLE 66: Unfavourable aspects of other mines mentioned,
1c) How the unpopular mine compared with other mines

TABLE 66: Unfavourable aspects of other mines mentioned,
2 some of the actual responses recorded

TABLE 67: Favourable and unfavourable aspects of other mines - a comparison between the popular and the unpopular mine

TABLE 68: How current conditions compared with conditions eighteen months before - the popular mine
1

TABLE 68: How current conditions compared with conditions eighteen months before - the unpopular mine
2

TABLE 68: How current conditions compared with conditions
 3a) eighteen months before - some of the actual
 responses recorded - aspects considered to
 have improved in the last eighteen months

TABLE 68: Aspects considered to have worsened in the
 3b) last eighteen months

TABLE 69: Favourable aspects of secondary industry -
 1a) number of times each aspect was mentioned,
 total for both mines

TABLE 69: Favourable aspects of secondary industry -
 1b) how the popular mine compared with secondary
 industry

TABLE 69: Favourable aspects of secondary industry -
 1c) How the unpopular mine compared with secondary
 industry

TABLE 69: Favourable aspects of secondary industry -
 2 some of the actual responses recorded

TABLE 70: Unfavourable aspects in secondary industry -
 1a) number of times each aspect was mentioned,
 total for both mines

TABLE 70: Unfavourable aspects of secondary industry,
 1b) how the popular mine compared with secondary
 industry

TABLE 70: How the unpopular mine compared with
 1c) secondary industry

TABLE 70: Unfavourable aspects of secondary industry,
 2 some of the actual responses recorded

TABLE 71: Favourable and unfavourable aspects of
 secondary industry - a comparison between the
 views of workers on the popular and the
 unpopular mine

TABLE 72: A comparison between workers' views of other
 mines and of secondary industry

TABLE 73: Opinions on whether there had been improvement
 or deterioration in the conditions on the
 mines

TABLES 74 and 75 are in the text

TABLE 74: The ten aspects of work and life disliked
 most by black mineworkers on one gold mine
 (Jan-Dec 1979) 178

TABLE 75: The ten aspects of work and life liked most
 by black mineworkers on one gold mine (Jan-
 Dec 1979) 178

TABLES 76a to 77e are to be found in Appendix VII

- TABLE 76: Black mineworkers ranking of factors
a) detracting most from the quality of their lives on mines, analysed by level of schooling
- TABLE 76: Black mineworkers' ranking of factors detracting most from the quality of their lives on mines, analysed by length of mining experience
- TABLE 76: Black mineworkers' ranking of factors detracting most from the quality of their lives on mines, analysed by marital status
- TABLE 76: Black mineworkers' ranking of factors detracting most from the quality of their lives on mines, analysed by their job categories
- TABLE 76: Black mineworkers' ranking of factors detracting most from the quality of their lives on mines, analysed by region of origin
- TABLE 77: Black mineworkers' ranking of factors contributing to the quality of their lives on mines, analysed by level of schooling
- TABLE 77: Black mineworkers' ranking of factors contributing to the quality of their lives on mines, analysed by length of mining experience
- TABLE 77: Black mineworkers' ranking of factors contributing to the quality of their lives on mines, analysed by marital status
- TABLE 77: Black mineworkers' ranking of factors contributing to the quality of their lives on mines, analysed by their job categories
- TABLE 77: Black mineworkers' ranking of factors contributing to the quality of their lives on mines, analysed by region of origin

TABLES 78 to 96 are in the text

TABLE 78: Black mineworkers' comments about breakfast ..	187
TABLE 79: Black mineworkers' comments about their travelling	188
TABLE 80: Time spent by black mineworkers in the morning waiting for hoists	190
TABLE 81: Factors perceived by black mineworkers as causing excessively long travelling times to and from the workplace to the hostel	191
TABLE 82: Black mineworkers' reactions to the time they spent waiting for hoists	192

TABLE 83: Time spent by black mineworkers waiting for hoists in the afternoon	194
TABLE 84: Black mineworkers' comments on the effects of mine procedures and practices on their working life	195
TABLE 85: Times of arrival in the hostel	197
TABLE 86: Black mineworkers' dissatisfaction with regard to their meals	198
TABLE 87: A comparison of the times on four mines when free time was available to black mineworkers..	201
TABLE 88: Black mineworkers' hours of sleep	204
TABLE 89: Number of recorded assaults underground by the status of assailant	226
TABLE 90: Black mineworkers' opinions on whom can bring about change on their mines, number of workers responding	246
TABLE 90: Black mineworkers' opinions on whom can bring about change on their mines, some of the actual comments recorded	247
TABLE 91: Why the current dispensation for dealing with black mineworkers' grievances does not bring about change on the mines, number of workers responding	248
TABLE 91: Why the current dispensation for dealing with black mineworkers' grievances does not bring about change on the mines, some of the comments recorded	249
TABLE 92: Reasons why certain workers did not raise their grievances with mine personnel	251
TABLE 93: Reasons given why mine personnel could not resolve grievances	251
TABLE 94: Black mineworkers' views on the action taken on their grievances	252
TABLE 95: The fear of internal strife and dissention and a) the ensuing instability	260
TABLE 95: The fear of economic stagnation arising from b) the lack of confidence overseas in the stability of South African society	262
TABLE 95: Shortage of skilled manpower	264
TABLE 95: Rise in working costs on mines and the drop in d) productivity levels	265

TABLE 95: Fear that black workers will reject the free-
e) enterprise system 267

TABLE 95: A greater awareness of the social position
f) and of the potential of black workers 268

TABLE 96: The confidence that the counter-reaction to
change can be contained 275

LIST OF FIGURES

	<u>Page</u>
FIGURE 1: The use of the Markov Chain to illustrate how black mineworkers react to social change	26
FIGURE 2: Model of forces in the social system of a mine	48
FIGURE 3: Model depicting aspects of quality of life ..	50
FIGURE 4: Percentage of black mineworkers asleep at various times during the night	125
FIGURE 5: Temperature and consumption of soft porridge (Lambalaza) at breakfast	130
FIGURE 6: Bank-to-Bank Time (Travelling time to and from clocking-in-station)	134
FIGURE 7: Water temperature in change houses at various times in the afternoon	137
FIGURE 8: Temperature of food items at various times of the afternoon	142
FIGURE 9: Quantities of food remaining after consumption at various times of the afternoon	143

FIGURES 10 to 25 are to be found in Appendix VII

FIGURE 10: Black mineworkers' place of origin
FIGURE 11: Black mineworkers' marital status
FIGURE 12: Black mineworkers' achieved levels of education
FIGURE 13: Age of black mineworkers
FIGURE 14: Black mineworkers' number of livestock units.
FIGURE 15: Black mineworkers' access to land and cultivation of crops
FIGURE 16: Length of time harvest would feed black mineworkers' household
FIGURE 17: Black mineworkers' monthly earnings
FIGURE 18: Black mineworkers' length of last workstay
FIGURE 19: Black mineworkers' length of last homestay
FIGURE 20: Black mineworkers' total length of experience in current job
FIGURE 21: Black mineworkers' total length of experience on their current mine

FIGURE 22: Black mineworkers' total length of mining industry experience

FIGURE 23: Disciplinary cases : absences without permission lodged against black mineworkers - monitored monthly for mine overseers' section Z

FIGURE 24: Transfers requested by black mineworkers - monitored monthly for mine overseers' section R

FIGURE 25: Dismissals of black mineworkers - monitored monthly for mine overseers' section D

FIGURES 26 to 32 are in the text

FIGURE 26: Black mineworkers' views on the level of importance of the 10 most disliked issues of work and life in mining 180

FIGURE 27: Black mineworkers' views on the level of importance of the 10 most liked issues of work and life in mining 182

FIGURE 28: Relationship between arrival times of black mineworkers in the hostel and the availability of facilities 202

FIGURE 29: Growth in the black labour force on the mine. 225

FIGURE 30: Working times and travelling times of twelve underground black mineworkers 228

FIGURE 31: Overbunking in the hostel : January 1978 to April 1979 231

FIGURE 32: Water temperatures in two change houses at various times of the day 233

FIGURE 33 is to be found in Appendix VII

FIGURE 33: The distribution of responses given by black mineworkers to statements about the black personnel assistant .

CHAPTER 1. INTRODUCTION

(a) Researching social change in the mining industry

The mining industry has over the years been a major employer of black labour, drawing about 500 000 men annually from various parts of southern Africa. To administer a labour force of this size the industry has developed institutional procedures with a high degree of formality, consistency and pervasiveness which are akin to those of a mini-government.

Even a cursory examination of the recruitment operations will reveal that TEBA (The Employment Bureau of Africa, Limited) operates very much like a state immigration department where new arrivals are screened by health authorities, finger-printed by the security department, placed on mines and repatriated if they are found not to conform to the mine disciplinary code. The analogy can be taken further, for the Chamber of Mines, which is the decision-making body for the mining groups on labour matters, acts very much like the executive arm of a government where the different groups have representation and decide by consensus on matters of labour policy, as well as benefits and wages. Other examples of the society-wide operation of the industry will be provided in the findings.

An industry which operates like a mini-state requires a level of analysis which utilizes, by analogy, the social processes of society to explain how the system functions, is maintained and how it can be changed. There are many similarities between the macro-society and its micro-component which will be shown below, yet there are also dissimilarities which need to be borne in mind when applying the processes of society to the micro-system; one of the major dissimilarities is that the macro-society operates as an open system and yet a mine is administered as a closed system. Nevertheless, the comparison is relevant as similar processes are used in both systems to achieve similar ends with unenfranchised groups. The following chapter will describe some of the social processes of society and their applicability to the understanding of social change in mining.

(b) Previous Research

A number of studies (Lawrence, Glass, White, Mauer, Blignaut, Wolfaardt, Parsons, MacArthur, Lourens, etc.) have been carried out on South African mines during the past few years. These investigations have provided useful insights into, and explanations of isolated facets of black workers' lives and work in the mining industry - motivation, safety, selection, testing, training, recruitment, leadership and other topics relevant to personnel research. However, their approach has been limited in scope, and the findings provide, at most, limited explanations for a very complex problem - that of social change - in an industry which dominates the total South African economy.

(c) The structure of the thesis

The thesis has been divided into the following twelve sections:

- Introduction
- The theoretical framework underpinning the empirical investigations into social change. The concepts that will be dealt with are the social contract in mining, social order, social control, social change and social conflict.
- The nature of the mine social system that is used for controlling black mineworkers, how it is maintained and the prospects for changing it. A theoretical model is proposed which will serve as the central theme to which the various sections to be investigated will relate.
- The concept of quality of life, the aspects that will be investigated, the theory of relative deprivation, the concept of social indicators and their use in measuring quality of life, and norms for evaluation.
- The aims and propositions.
- The methodologies employed in the empirical investigation.

- The documentation of the findings from the following empirical investigations.
 - . Black mineworkers' aspirations
 - . Black mineworkers' quality of life
 - . Black mineworkers' militant reactions to a diminution in their quality of life
 - . The prospects for change to black mineworkers' quality of life
- Discussion of the findings
- Conclusions

CHAPTER 2. THEORETICAL BACKGROUND TO RESEARCHING SOCIAL CHANGE IN THE MINE SOCIAL SYSTEM

2.1 Introduction

To understand how and why the quality of life of black workers in the South African mining industry is changing and is likely to change more radically in future, it is important to study the underlying theories that are inherent in the process of social change. Consequently in this chapter the concept of the social contract between the black mineworker and the mining authorities will be explained as this gives a background to the social processes which have brought about the status quo on mines, how it is maintained, the obligations arising from their association and the consequences of either party reneging on the social contract. When such clashes of role interest occur, they have to be resolved to re-instate social order within the mine society. The method of resolution depends upon how the mine authorities view black mineworkers and their relationship with workers within the mine society. The applicability of the integration and the coercion theories to this relationship are discussed. The predominant paradigm of the mining authorities for social control over its black workers is coercion. This leads to a discussion of their reasons for imposing social control, and how it is maintained and transmitted.

The attempts by black mineworkers to change the social order on mines are explained in terms of the concept of social conflict: however, conflict is viewed differently by different scholars. Talcott Parsons, adopting a management viewpoint, sees it as "a disease in" our modern industrial society whereas others have viewed it as an inevitable process of society where there is competition for scarce resources. This is discussed in relation to the main protagonists in the mining industry. The theory of relative deprivation is described shortly to explain why some black mineworkers have come into conflict with mine authorities over their quality of life. This reaction has led to some peripheral changes which in turn have raised workers' expectations. The reaction of workers arising from heightened expectations of further changes is illustrated with the Markov chain.

These precepts - the social contract, social order, social control, social change and social conflict - and their usefulness in explaining how social change occurs in the mine social system are discussed below. It has been necessary to use some empirical data from this thesis and from other research at this early stage to show the appropriateness of this theoretical framework to the understanding of the mine social processes. These practical examples have been kept to a bare minimum and are used merely as illustrations, consequently they are not documented in full at this stage.

2.2 The Social System of a Mine Viewed in terms of the Social Contract

(a) Background

It is sometimes difficult to understand why people think and behave as they do, yet such understanding is necessary to anticipate their reactions to future events and situations. One way of gaining and understanding of their thoughts and actions is by viewing these in terms of a theoretical framework which explains how other people or groups think and act in analogous situations. The framework that will be adopted here is that of the social contract. Although Schein (1972) refers to the interaction of an organization and a man as the psychological contract, the term social contract will be used throughout the following pages as it is the social group, black mineworkers, that is being studied rather than the individual.

The social contract has been chosen in preference to the more recent exchange theory which has been developed in sociology. Although there are many similarities between the two theories, the social contract has been considered more useful for studying the attitudes and behaviours of black workers in mining. There are two reasons for this choice. One, that exchange theory uses the person as the unit of analysis rather than the social group, and two, that to a great extent, it ignores the constraints placed upon persons by outside forces (Skidmore, 1975). In contrast, the social group, and the influences of the macro-society on the social group, are important components of the organization-worker interaction in mining, both of which can be accommodated within the theoretical framework of the social contract.

The following exposition of the social contract as it applies to black workers in mining will deal with its history, the principles on which it is grounded and how the major protagonists, the mine authorities and the workers relate to it.

(b) The roots of the social contract

The concept of the social contract was current in the days of Plato during the fourth century B.C.. It was a way of expressing two fundamental ideas or values to which the human mind will always cling - the idea that human will, not force, is the basis of authority or the idea that right and not might is the basis of every system of control. It was held that "if in any wise the king transgresses the contract by virtue of which he is chosen, he absolves the people of the obligation of submission" (Barker, 1971).

An illustration of the social contract can be found in the feudalism of the Middle Ages. Each man could say to his lord "I will be to you faithful and true ... on condition that you keep me as I am willing to deserve, and all that fulfil that our agreement was, when I to you submitted and chose your will" (Stubbs quoted by Barker, 1971). From the above it can be gleaned that the social contract is a type of tacit or implied agreement between two parties, each of whom has rights of his own, and each of whom surrenders some of these rights for a consideration received. The essence of the social contract is that it is not perceived from a narrow factual (or objective) base or even in terms of a legalistic dictum as is found in a contract by law, but rather in terms of the perceptions of the parties concerned. This is amply illustrated by the feudal example. Although at face value and from our twentieth century perspective, the social contract between a serf and a lord may be perceived as exploitative (or unjust) because of the great power of the lord and the relative absence of meaningful power of the serf, it was not necessarily viewed as exploitative by the serf. The social contract is a shared perspective on the legitimacy of a given agreement which may be regarded as exploitative or unjust if one or other of the parties is perceived as not adhering to it.

The philosopher David Hume, who viewed the social contract in political terms, saw it as "a contract of government by which subjects have tacitly reserved the power of resisting the sovereign, whenever they find themselves aggrieved by that authority for which they have for certain purposes voluntarily entrusted him" (quoted by Barker, 1971). However, the concern of the current research is not with political institutions but with industry, and in particular with the mining industry.

(c) The principles of the social contract in industry

The social contract is not merely an un verbalized set of mutual understandings between the employees and the organization. It is rather a continual probing on the part of both employees and the organization "to find out what they can get away with" (Moore, 1978), to test and discover the limits of obedience and disobedience. It concerns the reciprocal arrangements between the organization and its employees to ensure social order. Simmel (1950) comments that social equilibrium and cohesion could not exist without "the reciprocity of service and return service" and that "all contracts among men rest on the schema of giving and returning the equivalence." However, the social contract does not usually pertain to tangible objects such as the exchange of goods, and services, money, food and accommodation, for these normally fall within the ambit of the formal legal contract, but it can pertain to them as well. This would happen when the goods and services provided do not meet with the expectations of either party. The social contract commonly involves the exchange of intangible commodities such as esteem, respect, liking, assistance and approval, or the avoidance of something such as pain, expense or embarrassment. Yet, neither group knows exactly the limits of the social contract until it finds out by experience, although both parties have reasonably accurate anticipations beforehand.

Because the limits of the social contract are undefined, it is constantly being re-negotiated. Negotiation in terms of the social contract is a tacit acceptance of new arrangements - for workers by not rebelling against the arrangements or resigning their jobs - for mine authorities by permitting workers' new behaviour to continue and not dismissing them. The organization knows that it cannot expect the employees to comply with the exercise of its power beyond certain limits, otherwise they will break off association; and similarly, limitations

exist among employees vis-a-vis their compliance with the authority of the organization. The extent of the power and compliance is dependent upon the degrees of compulsion and persuasion inherent in the arrangement. The greater the degree of compulsion the less there is of a genuine contract as one of the agents will not be completely free to accept the arrangement.

(d) The obligations arising from the social contract

Barrington Moore (1978) mentions obligations in three sectors: protection, the maintenance of peace and order, and security. Protection could be viewed in mining as the provision of accommodation and meals, the maintenance of standards to safeguard workers from injury and death, and the protection of their belongings. The dissatisfaction which arose among mineworkers on the introduction of compulsory contributions to a death-benefit scheme in 1981 could have been motivated by the following considerations. If it is the employer's obligation to supply protection for the worker and his family, then the mine's obliging him to contribute to that benefit, could be perceived as an abrogation of that responsibility.

The second obligation mentioned by Barrington Moore is the maintenance of peace and order. The nub of this function is to settle problems that arise among workers and between workers and the mine in a manner that all parties will regard as fair. The following examples are cited to illustrate that workers are conscious of this obligation.

- . One of the functions of the induna (supervisor) and the isibonda (room prefect) is to maintain peace in the hostel and the hostel room respectively (Moodie, 1980).
- . At times workers have complained that some of their number were dismissed by hostel managers without a fair hearing, or that they were not permitted to defend themselves in a dispute with a supervisor (reported later).
- . When asked to rate certain constructs of a social indicator on grievance handling, 40 per cent of the workers viewed the personnel assistants as a person who did not even listen to their side of the story in a dispute with a supervisor (reported later).

These behaviours would be regarded by workers as unfair as they do not comply with workers' perceptions of management's obligations.

The third obligation is for the mine management to behave in such a manner as to contribute to the workers' material security. This it does by paying wages, by providing increments to nullify the effects of inflation and by providing the workers with a secure job. However, in mining this obligation is not always met as there appears to be no safeguard for the worker against arbitrary dismissal. His job is held at the discretion of management and he has limited means to change this. Moreover, worker reactions to management's docking their wages to maintain a bus service for Lesotho workers (de Vries, 1978) and for the death-benefit scheme mentioned above, give adequate testimony to the pertinence of this obligation to them. Perhaps, more importantly in the near future is that some black workers (for example, stope team leaders) perform tasks "reserved" for whites, but do not receive congruent rewards in remuneration, certification and recognition for that part played in achieving profitability for mines. Stated more directly, mine management's contribution to workers' security is not viewed as commensurate with workers' contribution to the profitability of mines.

In return for the obligations which the mine is expected to meet, the workers are required to be obedient to rules and regulations that assist in bringing about security, peace and production. They are expected to desist from engaging in disruptive activities. And, as mining is a profit-making enterprise, they are expected to contribute towards the accumulation of wealth by working industriously. In the same way as workers react if management does not fulfil its obligations, the abrogation by workers of any of their obligations is likely to lead to dismissal from the mine. Such dismissals occur daily in mining, and workers are branded as "undesirable" and either prohibited from returning to individual mines or to the Industry depending on the severity of the non-compliance.

(e) Reciprocity

The concept of injustice or unfairness arises when one of the parties is perceived by the other to be violating the social contract. This could also be viewed as an adjunct to the principle of reciprocity. Hobhouse (quoted by Gouldner, 1960) held that "reciprocity ... is the vital principle of society and is a key intervening variable through which shared social rules are enabled to yield social stability." Gouldner illustrates the principle as follows:

A is functional for B

B reciprocated A's services, however

B's service to A is contingent upon A's performance of positive functions for B.

It may be assumed that a social group will contribute to another which provides it with benefits. However, this "Pollyana Fallacy" should be avoided as it assumes optimistically that the workers securing satisfactions from, say, the mine will invariably be grateful and will always reciprocate. On the contrary, some human beings want for themselves a situation better than that which reciprocity would produce. Others learn to put up with considerably less (Moore, 1978). In mining with its highly developed sense of authority, in the short-term, the right of the stronger mine authorities prevails and the injured party has to swallow his indignation. Moreover, one party may provide benefits for the other despite a lack of reciprocity. In open-ended interviews over a seven-year period, black workers have invariably mentioned some satisfactions with mining, but, this did not inhibit them from confronting the mine authorities when they felt unjustly treated.

The concept of unfairness could arise where one party has been supplying services and perceives that the other has not, or the other has withdrawn an extant service or has not provided an expected service.

Historically, the most important expression of reciprocity is found in the negative norms of reciprocity, that is, in sentiments of retaliation when the emphasis is placed not on a return of benefits but on the return of injuries - the 'tit-for-tat' concept (Gouldner, 1960). This is best exemplified in the targets workers choose in a riot on mines. It was found in one mine riot that the bar was burnt down, presumably because the free beer ration was stopped, a computer terminal was attacked as bonuses were not being paid and as men were being booked absent when they were actually at work. Workers also attacked change houses from where their belongings had been stolen.

(f) Reneging on the social contract

An essential aspect of the social contract is that both parties regard the aspects "negotiated" as their due rights, consequently when one of the parties reneges on the contract, the other regards such behaviour as unfair or unjustified. Mines expect workers to abide by the rules and regulations or the "culture" of mining. Consequently, a man who answers back when spoken to may be branded as a "cheeky kaffir" and is likely to be disciplined or transferred. If the worker does not moderate his behaviour, he may be labelled as an "undesirable" and asked to sever his contacts with the mine.

Similarly, workers expect certain privileges and benefits from mines, and if these are reneged upon, workers are likely to take action individually by breaking their contracts and returning home, or collectively by forcing the mine to change its behaviour. Such collective behaviour appears to be dictated by the worker's social, political and economic circumstances in the manner which has been described above. Many cannot afford to leave the mine so they band together with others to try to effect changes.

The structure of mines and the macro-society which provides for significant power differences between black workers and mine authorities leads to egotistical motivations of the group holding the power seeking to obtain benefits without returning them. The situation becomes ripe for the breakdown of reciprocity and for the development of system-disrupting exploitations (Gouldner, 1960). However, the power of the mine authorities is counter-balanced by the collective power of workers to cause disruption which in turn tempers the exploitative aspects when they reach unacceptable levels.

(g) The mines' expectations of black mineworkers

Expectations not only cover how much work is to be performed for how much pay, but also involves the whole pattern of rights, privileges and obligations between the employees and the organization. They are not written into any formal agreement yet they operate powerfully as determinants of behaviour.

From the organization's point of view, the contract is implemented through the concept of authority. By joining the organization, the employees commit themselves to accept the authority of the organization (Schein, 1972).

There is also a tendency for people in authority to believe that past compliance by employees should continue - that nothing has changed. Although black personnel assistants operate on the mines, they are, to a great extent, ignored by white line or used as clerks or lackeys, which militates against the role they are expected to play.

(h) The black mineworkers' expectations of the mines

The social contract is implemented from the workers' point of view through their perception that they can influence the organization sufficiently to ensure that they will not be taken advantage of. They will influence the organization if, from their point of view, the social contract is not being met. The mode of influence for black mineworkers follows a particular pattern because of their particular position vis-a-vis the mine and the macro-society. The influence of team leaders is so strong that they need not actually withdraw their labour en masse, but merely need to threaten such a withdrawal. On two occasions team leaders refused to go underground to work because of dissatisfactions with their wages. The situation was viewed as so grave by the mine authorities that within hours the wage increases were promised to the men so that they would continue operations.

The influence of non-supervisory black workers is considerably less. When these workers have tried to bring about changes in living and working conditions through the normal grievance channels of the mine, their complaints have not always been attended to. This has occurred firstly, if the changes required would have meant a change in mine policies, particularly as mine policies have been viewed by mine authorities as non-negotiable. One such "intractable" policy was the withdrawal of a free beer ration because mine management viewed the provision of such rations as paternalistic (reported later). Secondly, complaints may not have been attended to because authorities did not agree that they were a problem. For example, when men complained about late hoisting, their complaint was dismissed as being of little consequence as it influenced only 10 per cent of the work force (reported later).

(i) Perceptions of legitimacy

In the above exposition of the social contract the objective factors, deprivations and conditions endured by workers in mining have been emphasized. Yet, the social contract is constructed from perceptions of legitimacy - the social contract is valid if it is seen as valid. Thus the feudal contract was acceptable for centuries, until the serf began to see the relationship as exploitative.

Barrington Moore (1978) states that "exploitation is an historical category and a recurring historical discovery. It comes into existence at the point when human beings become able and willing to ask certain questions about their own society."

"Human beings have to create their own moral standards of condemnation and their own form of collective action in order to change such situations."

However, when such collective action is involved, there is a disruption to the mine social system which causes a stoppage in production. It becomes necessary to control such situations to allow the actors in the social system to live and work together. A discussion of the theoretical background to this problem follows.

2.3 Social Order and Social Control

(a) Social order

In many ways social order is viewed as the central problem of sociology. Thomas Hobbes the seventeenth century philosopher asked the questions (paraphrased):

How, if human beings are fundamentally egotistical and self-seeking, is society possible?

How is the individual to be restrained from taking all he can for himself without consideration for his fellow man?

How are people to be obliged to live together in reasonable harmony?
(Hobbes, 1962).

Hobbes's answer to these questions centred around the theme of politics and power. He proposed an authority figure, Leviathan, whose function would be to determine how people were to behave; thus a pattern of norms was established. This is known as the rationalist school which holds that coherence and order in society are founded on force and constraint, on the domination of some and the subjection of others (Watkins, 1975).

In contrast is the utopian theory propounded, *inter alia*, by Talcott Parsons (1968) who considered order to exist only in the habits of the individual and in the customs of the social system. Social order arises from sets of values which are general dispositions to behave, inculcated through a complex socialization process. Social order is thus not a problem as it is explained in terms of the norms of society which are, in turn, the expression of the society's fundamental values. In this exposition, deviance needs to be controlled so that social norms and institutions can be maintained.

These two philosophical concepts have their counterparts in two theories of society, the integration and the coercion theory. In the integration theory social structure is viewed as a functional integrated system, held in equilibrium by certain patterned and recurrent processes. Whereas the coercion theory views social structure as a form of organization held together by constraint and reaching continually beyond itself in the sense of producing within itself the forces that maintain it in an unending process of change (Dahrendorf, 1959). This first approach to social analysis, the integration theory, does not permit the comprehension of all the problems of social reality. The strains against the system, such as revolts are not explained as well as by the coercion theory.

Certain basic assumptions underlie the coercion theory. Firstly, society is not primarily a smoothly functioning order in the form of a social system. Its dominant characteristic is the continuous change of not only its elements, but also its structural form, and secondly, this change bears witness to the presence of conflicts as an essential feature of society itself (Marx, 1947). Thirdly, every element in a society renders a contribution to its disintegration and change. Lastly, coercion plays an important role in society as some of its members are coerced by others.

Although the coercion theory will be used to explain attitudes and behaviour within a society, such analysis does not exclude the integration theory. For conflict to exist it has to occur within some coherent system, consequently, the notion of conflict presupposes the existence of different elements in society that are linked to each other in some way.

The coercive model of society presupposes clashes of role interest as a result of relations of authority. Antagonistic groups are thus formed within organizations (Dahrendorf, 1959). In every association, the interests of the group in authority are the values which constitute the ideology of the legitimacy of its rule, whereas the interests of the subjected group constitute a threat to this ideology and the social relations found within that ideology.

(b) Social control

Barrington Moore Jnr. (1973) gives an indication of how a value system is maintained and transmitted:

"Human beings are punched, bullied, sent to jail, thrown into concentration camps, cajoled, bribed, made into heroes, encouraged to read newspapers, stood up against a wall and shot, and sometimes even taught sociology."

Some of these forms of control are not legitimate and may even seem to be extreme positions more in the nature of paradigm deviance; however, the data presented on a day in the life of a back mineworker (Appendix III), testifies that such behaviour occurs frequently enough on a mine to reveal a pattern of social control mechanisms. Yet, these methods of social control are not the only ones used; mines also use positive reinforcement through praise, prizes and awards to endorse value systems.

Social control has reference to established forms of social agencies: the clerks, the hostel manager, line and staff functions, police, dogs, guns and committee systems. All of these are clearly directed against deviance and disorder and re-affirm the formal apparatus of making rules, preventing crime, deterrence and reform (Watkins, 1975). In this respect Cohen (1966) speaks of social control as the prevention and unmaking of deviance.

(c) Reasons for social control

Social control is usually valued by those in power, authorities and majorities. Their ideal and indeed their business is equilibrium, the painless resolution of conflicts, unquestioning adherence to existing opinions and laws and the propagation of a single view of reality. Groups in society such as the family, the church, the school and industry act to maintain social control as their dominant force. In these groups, the requirement of continuity, the need to transmit practices and values, the need to maintain hierarchical relationships, entails a constant supervision of industrial behaviour and no less constant vigilance to prevent or eliminate deviance whenever it occurs (Moscovici, 1976).

Everyone benefits to some extent from the maintenance of social control but the differences in the extent of the benefit are important. Social change, on the other hand, will clearly be desired by deviant, marginal or deprived groups. For them, the struggle against the "establishment" and discrimination of all kinds outweighs the need for stability and respect for rules.

The Hawthorne experiments revealed that work-people are not essentially isolated atoms, that they do 'combine', that they do develop their own conceptions of what is a fair day's work, of what their proper relationship should be one to another and to supervisors and officials. One of the Hawthorne groups studied had its own norms and values, its own conceptions of legitimacy; it had discovered solidarity relationships within the factory (Lupton, 1963). In fact, the norms, values, attitudes and allegiances of informal groups in industry might be very strongly related to external association and concerns.

As illustrated in the social contract, work-people will desire social change when they perceive their expectations of how they should be treated have not been met; consequently, the premise on which social change rests will be examined to determine how such situations could be dealt with.

2.4 Theories of Social Change

Four broad categories of theories of social change have been identified. These theories are : evolutionary theories, equilibrium theories, conflict theories and rise-and-fall theories. It has been assumed that societies 'as social systems' generally move in the direction of increasing complexity in their attempts to maximize their adaptability to their environments; and thus conditions within a social system can be explained at various stages of its development towards greater complexity by different change theories.

The four theories will be explained shortly below.

- Evolutionary theories are characterized primarily by assumptions of smooth, cumulative change. This change is usually linear and always in the direction of increasing complexity and adaptability. It is usually a smooth cumulative change.
- Equilibrium theories are characterized by the concept of homeostasis, and focus on conditions tending towards stability as a consequence thereof. As explained above, emphasis is placed on adjustment among the segments of society.
- Conflict theories are characterized by the assumption that change is ubiquitous to all social organisms, and focus on conditions that tend towards instability and change as a consequence thereof.
- Rise-and-fall theories are characterized by the assumption that societies, cultures and civilizations regress as well as grow - that all societies do not move in the same direction.

In the ensuing pages conflict theories will be the focus of attention, to explain interaction with an authority structure and the concomitant social changes arising therefrom.

2.5 The Concept of Social Conflict

(a) Defining the concept

Coser (1956) viewed social conflict as a struggle over values and claims to scarce status, power and resources in which the aims of the opponents are to neutralize, injure or eliminate the rivals. This definition, as it stands, is more applicable to conflicts between states where "injure" or "eliminate" are actions which arise, but these words are hardly applicable to industry. Yet, the concept of competition for scarce resources does apply. In the world of industry and business the major protagonists, the employer and employee, do compete for a greater share of the profits. Consequently, this definition has useful aspects for determining the *raison d'être* of social conflicts. The concept of social conflict is further amplified by Weber (1950) who claims that conflict cannot be excluded from the concept of peace, for peace is "nothing more than a change in the form of conflict or in the antagonists or in the objects of the conflict." In industry the last two conditions do not normally apply, but the first does. Where there is peace, the conflict is more covert in the form of dissatisfactions, grievances and animosity.

The above two scholars are making a case for the ubiquity of social conflict in society which is further endorsed by Simmel (1950) who viewed conflict as a form of socialization: "No group can be entirely harmonious, for it would then be devoid of process and structure. Groups require disharmony as well as harmony and conflicts within them are by no means altogether disruptive factors." He considered a certain degree of conflict as an essential element in group formation and in the persistence of group life.

For the purposes of this study, a modified formulation of the concept of social conflict as conceived by Dahrendorf (1959) will be used, within the framework of the social contract. He viewed relations of social conflict as all relations between sets of individuals that involve an incompatible difference of objective. In its most general form this is a desire on the part of both contestants to attain what is available only to one of them. This general concept of conflict does not as such imply any judgement of the nature of the relations arising from differences of objectives. The implications for industry are that requests, dissatisfactions, grievances, "go-slow" tactics, sabotage,

confrontations, disturbances, strikes and riots are essentially motivated by the same type of social relationship and are therefore essentially manifestations of the same overall process of resistance which may be influenced by a range of forces, for example, political, ideological and financial.

Parsons (1967) drew attention to different types of social conflicts. If his classification were used, riots and disturbances would be classified as overt forms of conflict and requests, dissatisfactions and grievances as potential or latent conflicts. Such conflicts tend to remain "potential" or "latent" for certain periods and do not manifest themselves in open struggles for scarce resources because it is in the interests of one or both parties not to pursue their claims. The chief factors contributing to the forbearance of the major protagonists in South African industry in the face of perceived non-fulfilment of contractual obligations are, for the migrant workers : the impoverishment of their home areas, the shortage of jobs and the lack of marketability of their skills, and for industry management : the fear of violent and spontaneous worker action.

Mack and Snyder (1957) state that conflict arises from 'position scarcity' and 'resource scarcity' and that therefore conflict relations always involve attempts to gain control of scarce positions and resources. There are at least two ways of regarding such conflicts: conflicts over the terms on which exchange is to take place, as illustrated by disputes over wages and conditions of service, and conflicts over the system itself upon which the allocation of functions and the distribution of benefits are based (Marshall, 1956). No differentiation will be made between these two perspectives, for they will be regarded as gradations of conflict between the same protagonists.

Yet another way of looking at the different manifestations of conflict is that unequal distribution of privileges and rights may lead to sentiments of hostility, but they do not necessarily lead to conflict. Conflict requires a transaction between two or more persons, whereas hostile attitudes are predispositions to engage in conflict behaviour. Feelings of hostility can develop into conflict behaviour when one of the actors perceives the unequal distribution of rights as illegitimate or an unequal exchange from which one partner receives benefits and hence power.

A further precondition for hostility to change to conflict is the need for a feeling among one group that it is deprived vis-a-vis the other group. The other condition espoused by Barrington Moore (1978) is that the deprived group must perceive a break in the sense of inevitability in its impoverished existence. It must perceive the need to break out of its cocoon of deprivation and to change its status.

(b) The role of the researcher in conflict research

Not all sociologists have tended to view conflict as a natural phenomenon. In fact, Parsons (1949) viewed it as "an aberration" in our modern industrial society. It will be noted that conflict here is equated with deviant behaviour, as a type of illness in need of treatment. Parsons viewed conflict as dysfunctional and disruptive. One of the main reasons for his adopting this viewpoint was his interest in the conservation of existing structures. Many sociologists who work for, or in collaboration with management, tend to adopt this viewpoint. Such research is inevitably conducted to help management to solve its problems; and management is primarily concerned with the preservation or strengthening of existing institutional arrangements through which, and in which, it exercises power and influence. It has a vested interest in maintaining conditions which lead to its privileged status and unequal exchange with other groups. Whatever conflicts occur within these structures will appear to management to be dysfunctional. Management will more likely concern itself with tensions or with stresses and strains than with those aspects of conflict behaviour that might indicate pressures for changing basic institutional arrangements.

The danger for researchers is conformity, of simply taking over the views of decision-makers under whose auspices they pursue their studies. They may merely accept the decision-makers' choice of problems and share their perspectives regarding conflict phenomena rather than challenging them. If the researcher is convinced of the ubiquity of social conflict, he should not accept the Parsonian/management viewpoint, for conflict may portend changes on the horizon which will need to be dealt with in time, possibly with more "traumatic" consequences.

(c) Underlying causes of social conflict

Insofar as conflict is the resolution of tension between antagonists, it has stabilizing functions and becomes an integrating component of the relationship. However, not all conflicts are positively functional to the relationship. By allowing conflicts, open societies, institute safeguards against the type of conflict which will endanger basic consensus; thus they endeavour to minimize the danger that divergences may destroy basic values. Conflict prevents the ossification of the social system by exerting pressure for innovation and creativity. Coser (1956) claims that "the conflict between vested interests and new strata and groups demanding their share of power, wealth and status have been productive of vitality."

However, this applies to an open society. The situation is somewhat different on a mine.

Management, because it is primarily concerned with maintaining social order, views conflict as destructive of social stability and therefore 'bad' because stability is 'good' (Dubin, 1957). It also views conflict as evidence of the breakdown of social control and symptomatic of an underlying instability in the social order. However, the empirical existence of conflict is not challenged by the stability thesis; conflict is a reality of society.

(d) Conflict on mines

Both capitalists and black workers are united by certain latent interests which, being contradictory, place them on opposite sides of the conflict relationship. The conflict could in broad terms be described as a clash between the capitalists' profit orientation and the black workers' orientation to an improvement of their material status. Moreover, the intensity of the conflict has been heightened by the authority, and status of the capitalists, and the material hardship and subjection of the black workers, as well as the political conflict emanating within the wider society, for example, the overtly racial basis of work allocation.

Industrial conflict has been held in a stage of latency for black workers because of prohibiting legislation, lack of movement up the job hierarchy and absolute deprivation. The attempts at organization have been precipitated when conditions of employment have become untenable, and

demands for improvements ignored. Lack of institutional channels or ideological provisions for management to accept and realise the interests of the black workers has meant that they have had to have recourse to sudden violent reactions to rules and regulations. These have been the only available avenues open to workers to manifest their conflicts with management and bring them into the open arena. However, the migratory nature of their sojourn on the mines and their lack of status and power have dissipated such initiatives which have lost their momentum and the black labourers' position vis-a-vis management has reverted to the status quo ante, especially because of the oversupply of labour and unemployment which have made labourers more vulnerable to management's power.

Druker (1950) speaks of the wage rate being the traditional symbol for the real conflict rather than the issue itself. But Moore (1947) is of the opinion that such analysis is too superficial: "It is clear that a conflict is always concerned with a distribution of power. An exertion of power is necessary in order to retain a share in the determination of future relations, as well as for the acquisition or retention of other benefits which may be the immediate 'reason' for the conflict. This is to say that the immediate and necessary goal of any conflict is complete or partial victory."

There is a basic assumption current in society that if the quality of black workers' lives is improved there will be no need for them to come into conflict with management - they will have no reason to revolt against their employers. However, the theory of group conflict does not postulate any connection between conflict and the economic conditions (Dahrendorf, 1959). Conflicts are ultimately generated by relations of authority.

As there is a wide gap in the authority relationships between management and workers on mines one can expect much conflict to change this relationship. However, many industrialists have drawn attention to the conditions of 'peace' on mines and have attributed this condition to the success of the programmes for consultation with workers and the improvements effected to workers' quality of life. The above exposition has drawn attention to latent conflicts and hostilities which do not manifest themselves in overt action. This implies that there is a spurious 'peace' on mines which could burst into open conflict at any time when conditions therefor are ripe.

It has been shown that conflict is ubiquitous and that frustrated ambitions will inevitably lead to violent conflict on mines unless management makes positive attempts to dissipate such action, and also that conflicts are likely to become increasingly concerned with relations of authority rather than with specific problems associated with quality of life, working conditions, etc.. Alternatively, conflict will gravitate as those grievances which owe their existence, more than others, to the unequal authority relations escalate. An example is the formulation of new conditions of service, which when implemented in isolation by management, come also to symbolize the power gap, as well as to constitute a basic problem.

Management tends to adopt the view that it can control conflict either by force or by introducing changes to dissipate dissent or by both strategies. The validity of the change premise is examined below.

2.6 Workers' Reactions to Changes in the Mine Social System

(a) Background theory

It appears to be quite generally held that the means for counteracting disruption is change, and that, by introducing changes early and speedily enough, disruption can be averted (Arnheim, 1979). There could be some debate on whether the changes introduced on mines have been sufficient to stave off disruption, whether they have been implemented timeously or whether they were the correct changes. However, the real question is: how valid is the assumption upon which the policy of change rests? In other words, what is the justification for believing that change averts disruption?

Because a mine is administered as a total institution, black workers can be equated to the citizenry of a national state. An interesting parallel from which one could draw comparisons is France in 1789. What was the position regarding change there? De Tocqueville (Translation 1955), writes that "those parts of France in which the improvement in the standard of living was most pronounced were chief centres of the revolutionary movement." In contrast were the areas which were most backward and least free which were most opposed to the Revolution. Moreover, we glean the following from De Tocqueville: "Patiently endured so long as it seemed beyond redress, a grievance comes to appear

intolerable once the possibility of removing it crosses men's minds. For the mere fact that certain abuses have been remedied draws attention to the others and they now appear more galling; people may suffer less, but their sensibility is exacerbated."

This explanation of the outbreak of the Revolution accords with the sociological theory of relative deprivation. This theory recognises that social dissatisfaction is the product of a sense of deprivation, but that this sense of deprivation is not something objective, but is in fact subjective, or relative. Relative deprivation is essentially the distance between the is and the ought in the life of an individual group or class; the distance between his actual situation on the one hand and his expectations and aspirations on the other (Runciman, 1966). In his study of the working class in Britain, Runciman found that "the magnitude and frequency of relative deprivation of status (among manual workers) had on the whole risen as inequality of status (had) declined."

The reason for this paradoxical reaction of people to change can be put down to the gap between their actual situation on the one hand and their hopes and expectations on the other. This has been most aptly stated by Gurr (1974) : "A promise of improvement for deprived men intensifies their hopes that all deprivations they have suffered in the past will be alleviated. If these hopes are soured, the consequences are virulent." They have conquered the sense of inevitability in their lives which is essential to the development of effective moral outrage (Moore, 1978).

(b) Reasons for workers' reactions to change

Workers' reactions to change in consecutive periods can be explained by taking recourse to the Markov chain. This process works as follows : a person who has experienced a social advance (+) may in the first period of social change move along three paths. During the next period he may experience further social advance (+), a social regression (-), or a stable social situation (=). As was the case for a social advance, the three moves are possible for a person in a stable social situation (=), and three moves for a person experiencing a social regression (-) (Katona, 1969).

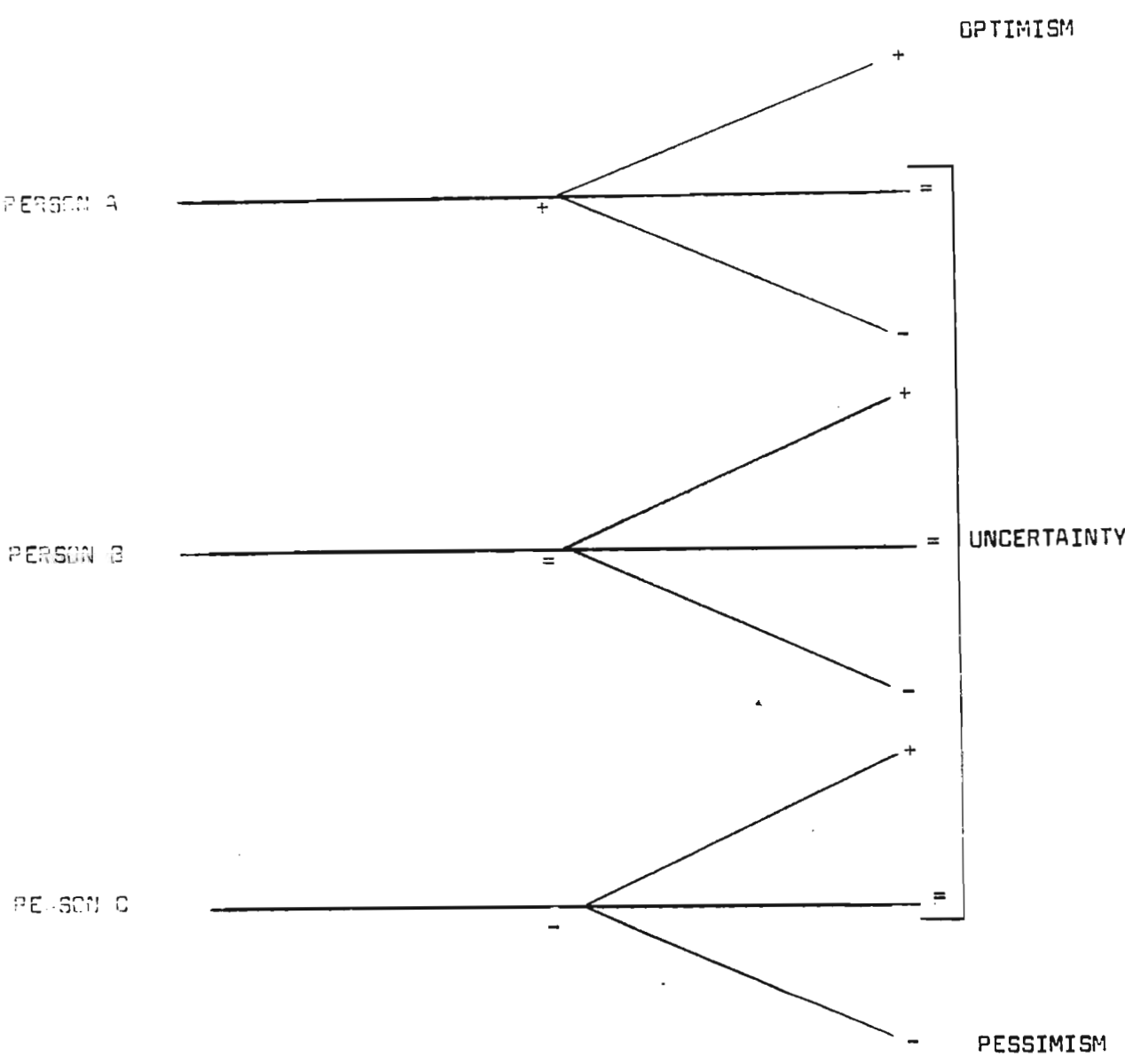
The model need not apply only to consecutive social changes, but also to successions of social changes and expectations of social change. Thus a time persepective may be considered which extends both backwards and forwards. The development in the first period stands for the experience of a social change, whereas the development in the second period is represented by expectations of social change that prevailed at the end of the first period. Thus, nine moves can be distinguished; for instance, a social advance associated with the expectation of a futher social advance ($++$), a social advance associated associated with the expectation of a stable social situation ($+=$), a social advance associated with the expectation of a social regression ($+ -$), etc. (Figure 1).

Past social changes influence expectations of further changes. It has been found that people who experienced social advances in the past were optimistic of future advances (Katona, 1968). Past progress fosters optimistic social expectations.

Of the greatest interest are the behavioural effects of " $++$ trends", that is, social advances associated with optimistic expectations of social advances. It is a central proposition of this theory of social behaviour that success arouses new wants and a stong need for an improvement in the standard of living.

(c) A practical example

The application of the above theories to, say, the unrest on mines arising from the introduction of the death-benefit scheme is an interesting exercise. The reports in the press and by TEBA's (The Employment Bureau of Africa, Limited) Liaison Division mention that on some of the mines the manner in which the message of the change was conveyed to the workers led them to believe that the scheme was to their disadvantage. Workers on one mine thought that the deductions from their wages announced were to be on a daily basis instead of monthly. On another two mines misunderstandings had arisen when the mine authorities circulated a confusing circular.



Types of Social Expectations Change	Symbol
Social Advance	+
Stable Social Situation	=
Social Regression	-

FIGURE 1: The use of the Markov Chain to illustrate how black mineworkers react to social change

Consequently, it appears that the scheme was viewed as a retrogressive step (-) by some workers, instead of what the industry intended it to be, an improvement in workers' conditions of service (+). Relating these events to the model, one can postulate that after advances (+) such as better hostels, better pay and better food, many workers were anticipating further advances (+). These expectations were not realized for their negative perception of the death benefit (-) increased the feeling of deprivation relative to past advances. Because of past advances, the workers evidently perceived and defined their situation as a consequence of human injustice: a situation that they need not, cannot, and ought not to endure (Moore, 1978).

2.7 Summary

In this chapter the theory of the social contract was used as the framework from which relationships between mine administrations and black workers in the mine social system were examined to throw light on how these two groups with widely divergent value systems and expectations managed to live and work together. The problem of maintaining social order in a situation where there was competition for scarce resources was examined and it was found that this was explained most appropriately in terms of coercion theory. Mine administrations used social control to maintain the status quo and to stave off workers' attempts to wrest greater privileges from them. It tends to view conflicts as disruptive of social stability and thus institutes controls to prevent conflict. Such controls tend to change the nature of the conflict from its more overt forms such as strikes and riots to covert activities such as work-to-rule, sabotage and the like. Attempts to dissipate conflict by instituting changes leave the disadvantaged party dissatisfied if his expectations have been heightened by the prospect of greater changes, thus the pressure for change is likely to be intensified and the social system remains in disequilibrium.

CHAPTER 3. THE NATURE OF THE MINE SOCIAL SYSTEM

This chapter will deal with

- . the nature of the mine social system that has been devised for controlling black mineworkers. Recourse will be taken to Goffman's theory of "the total institution" to explain how this social system operates.
- . the nature of the power of the mine administration to maintain or change the system in terms of Weber's definition of power. A distinction will be drawn between power, authority and coercion using Etzioni's "power scale".
- . the nature of the compliance of the black mineworkers.

The different levels black mineworker compliance will be discussed in terms of Barrington Moore's "scale of compliance" and Schein's "norms of compliance".

- . the value capabilities of black mineworkers to change the social system to their advantage. The following theories will be used to explain this process: Grundy's "Moral imperatives", Epstein's "unitary base", Kerr and Seigel's "isolation hypothesis" and Gurr's "value capabilities".

Thereafter a theoretical model is proposed to explain why social change is sought, how it is counteracted, and what processes are facilitating its realization in the mining industry. This model also serves as a summary of this chapter.

3.1 Mines as Total Institutions

(a) Conformity to the model

As far as black mineworkers are concerned mines could be regarded as typical examples of total institutions. A total institution has been defined by Goffman (1961) as "a place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life". Total institutions have existed in

societies throughout the years for controlling the dangerous members of society, caring for the disabled, or protecting the country against enemies, etc.. Goffman (1961) pointed out four features of total institutions:

First, all aspects of life are conducted in the same place and under the same single authority. Second, each phase of the member's daily activity will be carried out in the immediate company of a large batch of others, all of whom are treated alike and required to do the same thing together. Thirdly, all phases of the day's activities are tightly scheduled Finally, the contents of the various enforced activities are brought together as parts of a single overall rational plan purportedly designed to fulfill the official aims of the institution.

The life of black mineworkers closely follows the ideal type sketched by Goffman. Workers are housed together under one roof and are continually under the overall authority of the mine administration. They are all woken up in the morning at the same time, usually at 03h00 or 04h00 irrespective of the time they are required to be at work. Workers commented as follows on en masse waking (Appendix III):

I usually get up at 03h00 when the first bell rings. It is the mine regulation that we get up at 03h00. It is still too early to wake up at this time as we only go to work much later.

I always wake up at about 04h00. I am woken up by the bell every day. Everybody is expected to wake up when the bell strikes irrespective of which station has to go down (underground) first.

... at times we have a policeman going from complex to complex waking us up with a loud-speaker.

They are required to have breakfast at the allotted times. They then make their way to the workplace where they are under the strict supervision of the white miner. For example :

Arriving late at work, we are turned back by the miners. They do not understand when we tell them we were delayed in the queues

Every day I have to go and wait for my boss at the whites' change house. I usually wait a long time for him before he is through with changing. When I have met him, I take his bag and go down (underground). (A Pinch Bar Worker).

It would appear that white supervisors have opportunities to exercise their control and discipline arbitrarily without the workers being able to counteract this. There is also the tendency for every white to have jurisdiction over every black. Workers have said:

... white miners are also a thorn in our flesh as they push us around and even go to the extent of beating us.

He is very impatient and temperamental : one mistake and one gets a beating.

... every now and again he manhandles us.

They finish work at more or less the same time. They return to the surface. They are required to shower before they eat. The meals are provided in communal dining halls. Hereafter, workers are free to pursue their own interests; however, while they are on mine property, they are under the overall control of the mine authorities. Mines even abrogate unto themselves control over workers outside mine property. The following extract from a mine handbook illustrates this :

Investigations of outside assaults are more difficult to finalize due to the unwillingness of witnesses to come forward, and management should take the attitude that, whilst in our employ, an assault (sic) taking place anywhere will be investigated and dealt with in the same manner (as those on the mine).

Control is enforced by hostel policemen wearing para-military uniforms. In fact, the military nature of the institution is reinforced by certain practices : men are not summoned but "paraded", hostels are barrack-like structures surrounded by a high wire-mesh fence (to keep out "undesirable" people). Moreover, there are strict sanctions against women entering the hostel and alcohol or drugs being brought in, and there are periodic searches of hostel rooms for weapons (Pearson 1974). In the evening the lights in rooms are put out at the same time by hostel officials. Workers sleep together in groups of eight to 40 in a room - they are assigned rooms according to tribal affiliation or the section in which they work.

Kerr and Siegel (1954) outline the inherent consequences of workers being in total institutions. They say:

... all the members ... have the same grievances: industrial hazards or severe depression, unemployment or bad living conditions (which seem additionally evil because they are supplied by the employer), or low wages and intermittent work. And here is a case where the totality of common grievances, after they have been verbally shared may be greater than the sum of the individual parts. They do not only have the same grievances, but they have them at the same time, at the same place, and against the same people.

The authoritarianism of the system on South African mines has discouraged workers from raising individual grievances, for fear of victimization or because they believe that nothing will be done about them (de Vries and Ackermann, 1980).

(b) The reason for administering mines as total institutions

The question that needs to be asked is why have mine administrations adopted this peculiar form of administration for black workers when single male whites who live on the same mine are not subjected to the same controls and marshalling. One of the reasons is that the black workers themselves desire the control so as to feel secure; that they need the protection against influences outside the hostel. This is undoubtedly true, for a few workers who in open-ended interviews have said:

- Workers should not visit the townships at night.
- I like the rules which stop men from bringing alcohol into the hostel rooms.
- It is safe here as the hostel police protect us against trouble makers (Hall, 1982)

However, such views are not expressed by many of the workers. In fact, a number did not want the protection as it placed restrictions on their freedom, for example:

- Some liquor should be permitted in the hostels.
- We are grown men and should be given more freedom in the hostel (ibid).

The vast majority of black workers made no comment on the pervasiveness of the mine organization on their lives. One reason for this lack of comment could be that such conditions are expected; they are part of mining; if you want to work on a mine, these are the conditions and you have to comply willy-nilly.

There are some gold mines which are located close to large black suburbs, but which do not recruit their black labour from these suburbs even though it has been reported that unemployment there is rife. There are two main reasons for this. Firstly, many of the urbanized workers have in the past not been keen to take underground jobs in mining, and secondly the mines in question have not been overzealous to recruit urban blacks (personal communication with hostel managers, 1981). Urban blacks are viewed as too sophisticated, rebellious, trouble makers, malingerers, and "cheeky". Instead, the mines have recruited their underground labourers from traditional sources in rural areas where workers have the option between eking out a starvation existence or becoming migrants, which makes their compliance with mine codes high. Thus, mine administrations have a larger measure of control over black workers' lives than would normally be the case.

Problems of control could be viewed as important as many of the mine hostel staff are untrained in management skills - traditionally the hostel manager has been a man who speaks one or more African languages and has had no formal training in dealing with people.

Fear could be another criterion for imposing controls; for if workers conformed to the rigid norms and sanctions imposed, they would not give any trouble. This thesis is substantiated in part by the Zimbabwean workers who were recruited early in 1977 and 1978 to replace the withdrawing Malawians. The Zimbabweans were more sophisticated men than the others on the mine : they spoke English fluently, they had had more access to formal education and they came from urban areas. Many of these men did not stay long in mining as they withdrew from a situation which they found untenable or were ejected by the system as they were critical of supervisors, and did not fit into the accepted pattern of behaviour of a black worker.

The thesis has been put forward by Jensen (1970) that the nature of the activities in mining - labour intensive, dangerous work - requires a Theory X-type leadership style, but this is not necessarily the case. During the Yom Kippur War, the Israeli Army dispensed with all forms of insignia and dropped its rigid control and discipline as it was considered that soldiers were motivated enough by the cause they were fighting for to

operate within a Theory-Y framework (Berkeley, 1971). Black migrant workers are not likely to be motivated in the same way as Israeli soldiers, despite the near-starvation conditions in their rural homes. However, this example serves to illustrate that even the military forces, which have traditionally been organized with rigid control, discipline and hierarchy, can adopt a more relaxed form of leadership. This questions the need for black mineworkers to be administered as though they were in a total institution.

The black workers work under the following mining conditions underground: exposure to excessive heat, working in a confined space, heavy manual labour, working in dirt and dampness, working at a great depth underground, no rest from work, no food at work, constant harassment from supervisors and long hours. These conditions are not normally attractive to men. In fact, it would be difficult to envisage men identifying positively with such work and looking forward to doing it for its intrinsic value. This is the type of labour for which workers have to be coerced into compliance and conformity (Etzioni, 1964), and which they would normally not do except for the much needed wages. Men have said (see section on aspirations):

When we think of people like ourselves, we think of

- poor people desperate for money who risk their lives to work underground
- oppressed people not allowed to work where they like
- people who cannot make it in life.

None of the above reasons explains adequately why black workers in mining are treated like inmates of a total institution although they can opt out and live in impoverished circumstances in rural areas.

Does the current total institution approach need to be maintained? Some mines have "allowed" selective wakening in the mornings, dispensed with fences, dropped the para-military uniforms and policeman title and generally adopted a more open approach in the organization and administration of black mineworkers' lives with no overtly adverse behavioural reactions from workers. Yet the total institution concept has been maintained on most mines. Why? It is postulated that power is the

overriding reason, or rather - at the time of writing - the lack of power of black workers to change the structure, for even though some mine administrations may be dismantling manifestations of the total institution, currently they have the power to reinstate them, and the workers who do not wish to place their jobs in jeopardy because of the socio-econo-political situation will not oppose them. However, one of the propositions of this thesis is that the power balance is changing and that workers will be able to negotiate for the dismantling of many of the more abhorrent aspects of the total institution in the near future.

(c) Hierarchy and power

Typical of all total institutions is a conflict and division between the staff and the inhabitants. The difference is much smaller in institutions where inhabitants are not norm breakers, but are people who are usually unable to take care of themselves. Hospitals or homes for the aged, or for the mentally retarded represent this type of institution. By contrast, men on mines are young and strong and healthy and more often involved in altercations and skirmishes with hostel personnel about liquor, weapons, drunkenness and flouting of rules. Yet, why do they permit themselves to be organized like school boys in dormitories or inmates of a prison?

One major factor which may have led to this management style is that mining may simply be adopting the norms of its macro-society. The following quotations exemplify the type of attitude to black workers adopted in the South African society :

One is working under a madam and is always regarded as a boy never as a man (Zulu gardener, approximately 48 years of age).

The wages are very low and it is difficult to be pushed from pillar to post by a woman who gives you all kinds of names like Jim, John, etc. (Zulu petrol pump attendant, 29 years of age).

We were forced to do overtime after we had been promised a Saturday off and therefore I missed a football match. I was very angry.

(all quotations from Moller and Schlemmer, 1981)

The South African society has adopted this attitude towards its black citizenry mainly because it has the power to do so and they lack the power to prevent it. The whites in South Africa have control of all the sources

of power to enforce legislation - the army, the navy, the airforce and the police force - and can thus quell any insurrection and so prevent opposition to policies of the government-of-the-day which are considered to be unfair, but they are also harnessed in aid of white entrepreneurs who wish to quash strikes or riots by workers in secondary industry (Institute for Industrial Education, 1974).

Although workers, in the past, have reacted against mine management when conditions have become untenable (McNamara, 1981) by means of riots and disturbances, and forced their grievances into the open for consideration, they have experienced difficulty in maintaining the pressure on mine administrations. The general level of skill required of mining operations is low - manual labour. The vast numbers of men in rural areas who are unemployed and desperate for jobs (Spiegel, 1981), and the lack of reservoirs of capital to sustain stay-aways for any length of time, has placed the black worker in a very subservient position vis-a-vis mine administrations. Furthermore, their position has appeared unlikely to change markedly barring political upheavals. Moreover, the conditions in the mine social system and its macro-society have not been conducive to the black workers using the means available to them to tilt the power balance in their favour. Unskilled workers who have taken action (strikes or stay-aways) against mine administrations could be replaced within 48 hours by men hungry for jobs. McNamara, (1981) has documented, for instance, that mine management repatriated more workers per strike situation in the latter half of the 1970s than in the earlier years when labour was in short supply. Moreover, black workers are aware of this situation. The most frequently recorded response given in open-ended interviews with these men in the past seven years has been

It is good to have a job

For trade unions or other types of worker representation to operate effectively in workers' interests there needs to be a balance of power. Management's pervasive power in mining, bolstered by legislation of the macro-society to inhibit the movements of black workers, has been a great check on successful worker action. Mineworkers have faced a fate similar to the Johannesburg Municipal workers who went on strike in 1980 and ended up by capitulating to the South African police force and the municipality's power strategies. But, the mine society is in transition.

(d) The total institution put to black mineworkers' advantage

Workers have used the total institution to foster their own ends and reduce the power distance between them and the mine administration in riots and strikes. It is relatively easy to blockade the hostel from within. In fact, rioters have in the past taken over the interior of a hostel, thereby implicating all the hostel residents in their mobilization and paralysing the routine operations.

The total institution has the potential for providing a base for the development of worker solidarity. Epstein (1973) talks of the "unitary" base of mining operations as opposed to the "atomistic" base of urban townships in which the residents are involved in a wide variety of different jobs and in which solidarity is much more difficult to maintain. This point is substantiated by Kerr and Siegel (1954) in their isolation hypothesis where they relate mining communities to relatively high levels of industrial conflict because a mass of men in the same circumstances is herded together and therefore has great potential for collective action. Bendix (1980) takes this point further by warning that "politics cannot be kept out of labour". This statement was confirmed when workers in conflict, used Orange Free State mines as their arena with the Lesothoan Government over the issue of the deferment of their wages.

3.2 The Nature of the Power of the Mine Administration

(a) Definitions

Power has been defined as, "the chance of a man or a number of men to realize their own will in a communal action even against the resistance of others who are participating in the action" (Weber, 1963). As groups do not hold power in isolation but in relation to other groups, power can be regarded as an aspect of social relationships. The group has power to the degree to which others comply with its will. However, a distinction can be drawn between two forms of power, authority and coercion. Authority is that form of power which is accepted as legitimate, that is, right and just, and is therefore obeyed on that basis. Thus if the black mineworkers accept that mine management has the right to make certain decisions and they regard those decisions as lawful, the power of the mine management may be defined as legitimate authority. Coercion is that form of power which is not regarded as legitimate by those subjected to it. In those instances where mine management exceeds the bounds of its legitimate authority, it may be considered to be using coercion. Black mineworkers

may concede that mine management has the authority to order them to carry out certain tasks, however, where the workers refuse to act on these instructions and they are forced to comply, this second act may be regarded as coercion. A case in point would be the workers' complaint that they wanted to have a rest period during work but were not permitted this and were forced to continue working. However, the distinction between authority and coercion is not definitive as both these forms of power are based ultimately on physical force. Those who enforce their will are able to resort to physical force irrespective of whether or not their power is regarded as legitimate.

(b) The power scale

Organizations can be type-cast according to the nature of the power or authority they use and the type of involvement which the employees (or members) have (Etzioni, 1961). The power scale extends from the predominantly coercive (using authority, that is, prisons), to utilitarian (using economic rewards, that is, business and industry) to the normative (using membership and intrinsic value rewards, that is universities). Mining could probably be classified as a mixed structure falling between the utilitarian and the coercive models mainly because mine authorities have control over workers for the entire time that they are on mine property at work or in the hostels, and as such, control and authority are maintained by mine hostel police, by room searches, and by strict enforcement of rules prohibiting liquor in rooms, drug use, women companionship in rooms and gambling on mine property. These are all sanctions which would not normally come under the purview of business and industrial organizations; workers in organizations which exercise dominantly coercive power tend to be alienated and usually would rather not belong but are forced to do so (Etzioni, 1961).

The work contract between the black mineworker and the mine is thus normally a contract between unequal partners. On the one hand is the mine with its great power and authority, and on the other is the majority of workers who have little scope to bargain. This tends to bring about a paternalistic relationship with white line and staff adopting a fatherly role and treating the black workers as children. Moreover, the greater this disparity between the "contracting parties", the less flexible and re-negotiable is the contract in changing circumstances (Moore, 1978). Nevertheless, both parties do have expectations of each other which imply duties and obligations.

3.3 Compliance of Black Mineworkers

There are at least two ways of examining the compliance of black mineworkers to the power of the mine authorities - Barrington Moore's "Scale of compliance", and Schein's "Norms of compliance", both of these theories and their relevance to the black worker in mining are presented below as they throw considerable light on the process of change on the mines.

(a) The scale of compliance

Barrington Moore (1978) postulates a scale of compliance with chattel and slavery at the bottom of the scale as people in these circumstances are coerced to work. Highly skilled workers are near the top, that is, men who can negotiate on equal terms with the organization. Between these two there is a wide range on the scale into which most employees fall. The position as regards black workers in mining is particularly interesting in that it can be postulated that these men slot in at different points on the scale. The history of past conflict in mining has shown that the black team leader has considerably more power than other workers to negotiate aspects of his work contract by virtue of his skill and experience which he knows cannot be replaced easily, and by his ability to bring mining operations to a standstill by withdrawing his labour en masse (McNamara, 1981). Team leaders have this latent power despite the inhibiting factor that 78 per cent of their numbers are foreign workers or "gastarbeiters" from Lesotho, Mocambique, Botswana, Malawi, Swaziland and Zimbabwe who face the threat of repatriation if they exercise that power (Momberg, 1981). The position of a further 12,5 per cent who come from the South African Homelands is almost as vulnerable.

Among the other workers there are different grades of compulsion to continue working. Possibly lowest on the scale within the mining industry are the manual labouring "gastarbeiters" who have the choice between eking out an existence at home or taking strenuous jobs in dangerous, exhausting underground conditions. Although men from these countries enjoy full political and social rights at home, their work options are severely limited because of economic factors. There are very few job opportunities in their own countries, and furthermore, South African laws do not permit them to sell their labour readily outside mining. Compliance, to this

group is the difference between eating and starvation. Higher up on the scale are the South African black workers who have received little or no formal education to equip them to obtain jobs other than the most menial; who have many dependants at home to support; who possess no livestock; who have no access to ploughing land; speak no Western languages; and live in rural areas where alternative sources of work are virtually non-existent (these statistics are presented in the section on definitional indicators). Even if they do not enjoy political and social rights equal to the "gastarbeiders", these men are slightly better off, though only marginally, in that they can migrate to the cane fields or construction sites if they feel that they are obliged to withdraw their labour from mining. Other mineworkers would be higher up on the scale, depending upon how many of the above or other characteristics they possess which could gain them access to alternative sources of employment, or if they have access to land and livestock, which would enable them to stay at home and eke out an existence at subsistence farming. The workers' responses to any form of violation of their contract could be influenced to a great extent by the degree of compulsion imposed upon them by these economic and domestic circumstances.

The degree of desperation of some of the workers who migrate to the cities is borne out by figures quoted by Lange (Friedman, 1981). He calculated that a Ciskeian migrant who flouted influx control legislation by working in Cape Town could be imprisoned for such a transgression, yet would be prepared to suffer incarceration as he could improve his living standard by 191 per cent per annum even though he spent nine months in gaol.

The following are further reasons for black worker compliance. Except for workers such as artisan aides, the knowledge and skill acquired in mining are not readily transferable to secondary industry (Mizrahi and de Vries, 1978). Moreover, some mine authorities do not necessarily recognize the position or experience gained on other mines. Consequently, if workers are dissatisfied with mining in general or with their particular mine, they will invariably forfeit the position and experience they have built up if they change jobs. This will hold for all but the 45 per cent of the labour force who are doing manual-labouring jobs and, who consequently have nothing to lose if they do change jobs.

On South African mines, these workers had limited industrial democracy because the institutions through which it was provided were set up and organized by the mines, and because legislation had limited its further development. (The formation of the mineworkers' union could change their position somewhat.) Legislation classifies almost all the black workers as non-South African and gives them no right of appeal within the macro-political system. It imposes influx control upon them which prohibits them from entering the urban areas in search of jobs or from bringing their families with them. They are also prevented from holding certain better-paying jobs because of the closed-shop agreement negotiated between the Chamber of Mines and the union for white workers. This has prohibited them from obtaining the training which would permit them to acquire the required certification to hold certain jobs, such as the blasting certificate which miners require. Therefore black workers' ability to improve their position through occupational mobility has been restricted.

Mining in essence, involves tasks that are generally avoided by men where possible (Badenhorst, 1976; Glass, 1961; Parsons, 1977) and accepted under compulsion; however, there has always been some measure of voluntary compliance to do such jobs. The labour by black workers in mining can thus, in general, be viewed as taking place under conditions that are not characteristic of a so called free-market situation.

(b) Norms of compliance

The organization has preferred way of doing things which are learnt by all new members. Some of these procedures (the culture of the organization) are taught to new incumbents overtly, whereas others are learnt more or less in passing. Schein (1972) identifies two norms of compliance, pivotal and peripheral norms. Employees are required to adhere to the pivotal norms to retain membership of the organization.

Norms could be deemed pivotal or peripheral on the basis of the following criteria:

- The value assigned to the action. If it is "valuable" to either the organization or the workers that a certain behaviour continue, and they find it untenable to continue to co-operate without its presence, the action could be viewed as pivotal. Although the absence of toilet paper in the toilets or hot

water in the showers could be viewed as violations of an unwritten agreement between mineworker and mine management, they have not of themselves been causes of disturbances by black mineworkers. They appear to be regarded as irritants which impair workers' quality of life - in other words, peripheral norms held by workers. Similarly, from the viewpoint of mine authorities, workers who question the authority of supervisors could also be viewed as violating peripheral norms.

- Repeated violations of peripheral norms. Presumably workers would be prepared to be hoisted to the surface late now and again, but if this practice persisted daily, the peripheral norm becomes pivotal to the workers. Similarly, carelessness in workers is tolerated by the mine authorities as long as such behaviour does not persist.
- The accumulation of many different minor violations. When late hoisting leads to cold showers, meagre food rations, no opportunities to draw wages and no chance to send money home, the value of individual peripheral norms is increased so that together these activities constitute a pivotal norm.

Similarly, mine authorities consider workers who violate a number of minor rules, such as questioning authority, working slow and going absent without permission as trouble makers and may dismiss them.

Violation of these peripheral norms would not normally entail loss of membership of the organization but rather some form of disciplinary action against the errant worker or grumblings against the organization by workers. However, the persistent violation of peripheral norms will most likely lead to the severance of the work contract.

People can be type-cast according to their acceptance or rejection of norms. Those people who accept and acquiesce to both sets of norms are the conformists. In mining the normal expectation by management of the black worker is conformity - he is not expected to question the dictates of the mine. Mine policies are viewed as non-negotiable (McAllister, 1980), and workers are not supposed to try to change them. Many mining men think back to the halcyon days when the labour force comprised 80 per cent "gastarbeiters", and in particular to the Malawians and Mocambiquans who

gave them very little opposition at work, because they accepted the peripheral as well as the pivotal norms. In contrast are the non-conformist workers, the Ciskeian and other urbanized or "sophisticated" workers, who are viewed as trouble-makers and difficult to manage because they accept the pivotal but not the peripheral norms.

Acceptance of neither pivotal nor peripheral norms has been termed active rebellion which will most likely lead to voluntary or involuntary loss of membership in the organization (Schein, 1972).

3.4 Value Capabilities of Black Mineworkers

Until the very recent past the value capabilities of black workers have been very low; however changes have occurred - documented later - which could change this dispensation. Mine administrations have power, power to impose a total institution upon their black workers, and black workers in turn have lacked power so they have tended to comply with the dictates of the mine structure.

Gurr (1974) defines value capabilities as the value positions men perceive themselves capable of attaining and maintaining. He views them as a function both of what men have and of what they believe they can attain. The following exposition of black workers' value capabilities on a South African gold mine is an attempt to assess whether or not they will come into conflict with mine management if they try to improve the quality of their lives.

(a) Moral imperatives

When groups or nations wish to advance their own interests at the expense of other groups or nations, they usually seek justification for such actions on the basis of some moral injunction. It would appear that a moral basis for aggression, discriminatory action, and the like unites the group and draws supporters to its cause, and also provides justification for its actions in the eyes of other groups. History is replete with examples of imperialistic and violent action being justified by moral imperatives. Christian values have been invoked by the Crusaders and the Conquistadores, and Muslim values by the Moors to justify war, destruction and death. In recent times the state of Israel has used the atrocities of the Nazi regime and its right to exist as a nation to justify its attacks on Lebanon to rout the Palestine Liberation Army, to kill innocent Lebanese women and children and to bombard the city of Beirut.

In South Africa, as soon as the National Party attained power, the Dutch Reformed Church offered it a scriptural base to justify its apartheid policies and, its categorization of blacks as hewers of wood and drawers of water was used as a justification for discriminatory practices. Blacks were classified as "inferior" and consequently, there was a reason for treating them as inferior. This moral imperative started to wear thin when blacks invoked an equally strong moral imperative to justify their desire to overthrow the apartheid regime. Blacks called upon society to justify their aims and subsequent actions on the basis of the following rights:

- . the unalienable right of the citizen to a voice in his own concerns;
- . the right of people who are affected by decisions to be involved in making those decisions;
- . their right as fellow citizens to equal treatment and equal rights.

To counteract these moral injunctions by the black citizens the government-of-the-day found the following further moral imperative (quoted by Grundy, 1982) :

In 1976, Lieutenant-General J.P. "Jack" Dutton of the SADF (South African Defence Force), put it this way : "In the final instance this threat (from outsiders) is aimed not at our material possessions - but at our very existence ... our defence capability remains a prerequisite to our survival".

The threat mentioned above is termed the "total onslaught" and has become, writes Grundy "an article of faith as well as a statement of perceived reality". He continues : "the worst thing that can happen to a people intellectually is to begin to believe ideological constructs that are designed to mislead others".

The rôle of such moral imperatives is to discredit opposition and to persuade society that the 'unjust' policies are worthy of support. The use of the terminology "total onslaught" or "the right to survive" conjures up images of atrocities perpetrated by the Mau-Mau and the Congolese dissidents against the white settlers and asks society to condone racial discrimination, job reservation, group areas' legislation, enforced removals of people and a host of other laws and actions against black

citizens on the basis of a larger, long-term goal, the preservation of the lives of whites in South Africa. Survival is a value-laden word which conjures up images, but which probably has much less drastic connotations such as loss of a high quality of life. As over 60 per cent of black mineworkers are South African, they are subject to this moral imperative in their macro-social structure under the authority of South African whites. (The "independent states" and homelands have been classified as South African - see statistics in section on definitional indicators.)

The black mineworker has a strong moral justification to industrial action to change his status, for employees invest their lives in an enterprise in the same way as owners and shareholders invest capital (Kachelhoffer, 1978). Moreover, the right to a family life, the right to dignity, the right to equal treatment, and the like, are rights which are universally upheld, but which are denied them.

Although the status of the South African black migrant mineworkers is known to many in society, it is not being publicized. One reason that society is not being made aware of their deprivation in status and low quality of life is that they lack a voice in parliament. Moreover, homeland and urban black leaders have been propagating the cause of black residents and have largely neglected the black migrant, especially the mineworker. Their last significant spokesman was Francis Wilson, who in the 1970s exposed their living conditions in mine hostels. Subsequently there have been other isolated instances when their cause has been espoused, such as the study by Basotho theological students entitled "Another Blanket", but otherwise they have not remained in the public eye as a group having a moral entitlement to a better quality of life.

A reason why spokesmen for black migrants have not come forward to espouse their cause is that they fear "jeopardizing the limited influence (they) might have by publicity in the press". This is known as the "Rand Daily Mail kiss-of-death syndrome" (Intergroup, 1979). They fear ostracism by the business and industrial communities who also fear being muzzled or discredited by the government-of-the-day if their views are published. Moreover, spokesmen from universities and churches have been branded as liberals, communists, marxists and anti-South African. In this way the cause they espouse loses much of its force as it is classified as being in

the interests of communist imperialists and not a genuine South African endeavour to obtain a better dispensation for their fellow citizens. This type of character assassination consequently nullifies the effect of their moral stance.

(b) Platform to propagate their cause

The absence of a platform from which black mineworkers themselves could propagate their cause is a further instance of their former low value capabilities. Black mineworkers have not been in a position to make use of conventional forms of worker organisation, such as trade unions, in disputes with mine management. Not only have workers lacked formal structures of industrial organization, but they have been subjected to a variety of controls governing attendance at work and social activities in hostels. These controls have stemmed mainly from the fact that workers have remained under the authority and influence of the mine after completing their work shifts underground.

The establishment of the National Union of Mineworkers has provided a platform from which the black workers can propagate their cause. In 1983, it was party to wage negotiations with the Chamber of Mines which could be a fore-runner to bargaining on other conditions of employment.

(c) Solidarity

(The statistics to substantiate the following statements are to be found in the section of definitional indicators.)

One crucial obstacle which has had divisive effects on black mineworkers' value potential is their oscillation between the mine and the homeland reserves and neighbouring countries. This process has resulted in a high turnover of labour which has undermined worker contact and co-operation, consequently workers have had difficulty in developing relationships with one another as their fellow workers have kept on changing. In addition, there has also been much lateral movement among work gangs as workers have been transferred frequently; this has hampered the formation of a common identity. Moreover, the workers have been relatively young men with little industry experience. Another aspect of the migrant workers' lack of cohesion is that they come from various regions each with its own language and cultural differences, and because

of their relatively short sojourn on the mines, the use of Fanakalo in the workplace, the extensive home-boy links, they have not readily developed a common culture and language. This cleavage among workers has been further compounded by those mines that have separated workers into ethnic groups in the hostel. The divisive nature of the black labour force on the mines is borne out by their inter-ethnic conflicts. McNamara (1981) analysed the conflicts on mines in the period 1979-1980 and found that 88 out of 149, or 60 per cent, of the clashes were among different factions of workers.

Yet despite such factors, which should have led to a divided black labour force, the mine system where workers "all have the same grievance ... at the same time, at the same place, and against the same people" (Kerr and Siegel, 1954) has tended to unite workers.

(d) Black workers' reaction to controls

Previous experience of dealing with disturbances and other worker action has developed the mine and hostel police force into a highly efficient anti-riot unit. They have available teargas cannisters, parachute flares, grenades, respirators and dogs to quell any uprising. Moreover, the mine managements often call in the South African police when workers go on strike or demonstrate. McAllister (1980) quotes from a court case held after such a riot where the police officer under interrogation stated that he had been "instructed to shoot the leaders". Mine administrations also control the possibilities of worker militancy by periodic room searches in the hostel where all lethal weapons are confiscated, thus leaving the worker unarmed.

Yet, despite these controls, workers have time and again come into conflict with mine management to have their wrongs redressed - firearms, teargas, dogs and the like are a deterrent against mineworker militancy but they do not prevent such militancy from taking place when workers want wrongs redressed.

3.5 The Model Depicting the Major Forces in the Mine System

In the above description of the conceptual framework of the thesis, the nature of the mine system that has evolved for controlling black mineworkers, the nature of the power of mine administrations, the acquiescence of the workers and their current value capabilities were examined. In the conceptual framework, the scene has been set for the

development of a model to explain why social change is sought by both major protagonists in the mine system, as well as the development of a central theme to which the various sections of the thesis relate. This model, which is depicted diagrammatically overleaf, shows how access to power leads to a position of privilege and a high quality of life which in turn activates the power-holder to impose social control over the powerless group so that it can maintain the status quo. Nevertheless, the power-holders are obliged to make certain concessions to the powerless group in response to their agitation for structural changes. However, the thesis will not examine the process as regards the powerholders except insofar as it impinges directly upon the theme of the study - change to the quality of life of black mineworkers.

The model also shows that the powerless group suffers deprivation which leads to a low quality of life. Workers who find this situation untenable come into conflict with the power-holders in an attempt to achieve structural changes which will give them access to some of the power and privilege enjoyed by the power-holders. However, the response to their agitation is a displacement in the form of procedural or cosmetic changes. That is the extant position on mines which will be examined in some detail below; however the model also makes provision for examining the prospects for structural change in the future - a chapter will be devoted to this later.

MINE SOCIAL SYSTEM

WHITE MINE MANAGEMENT

BLACK MINeworkERS

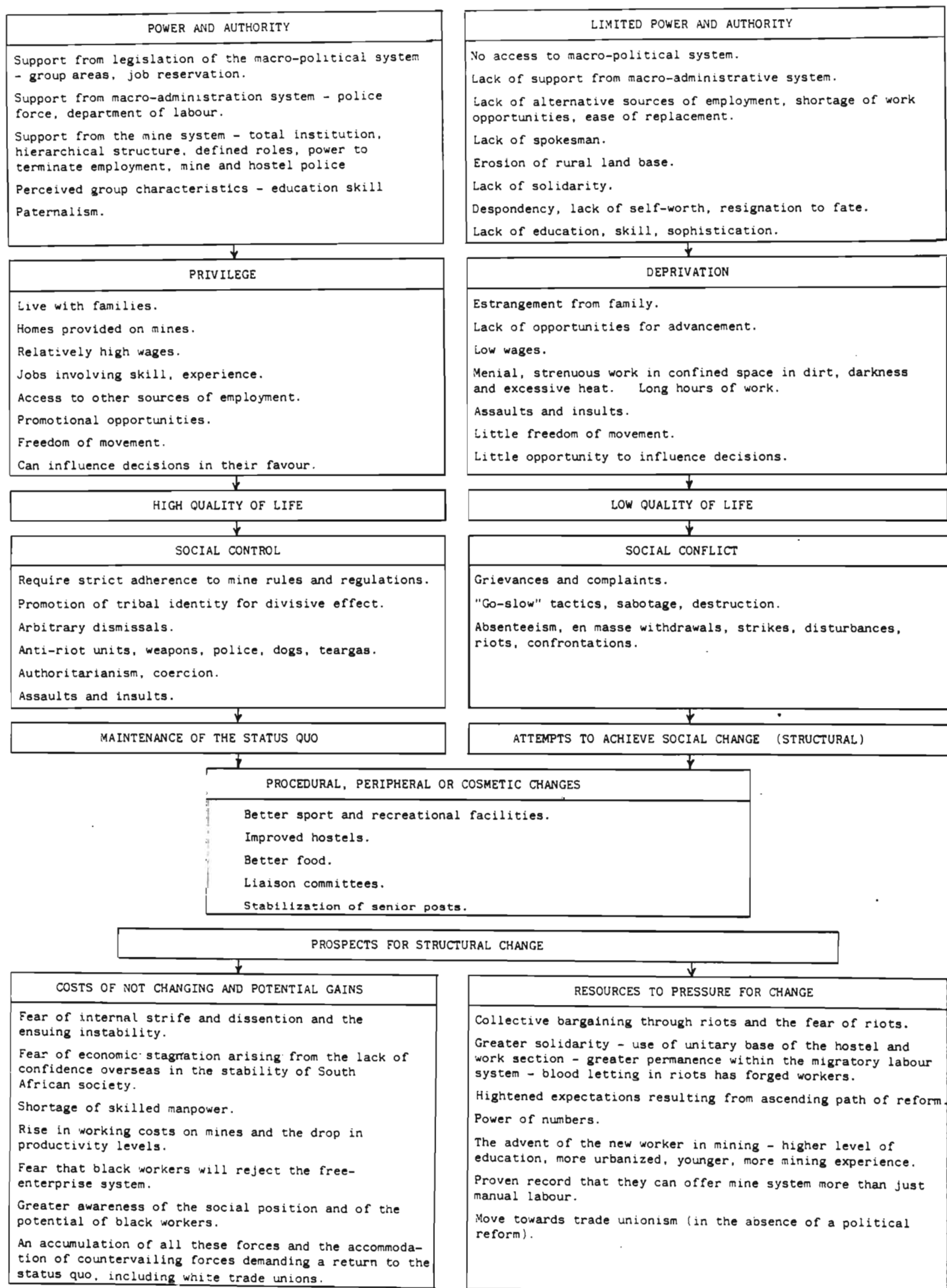


FIGURE 2: Model of forces in the social system of a mine

CHAPTER 4. QUALITY OF LIFE THEORY

4.1 Introduction

As this thesis is concerned centrally with the effects of the gap in power and resources, it has appeared essential to attempt to describe the consequences of the imbalance with an independent objective measure or index.

In addressing the issue, the concept of "Quality of Life" as measured by various indicators, appeared to be the most appropriate descriptive tool. Studies of quality of life of black workers on the mines draw together the effects of the system on their perceptions in the form of an index of felt satisfactions and dissatisfactions. In this sense the results to be presented on quality of life studies provide an empirical measure of the effects of the full range of processes in the system.

This chapter is divided into two sections - Section 4.2 is a description of the concept, and a delineation of the aspects to be covered in the thesis. The problem of evaluating whether or not particular conditions are satisfactory is broached in terms of the theory of relative deprivation with its concentration on attitudes, and, in particular, expectations and aspirations. The second section deals with the measurement of quality of life. Criteria are derived for undertaking such measurements and the various types of indicators and their functions are described. These criteria are central to the empirical investigations described later and thus serve as a summary of this Chapter.

4.2 Description of the Concept

(a) Facets to be investigated

In any organization there is likely to be a difference in the power relations between management and workers which will usually lead to management's having more privilege and a higher quality of life than workers. However, the position is somewhat different in the nexus between white management and black workers on a South African gold mine where the width of the power gap is considerably larger.

The concept quality of life is quite wide-ranging and has many facets. The model in Figure 3 indicates some of its facets.

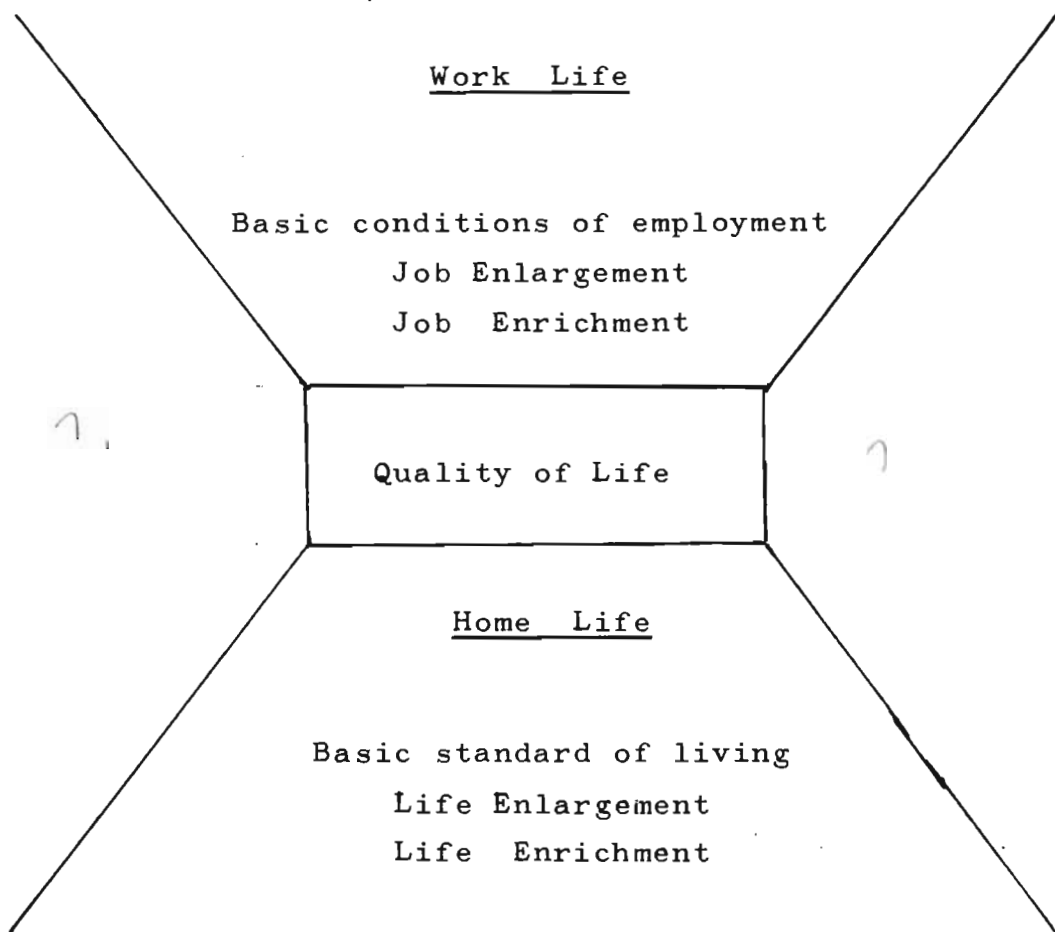


FIGURE 3 : Model depicting aspects of quality of life

It is difficult to do justice to an in-depth study of more than one of these aspects of quality of life at a time, for each covers a large area. Moreover, research by Wilson (1972) has shown that the issues are quite basic, and that it would be to little avail to study world or life enlargement or enrichment for black mineworkers. Consequently, the topic selected for study in this thesis bridges two aspects, basic conditions of employment and basic standard of living. These aspects form an integral part of the life of a black migrant worker on a South African mine. The worker is forced to leave his family at home when he finds work on the mine. His mine life consists then of his work life, as well as his "second" home life, the mine hostel. Investigations into the actual and perceived standard of these aspects will provide a convenient vehicle for testing the power paradigm outlined above.

The basic conditions of life and employment that will be studied will concern issues such as the amount and quality of meals provided, the quality of the accommodation, the amount of time spent at work, wages and verbal and physical assaults. But it will also concern the way in which the workers view these aspects of their lives on the mines, and what they perceive to be their chances of changing the situation.

(b) Evaluation of quality of life conditions

One of the problems encountered in studying quality of life is the evaluation of the conditions investigated against some absolute norm. Various schemes have been developed to derive such a norm, like the poverty datum level; however, there has been a lack of consensus on what should be considered as absolute deprivation or absolute privilege. Because of this lack of consensus, recourse has been taken of the tenets of social justice. The quality of life is considered to be low if workers are subjected to conditions which would not usually be tolerated in a society with the sort of social norms which mine management would accept as normal and appropriate - which is a form of Western industrial society. These are conditions where workers are expected to work for longer than eight hours, are assaulted and insulted, are required to work in dangerous conditions, are paid less than a living wage, are deprived of access to their families, are dismissed from work without recourse to appeal and have little say in factors affecting their work lives.

This subject will be elaborated on in the section dealing with norms for social indicators.

(c) Types of deprivations experienced

A further aspect which will form part of the evaluation of quality of life, is the type of deprivation experienced. The deprivation could be relative; a millionaire could feel deprived relative to a multi-millionaire if his yacht on the bay were smaller, and he may even suffer mental torment as a result of his perceived deprivation. However, he is unlikely to arouse much sympathy among his fellow citizens to right this "wrong" as the nature of the deprivation is considered virtually insignificant in relation to, say, the African subsistence farmer who is required to eke out a paltry existence to keep himself and his family alive. This latter condition is usually termed absolute deprivation, for measured against almost any norm, the subsistence farmer will be seen to be experiencing a very low quality of life.

(d) Expectations and aspirations

Two other concepts which are relevant to quality of life are people's expectations and aspirations. If people come to expect little of their society because experience has led them to believe that that is their entitlement, they are likely to experience less deprivation than people who have come to expect more from life (Runciman, 1966). Consequently, quality of life must also be viewed as an attitude of mind as well as an absolute condition. Moreover, if people aspire to achieve more than they have, they are likely to experience greater deprivation than those people who are simply content to accept what they have.

(e) Measurement of quality of life

The most important aspect of the subject area, quality of life, is its measurement to determine the current state of a particular target population's deprivation or privilege and to monitor changes in that state over a period of time. This measurement is done by means of social indicators. A large section of this thesis will be used to explain the concept of social indicators and to describe investigations launched using different types of social indicators to measure black mineworkers' quality of life.

The indicators could serve two major purposes : to identify the extent to which the workers have been persuaded to accept the surrogate substitute offered by the industry in lieu of structural changes, and to determine to what extent they regard their position in the power nexus to be unameliorated or even to have retrogressed.

In the latter part of the thesis the possibilities of change to black workers' quality of life in the future will be explored.

4.3 Social Indicators

(a) Theoretical perspective

(i) Introduction

According to the model explained earlier the black mineworkers' lack of power and authority will lead to a low quality of life.

There are opposing viewpoints on this matter: white mine management who hold that current changes have improved black mineworkers' quality of life as is shown in appended extracts from (Coal, Gold and Base Minerals of Southern Africa, 1979) (Appendix IV).

However, there are more objective methods for determining workers' quality of life.

When people compare themselves with their neighbours, they may mention factors such as their neighbours' having a bigger house, a more expensive car, a second bathroom or a swimming pool. Implied in such comparisons is the concept that their neighbour enjoys a higher quality of life than they do. But does he? How do people determine whether they are better off than their neighbours, or how do they know whether or not they are badly off when judged against some absolute norm? The same problems arise when the quality of life of certain groups within a social universe needs to be assessed. Assessments can be made by monitoring the social indicators of their particular universe.

However, there is a detractor from this movement towards formalizing the concept of quality of life and measuring it. The argument is that by its very nature, quality of life as a concept defies quantification.

Notwithstanding this objection, an attempt will be made to clarify the aims, characteristics and uses of social indicators. If concerted efforts are to be made to improve people's quality of life, it is imperative that the nature and extent of the progress towards its improvement be measured.

In measuring this concept it will be accepted that a higher, not lower quality of life is the desirable goal for which men strive.

(ii) Purpose and function of social indicators

The endeavours to develop social indicators reflect a desire to determine the extent of human well-being within a segment of a social universe. They encompass attempts to devise "auditing" procedures that will not only determine the current state of the universe, but will also show progress made according to some normative criteria towards a better state. In addition, they aim to highlight important sources of societal malfunction, discontent and conflict so that corrective measures can be determined (Strumpel, 1776).

(iii) Description of social indicators

- Definition

The nature of a social indicator can be gleaned from the following five definitions :

A social indicator is a statistic of direct normative interest which facilitates concise, comprehensive and balanced judgements about the conditions of major aspects of society. It is in all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction, while other things remain equal, things have gotten better or people are "better off."

U.S. Department of Health, Education and Welfare Study.

(Quoted by Land, 1971).

Social indicators are quantitative measures of social conditions designed to guide choices at several levels of decision making.

(Sawhill, 1969).

?

Indicators are ... statistics that can be disaggregated (cross-classified) by attributes of either persons or conditions measured.

(Perle, 1970).

(Both quoted by Huttman, 1978).

The role of social indicators is not only to record where we are and where we have been but to provide a basis for anticipating future states.

(Quoted by Bauer, 1969).

Social indicators are needed to find pathways through the maze of society's inter-connections. They delineate social states, define social problems and trace social trends which by social engineering may hopefully be guided towards social goals formulated by social planning.

(Stuart Rice).

(Quoted by Franchette, 1974).

The main elements that emerge from these definitions are that social indicators

- . are useful for describing the existing social conditions or the state of people within a social system
- . highlight social problems
- . measure trends over time
- . are used to guide decision makers
- . are used to provide the basis of planning for future policies
- . provide a method for evaluation with some other referent such as past trends, other groups or conditions
- . are concise measures of a complicated malaise of inter-connected aspects of a society (or one of its aspects)
- . require to be set against norms in order to evaluate measurements.

And, in addition Franchette (1974) points out that the essence of a social indicator, by definition, is that it is indicative of something else other than its intrinsic meaning. An illustration of this is, for example, an accident rate which is monitored not for information on accidents, but because it indicates whether or not the work place is safe.

There are many social statistics collected for administrative purposes that have little relation to social indicators, although they may have many of their characteristics. The difference is that social indicators are social statistics which are components in a social systemic model or some particular segment or process of the model. (A social systemic model provides concepts of social processes.) A social statistic is classified as a social indicator when the value of the information it provides is derived from its link in the formulation of a social process and when that information is verified by empirical means (Land, 1971).

- Characteristics

Strumpel (1976) states that in order for a variable to function as an indicator it should have a significant predicative, functional or dependent relationship with other concepts and variables. He gives as an example the variable level of consumption aspirations which would either have to "help explain any variance in consumption, savings or working behaviour or relate to some component of social welfare." The last criterion, social welfare, is the one used by the author for the selection of social indicators for black workers in the mining industry. However, it is necessary that such indicators comply with certain precepts (Sheer, 1978). They should5

- . typify the aspects of life they are chosen to represent. This appears to contradict Franchette's statement quoted above, that indicators "should indicate something else" but it need not be regarded as a contradiction. Although an accident rate indicates safety, it also typifies safety as it is of the same order of concept;
- . be capable of verification to ensure that they are measuring what they should be measuring;
- . be capable of being monitored;
- . show direction by indicating ways for achieving a better quality of life;
- . be presented in the same format every time to permit universal and lasting comparison;
- . be susceptible to and reflect changes imposed by the social universe;
- . be collected in the same manner every time;
- . where possible, also reveal the reasons for change;

- Type and form

Social indicators can take different forms. The choice of the form will depend on the type of information available and the use to which the indicators will be put, as well as their appropriateness for the quality that is being measured. Firstly, indicators could be collected on either macro- or micro-level data, or on both.

. Macro-level indicators. Macro-level analysis will tend to give a holistic concept, such as is obtained from measuring the Gross National Product (GNP). However, such statistics have severe limitations as they tend to give a "thermometer-type" reading without giving an indication of how the "patient" should be treated. Moreover, GNP is a "wide average which extends over a whole population", and consequently groups of people are lost within this population. There are, for example, inherent limitations in monitoring accident rates on a macro-level as they reveal little about the accident rate at individual work places, and no information is given about the severity of accidents, or the characteristics of the accident victims. The quantifications give no indication of whether safety standards had been set or whether or not they had been adhered to.

There are limitations in projecting per capita income figures (Parsons, 1979) as these disguise the patterns of income distribution and special economic needs. Even separate indicators such as savings per capita, value of bonuses and overtime payments may be more revealing. If such statistics are used, they should preferably be used in conjunction with micro-level indicators.

. Micro-level indicators. Micro-level indicators have a much narrower range: they show not only the direction of the measured quality, but also give some indication of the general direction of the corrective action that would be taken to rectify causes of diminution of the quality of life. Such an indicator could be, say, the number of persons sleeping in a room, which will convey more directly people's well-being than the GNP.

Secondly, indicators can also be classified as definitional or inferential or both.

. Definitional indicators. Definitional indicators refer to such phenomena as are wholly or partly identical with the quality under examination. Educational indicators are termed definitional as they relate directly to education (Franchette, 1974).

. Inferential indicators. In contrast, inferential indicators indirectly reflect the directly unobserved quality. One could postulate that a significant drop in the GNP will lead to a diminution in the quality of life of the residents of a community.

However, some indicators could be labelled as both definitional and inferential, such as educational indicators which show, inter alia, the quality of education received as well as the development of human resources (Franchette, 1974).

A third method for classifying social indicators is by their methods of collection which are either subjective or objective.

. Subjective indicators. The subjective indicator can take different forms, qualitative or quantitative, and each has its own strengths and weaknesses. The subjective (perceptual), impressionistic view of a quality could be provided by a team of experts who could evaluate according to their criteria or norms. Although such evaluations could be regarded as valuable, there are inherent difficulties in assembling such a team of experts who would be acceptable to all parties influenced by the evaluation. Likewise the criteria used for evaluation if not grounded on pre-determined norms, could be open to attack. Moreover, the evaluations may not, in the strictest interpretation of the definition, be classified as indicators as they do not provide a concrete measure.

A further strategy for obtaining an impressionistic evaluation of a quality, and one which is more frequently used, is to ask for the opinions of the person most concerned with the quality. (This form will be discussed in greater detail later.) If such perceptions are to be gathered from time to time, they have to be measured (counted) so as to provide a basis for comparison over time or with other reference groups and against norms. The degree of measurement may be quite simply a tallying of favourable and unfavourable views or a scaling of perceptions as rated by interviewees, thus providing a measurable component to a subjective indicator.

. Objective indicators. The objective indicator uses an objective criterion such as the number of accidents, assaults and grievances; and these are standardized according to manner, time and method of collection. Objective analysis would appear to generate considerable support among those active in quality of life studies (Huttman, 1978). The inherent problem with excessive preoccupation with objectivity is that, in essence, the human world is made up of experiences described in sensory and emotional terms of colour, smell, happiness, sadness and in terms of aspirations and perceptions which cannot easily be categorized in an objective, quantitative framework and these subjective factors often influence subsequent behaviour or mediate the impingement of objective structures into subjective perceptions. Even though objective socio-economic indicators alert one to inequalities or injustice in the distribution of an important aspect of well-being, these indicators tell us nothing about the levels of subjective life satisfaction of the individuals. The presence of improved objective conditions is necessary for social change, but not sufficient for social change to occur. To sum up objective analysis is important, provided it is restrained in perspective (Huttman, 1978).

Yet, another method of collection has been advocated by Andrews and Withey (1976). They draw a distinction between domain and criteria indicators.

. Domain indicators. Domains are aspects of life that can be evaluated in the light of one's values, for example, a rural migrant mineworker may evaluate opportunities for advancement in the job differently from an urban man. People tend to divide their lives up into two domains which, although not isolated, are separate enough to be identified and evaluated as a distinguishable part of life.

. Criteria indicators. Criteria or values are the means by which one judges or evaluates how one feels about the various domains of life. Examples of criteria are the amount of challenge, privacy, comfort, fun, variety, diversity, responsibility, and so forth experienced. People could be asked to evaluate the quality of lives in terms of domains, criteria or both.

(iv) Theoretical basis

For a datum to rank as a social indicator, it must have a place within some sociological model; it must indicate something about the social universe being studied. The basis for the selection of the social indicators under scrutiny will be to measure the quality of life of black workers in the South African mining industry. The interest in their quality of life is motivated by an interest in social justice and a desire for the equitable distribution of resources to all employees within the mining industry. Other theories which will gain support from, or be discounted by the indicators will be reference group theory and social deprivation theory.

(b) Evaluation of social indicators

(i) Norms

An essential aspect of measuring indicators is the establishment of norms with which to determine performance. The mere monitoring of indicators along a time frame or in comparison with other countries, population groups or industries may be useful as it can show the status of the indicator at a particular time. However, to end the comparison at this stage can lead to inaccurate assessment of performance. This can be illustrated by taking an index such as an accident rate. If the accident rate is high at the inception of the monitoring and it remains on a par or shows an improvement, there is no reason for complacency while it remains above the norm set. In this respect, although historical data can provide a useful guideline for the setting of norms for performance, they should not be the only criteria. Cognisance should also be taken of achievement goals and the tenets of social justice in devising norms.

Comparisons with other social universes can be equally misleading in assessing performance. If, when assessing assault rates, a referent organization with a poor past record of assaults is used as the norm, the organization under scrutiny may be shown up in a favourable light whereas the quality of life of its workers may be below standard.

In evaluating measurements against present norms, changes in measurements over time towards or away from such norms have to be checked for statistical significance. An improvement in a measurement may appear to

indicate an improvement in the quality of life, but, such an improvement may prove to be a mere fluctuation in the measurement around the real score, and signify no change at all. In fact, measurement can be expected to fluctuate around the real score. Consequently, every fluctuation must be subjected to statistical tests to determine whether there is an actual change in direction or whether the fluctuation is an accepted variation.

The setting of norms against which to evaluate change should be a matter for negotiation between the decision-maker and the persons whose lives are affected. Management has a different value system from workers and in mining the difference is even larger as the workers are mainly migrants from different cultures. To impose norms for their behaviour without consultation could have an adverse effect on the workers' quality of life which could in turn provoke dissent.

Norms are not absolutes and need to be changed to suit changes in circumstances. An example of a required change in norms occurred in monitoring the number of accidents in mining. It is a well-researched fact (Bettencourt and Jensen, 1967) that novices are more susceptible to accidents than are experienced men. Consequently, a decline in the number of novices recruited into mining will cause a drop in the number of accidents; if the norms are not adjusted accordingly, it might appear that mines have become safer. Following from this, an increase in the number of novice recruits would require concomitant adjustment.

(ii) Verification

An integral aspect in the analysis of social indicators is their verification with other data. This is especially important as they, by definition, indicate changes which may or may not have taken place within a social universe. There are various methods for verifying indicators such as comparison

- . with other indicators which measure similar characteristics.
- . with other types of indicators: that is, objective indicators could be verified with perceptual indicators and vice versa.
- . with other objective information such as related measurements. Hours of work can be checked by measuring travelling time to and from the work place, waiting time and working time. This is particularly important in mining - these times should be aggregated as the worker is encapsulated within the mining system during this time, and is subject to its rules, and regulations. Such verifications, are useful as they provide guidelines for corrective action.

The level of well-being of black workers on mines as described by objective social indicators alone provides inadequate information about the welfare or the quality of life actually experienced by individuals. Irrespective of the physical conditions on a given mine, it is the way in which the workers view these conditions which actually determines the quality of their lives and their reactions to any diminution in its quality.

(c) Selection of social indicators

The most difficult aspect of social indicators is the selection of the most appropriate minimum number to measure the quality of life. It is conceivable that, for every datum which could be gathered, an indicator could be devised to measure its quality. However, it is important for the sake of costs and administration that the number of indicators be limited to the precise number needed to yield the required measurement. Moreover, it is important to select indicators which measure the appropriate factors.

(d) The aggregation of indicator data

Allied to the problem of selecting the most appropriate indicators and the most appropriate methods for gathering data, is the problem of aggregating indicators into a composite score. The questions to be asked are : Which indicators should be selected? How many should be selected? Should those selected be merely aggregated into a composite index or "morale factor"? Should the accident rate contribute equally as hours of work or promotional opportunities to a composite index? If not, what weighting should be given to each indicator within the index? These questions are as yet unanswered.

Generally speaking, social indicators are not independent of one another, so that information provided by one indicator is partially contained in the information already provided by others. Taking a whole set of selected indicators, therefore, could lead to certain quantities of information being repeated two or more times. Consequently the total amount of information (without duplication) given by a set of indicators is generally less than the sum of the quantities of information contained individually in each indicator of that set (Ivanovic, 1974). This has serious implications for the aggregation of a number of indicators into a composite set.

Despite the fact that two indicators may be very important in that separate information is provided about the quality of life, if there is a high degree of correlation between the two, then the contribution of both is unnecessary.

(e) Criteria for social indicators

The following items which have been gleaned from the characteristics discussed earlier and from Sheer (1978) are presented as criteria to which social indicators should conform in order that they are meaningful:

- . They should contribute to the understanding of social stability and change.
- . They should reflect social, psychological and environmental aspects of life.
- . They should be typical of the aspect of life they are chosen to represent.
- . Preference should be given to directly obtainable data.
- . They should be verified against some other criteria.
- . They should point to what constitutes a better quality of life.
- . They should be measurable.
- . Where indicators may relate to the people within the universe or to the universe itself, it is preferable to use those reflecting the values of the people as it is their quality of life which is being investigated.

CHAPTER 5. AIMS AND PROPOSITIONS

5.1 Aims

The main aims of the research were firstly, to investigate the phenomena of social control and social change in an encapsulated social environment dominated by two social groups: a powerful authority structure intent on maintaining the status quo, and a group with relatively low value capabilities that was deprived relative to the group in authority and relative to other norms, yet which periodically came into conflict with the group in authority to endeavour to effect changes to its status. Secondly, to draw conclusions from the process of change in this micro-society which could have applicability for change in the macro-society.

Subsidiary aims were to

- . describe the nature and extent of the authority group's power in the encapsulated social environment;
- . describe the potential of the deprived group to change its status;
- . describe the manner in which these two potentially antagonistic social groups interact with each other;
- . describe the theories of social change and social conflict and their applicability to the social environment under investigation;
- . investigate the extent of the changes to the quality of life of the deprived group by the group in authority by means of different types of indicators;
- .. investigate the events leading up to two violent social conflicts between the deprived and the authority groups;
- . determine the various forces pressuring for structural change and the prospects for structural change.

The structure through which these aims will be investigated is the theoretical model - "Model of forces in the social system of a mine" - from which the following propositions have been formulated.

5.2 Propositions

The model in Chapter 2 gives rise to a number of propositions concerning the rôles of two of the protagonists in the mine system. While some of these propositions will be dealt with in the empirical analysis, others will not be covered as it is difficult to gain sufficient data to substantiate them: in such cases deductions will be made based upon the data and opinions available. The first two propositions relate to the extant position on the mines and management's response to worker dissatisfaction.

- (i) Given the impoverished home circumstances of many black mineworkers, their lack of education and marketable skills, coupled with the shortage of other avenues of employment for them and juxtaposed against their view of the power and authority of white mine management, it is postulated that these black mineworkers will have
 - . considered themselves fortunate in the mine system as they will have been afforded an opportunity to earn a much needed income to support their families;
 - . been resigned to their status on the mines, and consequently complied with the dictates of mine management;
 - . perceived little chance of changing their quality of life, but will have looked to mine management to do so;
 - . been prepared to stay on the mines long enough to earn enough money with which to launch out into an independent livelihood of their own choice; nevertheless they will raise grievances about the conditions which impair the quality of their lives.
- (ii) Given white mine management's traditional unfettered power in the mine system, its position of privilege and that the mine system has been administered as a total institution, it is postulated that white mine management will have reacted to pressure for change from within the system by
 - . making peripheral or cosmetic changes to black mineworkers' quality of life;
 - . not making changes that could endanger its position of privilege within the system;
 - . placing the blame for dissatisfaction on mines on outside agitators and liberal elements in the mine system;

- . silencing the forces for change by ejecting them from the mine system or discrediting them by character assassination;
- . quelling any insurrection from within by means of all the forces available to it, police, dogs, tear-gas and the like.

These two propositions are a documentation of a well-established coercive response by management on all the mines to attempts by workers to achieve social change. However, there are signs that there has been a shift away from this paradigm which could be associated with changes in behavioural and attitudinal trends among the workers and management.

The changes occurred for workers on the withdrawal of Malawian labour in the early seventies which coincided with the publication of Wilson's book (1972) describing the inadequate living conditions of black workers and their forced estrangement from their families, and the significant rise in the level of workers' wages (Parsons, 1979). (The actual causes of the changes will not be debated here as they are not relevant to the problem of teasing out the propositions.) At this time the Chamber of Mines embarked upon an intensified recruitment drive in South Africa which led to a large influx of South African men. But the men who entered the Industry were vastly different from those who had previously worked there.

The new-comers were less rural in their outlook on life - this was measured on an urbanization scale - and they became increasingly more urbanized over time (Mauer, 1976; Robertson, 1977; and Gunther, 1978), and, in addition, it was noted that mines were drawing men from more urban areas. Durban Deep Mine was recruiting substantial numbers from a part of Bophuthatswana just outside Pretoria which allowed these men to commute home at the weekend if they wished to (de Vries and Rand Mines Training Centre, 1977). It was alleged that workers on the Free State mines were squatting on the local white-owned farms where they were being given shelter - in reward for which they worked on the farms in their free time. (It was very difficult to confirm such reports as neither the farmers nor the workers were prepared to admit to such behaviour.) Furthermore, the new workers were younger men who were better educated (Lawrence, 1979; de Bruin and Levitas, 1975; Hall 1982); they scored higher on the Classification Test Battery - a battery of tests applied to recruits to

facilitate their placement in jobs (Theunissen and Wolfaardt, 1976); they worked shorter periods than their predecessors before going home (de Vries, 1977) and they had high expectations of mining (Mizrahi and de Vries, 1978; Gunther and de Vries and Lawrence, 1979).

One of the other groups to enter the Industry in the mid-seventies were the Zimbabweans, particularly men from Harare. It was noted that they were well dressed, well educated and spoke English fluently. However, they did not stay long as mining did not meet with their expectations (Robertson, 1975) and their white supervisors had great difficulty in trying to make them conform to the behaviour and attitudes of former Malawian and Mocambiquan workers. Their sojourn on the mines was relatively short, but it is thought that their actions and attitudes influenced the more conservative workers on the mines, many of whom appeared to adopt their value systems (McNamara, 1983).

It is postulated that the advent of the new worker in the mining industry has contributed to a change in the workers' response to deprivations inflicted upon them; however, this change in their attitudes has been accompanied by a concomitant change in the attitudes of white mine management which will be adumbrated below as it is discussed in greater detail in Chapter 9 of this thesis.

White management has been forced to change its attitudes towards black workers as a result of pressures from within and without the country, and these changed attitudes in many cases have led to a change in their manner of treating their workers. The forces pressuring management to change are

- the rise in working costs on mines and the drop to productivity levels which has necessitated that the mines capitalize on the training and work experience of the workers. They have instituted incentives for men to return to their old jobs and made the physical facilities more attractive to encourage them to return;
- the shortage of skilled manpower which has forced them to review their opinions of the potential of black workers to occupy skilled jobs after adequate training;

- a greater awareness of the social position of black workers which may have resulted from the research which has been carried out on black workers' home and work conditions in the past thirteen years;
- the fear that black workers will reject the free-enterprise system as they have equated it with the system of repression they have had to endure; so to woo them back to capitalism there has been a concerted effort to improve their lot on the mines;
- the fear of internal strife and dissension and the ensuing instability. Workers' reactions to unameliorated poor treatment on mines has been conflict with management - verbal as well as physical - which has caused a great deal of instability on the mines;
- the fear of economic stagnation arising from the lack of confidence overseas in the stability of South African society which has been caused by riots and disturbances.

These changes in the attitudes and behaviour of white mine management and black mineworkers have given rise to the following propositions.

It will be noted that two responses to grievances and deprivations are proposed, one organized (proposition iv) and the other unorganized (proposition iii). Industrial conflict can take many forms: "its means of expression are as unlimited as the ingenuity of man" (Kerr, 1964). In addition to a variety of forms of conventional strike action, conflict with the employer may also take "the form of peaceful bargaining and grievance handling, of boycotts, of political action, of restrictions in output, of sabotage, of absenteeism, or of personnel turnover" (1964:171): some of these forms of action could be planned and involve large numbers of workers and others may be unplanned and represent individual responses to the same symptoms. Hyman (1975) gives as justification for grouping these diverse types of action together that they reflect alternative responses to similar grievances and deprivations. He draws on research

findings to show that workers who engaged in organized conflict showed a lower incidence of unorganized conflict than those who rarely pursued collective action.

It is postulated that on South African gold mines the other reactions to grievances and deprivation will be as outlined in propositions (iii) and (iv) below, and that this conflict will give rise to the stated action by mine management (proposition (v)).

- (iii) Given that the changes effected by white mine management to sports facilities, consultative committees, hostels and meals, and the like will not meet the needs of significant numbers of "new" black mine workers and that they will perceive no way of effecting change to their quality of life other than via mine management, it is postulated that they will find their treatment on the mines untenable and will
 - . register their dissatisfaction by lodging grievances through mine-instituted channels for grievance resolution; however, if these come to naught, they will
 - . find their position on the mines untenable and withdraw their labour;
 - . resort to clandestine behaviour to disrupt production as a form of retaliation against their treatment by mine management.
- (iv) Given that other "new" black mineworkers cannot afford to withdraw their labour from the mines even though conditions are unsatisfactory (because of the lack of alternative job opportunities and the erosion of their rural land base), their recourse will be to stay, and as they intend investing their lives on the mine, they will endeavour to effect changes to the system to make a better life for themselves and their families. It is postulated that they will band together to force mine management to change by
 - . forcing their grievances into the open arena;
 - . strike action to curtail production and make management aware of their position;
 - . disturbances and riots where they will endeavour to tilt the power balance in their favour to negotiate better conditions of employment with management;

- . disruption of mining operations to put their case before management for change.
- (v) Given the new and stronger forces for change emanating from the black workers and external agents that are emerging and which will become a major threat to mine management - great enough to invoke fears for the very "survival" of mines and for the free-enterprise system - it is postulated that mine management will be forced to respond by
- . changing its attitude to black mineworkers;
 - . being prepared to accept more of them into the upper echelon of the mine system;
 - . being prepared to relinquish a greater deal of its control over them and being prepared to upgrade many of them to serve its own interests;
 - . allowing them more industrial democracy;
 - . being prepared to deal with reactionary forces in the mine system opposing change;
 - . pressuring the government of the day to make changes to those policies, procedures and practices imposed on black workers which mine management considers to be threatening the economic viability of mines.

CHAPTER 6. METHODOLOGIES EMPLOYED IN THE INVESTIGATIONS

The first part of the thesis consisted of using social theories to sketch the position of the two groups in the social structure. The task environment in which the action takes place and which confers much power on the one and little power on the other has been illustrated by the concept of the total institution. The conditions under which these protagonists play their rôles has been illustrated by means of the resuscitated model of the social contract, and the manner in which the social change is brought about by the theory of social conflict. These concepts were tested in the empirical studies described later.

The particular requirements of the various investigations necessitated the use of different research techniques. Each of the techniques is discussed below with reference to a specific project on which it was employed. The methodologies of the following projects will be described:

Structured questionnaire with quantification scale. This was used in the study on Workers' views of the black personnel assistant.

Comparative Study. This was used in studies on

- Black mineworkers' views of future change.
- Black mineworkers' aspirations.
- Qualitative indicators: survey using reference groups.

Monitoring of Opinion Data Verified with Measurements of the Physical Environment. This was used in the study on Micro-level indicators.

Monitoring of Behaviour using Formal Mine Records. This was used in the study on Inferential Indicators.

Open-ended Interviews. This was used in the study on Qualitative Indicators: Survey using Unstructured Questions.

Paired-comparison technique with fixed constructs. This was used in the study on Qualitative Indicators: Ranking of Satisfactions and Dissatisfactions.

Logging daily activities and open-ended interviews. This was used in the study on Behavioural Indicators.

Triangulation Study. This was used in the study on Militancy over Limited Action by Mine Management on Valid Grievances.

- (a) Structured questionnaire with quantification scale. (Used in study on 'Workers' views of the black personnel assistant in Section 10.2(c)).

This investigation was launched to determine how workers perceived their ability to bring about change to the quality of their work life through mine management's appointee, the black personnel assistant (masiza). This post was selected for investigation as the incumbent was black and could be expected to have the interests of fellow blacks at heart.

As the aim of the research was to determine the workers' perceived value capabilities, it was important to obtain their views of the effectiveness of the masiza in resolving their problems. Although an open-ended questionnaire would have permitted the workers to express the views paramount in their minds about this official, and would have provided a clearer picture of the impediments and advantages they perceived in his powers of grievance resolution, this method was not adopted. White mine management had in the past mentioned that the vast majority of the black mineworkers were very contented with the masiza, and that the negative views held, were held by a minority of men who were "less conservative" and who had never raised their grievances with him. Consequently, it was decided to adopt a structured questionnaire organized into a scale which would permit quantification of responses so that the following hypotheses on the role of the masiza in handling of grievances could be tested.

Hypothesis I: "Conservative" workers have more positive views of the masiza than "less conservative" workers, and

Hypothesis II: Workers who have not raised grievances with the masiza have more negative views of him than workers who have actually done so.

Forty men were interviewed on a gold mine in the Transvaal, 20 of whom were classified as "conservative" workers and 20 "less conservative" workers. Men were considered to belong to the "conservative" group (Sample A) or the "less conservative" (Sample B) if they had the following characteristics:-

Sample A: Conservative Group	Sample B: Less Conservative Group
<u>They were:</u> Married with dependants Between 25 and 35 years of age Manual labourers <u>They had:</u> 18 months experience on the mine or more 3 years of schooling or less <u>They lived:</u> In a rural village with a headman	Unmarried with no dependants Less than 25 years of age Manual labourers Less than 12 months experience on the mine More than 7 years of schooling In an urban township with no headman

The two samples were further sub-divided into two groups of ten men each, namely :-

- . those men who had raised grievances with the masiza, and
- . those men who had never raised grievances with the masiza.

Each man was asked 19 questions which were derived from a previous open-ended survey (de Vries and Ackermann, 1980). The questions asked explored the following attributes, characteristics and actions of the masiza:

- . accessibility,
- . worker orientation,
- . management orientation,
- . commitment to his job,
- . personal characteristics, and
- . effectiveness within the organization.

The questions were administered as follows:-

Question	Response	Probe	Response	Probe	Code
Does the Masiza Listen to your Problems?	Yes →	Do you mean he <u>always</u> listens to your problems	Yes →		5
			No →	Do you mean he listens to your problems usually or often →	4 3
	No →	Do you mean he <u>never</u> listens to your problems	No →	Do you mean he listens to your problems sometimes or seldom →	2 1
				Yes →	0

The following questions posed to the workers either had a negative connotation or were phrased in the negative as part of the questionnaire design; however, for the sake of consistency of reporting they are presented in the findings in a positive form:-

- . Is the masiza open to bribery?
- . Is the masiza partial to certain workers?
- . Is the masiza more interested in management's reaction than workers'?

To facilitate reporting, the responses of the workers were grouped into three categories based upon the questionnaire codes, as follows:-

- . Codes 4 and 5 - positive responses;
- . Codes 2 and 3 - neutral responses; and
- . Codes 0 and 1 - negative responses.

The responses are depicted diagrammatically in Appendix VII.

(b) Comparative studies

Used in studies on

Black mineworkers' views of future change in Section 10.2(a)

Black mineworkers' aspirations in Section 7

Qualitative indicators: Survey using reference groups in Section 8.8

The data used under the above headings were obtained in a single survey of black mineworkers' opinions. It was decided to use a comparative study to determine the workers' opinions of the above topics as this would extend the range of their responses beyond their current mines and the mining industry (in contrast with conventional opinion surveys which have limited their field of enquiry to these topics). Although the questions asked in conventional surveys have been open-ended and workers, in theory could raise any issue of importance to their quality of life, they have generally spoken about their position on their current mines. This means that other important factors impinging on the quality of their lives such as family ties have not been mentioned. By extending the range of opinions to encompass comparisons with workers on other mines and in secondary industry, it was envisaged that other data could be obtained. However, there is a danger in this approach as the other task environments could be viewed as the norm against which mines are evaluated. And, if the quality of life of the workers in these task environments was low, mining could be shown up in a favourable light. However, in this study the above criticism was met by also using existing knowledge of black mineworkers' circumstances on mines gleaned from other surveys as a further basis for comparison.

A further aspect of the design was that workers' opinions of the mining industry could be coloured by factors such as the popularity of their current mine, their status in the job hierarchy and their level of

formal schooling. Workers who were on a popular mine, in a team-leader job or who had had little or no formal education could have held more positive opinions than men in less fortunate circumstances. Consequently, a stratified sample was selected to permit the comparison of the opinions in the various sub-samples to highlight commonalities and basic differences. The following method was used to select the sample and administer the questionnaire.

(i) The mines surveyed.

A survey was conducted on two mines which were selected on the basis of their popularity amongst the black mineworkers using the following methods:

In 1976, two popularity indices had been developed by the Human Resources Laboratory, Chamber of Mines of South Africa, with the following bases :

Index 1 : Safety performance.
 : Ratio of novices to engagements.
 : Ratio of returnees with valid re-engagement
 certificates to engagements.

(The last two factors were intended to indicate the ability of mines to attract and retain experienced labour.)

Index 2 : Ratio of the number of underground black workers
 employed to the number required.

The two mines surveyed were ranked from the most popular to the least according to these indices:

Index 1 : First and thirty-seventh out of 38 mines.
 Index 2 : First and thirty-seventh out of 42 mines.

The merits of the methods for calculating these indices will not be discussed, for the purpose was rather to identify two mines for the survey which were likely to evoke widely different attitudes from the workers. As the indices were developed in 1976, the disparity in the conditions of the target mines needed to be reconfirmed using further objective criteria. The criteria used were related mainly to workers' lives on the mines. Table 1 shows that the workers on the previously-classified popular mine had better facilities than did workers on the unpopular mine.

(ii) The sample.

The sample consisted of 249 workers distributed evenly across the two mines and in terms of the supervisor/non-supervisor variable as shown in Table 2. Provision was made for an equal distribution of levels of formal schooling (that is, workers with up to six years of attendance at school, and those with seven years and more). Furthermore, as one of the questions administered required workers to compare current conditions on the mines with those in existence 18 months previously, the sample was drawn mainly from men who had had at least this amount of experience on the mines surveyed. As these stratifications of the sample required the control of four variables : living conditions on the mines, supervision at work, workers' level of formal schooling, and mining experience, there were difficulties in obtaining the proportions exactly as required. The demographic characteristics of the sample have been presented in summary form in Table 3.

(iii) The questionnaire.

A questionnaire was administered to each of the selected workers in his mother-tongue. The questionnaire was open-ended as the nature of the issues with which, and the people with whom, the workers usually compared themselves were not known and had to be elicited from them. Moreover, the use of an open-ended questionnaire ensured that the responses of the workers were not biased by pre-conceived notions of the researcher.

TABLE 1: Criteria used in the categorization of the two sample mines as popular and unpopular

OBJECTIVE CRITERIA	MINES	
A. <u>HOSTEL FACILITIES</u> : 1. Accommodation a) Age of mine b) Size of hostel rooms x number of workers 2. Area per worker 3. Type of beds supplied 4. Type of heating in rooms 5. Type of toilets 6. Toilet paper	<u>POPULAR MINE</u> : ± 30 years i) 32 sq. m x 12 workers ii) 29 sq. m x 6 workers i) 2,7 sq. metres per worker ii) 4,8 sq. metres per worker Double-tier beds Central heating Flushing Provided	<u>UNPOPULAR MINE</u> : ± 70 years i) 92 sq. m x 48 workers ii) 42 sq. m x 20 workers i) 1,9 sq. metres per worker ii) 2,1 sq. metres per worker Concrete bunks Coal stoves Non-flushing Not provided
B. <u>FOOD</u> : 1. Amount supplied daily per head a) Meat b) Porridge c) Vegetables 2. Items rationed a) Meat, fish, chicken b) Bread 3. Daily cost of meat per head per day	300 grams 300 grams 340 grams Yes No 78 cents	130 grams 465 grams 325 grams Yes Yes 58 cents
C. <u>ACCOMMODATION FOR VISITING WIVES</u> :	520 beds	Nil
D. <u>PAY CYCLE</u> :	22 days	26 days

TABLE 2: Distribution of the sample by mine and by the supervisory or non-supervisory job category

JOB CATEGORIES	SAMPLE DISTRIBUTION BY MINE		
	POPULAR MINE	UNPOPULAR MINE	TOTAL
Supervisor	64	63	127
Non-Supervisor	62	60	122
Total	126	123	249

TABLE 3: Demographic characteristics of the sample

DEMOGRAPHIC CHARACTERISTICS	S A M P L E	
	Number of Workers	Percentage
AGE :		
16 years to 26 years	90	36
27 years and above	154	62
LEVEL OF FORMAL SCHOOLING:		
Nil to six years	126	51
Seven years and more	123	49
REGION OF ORIGIN :		
R.S.A.	166	67
Non- R.S.A.	83	33
PRESENT JOB :		
Non-Supervisor	122	49
Supervisor	127	51
EXPERIENCE IN PRESENT JOB IN MONTHS :		
Less than 12 months	85	34
13 months and more	154	62
TOTAL EXPERIENCE ON PRESENT MINE :		
Less than 18 months	49	20
19 months and more	190	76
TOTAL MINING EXPERIENCE :		
Less than 36 months	53	21
37 months and more	183	73
LENGTH OF LAST MINING CONTRACT :		
Less than 9 months	30	12
10 months and more	155	62

NOTE: The totals for some demographic characteristics do not equal the sample size (249) as some of the information was not supplied; consequently the percentages for some characteristics do not equal 100.

(iv) The analysis of the responses.

The responses were translated into English from the vernacular and then were grouped into common themes, referred to as "aspects". This was done because the open-ended nature of the questions led to wide-ranging responses which otherwise would have been difficult to analyse and interpret. For example, if the workers referred to beds, rooms and showers in their description of their situation these responses were categorized as "living conditions". Other categorizations used were : working conditions, fringe benefits, procedures and practices, supervision etc.. Furthermore, the differences between the responses given by different groups were tested at the five per cent level of significance using the chi-squared test. These results are given in Appendix I.

(c) Monitoring of opinion data verified with measurements of the physical environment (Used in study on Micro-level Indicators in Section 8.3)

From time to time studies have been conducted into the various aspects of hostel services such as nutrition, food, the hostel room and leisure time. These studies have been valuable in identifying problem areas in hostels, thus enabling mines to improve the quality of life of the black mineworkers.

Among the problems identified have been : en masse waking of hostel-dwellers irrespective of the times when they were required to be ready to go underground resulting in some men having too little sleep, and others who slept on after awakening time arriving late at the crush (mine parlance for place where men clock in); delays in hoisting in the afternoons resulting in men not receiving choice items of food which had been eaten by early returnees to the hostel; long food queues, caused by sudden large influxes of men into the hostel from underground resulting in irritating delays among men who had not eaten for 10 hours or more; lack of privacy and over-crowding in rooms which could play a role in heightening tension among men which in turn could lead to breaches of the peace. The various studies on food have shown that generally enough was provided, and that it was nutritious, but that frequently poor kitchen management and supervision of kitchen staff resulted in poor preparation of certain food items.

Valuable as the findings of these studies have proved, they nevertheless had a major shortcoming. They tended to examine one feature of hostel life at a time and seldom interpreted systematically the relationships of hostel facilities to all other aspects of mine life experienced by a worker. It would seem that the quality of a facility is best evaluated by examining it in operation and in its total context. For this reason, it was decided to approach the study by looking at the flow of men pre-shift (from waking until clocking on) and post-shift (from hoisting until sleeping again).

The monitoring of physical facilities does have inherent dangers (see impressionistic views under subjective indicators), for if the physical facility is viewed to be functioning well - the showers were always hot and the rooms neat and comfortable - if the quality of workers' life could be evaluated as good. However, it is not necessarily neat, comfortable facilities that make the quality of life high. People in the most luxurious circumstances could feel deprived if they compared themselves with others in better conditions. Moreover, other factors not readily apparent, such as the way in which workers were treated could cause them to feel deprived.

To gain an understanding of how facilities on mines were used to the mineworkers' advantage, the workers were asked their opinions of the physical facilities and to counteract the above criticism the following indicators were monitored to verify these opinions.

(i) The physical layout and characteristics of the hostels. With the co-operation of personnel on a mine, data were collected on the following aspects:

- . number of men housed in each hostel block;
- . number of men accommodated per room;
- . housing policies, for example, mine sections, ethnic or mixed rooms;
- . maintenance procedures;
- . number of showers and toilets per change room;

(iv) The analysis of the responses.

The responses were translated into English from the vernacular and then were grouped into common themes, referred to as "aspects". This was done because the open-ended nature of the questions led to wide-ranging responses which otherwise would have been difficult to analyse and interpret. For example, if the workers referred to beds, rooms and showers in their description of their situation these responses were categorized as "living conditions". Other categorizations used were : working conditions, fringe benefits, procedures and practices, supervision etc.. Furthermore, the differences between the responses given by different groups were tested at the five per cent level of significance using the chi-squared test. These results are given in Appendix I.

(c) Monitoring of opinion data verified with measurements of the physical environment (Used in study on Micro-level Indicators in Section 8.3)

From time to time studies have been conducted into the various aspects of hostel services such as nutrition, food, the hostel room and leisure time. These studies have been valuable in identifying problem areas in hostels, thus enabling mines to improve the quality of life of the black mineworkers.

Among the problems identified have been : en masse waking of hostel-dwellers irrespective of the times when they were required to be ready to go underground resulting in some men having too little sleep, and others who slept on after awakening time arriving late at the clocking-in-station; delays in hoisting in the afternoons resulting in men not receiving choice items of food which had been eaten by early returnees to the hostel; long food queues, caused by sudden large influxes of men into the hostel from underground resulting in irritating delays among men who had not eaten for 10 hours or more; lack of privacy and over-crowding in rooms which could play a role in heightening tension among men which in turn could lead to breaches of the peace. The various studies on food have shown that generally enough was provided, and that it was nutritious, but that frequently poor kitchen management and supervision of kitchen staff resulted in poor preparation of certain food items.

- . number of men sleeping at half-hour intervals following waking times;
- . times taken by men to move through change houses in preparation for work;
- . number of men taking hostel meals;
- . amount of each item of food consumed;
- . number of men in queues waiting to be served.
- . time taken to be served.

(d) Monitoring of behaviour using formal mine records (Used in study on Inferential Indicators in Section 8.5)

The type of indicator used here was derived from people's actual behaviour and not, as in subjective indicators, from the actions they claimed they were going to take or their opinions of such actions. Behavioural data were viewed as being more reliable indicators of quality of life than opinions (This stance was later changed after further investigation.) The behaviours were monitored and certain inferences made from them.

The data reported in this survey were certain indicators of black worker behaviour monitored on one mine during 1979. These data were chosen because they were written up daily on the personnel record cards of the workers and were thus viewed as the source of data most readily available for the monitoring of human behaviour. The data monitored concerned the frequency of workers' exits from the mine; disciplinary action taken by supervisors against workers; grievances lodged about the mine and requests made by the workers.

The data were used to identify trends in men's behaviour as they materialized so that action could be taken by the mine to determine causes and, where necessary, take action to rectify inadequacies detected.

It was not envisaged that the indicators used would do more than alert the mine to the possibility of potential problems. As human behaviour is complex, its representation in the form of indicators is difficult, and identifying human problems from such indices even more difficult. When indicators exceed a certain predetermined standard (in the analyses the standard used was the expected number of cases based upon labour strength - number of men at work), it is possible that there is a problem in that area or with those particular workers. Indicators could alert mines to potential problems, but their value is limited to that. The nature of the problem identified cannot be identified from indicators; what can be inferred is that something is amiss and that it requires further investigation.

As information was also available concerning the labour strengths for the shaft and mine overseers' sections where the men worked, their ages, level of schooling, job and the like, analyses were also carried out across these variables in an attempt to identify more closely the problem in worker behaviour which had manifested itself in the monitoring of the indicators.

One of the problems with monitoring inferential indicators concerns the information that can be validly inferred from them. It is not certain whether the correct inference made about a high grievance rate is that the workers in a particular work section were experiencing a lower quality of life there or that the channels for raising grievances and their prompt resolution actually encouraged the workers to raise more grievances than workers in other sections.

Despite these drawbacks the study was launched as follows as it provided useful indicators on where the problems leading to a low quality of life were to be found:

Assistant (Africa) personnel assistants (masizas) were trained to record the following actions of black underground workers daily on a standard procedure (Appendix II):-

- . Disciplinary action taken by supervisors. These were also sub-divided into absences without permission (AWOPs) and all other disciplinary cases such as poor quality of work, loafing at work, failure to obey instructions, theft, etc.
- . Grievances lodged about the mine, its procedures, supervisors, workmates and similar problems, and requests for transfer and promotion.
- . Exits from the mine and the reasons for men leaving, as well as the lengths of their stay at work. Exits were classified as normal exits, that is, workers leaving after completing 26- and 45-week workstays and abnormal exits such as dismissals and desertions.

In addition, information on the average number of men in each section was supplied so that the proportional frequency of the behaviours monitored could be determined. The masizas also gathered information on the age, education, region or origin, return category (at the start of his current workstay) and job category of each case recorded.

(e) Open-ended interviews (Used in studies on Qualitative Indicators :

Survey using Unstructured Questions in Section 8.7)

(i) The aim of open-ended interviewing is to stimulate the interviewee to talk freely within certain constraints. In this case, the subject's likes and dislikes of working and living on the mine was chosen as the field of research interest as it was hoped that, if the interviewees raised dissatisfactions on a particular aspect within those areas, it would be within the competence of mine management to take action to remedy them, where necessary. Alternatively, if the subjects claimed that they liked certain aspects of mine work or mine life, this would act as positive reinforcement to mine management to continue with those procedures. The basic questions asked in the interview were:

- . What do you like about work on this mine?
- . What do you dislike about work on this mine?
- . What do you like about living on this mine?
- . What do you dislike about living on this mine?

The major difficulty faced in this type of survey is that the interviews are open-ended which means that the interviewees can raise almost any subject within the constraint that it has to pertain to the current mine. The advantages of the open-ended approach over that of structured questions are that the responses are not influenced by the researcher or the interviewer, that is, ideas are not "put into the interviewees' heads" - and that the interviewee raises the matters of greatest concern to him. However, the methodology raises problems of recording and content analysis which place a large onus on the interviewer who needs to be skilled in the techniques of listening, recording and content analysis.

The following are matters for consideration.

(1) The value of opinion data.

There is a problem of deciding how much value to place on the opinions collected. Firstly, their validity can be checked (see Section 8.3 on Micro-level Indicators), but a further problem is what value should be placed on, say, 15 dissatisfactions raised about supervision by 100 interviewees. Are they grounds for concern or must the dissatisfactions reach a higher level, particularly as it is known that at times one man may have the insight to perceive a problem, but that his opinion may be ignored as his is a lone voice? It has been the practice of the author to label an issue as a "matter of concern" if at least 16 per cent of the workers raised it. However, this arbitrary figure is not always a satisfactory criterion as some issues, such as assaults and homosexuality are more sensitive than others such as food or the job, and workers may be more reluctant to talk about the more sensitive issues.

(ii) The duration of opinions.

A further problem is the length of time an opinion endures. If the offal was dirty in January does the worker still raise this issue when interviewed in July even though there has been an improvement? This problem was counteracted by stipulating that the issue raised had to be current, for example, "they should have transpired within the past three months".

(iii) Affect of time and place on interviewing.

Interviews are usually conducted in the hostel when the workers have returned from underground and have showered and eaten. As these functions are the most immediate with which the worker has been active, he may have a tendency to talk about them, whereas problems at work may be forgotten by the time of the interview, consequently workers were asked about both domains.

(iv) The frame of mind of the interviewees.

The reluctance of interviewees to raise contentious matters has been mentioned above, but in addition, the literature on "Quality of Life" points to a resignation by some workers to the status quo, an acceptance of poor or inadequate conditions as their lot, and consequently some workers appear to be contented when others are most vociferous in their condemnation of the same conditions.

(v) The classification of responses.

Responses given by workers such as

The dining hall is dirty and this puts men off the food

or

I like my job as it provides me with money and I can support my family.

present problems as they could be categorized as

accommodation dislikes or food dislikes, and

job likes or remuneration likes

Such border-line cases were discussed among interviewers and a ruling made and documented for consistency of interpretation over time.

A further problem was that some issues raised appeared to have easily definable categorization, for example, "beans" and "potatoes" etc. are commonly labelled as food, but "late hoisting", "lack of criteria for promotion" and similar issues raised were less homogeneous entities. These have been grouped under the heading "mine practices". An increase in the dissatisfactions of "mine practices" was consequently of a different order from an increase in dissatisfactions of food. The trouble is that each of the problems raised (like late hoists) is an issue itself, but for ease of categorization they were aggregated into a composite, for example, mine practices or accommodation.

Black workers' opinions are probably the best indicators of their quality of life, for they are the ones experiencing the conditions, and should give the most important reactions to those conditions. It does not really matter if the opinions held are based upon incorrect assumptions or incorrect information for they are held nevertheless and the privilege or deprivation is still felt.

(f) Paired-Comparison technique using fixed constructs (Used in studies on Qualitative Indicators: Ranking of Satisfactions and Dissatisfactions in Section 8.9)

(i) The Paired-comparison technique

The quantification of opinion data permits changes to be monitored over time accurately as the workers are responding to the same constructs each time. Furthermore, the paired-comparison technique used in this study permits the researcher to determine the importance of one construct relative to another, as well as their relative importance to the respondents.

The main drawback with using fixed constructs is that the researcher is defining for the respondents which constructs to evaluate. Although the respondents may do the evaluation requested, the constructs evaluated may not be the ones that they would have selected had they had a free choice (open-ended questions). This objection has been overcome to some extent in this investigation as the factors raised most as likes and dislikes by black mineworkers during the course of the year's exit interviews were selected as the constructs (Tables 74 and 75).

The question is what factors did the workers themselves view as important for their quality of life.

This investigation sought to identify these factors by asking the following questions:

What factors in mining did black workers view as detracting most from their quality of life?

What factors in mining did black workers view as contributing most to their quality of life?

Two groups of randomly selected black mineworkers from three mines were interviewed on a paired-comparisons questionnaire which when analysed gave their rankings of two sets of 10 different factors in order of importance. Eighty-two men were asked their views of the importance of the factors of mining which were liked and 112 men were asked about the importance of factors disliked.

(g) Logging daily activities and open-ended interviews (Used in studies on Quantitative Indicators in Section 8.10)

The method developed for examining the quality of life of black underground workers, discussed in more detail below, was that of following men, recording the activities they were engaged in, logging the times of the activities and obtaining men's views of them. The intention was to obtain a complete overview of a day in the life of a black worker and of the factors which impinged upon the quality of his life. Previously, 'snap-shot' studies had been conducted into isolated problems on mines such as the quality of food, hoisting times and the like, and although they provided meaningful insights into these aspects of the worker's mine life, they did not provide a complete detailed picture of the underlying causes of dissatisfactions raised by workers. The main value of the current approach is that it permits management to assess the influence of the organization on the daily lives of actual workers.

The main problems experienced with this technique were that :

- . it was costly and time consuming as each worker was followed for a day which meant that the data took at least 52 interviewer-days to collect.

- . there was likely to be a "halo effect" for the white supervisors and black mineworkers were fully aware of the investigation and could have been trying to colour the impressions created to suit their own ends.

There are, nevertheless, decided advantages in observing a system in operation, and, if in conjunction with this technique perceptions of the objective situation are obtained, the one indicator serves to verify the other and a very strong methodology is used.

To determine black mineworkers' quality of life, with their agreement and co-operation, a total of 52 black underground workers, randomly selected on four mines, were followed from the time they woke up in the morning until they went to bed at night. The mines were situated in four different geographical regions and belonged to four different mining groups. Each man was followed by a personnel assistant or a work-study clerk for one day, and the events of that day were timed and logged. It transpired that the workers who were randomly selected worked in different sections and held a variety of different jobs. Two of them were working night shifts. The study was conducted on weekdays, none of which was a pay day.

These men were later asked, in open-ended interviews, how they were affected by the procedures and practices of the mine. The activities that each worker was engaged in throughout the day, as well as his views of how he, personally, had been influenced by these activities were recorded (see Appendix III). These data were then summarized according to starting times, completion times, and duration of the activities to compare different routines in operation and to identify trends in the range of workers' various experiences, including "bottlenecks", obstacles and delays in their daily routine.

(i) Drawing a sample.

It was found that about 50 subjects per mine/ hostel gave sufficient data for trends to be observed. Fifty-two personnel record cards of workers were drawn randomly. The survey was done on week-days, to determine the effects of different procedures on workers.

(ii) Obtaining workers' permission and co-operation.

The workers selected were informed

- . of the purpose of the study, that is, to obtain empirical data on how they were affected by mine procedures and practices;
- . that the survey was purely voluntary and that they could decline to take part if they so wished;
- . what they were expected to do was act normally, and carry out their activities as they would every day;
- . that they had been randomly selected and as such they represented a typical worker;
- . when the survey would start;
- . who would follow them;
- . that their identity would remain anonymous, that the survey was not concerned with who they were but with what they did;
- . when they would be interviewed.

(iii) Obtaining the co-operation of supervisors.

The workers' supervisors were informed of the survey, its purpose, timing and what they were expected to do, that was, carry out their activities as usual.

(iv) Use of work-study clerks.

It was found that work-study clerks were the most useful persons to follow the workers because of their training in observation techniques. (Personnel assistants were used on the mines without work-study clerks.) The following procedures were adopted :-

- . These men were briefed as to the purpose of the study,
- . They were provided with stop watches and forms for recording times and events (Appendix III),
- . They were told to record the starting times, finishing times and the nature of each activity, for example, 04h10-04h30 - having breakfast.
- . They were told to record accurately all the workers' activities in broad detail. Minute detail of what they ate, etc. was not necessary,
- . They were to stay with the worker throughout the day to carry out the survey properly,

- . They were to terminate the study when the worker went to bed,
- . Times were recorded on the S.I. Time System.

(v) Interviewing the worker

- . The workers were told when the interviews would take place, usually the following day, after work,
- . The interviews were conducted in strict privacy, usually in an office where the two were not disturbed,
- . The subjects were assured of anonymity of response and their freedom to express their views honestly without fear of victimization or reprisals,
- . The interviewer recorded faithfully all the subjects' comments in writing.
- . The introductory statement used in the survey was,

I notice from the times recorded of your movements that from the moment you got up yesterday you were busy with a number of activities arranged by the mine, such as eating, travelling to work, working, travelling from work, eating again, washing and enjoying your leisure time. I would like you to tell me how you personally were affected by the procedures you encountered on this day when you were followed.

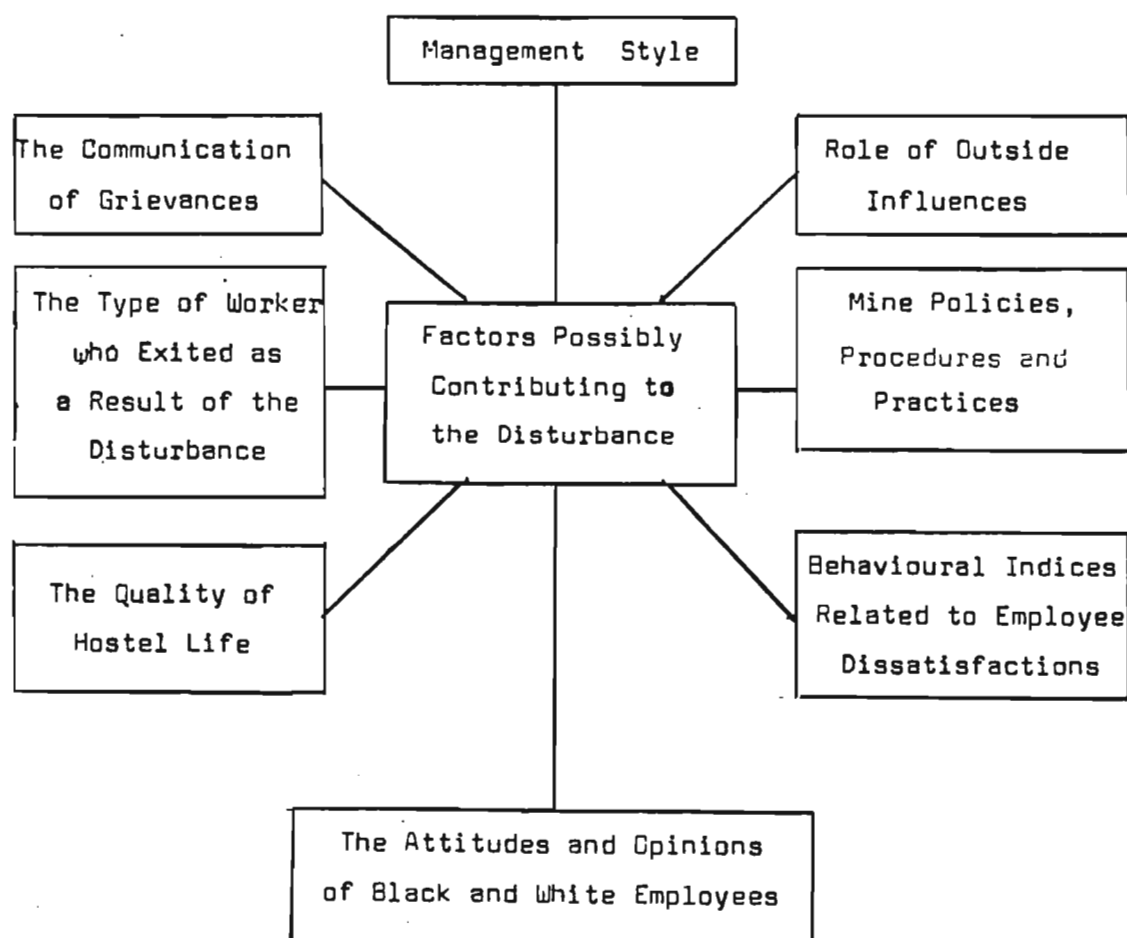
(vi) Summarizing the data.

The individual case studies were aggregated for starting times, finishing times and duration of activities. The averages and cumulative frequencies were calculated to determine the effects of times on the mine. The researcher was wary of using average figures as representative of the whole population. It was necessary to look at the men at the extreme end of the range for they were the ones who were most handicapped and needed the procedures to be changed to suit them.

(h) Triangulation study (Used in study on Militancy over Limited Action by Mine Management on Valid Grievances in Section 9.3)

The investigation was undertaken to determine the underlying causes of a disturbance that took place on a mine in 1979. The main problem faced in the investigation was that either, because they wished to shift the blame for the disturbance or because they held a certain paradigm concerning disturbances by blacks, white mine management had propagated the view that the disturbance had been caused by agitators (see 9.3 (a)). To dispel this widely-held view it was necessary to adopt a triangulation study, with data being gathered from various sources to corroborate one another. The main difficulty with triangulation is the integration of the data from various sources into a coherent, meaningful report. Yet, it has distinct advantages for the same problem is examined from various perspectives which throw up new insights of it.

The following diagram illustrates the aspects of the mine that were investigated:



Data from the following sources were gathered and analysed in the course of the investigation:

- . hostel daily report books, minutes, records of meetings and recorded grievances over the six-months prior to the disturbance,
- . monthly statistical returns to the head office giving labour complement, absenteeism, overbunking, assaults and the like,
- . a representative sample of record cards of the 998 men who left the mine after the disturbance to determine whether common characteristics existed among these men,
- . data were collected on the quantities and temperatures of food and shower water at various times of the day,
- . twelve randomly-selected black workers in different job categories were followed and timed throughout the day to determine how they were affected by mine procedures and practices.,
- . statements of personnel policies and procedures issued by the mine,
- . open-ended interviews were conducted with a randomly-selected sample of 105 workers,
- . open-ended interviews were conducted with 30 white line and staff employees,
- . group interviews were conducted with personnel assistants, machine operators and hostel administrators,
- . visits were undertaken underground and on the surface.

An attempt has been made to relate the various trends identified in the behaviour of black workers to their grievances, their attitudes to the mine, and the policies and procedures of the mine. These have been presented under the relevant headings.

CHAPTER 7 FINDINGS: BLACK MINeworkERS' ASPIRATIONS

7.1 Introduction

(a) Background

The methodology used in the investigation of the workers' aspirations is described fully in Chapter 6 under the heading (b) "Comparative studies".

In an investigation of change to quality of life it is important to know whether the actors themselves aspire to higher ideals, as the way in which people respond to conditions and treatment is to a large extent dependent upon what they want for themselves; if their aspirations are high, they are likely to find fault with conditions that would normally be considered quite adequate, whereas if they are low, the opposite is likely to pertain. Moreover, Freedman (1972) found that families with high consumption aspirations will take positive action to satisfy them. Consequently, it could be stated that people's aspirations are indicators of what they are likely to strive to achieve in the future. At the same time, people are not likely to attempt to achieve even highly valued objectives when they see no way of attaining them - this being an explanation for social apathy in the face of pressing political and economic problems.

Before presenting the findings of the investigation, the concept of aspirations will be explained briefly. Two sets of findings from the empirical investigations will be presented - workers' aspirations in mining and their long-term perspectives. However, these attitudes could contain an idealized view of life which needs to be assessed in the cold light of the actual behavioural trends in mining and in rural areas. Consequently, data from other research studies were used to present these different scenarios of the workers' future prospects. The attitudes are evaluated against the future scenarios in the summary.

(b) The concept of aspirations

The terms "aspiration" and "expectation" are often confused. The following dictionary definitions indicate the differences between the two concepts :

Aspiration - the action of aspiring; steadfast desire, longing or ambition for something above one.

Expectation - ground or warrant for expecting; the condition of being likely, or entitled to receive or experience something in the future.

(Oxford English Dictionary)

Aspirations are concerned with the goal a person will strive to achieve and are less realistic than expectations. A main factor which determines the subjective probability of future success and failure is the past experience in attempts to reach certain objectives of the person or of the group to which he belongs. If either the person or his reference group has had considerable experience with a given activity, then he will know quite well what level he can expect to reach (Sills, 1968).

In this study aspirations were ascertained by asking black workers which things they hoped to achieve.

7.2 Findings from the Empirical Study

(a) Black mineworkers' mining aspirations

To determine workers' job aspirations in mining they were asked three sets of questions. The first set was:

If you had a choice and jobs were freely available, would mining be the job of your choice?

Why do you say this?

The workers who did not choose mining were asked:

What other jobs would you like, and why?

The responses to these questions are summarized in Tables 4a, b, and c, and 5. Firstly, it will be noted that 75 per cent of the workers claimed that they would select mining as a job if they had a free choice. In a sample of 90 interviewed in 1974, 62 per cent claimed that they would rather have worked in secondary industry than on mines (McNamara, 1974). The increase in the choice of mining could be caused by economic circumstances. In the current survey, however, significantly more supervisors chose this option than did non-supervisors ($\chi^2=4,22$; $p<0,05$; $df=1$). The main reasons given by workers for selecting mining as a first option were the better wages, the opportunities mining afforded them to save money and their liking for their mine.

TABLE 4 : whether black mineworkers would choose mining as a career if they had a free choice

a) Number of times option was selected

Choice of mining as a career	Supervisors (n=127)		Non-Supervisors (n=122)		TOTAL	
	Number of Workers	Column Per- centage	Number of Workers	Column Per- centage	Number of Workers	Column Per- centage
Yes	102	80	84	70	186	75
No	25	20	37	30	62	25
TOTAL	127	100	121	100	248	100

NOTES: (i) One man did not respond

(ii) The difference between the responses of the Supervisors and the Non-Supervisors was significant at the five per cent level ($\chi^2=4,22$; $df=1$)

b) Reasons given for selecting mining

Job Category	Like Mine Job		Free Food, Accommo- dation and Transport		Pay Is Good		Can Save Money		Close to Home		TOTAL
	N	Row Percentage	N	Row Percentage	N	Row Percentage	N	Row Percentage	N	Row Percentage	N
Supervisors	32	38	20	24	20	24	10	12	2	2	84
Non-Supervisors	42	41	25	25	23	23	12	12	0	0	102
TOTAL	74		45		43		22		2		186

c) Reasons given for not selecting mining

Job Category	Few Opportunities to go home to family		Fatal Accidents		Inadequate Pay on Mines		Do Not Like Mine Jobs		Town Jobs Better		Other		TOTAL
	N	Row Percentage	N	Row Percentage	N	Row Percentage	N	Row Percentage	N	Row Percentage	N	Row Percentage	
Supervisors	11	44	4	16	3	12	4	16	0	0	3	12	25
Non-Supervisors	9	24	8	22	6	16	5	14	6	16	3	8	37
TOTAL	20		12		9		9		6		6		62

TABLE 5: What work other than mining would black mineworkers choose if they had a free choice?

N=160

Job Category	J O B S O T H E R T H A N M I N I N G						Total
	Factory Work	Construction Work	Self Employment	Miscellaneous Other	Don't Know	No Access to Other Jobs	
Non-Supervisor	32	15	12	2	5	16	82
Supervisor	31	9	6	6	4	22	78
TOTAL	63	24	18	8	9	38	160*

NOTES : (i) 89 men did not respond

(ii) The differences between the responses of supervisors and non-supervisors were not significant at the five per cent level.
($\chi^2 = 5,36$; $df=5$)

Those workers who did not choose mining as their first option (25 per cent of the sample), gave as their main reasons the few opportunities for going home to their families given them and the high risk of fatal accidents. Some non-supervisors claimed simply that jobs in town were better.

The level of aspirations of workers who rejected the mining option was not particularly high, as they intimated that they would have selected factory work or construction work as alternatives. A number of men (38 out of 160 or 24 per cent) said that there was "no access to other jobs", possibly because of legal or economic factors. A few men opted for self-employment as an alternative to mining.

The second set of questions on job aspirations was:

Is there anyone on the mine better off than you?

Why do you say this?

The responses to these questions are summarized in Tables 6a, and b. The most sought after jobs were those of clerk and masiza because they received higher wages and enjoyed status. Moreover, the incumbents were seen to be educated, engaged in light work and were in responsible jobs. These jobs were aspired to by both supervisors and non-supervisors. They also both aspired to advancement in line jobs to section team leader and team leader respectively, mainly because of the perceived higher wages and lighter work entailed in these jobs.

People often project a self-image, or their desires for the future through their children. Consequently, to check on the workers' job aspirations, they were asked the following questions. (These future perspectives should be viewed in the light of the workers' family history.)

Suppose you had a son, what job would you like him to have, and why?

What job did your own father do?

The responses to these questions are summarized in Tables 7a, b, and c. The job selected most frequently for their sons was that of a professional worker which included teachers, ministers of religion and the like, followed by clerical work and mine work. There was a measure of self-delusion in the first responses, for they followed an unrealistic pattern, for example:

TABLE 6 : Whom black mineworkers regarded on their mines as better off and the reasons therefor

a) Responses of Supervisors

N=107

Job Category Regarded as Better Off	REASONS FOR REGARDING PEOPLE IN OTHER JOB CATEGORIES AS BETTER OFF								
	Receive Higher Wages	Higher Job Status	Educated	Do Light Work	Do Re- sponsible Work	Have Special Privileges	Free From Accidents	Total Responses	Percentage
Clerks and masizas	21	5	17	7	3	1	-	54	44
Section Team Leaders	25	9	2	2	2	1	-	41	33
Indunas/Police	10	3	-	4	1	1	1	20	16
Line Management	3	3	-	-	-	-	-	6	5
Tradesmen and Artisan Aides	2	-	-	-	-	-	1	3	2
TOTAL	61	20	19	13	6	3	2	124	100

- Notes:
- (i) 5 workers did not respond to the question
 - (ii) 20 workers claimed that they could not make comparisons as all workers were the same
 - (iii) Multiple responses were permitted

TABLE 6 : Whom black mineworkers regarded on their mines as better off and the reasons therefor

b) Responses of Non-Supervisors

N=110

Job Category Regarded as Better Off	REASONS FOR REGARDING PEOPLE IN OTHER JOB CATEGORIES AS BETTER OFF								Percentage
	Receive Higher Wages	Higher Job Status	Educated	Do Light Work	Do Re- sponsible Work	Have Special Privileges	Free From Accidents	Total Responses	
Team Leaders	42	16	1	6	8	3	-	76	45
Clerks and masizas	16	4	15	1	6	5	1	48	28
Operators of machinery	10	3	-	1	3	-	-	17	10
Indunas/Police	4	2	-	3	1	3	-	13	8
Artisan Aides	7	1	-	2	2	-	-	12	7
Line Management	2	1	1	-	-	-	-	4	2
TOTAL	81	27	17	13	20	11	1	170	100

- Notes:
- (i) 3 workers did not respond to the question
 - (ii) 11 workers claimed that they could not make comparisons as all workers were the same
 - (iii) Multiple responses were permitted

TABLE 7: Supervisors' job aspirations for their sons

a) Analysed by Supervisors' Fathers' jobs

N=130

The Jobs Held by the Supervisors' Fathers	THE SUPERVISORS' JOB ASPIRATIONS FOR THEIR SONS						
	Professional	Clerical Worker	Unspecified Mining Jobs	Tradesmen	Miscellaneous	Don't Know	Total
Manual Labourers							
In mining	8 } 15	11 } 22	5 } 5	4 } 9	0 } 1		28 } 52
Non-mining	7 } 15	11 } 22	0 } 5	5 } 9	1 } 1		24 } 52
Supervisors							
In mining	4 } 8	4 } 7	2 } 5	1 } 2	1 } 1	1 } 2	13 } 25
Non-mining	4 } 8	3 } 7	3 } 5	1 } 2	0 } 1	1 } 2	12 } 25
Self Employed	5	4	2	3			14
Tradesmen	6	1	3			1	11
Clerical							
In mining	0 } 6	2 } 7	0 } 1	0 } 3		0 } 1	2 } 18
Non-mining	6 } 6	5 } 7	1 } 1	3 } 3		1 } 1	16 } 18
Don't know	4	2	3			1	10
TOTAL	44	43	19	17	2	5	130

TABLE 7: Supervisors' job aspirations for their sons (Continued)

b) Analysed by Non-Supervisors' fathers' jobs

N=119

The Jobs Held by the Supervisors' Fathers	THE SUPERVISORS' JOB ASPIRATIONS FOR THEIR SONS						
	Professional	Clerical Worker	Unspecified Mining Jobs	Tradesmen	Miscellaneous	Don't Know	Total
Manual Labourers							
In mining	13 } 11 }	3 } 12 }	3 } 5 }	2 } 7 }	0 } 1 }	0 } 1 }	21 } 37 }
Non-mining	24	15	8	9	1	1	58
Supervisors							
In mining	1 } 1 }	6 } 2 }	2 } 0 }		1 } 0 }	1 } 0 }	11 } 3 }
Non-mining	2	8	2		1	1	14
Self Employed	2		1	1			4
Tradesmen	8	7	3	2		1	21
Clerical	6	5	1				12
Don't know	4	6 4					10
TOTAL	46	41	15	12	2	3	119

Note: The difference between the supervisors and the non-supervisors' aspirations was not significant at the five per cent level.

TABLE 7: Supervisors' job aspirations for their sons (Continued)

c) Some reasons given for job aspirations for their sons

N=249

Job Aspirations for Sons	R E A S O N S M E N T I O N E D
Professional	(<u>Mentioned 90 times</u>) - Pays well - Serve the community - Should not suffer like his father - Satisfying work - Work near home - (Lawyer) Help people who were wrongly arrested
Clerical worker	(<u>Mentioned 84 times</u>) - Pays well - Promotion is based upon education - Light work
Tradesmen	(<u>Mentioned 29 times</u>) - Pays well - Work available elsewhere - Near home - Light work
Mining	(<u>Mentioned 34 times</u>) - Jobs in abundance - Avoid influx control - Employs everyone irrespective of education - Free fringe benefits

Workers' father : Manual labourer
 Worker himself : Manual Labourer
 Workers' son : Professional or clerical worker

Other responses showed rising aspirations, for example:

Workers' father : Manual labourer
 Worker himself : Supervisor
 Workers' son : Professional or clerical worker

The main reasons workers gave for job aspirations for their sons were good pay and light work. Some of the other responses reflected a desire by the workers to provide a better future for their sons than they were experiencing, for example:

He should not suffer like his father.

He will be able to help people who were wrongly arrested.

He will avoid influx control.

In mining jobs are in abundance.

He will be able to work near home.

Promotion in that job is based upon education.

(b) Long-term perspectives

In order to determine what future they envisaged for themselves, and consequently what plans the mining industry would need to make to adapt to their goals, workers were asked three sets of questions on their long-term future. The first set was

What future do you see for yourself in the next five years while you are working in mining?

Many of the workers were fairly optimistic of their future (Table 8a): some responded that their future prospects entailed an increase in their overall welfare, whereas others foresaw advancement on the mines. Counter-balanced against this optimism were those workers (especially the non-supervisors) who saw no future for themselves - just a sort of stagnation of their present existence. There was some despondency among this last group because of their lack of prospects for the future. Evidently a mining future did not satisfy their aspirations (Table 8b). Examples of some responses were:

I will still be working on the mines.

I will still be a team leader.

TABLE 8 : What jobs and life did black mineworkers aspire to in five years?

a) Number of times each option was selected

N=249

Job Category	CATEGORIZATION OF RESPONSES ON FUTURE LIFE						Total	Per-centage
	Increase in Wealth Stock and Personal Possessions	Advancement in the Mines	Stagnation	Retired	Will move to Towns	Do not Know		
Supervisory	49	29	19	8	0	20	125	51
Non-Supervisory	34	27	30	8	2	21	122	49
Total	83	56	49	16	2	41	*247	100

Note: *(i) Two men did not respond

(ii) The difference between the responses of supervisors and non-supervisors was not significant at the five per cent level ($\chi^2=4,82$; $df=3$) on the first four variables.

TABLE 8 : What jobs and life did black mineworkers aspire to in five years?
(Continued)

b) Some comments recorded on options

N=249

CATEGORIZATION OF THE COMMENTS	COMMENTS MADE
Increase in Wealth Stock and Personal Possessions	(MENTIONED 83 TIMES) - I will have saved enough money to build a beautiful house and buy a car - I will be earning enough to support my family - I would have accumulated enough money. After that I will leave mining and open a business
Advancement on the Mines	(MENTIONED 56 TIMES) - I will be a chief instructor on the mine - The future is bright because nowadays people are trained for jobs formerly done by whites - I will be a clerk in five years time because I am doing further studies - I would like to be a geologist
Stagnation (No vertical or horizontal mobility)	(MENTIONED 49 TIMES) - I will still be a team leader - I will still be working on the mines - I will still be here - I will still be a lasher
Retired	(MENTIONED 16 TIMES) - I see no future because I am old now and have no money - only hoping to get pension - I am about to go on pension in a year - I have reached the last ladder of my promotion
Moved to Towns	(MENTIONED TWICE) - I will be working in town as a driver

The second set of questions was:

Do you have a goal for work outside mining during your working life?

If yes, what is that goal?

A summary of the responses to these questions is given in Tables 9a and b. Most of the workers did not have goals for work outside mining because of certain negative factors in their own make-up (no education or money), negative factors in secondary industry (no job security and high costs of subsistence), and because of positive features of mining (promotional opportunities). These last responses showed a lack of realism in the current power relations, for mining could not accommodate the number of advancements hoped for by non-supervisors (27 out of 122 or 22 per cent, Table 8a) especially as there were only a limited number of supervisory posts available. (See Table 9c for a breakdown of job categories on a mine.) The problem is even greater for supervisors desiring advancement (29 out of 125 or 23 per cent, Table 8a) as currently there are no career prospects for them.

The other workers were equally divided in their views of their future between self-employment, personal and family goals and work in secondary industry. This accords with previous research findings on workers starting a second career after leaving mining (Moller and Schlemmer, 1981).

The last set of questions was:

Do you have a goal in you life when you stop working?
if so, what is that goal?

A summary of the responses given to these questions is presented in Tables 10a and b. Conventional wisdom has typified the retired black worker as a man who sits at home doing nothing. However, this picture of lethargy is not substantiated by the men's declared aspirations. On the contrary most of the workers intended going into private enterprise in a small way or working at home on a small holding and generally keeping themselves occupied. Those men who intended to retire and rest considered themselves too old to do anything else with their lives. Significantly more supervisors (Table 10a) had goals for self employment than did non-supervisors, possibly as they would have more capital to do so and they were possibly closer to the age of withdrawal from mining.

TABLE 9: Black mineworkers' goals for work outside mining

a) Number of times each goal was mentioned

N=249

Job Category	G O A L S				
	No goals other than mining	Self Employment	Personal and Family goals*	Work in Secondary Industry	Total
Supervisors	62	14	20	22	118
Non-Supervisors	72	20	14	12	118
Total	134	34	34	34	236*

Notes : (i) 13 men did not respond

*(ii) This category included men who wished to further their education.

(iii) The differences in the responses of supervisors and non-supervisors were not significant at the five per cent level ($\chi^2=1,79$; $df < 3$).

TABLE 9: Black mineworkers' goals for work outside mining (Continued)

b) Some reasons recorded for the goals

N=249

GOALS FOR WORK OUTSIDE OF MINING	C O M M E N T S M A D E
1. No goals other than mining	(134 COMMENTS MADE) - I have neither money nor education to start anything elsewhere. I have to work here. - There are promotional opportunities on the mines whereas in towns one becomes a cleaner or a sweeper for ever. - There is no security in jobs outside mining. - The cost of working outside the mines is very high because they pay for food, transport and accommodation.
2. Self employment	(34 COMMENTS MADE) - I want to open up a business by buying a tractor to mill corn. - I will build houses for people at home. - I want to run my own business. I might buy a shop or a café or a butchery. - I want to become a cattle farmer because presently I am buying a lot of cattle. - I want to attend a course in car maintenance and work for a few years and thereafter become self employed.
3. Personal and family goals	(34 COMMENTS MADE) - I am about to go on pension because I am old. - I would like to be a musician. - I would like to continue my studies.
4. Work in secondary industry	(34 COMMENTS MADE) - Outside industries are paying better - They are paying better. We are being exploited on the mines by being paid less with the excuse that we are given fringe benefits. Yet some of these fringe benefits, like the food are not enjoyable.
5. Do not know	(15 COMMENTS MADE) - Not yet decided my future for next five years while on the mine. - Do not know I cannot foretell my future. - I do not know I cannot foretell my future, I might get injured and not realize anything.

TABLE 9: Black mineworkers' goals for work outside mining (Continued)

c) Job distribution of black mineworkers in two mine overseers' sections

JOB DESCRIPTION	SECTION 1		SECTION 2	
	Number of Workers	Percentage	Number of Workers	Percentage
Team Leader	78	13	51	10
Operators of machinery	241	41	181	35
Stope/Development	156	26	151	30
Labourers	69	12	68	13
Artisan Aides and Other Underground categories	46	8	57	11
Total	591	100	512	100

Note: These data were derived from de Vries P., Monitoring Indices of Black Workers' Behaviour on one Gold Mine : January to December, 1979. Chamber of Mines of South Africa, Johannesburg, 1980.

TABLE 10: Black mineworkers' goals for when they stopped working

a) Number of times goals were mentioned

N=249

Job Category	G O A L S				
	Self Employment	Retire and Rest	Retire and do odd jobs	No Plans, Undecided	Total
Non-Supervisors	59	20	23	18	120
Supervisors	85	16	11	12	124
Total	144	36	34	30	244*

- Notes: (i) 15 men did not respond
- (ii) The differences between the responses of supervisors and non-supervisors were significant at the five per cent level ($\chi^2=10,49$; $df=3$).

TABLE 10: (Continued)

b) Some comments made on the goals

N=249

GOALS WHEN THEY STOPPED WORKING	C O M M E N T S M A D E
1. Self Employment	<u>(144 COMMENTS MADE)</u> - I intend owning a bottle store at home - I would like to start a boarding house - I would like to run a taxi business
2. Retire and Rest	<u>(36 COMMENTS MADE)</u> - May be I will be too old to do anything - I want to retire and do nothing
3. Retire and do odd jobs	<u>(34 COMMENTS MADE)</u> - I will look after my cattle at home - I want to look after my home and grow vegetables - I would like to learn carpentry and do things for myself at home

7.3 Data from other Research Studies

(a) Withdrawal from work

Currently mining is populated mainly by young black workers: about 80 per cent of them are between the ages of 21 and 40 years (Table 11). It would appear that there is a vast exodus after 40 years of age, and that very few men remain after reaching 50. This has been the trend for some time as similar data were found by McNamara in 1974. However, with the greater stabilization of the labour force, there may be a change in this trend in the future.

The workers were not asked specifically in the current survey why they were withdrawing from mining, but the research done on exit interviews with black workers is replete with factors which serve to push them out of the industry at a relatively early age, for example:

- lack of opportunities for advancement to better paying jobs (MacArthur et al, 1978).
- strenuous nature of the job (Hall, 1982)
- separation from their families (de Vries, 1981)
- supervisors "driving" them to work harder (de Vries, 1981)
- dangerous nature of the job (Parsons, 1977).

(b) Financial and retirement plans of black mineworkers (based on de Vries, P., Phetha, R.T. and McNamara, J.K. "The Aspirations of Black Mineworkers", Research Report No. 16/82, Johannesburg, Chamber of Mines of South Africa, 1982).

The institutionalization of migrancy over the past 90 years in South Africa has profoundly influenced black people's perceptions and plans regarding long-term retirement. The "homeland" system and influx control together have forced blacks to regard their rural origins as the place of ultimate security. The homeland policy can actually be viewed as being mainly a policy of forced retirement in rural areas away from the cities. In the past, for example, blacks have not enjoyed the alleged security of pensions - the first pension schemes for certain blacks were introduced in 1944 (Roux, 1981). Most black employees have had to make plans for long-term economic security at their rural homes.

TABLE 11: Age distribution of black mineworkers in two mine overseers' sections

Age Categories (In Years)	SECTION 1		SECTION 2	
	Number of Workers	Percentage	Number of Workers	Percentage
20 and less	43	7	41	8
21 - 24	163	28	131	26
25 - 29	174	29	140	27
30 - 39	137	23	136	27
40 - 49	66	11	53	10
50 and over	7	1	11	2
Total	590	100	512	100

Note: These data were derived from de Vries, P., Monitoring Indices of Black Workers' Behaviour on One Gold Mine : January to December, 1979. Chamber of Mines of South Africa, Johannesburg, 1980.

The basic economic problem confronting blacks in South Africa lies in the need to secure "remunerations which meet the full cost of the reproduction in times of illness, unemployment and old age" (Roux, 1981). The primary goal of most migrants in this respect, particularly those working on the mines, is to consolidate their rural base in preparation for retirement (Spiegel, 1980). This involves gaining access to land, preferably arable, although few migrants enjoy such a privilege. Parents of migrants with control over such land require regular cash remittances before the transfer of arable rights is achieved (Spiegel, 1980).

The next step may be to build a homestead on the land, an activity with deep emotional and religious significance (McAllister, 1980). This task requires regular capital infusions, and may take the migrant the rest of his working life to complete.

The third step is to ensure that the land, if arable, is worked to realize its subsistence potential to help supplement the family's rural income, particularly if unforeseen circumstances, such as illness and injury leave the family temporarily or prematurely without a breadwinner and vulnerable to starvation (Spiegel, 1980).

To ensure that the land base can produce at subsistence levels during such emergency periods, there is a need for further cash flows to hire ploughing teams, purchase livestock, seeds, equipment, etc. (Spiegel, 1980). This need is so great as to encourage migrants to spend their injury compensation awards on livestock and other subsistence needs (McLaren, 1982). Once the subsistence base has been consolidated as securely as possible under given circumstances - a task which may take a lifetime of migrancy - the breadwinner can start to consider retirement.

The need for cash continues after retirement, however, a need which may be met by dipping into savings, receiving remittances from children and/or "informal" economic activities. The land, meanwhile, will hopefully continue to provide some yield and offer basic security in retirement. Some migrants, however, are occasionally obliged to come out of retirement to take another contract when conditions have degenerated.

Table 12 summarizes the views of 92 mineworkers on how they planned to live in their old age. These interviews were conducted in 1974, and suggest that even then, dependency on livestock and children's remittances outweighed dependency on "ploughing" and subsistence.

These brief sketches of migrants' retirement plans and circumstances, clearly indicate that a man's cash needs are greatest in his early working life, devoted as they are to consolidating the rural base. These early needs are intensified by the obligation to pay lobolo to obtain a wife, and later to send children to school.

(c) Future scenario for employment and rural development

Workers' aspirations for life outside mining need to be viewed in the light of their prospects for alternative employment in secondary industry and the possibility of their making a success of subsistence farming at home. The following quotations gleaned from recently published documents serve to place workers' aspirations for a life outside mining in perspective:

Widespread unemployment, a spiralling cost of living ... combine to precipitate an extremely serious situation in our rural areas.

... the development of the rural areas is stunted further as meagre resources have to be shared with a greater number of people.

(Both quotations from Thula, 1981)

The labour force of southern Africa which added up to 22 000 000 (male and female) in 1980 is expected to grow by 2,7 per cent (per annum) to add 16 000 000 (net) during the next 20 years. Of the latter some 7 000 000 will be added to the labour force of South Africa In a sub-continent already suffering from unemployment, underemployment and poverty such prospects are daunting.

As the given land area is being parcelled out among increasing numbers of households, the size of each unit is systematically reduced to intensify the inadequacy of the output to satisfy household needs. Eventually, further sub-division

TABLE 12: Retirement plans of 92 Xhosa-speaking mineworkers on one gold mine

PLAN FOR LIVING IN OLD AGE	Number of Subjects
Livestock will support me	31
My sons/children will support me	27
I will use the money I have saved	18
I will use my long service award	6
I will plough my fields	5
I will use my inheritance	3
I will do other work/make money	2
Total	92

SOURCE: McNamara, J.K. The Xhosa Migrant Mineworker. Unpublished Honours Dissertation. Johannesburg : University of the Witwatersrand, 1974.

of the land becomes impossible. The yield is, in addition, being undermined by non-conservationist cultivation of the soil ... the animal stock ... is dependent upon the limited grazing land for its maintenance ...

(Both quotations by Sadie, 1981)

Thus over time, the average sizes of arable allotments held by landholding households (in Lesotho) has been falling.

Wage-earning opportunities are beginning to fall off increasingly as the labour force grows.

(Both quotations from Spiegel, 1981)

Seen in this light, many of the aspirations of workers for a full life outside mining, if they have not already made some preparations by procuring land, implements and cattle will come to nought. Equally, light jobs in secondary industry do not appear to be readily available in the future.

7.4 Summary

There was a great deal of realism in most workers' stated aspirations; many of them appeared to be aware of the economic situation in the urban areas where jobs were scarce, particularly for men with relatively low levels of formal education, and thus selected mining as their future as jobs were available there. Money, or the shortage of it, seemed to be an over-riding consideration in this choice as, if they - like their predecessors - withdrew from mining at the age of 40, they would have to have accumulated enough funds to start their own enterprise at their rural homes. This has implications for social change and quality of life studies as men with such long-term goals may be prepared to tolerate poor conditions stoically rather than come into opposition against them and jeopardize their future plans.

There was a desire expressed by many of the men for jobs with better pay, lighter work, greater safety and with greater access to their families. There seems to be some element of self-delusion in such responses as the prospects - especially for men with limited experience in

other industries, low education and limited knowledge of a Western language - do not appear good. The only prospects appeared to be in "heavy" secondary industry where the conditions were equally debilitating.

At the time of writing, advancement to jobs held by whites was not possible because of the closed-shop agreement between the Chamber of Mines and the White Unions, however many team leaders may have argued that when such restrictions were lifted, men with their mining experience should stand a good chance for advancement. These men may also not want to jeopardise their prospects by coming into opposition with mine authorities if they viewed their quality of life on mines to be low.

The responses and the above analysis is based on the views of individuals and how they viewed their future and their response to a low quality of life; but, the situation could be somewhat different when these men are in groups and when they adopt group norms. This will be a subject reported on in the other findings.

CHAPTER 8. FINDINGS : MEASUREMENT OF SOCIAL INDICATORS OF QUALITY OF LIFE

8.1 Introduction

The theories underpinning quality of life studies and the social indicator movement have been explained in Chapter 4 and the methodologies used in the investigations in Chapter 6. In the current chapter the findings of the investigations conducted into black mineworkers' quality of life using the indicators mentioned below will be described:

- Macro-level indicators
- Micro-level indicators

- Definitional indicators
- Inferential indicators

- Subjective or Qualitative indicators
 - . Qualitative indicators : impressionistic views
 - . Qualitative indicators : survey using unstructured questions
 - . Qualitative indicators : survey using reference groups
 - . Qualitative indicators : ranking of satisfactions and dissatisfactions

- Objective or Quantitative indicators

These nine different indicators were used in an endeavour to obtain corroborative empirical data on the actual level of black mineworkers' quality of life. Mine management has claimed that the quality of life is high: it points to the new hostels, the heated rooms, the piped music, the sports stadia, the nutritious meals, higher wages, procedures for resolving grievances, greater job security and the like introduced on mines in the 1970s to justify this position (Section 8.6 and Appendix IV). These physical facilities are indeed of a very high standard and on many mines the incidence of strikes and riots has dropped. Consequently, the use of one or two indicators would be insufficient to invalidate the claim. If one or two investigations provided data contrary to management's claim, it could dispute the findings as being isolated cases of poor quality of life which do not invalidate the overall trend. Therefore, it was decided to conduct a number of different studies using a few of the indicators to determine the degree of corroboration among the data collected on the actual quality of workers' lives on mines.

8.2 Macro-level Indicators

Three indicators of worker well-being were examined and are presented below under the headings : wages, grievance resolution and work procedures. these data were not obtained from the author's own investigations, but they have been presented, with the author's comment, to illustrate the usefulness of such indicators.

- (a) Wages
- (b) Grievance resolution
- (c) Work procedures
- (d) Summary

(a) Wages

Parsons (1979) found that the wages of black mineworkers had risen 218,4 per cent in the period 1970-1978. There is, however, a problem from the workers' viewpoint of using only a time perspective to evaluate change: workers have on average, had a total mining experience of just over three years (de Vries, 1981) and from this limited perspective the change in wages would not appear marked. A comparison more in the realm of their experience is between mining and secondary industry where Parsons found that mining wages were below market rates even when fringe benefits were added to mining wages. The discrepancy varied between 29 per cent for jobs with very low levels of skill to 108 per cent for semi-skilled jobs. In the same analysis, Parsons compared mining wages with poverty indices (The Minimum Living Standard and the Supplemented Living Level) and found that, even after adding fringe benefits to basic mining wages, between 28 and 86 per cent of the underground mine workforce did not attain the minimum poverty level. (The difference in percentage arose from the different bases of comparison.)

(b) Grievance resolution

In the mid-1970s many mine managements started to introduce liaison committees to provide opportunities for worker representatives to inform management of workers' views and grievances. They were also intended to provide management with the opportunity to consult workers on their views prior to taking decisions on matters affecting workers. However, this ideal has not always been put into practice. In the past few years the 11-day fortnight, the death-benefit scheme, the return bonus and the stabilization bonus were introduced without consulting workers.

Workers have also used the liaison committees to bring their grievances to the fore, however, the testimony of their usefulness to workers is that some critical problems have been raised time and time again at meetings without a satisfactory resolution (McNamara, 1982).

(c) Work procedures

The stabilization bonus was instituted to provide mines with sufficient numbers of experienced returning workers to ensure that their stay at home between contracts was so short that it did not affect work schedules, and that work contracts were long enough for the mine to gain maximum benefits from their labour. This "bonus" was presented to the workers as a form of greater job security. The effects of these procedures on workers' families and home life were evidently of lesser concern to mine management as will be shown later in the workers' assessment of the changes.

(d) Summary

Management's claim that workers' quality of life is high is supported by the macro-level indicators provided that the indicators are analysed in a certain way; however, if they are analysed from a different perspective a different trend emerges which invalidates this claim.

Macro-level indicators such as a rise in wages over time, the introduction of liaison committees and stabilization schemes tend to indicate that quality of life has improved, but because of their macro-nature tend to hide the actual circumstances.

8.3 Micro-level Indicators

(a) Introduction

(The methodology for this investigation is described in Chapter 6(c) under the heading "Monitoring of opinion data verified with measurements of the physical environment".) A day in the life of a black mineworker was taken as the theme of the research, and factors impinging upon his life were identified and investigated. The workers' opinions of the physical facilities on the mine were determined and these were verified by taking measurements of many of the facilities at various times of the day, such as travelling time to and from work, sleeping time, temperature of shower water and temperature and quantity of food. This was done to try to view the facilities as the worker does, that is, as they are administered by mine officials.

The data are presented as various phases in the workers' day:

- in the hostel prior to work
 - . waking in the morning
 - . changing for work
 - . breakfast in the morning
- en route to work and at work
- in the hostel after work
 - . showering and changing
 - . eating
 - . cleaning of rooms
 - . sleeping

(b) In the hostel prior to work

(i) Waking in the morning

On two of the four mines loudspeaker systems were used to wake the hostel dwellers en masse although they were housed in mine overseer or section managers' sections, and in spite of the fact that the times when workers were required to be ready to go underground were known to the hostel personnel. However, tallies taken of men sleeping at various times of the night and again after morning wakening time (Figure 4) show that 25 per cent of the men could have obtained at least eight hours sleep at night, 35 per cent at least seven-and-a-half hours and 72 per cent at least six-and-a-half hours. In practice, men probably slept more than these minimum hours. Moreover, men did not raise "lack of sleep" when asked about the likes and dislikes of the hostel, nor was it raised in hostel committee meetings.

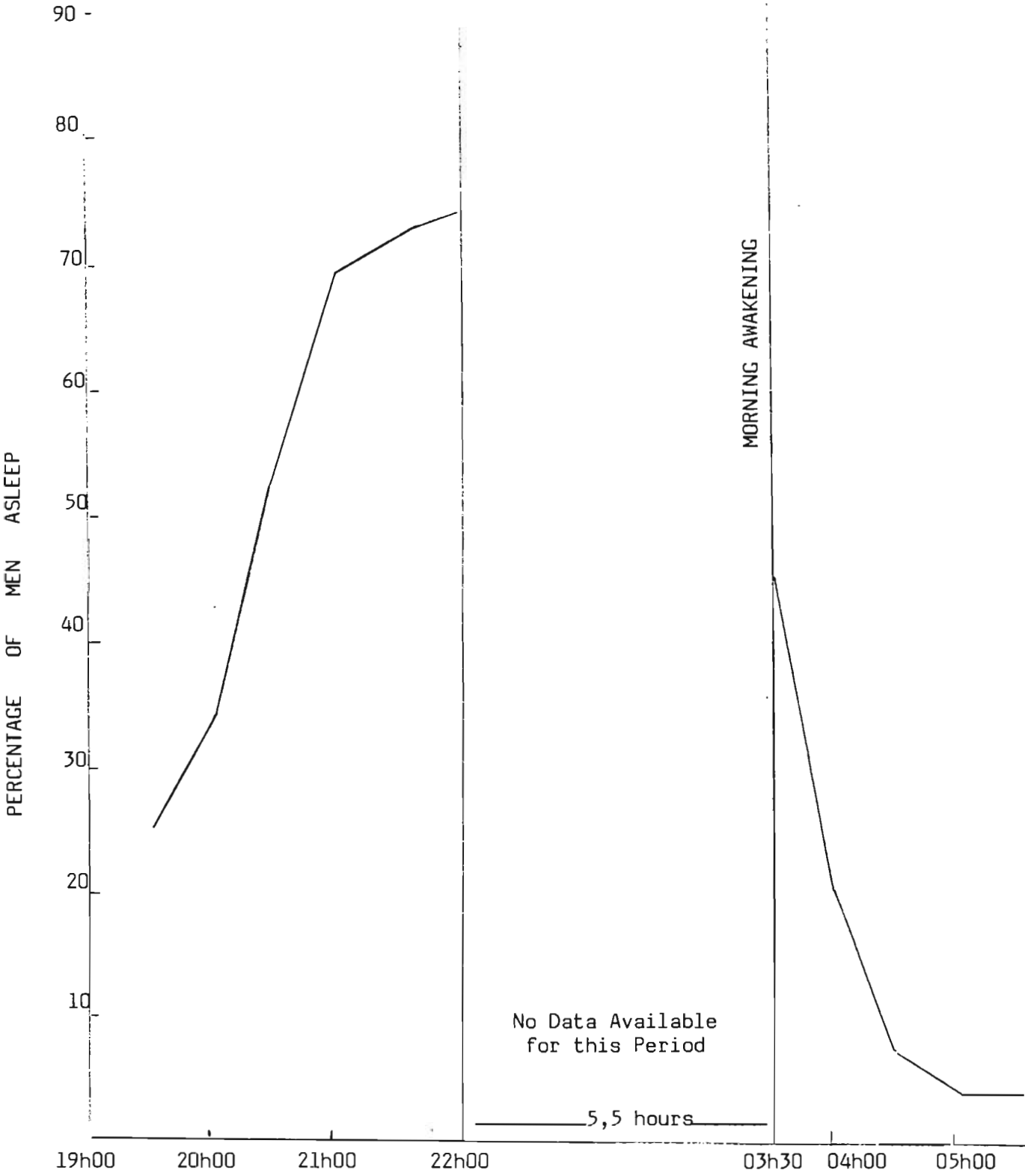


FIGURE 4 : Percentage of black mineworkers asleep at various times during the night

The adequacy of the night's rest can also be viewed in terms of the sleeping accommodation provided. Forty-four of the 144 men interviewed (31 per cent) claimed that they liked everything in their hostel rooms. The major dislike of 28 men was that housing by mine overseers' sections made it difficult for them to talk to one another because men who resided together spoke different languages (Table 13). A complaint on one mine (6 out of 36 men, or 17 per cent) was that rooms were cold (Table 13). This mine used electrical skirting heaters whereas others used electrical panel heaters.

Two men on one mine said they liked the hostels because rooms were not crowded. All the hostels maintained room manning boards which were most useful for monitoring and controlling the movements of men and identifying problems such as over-bunking. From these it was noted that one of the mines was experiencing a certain amount of over-bunking in the rooms which could have made the rooms less comfortable to live in than under normal circumstances and could have affected men's night rest, as well as the flow of men through other hostel facilities.

(ii) Changing for work

Men on all four mines usually went to change houses to change into their underground clothes before they had breakfast. They moved through change houses quickly (median time : twelve-and-a-half minutes (Table 14)) and it was observed that there was little crowding.

Most men interviewed said they liked the change houses (113 responses out of 144), but ten men claimed that clothing was often stolen from there while they were working underground (Table 19). It appeared to be relatively easy for workers on three of the mines to steal clothing from clothes baskets as these were returned to workers on request with no check to ensure that the requester received his own basket. The other mine maintained basket security by checking the basket numbers against the workers' mine numbers. The minutes of hostel committee meetings show that this matter had also been raised on four occasions in the previous three months, but appears not to have been solved to men's satisfaction.

TABLE 13 : Opinions of black mineworkers about hostel rooms

N=144

L I K E S		D I S L I K E S	
Issues raised	Number of times issue was raised*	Issues raised	Number of times issue was raised
Completely satisfied	44	Because do not understand one another's languages	28
Rooms clean	4	Rooms cold	6
Beds good	4	Toilets dirty	2
Rooms not crowded	2	Room-mates noisy	1
Little noise	2	Room-mates care- less	1
Cost nothing	1		
Near to shaft	1		

* The number of responses is less than the number of respondents as some men chose not to raise this issue

TABLE 14 : Flow of black mineworkers through change houses

	Time In	Time Out	Time spent changing
Man 1	03h19	03h28	9 mins.
Man 2	03h50	04h10	20 mins.
Man 3	03h25	03h35	10 mins.
Man 4	04h05	04h20	15 mins.
Man 5	03h50	04h10	20 mins.
Man 6	05h08	05h13	5 mins.

Mean : 13 minutes

Median : 12,5 minutes

Minimum time taken : 5 minutes

Maximum time taken : 20 minutes

(iii) Breakfast in the morning

After changing into their underground clothing men went to breakfast. Table 15 shows the time taken by six men on one mine to move through dining halls. It would appear that there was no rush at breakfast; no queues were observed, few men were there at one time and men were served quickly. Breakfast was an important meal on the mine, for most men ate again only when they returned from underground some 10 hours later.

The items offered at breakfast on the mines were usually lambalaza (soft porridge), sometimes hard porridge as well, bread, soup and tea, coffee or cocoa. Figure 5 shows the temperature and consumption of lambalaza in the morning on one mine. This shows that the temperature dropped below the optimum serving temperature which has been quoted by reliable sources as 70 degrees C to 80 degrees C (Personal Communication, Head of Hotel School, Johannesburg, 1978). Moreover, the consumption of lambalaza was low, 29 litres among 490 men. A census taken in one hostel between 03h00 and 08h00 (Table 16) shows this meal was not very well attended. Similar patterns were observed in some of the hostels of the other three mines. There were statistically significant differences between the number of men taking breakfast in different hostel blocks although reasons for men not taking breakfast were not determined. The unpopularity of breakfast could be attributed to men's wanting to sleep longer in the morning, to the coldness and quality of the soft porridge (two men claimed that it was too watery) or simply to some men not wanting to eat early morning meals. Although all mines supplied workers with partitioned dishes, mugs and spoons were not supplied. As a result men who wished to have soft porridge or tea would have had to return to their rooms to wash and put away their mugs and spoons before proceeding to work, thus interrupting their route to work and delaying them. Men may have identified this as a problem themselves, for at one hostel meeting a request was made for the mine to provide a cupboard for keeping cutlery and crockery. This request was turned down.

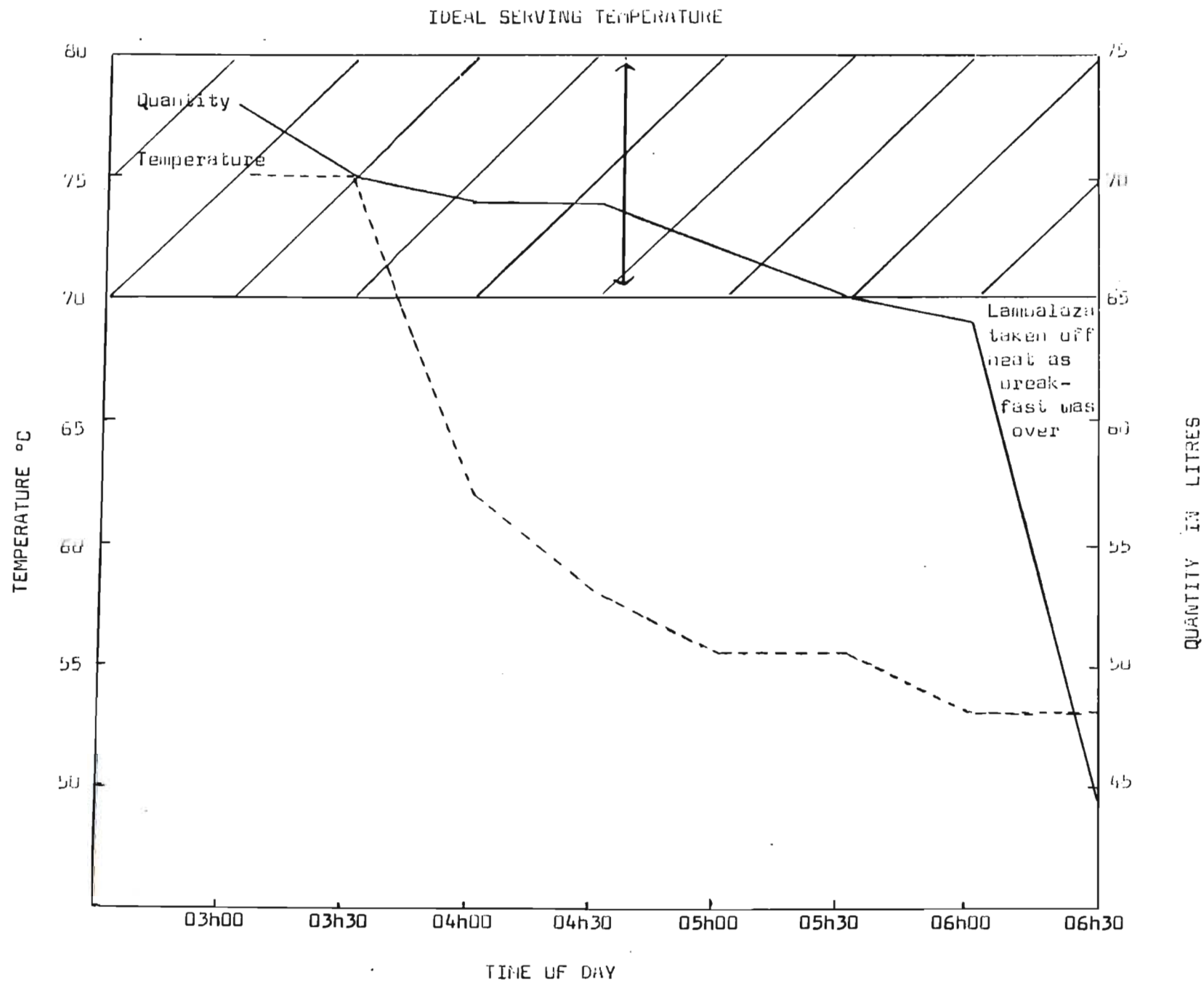


FIGURE 5: Temperature and consumption of soft porridge (Lambalaza) at breakfast

TABLE 15 : Flow of black mineworkers through dining halls at breakfast

	Time In	Time Out	Time Spent having breakfast
Man 1	-	-	NIL*
Man 2	04h15	04h20	5 mins.
Man 3	03h37	03h48	11 mins.
Man 4	04h22	04h28	6 mins.
Man 5	04h20	04h30	10 mins.
Man 6	05h15	05h25	10 mins.

* This man did not take breakfast

Mean : 8,4 minutes

Median : 10,0 minutes

Minimum time taken : 5 minutes

Maximum time taken : 11 minutes

TABLE 16 : Percentage of black mineworkers taking breakfast in different hostel blocks

Block	Number of men per block	Percentage of men taking breakfast
H	348	49
J	542	76
K	483	54
L	510	56
M	490	60
N	473	73

$$\chi^2=30,631; \text{ df}=5; p<0,001$$

(c) En route to work and at work

Men on two of the mines walked to the clocking-in-station: on the other two they were conveyed there by personnel carriers. There was a steady flow of carriers to ensure that men arrived at the station with the minimum of delay. To obtain some indication of the movements of men and the times they required to flow through hostel facilities, 13 men (six whose movements through dining halls and change houses were also recorded) were observed from waking until the clocked in at the station. Table 17 shows that men had different behaviour patterns: one slept as late as possible, evidently missed breakfast and was ready to go under ground 19 minutes later, another two men dawdled and took as long as 125 and 46 minutes respectively from waking to clocking on. The median time taken was 48 minutes. The time spent underground has an important bearing on the flow of men through the hostel facilities after shift. Late hoisting was raised as a grievance at work committee meetings on all the mines. The following are two replies given by mine management on one mine when this issues was raised in meetings:

An underground census of the men who were hoisted late had shown that many workers were working fewer hours than expected.

Workers are coming out half an hour earlier than on other shafts.

The mine in question was measuring times to and from the clocking-in-station times but apparently made an incorrect inference from its statistical analysis of these data. It claimed that men had no justification in complaining about late hoisting as the mean time to and from the clocking-in-station was nine hours. The above replies given by the mine were misleading and inadequate as they did not deal with the problems of the men who were hoisted late. Figure 6 shows that at least 19,4 per cent of the men on the mine in question spent from nine-and-a-half hours to 12 hours travelling to and from work and at work. The other mines had similar patterns.

TABLE 17 : Time taken from getting up in the morning to clocking in

	Waking time	Clocking-in time	Duration
Man 1	03h00	03h40	40 mins.
Man 2	03h50	04h51	61 mins.
Man 3	05h15	05h34	19 mins.
Man 4	03h15	03h59	44 mins.
Man 5	03h30	05h56	146 mins.
Man 6	03h30	04h35	65 mins.
Man 7	04h20	04h53	33 mins.
Man 8	03h19	03h58	39 mins.
Man 9	03h20	05h25	125 mins.
Man 10	03h15	04h03	48 mins.
Man 11	04h00	04h51	51 mins.
Man 12	03h40	05h00	80 mins.
Man 13	05h05	05h48	43 mins.

Mean time : 61 minutes

Median time : 48 minutes

Shortest time taken : 19 minutes

Longest time taken : 146 minutes

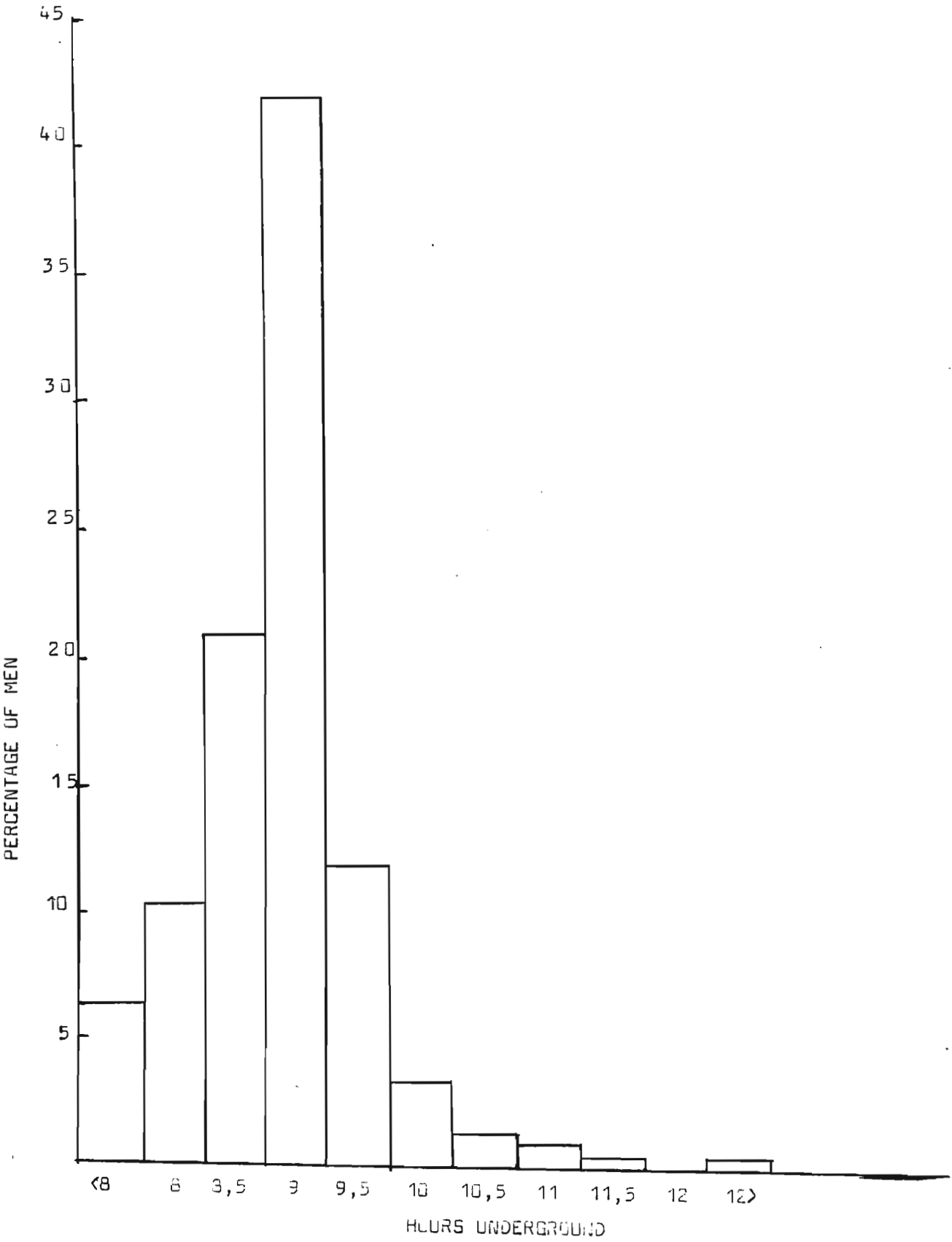


Figure 6 : Bank-to-Bank Time (Travel to and from clocking-in-station)

(d) In the hostel after work

Underground workers can be placed into the following categories based upon their hoisting times :

- the early-comers who arrived at the change houses and dining halls before the large influx;
- the large influx of men arriving virtually at the same time at the change houses and dining halls;
- the late-comers who arrived at the change houses and dining halls after the large influx.

The flow of these three groups of men through the hostel facilities is discussed below.

(i) Showering and changing after work

Four of the change houses on the mine had approximately one-fifth utilization at the peak influx period (Table 18) whereas the other two had strikingly different utilization patterns. This seems to indicate that peak influx was at different times in different hostel blocks. Also some men may have preferred to change and shower immediately after returning from underground work whereas some probably ate or went to the liquor outlet first. There was a possibility of congestion at peak periods which might have diverted some men to other facilities while they waited for the large influx to clear or that some men preferred not to shower at all.

Figure 7 shows the water temperatures in three change houses over an afternoon period. The horizontal lines on the graph show temperatures which have been classified by scientific study as the temperature at which a person experiences pain (Personal Communication, Industrial Hygiene Division, Chamber of Mines 1978) and the temperature level at which the water is ideal for showering (Rogers and Strydom, 1976). It will be noted that initially the temperature of shower water was hotter than most people can bear, that it dropped to the ideal temperature, rose again in two cases to hot and in the other case dropped as low as 25 degrees C. It was noted that the showers were designed so that men had no means of regulating these temperatures. All of the mines had had problems with the temperature of the shower water at one time or another.

TABLE 18 : Usage of change house at time of large influx of black mineworkers from underground

B L O C K	H	J	K	L	M	N
Number of men per block	348	546	483	510	490	473
Number of toilets	12	10	10	10	10	10
Number of showers	12	40	40	40	40	40
Number of men in change house*	36	109	103	107	110	35
Percentage utilization of change house	10	20	21	21	22	7

* Men were at various stages of undress when this tally was taken

TABLE 19 : Opinions of black mineworkers about change houses

N=144

L I K E S		D I S L I K E S	
Issues raised	Number of times issue was raised	Issues raised	Number of times issue was raised
Change houses in general	113	Water very cold	33
Change houses are clean	59	Water too hot	7
Rooms are not dirtied by work clothes	50	Water finished	7
Water is hot	11	Theft of clothing	10
Able to wash clothes	8		
Clothes kept safely	4		

* The number of responses is less than the number of respondents as some men chose not to raise this issue.

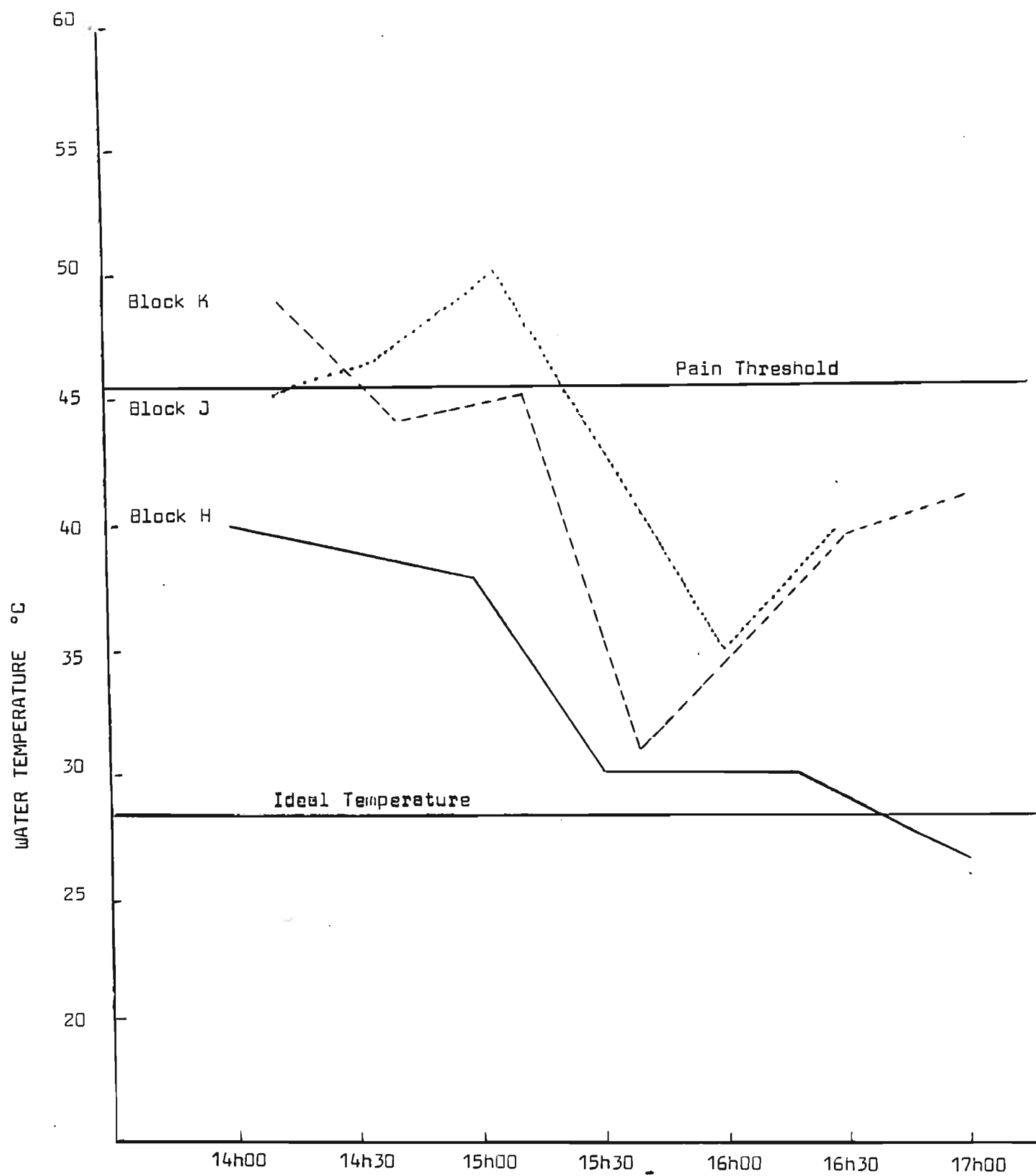


FIGURE 7: Water temperature in change houses at various times in the afternoon

It does appear incongruous on first looking at Table 19 that opinions on the temperature of shower water could differ so vastly; eleven men (8 per cent) said that they liked the change houses because the water was hot, and yet some men said that they disliked them because the water was too cold (33 men, or 23 per cent) or too hot (7 men or 5 per cent). However, all these views could in fact be valid depending upon when the men reached the change houses; the early-comers could have had showers that were scalding hot, and when they had tapped this off, the subsequent flow of water would have provided the large influx of men from underground with pleasantly enjoyable shower water, but because of excessive usage by this group, only lukewarm or cold water would have been left for late-comers.

The question of cold shower water had been raised on four occasions in hostel meetings and although, according to the minutes, action had been taken, the temperature of the shower water remained a problem which had not been solved to the satisfaction of all the hostel-dwellers.

(ii) Eating in the afternoon

After showering and changing, many men went directly to the dining halls for their main meal of the day. On one mine queues were not long during peak periods, the longest recorded on the day on which the data were collected was six deep and the longest waiting time for men to be served was 143 seconds (Table 20). The tallies of men in the dining halls of one mine at various stages of the afternoon (Table 21) show that there was an even flow with no crowding especially at peak periods which occurred approximately from 14h00 to 15h00. The census taken on another mine (Table 22) on the consumption of the main meal showed that some men evidently had more than one meal in the afternoon.

Cooking of the main meal began as early as 02h00 on some mines for items like offal; the times and quantities of items cooked in one hostel are shown in Table 23. Most items were cooked so as to be ready for consumption by the early-comers. Consequently, early-comers enjoyed freshly cooked meals and late-comers had food that had been standing in pots for some time and whose colour and texture had deteriorated somewhat.

TABLE 20 : Time taken for black mineworkers to be served in dining halls at peak periods

Dining Hall Block	Number of men per block	Number of men in queue	Time taken for last man in queue to be served
J	542	5	143 sec.
K	483	6	83 sec.
L	510	2	120 sec.
M	490	4	123 sec.
N	473	3	60 sec.

TABLE 21 : Flow of black mineworkers through dining halls

	Hostel Block	J	K	L	M	N
	Capacity	144	156	180	156	144
Time of count	Number of men seated in dining hall					
11h30		7	14	6	0	0
12h15		4	20	19	20	24
13h15		16	62	4	10	9
14h30		76	79	32	74	49
15h15		35	0	33	25	63
17h30		2	1	2	5	0
18h46		1	5	1	11	4
19h15		5	0	1	1	0

TABLE 22 : Attendance at main meal

Hostel Block	Percentage of hostel population eating main meal
H	100,60
J	101,27
K	101,04
L	117,25
M	102,59
N	103,38

TABLE 23 : Food preparation for main meal

Daily Items	Hostel Block	Quantity in pot	Cooking Started	Number of pots prepared
<u>1. MONDAY</u>				
1.1 Beef	C	134 kg	06h30	1
	n	122 kg	06h30	1
	L	134 kg	06h30	1
	H	136 kg	06h30	1
	g	136 kg	06h30	1
1.2 Vegetables		600 kg	09h00	3
		200 kg	14h00	1
1.3 Hard porridge		11 x 60 kg	08h00	1
		2 x 60 kg	24h00	1
1.4 Beans		3,5 x 70 kg	04h00	2
		1,0 x 70 kg	11h00	1
1.5 Soup		625 litres	08h00	1
<u>2. TUESDAY</u>				
2.1 Fish		670 kg	02h00 to 06h00	Fried
2.2 Vegetables		600 kg	09h00	3
		200 kg	14h00	1
2.3 Hard porridge		11 x 60 kg	08h00	1
		2 x 60 kg	24h00	1
2.4 Beans		3,5 x 70 kg	04h00	2
		1,0 x 70 kg	11h00	1
2.5 Soup		625 litres	09h00	
<u>3. WEDNESDAY</u>				
3.1 Offal		446 kg	02h00	1
		446 kg	02h00	1
		446 kg	02h00	1
3.2 Vegetables)				
3.3 Hard porridge)				
3.4 Beans)				
3.5 Soup)				
		As Above	As Above	As Above
<u>4. THURSDAY</u>				
As on Monday				
<u>5. FRIDAY</u>				
As on Tuesday				
<u>6. SATURDAY</u>				
As on Monday and Thursday, except that Blocks housing sections who are "Saturday off", receive raw meat rations.				
<u>7. SUNDAY</u>				
7.1 Raw meat issued.				
7.2 vegetables, hard porridge, beans and soup - As above.				

This problem was exacerbated on two of the mines that cooked the food in a central upstairs kitchen and transferred it to trolleys for distribution to dining halls by means of a "worm" shute. The food was broken by the shute, especially meat and potatoes. The shute dropped the food into containers which were transported to mini-dining halls by tractors. It was observed that the food went down the shute unevenly, consequently some containers were filled with too much meat and some with too much gravy. It was also noted that one mine kept strict control of the transference of food into trolleys and did not experience these problems.

Late-comers to the dining halls experienced further difficulties in that they often received cold food (Figure 8) or some of the more relished items that were not rationed like beans and potatoes were finished and they had to go without them (Figure 9). This graph shows a range of temperatures between 70 degrees C and 80 degrees C, which experienced culinary experts regard as the ideal serving temperatures for food (Personal Communication, Head of Hotel School, Johannesburg 1978). These graphs for one mine show a large consumption of hard porridge, beans, samp, vegetables and beef but low consumption of soup. Furthermore, all of these items showed rapid losses of temperature (some as low as 40 degrees C) to the point where they could hardly have been appetising. The culinary expert mentioned above suggested that this may result in bacterial contamination. Hostel dwellers' views of hostel food are shown in Table 24: again the ambivalence in views will be noted,

for example Food plentiful - very little food
 Food tasty - food tasteless.

However, both views could be valid depending upon the time when the men obtained their food. It is further revealing to note (Table 25) that although many of the dislikes were raised in hostel committee meetings in the past, they appear to have not been dealt with satisfactorily.

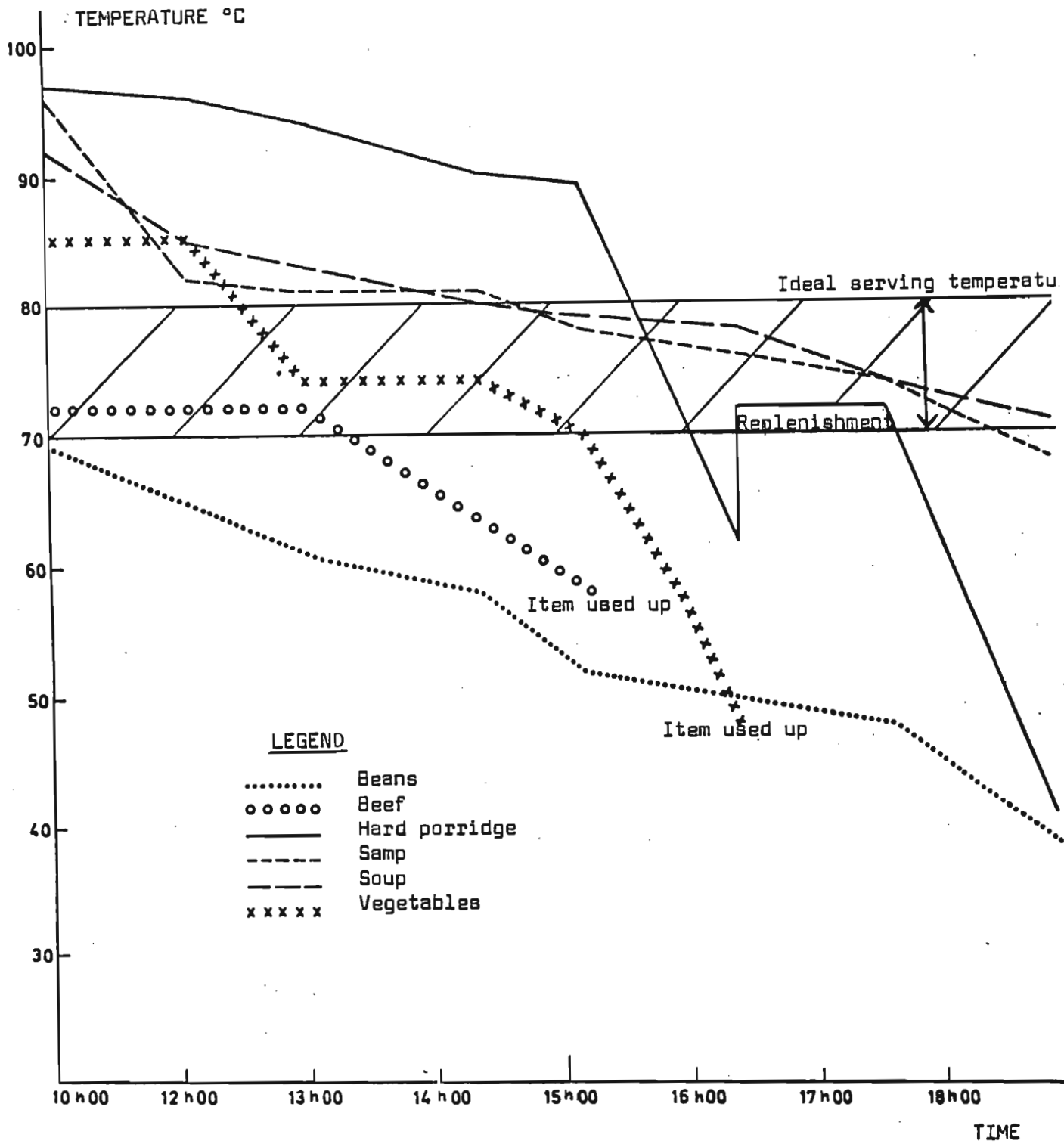


FIGURE 8 : Temperature of food items at various times of the afternoon

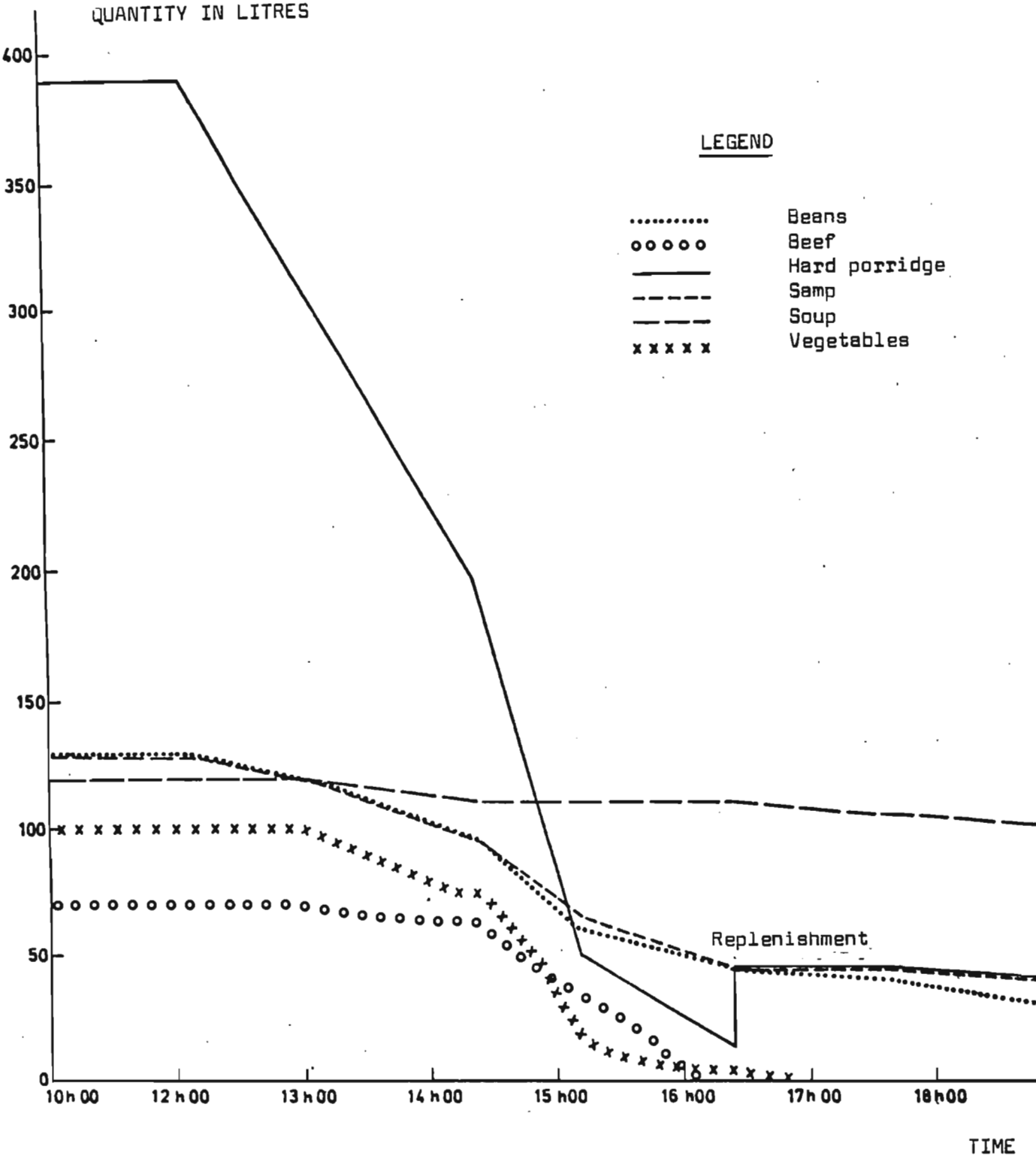


FIGURE 9 : Quantities of food remaining after consumption at various times of the afternoon

TABLE 24: Opinions of black mineworkers about food

N=144

L I K E S		D I S L I K E S	
Issues Raised	Number of times issue was raised*	Issues Raised	Number of times issue was raised
Food in general	16	Very little food	28
Plentiful	13	Very little meat	19
Tasty	4	Poorly prepared (especially fish)	10
Clean	3	All ingredients mixed together	8
Free	1	Eat very late	8
		Dislike rationing	8
		Cold food	8
		Potatoes not peeled	7
		Food tasteless	4
		Dining halls close too early	3
		Offal not washed	3
		Porridge waterish	2

* The number of responses is less than the number of respondents as some men chose not to raise this issue.

TABLE 25 : Food complaints raised in hostel meetings on four mines over three-month period

N=144

I T E M	Number of times raised
Shortage of food items	6
To little morvite underground	6
Men do not like snoek	6
Soup not properly cooked	5
Maheu too thin and watery	3
Meat ration is more bones than meat	3

(iii) Cleaning of rooms

All of the mines had cleaning squads to clean verandas, cement paths, change houses and toilets. On two of the mines the squads also swept, dusted and washed rooms and cleaned windows. Some men claimed that they had too little time to clean their rooms and often were too tired. Others did not view room cleaning as an onerous task (Table 26) and in fact preferred to clean their rooms themselves as this ensured the safety of their possessions.

(iv) Sleeping at the end of the day

The sleeping and waking times in the evening which were recorded under the section of this study entitled "Waking in the morning" show that most men had adequate time to sleep.

(e) Summary

In this quality of life study workers were asked their opinions of the physical facilities of the mine. However, these opinions did not indicate clearly whether or not the facilities were satisfactory because some of the men held diametrically opposite views of the same facilities. Consequently, it was decided to measure the conditions at various times during the day when the workers were using them to see if this explained the divergent views. It was found that the measurements substantiated the different opinions expressed: it depended on when the workers arrived back at the hostel whether or not they had cold shower water and cold food or no food at all.

Many of the workers were kept late underground by the line personnel which meant that they experienced the adverse hostel conditions, whereas others who arrived back at the hostel at the appropriate time, were satisfied with the conditions there. The dissatisfied workers complained to the mine authorities in vain as the emphasis was placed on meeting the needs of workers who conformed to the latter set pattern of behaviour.

Measured on this micro-level indicator the quality of life of the workers was not high as all of them were delayed underground on many occasions during their sojourn on the mine and thus experienced the adverse conditions.

TABLE 26 : Opinions of black mineworkers of self-cleaning of rooms

N=144

L I K E S		D I S L I K E S	
Issues Raised	Number of times issue was raised*	Issues Raised	Number of times issue was raised
Cleaning rooms by occupants ensures cleanliness	41	General dislike	48
Cleaning rooms by occupants prevents theft	22	No time and too tired	11
		Arguments about cleaning duties	3

* The number of responses is less than the number of respondents as some men chose not to raise this issue

8.4 Definitional Indicators

The biographical and demographical data collected to measure this indicator of quality of life were not collected by the author but the persons referred to in the tables and figures. However, the author analysed these data which are presented in Tables 27 to 31 and Figures 10 to 32 in Appendix VII and summarised overleaf. These indicators tell us about those aspects of the workers' characteristics mentioned; however none of them are purely definitional as they can also be used for inferential purposes. The following deductions have been made from the indicators: workers earn insufficient to maintain two life styles, the life on the mine and the life at home with the large number of dependents. Moreover, they are deprived of their families for a lengthy period during the year and have very little time at home with them between workstays. In addition, their chances of changing their situation by opting out are small as the rural base does not provide them with an adequate income and their level of education is too low to permit them to bargain for better alternatives. There are also divisive aspects to maintaining a concerted front to bring about change such as the different nationalities, language, backgrounds and short contact with other workers to break down differences. These indicators show that workers' quality of life on the mines is low because they are separated from their families for long periods and have to maintain two lifestyles. Moreover, they lack the ability to change this situation.

8.5 Inferential Indicators

(a) Introduction

Inferential indicators indirectly reflect the directly unobserved quality, in other words by monitoring disciplinary action taken against workers, etc. much is learnt about the workers' responses to their quality of life on the mine.

In the following investigation, whose methodology is reported in Chapter 6(d) under the heading "Monitoring of behaviour using formal mine records", three indices of black mineworkers' behaviour on a mine are examined. These statistics could indicate workers' dissatisfactions with the mine or their working section if the readings of the indicators rose above certain predetermined norms.

SUMMARY OF DEFINITIONAL INDICATORS
(Tables 27 to 32 and Figures 10 to 22 In Annexure VII)

<u>INDICATOR</u>	<u>PREDOMINANT CHARACTERISTICS</u>	<u>PERCENTAGE MEN</u>	<u>ANNEXURE REFERENCE</u>	
			<u>TABLE</u>	<u>FIGURE</u>
Region of Origin	Transkei / Ciskei	31	27	
	South African	21		
	Lesothoan	18		
Place of Origin	Rural Area / Village	66		10
	Homeland / Country Town	21		
Mother Tongue	Xhosa	30	28	
	Southern Sotho	27		
Marital Status	Married - One wife	58		11
	Never Married	34		
Level of Education	Standards 2 to 4 (4 to 6 years)	35		12
	No Schooling	25		
Age	Up to 25 years	37		13
	26 to 30 years	26		
Size of Household	5 - 8 Persons	52	29	
	0 - 4 Persons	30		
Number of Other Wage-earners	1 - 2 Persons	45	30	
	0	43		
Number of Dependents	5 - 8 Persons	45	31	
	0 - 4 Persons	44		
Number of Livestock Units	0	49		14
	1 - 10 Units	31		
Access to Land and Crops	No	54		15
Length of Time for Harvest to Support Household	Shorter Periods	63		16
	9 - 12 Months	37		
Monthly Earnings (1981 Data)	R101 - R105 per month	32		17
	R151 - R200 per month	31		
Length of Last Workstay	7 - 12 Months	41		18
	13 - 18 Months	32		
Length of Last Homestay	1 - 2 Months	54		19
	3 - 4 Months	21		
Experience In Current Job	1 - 12 Months	36		20
	13 - 24 Months	21		
	25 - 36 Months	15		
Experience on Current Mine	1 - 24 Months	36		21
	25 - 48 Months	31		
Experience In Mining Industry	25 - 48 Months	25		22
	1 - 24 Months	21		
	49 - 72 Months	20		
Experience In Other Industries	No	54		32

The indicators were

- Disciplinary action
- Grievances raised and requests made
- Exits from the mine

The definitions of the concepts used are given in Appendix II and the tables and figures in Appendix VII.

(b) Disciplinary action

During 1979 2 410 cases of disciplinary action (official cases) by supervisors against black workers were recorded for the mine as a whole (N=11 064). This means that about 22 per cent of the workers were disciplined during the year, however, the percentage was probably lower than this figure as it is likely that some workers were disciplined more than once.

The major reasons for disciplining workers were (Table 33)

- Absences from work without permission (AWOPs),
- Failure to obey instructions,
- Poor quality of work, and
- Arriving late for work.

An analysis of the number of disciplinary cases by shaft (Table 34) revealed that workers on Shaft 2 contributed most towards the disciplinary action taken on the mine: 1 594 disciplines of 4 441 workers (62 per cent). Workers on Shaft 2 had higher percentages on most types of disciplines, the biggest differences being AWOPs (83 per cent for Shaft 2 compared with 7 per cent for Shaft 4).

Further analysis of the disciplinary cases recorded by mine overseers' section shows that although workers in Sections Z, J and P had the highest recorded number of disciplinary cases on Shaft 2, and when these figures were calculated relative to the average number of workers in the work section, it was found that workers in Sections Z, J and P had been disciplined the most. They accounted for 60 per cent of the disciplinary cases on Shaft 2 (Table 35).

As workers in Section Z had been AWOP most, this behaviour was analysed over the 12-month period to determine whether it had occurred more in some months than others. Figure 23 shows that monthly AWOPs recorded against workers in Section Z. The graph shows extreme fluctuations in the numbers of AWOPs, with peaks in May, September and November.

It will be noted that the analyses of AWOP cases in Section Z by the age, level of schooling, region of origin, return category (at start of current workstay) and job category (Tables 36a to 36e) revealed that the following groups of men had contributed significantly more than was expected (based upon the number of workers in a work section) to the number of disciplines recorded:

Men of 20 years and younger

Men with 7 to 9 years of schooling

Men who were manual labourers and other underground workers.

An examination of the disciplinary action by the job category of the person disciplined (Table 37), showed that, among others, team leaders, had had a disproportionately higher number of cases recorded against them (386) than had been expected (229). As this appeared to be unusual behaviour for team leaders, it was decided that the nature of the disciplines and the types of team leaders involved would be examined further (Table 38). It was found that stoping team leaders were responsible for significantly more (at the 5 per cent level) disciplinary action than others (relative to the number of workers in the work section) and that the major reasons were

Poor quality of work, and

Failure to obey instructions

In an endeavour to throw more light on this unexpected team leader behaviour, the reasons for grievances/requests raised by different types of team leaders (Table 39) were analysed. It was found that stoping team leaders had raised significantly more (at the 1 per cent level) grievances/requests and that these were concerned mainly with

Rate of pay,

Lack of promotional opportunities, and

Requests for transfer.

Although there was no evidence available to permit a statement that stoping team leaders caused disciplinary problems because they were dissatisfied with their pay and promotion, it was noted that on the same mine, team leaders had the previous year been involved in a work stoppage because of low rates of pay.

(c) Grievances raised and requests made

During the year there were 4 922 worker grievances lodged and requests made to mine personnel for the mine as a whole (N=11 064) which means that about 44 per cent of the black workers raised a grievance or lodged a request during the year, however, the percentage could be lower than this figure as it is likely that some workers raised more than one grievance or made more than one request. The major grievances/requests raised (Table 40) were

Requests for transfer,

Lack of opportunities for promotion, and

Rate of pay discrepancies or requests for higher rates.

An analysis of the number of grievances/requests by shaft revealed that workers on Shaft 2 contributed most towards the grievances/requests lodged (2 547 grievances/requests were raised by 4 441 workers or 57 per cent). The analysis by shaft (Table 41) shows that workers on Shaft 2 had higher percentages on most grievances/requests than did workers on Shaft 4 and on Surface.

A further analysis of grievances/requests, by mine overseers' sections shows that although workers in Sections V, R and K had raised the highest number, when analysed by the average number of workers in a work section, workers in Sections R, G and V were shown to be the highest, accounting for 50 per cent of the Shaft 2 grievances/requests (Table 42).

As workers in Section R had the highest proportionate number of grievances/requests on Shaft 2, this behaviour was analysed over the 12-monthly period to determine whether it had occurred more on some months than others. Figure 24 shows the monthly requests for transfer recorded for workers in mine overseers' section R plotted on a graph. The graph shows many fluctuations with peaks in January, September and November.

Analysis of transfer requests by age, level of schooling, region of origin, return category (at the start of the current workstay) and job category of the person making the requests (Table 43a to 43e) showed that the actual number of transfers requested by these groups did not differ significantly from the number they were expected to have requested, taking the relative number of workers in each work section.

(d) Exits from the mine

During the year 12 221 men left the mine (N=11 064) which gives a turnover rate of 110 per cent for the year. These exits have for convenience' sake been categorized as normal and abnormal exits (examples of each type are given in Table 44). Normal exits consisted of 10 126 of the cases (83 per cent), with Valid Re-engagement Certificates (VRGs) constituting 67 per cent of these. Abnormal exits consisted of 2 095 of the cases (17 per cent), the major categories being "desertion or gaol" (61 per cent), followed by "contract broken" (22 per cent) and "dismissals" (13 per cent) (Table 44).

The turnover rate of black workers on Shaft 4 (126 per cent) was higher than for Shaft 2 (112 per cent) which was mainly as a result of the greater proportion of normal exits. There were also significantly more 45-week and fewer 26-week VRGs on Shaft 4 than on Shaft 2 (Table 45).

Analysis of normal exits of men by mine overseers' sections (Table 46) showed very little difference in the rates among the sections. However, workers in Sections G, R, D and F had higher rates of abnormal exits than the other sections (Table 47). The length of workstay at the time men left the mine was calculated for Sections Z and R (Table 48) as men in these sections had been disciplined more and had raised more grievances/requests than was expected according to their labour strength (labour complement). However, those behaviours did not appear to have influenced men's length of stay on the mine; yet, it was noted that significantly more men were leaving the reduction works in the period up to six months than was expected.

As Table 44 showed that workers on Shaft 4 had been responsible for most of the broken contracts and dismissals it was decided that one of these behaviours would be analysed in greater detail, that is, dismissals. The analysis of dismissals by mine overseers' sections shows that workers in Section D were responsible for 29 per cent of the Shaft 4 dismissals (Table 49).

Figure 25 shows the monthly dismissals of workers recorded for Section D. The graph shows a very high incidence of dismissals at the beginning of the year, peaking in February. Analyses of dismissals in Section D were carried out as shown in the tables, but these did not identify any one of the groups of workers to have been dismissed more than was expected.

(e) Evaluation of inferential indicators

The monitoring of the inferential indicators has brought to light several difficulties. From a survey of grievances on two mines (de Vries and Ackermann, 1980) it was established that 36 per cent of the black workers had not lodged their grievances with mine personnel because they claimed that

- . they did not feel strongly enough about their grievances to raise them,
- . it did not help to lodge grievances as they were not resolved,
- . they were afraid of victimization, and
- . they did not know how to lodge their grievances.

Therefore, the grievances recorded in the above tables did not necessarily constitute the total number of possible grievances held by workers but merely the number that workers were prepared to lodge with the mine authorities.

The masiza (Black Personnel Assistant) also played an important role in the recording of grievances. Although definitions of concepts such as assaults were explained and care was taken to ensure that there was agreement among them on the recording of this and other behaviours, it is possible that differences in interpretation could have inflated some of the figures

recorded. Furthermore, the absence of a masiza on leave or because of illness may have meant that his replacement recorded the cases differently. These last two factors created problems when comparing data across different mine overseers' sections and over time. Another problem was that masizas had not been trained in interviewing techniques and as this was the main method of obtaining information from workers, some masizas may not have been able to determine the underlying causes of men's grievances. A worker may have raised a grievance which was not his chief cause of dissatisfaction, but which may have been linked to another, underlying grievance more important to him. It was found in a previous survey (described earlier) that a grievance about cold food was actually related to delays in hoisting which was the key problem experienced by the workers but which was not articulated as such. Monitoring is inadequate if factors identified are not viewed in the total context in which they take place.

A further problem with monitoring composites like grievances and disciplines is that they are made up of a number of sub-indices such as promotions, transfers, AWOPs and others mentioned above. The question is, can all of these sub-indices be given equal weight when monitoring the composites, grievances and disciplines, or are "AWOPs" more important than, say "assaults"? In the light of this question, one can ask further what meaning to attach to an increase in the number of disciplines recorded if these sub-indices have merely been aggregated.

Another problem for which there is little evidence, but which gives rise to speculation, is whether the setting up of the monitoring exercise on the mine drove certain behaviours "underground". Supervisors may have used informal means to avoid being identified as contributing to a high rate of reported disciplinary cases. One could ask what happened, for example, to the peak in the graph of AWOPs (Figure 23) in Section 2. Did it disappear of its own accord or was the masiza instructed not to record all the cases? There is no way of controlling these factors in a system such as the one tested here.

(f) Physical environmental factors

Some factors which could have contributed to the recorded behaviour of workers were analysed by mine overseers' sections (Table 50). It will be noted that shaft 2 generally had higher wet-bulb temperatures, longer travelling times and more accidents due to falls of ground which may account for the higher grievance and disciplinary rates on this shaft. However, a section such as Section V appeared to have underground conditions which were also likely to have caused such recorded behaviour, yet during 1979 this section did not exhibit problems on the indices used. This appears to indicate that other factors which were outside the scope of this survey caused disruptive behaviour.

(g) Inferences

Although the monitoring of individual inferential indicators has not given many new insights into black workers' quality of life, these indicators are nevertheless "saying something" indirectly about the workers' reaction to the mine situation.

The following actions of the workers, which were the highest number of recorded incidents, indicate that workers were either withdrawing or indicating a desire to withdraw from a situation which they found untenable:

- Absences from work without permission
- Failure to obey instructions
- Poor quality of work
- Requests for transfer to other sections
- Desertion
- Broken contract
- Dismissals
- Illness
- Requests for transfer to other mines.

These behaviours viewed together are, by inference, a very strong statement of workers' quality of life on the mine.

8.6 Qualitative Indicators: Impressionistic Views

Although there were still mines with old hostels where up to 40 men are accommodated in one dark, dingy room with a black coal stove and concrete bunks, the general trend in the mining industry has been to

provide modern hygienic facilities for workers. The best illustrations of the very high quality of physical facilities provided for black mineworkers' since Wilson's (1972) investigation is borne out by extracts arising from inspections by Lipton (1980), when she conducted her research studies for the Anglo-American Corporation; by a chief magistrate of a town in 1980; by the commissioner for Bantu Affairs (Transvaal Midlands) also in 1980; and by a black mineworker.

In all the above cases, although the physical conditions had been improved, they did not automatically ensure improvements in the black mineworkers' quality of life, for on the mines described strikes have occurred despite such improvements, for according to the workers themselves, quality of life entails more than the provision of high-level facilities.

(i) Lipton (1980) described the conditions on mines as follows:

The mines have been planning and implementing measures that will ameliorate the adverse effects of migrancy so that, at a given wage-cost, they can attract and retain more and better workers. Chief among these are major programmes to upgrade the hostels. In 1978, improvements have been carried out at many hostels and recruiting stations on the east and west Rand and in the Orange Free State. The aim has been to reduce overcrowding and bleakness and to give workers more private, pleasant and comfortable conditions. In new hostels, there has been a move from the vast, de-humanizing barracks to smaller buildings in a village-type setting, with better-equipped and heated rooms housing fewer workers (on gold mines an average of 16 instead of the 30-50 in each room). The old concrete bunks have been or are being replaced by beds with mattresses, and the communal toilets - a source of serious grievance - are being partitioned for normal privacy.

The huge dingy dining halls have been replaced by smaller dining rooms, each connected to the main kitchen. Food is plentiful and it looks and tastes quite good. Except for meat, which is rationed, the men can eat as much as they like and the kitchens which look clean and hygienic, are open for long hours. Smaller, attractive bars are being built in place of traditional beer

halls and more money is being spent on facilities for sport, education, recreation and films. A feature of the changes has been the creation of special facilities for more senior men, who are housed about four to a room, sometimes with their own cubicles; they may also have their own dining rooms, bars and lounges.

These measures are costing millions of rands - in fact, much more is being spent on them than on family housing. Since 1973, Anglo-American Corporation has spent R80 million up-grading old hostels in the Orange Free State and Transvaal; expenditure of a further R40 million is planned. Anglovaal has spent R8 million and is planning the expenditure of a further R26 million. Rand Mines' budget is almost R45 million, JCI's R10,8 million, and General Mining R50 million.

(ii) The Chief Magistrate of a town in the Transvaal wrote as follows after a personal visit to a mine hostel on 13 February, 1980:

These quarters consist of single as well as double rooms and it is a pleasure to look upon these properties. The lawns are neat and no wind-blown rubbish or papers were to be seen. The rooms were neat and clean. The kitchens were visited and were exemplarily neat and hygienic. During our visit the food served to the workers was of a very high standard. The bathrooms and lavatories were hygienic and there were no bad smells.

These quarters need in no way be regarded as inferior to those used for white school children.

(iii) The Bantu Commissioner reported as follows on 3 October, 1975 after a personal visit to the mine:

As will be shown in these reports, both of these hostels were, in all respects, in a particularly excellent condition and all arrangements for their operation without parallel. Although both hostels were built more than a decade ago, their general condition creates the impression that they have just been built and neatly finished off. The hostel grounds consist of beautiful lawns, shrubs and flowers as well as cement paths.

Please convey my appreciation to the management of the ... hostel for the establishment of such a wonderful hostel manager ... who oversees both hostels. It was a pleasure to inspect these hostels.

(iv) The black mineworker writes as follows:

(This letter has been reproduced without amendment to grammar, spelling or style, and using the titles of personnel mentioned instead of their names.).

1980 - Januarie 21

We are dead at Mine

Sir,

I started working on this Mine in 1969. The mine was fair and workers of all departments were contented. The trouble started when the compound manager left. Nowadays the mine doesn't follow the rules and regulations of The Chamber of mines. It's got its own rules. Rules which doesn't work to the other mines as far as mines are concerned.

(ii) Salaries: We employees don't earn our salaries at the proper time. We are used to be told that the computer fusses our tickets. And the result will be getting the pay when one's second ticket is 15 days. That means one should work for a month and a half before one obtains ones salary.

(iii) The compound manager I should have started with him of course. We are totally not satisfied with him. He is not fair and doesn't do his job properly. The only thing he can do is to go and see his sheep he keeps around the hostel. He doesn't solve any problem as far as hostel's problems are concerned. His is to fire or discharge workers without reason. I don't know why he's being called malungisa. He's fair only to his clerks who are now working his job and him theirs. In other words we've got clerks who are Compound Managers here.

Food is not satisfactory. There are two facts mainly for the clerks and underground workers. Better if not best food is being cooked for clerks and Indunas. Unpeeled, rotten potatoes, cabbage and so on with too much or without salt including raw porridge for we underground workers. We are all the same but separated by the hostel manager. If he can go sometimes we can live better in a clean hostel and do our job while heartedly not in a dirty hostel with dirty food for us and best for Induna and clerks.

That's why we've decided to strike this year or kill ourself by letting the rots (rocks) fall on us. Why not. We are no more afraid of dying because we are already dead. We better do that and die but the mine will also close if God or devil help us.

We are crying for no help if you'll also not help us. The employers thrash the employees for absolutely nothing. After being thrashed one will be sent to the hostel manager to be discharged. He'll be give his short salary and taken out of the hostel to see for himself. Is this good and fair, I doubt. The general manager is one of that type. He's also the one who motivates employers to hit employees 'cause he's also a thrasher if not a boxer.

We are totaly not secure at the Mine. Could you please help us. Come and see for yourself if you don't believe.

Thanking you

Mine Worker.

Such subjective evaluations can give an indication of the quality of life of black mineworkers, however, they give only a limited perspective of the actual circumstances in which these people live as they are based on subjective impressions. Consequently it is difficult to determine who is giving the more valid assessment of the quality of life - the Commissioner or the mineworker. However, as the mineworker had had first-hand experience of the conditions on the mine, ~~this~~ appears to be a more valid assessment than the impressionistic views of the Commissioner and the magistrate who all reported on the same mine.

8.7 Qualitative Indicators : Survey using Unstructured Questions

(a) Introduction

An opinion survey was carried out on a mine to determine the black mineworkers' likes and dislikes of working and living on the mine (the methodology is described in Chapter 6(e) under the heading "Open-ended Interviews"). Indicators of the satisfaction and dissatisfaction were obtained by classifying the responses into categories, such as supervision,

mine practices, food, and by tallying each response. This gave an indication of whether or not the workers were satisfied or dissatisfied with conditions. In addition, and where appropriate, actual responses were quoted to endorse a point.

(b) The findings

(i) Black mineworkers' likes of working on the mine

Workers claimed they liked the following aspects of work life most:

TABLE 51: Black Mineworkers' Likes of Mine Work

N=100 men

Issues raised	Number of times issue was raised *
The job pays well	19
The team leader, shift boss and miner are understanding and do not order us about too much	14
We are satisfied because we earn a wage	13
We are happy in our jobs because we can do the work	11
The work is not strenuous	7
We are satisfied because we have a job	5
We are gaining useful experience	4
Other minor issues raised	8

* These responses should not be totalled as some workers raised more than one issue.

(ii) Black mineworkers' dislikes of working on the mine

As a number of different dislikes were raised about working on the mine, they have been classified under the following headings for ease of reporting:

- Work supervision. The general relationships between blacks and whites underground were perceived to be poor: workers complained that they were not given orders but shouted at. Furthermore, it was claimed that some mine captains, shift bosses and hostel managers discharged men unnecessarily. Typical statements recorded were:

Worker No. 21

You are discharged here on this mine without knowing the reason. One of my friends was discharged by the hostel manager because he had a quarrel with the white miner about a job. The hostel manager did not give him a chance to present his case. He was told that he had no respect for his so called "baas".

Worker No. 36

The hostel manager has no understanding. He does not want to pay attention to our grievances. He should exercise his power in a more acceptable way.

The number of men raising the above issues is recorded in Table 52.

TABLE 52: Black Mineworkers' Dislikes of Work Supervision

N=100 men

Issues raised	Number of men raising issues *
Relationship between blacks and whites underground is poor	18
Hostel manager has no understanding or sympathy	16
Mine captain, shift boss and hostel manager discharge men unnecessarily	10
Team leader interferes with our job	1

Note: All-in-all 25 men raised dislikes of work supervision

* These responses should not be totalled as some workers raised more than one issue.

- Mine practices. The three major issues raised under this classification were the long pay cycle, Shangaans not being given Valid Re-engagement Guarantees and the lack of promotional opportunities. A few men also mentioned problems with obtaining compassionate leave. The following dislikes were raised:

Pay cycle. The workers regarded the interval of six weeks between payment of wages as too long as it imposed hardships on them.

VRGs. A typical response from a Shangaan-speaking worker was:

Worker No. 4

I feel depressed because of the new policy of the mine not to give us Valid Re-engagement Guarantees and Early Return Bonuses. What is bad about this is that we are not told why we are no longer given these certificates. It would be better if they gave us certified letters to present to the recruitment station stating that we have been working on such and such a mine and cannot go back to the same mine because of a certain policy. I have been discharged at the moment and I don't know what I am going to do at home. I have no future at all.

Promotion. A few workers claimed that the promotional policy of the mine was not fair. Shift bosses promoted men whom they liked even though the men did not know how to do the new job.

Men's responses are given in Table 53.

TABLE 53: Black Mineworkers' Dislikes of Mine Practices

N=100 men

Issues raised	Number of men raising issues *
Six weeks is too long to wait for pay	21
Shangaans no longer given VRGs	6
Lack of promotional opportunities	6
No compassionate leave	3
Doctor refuses to treat V.D. cases	3
Difficulties with VRGs	3
Other minor issues raised	8

Note: All-in-all 41 men raised dislikes of mine practices.

Wages. The subject of wages was much discussed by the workers, the major problems being that they were not paid for overtime work and that they were being underpaid for general work.

The following response typifies the feelings of the workers on these issues:

Worker No. 11

We are being underpaid on this mine. I am a driller underground. I know my rate of pay because it is written on my ticket and I know how much I am supposed to get when the ticket is finished but this does not happen. I don't know how the mine works it out. I am always present at work so I should get full pay. I have approached the Hostel Manager but he disappointed me by saying that there is nothing wrong with my pay slip; it's correct. My workmates also have the same problem because we read our payslips and we show our payslips to one another. We work overtime and are not paid for it. We work on Sundays the whole day and are not paid for the Sunday.

Other issues raised were that experienced men (clerks) were paid at the same rate as new employees. Some men claimed that they had not received their increases and others that they did not understand the pay deductions.

The responses are recorded in Table 54

TABLE 54: Black Mineworkers' Dislikes of Wages

N=100 men

Issues raised	Number of men raising issues *
Overtime not paid	20
Underpaid for work	12
Rate of pay same whether or not new or long service (clerks)	6
Did not get increase	5
Do not understand pay deductions	3
Other minor issues raised	2

Note: All-in-all 42 men raised dislikes of wages

- The job and safety. No major issues were raised about the job; but the matters workers mentioned are recorded in Table 55.

TABLE 55: Black Mineworkers' Dislikes of the Job

Issues raised	Number of men raising issues *
The job strenuous	9
Hours of work too long	8
The job does not pay well	7
The job dangerous	7
Underground conditions unpleasant (hanging bad, underground travelling road full of water and mud)	3
Work clothes expensive	3
Other minor issues raised	12

Note: All-in-all 15 men raised dislikes of the job

- * These responses should not be totalled as some workers raised more than one issue.

- Assaults. The workers claimed that they were beaten for minor offences and trivialities. They were obliged to accept such treatment if they wished to retain their jobs. Typical responses were:

Worker No. 83

I came here to work not to be beaten like a child. If I have made a mistake, I expect my senior to tell me that I should not have done it that way.

Worker No. 17

All these whites with whom we work underground beat us which is very bad.

There was much bitter feeling against the hostel manager as he was seen to condone the beatings of the white underground staff instead of taking the part of the black workers to eradicate such behaviour.

The workers were also very unhappy because they were referred to as 'outas' which they considered to be a derogatory word. On occasion they claimed that they were expressly referred to as 'kaffirs' by the majority of underground miners.

The also complained that the hostel manager did not like blacks to address whites in English. He normally referred to such blacks as "Englishman".

The issues raised by workers are recorded in Table 56.

TABLE 56: Black Mineworkers' Dislikes of Assaults

N=100 men

Issues raised	Number of men raising issues
Physical assaults by white miners	19
Assaults and insults by shift bosses	9
Assaults and insults by white miners	6
Insults by white miners	5

Note: All-in-all 39 men raised dislikes of assaults

(iii) Black mineworkers' likes of living on the mine

The aspects of living on the mine that workers said they liked most were the following

TABLE 57: Black Mineworkers' Likes of Mine Life

N=100 men

Issues raised	Number of times issue was raised *
Leisure time activities (especially soccer, television and tribal dancing)	41
Cooked meat is good	18
Vegetables are properly cooked	17
We get on well with our hostel mates	11
We like the cooked porridge and samp	11
The water in the change houses is hot	9
We like having free food and accommodation	8

* These responses should not be totalled as some workers raised more than one issue.

(iv) Black mineworkers' dislikes of living on the mine

Workers dislikes have been classified under the following headings:

- Food. Food was the most discussed issue on the mine, 60 workers raising 165 dislikes. The major issues raised were the poorly cooked porridge, the rude dirty cooks, maheu (a type of sour milk) dirty, full of worms and rotten, and mealie meal with worms in it. A few allegations made by workers were corroborated by the interviewers. One interviewer was shown a dish of maheu which had worms floating in it. He was also shown a dry ration of mealie meal with worms in it. The interviewer was introduced to a cook whom he described as very young, wearing filthy clothes, dirty on his person and with a running nose.

A typical response about food was:

Worker No. 54

Dirty offal is served every Sunday. Several people complained about it and were dismissed by the hostel manager.

The food issues raised by workers are recorded in Table 58.

TABLE 58: Black Mineworkers' Dislikes of Food

N=100 men

Issues raised	Number of men raising issues *
Porridge not properly cooked/prepared	22
The cooks are rude and dirty	21
Maheu is stale/bitter/full of worms/dirty	20
Rotten mealie meal with worms	17
Hot drinks (soup, tea, coffee) tasteless	15
Food served raw (meat, porridge, vegetables)	11
Soft porridge and hard porridge have worms	11
One meal a day is not enough	10
Vegetables are not peeled (potatoes and pumpkin)	6
Fish not properly fried	8
Offal is dirty	5
Dislike rationing system	5
Bread is stale	3
Machines do not cook porridge/fish well	3
Other minor food issues raised	6

Note: All-in-all 60 men raised dislikes of food.

- Accommodation. Accommodation was also a much discussed issue, some 50 men raising 156 dislikes. The major issue being dirty rooms which were infested with rats, bed bugs and flies, and probably akin to this the coal stoves which made the rooms dirty, and the lack of storage space for work clothes. An interviewer corroborated this as he was inside an induna's kitchen which he described as "filthy" - the floors were unswept and dirty and the coal stove was covered in ash. Another major issue raised was the lack of privacy in rooms, toilets and change houses. Men also complained of hard mattresses and bed springs which were caving in. There were a number of other items raised which appeared to be irksome to the workers which are recorded in Table 59.

TABLE 59: Black Mineworkers' Dislikes of Accommodation

N=100 men

Issues raised	Number of men raising issues *
Hostel rooms dirty - rats - bed bugs - flies	40
No privacy - no curtains in rooms, toilets or change houses	17
Mattresses hard and bed springs worn out/caving in	17
Coal stoves/braziers make rooms dirty	11
Lockers are not protected against theft	11
Overcrowding and theft in laundry room	11
Shower water not properly regulated either too hot or too cold	10
Double decker beds cause clashes amongst workers	6
Shortage of mattresses, lockers and beds	6
No toilet paper	5
Change houses/toilets dirty	5
Overcrowding in change houses	4
Other minor issues raised	13

Note : All-in-all 50 men raised dislikes of accommodation.

* These responses should not be totalled as some workers raised more than one issue.

- Hostel supervision. Workers disliked the expulsions from the mine by the hostel manager. They maintained that he was prejudiced against workers and sided with the whites when there was a clash of wills. Typically workers stated:

Worker No. 76

The hostel manager has no time to listen to our complaints. When we have problems or are assaulted by the miners we are afraid to report to him, because we don't want to lose our jobs. Discharging people is a routine on this mine.

The issues are raised and recorded in Table 60.

TABLE 60: Black Mineworkers' Dislikes of Hostel Supervision

N=100 men

Issues raised	Number of men raising issues *
Hostel manager dismisses workers without reason	21
Hostel manager does not grant compassionate leave	6
Hostel manager is biased in hearing of cases against workers	6
Head clerk not educated enough to supervise	3
Other minor issues raised	4

Note : All-in-all 20 men raised dislikes of hostel supervision.

* These responses should not be totalled as some workers raised more than one issue.

(c) Summary

The above survey and comments by workers on their quality of life are a recording of what can and does happen to men when the mine authorities, who have almost absolute power over them, decide to invoke that power to their own advantage and when workers lack power or support to prevent such abuses. Workers claimed, inter alia, that there were irregularities with their wages, overtime and bonus payments, that low quality food was purchased and that the hostel was not cleaned. Moreover, the line staff demanded obeisance to them and shouted and swore at them, called them names and even assaulted them, and moreover had the support of the hostel manager, the traditional father-figure who was supposed to protect workers from such treatment.

Workers who complained against the system were dismissed, consequently men who needed their jobs desperately swallowed their pride and remained on the mine. Yet it could be gleaned from the workers' comments that they would not tolerate much more of such treatment and that retaliation by means of some group action - perhaps a riot - was imminent.

8.8 Qualitative Indicators: Survey using Reference Groups

(a) Introduction

(The methodology used in this investigation is described in Chapter 6(b) under the heading "Comparative studies".) At the outset it was stated that one of the major problems with measuring quality of life was that of norms, of having a yardstick to measure the conditions against. The above study (8.7) presented few problems as regards norms as the conditions on the mine were so unsatisfactory that they were likely to have evoked condemnation in most social systems. But not all mines are administered as poorly as that, in fact, some appear to be well organized. Yet how do they compare with sister mines and with secondary industry? To determine this a study was conducted to determine how the workers themselves reacted to and evaluated their mine in relation to conditions elsewhere.

People do not necessarily feel a sense of satisfaction or discontent although their objective situation indicates that they are privileged or underprivileged. Such feelings usually arise when related to some standard they employ as a basis of comparison or self-evaluation. Runciman (1972) explains this concept as follows:

A person's satisfactions, even at the most trivial level, are conditioned by his expectations, and the proverbial way to make oneself conscious of one's advantages is to contrast one's situation with that of others worse off than oneself. The frame of reference can work in either of two ways. On the one hand, a man who has been led to expect, shall we say, promotion in his job will be more aggrieved if he fails to achieve it than a man whose ambitions have not been similarly heightened. On the other hand, a man taken to hospital after some minor mishap will feel a good deal less sorry for himself if he is put in a bed next to a victim of a serious accident who has been permanently maimed.

This concept operates so as to involve a comparison with the situation of some other referent person or group or some past state. This other focal person or group is the reference group. A reference group helps a person to shape behaviour and norms that are important to him. He can be a member of his reference group, but can also be a non-member. The choice that an individual makes when selecting a particular reference group is usually governed by his own self-perception and values, as well as the social structure in which such a decision takes place.

The comparative reference group is the notion used in the ensuing pages. The workers' frame of reference for appraising themselves and their situation on the mines is explored, as well as their concomitant feelings of relative privilege or deprivation.

The findings of the survey will be presented in the following sections - (the tables are in Appendix VII):-

(b) Analysis

The sample consisted of men on a popular and unpopular mine sub-divided into two categories - supervisor/non-supervisor and more educated/less educated: however, the results of the statistical tests carried out on the variables indicate that, in general, the differences in the opinions expressed by supervisors, and by more educated and less educated workers, were so slight that these categorizations could be ignored and the opinions of all the workers grouped (Appendix I). This applied to their opinions concerning reference groups and status (privileged or deprived relative to others). On the other hand, there were significant differences between the opinions of workers on the popular mine and those on the unpopular mine on the issue of their status. The unpopular mine was shown in a poorer light in relation to other mines and in relation to secondary industry.

(c) Mineworkers' reference groups

In order to determine whom workers were using as their reference groups in and outside mining, they were asked:

When you think of people who have similar work and living circumstances to yourself, what persons are you thinking of?

When comparing themselves with other groups in mining, the workers did not mention the people with whom they compared themselves, but rather certain states or situations of the referents. These are mentioned with some of the actual responses recorded (Tables 61 and 62).

- Men in similar jobs

- . All mineworkers are the same because we live and work under the same circumstances.

- Men who suffer personal deprivations

When we think of people like ourselves, we think of

- . poor people desperate for money who risk their lives to work underground.
- . oppressed people not allowed to work where they like.
- . people who can't make it in life.

- Men who earn similar wages

We think of people who earn the same because they can afford the same things.

- Men estranged from their families

- . When we think of people like ourselves, we think of people without families for many years, working in dangerous conditions.
- . We are just heavy drinkers and after stray women. We are not like mine villagers who lead stable lives and who live with their families and attend to their needs.

For reference groups outside mining, mineworkers equated themselves mainly with construction and factory workers as they worked hard, lived far away from their families and received low wages (Tables 63 and 64).

(d) Administration of the questions

The following questions were administered to the workers to determine how they compared themselves and their positions relative to other workers:

What favourable things have you experienced, seen or heard about other mines?

Are those things you mentioned better or worse than on your present mine?

Is it important to you that they are better or worse?

These questions were rephrased later to elicit "the unfavourable things about other mines", and thereafter, "the favourable and unfavourable things about secondary industry". In addition, those workers who had been on their mine 18 months previously were asked to compare it with the current situation.

The major aspects mentioned by workers: living conditions, wages, procedures and practices will be discussed below followed by workers' perceptions of progress on their mines.

(e) Comparison between mines

The improvements that mines have effected to hostels and meals have not gone unnoticed by workers. Living conditions and food were the aspects of other mines which were viewed most favourably (Table 65.1 (a)). When workers compared the living conditions and food on other mines with their current mines, it was the unpopular mine that was shown up in a poor light (Tables 65.1 (b) and (c)). The improvements made to hostels and meals appear to have set the norms against which workers evaluate their own mine facilities, and which are reflected in some of the actual responses given in Table 65.2. The major themes emerging from the comments were the comfort and cleanliness of hostel rooms, the provision of leisure-time facilities and accommodation for visiting wives, and the substantial, well-prepared meals. The following comments illustrate the types of conditions which workers did not like on their own mines.

- . Food is not well prepared and workers have to buy it from their own pockets.
- . Rooms are almost stables, we are packed like horses and there is a stampede every day.

Some workers thought that the living conditions and food on other mines were unsatisfactory (Table 66.1 (a)), and that their own mines were better. This opinion was held mostly by workers on the popular mine (Tables 66.1 (b) and (c)). The responses indicate the standards workers expected from their own mines (Table 66.2). The comments show their need for greater contact with their families, wives and children, space and comfort in rooms, as well as hot shower water and clean well-cooked meals. The nature of the deprivations felt is illustrated by the following responses.

- . I was far from home, but now my present mine is nearer my home. I am able to visit my family on week-ends.
- . The soup is so badly cooked that it is just a mixture containing things we do not know. If one complains about this, one is then at fault. Some night-shift workers who arrive late at the kitchen do not get food. We do not complain for fear of victimization.

The aspects of living conditions and food, raised by workers were expressed as a ratio of the total number of aspects raised about other mines (Table 67). The comparison of the figures for the popular and the unpopular mine showed little difference in the ratios for living conditions, however, workers on the unpopular mine appeared to regard themselves as disadvantaged in respect of the food.

(f) Comparison with their past situation

Another way in which people experience privilege or deprivation is by comparing their past situation to their present. Tables 68.1 and 68.2 show that there was divided opinion on both mines on whether changes had actually taken place. This applied to the food and living conditions on the unpopular mine. By contrast, workers on the popular mine had noted a distinct improvement in their living conditions over the eighteen-month period. The quality of life had been enhanced by clean, new (or renovated) hostels, by the provision of change houses, tables, chairs and washing lines, television, and by hygienic, well-prepared meals (Tables 68.3 (a) and 68.3 (b)).

(g) Comparison with secondary industry

In an endeavour to determine how workers' evaluated themselves relative to extra-mining factors, they were asked their opinions of secondary industry. Workers did not view food as an issue of much consequence, probably because, unlike mining, secondary industries do not normally supply free food to workers. On the other hand, living conditions were again viewed as very important (Table 69.1 (a)), for workers on both mines regarded this aspect favourably in secondary industry compared with their own mines (Table 69.1 (b) and (c)). The major facets admired were workers' contacts with their families and freedom of movement, for example:

(Unlike workers in secondary industry) we are far from our homes and families and these are some of the things that make us sad.

Yet, living conditions in secondary industry were also viewed unfavourably by workers on both mines (Tables 70.1 (a), (b), (c) and 71) because of lack of cleanliness, leisure-time facilities, or security for belongings. By contrast, some workers said:

The mine has its own security, consequently there are no criminals (Table 70.2).

(h) Comparison between own mine, other mines and secondary industry

A summary was made comparing the favourable and unfavourable aspects of the sample mines with those of other mines and with secondary industry (Table 72). In general, other mines and secondary industry were viewed to have had favourable changes in living conditions and food (except secondary industry) when compared with their own mines. This suggests that workers felt deprived relative to other workers on these issues. Two issues - wages and procedures and practices - are examined in some detail below.

(i) Wages.

(Continual reference will be made to the same tables used in the above section so these will not be mentioned again after each finding.)

Workers appeared to hold ambivalent opinions of their wages: although many were of the opinion that workers on other mines were better off than they were, others held that wages on their mines were satisfactory. Wages were evidently a very important issue, as some of the workers claimed that they would resort to strike action if wages were unsatisfactory. Other

workers were undoubtedly pleased that they were "getting wage increments regularly" and that the mine was "paying better wages these days". This suggests that workers have heightened expectations of similar wage increments in the future.

The ambivalence in workers' views of the wages on other mines in relation to their own was also manifested in their opinions of wages in secondary industry. Workers on both mines held views similar to the following:

- . (Workers in secondary industry) cannot progress because life is expensive and they cannot save.
- . The mine does not pay according the number of hours worked (unlike secondary industry).

(ii) Procedures and practices.

(The tables used in the sections of living conditions, food and wages apply here.).

The workers on both mines generally had favourable, as well as unfavourable views of the procedures and practices on other mines. The major themes emerging were the curtailment of their homestay period, the length of the pay cycle, grievance handling and workers' resorting to strike action to rectify ills. Some men said:

- . Our leave has been reduced. We are unable to attend to family matters.
- . Workers are simply discharged without an interview to give the reasons.
- . Mine authorities neglected workers' grievances and this caused strikes.
- . There were strikes (on the other mine) which led to death and unemployment.

It would appear that it was not only the actions of mine authorities, but also their fellow workers' reactions to unfairness, that engendered feelings of deprivation.

The ambivalence in opinion was reiterated in workers' views on whether or not there had been changes on their own mines. Some men felt there had been improvements, typified by this remark:

- . White miners used to swear and assault us underground, but such behaviour has been stopped.

However, other remarks were not so positive; on the contrary they viewed the changes as retrogressive, such as:

- . Our complaints are no longer taken into consideration.
- . The mine is now training workers in Afrikaans at the Training Centre, and we are being failed because we do not understand it.

Workers on both mines considered themselves at a disadvantage when they compared the procedures and practices on their mines with those of secondary industry. The main themes were the opportunities those workers had for going home at Christmas, for taking compassionate leave and for staying at home for longer periods. The extent of their frustration is borne out by the following statement:

- . The managers do not understand our customs. They will refuse one compassionate leave even for serious domestic affairs.

(i) Perceptions of progress

Workers were asked:

In general, do you think things are getting better or worse for workers on mines?

The responses are recorded in Table 73. Although the majority of workers thought that progress was being made, there were meaningful numbers (17 per cent) who were of the opinion that there had been retrogression for workers or that no progress had been made. The latter view was held quite strongly on the unpopular mine.

(j) Summary

There are decided advantages to having workers in one social system compare themselves with workers in another: in this case the comparisons were made between the views of men on a popular and an unpopular mine with men on other mines and with men in secondary industry. The comparison with other mines was not as fruitful, as the issues raised in previous investigations were raised again - poor food, poor wages, poor accommodation, poor treatment by supervisors. The survey did show, however, that the norms of the popular mine were those used by workers to evaluate their own conditions. Workers were well aware of changes brought about in the Industry and used these as the basis for comparison.

The comparison with secondary industry brought to light aspects of the quality of life which are not normally raised when direct questions are asked. The major advantage of working in mining was protection of the person and belongings and the ability to save because of free food, etc., whereas the main disadvantage was the workers' lack of contact with their families for long periods: measured against almost any norm, this factor makes the quality of life on mines very low.

8.9 Qualitative Indicators : Ranking of Satisfactions and Dissatisfactions

(a) Introduction

A quantitative subjective indicator of quality of life can be obtained by assigning weights or ratios to an opinion about a quality. In the following investigation, whose methodology is reported in Chapter 6(g) under the heading "Paired-comparison technique with fixed constructs". The factors weighted were obtained from the most frequently raised likes and dislikes by 1 864 workers on one mine in 1979. Those interviews were gathered routinely every month from men who were leaving the mine after a workstay. Tables 74 and 75 record the likes and dislikes and the number of times each was raised.

The workers were asked (using a paired-comparison questionnaire) to rank these in order as the factors that detracted most and contributed most to the quality of their lives on the mines.

Further analyses were carried out on the rankings of these factors as viewed by the following groups of men who constituted the sample interviewed:

- . men with little or no schooling Vs men with 7 to 11 years schooling
- . men with little or no mining experience Vs men with five or more years of experience
- . single men Vs married men
- . team leaders and operators of machinery Vs manual labourers
- . Lesothoans Vs Transkeians Vs South Africans Vs Foreigners.

The findings are presented below - the tables are in Appendix VII:

TABLE 74 : The ten aspects of work and life disliked most by black mineworkers on one gold mine (Jan-Dec 1979)

N = 1864

<u>ISSUES DISLIKED</u>	<u>NUMBER OF TIMES ISSUE WAS RAISED</u>
Jobs too strenuous	291
Offal prepared badly	261
No chances for promotion	231
Long hours of work	220
Late cages	168
Insults from supervisors	116
Supervisor too restrictive	101
Beds uncomfortable	96
Dangerous underground conditions	79
Shower water too cold	73

TABLE 75 : The ten aspects of work and life liked most by black mineworkers on one gold mine (Jan-Dec 1979)

N = 1864

<u>ISSUES LIKED</u>	<u>NUMBER OF TIMES ISSUE WAS RAISED</u>
It is good to have a job	1252
Clean hostel room	704
Good relations with roommates	683
Properly cooked food	641
Money earned is enough	443
An understanding supervisor	401
Facilities provided during leisure time	359
Adequate food portions	295
Free to work without interference	159
Complaints are solved satisfactorily	150

(b) Factors detracting most from their quality of life

The four most important factors detracting from the quality of life in mining as viewed by black mineworkers were:

- . Dangerous underground conditions
- . No chances for promotion
- . Insults from supervisors
- . Late hoists

Figure 26 shows the ranking of these factors in importance relative to one another.

The rank order of these four variables remained unchanged as viewed by the different groups of workers in the sample, which leads one to suspect that these views were fairly commonly held among black workers on the three mines.

The minimum and maximum values of the ranges (Tables 76 (a) to 76 (f)) show that for nearly all the above categories of workers interviewed, the first two factors

- . Dangerous underground conditions
- . No chances for promotion.

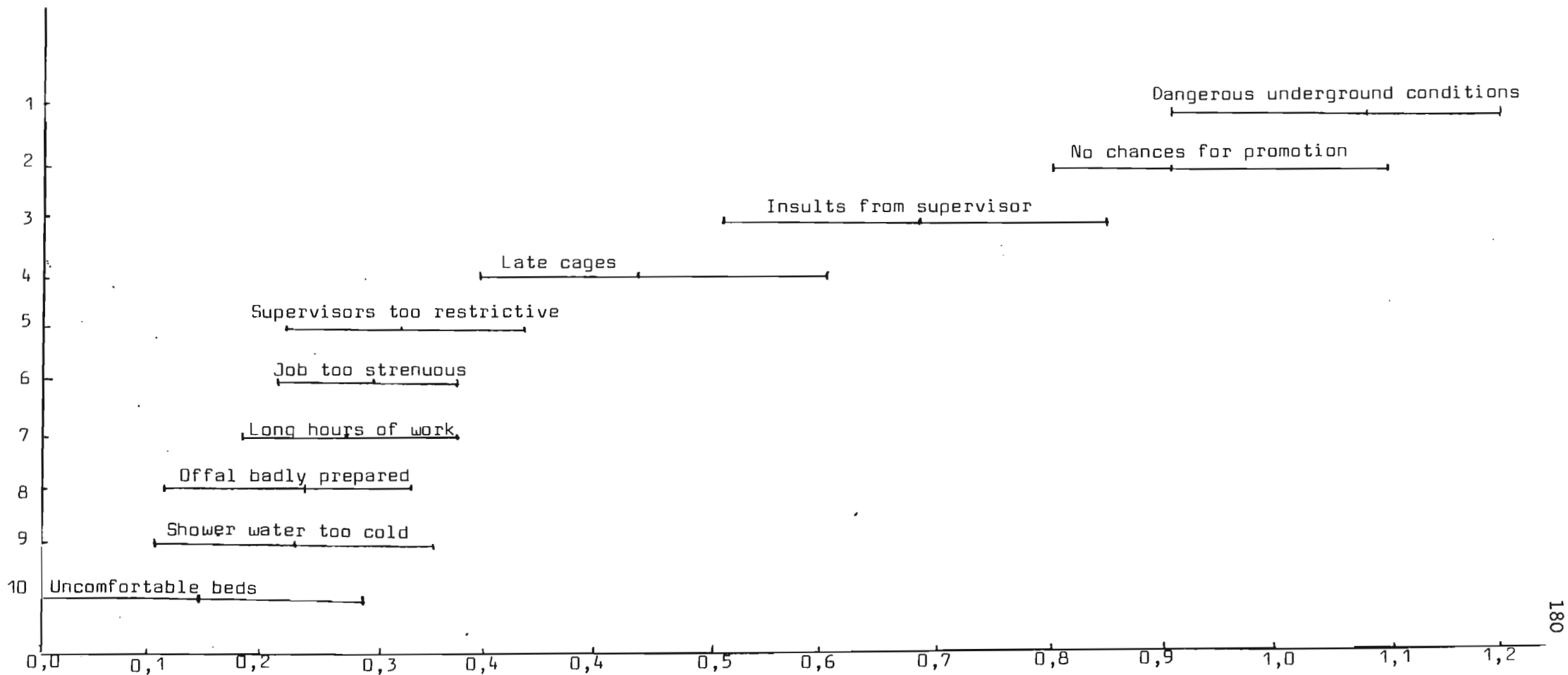
were viewed as definitely the most important. (The exceptions were single men who grouped "Insults from supervisors" with the above factors and Transkeians who rated "Dangerous underground conditions" as the most important detracting factor alone.).

The other six detracting factors ranked in order of importance were

- . Long hours of work
- . Supervisors too restrictive
- . Jobs too strenuous
- . Shower water too cold
- . Beds uncomfortable
- . Offal badly prepared

An examination of the minimum and maximum values of the ranking of the above six factors shows that men viewed them as a group which constituted the fifth most important factor detracting from their quality of life.

FIGURE 26 : Black mineworkers' views on the level of importance of the 10 most disliked issues of work and life in mining



Further analyses of the 10 factors as viewed by the different groups of men interviewed shows a high measure of agreement on the rankings (Table 76 (a) to 76 (e)),

(c) Factors contributing most to their quality of life

The two most important factors contributing to the quality of life in mining as viewed by black mineworkers were

- . Enough money
- . Work without interference

Figure 27 shows the ranking of these factors in importance relative to one another.

The rank order of these two variables remained unchanged as viewed by all the groups of workers (Tables 77 (a) to 77 (f)) except for Transkeians and foreign workers who ranked "Work without interference" before "Enough money" and South Africans who ranked "It is good to have a job" after "Enough money".

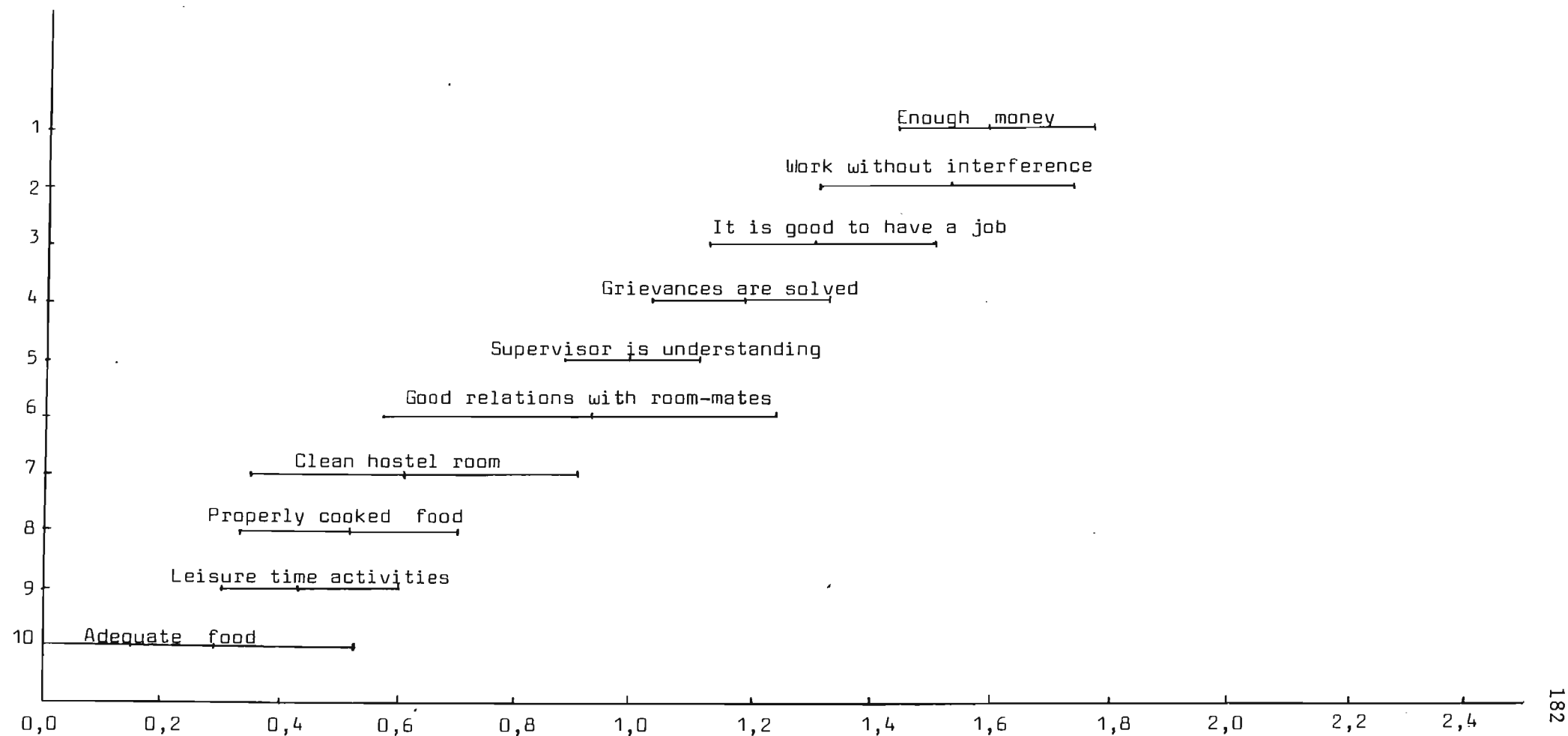
The workers viewed the following four factors next in order of importance

- . A clean hostel room
- . Properly cooked food
- . Leisure time activities
- . Adequate food.

Further analyses of the 10 factors as viewed by the different groups of men interviewed shows a high measure of agreement on the rankings (Tables 77 (a) to 77 (e)).

An important finding is that although both sets of data were analysed as viewed by 12 different groups of workers there was much agreement among the groups on the findings which suggest that the views expressed in the survey were fairly widely held on the three mines.

FIGURE 27 : Black mineworkers' views on the level of importance of the 10 most liked issues of work and life in mining



(d) Summary

The mining industry has effected changes to a number of physical facilities on mines to improve workers' quality of life. Millions of Rands have been spent on the upgrading of food, accommodation and sports and recreational facilities, yet workers still consider their quality of life to be low. This study shows that mines have done little to improve those factors which workers consider as the most important detractors - lack of safety, lack of promotional opportunities, poor treatment by line staff, late hoists (cages) and long hours of work. Workers considered money and the opportunity to work without interference as the most important factors contributing to their quality of life.

An examination of these seven factors reveals that none of them are concerned with the physical facilities on the mine, but rather with the way in which the workers are viewed as people. Workers are evidently people who can be mishandled, maltreated and exploited like inmates of a total institution as they lack the means to stop this type of behaviour against them.

The major problem with the methodology used is that of finding the most important constructs for workers to rank. The constructs used were gleaned from open-ended interviews on men's likes and dislikes of their mine. In that context vital issues like separation from the family were not raised although other surveys have shown men's attitudes to such deprivations, thus not all the workers' major likes and dislikes of mining could be evaluated.

8.10 Quantitative Indicators

(a) Introduction

(The methodology for this investigation is reported in Chapter 6(g) under the heading "Logging daily activities and open-ended interviews".)

Previous surveys had identified much dissatisfaction among workers about late hoisting and delays underground which they regarded as major debilitating factors on mines. The following investigation was conducted to determine the nature of these dissatisfactions and how they affected the lives of workers.

(b) General trends

Fifty-two black underground mineworkers were followed from the time they woke up in the morning until they went to bed at night. From the analyses of the recorded times, it was noted that the majority of them experienced the normal "run-of-the-mill" problems with getting to and from work but that these were not excessive. The analyses of the data showed that the recorded times conformed to a Poisson's Distribution and that generalizations could be made from the sample data; consequently percentage figures are given with the recorded numbers. The average working time was 7 hours 3 minutes (s=71 minutes) and the average daily travelling time was 3 hours 19 minutes (s=83): this means that 68 per cent of the workers spent between 7 hours 48 minutes and 12 hours 56 minutes working and travelling to and from work on the days measured which compares more or less with the times taken by workers in other industries (McAllister, 1973). Although the time most workers spent travelling was not excessive, they still experienced frustrations with the mine procedures as they complained of long waits for hoists (33 men mentioned this) and wasting time at the waiting place (raised 13 times; Table 79).

This was confirmed from the recorded times of workers. In fact, it was possible for some men to have waited for about three hours a day at the following places:-

- 60 minutes for hoists in the mornings (56 per cent of workers)
- 42 minutes at the waiting place in the mornings (mean time*)
- 9 minutes at the waiting place in the afternoons (mean time*)
- 60 minutes for hoists in the afternoons (28 per cent of workers)
- 171 Total minutes waiting daily

*Mean times are used as not all the workers waited there.

Most mineworkers appeared to have had sufficient to eat in the mornings and afternoons in question, had sufficient hot water to shower in and sufficient time to deal with their personal matters. They had difficulties, however, with the quality of supervision underground and with the quality of food, both of which are discussed below. On the other hand, there were those men who were handicapped by the procedures and practices on the mines. The research will concentrate on their problems and

frustrations as they form a body of men who were dissatisfied with the mines in question and could be catalysts of work disruptions and disturbances if their dissatisfactions are not taken care of. The results have been divided into the following periods of the worker's day:-

- (c) Before work
- (d) Travel to and from work
- (e) At work
- (f) Total time
- (g) After-work activities

The investigation is summarized in section (h) Ripple effects.

Numbered references to the actual cases in Annexure III are given with quotations.

(c) Before work

In all four hostels mass wakening of workers was practised and there was no evidence of any "selective" wakening systems. Being awakened at about 03h00 appeared to suit the vast majority of workers as they claimed that it gave them sufficient time to dress, have breakfast and be in time for hoists to take them underground.

Mass early wakening, however, was seen to be frustrating by a number of men for the following reasons: they only started working later in the day; they did not get to work immediately but spent their time waiting for hoists. Others said that mass wakening caused congestion at the clocking-in-station. Two men claimed that they arrived at the clocking-in-station to find that the hoists were not yet operating. Examples of some men's frustrations with early wakening are the statements made by a Lasher (Shoveller) (Case B.1):

We get up at 03h00, but I dislike it as I feel it is still too early for one to get up. But there is nothing I can do as this is the policy of the mine.

and a Machine Driller (Case A.12):

Woken up by a policeman with a loudspeaker (04h30), but this is too early as I only start working at 08h00. This I dislike much as we have to go and wait a long time for a hoist.

Four workers claimed that they did not take breakfast as it was too early in the morning to eat; others said they had too little time; or that they did not like this meal (Table 78). Examples were a Loco Driver (Case D.20):

In the mornings I do not go to the kitchen for breakfast because it is closed (05h39), but by regulation we are supposed to get breakfast from the kitchen. (Note: On the mine in question the kitchen was supposed to close at 06h00)

and a Reclamation and Salvage Worker (Case C.20):

Going for breakfast I sometimes find that the food is not well prepared and we are then told that the steam was off.

If workers did not eat until they returned to the hostel in the afternoon, usually some 24 hours after their last meal, it is likely that they would have expected to have a well-prepared, substantial meal ready. The implications of this statement will be seen when the main meal is discussed.

(d) Travel to and from work

(i) Getting to work.

Although on average men took 1 hour 49 minutes ($s=44$ minutes) - the difference among the four mines were not significant ($\chi^2=2,335$; $df=3$; $p<0,01$) - to get to their workplaces, three men or seven per cent took three and a half hours. They claimed that this was very frustrating, particularly because they had long waits for hoists and locos, long distances to travel, and because of the congestion when clocking-in (Table 79)

Examples of men's frustrations are the following:

A stope equipper (Case C.8):

We wait a long time at the waiting place ... for the miner who comes in very late ... and by the time he arrives one is no longer in the mood for work.

A team leader (Case A.2)

It is a daily thing waiting for the hoists, but I cannot say what causes the delays. This is sickening after wasting so much time in the clocking-in-station.

TABLE 78: Black mineworkers' comments about breakfast

N = 52

Comments	* No of Responses	Per- centage +
Still too early for a big meal	4	8
The food is not well prepared	2	4
There is not enough time for breakfast	2	4
Waiting to be served wastes a lot of time	2	4
Just don't like having breakfast	2	4
Find kitchen closed in the mornings	1	2
Total	13	

- * Not all the interviewees chose to speak on this topic.
 + The number of times each issue was raised is calculated as a percentage of the total number of men interviewed.

TABLE 79 : Black mineworkers' comments about their travelling

N=52

Workers' Comments	No. of Responses	Per- + centage
Wait a long time for the cages	33	63
Waste a lot of time at the waiting place	13	25
Long travelling distances to the work areas	12	23
Delayed by locos underground	10	19
Too much congestion at the crush	10	19
Wait for other sections to be taken down first	5	10
Other	3	6
Total	86	

* The number of times each issue was raised is calculated as a percentage of the number of men interviewed.

Note: On one mine workers went to their work places on foot, on the other three mines workers used underground transport. Ten workers (19 per cent) on two mines complained that the transport they used underground did not allow them to get to work on time.

Thirty-seven per cent of the sample waited over 60 minutes for a hoist to take them underground on the mornings in question (Table 80). Some men claimed that they arrived at work late because they had to wait for hoists (Table 90), and that they were turned away by the supervisors because they were late (Table 84).

For example:

A Winch Driver (Case D.15):

I work very far away. When we get to the clocking-in-station we are in long queues. Arriving late at work, we are turned back by the miners. They do not understand when we tell them that we were delayed in the queues. They tell us that we like sleeping.

or that they claimed that they are assaulted, for example:

An Engineering Labourer (Case C.7)

I am only bothered by my boss who is almost daily not on time but when I am late, only once, I am in real trouble. He is very impatient and temperamental: one mistake and one gets a beating.

- Returning from work. The average time from work to the hostel on the afternoons in question was 1 hour 30 minutes ($s=39$ minutes), - the differences among the four mines were not significant for all these times ($\chi^2=9,462$; $df=3$; $p<0,01$) - yet eight per cent of the workers took over two and a half hours. The main reasons for the delays were seen to be long waits for hoists, long distances to the station and long queues at the station (Table 81).

Example:

A Timber Man (Case D.4):

Coming back from work is the most difficult part of the day. We all knock off at the same time and there is congestion at the station, and as a result we have to wait long for hoists and arrive very late at the hostel.

Frustration with waiting was exacerbated for some men because whites were hoisted to the surface before black workers, others complained that they caught colds because they stood in a draught in wet clothes waiting for the hoists (Table 82).

TABLE' 80 : Time spent by black mineworkers in the morning waiting for hoists

Waiting Times	No. of workers	Percent- age	Cumulative Percentage
From 1 to 10 minutes	7	13	100
From 11 to 20 minutes	4	8	87
From 21 to 30 minutes	4	8	79
From 31 to 40 minutes	5	9	71
From 41 to 50 minutes	7	13	62
From 51 to 60 minutes	6	12	49
Over 60 minutes	19	37	37
	52	100	

TABLE 81 : Factors perceived by black mineworkers as causing excessively long travelling times from the workplace to the hostel

N = 52

Perceived Factors	No. of Responses*	Per-centage
Long wait for cages	35	67
Travel long distance to the station	14	27
Long wait in queues at the station	6	12
Whites hoisted to surface first	5	10
Long wait for transport to the station	4	8
Only one cage is operating in the afternoons	4	8
Waste time at the crush clocking out	3	6
Total	71	

* Multiple responses

+ The number of times each issue was raised is calculated as a percentage of the number of men interviewed.

TABLE 82 : Black mineworkers' reactions to the time they spent waiting for hoists

Workers' Reactions	No. of Responses*	Per-centage+
Too much congestion or long queues at the crush	11	21
A daily occurrence to wait long for cages	11	21
Woken early only to waste time waiting for cages	5	10
Wait long as other sections are taken down	5	10
Waiting for cages makes us late for work	4	8
Arriving at the bank to find cages are not yet operating	2	4
Too cold in winter to wait long for cages	1	2
More cage delays in winter	1	2
Total	40	

* Not all interviewees chose to speak on this topic.

+ The number of times each issue was raised is calculated as a percentage of the number of men interviewed.

Note: Two team leaders mentioned specifically that they wasted a lot of time at the crush as they had to make sure that their gang members went underground.

On the afternoons in question 14 men (or 28 per cent) of the workers waited for 60 minutes or longer for a hoist (Table 83).

Examples:

A Reclamation and Salvage Worker (Case C.10)

My main worry is that I normally arrive on time at the station, but when only one white worker arrives, the hoist takes him to the surface alone and all the others have to wait. The hoist takes a long time to come back. The whites are the only people who waste our time underground. We go down first, they come much later but they are the first to be hoisted to the surface.

A Team Leader (Case A.2)

On coming up, the hoist collected a few (4) whites, and when we tried to get in, we were pushed out and told we could not mix with whites in the hoists, this is very sickening when one thinks of it. We work with them but cannot travel in the same hoists with them. One thing for certain is that without us there won't be any production, but whether or not they are there, blacks will always work.

- Time spent getting to and from work. The average time spent getting to and from work as 3 hours 19 minutes ($s=83$ minutes) - the differences among the four mines were not significant for all these times ($\chi^2=3,224$; $df=3$; $p<0,01$). However, the range of times is more important as it reveals the numbers who spent much longer travelling to work; nine (or 19,5 per cent) workers spent three and a half hours and more travelling to and from work and one worker (or two per cent) spent four and a half hours and more.

(e) At work

Although the average time spent at the work place was 7 hours 3 minutes ($s=71$ minutes) - ($\chi^2=4,073$; $df=3$; $p<0,01$), it was noted that three (or six per cent) of workers on the days in question spent more than eight and a half hours working at the rock face which exceeded the limit permitted by law. Eight men complained about working long hours (Table 84).

Machine Driller (Case A.12):

Working hours are too long and we starve underground as we only had two slices of bread in the morning and have to work eight hours without food for the whole day because we do not get a lunch hour underground.

TABLE 83 : Time spent by black mineworkers waiting for hoists in the afternoon

Time Spent Waiting	No. of workers*	Percent-age	Cumulative Percentage
From 1 to 10 minutes	10	21	100
From 11 to 20 minutes	9	19	80
From 21 to 30 minutes	4	9	61
From 31 to 40 minutes	6	13	52
From 41 to 50 minutes	1	2	39
From 51 to 60 minutes	4	9	37
Over 60 minutes	13	28	28
TOTAL	47	101+	

* The times of five men were not recorded in this Table as they did not wait for cages on arrival at the station.

+ Rounding error

TABLE 84 : Black mineworkers' comments on the effects of mine procedures and practices on their working life

N = 52

Workers' Comments	No. of Responses*	Percentage +
Not satisfied with the present job	18	35
Harassed, insulted, assaulted or manhandled by Whites	12	23
Work very long hours	8	15
The work is too strenuous	8	15
Waste time at the waiting place instead of working	7	13
Not satisfied with the pay for the present job	5	10
Turned back by the miners for arriving late at work	4	8
Refused promotion to better paying job	3	6
Starve underground as there is no time for eating	2	4
Do not know the starting time	2	4
Other	4	8
	73	

* Multiple responses

+ The times each issue was raised is calculated as a percentage of the number of men interviewed.

Team Leader (Case B.9):

We work for more than eight hours each day, which is a very long day indeed as the working place is very hot and the work itself strenuous.

(On that particular day this man worked for eight hours and fifty-three minutes.)

There also appeared to be some dissatisfaction with the supervision; with being harrassed, insulted and assaulted by whites, with the work in general and its strenuousness in particular (Table 84), for example the following claims were made.

A Spanner Worker (Case D.8):

My job is very strenuous and I once broke my arm.
When I dig my arm swells up and when I tell my team leader he refuses to change me from my job.

(f) Total time

On average the workers spent 10 hours 22 minutes ($s=154$ minutes) - the travelling and working times conformed to a Poisson Distribution ($\chi^2=12,016$; $df=4$; $p<0,01$) and the differences among the four mines were not statistically significant for all the times ($\chi^2=3,224$; $df=3$; $p<0,05$) - working and travelling to and from work on the days measured: yet eight (or 16 per cent) of the workers were travelling and working for eleven and a half hours and two men (or four per cent) for twelve and a half hours.

(g) After-work activities

Meals were a matter of concern to many workers. Not only did they complain about badly prepared meals, but they also mentioned being at a disadvantage because they arrived late at the hostel (10 men or 20 per cent arrived there after 16h01 on the days in question) (Table 86). Some men found the dining halls closed; little or no food left over or (as they claimed) water was added to the food to make it go further (Table 85). These were indeed frustrations to men who had last eaten some 12 hours previously if they had had breakfast or 24 hours previously if they had not. The worst case was that of an underground labourer (Case A.8) who said:

TABLE 85: Times of arrival in the hostel

N = 52

Arrival Times	Mine A	Mine B	Mine C	Mine D	Total *	Percentage
Before 14h00	2	-	3	3	8	16
Between 14h01 and 15h00	4	1	5	5	15	30
Between 15h01 and 16h00	3	-	2	12	17	34
Between 16h01 and 17h00	-	5	1	-	6	12
After 17h00	-	4	-	-	4	8
TOTAL	9	10	11	20	50	100

* The times of two men are not included in this table as they were not on day shift.

Note: There were significant differences between the arrival times of men on the different mines
 $(\chi^2 = 34,044; df = 9; p < 0.05)$

TABLE 86 : Black mineworkers' dissatisfaction with regard to their meals

N = 52

Issues	No of Responses*	Per-centage +
Food badly prepared	22	42
Arriving late in hostel to find dining halls closed	10	19
Arriving late in hostel to find food finished or little left	8	15
Served very little food	7	13
The cooks are rude to the worker	6	11
Water added to the food served late comers	4	8
Workers buy their own food because hostel food is bad	3	6
Wait too long in the queue before being served	2	4
Other	4	8
	66	

* Multiple responses

+ The number of times each issue was raised is calculated as a percentage of the number of men interviewed.

Note: The workers complained a great deal about the mixed vegetable soup. They claimed that it was inedible, badly cooked and that too many ingredients were cooked together in one pot. Some (4) found the porridge inedible as they claimed that it was "served while it was still raw".

When we arrive late in the hostel we find that there is no food and have to spend the night without food. Right now we spent four days without food because of delays in cages.

(This statement could not be verified. The interviewers also did not probe to find out whether the man meant by "without food" that he had received no food at all or that he had not received choice items of food such as meat and vegetables.)

Workers also appeared to be irritable and complained of cooks being rude and of the long queues for food (Table 86).

Nearly all the men in the sample complained about food on their mines. The food items most complained about were mixed vegetable soup and small portions of meat. Typical examples were the following:

A Winch Driver (Case D.2):

At the kitchen the samp is not well cooked and gives us stomach pains. The mixed vegetable soup is just as good as drinking fatty water.

A Machine Operator (Case D.3):

At the kitchen we are only given bones instead of meat, and when we complain about it we are asked,

'Have you ever seen a cow without bones?'

The problems of late-comers to the hostel were exacerbated by the showering facilities: some men had to shower in cold water as the early-comers had used up the hot water, and on one mine others claimed that there was no hot water at all. As the survey was conducted in winter, the complaints on these issues were probably higher than normal. Most of the complaints were of the following nature:

Development Team Leader (Case C.9):

Getting to the change house we always have trouble with water. Besides getting cold water at times, what worries me most is that whilst washing, the water will stop coming from the shower while I have soap foam all over my head and body. I have to stand under the shower waiting for water to come out again. We contract colds from standing in the shower like this.

The times when men had finished with the necessary after-work activities such as washing and eating, give a pointer to the amount of free time they had at their disposal (Table 87). Thirty-seven workers (or 74 per cent) were free to enjoy their leisure after 17h00 on the days measured; they spent their time on a variety of activities such as resting, washing work clothes and visiting. However, the men were often too late to attend to many personal matters - the pay office and the post office were closed (which meant that they could not send money or parcels home).

Example:

An Underground Labourer (Case A.9):

Arriving late in the hostel on pay days we find the pay office already closed and as such cannot get our money until after several days. This is very disturbing as we have come here to work for money so that we can support our families.

The men who had completed their activities after 18h00 (four men or 8 per cent) in the afternoons could not take part in sport as it was too dark in winter. Workers complained:

A Load - Haul - Dump Worker:

Arriving in the hostel at 18h00 means that I cannot get time to go for training and rugby practice.

and the same man complained:

Getting to the bar at 19h00 does not give me enough time to drink in a relaxed manner, because at that time there is very little time left before the bar closes.

As workers were woken up at 03h00 in the morning many of them (20 men or 40 per cent) were in bed by 19h00 which left very little time for leisure especially for the late-comers.

Figure 28 depicts the relationship between the arrival times of workers in the hostel and the availability of facilities. It shows that a number of men were penalised because they arrived back in the hostel after 16h30. Those who arrived after 18h00 could have found,

little food (or choice items exhausted),
the post office closed,
cold shower water, and
the pay office closed.

TABLE 87 : A comparison of the times on four mines when free time was available to black mineworkers*

N = 50**

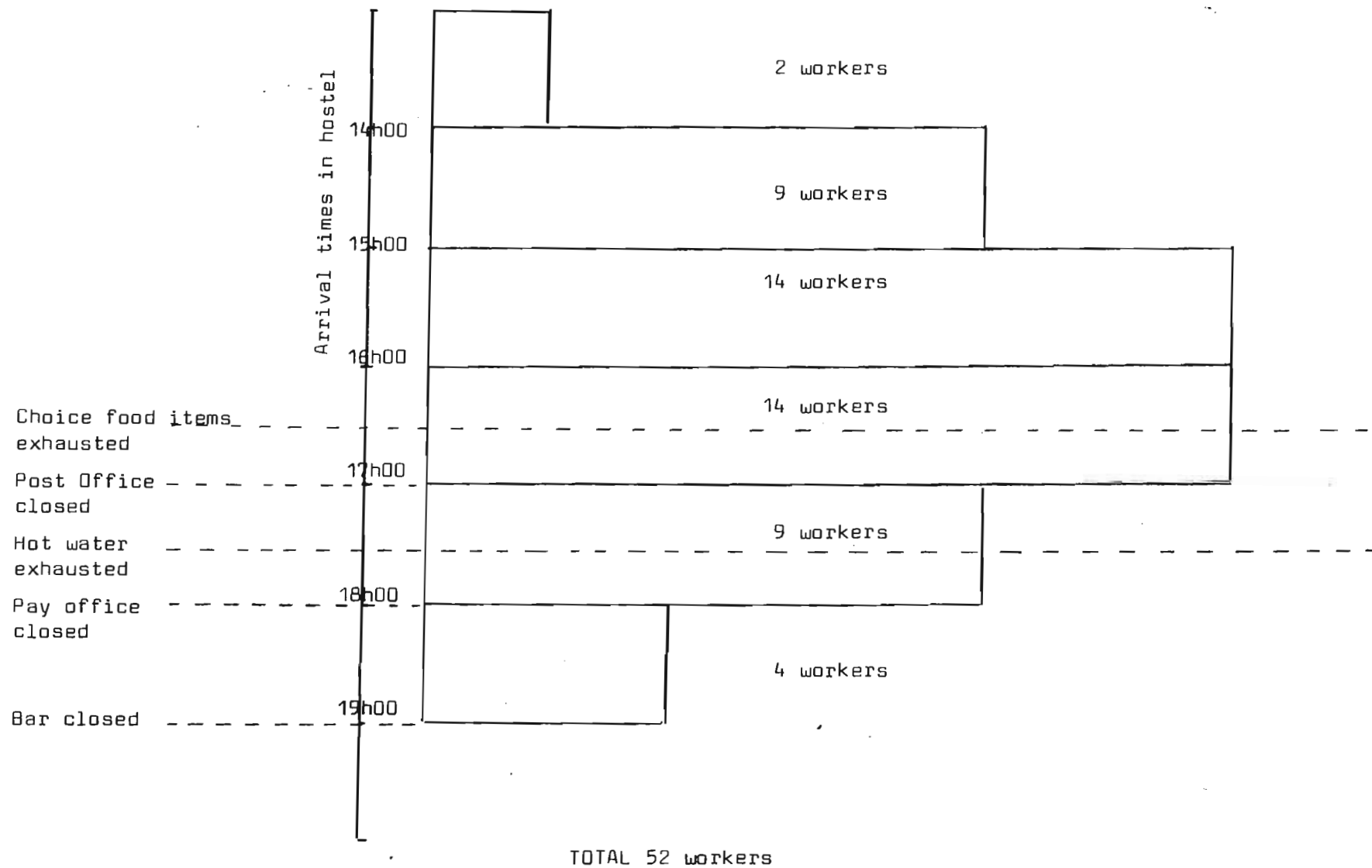
When men were free	Mine A	Mine B	Mine C	Mine D	Total	Per-centage
Before 14h00	-	-	2	-	2	4
Between 14h01 and 15h00	4	-	2	3	9	18
Between 15h01 and 16h00	2	1	3	7	13	26
Between 16h01 and 17h00	3	-	3	7	13	26
Between 17h01 and 18h00	-	5	1	3	9	18
After 18h00	-	4	-	-	4	8
TOTAL	9	10	11	20	50	100

* For the purposes of this report free time is defined as the time on the four mines when men had finished with the necessary after-work activities and were ready to attend to their personal affairs.

** The times of two men are not included in the table as they were not on day shift.

FIGURE 28 : Relationship between arrival times of black mineworkers in the hostel and the availability of facilities

Availability of Facilities



Workers slept for 7 hours 59 minutes (s=84 minutes) on average although some seemed to require more sleep than others as can be seen from the recorded sleeping times which varied from 5 to 10 hours (Table 88).

(g) Ripple effects

The method developed in this study, that of following men, observing their activities, logging the times of each activity and obtaining men's perceptions of them appears to have provided useful insights into a day in the life of an underground worker.

The major problem that the investigative technique uncovered was that on all mines there was a number of men who were severely handicapped by the procedures and practices in operation. Although seemingly unrelated problems emerged such as the quality of meals (breakfast and the main meal), the quality of underground supervision and the malfunctioning of showers, there appeared to be a cumulative or aggregating effect from one activity to another. Men who were kept underground longer than usual and missed the hoists to take them to the surface, were required to wait, at times, over an hour for another hoist; they got to the surface only to find no hot shower water, little or no food and they had little time left over to deal with matters like drawing their wages.

8.11 Overall Summary of Social Indicator Studies

At the outset of this Chapter, it was stated that social indicators could be used to determine "the extent of human well-being within a segment of a social universe". Various types of indicators and various methods were used in an endeavour to arrive at a true picture of the quality of life of black workers in mining. It is very difficult to obtain a "true" measure of quality of life. The results obtained depend to a large extent on what indicators are used, when and how they are measured, how they are analysed, what norms are used to evaluate them and what inferences are made from the data collected. However, the use in this thesis of so many different indicators, with different methodologies, applied to different populations provided data with a very high degree of corroboration. These are summarized below.

TABLE 88 : Black mineworkers' hours of sleep

Number of Hours Slept	Number of Men	Per- centage
Between 5 and 6 hours	1	2
Between 6 and 7 hours	13	25
Between 7 and 8 hours	20	38
Between 8 and 9 hours	9	17
Between 9 and 10 hours	4	8
More than 10 hours	5	10
TOTAL	52	100

Management has made efforts to improve workers' quality of life by upgrading physical facilities on the mines. Much money has been spent on new buildings and new facilities - of that there is irrefutable evidence on mines. Yet it would appear that it has upgraded the less important aspects of workers' quality of life and not improved those aspects that workers considered to be important. Were the facilities improved those that could be photographed and shown to shareholders and critics to try to convince them that changes were being made? Were changes made to those aspects which would not endanger the power balance on mines?: a change in the power structure would have been the logical outcome to management's acceding to workers' demands for change.

The social indicators measurements have identified the following debilitating aspects of workers' quality of life on mines:

- Management's excessive control over their lives:
 - . Men woken early in the mornings en masse, irrespective of when they had to start work;
 - . Rooms allocated in hostels according to management policy;
 - . Men not able to regulate the temperature of the shower water.
- Management's poor administration of facilities:
 - . Work bonuses not paid at stated rates;
 - . Workers not informed of changes in rules and regulations;
 - . The pay cycle very long;
 - . Overtime payments incorrect or not understood by workers;
 - . No control over the amount of food consumed by early-comers to the hostel who left too little for the late-comers;
 - . Food allowed to get cold;
 - . Little monitoring and control over how staff used facilities and applied rules;
 - . Thefts from change houses and hostel rooms;
 - . Good food poorly prepared, allowed to get cold and cooked too early;

- . Shower water insufficient and cold;
 - . Overbunking in hostel rooms;
 - . Hostel rooms dirty.
- Management's misuse and abuse of power:
- . Whites had precedence in hoists;
 - . Workers kept at the rock face longer than statutory hours;
 - . Travelling and waiting times very long;
 - . Obeisance to whims of whites demanded;
 - . Victimization of complainants;
 - . Dismissals without fair hearing;
 - . Workers shouted at, sworn at, called names;
 - . Workers not allowed to speak English to miners;
 - . Favouritism;
 - . Assaults and beatings;
 - . Workers not given fair hearing on complaints by line staff.
- Management's attitude to workers shows lack of concern for them as human beings:
- . Long workstays deprived men of access to families;
 - . Short homestays allowed them little time at home;
 - . Compassionate leave for domestic crises and problems difficult to obtain;
 - . Inadequate accommodation for visiting wives;
 - . Payment cycle for wages too long;
 - . Hoists too late for men to draw wages;
 - . Insufficient time for men to get to the post office to send money home.

- Workers' lack of formal power to rectify inadequacies in their quality of life:
 - . Management's refusal to listen to their point of view;
 - . Management's inaction on legitimate grievances;
 - . Workers not consulted on changes of importance to them.

The question remains as to how the workers could rectify this situation bearing in mind the institutional factors inhibiting their action against white mine management.

CHAPTER 9. FINDINGS : CASE STUDIES ON THE REASONS FOR WORKER MILITANCY

9.1 Introduction

The model proposed in the introduction directs attention to the power of mine management, how this leads to privilege and a vested interest in control over other groups to maintain that privilege. It also suggests that groups with limited power will lack privilege and will wish to rectify this situation by means of conflict. This section of the thesis will examine the reasons why such conflict situations have arisen by examining actual violent conflicts from the perspectives of white management and black mineworkers. The methodology used in the empirical study (9.3) is described fully in Chapter 6(h) under "Triangulation study".

McNamara (1981) analysed 149 conflicts between black mineworkers and white management in the period 1970-1979. He found that these resulted from the workers' dissatisfactions with the policies, procedures and practices of the mines. However, most of these conflicts involved work stoppages which were of no longer than two days in duration. Such conflicts could be described as symbolic demonstrations of discontent aimed at encouraging prompt action by management on wide-spread grievances. In fact, the research also revealed that workers had relayed their grievances to the mine management, but that little action had ensued. Changes that mine management had instituted in response to these worker dissatisfactions could be classified as procedural (cosmetic or peripheral) changes, whereas no action was taken which could have effected the power balance of the mines in question, the profits or the quality of life of white management.

McNamara considered many of these conflicts to be staged shows of collective strength and solidarity to demonstrate to mine management that certain grievances were widely held and viewed in a serious light.

The first study is an examination of conflicts which arose on a few mines in 1981 as a result of the introduction of a death-benefit scheme for black workers. It is presented to illustrate how, because of the huge imbalance between white management and black mineworkers, the former acted without consultation with the workers in imposing what it considered to be a "good" scheme on them. Possible reasons why workers came into conflict about the scheme are also suggested.

The second analysis concerns a major riot on a mine in which millions of Rands of damage was done, and in which 998 workers decided to take their discharge rather than remain on the mine. The factors causing the breach of peace are examined.

9.2 Militancy over the Introduction of a Death-Benefit Scheme for Black Mineworkers

(a) Background

Why did black mineworkers receive the introduction of the Total Accident and Illness Insurance Scheme (Death-Benefit Scheme) in 1981 with riots and mass withdrawals from work? The following analysis gives consideration to the most apparent cause of dissent - that there could have been opposing viewpoints of the advantages accruing to black mineworkers from introducing the scheme, white managements' and workers'. The workers' behaviour would have been influenced by their opinions of the advantages accruing to them from the scheme and the manner in which it was introduced.

(b) White decision-makers' perspectives

White decision-makers appear to have acted from altruistic motives in introducing the Death Benefit Scheme. Their motivation was to improve the quality of life of black workers' families in the advent of a worker's death while in their employ (Gold Producers' Committee Circular No. 63/81). The need to introduce such a benefit appeared to be in the workers' best interests, for workers themselves in 1976 rated this benefit as the most important among the ten benefits which could have been supplied by the Industry (Robertson, 1976).

It is also pertinent that the white decision-makers' immediate reaction to workers' opposition to the Death Benefit Scheme was that the difficulties had arisen because this benefit had been incorrectly communicated to workers, and that consequently, the workers had not perceived the advantages accruing to them from The Scheme.

(c) The communication of the death-benefit scheme

There is some evidence to substantiate the claim that workers misunderstood the Scheme because mines had not communicated the benefits properly. The Employment Bureau of Africa records show that some workers thought that the deduction from their wages would be on a daily basis rather than monthly. Others appeared to be under the impression that they should have shared in benefit amounts which were added to their wages to calculate the deductions for the Death-Benefit Scheme. It will be noted that these two misunderstandings related to the workers' wages. Were these misunderstandings the real cause of the dissent against the Scheme or did they camouflage the underlying causes? What were workers' views of the Scheme? Did the decision-makers entertain the possibility that the black workers may not have viewed the Scheme as an advance in their quality of life, but as a retrogressive step?

(d) Black mineworkers' perspectives

The following perspectives were gleaned from black researchers and interviewers in the employ of the Human Resources Laboratory, Chamber of Mines of South Africa, Limited who had considerable experience of monitoring of black workers' attitudes in the seven years prior to the survey. It is not submitted that these perspectives were the actual opinions of the workers, but rather that they were the opinions that workers could have held. These perspectives appear to be valid as they accord with sociological theory: that when men perceive a diminution in their quality of life following rising expectations they are likely to feel relative deprivation and react violently to such a diminution (see Chapter 2). The extent of the changes that caused the rise in workers' expectations has been documented in Appendix IV. However, the actual changes are in themselves not important to the understanding of the worker dissent, but rather that some workers had expectations of further advances in the quality of their lives based upon past advances. Bearing these perspective of expected improvement in mind, one needs to determine whether the Death-Benefit Scheme was viewed as a further advance or a retrogressive step.

The following could have been the black workers' viewpoint on the Death-Benefit Scheme: firstly, they will probably have thought that, as the mine was the agent that would be responsible in the advent of their death at work, the mining industry should carry the financial burden of providing the benefit. They could have argued that they were on the mines for the benefit of the mining industry, and in the same way that the mines provide free food, free accommodation and free medical services, they should also provide a free Death-Benefit Scheme.

Secondly, men who join the mines have in the past mentioned that accidents were an initial problem deterring them from entering mining, but that when they were in the industry they put such thoughts out of their minds (Mahlatji, 1977). The question is: do men who join the industry entertain the thought that they will lose their lives there? They apparently do not otherwise they would not join in the first place. One tends to argue in similar circumstances that it is the other person who will be killed not oneself. Why then, the black worker might say, are "we" required to contribute to a scheme for an event which may never materialize?

Thirdly, the size of the deduction from the workers' wages must not be discounted as a factor militating against their acceptance of the Scheme. For a worker earning about R115 a month, a 60 cent deduction is point four per cent of his wages. If one were to calculate a similar deduction from a mine executive's monthly income of say, R2 500, the comparable amount would be R10 per month. Although the amounts are not really comparable because the mine executive has more discretionary income than the black worker, the relative size of the deduction indicates that it was not an amount to be viewed lightly by the worker. Credence is given to this assumption by a survey conducted on a colliery where the workers were extremely dissatisfied because the management was deducting 20 cents monthly from their wages to subsidize a bus to take Basuto workers home at week-ends (de Vries, 1977).

Fourthly, and analogous to the previous point, is the opinion that the workers may have viewed the deductions as a forerunner of other future deductions from their wages, and may have wanted to put forward their viewpoint on this matter before such deductions became entrenched and accumulated.

Fifthly, the workers may have been objecting in principal to not being consulted on a matter of importance to their lives and influencing their wage packet.

Sixthly, The Scheme does not cover the possibility of the worker dying at home "out of service between contracts" or "in transit from his home at the beginning or end of his contract" (Gold Producers' Committee Circular, No. 63/81). However, there has been a new commitment to mining by black workers which could have been the result of economic circumstances, lack of other sources of employment, or improvements in working conditions on mines. Irrespective of the reason, many workers had built up considerable lengths of experience in their jobs, on mines and in the industry (de Vries, 1981) and could not merely be considered as occasional labourers. Did they consider themselves as mine employees at home? Such a viewpoint seems feasible if one considers that the various return incentive schemes appeared to serve the main purpose of attaching the man to mining. The black worker may have argued that he should (under the Scheme) have been covered for his sojourn at home, irrespective of whether he was on "leave" (but a member of the mine staff establishment), or returning between "contracts".

Lastly, it could be postulated that the workers may have foreseen the possibility of leaving mining at some future date, and in such an eventuality, would have wanted to withdraw such contributions as they had made on the termination of their association with the mines. They could argue that their contributions to the scheme were the monies set aside to cover the possibility of their own deaths, so why should these monies remain in the Scheme to be used for someone else's payouts?

These seven points indicate that the Death-Benefit Scheme was unlikely to have been viewed by black workers as an improvement in their quality of life unless there had been no financial involvement for them. It has been postulated that people are likely to accept changes even if they have not been consulted, if these changes are viewed as being to their advantage (Lawrence, 1975).

This also points to the futility of endeavouring to introduce changes that decision-makers think are in the best interests of black workers without first determining whether black workers view them in a similar light.

9.3 Militancy over the Limited Action by Mine Management on Valid Grievances

A riot took place on a gold mine where black mineworkers caused considerable damage to property estimated to have involved millions of Rands. After the riot the management asked the workers if they wished to continue their contracts, upon which 998 requested to be returned home. An investigation was conducted into the causes of the riot by a team of researchers. (The author of this thesis designed the format of the triangulation approach used in the investigation, co-ordinated the research, conducted four of the attitudinal surveys and was editor of the report to which team members contributed sections.) The following are the viewpoints of the white mining officials, and the results of an intensive investigation into the circumstances leading up to the riot.

(a) Viewpoints of white mining officials

Several TEBA and mine officials alleged that an outside agency played a role in bringing about labour strikes on the mine. Mention was frequently made in minutes of meetings with hostel residents, in administrators' daily report books and in The Employment Bureau of Africa, Limited (TEBA) reports of "Russian" gangs operating from the mountain ridges behind the hostel. Black residents identified these men as urban thugs from local black townships, ex-mine employees and deserters from mines. TEBA officials, in consultation with hostel management, speculated possible political links of these Sotho-speaking groups with the opposition party in Lesotho.

Evidence in complex administrators' reports indicated that several non-mineworkers were eating and sleeping in the unfenced hostel at the time of the disturbance and these men were believed to have been members of a so-called "Russian" gang. They seemed to have been in a position to make contact with the mineworkers. TEBA recorded a rumour that they intended to stir up discontent to avenge the shooting of one of their compatriots by a white farmer near the mine. Workers interviewed by TEBA were of the opinion that the strike was controlled by "Russians" and a report reached a black complex administrator that "Russians" were allegedly present at an illegal meeting to plan a strike.

The term "Russian", however has been applied to a variety of different groups of people. While some black workers identified these men simply as "tsotsis", others labelled them as Sotho dancing teams who wore red blankets. The term appeared to have first been used by black Xhosa-speakers after the Crimean War to describe anti-British, and hence pro-black forces but there is little evidence that this original meaning has been preserved in contemporary black-white relations (Gerard, 1971).

A thorough investigation into the possible role of "Russian" outsiders in a strike and the motives for their alleged involvement could not be made without the necessary resources. Whether or not such agitation was present, however, there did appear to be widespread discontent among black workers concerning the quality of their living and working conditions. The range of grievances recorded, as well as the uniformity of complaints obtained from a variety of different sources suggests that most grievances were widely held. These grievances appeared to have been communicated to mine management, but workers claimed that little action was taken. The fact that most mineworkers were genuinely dissatisfied can be confirmed by the relatively high rate of desertion and short length of stay of workers recorded in the months before the strike which are discussed below.

It is particularly noteworthy that white managements' viewpoint absolved it from any blame for the disturbance: the riot took place not because mine management ill-treated the workers, but because outside influences and agitators stirred up a "contented" workforce.

(b) The findings of the survey

(i) The attitudes of black workers

Four graduate assistants conducted open-ended interviews with 105 randomly selected black workers. The workers raised the following dissatisfactions:

- Wages, bonuses and overtime
 - . wages not commensurate with the work done (raised by machine drillers)
 - . earnings on the mine compared poorly with previous mines
 - . overtime earnings poor
 - . bonuses lower than expected
 - . calculation of bonuses not understood
 - . mine policies for bonus payments inconsistent
 - . bonus paid irregularly.

- Grievance procedures
 - . grievance procedures ineffective
 - . men who lodge complaints victimized
 - . complex administrators ineffective as they did not deal with workers' grievances
 - . hostel management did not act upon workers' grievances
 - . hostel management dismissed complainants
 - . hostel management did not hear cases impartially
 - . black employees council ineffective
 - . council members powerless
 - . indunas preferred to complex administrators.

- Work practices
 - . the computerized time-keeping system responsible for arbitrary transfers, late hoisting and unfair arrests
 - . men booked absent from work when present - affected their pay
 - . late hoisting frustrating
 - . white miners hoisted before blacks
 - . men transferred arbitrarily from job to job
 - . security policemen arrested workers unfairly when they walked through the white township.

- Supervision

- . workers dismissed arbitrarily
- . disciplinary cases dealt with unfairly
- . white miners assaulted workers.

- The hostel

- . no free beer
- . meat and soup in short supply
- . maheu not always available
- . food cannot be supplied to visitors
- . thefts of clothing
- . lack of washing and drying facilities for clothing.

(c) The quality of work life: remuneration, bonuses and overtime

The three reward systems that were examined were:

- (i) Remuneration
- (ii) The bonus scheme
- (iii) Overtime

(i) Remuneration

Workers were disadvantaged in terms of the working time credited to them and this affected their basic remuneration. Working time was not always credited because of transfers between gangs, errors in keying on clocking-in cards, men working in wrong teams and men been booked absent in error.

- Transfers between gangs. The major problem with transfers was the lack of adequate systems to back up the computer operation. The flow of information had not been defined adequately, and the consequence of mislaid information had not been examined. Thus if a man was transferred from one team to another, and the transfer card was not filled in or was lost before the data were entered into the computer, it was possible for that man to work with a new team for several days and be booked absent by the computer. After between three and five days (different sources gave different numbers) this man was automatically discharged by the computer and when his pay was calculated, he was not paid for those days on which he was

"absent". If the man was discharged and the error was detected before he left the mine, he was re-engaged. This, however, led to further problems. A man could not be entered into the computer system with a credit in pay or bonus. Secondly, when a man was re-engaged the anniversary date on which he was employed changed. In other words, if a man was employed on the first of the month, he was entitled to collect his pay monthly on that day. Thus, although he could collect his pay on the first day of the following and each subsequent month, his pay anniversary date now became the fifteenth day, and he was entitled to collect his pay on the fifteenth of the following and each subsequent month. The man who was re-instated, attempted to collect his pay on the first day of the following month and was told that there was no pay packet made up for him. Although he understood that he had to return on the fifteenth of the month he still thought that he had lost two weeks' pay.

- Errors in keying clocking-in cards. Problems also arose through keying-in errors, where an anniversary date or a company number was incorrectly entered onto the clocking-in card. If the number was incorrectly keyed in either the computer refused to accept that number and the mineworker was booked absent, or the pay accrued to another man who had been allocated the same company number.

- Men working in wrong teams. The overuse on the shaft caused hoists to run irregularly and caused men to miss their hoists. If a man missed the hoist to his working level and took a later hoist he would be dropped to a different level. Should he join another team on that level on a temporary basis, he would be booked absent from his team and would not be paid for the shift, although he had worked. If the miner acknowledged the fact that the man had worked on his team for the day by writing the information on the gang card, this information was not accepted by the computer, and the man was booked absent in any event. This system had been instituted to prevent men from wandering from team to team. The mineworker, however, perceived that he had worked for a day and should have been paid for this.

- Men booked absent in error. The fact that men were booked absent on the gang card also caused difficulties. The team leader usually arrived at the crush early to assist the miner prepare for the day's work. While he was there, he requested the computer to print the gang card. As he was the first through the crush, the other members of the team had not clocked in, and were therefore booked absent by the computer. When the mineworker arrived at the notice-board at the workplace he saw on the card that he had been booked absent by the computer. Although the miner then rectified the error by booking the man present, it was apparent that this was not understood by the mineworker because hostel administrators had reported men queueing for breakfast before normal waking time in order to avoid being booked absent at the clocking system. Steps were taken to remedy this situation by informing the team leader that he had to obtain the gang card immediately before going underground. Some specific problems related to absenteeism were as follows:

- . workers were turned back from the hoist because materials were being hoisted;
- . changes in shift times caused men to attempt to go underground at the wrong shift times;
- . hoists did not leave at scheduled times;
- . when men were called for their shift there was a delay in getting them underground because of the overuse on the shaft. As a result, men were required to wait long periods for hoists and in the resulting confusion a hoist to a particular level could be missed.

(ii) The bonus scheme

- The principles of the bonus scheme. The bonus scheme was based upon two principles. The first was that a bonus was paid to the entire team rather than to the machine operator alone. The second was that the bonus was calculated on the basis of metres advanced (amount of excavation done) rather than on the conventional basis of holes drilled for blasting before excavation.

- . The machine drillers claimed that they had lost status because all team members were receiving bonuses, whereas on other mines production bonuses were received by machine drillers only.
- . The machine drillers thought that the bonus which they should have received was being spread across the entire team and that consequently the bonuses paid to them were lower than on other mines.

- . Machine drillers were unhappy because a bonus was not paid according to the number of holes drilled, as on other mines. As the bonus was paid in terms of metres advanced, if there was no blast, there would be no bonus. This may not have been the fault of the machine operators but may have been caused, for example, by misfires. Nevertheless, they perceived their work to have been done when the rock face was drilled.
- . The bonus accrued to the team that blasted the rock face, not necessarily to the team that drilled. It was claimed by mine management that bonuses evened out among teams over a measuring month although there was no evidence to substantiate this claim.

- Explanation of bonus scheme. Because several changes in the operation of the bonus system took place shortly after its introduction, misunderstanding arose. Queries about the bonus scheme could not, however, be answered by personnel assistants or the hostel manager as they were not sure how the scheme operated. These communication problems arose partially as a result of a management decision not to explain the operation of the bonus scheme to the mineworkers until its administration had been finalized. Specific communications problems are outlined below:

- . Throughout the management hierarchy of the mine men claimed that they did not know how the bonus was calculated. As a result, complaints that drillers' assistants were earning more than drillers could not be answered adequately. Drillers assistants in some gangs at times earned more than drillers in other gangs, and could have done so within a gang if a driller was transferred.
- . Requests for a board to be mounted at the crush to show bonus rates were not acceded to because of the decision not to explain the bonus scheme until the administration of the bonus scheme had been finalized. At the time of the investigation steps had been taken to rectify this problem, but the system had still not been explained to mineworkers.
- . There was no check on the effectiveness of such communications as were made. For example, the mine overseers and shift bosses were briefed on the operation of the bonus scheme and told to pass the information down the line. Only one mine overseer among a number of production personnel questioned maintained he knew how the bonus scheme operated.

Management thought that most mineworkers had heard informally about how it operated but no checking was done on the number of men who understood it or their level of understanding. Another important example was that after a decrease in the metres broken resulting from technical problems, officials were told to inform workers that lower bonuses were to be expected. There was no check on whether this was done, or on the quality of the communication, and it is likely that misunderstandings arose about the reduced bonuses.

- System for handling bonus complaints. There was no adequate system for handling bonus complaints. In particular, there was no organized system for reporting back to the complainant on action taken about a complaint. Thus although many complaints about the bonus scheme were made to mine overseers, shift bosses and miners, no action was seen to be taken and no adequate reasons for the anomalies could be given. In general, errors and anomalies were blamed on the computer, which made the machine a target for attack at the time of the disturbance. Furthermore, nobody was made directly responsible for handling and reporting back on grievances. As a result, men were passed from one authority to another without obtaining answers to their questions about the bonus scheme. Particular problems with the grievance procedures for the bonus scheme were as follows:

- . Complaints regarding the bonus scheme were mentioned at the council and the isibonda (room prefect) meetings, but no action was seen to be taken to remedy the grievances.
- . Complainants were seen to be victimized and discharged. Although this may have happened only once in the case of an alleged agitator, this was nevertheless the perception of some men.

- Support systems for the bonus scheme. This more general problem area concerns the fact the support systems were not adequately developed and implemented to keep pace with the computer system. Some discontent was expressed by service departments because of the high work loads resulting from computer system anomalies. These high work loads were the result of confusion about the bonus scheme, as well as the inadequate staff to handle the volume of complaints. Furthermore, such staff as were available were often not informed of changes in the scheme until the changes had already been implemented. Thus the support system was not adequately developed to handle the problems that occurred. Another example of its inadequacy was that the flow and routing of information was not adequately defined.

The problem is illustrated by the fact that if a mine overseer went on leave, paper accumulated in his in-tray and was not re-distributed for action by other mine overseers. As a result, information essential to the computer system was at times delayed by a month or more, and led to a mineworker being unfairly discharged. Furthermore, bonus payments were made on different days from payments for basic pay. Queues were long and men had to wait twice a month for up to two hours to be paid.

(iii) Overtime

Two problem areas were related to overtime on the mine. As with the bonus scheme, these areas were: communications and problems within the system.

- Overtime administration. As with the bonus scheme the administration of overtime was not understood by the mineworkers. Furthermore, it was claimed that the rates at which overtime was paid were not known. It was expected, for example, that the Sunday shift would be paid at double-time rates. As a result, the mineworkers' perception was that they were not being paid the appropriate rates. This problem was compounded by management's drive for development; mineworkers were required to work a seven-day week. The problem was raised in the isibonda meetings. They complained that men were required to work every day without rest. Some specific complaints were:

- . Men were kept at the rock face for more than eight hours but were not paid overtime. This was the result of a management decision to pay men by shift, and a shift duration was considered to be nine and a quarter hours. Because this decision was not explained adequately to the mineworkers, they noted that after spending nine hours at the face, they had worked an hour overtime. They were not remunerated for this overtime in terms of the shift rate.
- . There was no 11-day fortnight (workers were supposed to have every second Saturday off work). Management had not told the men that the reason for their being no 11-day fortnight was the drive for development.
- . Men who refused to work on Sundays were paraded and often demoted.
- . Overtime hours and Sunday shifts were not booked. As these extra shifts were based on a mine overseer's check of a shift report, it was possible that the communication of an intention to work by a miner to his shift boss was not passed on to the mine overseer.

- Systems for recording overtime. Apart from the problem mentioned in the previous section about the note of an intention to work overtime being mislaid, there was the problem of overtime forms being lost before they arrived at the time office. Both these problems were attributable, in part, to the lack of a defined paper-flow system.

Because of the great use made of the shaft, the time to and from the clocking-in-station was at times as much as 13 hours for some mineworkers. As a result, the policy of non-discrimination in cages broke down, and white miners who pushed to the front of the queue were hoisted first. This increased the bank-to-bank time of the black mineworker, who may also have perceived the time spent underground between clocking in and out, as being overtime. One specific complaint of the overtime-administration system was that service departments (such as surveyors' assistants) had to wait for long periods before being hoisted and consequently had to work overtime. These men were not paid for overtime although they were expecting overtime pay.

(d) Management style

(i) Innovations on the mine. Innovations may be categorized into two areas. Firstly, technical innovations which were concerned with bringing the mine into production, and secondly, management systems which were largely new to the mining industry. These management systems themselves, and the manner in which they were implemented, evidently had a bearing on the formation of attitudes toward mine management, as well as on the perceptions of employees as regards their acceptance of management policies.

To gain a perspective of the management style of the mine hierarchy, interviews were conducted with mine personnel across the management hierarchy, ranging from employees involved in policy formation down to employees concerned with day-to-day procedures in both line and staff functions. Interviews were open-ended and interviewees were encouraged to convey their perceptions of management policies, communication, and supervision in relation to other mines on which they had worked.

During the course of these interviews it became apparent that production personnel had different views of the management style when compared with service personnel.

(ii) Views of line personnel. Production personnel viewed the management style as dynamic, promoting innovation, and as being action-orientated. The views of production personnel were that there was a high degree of team work and of working towards targets and goals which were consistently met. Production personnel viewed themselves to be part of management and saw themselves as receiving the support of management. Control exerted by management was encouraging rather than limiting. Stress for production exerted by management on younger members of the production team was perceived as stimulating and challenging; however, older members of the production team were dubious of their ability to continue under such stress.

Production personnel were largely motivated by the incentives of good bonuses and the intrinsic challenge of the job itself. High morale and motivation was maintained by the supportive attitude of management. In addition, production personnel received the equipment and materials requested. They were not subjected to the frustrations of having to meet the high expectations of management without the support and back-up of management.

(iii) Views of staff personnel. As opposed to line personnel, personnel in staff functions expressed frustrations with attempts to do their jobs without adequate support from management. This resulted in the inability of staff personnel to plan appropriately. Included as staff personnel were hostel and catering staff, controllers of black labour, as well as the staff involved in time-keeping functions and bonus computations, and the personnel function for both blacks and whites.

Production personnel were perceived by staff to be adequately rewarded in terms of salaries and bonuses for the high demands placed on them. However, staff personnel were subjected to equivalent pressures and long hours of duty as a result of the multi-shift system, but perceived that they were not adequately compensated for their efforts.

The overtime and additional effort above what was normally expected in staff functions came to be expected as the norm by management. These continuous expectations by management without equitable rewards resulted in resentment by employees in staff functions. Further irritations claimed were the favouring of production personnel in housing allocation on mine property to the exclusion, to some extent, of service personnel.

Service personnel viewed the basic management style as autocratic and overbearing. The impression was conveyed that although management propounded a policy of democratic management, mere lip service was paid to the concept. The explicit style of management as experienced, regardless of committee systems, indicates that decisions were made by management and consultative approaches to decision formulation played a small role, particularly in relation to decisions which had implications for the work which service personnel were expected to perform.

(iv) The imbalance between planning for line and staff functions. The rapid growth of the labour force, (Figure 29) exacerbated the problems confronting service personnel. These problems included the lack of hostel facilities, poor clocking-in procedures, errors in time and bonus keeping, and an inadequate system for the upward communication of grievances.

The change over to the computerized record-keeping system without the back-up of continuing the manual record-keeping system compounded the difficulties of the staff personnel. Administrative procedures could not keep pace and operate efficiently under these circumstances. The strains in these systems were manifested by incorrect wage and bonus payments, and unwarranted discharges.

It appears that production requirements were not adequately communicated to service departments so that these departments could not keep abreast of the demands of catering for a rapid increase in the labour force. The imbalance between production planning and planning for services is symptomatically indicated by the breakdown of human relations on the mine.

(v) Formal and informal communication. Although the organizational structure on the mine was fairly flat and the lines of communication apparently short, there was in practice considerable delay in downward communication by the system of "briefs" through departmental heads. Systems for upward communication were not adequately developed and they did not function efficiently. Poor communication was characteristic across all levels in the hierarchy of the mine. For example, upward communication

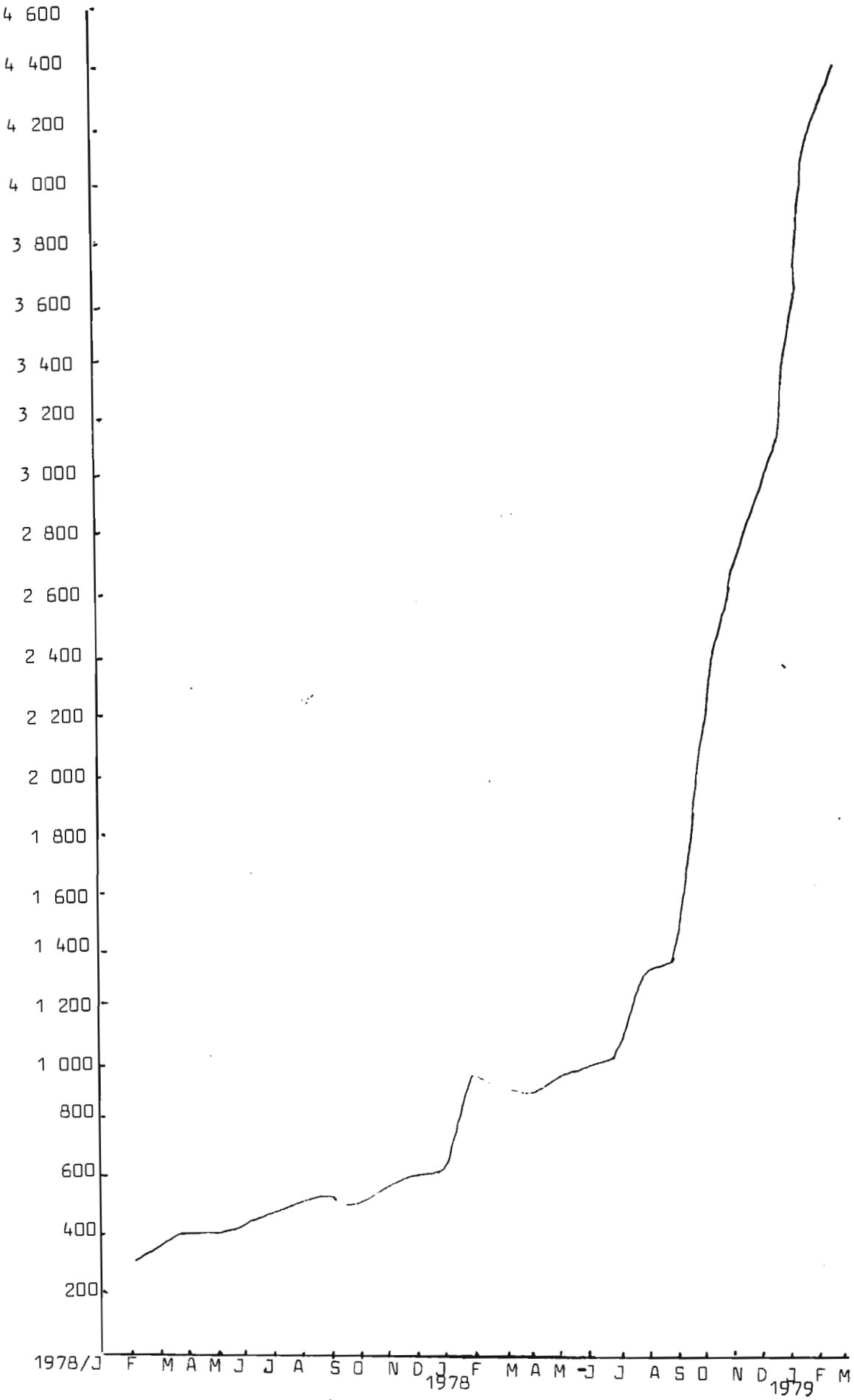


FIGURE 29: Growth in the black labour force on the mine

through personnel assistants did not take place and they were not able to cope with the volume of work. As a result complaints were referred back to line personnel and then back again to the personnel assistants. Consequently, complaints and grievances were not seen to be dealt with constructively which magnified the extent of the original dissatisfaction.

Apart from the relationships generated by the formal organizational structure and chain of command, informal relationships and communication evolved. The nature of this informal communication resulted in the removal of authority from personnel who were formally in the chain of command, so undermining their effectiveness.

(vi) Assaults. Assaults on the mine, particularly assaults by whites on blacks (Table 89) were extremely high in comparison with the total number of assaults on the mine. From interviews with white staff and minutes of meetings held by complex administrators and isibondas, the following problems emerged:

The procedures for dealing with assaults were ineffective, with no effective deterrents in evidence to prevent assaults, which were bound to occur in a situation where production pressures were fierce. Assault complaints were often taken to the complex administrator as the masizas were seen to be ineffective in dealing with them. At the same time, the hostel manager had no status in assault hearings as he was overruled by the underground manager. This resulted in the view that whites were always protected in assault cases because management took their side. It was thought that witnesses were victimized with the result that in ten cases of assault (9 of these involved whites) the black complainants left the mine before the hearing. The workers were so incensed about the assault procedures that they considered retaliation. Whites felt that the blacks often goaded them into assaulting them.

TABLE 89: Number of recorded assaults underground by the status of assailant

Status of assailant	Number	Per cent
White supervisor	50	53,2
Black supervisor	21	22,3
Black worker	23	24,5

Time periods : June 1978 to March 1979.

(vii) Working and travelling times. Figure 30 details the working and travelling times of a random sample of workers (names were selected from record cards) for one day. Their average working time was 7 hours and 25 minutes ($s=45$ minutes) and their average travelling time 3 hours and 42 minutes ($s=50$ minutes). If it is possible to make valid assumptions from so small a random sample, the figures show that 68 per cent of the men (one standard deviation) spent between 9 hours and 32 minutes and 12 hours and 42 minutes working and travelling to work. This long time away from the hostel could have accounted for men missing meals and having little free time, which were two of the dissatisfactions mentioned.

(e) The quality of hostel life

(i) Food service in dining halls

An examination of Complex Administrators' daily report books, the application of a food checklist, interviews with hostel residents and discussions with hostel management indicated that a number of problems were being experienced with the issue of food from mini-dining halls.

The most severe problem appeared to be shortages of food, particularly meat. The checklist which was applied in the dining halls over three days recorded shortages of meat, beans and potatoes on occasions. Ninety-six shortages of food were brought to the attention of complex administrators over a 4-6 month period. Delays in the replenishment of food from the main kitchen led to numerous minor disturbances in the dining halls and one such delay was identified as having occurred on the night of the main labour disturbance.

Part of the problem in the non-replenishment of food appeared to be related to poor communication between dining halls and the central kitchens, particularly when the kitchen was being supervised by an independent contractor. There also appeared to be pressure on the kitchen because all halls at times ran out of certain lines of food at the same time. Workers in shaft-sinking crews were reported to come up from underground at unpredictable times and to exhaust available food supplies. Planning for such fluctuations in demand was also made more difficult by the irregular hoisting of most workers from underground. Late-shift workers sometimes

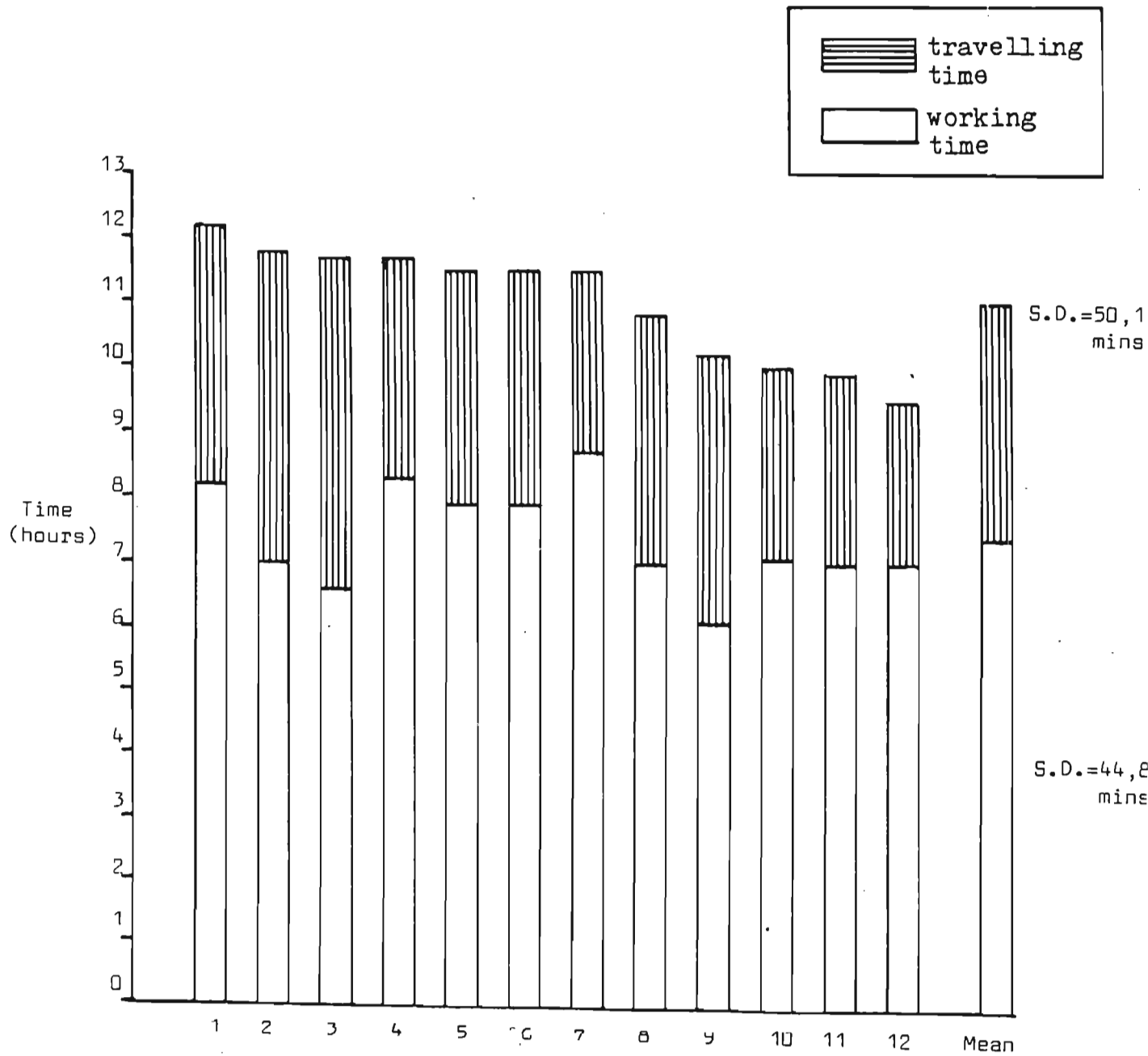


FIGURE 30: Working times and travelling times of twelve underground black mineworkers

received no food. One white production supervisor complained that his team had not eaten for three days. One team leader interviewed on his daily cycle complained that he had not eaten breakfast for a week. Artificial shortages were also created when one dining hall had a surplus of food with a shortfall being experienced in another.

Other problems in the dining halls included the lack of control over food preparation. Complaints were recorded of food being poorly prepared, inedible or having foreign matter present. Hostel management claimed this was due to containers not being properly washed. Food also became cold in transit to the halls. Because of the three-shift system, men on night shift were given breakfast after their shift instead of a main meal, and were sometimes not given food at all. The food trolleys did not appear to be able to cope with the requirements of workers who came off shift at unscheduled times throughout the day and night.

The checklist audit on dining halls recorded a shortage of mugs and food dishes in all five complexes over three days, due partly to breakdowns of the automatic dishwashing machines.

The complex administrator's daily reports indicated that the meat rationing ticket-system was unpopular with residents who come into conflict with food issuers in this respect. A black market in tickets was also reported, due possibly to discharged workers selling their spare tickets and also to the theft of tickets. Some men were found with two or three tickets in their possession.

Sixteen cases of assaulting and insulting of food issuers were recorded over a 4-6 month period. Friction between residents and issuers and dining hall guards appeared to be symptomatic of delays in replenishments, the unpopular meal-ticket system and the excessive number of duties which guards were required to perform. These included clipping meal tickets, controlling the distribution of maheu, and maintaining discipline, particularly in queues. Other contributory causes of friction identified were insufficient issuers and their absenteeism. Supervisors in the halls also came into conflict with "illegal" residents who attempted to obtain food on a number of occasions.

Problems with cooking could have been caused by insufficient cooks. There were two cooks working eight hours with four hours overtime each. It seems unlikely that these men could cope with the needs of 5 000 men arriving back at the hostel at various unscheduled times throughout a 24-hour period.

(ii) Hostel rooms

The most serious problem with hostel rooms was overbunking. Overcrowding in the rooms was a problem which escalated in severity to the extent that the hostel was short of over 700 beds at the time of the labour disturbance (Figure 31). There were a number of factors which contributed to overbunking:

- . the building programme in the hostel had not been able to catch up with the labour complement required by the acceleration in the mines' production schedule;
- . there was great pressure for production which necessitated a larger number of workers in the hostel than could be accommodated comfortably;
- . the building programme itself was three months behind schedule;
- . the original decision not to give contractors' labourers accommodation in the hostel was later overruled; consequently shaft-sinkers and other contract workers numbering over 700 were also housed in the hostel;
- . an undisclosed number of "illegal" (time-expired men and friends of mineworkers) were also living in the hostel;
- . administrative problems led to overbunking in some rooms and underbunking in others, for example, shaft-sinkers, housed in their own complex, could not be persuaded to mix with other workers.

Overbunking appears to have had a number of undesirable consequences, including theft (resulting from a shortage of lockers), pressure on change houses and dining halls attached to hostel complexes, assaults in rooms, strain on staff and disorganized waking procedures induced by crowding.

Two cases were also recorded of an informal practice of punishing workers by forcing them to move from their own rooms to sleep on the floor in rooms where there was overbunking.

Month	No. Men	No. Bunks	Overbunking(+)
Jan. 1978	2 512	2 608	-96
F	2 466	2 608	-142
M	2 410	2 608	-198
A	2 508	2 608	-100
M	2 676	2 608	+68
J	2 667	2 608	+59
J	3 000	2 608	+392
A	3 000	2 608	+392
S	3 790	3 708	+82
O	4 010	3 708	+302
N	4 054	3 708	+346
D	4 031	4 412	-381
Jan. 1979	4 934	4 412	+522
F	5 122	4 412	+710
M	5 160	4 412	+748
A	4 848	4 412	+436

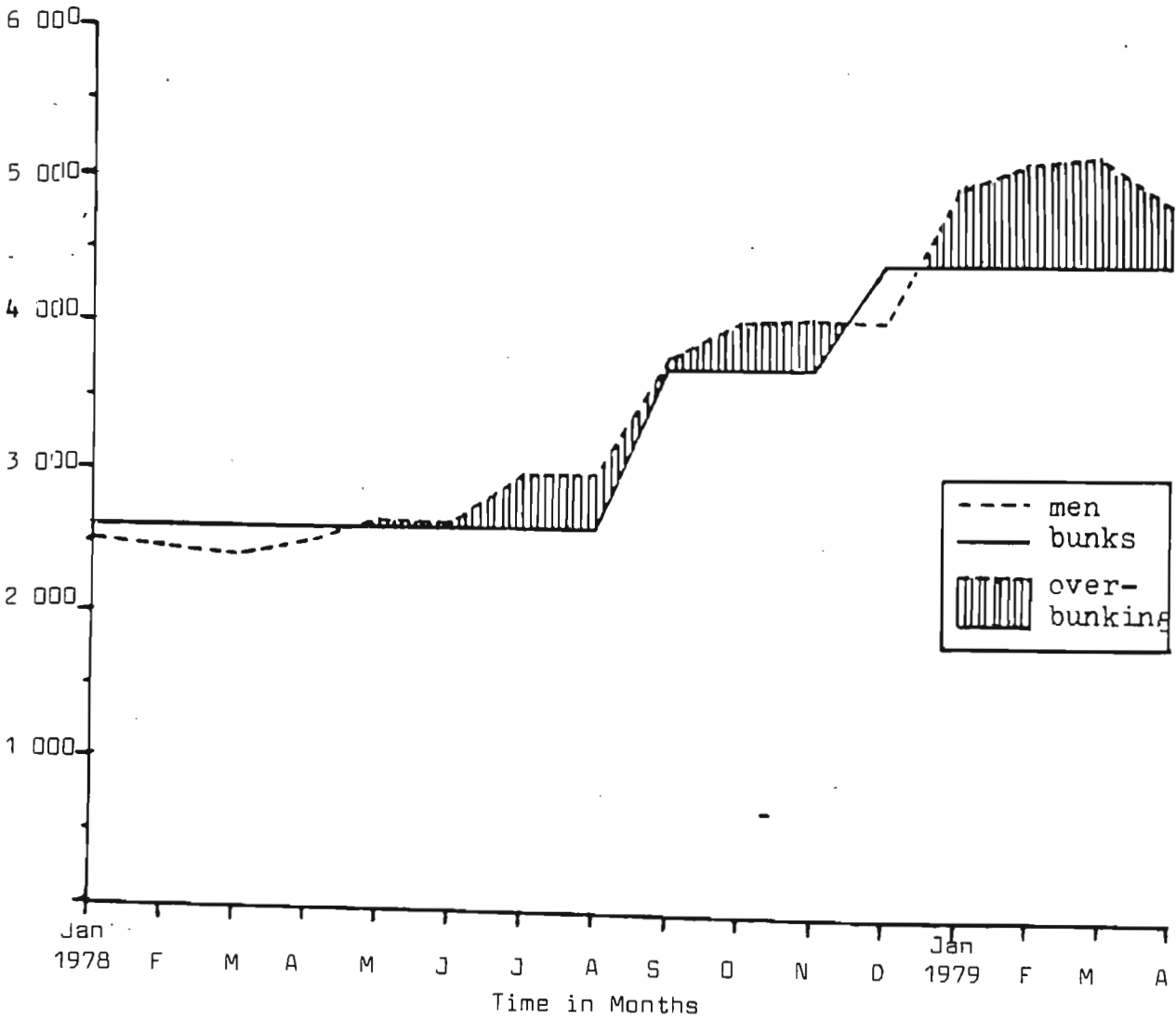


FIGURE 31.: Overbunking in the hostel : January 1978 to April 1979

While a link between the damage during the disturbance to the windows and fixtures of most hostel rooms and the incidence of overbunking may be a matter for speculation, it is likely that overbunking contributed towards the overall frustration and dissatisfaction among workers before the strike. Overbunking was also expected to increase, mainly because the building programme was behind schedule and the mine expected to accelerate its production programme.

(iii) Change houses

Several administrative problems in change houses were recorded. Change-house attendants appeared to be responsible for many of these in that they were either not present to issue clothes, or under the influence of alcohol. In fairness to attendants, a certain amount of overuse appeared to have taken place in the past, due partly to the fact that the change house of a particular complex had not been completed and men had to use another, which led to the facilities being strained.

The system of issuing clothes "on demand" from safe-keeping baskets appeared to have encouraged theft and workers were reluctant to have their clothes kept in change houses for this reason.

Underground clothes were not being washed in the change houses and workers who washed their own clothes did not wish to leave them hanging on the wash lines provided at the change house. This appeared to be due to the danger of theft from the lines and the inadequate hanging space. A request to have wash lines provided in sight of the rooms was turned down by management. Washing was consequently hung from balconies, draped over bushes and spread on the ground, making the complex more unsightly than washing lines, but from the workers' point of view ensuring that the washing was visible and thus not easily stolen.

In the change houses, shower water was either cold or scalding hot (Figure 32), due apparently to insensitive handling of calorific heater thermostats.

(iv) General

A number of general points also need to be considered in relation to hostel administration.

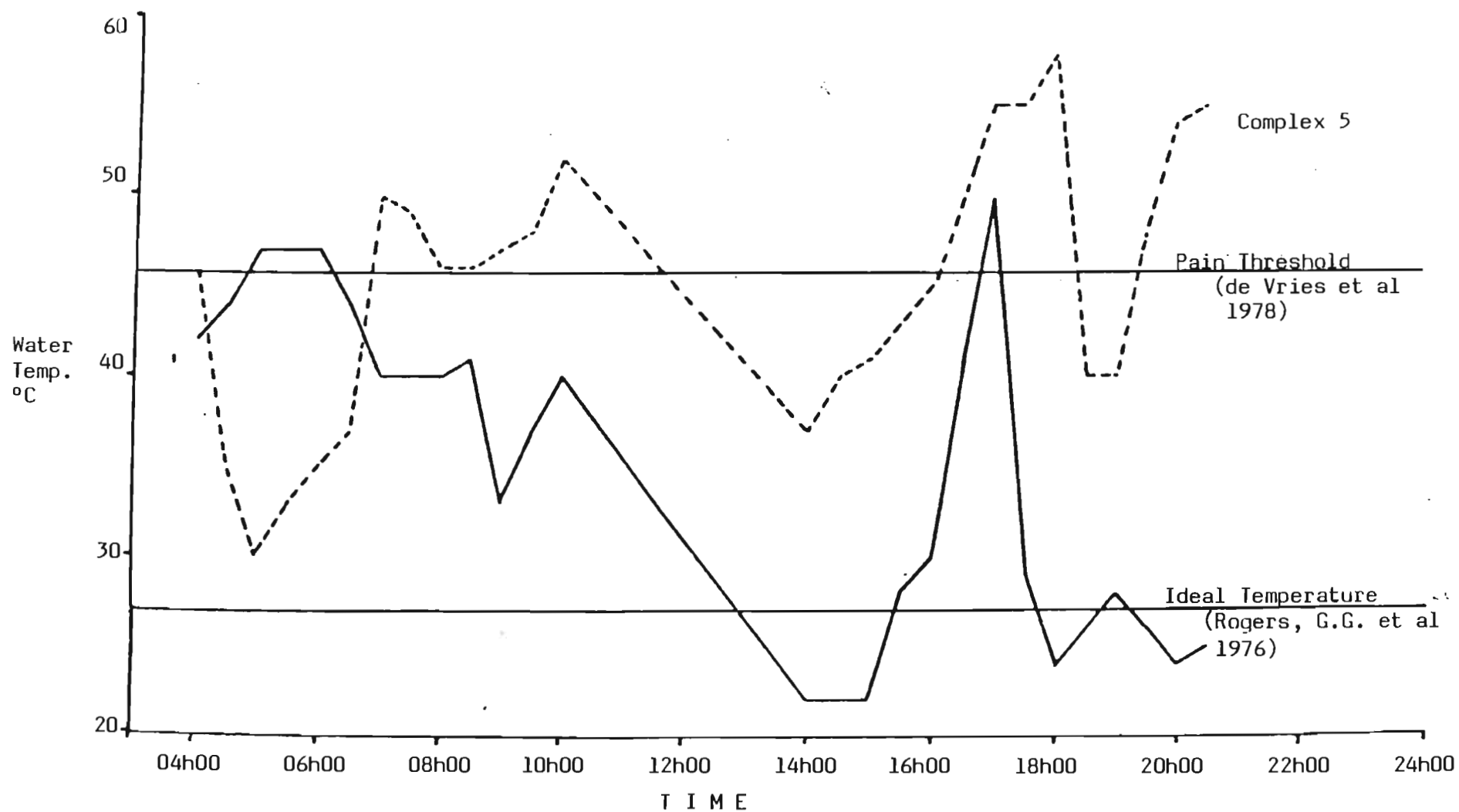


FIGURE 32 : Water temperatures in two change houses at various time of the day

Firstly, the hostel tavern was reported to be overcrowded because it was designed to cater for 2 500 residents but was actually serving up to 5 000. Unpopular lines of drink were being forced on customers. Furthermore, beer tins were being sold in one queue and bottles in another, which caused frustration among residents because of unnecessary queueing.

Secondly, hostel management had to bear the brunt of much of the administrative problems recounted above which arose from workers being on a seven-day working week with three shifts per day. No overtime was granted to personnel, who were entitled only to time-off. Taking time off, however, led to further backlogs in the administration and control of services.

Thirdly, black hostel residents were not allowed to enter the white mine employees' village without a permit signed by the hostel manager. This procedure tended to identify hostel management with an unpopular form of control which effectively blocked the shortest route for residents wishing to visit a neighbouring mine in their leisure time.

(f) Communication of grievances and worker representation

This section deals with some of the key personnel involved in the communication of grievances - personnel assistants, complex administrators and prefect, and isibondas - as well as the council system for black employees.

(i) Black Personnel assistants (Masizas)

Masizas on the mine were a target for criticism by both black and white mine employees. Black workers saw masizas as being unable to deal with their complaints or to communicate their problems to management. Masizas were also blamed for the fact that workers were discharged for allegedly being absent from work, whereas this problem appeared to be related to errors in the computerized crush system.

Workers claimed that masizas were not available in their offices when workers wished to see them and that they did not go underground to deal directly with workers' problems. Workers complained that masizas did a poor job of inducting workers to a new gang. Masizas did not parade transferred workers, for example, to inform them of their new gang numbers and did not introduce them to their new team leader. As a result, men did not know where they were to work.

White production supervisors, on the other hand, appeared to resent any interference from masizas and were reported to have assaulted masizas on occasion. Hostel management was also unhappy about masizas because they constantly sent pay queries to hostel staff, and thereby identified pay problems with hostel administration.

Masizas themselves thought that the complaints which they passed on to management were not dealt with adequately, that management did not heed their advice and generally regarded them as unimportant. They stated, however, that whites were poorly informed of their role and function.

Despite the long hours which masizas were expected to work, they were not paid overtime. Their job was overloaded as they had to cope with numerous queries and complaints which were continually coming in about the seven-day week, three-shift production system. Masizas appeared to have become the scapegoats for the personnel problems which confronted the mine, such as poor administration and unpopular work conditions.

They also complained about the lack of promotional opportunities for them on the mine. Masiza's clerks were allegedly not promoted to the post of personnel assistant which was filled instead by men recruited from outside. The job of masiza also had no further prospects of promotion on the mine.

(ii) Complex administrators and prefects

From a discussion held with the six complex administrators (C.A.s) it emerged that they were dissatisfied, mainly about their status position within the hostel, which appears to have had an important effect on their relationship with hostel residents.

Complex administrators said that their status was not recognized and was not in keeping with their responsibilities. They lived in rooms similar to those of ordinary residents, ate in the dining halls and used the change house facilities for washing, etc., just like other residents. They claimed that the residents viewed them as "glorified clerks". They compared themselves with indunas and unit supervisors on other mines, and concluded that they came off rather poorly. On other mines the induna or unit supervisor had his own flat, including kitchen and shower. He was provided with a meat and beer ration with which he was able to entertain residents.

His living areas was such that groups of workers could gather for informal discussions in a convivial atmosphere. The C.A.s said that this allowed the induna/unit supervisor to win the confidence of residents, listen to and discuss their problems, and in this way to play an important role in the reception and communication of workers' grievances.

Complex administrators went to their offices each day and workers who came to them with problems had to come individually. The problem was discussed in an unfamiliar situation (individual to individual, across a desk, in an office). They claimed that this discouraged residents from approaching them, that a man going to the C.A.s' office caused raised eyebrows among those who saw him doing so.

On other mines, by contrast, there were always many people in the induna or the supervisor's flat, the atmosphere was conducive to open discussion, there was meat and/or beer to offer visitors, and the induna/unit supervisor was seen to be a powerful figure who was able to deal with workers' problems. Because the C.A. was seen to have no special privileges (no flat, beer, etc.) workers wondered if he had the power to solve their problems. Complex supervisors said that they were 'naked' (that is, had nothing to offer, did not have the protection of high status).

Complex administrators also said that the atmosphere in an induna's/unit supervisor's flat made it easier to reprimand or impose punishment on an offender. They said that it was seldom the induna/unit supervisor himself who did the talking, but the others who were present. The offence was discussed, the offender counselled by a group in an informal manner over a pot of beer, and the punishment accepted in good spirit.

The complex administrators claimed that the workers wanted an induna or someone of the status of induna, and that they themselves were held responsible for the absence of such a figure, as well as for factors such as the lack of general beer and meat rations on the mine. They said that the earlier disturbance on the mine was due to the lack of indunas. A number of incidents were recorded in the C.A.s daily report books which indicated that the authority of C.A.s was not widely accepted by hostel residents.

Other factors hampering the effectiveness of the C.A. in the hostel were lack of feedback from management and the fact that policy decisions could not be questioned but were merely passed on to workers. Workers had approached C.A.s with various complaints which were forwarded to management, but C.A.s were not informed of the outcome of these complaints. Workers also complained about such factors as the lack of a free-beer ration, but since this kind of issue was not subject to negotiation, C.A.s could only pass on management's policy in this regard.

Complex administrators were assisted by complex prefects. There is evidence that the image of these prefects required improvement. Prefects carried batons and handcuffs and instances were recorded of these being abused - for example, men being apprehended and handcuffed for urinating in public (an offence considered by hostel management to be fairly trivial). Complex administrators' daily report books recorded numerous cases of violent clashes between residents and prefects in the course of the latter's duties, particularly in the dining halls. Prefects' duties were not specified and they appeared to have received no training. Men were appointed as trainee prefects and after some time spent assisting prefects and C.A.s, were promoted to the status of prefect.

(iii) Isibondas (room prefects)

Isibondas of each complex attended regular monthly meetings which were chaired by the C.A., who also recorded the minutes. Both hostel- and work-related problems were raised at these meetings, though no underground or production staff sat in on them. Problems raised were then conveyed to the hostel manager (via the minutes) and he took them up with mine management.

In the opinion of the hostel management the isibonda meetings were not working well. Attendance was relatively poor and it was said that workers tended to elect a relatively weak character as their isibonda. Hostel management said that men did not want to be isibondas since the position carried certain responsibilities without commensurate status. There had been a number of requests from isibondas that they be paid for the job, but these had been turned down.

However, the minutes of isibonda meetings showed that isibondas raised many important complaints on behalf of workers. It is possible that these would have received greater attention from management if minutes had been formally taken, typed and distributed not only within the hostel but to mine management as well. That the issues raised by isibonds were in fact communicated to mine management is evident from a memorandum that was submitted by the hostel manager to the mine's personnel manager (Appendices V and VI).

(iv) The council system

As far as black migratory workers were concerned, each complex in the hostel had a council, from which representatives were elected to go forward to a Black Employees' Council (BEC) which met once every two months. Permanent black employees were catered for in a separate council and there were also councils for whites.

- Basis of representation. The complex council, of which there were eventually ten, was made up of one elected representative from every four rooms. Under ideal conditions this would give a constituent-to-representative ratio of 64:1 for the sixteen-man rooms, 48:1 for the twelve-man rooms. There were 189 sixteen-man rooms on the mine and 89 twelve-man rooms. At one stage the hostels were overbunded by 748 men. If 570 of these were in sixteen-man rooms this pushes up the ratio of constituents to representatives from 64:1 to 76:1, and if 178 were bunked in the twelve-man rooms, the ratio for these rose from 48:1 to 56:1.

Ideally, a complex housed a mine overseer's section, and a complex council would represent this section as well as the complex as a hostel unit. This did not occur due partly to the overbunking problem and partly to the fact that hostel organization had not yet developed this far. Thus the complex council had in common only the fact of common residence. Stoping, development and engineering workers could be housed in the same complex and represented on the same council. Surface workers were housed mainly in Complex 3 though some of them were also in other complexes.

Mine management did not see this as a problem as far as the councils were concerned, and mentioned that underground problems were relatively universal.

- Matters dealt with by the council. The complex council and the B.E.C. dealt with both work and hostel issues. This seems incongruous in view of the fact that the only management representative on the complex councils was a mine overseer, and that complex administrators were specifically excluded from these councils. On the other hand, both hostel and work-related issues were also dealt with at isibonda meetings, chaired by the complex administrator, at which no white production staff were present and whose minutes normally went no further than the hostel manager. The functions of both complex councils and isibonda meetings were not clearly defined.

- Responsibility for smooth functioning. The responsibility for the functioning of these councils fell on the mine's personnel manager. Due to his numerous other duties he had found it impossible to devote sufficient time and attention to the councils, to monitor effectiveness, evaluate the degree of feedback, and so on. He had been assisted to some extent by the Personnel Office (P.O. - services) but this man too had numerous other duties to perform. A request had been made to the Head Office of the mine for a qualified industrial relations officer (I.R.O) but this had been turned down. That there was an urgent need for such a function was clear. On another mine also visited, the committee system for black workers fell directly under an I.R.O., who spent a large proportion of his time on this matter, and who was assisted by a qualified I.R. assistant whose sole concern was the effective functioning of the committees. One indication of the need to pay closer attention to the councils on this mine was the fact that the minutes of the B.E.C. meetings had not been typed and circulated after two and a half months nor had a meeting been held over this two-and-a-half month period despite the stipulation in the B.E.C.'s constitution that a meeting be held "at least once every two months".

- Powers of the council. The major problem with these councils, appeared to be that they had no formal powers. In the final analysis, management's decision-making power overrode all, and any change, concession or improvement brought about through the councils was due to management's goodwill. Workers' representatives did not have any power to negotiate or bargain with management on any issue and no negotiation in fact took place. In the case of disagreement between workers and management there was no provision for recourse to an extra mine body for settlement or arbitration. In such cases management's view held; the workers had to give way.

Despite the fact that the B.E.C. constitution dealt with "negotiation" and "negotiable issues", it made no provision to ensure that negotiation could take place and was enforced upon the parties involved. There can be no negotiation under a constitution that says that where a dispute remains unsettled, "the decision of the Manager shall be final". It is difficult to see how a dispute can ever arise in such a situation, for the manager is the chairman of the B.E.C. and must surely make his views known from the outset.

This lack of power was illustrated by the fact that issues raised were often dealt with in terms of management policy (this applies to workers' grievances generally, not only to councils). It was not policy, for example, to have indunas, a free beer ration or washing lines in front of the rooms. Issues such as these were decided upon without consulting workers, for they preceded the development of councils, yet they had been raised by workers as problems on many occasions. They were, however, simply not subject to debate, consultation or negotiation, for they were policy decisions. Although workers questioned the validity of such policies they were unable to ensure that anything was done about these, and they were unable to ensure that they would receive feedback on such issues.

- Action by management on recommendations made. This lack of power tended, as was suggested by several white employees interviewed on the mine, to make workers lose interest and lack confidence in the councils. This was borne out in a discussion that was held with a group of four complex councillors. These men felt that the complex councils were unable to serve the interests of workers. They were of the opinion that workers had no confidence in the councils and did not trust representatives who met with white management. The underlying reason for this attitude was lack of effective action on the part of management and lack of feedback to representatives. Representatives said that although management appeared to view the councils favourably, the fact that action was not taken on grievances and no feedback provided, proved the contrary and showed that the status of the council and its members was low. The representatives spoken to felt that they were being used by management.

At the first B.E.C. meeting the two major issues raised were machine drillers' bonus payments and hoisting times. The representatives, at their caucus meeting, decided to put forward only these two major grievances, and leave out the minor ones, because they wanted these two issues resolved. According to a man who was present at this meeting, the representatives were not satisfied with management's answers to these problems and they tried without success, to push for an effective resolution of the two issues raised. Management failed to solve these issues subsequent to the meeting and there was no mechanism by means of which representatives could pressure management into doing so. It was only after the disturbance that adequate attention started to be paid to these matters.

In this respect the observation of a management figure on the mine, that "the councils create problems, they do not solve them", seems accurate. A grievance raised on the expectation that it will be attended to gives rise to another grievance when it is not. This led to a situation where workers did not bother to take their problems to councillors and saw the council as a management tool created for the benefit of management and not of workers.

- Training of representatives and other staff. The second major problem was the lack of training. Experience on other mines indicates that not only management and workers' representatives required training in industrial relations, committee procedures, and so on, but that some training needed to be extended to all staff and employees on the mine. As with the case of the requisition for an IRO, the mine's head office appeared to be the stumbling block with regard to training councillors. The policy of the head office, according to information obtained on the mine, was not to train representatives and requests for the institution of such training had met with no success. Some training had been arranged by the mine itself in that two or three councillors (but none from the BEC) had undergone training.

(g) The events leading up to the disturbance

(i) The imbalance between production and mine support services

In the development of a new organization, it is important to maintain an even balance across all working sections so that there are sufficient back-up services to give their best support to production personnel. With the great pressure on underground development (the mine reached production thirty-one months ahead of schedule), the other services lagged behind.

The fact that the second shaft was not yet in operation meant that the hoist available could not cope with the demand placed upon it. This caused delays in transporting men to and from the working place. Some workers complained of waiting for hoists for two hours and longer; of being called out for shifts and overtime work only to find that the hoist could not take them down and of waiting hours to be hoisted to surface.

The computer processing systems for clocking-in, recording overtime and calculating bonuses, had not been made fault-proof before they were introduced, consequently there were problems with men being recorded absent when in fact they had been transferred to other gangs. Furthermore, the rates of pay and bonus information were not recorded for some workers, which led to queries and misunderstandings.

The hostel building programme was actually behind schedule, and furthermore, could not cope with the unscheduled call for labour by production departments. Facilities like a broadcast waking system were not yet available and workers had to wake earlier than necessary to avoid missing their hoists. Moreover, the large scale overbunking appeared to have had a ripple effect on other hostel facilities: it meant that some men did not obtain enough food, shower water was cold, the tavern was overcrowded, and hostel staff had difficulty in coping with the number of grievances raised by hostel dwellers.

(ii) The multi-shift system and long working week

All the above problems were further compounded by the fact that the mine worked on multi-shift every day which meant that workers who were affected by the above procedures brought forward a constant stream of complaints with which hostel staff, personnel department, time-keepers and others had great difficulty in dealing. Their normal day-to-day functions had to be shelved while they attended to the plethora of grievances. Moreover, as these grievances occurred constantly on seven days of the week, service staff were fighting fires which they could not douse.

(iii) Ineffective framework for industrial peace

As the first report of the Wiehahn Commission (Report on Labour Legislation, 1979) points out, failure to provide an adequate and effective framework for industrial relations is a threat to industrial peace. This was clearly illustrated on the mine investigated. The problems and grievances of workers had been articulated and had reached management through councils, isibonda meetings, and reports of complex administrators, and so on. What was lacking were procedures for solving problems, and adequate measures that could be taken by workers to ensure that the problems were attended to.

The black workers clearly perceived that little or no action was being taken on grievances which were raised time and again. Consequently, they decided to take matters into their own hands. Their only recourse was to strike and precipitate a crisis situation in production to pressure management into taking action on aspects of the mine which were affecting them adversely.

•

CHAPTER 10. FINDINGS : PROSPECTS FOR STRUCTURAL CHANGE

10.1 Introduction

This Chapter has been divided into four sections. The first contains reports on three empirical studies carried out to determine black mineworkers' views on whether conditions on mines can be changed from within. This section provides data to substantiate many of the points made on black mineworkers' value capabilities which were discussed in the theoretical perspectives in Chapter 2. In that section, it was postulated that the workers' value capabilities had been relatively low; there was little chance of their changing their situation because of the mine administration's great power, bolstered by the power of the macro-society, and the workers' lack of power because they could be replaced so easily, they were not a cohesive force, they lacked funds to maintain strikes, etc.. However, latterly there have been signs of the emergence of a new paradigm which has arisen from changed economic and social circumstances and concomitant changes in worker attitudes, solidarity, etc, and this has potential to bring about change.

The second section is a report on workers' views on whether they themselves can bring about change to their quality of life: on the effectiveness of the grievance procedures on the mines, that is, whether change can be brought about by lodging complaints through the mine-instituted channels, and on the perceived effectiveness of the black personnel assistant (masiza) - a black man working within the white personnel structure - in resolving problems.

These data on the potential for change in the mine social system reflect the opinions of the workers, and, although they are crucial to the understanding of the prospects for structural change, they need to be viewed in the light of the extant social and economic position - the pressures on mine administrations to bring about change - to determine whether they will be realized. In the third section use is made of data from other sources - statements by senior company executives and demographic and biographic data on workers - to determine the feasibility of structural change. There are three topics presented : first, by the

forces pressuring white mine management to change; second, by the resources available to black mineworkers to pressure for change; and third by the above two are reviewed with additional data on the Industry's accommodation of reactionary forces that are preventing change.

The fourth section of the Chapter is the summary.

10.2 Potential to bring about Change

(a) Workers' views of future change

(These data were obtained in the survey of black mineworkers' aspirations. The methodology used is described in Chapter 6(b) under the heading "Comparative Studies")

To determine the workers' views on whether they thought their position would change in the future, the following questions were asked:

Can workers themselves bring about changes to those things that they find unfavourable?

If not, why not?

If workers themselves cannot bring about changes, how else can they be brought about?

(The responses are provided in Tables 90-91)

A number of workers were optimistic of the future as they believed that benign management, acting on grievances could bring about change. Some comments made were:

- . We can refer all our grievances to the committees who discuss them with the manager.
- . Workers talk to indunas who refer their problems to the hostel manager for immediate attention.

However, the majority of the workers were of the opinion that neither management nor workers could bring about change on mines through the current dispensation for grievance resolution. The main reasons they gave for this opinion were that:

TABLE 90 : Black mineworkers' opinions on whom can bring about change on their mines

1. Number of Workers Responding

WHO CAN BRING ABOUT CHANGE? - CATEGORIZED -	NO. OF WORKERS ON THE POPULAR MINE				NO. OF WORKERS ON THE UNPOPULAR MINE				WORKERS ON BOTH MINES	
	NON- SUPER- VISORS	SUPER- VISORS	SUB- TOTAL	PERCEN- TAGE	NON- SUPER- VISORS	SUPER- VISORS	SUB- TOTAL	PERCEN- TAGE	TOTAL	PERCEN- TAGE
<u>MANAGEMENT.</u> (acting on grievances lodged through mine channels)	29	28	57	46	17	25	42	34	99	40
<u>WORKERS</u> (by militant action)	4	1	5	4	4	4	8	7	13	5
<u>NEITHER WORKERS NOR MANAGEMENT</u> (not via the present dis- sation for grievance resolution)	30	33	63	50	39	34	73	59	136	55
Total	63	62	125	100	60	63	123	100	248	100

NOTE : One worker did not respond

TABLE 90.2: Some of the comments recorded*

N=112

WHO COULD BRING ABOUT CHANGES ?	COMMENTS OF THE WORKERS
MANAGEMENT (acting on grievances lodged through mine channels)	(99 ISSUES RAISED) - We can refer all our grievances to the committees who will then discuss them with the manager - We take our grievances to the indunas and isibondas who in turn report to the hostel manager. This is going very smoothly because our grievances are dealt with satisfactorily - Workers talk to indunas who will then refer their problems to the hostel manager for immediate attention - Men can come together and discuss their problems with management
WORKERS (by militant action-strikes and stay-aways)	(13 ISSUES RAISED) - Workers can bring about change by striking - Workers can bring about changes if they go on strike against the bad things that are not changed - If management does not change, workers should stay away from work until things are changed

*A more detailed analysis of the comments of workers who considered that the current grievance handling mechanism were inadequate is given in Table 90.1

TABLE 91: Why the current dispensation for dealing with black mineworkers' grievances does not bring about change on the mines

1. Number of Workers Responding.

N = 136*

N = 136*

CATEGORIZATION OF REASON PROFERRED	NUMBER OF WORKERS RESPONDING						PERCENTAGE OF WORKERS WHO SPOKE ABOUT CHANGE
	POPULAR MINE		UNPOPULAR MINE		TOTAL	PERCENTAGE OF WORKERS WHO PROFERRED REASON	
	NON-SUPERVISORS	SUPERVISORS	NON-SUPERVISORS	SUPERVISORS			
Lack of meaningful representation	20	28	19	20	87	64	35
Lack of action by management	6	7	8	11	32	24	13
Workers do not raise grievances for fear of reprisals	4	1	8	4	17	13	7
Total	30	36	35	35	136*	100	55

* These were the workers from TABLE 17.1 who claimed that neither workers nor management could bring about changes on the mines via the present dispensation for grievance resolution.

TABLE 91.2 : Some of the comments recorded

N = 136

CATEGORIZATION OF REASONS PROFERRED	SOME OF THE WORKERS' COMMENTS
	(87 REASONS MENTIONED)
LACK OF MEANINGFUL REPRESENTATION	- Workers cannot bring about changes because they are not given a chance to elect their own representatives. The management chooses uneducated people to represent workers and these people are not effective in channelling complaints. - Workers have no power and no authoritative representatives who can influence management. - Workers have nowhere to go if they want to complain. - Workers have no bargaining power. - Workers do not have a procedure to deal with mine problems. They don't have reliable people to represent them.
	(32 REASONS MENTIONED)
LACK OF ACTION BY MANAGEMENT	- Team leaders on this mine were promised better food and a special dining hall, but nothing has happened so far. - If workers present their problems, there is no report back. We don't know what has happened to our complaint. - We take our grievances to isibondas who hold meetings with the hostel manager, but nothing effective is being done for us. - We talk to the policemen (tribal representatives) who take our complaints to the hostel manager, but this is not functioning effectively.
	(17 REASONS MENTIONED)
WORKERS DO NOT RAISE GRIEVANCES FOR FEAR OF REPRISALS	- Workers cannot bring about changes because they are afraid to present their problems to management. - Mineworkers are afraid of management. - We can be discharged if we raise any dislikes. - If one has a major complaint, one is fired immediately.

(i) There was a lack of meaningful representation

For example:

- . Workers are not given a chance to elect their own representatives. Management chooses uneducated people to represent workers, and these people are not effective in channelling complaints.
- . Workers have no bargaining power.
- . Workers have no power and no authoritative representatives who can influence management.

(ii) There was a fear of reprisals

For example:

- . We can be discharged if we raise any dislikes.
- . If one has a major complaint, one is fired immediately.

In contrast, there was a minority of workers who were of the opinion that workers themselves could bring about change by militant action, strikes and stay-aways from work.

(b) Workers' views of grievance procedures

In a survey of workers' opinions of their mines, de Vries and Ackermann (1980) found 297 out of a sample of 360 who mentioned some aspects of mine work or mine life that they disliked. The researchers asked the workers whether they had raised their grievances with the mine personnel. One hundred and ninety of the 297 or 63 per cent claimed that they had not lodged formal complaints. The reasons given for not lodging complaints show that men thought that this action would have had little chance of improving their condition. Thirty-seven per cent of them were apathetic as grievances were not resolved or were afraid of victimization or did not know how to lodge complaints (Table 92).

Eighty-one of the 297 who had dislikes of the mine claimed that they had raised their grievances with the mine authorities, but that these grievances were not resolved. They mentioned 107 reasons why mine personnel could, in their opinion, not resolve their grievances. Responses such as the following indictate their helplessness and lack of power (Table 93).

TABLE 92: Reasons why certain workers did not raise their grievances with mine personnel

REASONS GIVEN	NUMBER OF MEN MENTIONING THIS	PERCENTAGE
I did not feel strongly enough about the matter	87	46
It does not help as grievances are not resolved	36	19
I was afraid of victimization	22	12
I did not know how to lodge a complaint	13	7
I was not interested	13	7
Miscellaneous	7	4
It never occurred to me 2		
I am still waiting to see if there will be changes 2		
Isibondas are not effective 2		
There is never time 1		
No reasons given	12	6
T O T A L	190	100

Note: Altogether 297 men mentioned some aspects of mine work or mine life that they disliked. One hundred and ninety of these workers did not lodge formal complaints with the mine personnel about those things they disliked.

TABLE 93: Reasons given why mine personnel could not resolve grievances

REASONS GIVEN	NUMBER OF MEN MENTIONING IT	PERCENTAGE
He was indifferent	29	27
Nothing could be done	21	20
I think he was scared	19	18
He has no power	7	6
He was prejudiced	4	4
He was the wrong man	1	1
No opinion	26	24
OVERALL TOTAL	107	100

- . he was indifferent
- . nothing could be done
- . I think he was scared
- . he has no power

This lack of ability to obtain redress through the mine authorities is shown by these workers' opinions of the action taken on their grievances. Fifty-six per cent claimed that no action had been taken and 20 per cent that their problems were not completely resolved (Table 94).

TABLE 94: Black mineworkers' views of the action taken on their grievances

ACTION TAKEN	NUMBER RESPONSIBLE	PERCENTAGE
No action was taken	60)	56)
Problem not completely solved	21) ⁸¹	20) ⁷⁶
Grievance solved to satisfaction	15	15
Not informed of action taken	5	5
I withdrew complaint	2	2
No response	3	3
T O T A L	107	100

(c) Workers' views of the black personnel assistant

(The methodology for this investigation is reported in Chapter 6(a) under the heading "Structured questionnaire with quantification scale")

Past research has revealed dissatisfaction with the black personnel assistant (masiza) as a handler of grievances. Mine management has sometimes claimed that a minority of better-educated, urban workers reject the masiza whereas his role is accepted by the majority of conservative

men. It has also been suggested that those individuals most critical of the system have not attempted to avail themselves of the masiza's services, but have rejected it out of hand on the basis of heresay evidence.

A study was designed to test the validity of these claims by assessing the degree of acceptance of the masiza by different groups of black mineworkers. (All the figures are to be found in Appendix VIII.)

The findings will be presented in three sections:

- (i) The opinions of all the workers in the sample.
- (ii) The opinions of the "conservative" versus the "less conservative" workers (Hypothesis I).
- (iii) The opinions of workers who had never raised grievances versus those who had (Hypothesis II).

- (i) The opinions of all the workers in the sample

The responses of all workers in the sample show that there was agreement (Figure 33 (a) to (n)) that the masiza

- was accessible to workers because he
 - . listened to their problems, and
 - . was available to talk to.
- was worker-oriented because
 - . he had their interests at heart,
 - . treated them fairly,
 - . tolerated workers who were always raising problems, and
 - . was willing to listen to their version in a difference of opinion.
- was committed to his job because he
 - . took up their problems with mine management,
 - . acted on their problems, and
 - . acted on all reasonable requests.
- revealed the following personal characteristics
 - . he was not open to bribery,
 - . he was easy to talk to,
 - . he was helpful, and
 - . he could be trusted.

- was effective within the organization because he
 - . had power to resolve their problems.

But, there was also divided opinion on the masiza (see Figure 33 (o) to (r)), because some workers said that he did, and others said that he did not

- . report back to them on their problems,
- . tell them why their problems could not be resolved,
- . favour certain workers, and
- . have a greater interest in management's reaction than theirs.

Moreover, many men were both positive and non-committal on whether the masiza treated each case on its merits (Figure 33 (s)).

- (ii) Hypothesis I: "Conservative" workers have more positive views of the masiza than "less conservative" workers.

The comparison of the rating given to the statements on the masiza by the "less conservative" and "conservative" groups showed only two significant differences using the Student's T-Test.

Response	Conservative Workers' Score *	Less Conservative Workers' Score*	Significance
Is not open to bribery	54	60	$p < .005$
Tolerates workers who are always raising problems	78	47	$p < .01$

The significant differences between the above responses suggest that the "conservative" workers were more conscious of the role that bribery might play than were the "less conservative", and that "less conservative" workers felt that the masiza was less inclined to tolerate workers who were always raising problems.

The overall agreement between "conservative" and "less conservative" workers on how the masiza was dealing with their grievances does suggest, however, that most workers had similar views on the adequacy of the masiza, irrespective of whether or not they were conservative.

(iii) Hypothesis II: Workers who have never raised grievances with the masiza have more negative views of him than workers who have actually done so.

There were significant differences in workers' overall perceptions of the masiza as expressed by those who had raised their grievances with him and those who had not ($t=3,16$; $df=78$; $p<0,005$).

In addition, the following responses given by the two groups of workers to individual questions were also statistically significant:-

Response	Workers who had raised Grievances "Score"	Workers who had not raised Grievances "Score"	Significance
<u>Worker Orientation</u>			
Has our interests at heart	54	64	$p<,0005$
Treats us fairly	51	79	$p<,01$
<u>Commitment to his Job</u>			
Takes up problems with mine management	63	65	$p<,025$
Reports back to us on our problems	47	73	$p<,025$
Treats each case on its merits	55	77	$p<,025$
<u>Personal Characteristics</u>			
Is helpful	53	75	$p<,025$

positive opinions of him than those men who had raised grievances.

It should be noted that within each sub-sample there was sometimes divided opinion on the role of the masiza; for example, some workers who had not raised grievances with him thought that he "tolerated workers who were always raising problems" whereas others did not (Figure 33 (j)). For other examples see Figure 33 (p), (q) and (r).

Similarly, there was also divided opinion among workers who had raised grievances with the masiza on whether "he had their interests at heart". (Appendix I). See also Figure 33 (d), (g), (h), (m), (o), (q) and (x).

The findings indicate that there are no significant differences between the attitudes in general of the "conservative" and the "less conservative" group of workers to the masiza. There were, however, significant differences between two of the individual responses. This finding suggests that one cannot assume that urban, more educated workers will hold more negative views of the masiza than rural, less educated workers, consequently the first hypothesis was not supported.

The second hypothesis, namely that men who had only heard about the operation of the masiza system would be more negative than men who had actually experienced the system, was also not supported. However, the distinction remains meaningful because the reverse was observed: men who had actually experienced the procedures for handling grievances were far more negative about the masiza than were those men who had not experienced the system (that is, $p < 0,005$).

The more negative opinions of the masiza held by the workers who had raised grievances with him (when compared with those of workers who had not) suggest that workers learn from experience that he is not able to deal with problems to their satisfaction and they became disillusioned. This may suggest that grievances could be internalized and may erupt later in a more violent form if the issues causing worker dissatisfaction are not rectified.

The findings of this study revealed that the masiza's personal characteristics were highly rated by the workers in that they thought he was not open to bribery, he was easy to talk to, helpful and could be trusted. Yet, they also suggest that the disillusionment among workers who had actually raised grievances stemmed partly from the masiza's alleged failure to take up problems with mine management, report back on their problems, or treat each case fairly on its merits which could have led to the opinion that he did not have the interests of the worker at heart.

It can be gleaned from the analysis that many of the black mineworkers did not regard the personnel assistant specially appointed by mine management to deal with their problems and grievances as having much potential to resolve these problems and grievances. Consequently, they did not have the ability to bring about change through this mine system.

(d) Summary

The three investigations conducted at different times with different workers on different mines using different research techniques have produced data which corroborate one another to a great extent. A few of the workers were of the opinion that change could be brought about from within the system; but, whether they meant meaningful structural change or peripheral change was not explored in the interviews. A few others thought that workers themselves, by their collective action, could change their dispensation. However, the consensus of opinion appeared to be that it was to little avail to raise grievances through the mine channels as little was done to rectify their situation or the complainants were victimized. Consequently, if change is to take place to workers' quality of life it would appear unlikely that it would be precipitated by forces from within the system.

The next section will examine the prospects for structural change from the viewpoint of external forces acting on the industry to change, and workers' resources to pressure for change.

10.3. Outlook for Structural Change

Figure 1 is an illustration of a model depicting the pressures for and against structural change to the social system of a mine: it shows how in 1983 white mine management held the balance of power - it had power and authority which it had used to ensure its own privilege and high quality of life at the cost of black mineworkers, and which it maintained by social control. Yet, despite this position of advantage, it had brought about procedural changes to the quality of life of black mineworkers in response to internal social conflicts. That was the extant position on the mines; however, consideration will now be given to the prospects for structural change, the forces interacting upon white mine management, and the resources available to black mineworkers to bring this change about.

(a) Forces pressuring white mine management to change

Some of the forces pressuring white mine management to change are

- (i) the fear of internal strife and dissension and the ensuing instability
- (ii) the fear of economic stagnation arising from the lack of confidence overseas in the stability of South African society;
- (iii) the shortage of skilled manpower;
- (iv) the rise in working costs on mines and the drop in productivity levels;
- (v) the fear that black workers will reject the free-enterprise system;
- (vi) a greater awareness of the social position, and of the potential of black workers.

Mine management had to consider the cost implications of bringing about structural changes to the social system of the mine - these were financial, as well as social and moral costs - and entailed not only the costs of changing but also the potential gains that accrued if it did change, as well as the costs that would be incurred in the long term if it did not change.

In exploring the pros and cons of structural change, recourse will be taken to public statements made by chief executives of companies with major mining interests to substantiate the views put forward. These statements which were gleaned from annual reports and other public platforms are presented in Tables 95(a) to (f).

Each of the forces mentioned above as exerting pressure on mine management to change will now be presented in terms of the costs that it faces if it does not change and the potential gains that will accrue from the structural change.

- (i) The fear of internal strife and dissension, and the ensuing instability

Industrial managements' fear of the power of black workers to disrupt operations is aptly summed up by the following quote from Business Week (1981):

"Executives right now face frequent strikes and a shortage of skilled workers, both of which stem from discriminatory racial laws and customs ..., for labour-intensive companies in particular, this combination of problems looms as a prime threat to future survival ... to meet this threat ... (it can) focus intensively on achieving a secure labour force".

A perusal of senior executives' statements in (Table 95 (a)) shows that in many cases they considered the strife and dissension to be the workers' reaction to the plethora of legislation inhibiting their movements and circumscribing their lives: and that as the workers lacked a platform to air their grievances about the inadequacies of their provision, they would use the mechanisms created by mine management for consultation to voice their dissatisfaction, such unrest on mines could have adverse effects on production, and in turn on profits, and on the very "survival" of mines as economic entities. The use of the word "survival" epitomises a fear that in a labour-intensive industry, with the labour becoming more and more militant about inadequate rights, production would be likely to suffer.

It will be noted that mine management did not envisage the curtailment of worker rights - the strategy used in the past - as the method for dealing with worker action (riots, disturbances and destruction of property); but proposed rather that industrial democracy to introduced, racial discrimination be eliminated and that workers be treated equitably in the hope that, if unrest could be controlled, it was possible that the mines could operate peacefully to the advantage of all. The uncontrollable nature of worker action in mine riots and disturbances meant that management - who needed to restore industrial peace, to reinstate production schedules, and to avoid damage to property - capitulated to worker demands, for it was in a poor position to negotiate in riot situations where workers held the balance of power. Thus, the institution of greater industrial democracy would obviate its having to capitulate (because of loss of power) in such situations, and allow it to negotiate conditions of employment from a more advantageous base.

Extracts from public statements of senior business executives

TABLE 95 (a) : The fear of internal strife and dissention and the ensuing instability

- ... I cannot regard black wage increases of this magnitude as being in any way excessive in regard to the fight against inflation, and certainly in regard to other social objectives and necessities I believe they were essential in the interests of justice and racial peace. ... A low wage policy ... would be gravely unjust and dangerous for what it would involve is not a low-wage structure for all workers but a policy of maintaining high wages for whites and low wages for blacks. ... Economic growth and racial discrimination are in fundamental opposition to each other and ... economic growth is an essential element in building a peaceful and just society (Oppenheimer, 1981).
- The critical issue of industrial relations must, however, not be seen in isolation. In the South African context there are many factors which could have an influence on this sensitive area. They range from the purely political, such as the exclusion of blacks from the process of national constitutional reform, to legislation which controls the movement of people and their ability to be able to offer their labour in accordance with free market principles and thus contribute to the natural economic growth of the country. ... The continuing affront to human dignity (of influx control), the adverse impact on race relations and the frustrations and costs to commerce and industry in the past are all too heavy a burden to pay in future for the futile attempts to control urbanization through penal provisions (Hersov, 1982).
- The imbalance in the South African industrial relations equation which existed, certainly up to the publication of the first Wiehahn Commission Report and which is still in the process of adjustment, had led to many of the labour problems which now confront us. Employers and registered unions have determined the course of labour matters for themselves as well as for Black workers. This position is now changing and in the process is causing some potential instability (Hersov, 1980).
- There is of course always an inherent conflict between employers and employees in any industrialised situation and so it is very important that a structure should be mutually evolved and skills developed to control and resolve this problem ... workers who are denied effective political rights see industrial relations as an area in which their political aspirations can be articulated and pursued. As a result private enterprise is inevitably called on to play a part in promoting reforms (Rosholt, 1982).
- Over the years the mining industry has evolved a highly flexible industrial relations system which has served it well. The built-in checks and balances have enabled stability to be restored when confrontations have built up between employers and organized labour. I sincerely hope that it will be possible progressively to extend the present system to accommodate all the industry's employees (Plumbridge, 1981).
- This plethora of divisive legislation inevitably necessitated the enactment of increasingly elaborate and powerful laws for the control of dissent. However necessary those laws may be for the protection of the legitimate security interests of the State, it cannot be denied that they have encroached extensively on the freedoms that are fundamental to any democratic society. ... Obviously industrial peace should be the prime objective of employers, the Government and employees. That goal will not be achieved if employers resort to lockouts, instant dismissals and requests for police action as a response to workers who seek to negotiate legitimate changes to their conditions of employment. Such measures can only lead to civil disorder or industrial action and consumer resistance (Robinson, 1980).

- (ii) The fear of economic stagnation arising from a lack of confidence overseas in the stability of South African society

The political situation in the country as a whole and the plethora of laws restricting blacks had been two of the reasons for overseas business partners' censure of South African society (Table 95(b)). Moreover, the unrest that had broken out from time to time had endorsed the fears of overseas companies for the stability of South African society. This had not made the country an attractive venue in which to invest capital: although the returns on capital invested might have been high, the ever-present possibility of an overthrow of the society would have meant that the capital was insecure. This lack of confidence meant that capital for development was not easy to obtain. The mine authorities viewed the consequences in a very serious light, for if there was inadequate development - if not enough new jobs were being created - this could lead to unemployment among the black populace which was viewed as the breeding ground for instability and chaos.

Management saw that one way to engender confidence in the country was to foster a more contented labour force, by providing black workers with opportunities to obtain better jobs. This could nullify the forces calling for a new society. One senior executive was of the opinion that overseas critics would not be satisfied until they saw senior positions being occupied by blacks (Table 95(b)).

As overseas capital was crucial to the continued economic growth of the industry, this was an important factor pressuring for change. It had been effective to some degree in sport where international boycotts of South African teams and sportsmen had led to the acceptance of black players; consequently this form of leverage could be effective in business as well.

- (iii) The shortage of skilled manpower

The upsurge of economic activity in the country in the seventies and the technological advancements in business and industry required skilled and trained men to keep them going. This skilled manpower had previously been drawn from the ranks of the whites in the country and recruited from overseas. However, the unstable political situation in South Africa led to

TABLE 95 (b) : The fear of economic stagnation arising from the lack of confidence overseas in the stability of South African society

- The basic economic problem of South Africa ... is the impossibility of reconciling, in the absence of large inflows of investment capital, high economic growth with the maintenance of equilibrium in the balance of payment. Without an adequate capital inflow from abroad, South Africa is compelled to apply restrictive economic policies which inevitably result in unemployment. ... Such unemployment naturally leads to social unrest and this in turn is bound further to discourage foreign investment which in turn causes further unemployment and more social unrest (Oppenheimer, 1978).
- ... it is not enough, as I see it, to move to eliminate racial discrimination by gradually widening the job opportunities of blacks in industry on a broad base and at a comparatively low level. Obviously action along these lines must be rigorously pursued, but equal opportunity for blacks will not be perceived to have been achieved either by the blacks themselves, or by our critics abroad until such time as senior management and professional positions are held down efficiently by Blacks on equal terms with Whites. (Oppenheimer, 1981).
- What is required is greater confidence, internally and externally, in the economic and particularly the political future of South Africa (Oppenheimer, 1979).
- Six month (after 1976 riots) ... due to political pressure we were unable to get an Eximbank guarantee for a medium term loan to finance certain coal mining equipment we were importing from the USA. ... The alternative of going overseas for capital or loans, other than export credits, when the local market is tight, is unhappily no longer with us. There is plenty of liquidity overseas whatever certain Government circles here may say to the contrary. But with our political situation as it is, it is simply not available to us (Rosholt, 1977).
- The apparent lack of confidence abroad in the stability of South Africa remains one of the most important factors adversely influencing the flow of capital to South Africa and limiting growth at present (de Villiers, 1978).
- To assist in this process of change and indeed to accelerate it, South Africa needs, understanding, encouragement and, above all, investment from abroad ... I wonder if those who plead for disinvestment in South Africa pause to reflect upon the unemployment and chaos that would result if they succeeded with their campaign (Robinson, 1978).
- Our internal policies are the subject of severe international criticism. We must not underestimate the power of governments and of pressure groups to give effect to their disapproval of these policies. The boycott of South African exports and the possibility of further selective sanctions being applied cannot be ruled out (Robinson, 1977).

fewer skilled people immigrating, and as there were insufficient whites to occupy the posts, industry had perforce to look to the black population to meet the need: however, when it equated the skills of the majority of blacks with its requirements it found them sadly lacking - and attributed this to the inferior system of education for blacks. The black man was seen in a different light as he had the potential to fill the posts, but through lack of opportunity could not do so (Table 95(c)).

Mining executives felt constrained and considered that they could not capitalize on economic growth unless they had access to the potential available among the black workers who heretofore had been viewed merely as manual labourers. However, if many of the restrictions inhibiting their occupying positions previously held by whites could be removed, industry could proceed apace and capitalize on economic growth - these restrictions were influx control, job reservation and the lack of education and training that would equip blacks to hold down such jobs. (The sixth Report of the Wiehahn Commission (1981) had recommended that the racially exclusive definition of a scheduled person - one entitled by law to hold a blasting certificate - be abolished, and the state had supported this recommendation, but had left it to employee organizations and organized labour to agree on how this new dispensation could be brought into effect.) The industry was aware that higher wages would be paid to blacks who eventually occupied such positions, and enjoined the government-of-the-day to improve the system of education for blacks to put them in readiness to benefit from higher-level training.

(iv) The rise in working costs on mines and the drop in productivity levels

The mining industry had effected some peripheral changes to the quality of life of workers and had increased their wages, but had expected a concomitant rise in productivity from them as a "reward" for these changes (Table 95(d)) - which had not materialized. (The rise in working costs could in part be due to the rise in the wages of white miners and artisans.) The greatest fear that the industry faced was that low rates of productivity would make it uncompetitive in the export markets and that there would be a slowing down in the growth rate, all of which would have affected its profit margin. And, mechanization was not possible because of the skills shortage.

TABLE 95 (c) : Shortage of skilled manpower

- The shortage of skilled men of course causes unemployment among the unskilled, and according to a recent estimate well over 100 000 jobs are at present unfilled because the necessary trained workers are not available. ... it is obvious that the great and growing need for trained men cannot possibly be met from the white population alone ... (Oppenheimer, 1980).
- As businessmen, we know that if we are to provide adequate managerial manpower to lead and control commercial and industrial affairs in the future, by 2 000 two-thirds of this class will be men and women other than whites. ... What hope is there of building effective and productive organisations if social intercourse is limited to the office environment (Relly, 1981).
- How are we to maintain and expand a modern industrial system which must be industrially competitive ... when our resources of capital and particularly of skilled people are in short supply and there is massive unemployment among the unskilled ...? (Oppenheimer, 1981).
- Current technological advances create situations which necessitate the development of more individuals with greater individual skills (Hersov, 1982).
- It is of fundamental importance to blacks and also to business in its efforts to provide economic growth and job opportunities for suitably qualified blacks that the present form of influx control be amended (Rosholt, 1982).
- I turn now to training which is the ultimate answer to our productivity problems (Rosholt, 1980).
- ... the most constraining we are facing to the development of this country is still the lack of skilled and trained people over a very broad spectrum of activities (Rosholt, 1982).
- The group accepts that its survival and profitability depend on the degree of success achieved in the effective utilization of its human resources. Accordingly, the training and development of workers at all levels is regarded as a priority of the highest order as a means of expanding the severely limited leadership group. The group's development policy is aimed at the creation of opportunities for workers of all categories to progress increasingly to higher positions. The group is therefore committed to striving for equality of opportunity for all its employees (de Villiers, 1981).
- This skill shortage can in an industrial society place an absolute limitation on the rates of economic expansion and of increasing productivity (SA Mining and Engineering Journal quoting W J de Villiers, 1978).
- It is quite surprising to find that there is, even in these difficult conditions, a distinct dearth of skilled labour. If eventual recovery is not to be prejudiced, extended training programmes are now very necessary (de Villiers, 1978).
- The recent surge of economic activity in the Republic has aggravated the skilled and professional manpower shortage in South Africa ... (we) must make far better use of the labour available in the Republic. This is something which cannot be achieved within a short space of time, but I must emphasize the need for immediate planning and action aimed at achieving it as soon as possible. In the first instance I consider it fundamental that the Government gives its urgent attention to improving education and training opportunities to all population groups. It is also necessary, however, for the private sector to accept its responsibility to develop better facilities for technical training. (Louw, 1982).
- The recent period of high economic activity in South Africa has created an acute shortage of skilled and professional manpower while, at the same time, there has continued to exist a high level of unemployment amongst the unskilled ... (the solution can be attained by) the creation and not destruction of job opportunities for unskilled workers whose wages must be set in relation to the economic value of their output in a free market economy (Plumbridge, 1981).
- ... the shortage of skilled labour will continue as heretofore to be the brake on the future economic performance that we could otherwise attain. ... The Group ... is moving towards the implementation of an integrated wage curve (Waddell, 1981).
- The labour problem in South Africa is a twofold one. On the one hand we are burdened by an unacceptably high level of unemployment amongst unskilled blacks; on the other our progress is being held back by a scarcity of skilled whites. Because black unemployment poses a threat to our socio-political stability everything possible has to be done to increase the rate at which jobs are created in South Africa (Robinson, 1979).

TABLE 95 (d): Rise in working costs on mines and the drop in productivity levels

- Worker gains (in wages) will be short-lived if they are won at the cost of our ability to compete in world markets (Oppenheimer, 1982).
- Personal skills at all levels will have to be improved and opportunities will have to be provided when these skills and potential skills can be utilized without constraints if we are to raise productivity levels ... (Hersov, 1980).
- ... there is no general awareness of just how unacceptably low productivity is in this country, and the inevitable effect on inflation and cost structures. ... There is a very definite danger that lack of productivity and continuing increasing costs ... will make us uncompetitive to (export) markets! (Rosholt, 1982).
- The shortage of skills is the single most important obstacle which will inhibit South Africa in its attempt to achieve an acceptable growth rate. ... The private sector has been given the major role in the training of employees of all races with the objectives of ensuring greater productivity, natural growth and employment (Rosholt, 1981).
- The cost of production of the group's minerals will undoubtedly increase substantially during 1979, while the world economic climate will dictate the level of demand (de Villiers, 1978).
- Working costs rose by 11,2 per cent per ton milled over the previous years. ... The principal factor affecting costs is labour. A prime objective within the industry is consequently the need to improve productivity with maximum utilisation of labour resources. It is hoped that the continued and steady removal of employment barriers will go a long way towards bringing this about (Union Corporation Limited Annual Report, 1979).
- During the past ten years the South African mining industry has witnessed rapid growth and increased prosperity. However, the positive factors have masked one critical factor, which is cause for great concern. Costs have escalated alarmingly ... while all the component parts of mine operating costs have increased, the principal structural change has been in the wages of black unskilled and semi-skilled labourers which have increased 879% over the ten-year period. At the same time their productivity on gold mines has increased by only 4%. A major drive to increase productivity is clearly indicated and employment policies require to be adapted appropriately. This implies the removal of the last entrenched elements of discrimination in the industry's employment practices, the determination of an equitable market-related wage curve which gives due cognisance to the level of skills of various categories of workers, and a major increase in the training provided for all employees (Plumbridge, 1981).
- The gold mining industry is striving to increase productivity, but the results are disappointing. ... (for the eleven-shift fortnight) additional labour has had to be employed underground ... (Robinson, 1978).

The main strategies proffered to solve these problems were to upgrade the skills of the black workers to make them more productive, to offer them more opportunities for advancement, to remove the employment barriers inhibiting such advancement, and to remove discriminatory practices and thus encourage greater productivity. Higher productivity as a quid pro quo appears to be a vain hope, for if there was not a resultant increase in production levels after wage increases, there was not likely to be after the removal of discriminatory legislation: the one major hope was that better training could lead to more cost-effective methods of operation.

- (v) A greater awareness of the social position and of the potential of black workers

The economic trends described above could have made mine management more aware of the position of the black worker - restrictions on his movements, his inadequate education, job reservation and the like - and the possibility that "free enterprise values were at stake" if he rejected this system because he had gained so little from it (Table 95(e)). This greater awareness could have stimulated statements made by executives calling for greater "justice and morality" and "equal opportunity" (Table 95(f)). However, such sentiments could also have been aroused by research findings; Wilson (1972) described in some detail the conditions in hostels, and in particular the estrangement of the migrant black worker from his family for months at a time; various academics have completed "minimum living level" scales which have shown the wages paid to the mineworker in a very poor light; and the research of the Chamber of Mines' own research laboratory must also have created an awareness of the social problems of the mineworkers. The Research Laboratory was initially started as an applied physiology unit to investigate problems like heat stroke and the nutritional value of the meals served; however it was expanded in 1975 to deal with problems such as increasing the productivity levels of black workers and helping the mining industry to find unskilled labour which at the time was in short supply. The studies undertaken by Chamber of Mines' staff were beginning to be critical of the Industry : opinion surveys showed that migrants were reluctant to enter the mines because of the danger, poor treatment at the hands of whites, low wages, absence from their families, and the like (Parsons, 1979). This Laboratory, although it was ultimately responsible to the Chamber of Mines committees, that

TABLE 95 (e) : Fear that black workers will reject the free-enterprise system

- South Africa, although it has a substantial element of state-controlled industry in the mixed economy, has always been strongly oriented towards the free enterprise system and depends for its economic strength on a powerful, dynamic and imaginative private sector. In the long run that system is not going to be successfully defended and developed in South Africa unless a large proportion of the people, particularly those with leadership potential, see it as offering them more than any of the alternatives ... To my mind South Africa, particularly its commerce and industry which depend fundamentally on the continued existence of free enterprise, should strive in every way to enable our non-sharing, non-participating majority to share in the opportunities and participate in the decision-making of the system (Oppenheimer, 1976).
- Business must continue to play a leading role (in eliminating influx control) because in addition to considerations of justice and morality, its legitimate self-interest and the free enterprise values it espouses are at stake (Hersov, 1982).
- The great danger lies in the unavoidable fact that unless the black is put into a position which will allow him to enjoy his fair share of the fruits of the system, he will reject it. As he represents the majority group in this country, it follows the future of the system would be seriously endangered. There are far too many examples to the north of us in Africa for us to be complacent or comfortable about this possibility (Rosholt, 1982).

TABLE 95 (f) : A greater awareness of the social position and of the potential of black workers

- Absolute population growth figures tell us that at the end of the century there will be about 50 million people ... of these, maybe six million will be white, six million coloured and Asian and 38 or 40 million will be black. ... we have to accept that the general trend of population growth will demand and dictate change and adaptation (Relly, 1981).
- It is also our policy that the minimum wages should as far as this is economically possible be at least as high as the 'minimum living level' as determined by the University of South Africa (Oppenheimer, 1981).
- A survey has shown that 96 per cent of all adults in Soweto have lived there for 20 years or more and that 77 per cent of the inhabitants look on themselves as permanent residents with no connection with the tribal areas from which they or their forebears came (Oppenheimer, 1982).
- ... it may well be that the development of further timber plantations and the cultivation of cassava, for instance, both for its nutritional and industrial value, could be of real importance in tackling the problems of rural poverty (Oppenheimer, 1981).
- A more concerted and certainly more imaginative, effort should be made to increase employment in the black homelands, by encouraging the growth of labour-intensive industries ... (Oppenheimer, 1979).
- If greater mobility is allowed in the labour market this should allow people to move freely where the work is, instead of, as at the moment, not moving for fear of losing whatever rights they may have acquired where they are at present (Hersov, 1982).
- There is a growing understanding in this country that racial discrimination and economic growth are not compatible and that discriminatory measures must be removed if we are to have stability and an acceptable economic growth. And so it is a matter of urgency to speed up the process ... of the removal of all discriminatory measures which restrict equal economic opportunities for all groups and which preclude an effective participation by black entrepreneurs in the economy (Rosholt, 1981).
- Two aspects of the (employment) code to which we are devoting particular attention are our commitment to a fully integrated salary and wage structure and our undertaking to expand ... our training effort (Rosholt, 1980).

comprised representatives of the mining groups, had a certain amount of autonomy to research within the broad outline of the proposals accepted by these committees. Consequently, the research changed its character in line with the research interests of the researchers and from about 1977 onwards new areas, such as industrial peace, conflict and quality of life, were explored from a multi-disciplinary platform which tended to highlight the inadequate provision for the worker, and the ways in which the Industry itself was causing his plight. At this time the mining groups also requested the Laboratory to undertake full investigations into a number of mine riots. These studies showed that the policies, procedures and practices of the Industry were the prime causes of the dissatisfactions which had led to the riots. All these investigations - some of which are reported in this dissertation - were well documented and distributed to the mining groups, three of which appointed specialists to study the reports and suggest action by the groups on the findings. It is not possible to determine what effect such research findings have had and will have on the thinking of the decision-makers in the mining industry, however they were in receipt of the research reports and in some cases took action based on the recommendations. Moreover, there were from time to time requests from the mining groups for research to be undertaken into disturbances on mines, the opinions of workers, and into particular problems with labour turnover and the like which indicate that there was a great deal of confidence in the research. And, this greater knowledge of how mine systems operated socially to cause deprivation among black workers could have caused a change in mine management's perspectives and heightened their moral conscience.

Another salient factor in the change of attitude could have been the comparison of mineworkers with workers in secondary industry. As the mining groups were subsidiaries of major business concerns with commercial and industrial interests, it could be expected that workers in the primary sector would be compared with workers in secondary industry - and as the former were disadvantaged vis-a-vis their counterparts in secondary industry (Parsons, 1979), this could have led to the move to narrow the gap between them.

Furthermore, some blacks had penetrated into the echelon of lower management - on mines there were black personnel assistants, clerks, training officers, welfare officers and industrial relations officers who appeared to have acquitted themselves well in these tasks and had become of great value to the system: they had more to offer the system than sheer unskilled manual labour. This could have made management, in a situation of skills shortage, desirous of having more black workers in the job hierarchy.

(b) Resources available to black mineworkers to pressure for change

At the outset it was stated that the black mineworkers had no authority to effect changes to their quality of life; yet they have been gaining considerable power which will enable them to pressure mine management to effect changes. The resources available to them to pressure mine management which will be discussed briefly below are

- (i) collective bargaining through riots and the fear of riots;
- (ii) greater solidarity;
- (iii) the power of numbers;
- (iv) the advent of the new worker;
- (v) the emergence of the National Union of Mineworkers.

(i) Collective bargaining through riots and the fear of riots.

When the pivotal norms circumscribing their compliance to the dictates of the mine system were violated (Chapter 2), workers reacted by coming into violent conflict with mine management. They attacked the sources of their grievances: they threw equipment down the mine shaft when they were delayed unduly by hoists; damaged computer terminals when they were told that the computer was responsible for the delays in wage payments; burnt down change houses, dining rooms and kitchens because of poor or inadequate food, cold showers and the theft of belongings; damaged the hostel buildings because of overbunking and at times caused millions of rands worth of damage to physical facilities. In addition, they disrupted the production schedules of the mine by staying away from work, and because they were, in these situations, negotiating from a position of power, caused mine management to capitulate to their demands. As this was the only avenue left open to them to bring about change - there were consultative and liaison committees, but the studies reported above show that mine

management often did not react to grievances emanating from those channels - and as this avenue had led to success in the past, it was the means that they were most likely to invoke in future to pressure mine management to change. In such situations there was a paradigm suspension where the workers took over the mantle of power and placed their demands before top management, and management - to avoid further damage and loss of revenue from the loss of production - inevitably capitulated. This was indeed a powerful resource, and probably a more effective resource than industrial democracy in which the workers had relatively little skill, and moreover, a resource which they were prepared to invoke when management was reluctant to effect the changes that they desired.

(ii) Greater solidarity.

It was reported earlier that workers were divided because of short-term oscillating migrancy, language barriers, accommodation organized on tribal lines and frequent transfers among work gangs; and because of these divisive factors, workers had difficulty in building up a concerted front to pressure management to effect changes. However, there is a prospect of greater solidarity being attained among workers mainly because management had instituted the Valid Re-engagement Guarantee and the Stabilization Bonus to encourage the same workers to return to their same mines - and if feasible to the same job - as soon as possible after a homestay so that it capitalized on their training and experience. It is postulated that this factor could create a more homogeneous work force which could break down tribal affiliations and language barriers to a great extent. Moreover, on some mines workers were accommodated by work section rather than by tribal affiliation which could also have nullified the divisive cultural effects and permitted the attainment of greater solidarity.

Furthermore, greater "permanence" among the work force within the migratory labour system enhanced the possibility that they shared common grievances at the same time, at the same place against the same institution (Kerr and Siegel's (1954) hypothesis reported above) which could have forged bonds among the men. The unitary base of the hostel and the work section could provide the platform from which a concerted opposition to the unsatisfactory policies, procedures and practices could be launched. In

addition, it has been postulated by McNamara (1983) that workers who had participated in confrontations, riots and the like with management would have been forged into a more homogeneous group through the process of having shared commonly in "blood letting".

Another factor which could lead to solidarity is the workers' heightened expectations of reform - they could have shared a common unifying expectation that their position on the mines would improve, based upon the progress they had experienced of management's actions on their complaints (Table 89.2).

(iii) The power of numbers

An average-sized mine had a workforce of some 10 000 workers and the industry as a whole about 500 000 workers. Research on mines throughout the industry has shown that many men experienced, to a greater or a lesser extent, the same deprivations. Although not all the men experienced the same problems at the same time, many of them were likely to have experienced major problems or have identified vicariously with the problems of their fellow workers concerning assaults, insults, swearing, arbitrary dismissals, victimization, late hoists and a lack of action on grievances. Consequently, on a mine of 10 000 men there were many who were likely to take up the cudgels against mine management because of the inadequacy of their provision, and, moreover they were likely to have had the moral support of many more on the mine.

Those who had experienced deprivations first-hand would have heard of the grievances of their fellow workers against the mine system (Table 66.2), and could thus be expected to use the power of their numbers to put their grievances more forceably before mine management for action.

(iv) The advent of the new worker

When the traditional sources of labour to the mines were withdrawn because the neighbouring states were opposed to their citizens working in South Africa, the recruitment agencies had perforce to find replacement labour, and the logical source was from within the boundaries of South Africa. This drive for recruitment occurred at a time when there were relatively large-scale increases in wage payments and improvements in

hostel accommodation and meals. At the same time, jobs were scarce in rural areas and towns and the available land could not sustain the rural population. This meant that a natural process of migration to the cities in search of job opportunities would have occurred if influx control had not been in force. Although some men were prepared to run the gauntlet of arrest to get to the cities in search of jobs, others took the legalized route of working on mines.

As these South Africans were a younger, more educated and generally a more sophisticated group than were the gastarbeiders (de Vries, 1979), they changed the pattern of oscillating migrancy to the mines. They worked for shorter periods and stayed at home shorter and thus quickly built up considerable experience. Moreover, some of them had experience of working in secondary industry with which they could compare their conditions on mines.

The new worker was also a South African in the sense that he experienced the same deprivations in the macro-society that he experienced on the mine, and consequently had a greater vested interest in trying to bring about change to these conditions than did the gastarbeiders. This new worker was a force pressuring for change that the mining industry heretofore not had to contend with.

(v) The emergence of the National Union of Mineworkers

Some elements of change have already taken place: the National Union of (black) Mineworkers was formed in 1982 and was granted permission by the Chamber of Mines to recruit members on all its member gold mines. An official recognition agreement was signed in June 1983 and there were subsequent talks between the Chamber and this union on wages. It began recruiting in August 1982 and by the beginning of August 1983 had more than 25 000 paid-up members, making it one of the most rapidly growing unions in the country's history (Duff, 1983). Previously the setting of the wages of black mineworkers was a unilateral affair with employers setting wages as they saw fit. However, after the official recognition agreement was signed, the wage talks and subsequent settlement followed. The union represents relatively few black workers at this stage and the union leaders may be inexperienced in negotiating techniques, but at least a start has

been made which could lead to a balance in the formal power equation in the mining industry. Moreover, the Appeal Court decision on the Rikhoto case (Mr M T Rikhoto, a Germiston migrant worker who had been employed continuously for more than 10 years by one employer, was granted urban residence rights) could have consequences for the greater stabilization and solidarity of black mineworkers. These are the beginnings of a process which could lead to structural change in the social system of a mine: there is no fixed time-table for such change but merely a strong prospect that it will take place.

(c) The accumulation of forces and resources for change, coupled with the accommodation of reactionary elements

It is postulated that each one of the above forces pressuring mine management or each one of the resources available to black workers on its own would probably not be strong enough to bring about structural change, but that the accumulation of all of them could influence mine management to make substantial changes to the social system of the mine. Moreover, there was great confidence and willingness among executives (Table 96) to deal with countervailing forces among white miners and artisans who might oppose the change. (These employees feared the advancement of the black worker as this could lead to their replacement by men who were willing to work for a lower wage.)

Black employees were barred from entering many semi-skilled and skilled occupations owing to both statutory and non-statutory work reservation. In terms of the Mines and Works Act, 1956, by virtue of the definition "scheduled person", blacks could not obtain government certificates of competency of which the blasting certificate had special significance (McLaren and McNamara, 1982): however statutory job reservation was abolished in 1983 i.e. Determination No. 27. Yet non-statutory work reservation still existed (at the time of completion of this thesis) in the form of closed-shop agreements reached between the Chamber of Mines and the white trade unions in 1937. In terms of these agreements all employees entering semi-skilled and skilled occupations on mines had to join the relevant trade union, but these unions permitted white members only, thus effectively barring blacks from all these occupations. The management had little control over such closed-shop

TABLE 96 : The confidence that the counter-reaction to change can be contained

- There are, of course, still white unions and workers who resent its achievement in removing discrimination in the work place because they wrongly see it as a threat to themselves. But provided we in business are satisfied that their interests are being fairly and adequately looked after, the time is surely long past that we should bow to these minority views (Rosholt, 1982).
- While being responsive to the legitimate and realistic aspirations of employees, it is recognised that there are those who feel insecure in the face of inevitable and desirably change. The group seeks to demonstrate that their contribution remains highly valued and that their continued meaningful participation is assured (Pavitt, 1982).
- The group is well aware of the challenge presented by the need for the orderly introduction of change in certain work and utilisation practices and of the importance of dealing appropriately with the apprehensions of employees that such changes might pose a threat to their job security. The group undertakes to safeguard the job security of its employees through its commitment to the principle of equal remuneration for work of equal value performed with equal efficiency, as well as by adherence to fair labour practices and by ensuring equality of opportunities for advancement and promotion (de Villiers, 1981).
- Provided all concerned recognise the need, on the one hand to reassure existing white employees that their job security is not threatened (by change in the industry's employment practices) ... (Plumbridge, 1981).

agreements but would need to negotiate for their removal by guaranteeing adequate job security to the members of the white unions. These unions had played a significant part in maintaining a low quality of life for black mineworkers by preventing them from gaining access to higher level jobs with their concomitant higher wage levels.

Mine executives appeared to be confident that they could deal with such reactionary forces within the Industry. If their fears for the viability of the mining industry were real, they would be forced to negotiate with the unions to permit black workers to occupy skilled occupations.

10.3 Summary

The prospects for change from within the mine social structure do not appear to be good. Most workers had little confidence in the systems for grievance resolution, there was victimization of complainants and often no action was taken on legitimate grievances. Many workers were apathetic or reluctant to endeavour to change the structure themselves, though there were some who had great confidence in the power of collective action.

The potential for change appears to depend to a great extent on forces outside the Industry - economic, demographic and social forces and pressure groups from overseas trading partners - who have been pressuring for change. Industry executives appeared to be responsive to pragmatic concerns of economic growth rather than ideological issues, and were thus willing to pressure the Industry and the Government-of-the-day to make structural changes and to deal with reactionary elements countering change.

CHAPTER 11. DISCUSSION OF FINDINGS

It was stated at the outset that a mine could be regarded as South Africa in microcosm - sufficient data have been supplied in the above sections of the thesis to give credence to this analogy - and, that by studying how this mini-component of society operates, useful insights could be gained into the way in which change is likely to take place in the macro-society. In this Chapter the extant position in the mine social system will be presented leading up to the analysis of the change component. The first section will deal with the findings on black workers' quality of life and the changes effected by mine management to improve their quality of life. This is followed by a discussion of black mineworkers' reactions to the changes in the light of managements' power base.

The second section will present a discussion on whether the propositions put forward in Chapter 5 have been supported.

(a) The quality of life of the black mineworker

The living conditions on the mines had the potential for providing for the needs of the residents: hostels were roomy and comfortable and very good quality food was purchased. Minor problems - more in the nature of irritations - arose from the exigency of meeting the needs of over 10 000 men from different cultural backgrounds, especially with regard to the cooking of food. Moreover, it would appear that the needs of the majority of the workers were met, and they expressed their satisfaction with the quality of their hostel life.

Major problems which arose appeared to affect only a small percentage of workers. These men were usually the late returnees to the hostel who had been delayed underground by the production supervisors, and who consequently arrived on surface late in the afternoon.

They found, inter alia, that, the water in the change houses was cold and that the food was cold if they arrived at a dining hall after peak periods. Standing alone, complaints of this nature, while irritating and needing attention, were not likely to have resulted in a confrontation with management. On the other hand, however, a problem in one particular area could have had a "ripple" effect on the flow of men through other facilities. The problem of late hoisting, as raised in the consultative committees, is a good example of this.

The workers returning late had to shower in cold water, missed choice food items such as meat and vegetables, were too late to draw their wages at the pay office, were too late to send money home as the post office was closed and arrived late for sporting functions.

This misuse of the hostel facilities and neglect of the needs of a small percentage of workers - because of the size of a mine, this group could have numbered between 500 and 1 000 men - stamps of administrative inefficiency and a lack of real concern for the workers. Procedures should have been instituted to deal with the needs of workers who through no fault of their own were delayed underground. The authorities did not monitor whether these needs were being met, and when workers complained about the conditions, scant concern was shown for their problems. As many workers at some time or other during their sojourn on the mines experienced the problems associated with late arrival at the hostel, they could identify with the men who experienced these problems. Thus, although the facilities were of a good standard, they did not lead to a high quality of life for all the workers, and many were dissatisfied.

The working conditions were poor - such conditions are to be expected in a primary industry - however, the deprivations experienced by the men were intensified by the behaviour of some of their white supervisors. Many men were required to work longer than the stipulated hours at the rock face, they were not given a chance to rest, they had no nourishment while at work, they were cajoled to work harder, shouted at, sworn at and assaulted. Moreover, they spent long hours away from the hostel waiting for hoists and for transport to the work place. Grievances lodged against white supervisors were not dealt with satisfactorily or were met with reprisals, consequently many men did not complain.

The conditions of employment on mines also caused workers problems: they held their jobs at the discretion of the hostel manager who could arbitrarily dismiss them without a fair hearing. They experienced problems with long pay cycles - they needed to send money home to their families - non-payment or short payment of bonuses and for overtime.

The data in the last two paragraphs testify not only to a lack real concern for the welfare of the workers but also to a misuse of power by the mine authorities.

Finally, workers referred continually to the need to be with their families, to spend more time at home, and to the need for close contact or ties with their homes and families. The separation from the family - a major issue mentioned by Wilson (1972) - had been exacerbated by the increase in the length of workstays. The need for love and caring is a basic human need. It is postulated that unless workers had more time with their families, the families would begin to urbanize and "squat" near mines as has happened in the Western Cape and Durban. Mining and the macro-society could be faced with squatting resulting from increased stabilization of the workforce and the socio-economic situation in the rural areas. The need for family ties will find expression in some other form if the usual avenues are blocked.

The changes introduced by mine management were mainly to the physical facilities - the installation of piped music in rooms, television, panelled wall heaters, the reduction of the number of men per room, better sports facilities etc.. These were mostly changes which could be observed, photographed, and reported to shareholders and critics, changes that management was prepared to make without endangering its own position on the mine; yet they were not the workers' major concerns. Their concerns pertained mostly to their inter-relationships between whites and the way in which whites regarded them - at times a chattel at times paternalistically, but hardly as full persons with human dignity and worth.

For management to have effected changes to the inter-relationships problem would have entailed its being prepared to admit that the negative features existed on the mines - and had existed for many years - and would also have meant that it would have to take action against its white employees to rectify the problems. The mining industry has generally been considered to be conservative in its outlook to human relations (Commission of Inquiry, 1979). Consequently, it would not have taken the initiative with such reforms if this would lead to confrontations with whites and strikes and subsequent loss in production. It was prepared rather to allow the black mineworkers to suffer, as in the extant situation this was the more viable option.

(b) Have the propositions been supported?

The findings have also realized three major groups of black workers on the mines and two different reactions from mine management:-

Group one were those men who considered themselves lacking in self-worth in the mine system - they said that they "could not make it in life" - they felt that there was no possibility of making progress in their jobs, moreover, they were despondent and depressed when they thought of their position in the mine system (Proposition (i)). These men considered themselves fortunate simply to be working and earning a living which offered them an opportunity to support their families, educate their children and prepare for a second career nearer their homes and families.

However, despite this positive view of mining in general as a provider, theirs was not an unquestioned acceptance of all the conditions on the mines: conditions which led to a low quality of life were reasons for lodging grievances. Furthermore, when considering themselves in relation to workers in secondary industry, they felt deprived because of their estrangement from their families.

Although they felt aggrieved, these men were resigned to their status on the mines and consequently tended to comply with the expectations of white mine management. They perceived little chance of bringing about change to their quality of life themselves, but looked to mine management to do so. They perceived their choice as being to stay on the mines long enough to earn enough money so that they could withdraw and start a second career nearer home: although it is conceivable that some would have stayed on in the industry and endured the indignities for want of an alternative source of income.

Group two: The aspirations of these men for better working and living conditions had been heightened by the changes that had taken place to certain aspects of mining which they envisaged would be continued into other facets. When these expected changes did not materialize and in some cases where conditions actually deteriorated - worker became particularly disgruntled. Firstly, they tried to pressure mine management to bring about the desired changes by lodging their grievances through the mine-instituted channels for grievance resolution. Although they raised the same issues time and time again, mine management did not act upon these complaints because they were counter to declared policy - such policies were considered to be non-negotiable. Faced with this intransigence and a quality of life which had declined from what they had been led to expect, many workers considered their situation untenable. However, they could not perceive any way to change this dispensation (Proposition (iii)); consequently they broke their contracts by leaving the mines and returning home. The position of these men is illustrated by the following quotation:

We all live in societies that depend upon our belief in them and the belief of others. Without that belief they afford no shelter. (Kermode, E Why 'King Lear' is the cruellest play, The Listener, BBC Publications, London, 16 September 1982)

Other forms of withdrawal from the mine system also took place; some men were habitually late for work, some reported ill for work - this may have been a psychosomatic condition - some absented themselves from work without permission, some became recalcitrant and refused to obey legitimate instructions from their supervisors, worked at a reduced pace or produced sub-standard work, all of which often led to their dismissal. Some requested transfers to other mines where they hoped conditions would be better.

However, these acts of withdrawal did not bring about the desired changes, for the mining industry set about rectifying the symptoms of their behaviour - absenteeism, desertion, low productivity - instead of the causes of such behaviour, and instituted more draconian measures for dealing with "absentees", "deserters" and "malingerers".

There were two management reactions to pressures for change which can be equated with different positions of power from which it acted. In the first position management had few checks on its power and authority, received the support of the white macro-society and used this power to constrain the actions of workers, and generally treated them as though they were the inmates of a total institution. Its reaction to pressure was to bring about peripheral changes, (Proposition (ii)).

Those workers who tried to change this dispensation were branded as agitators or liberals because they did not conform to the subservient behaviour expected of them : management, using its almost absolute power, ejected such "undesirables" from the mine system.

Before dealing with the second position of power from which management acted, a description of the third group of black mineworkers will be given and their resources to effect change

Group three were men who were also dissatisfied with the quality of their lives on the mines but had decided to stay on and try to effect change through the resources available to them (Proposition (iv)). They faced the same choice as that which Benjamin Franklin so succinctly summarized for his fellow signatories of the Declaration of Independence: "We must indeed all hang together or, most assuredly, we shall all hang separately", and consequently used the unitary base of the mine hostel and their work gangs to band together and take concerted action which forced their grievances into the open arena.

These men after lodging complaints repeatedly against mine management's policies, procedures and practices decided to force management's hand when no action was taken. The following strategies were used : the men went on strike, threatened to use explosives to blow up underground mining installations, pushed heavy equipment down the shaft, held mine officials as hostages, went on the rampage and destroyed mine property and set fire to buildings. In these moments of crisis there was a paradigm suspension - mine management was prepared to meet the general body of workers to negotiate terms for them to return to work and continue with production. In such instances the workers took the initiative as the balance of power was tilted in their favour; moreover it was not always necessary for such acts of aggression to take place for management to act, it was usually sufficient for the threat to be present of a large-scale disruption to production schedules to achieve a response from management. In Barrington Moore's (1978) terms, they had broken the sense of inevitability in their lives allowing them to pressure for change.

The second position of power from which management had to act was considerably weaker than the first; it was aware that workers by their concerted action could wreak considerable damage to mine property and cause loss of production through strikes and go-slow tactics (Proposition (v)). Moreover, it had experienced situations where workers had gathered in force on the mine and had demanded to place their grievances before decision-makers. It had had experience of capitulating to worker demands and was well aware that it had lost the initiative because the workers, in such a militant mood, were uncontrollable.

The above behaviour of black mineworkers was taking place against a background of change in the socio-economic conditions of the country - lack of overseas capital for expansion, the shortage in skilled manpower, the rise in working costs of production, low levels of productivity, the loss of confidence in South Africa of overseas investors - which has had a profound effect on executives and on their attitudes and behaviour towards black workers.

Without the means to sustain protracted widespread dissent, which could have a major influence on the white administrators's profits and their quality of life - and incidentally also cause much grave hardship among blacks - it is unlikely that change will be achieved. However, when decision-makers' options begin to disappear, solutions which at one stage were unthinkable become viable alternatives and they become ready for change.

It has been established that the propositions put forward in Chapter 5 have been supported by the findings. The three different groups of mineworkers identified had totally different responses to mine management's power strategies within the total institution. The first group of men like the miners in George Orwell's The Road to Wigan Pier who were not even aware that they were deprived. This was the acquiescent, grateful group who tolerated stoically a low quality of life and the indignities associated with mine managements misuse and abuse of power as they regarded this as their lot. On the other hand, the second group was well aware of its deprivations. However, because of their tenuous position in the mine society and economic necessity, these men registered their dissatisfactions in the form of covert behaviour. Such behaviour did not elicit the desired reaction from management as there was no threat to its power base: it was viewed rather as recalcitrant or aberrant behaviour which needed to be eradicated. Consequently, this group could not effect changes to its social position.

This latter reaction was not a group reaction per se, but rather the behaviour of individuals within a group. This behaviour was in sharp contrast to the third group who realised that if men acted collectively they were strong. The disturbances started by this group instilled fear in management for the safety of its property and for continued production. In such cases the group took the initiative and management lost control and capitulated to its demands.

The implications of change for the continuance of the extant mine system - and the extant system of the macro-society - are presented in the Conclusions.

CHAPTER 12. CONCLUSIONS

Two time phases can be identified in the nature of a South African mine as a social system, both of which are associated with the total institution and how it has been invoked - successfully and unsuccessfully - to cope with different black mineworker responses to their deprivations.

In the past era, the mine society appeared to be in a state of equilibrium as the acquiescent group of workers was in the majority and the other groups in the minority. This era in mining can be equated to the colonial era in state administration where non-Westernized inhabitants were coerced into consensus. They were grateful simply to be earning a living and looked upon the colonial power with gratitude as the provider. This did not mean that there was no conflict between privileged and deprived during this era, but that such conflict was sporadic and low in intensity which permitted the authorities to contain it within the ambit of the total institution.

However, with the passage of time greater numbers of the former minority group - urbanized, industrialized, etc., - started to enter the mine social system and they changed their orientation from that of temporary sojourners - target workers - to permanent employees. Moreover, they were encouraged to do so by mine management who wanted to reap the benefits of their training and experience to increase productivity levels. The advent of this group changed the nature of the mine social system and the nature of the conflict : the conflict became less sporadic and more intense. Management found that the tried-and-tested power tactics of the total institution could be invoked to contain the covert behaviour of the second group of workers but were an inappropriate vehicle for dealing with group three - the militant group - whenever management was not in a position of power, for the total institution can only be maintained by force. Management began to realise that the total institution was an inappropriate model for achieving industrial peace as "human will, not force, is the basis of authority" (The roots of the social contract - p.6), so it started to dismantle many of the trappings of this model and agreed to accept a new paradigm - industrial democracy - which held prospects for so social change within the mine system.

Moreover, new events loomed on the horizon which posed even greater threats to management's privileged position than the fear of worker assumption of greater power. The very survival of mines as economic entities was threatened and if this problem was not combatted effectively, it would have meant the loss of privilege and a lower quality of life for white mine management.

Mine management had a "trade-off" to make: it would have to make some accommodation to the black workers' quest for power, if it could enlist their aid in combatting the threat to economic decline. The new-found confidence in black workers could have originated from the realization that although they had little bargaining power in the formal mine-conceived institutions, they had in fact considerable power to negotiate outside these institutions. By conceding industrial democracy to them, for then it could formalize the bargaining process: this meant the ceding of a great deal of formal power, but it could place a fetter on the uncontrollable nature of worker strikes and riots.

The "trade-off" would also mean admitting the top echelon of the black workers to work shoulder to shoulder with whites and to share some of the privileges and benefits of increased status and authority. Management was prepared to concede some of its own privileges to allow this as it had developed considerable confidence in the black worker. It had dismantled some of the trappings of the total institution to no great adverse effect - black workers had reacted responsibly to these concessions. Moreover, some black workers had shown their mettle by penetrating into white-controlled jobs in industry and on mines, and had engendered respect for their skills and ability which held promise to mine management for meeting the skills shortage.

Management appeared to be prepared to accept a greater balance in power with black workers, which would inevitably lead to a sharing of some of its privileges and would entail a slight lowering of its quality of life. It was also prepared to pressue the government-of-the-day to remove many of the restrictions on black worker advancement if this meant that it would encourage them to act as allies in combatting the "new-found" foes.

It also realised that by dismantling many of the discriminatory aspects of labour practices it could accede to the wishes of overseas business associates and convince them that through this path of reform they would regain confidence in the stability of the country and once again be prepared to invest capital which would in turn lead to greater economic growth.

It is postulated that as these changes are precursors to further significant changes to the quality of life of black workers and that as black workers enter the white-dominated jobs and gain more and more concessions, the face of the mine society will change, for they will eventually fill jobs on an equal basis with their white counterparts and begin to pressure for an equally high quality of life.

This thesis is an exposition of how the dominating force in a total institution has operated to maintain its power base and thus its privilege; the strategies it has used to subjugate the powerless group in the total institution and of the nature of the deprivations experienced by the powerless group. However, latterly there are signs of the emergence of a new paradigm which could upset the power base of the dominating force. Thus the thesis is also concerned with how change is effected in a total institution where great power imbalances exist so that the powerless group will attain some of the privileges enjoyed by the power-holders.

Barrington Moore (1978) postulated that in such a situation the interested parties alone could not bring about the change, but that an external agent would need to intercede to force the issue of reform. This is likely to hold true in the mine society if the force enacting on mine management - fear of economic stagnation, fear of rising working costs, and others mentioned above - could be categorized as external agents. Coupled with the pressure from these forces, has been the ascendancy of the powerless group - they have attained a greater measure of power by force or the threat of force - and the steady decline in power of the dominant group who have been forced to capitulate to the various pressures.

The challenge to the power base of the oppressor by the deprived group appears to be an essential component of the change process in a total institution, provided that such challenges are seen to be justified. This aspect of the change process was well illustrated in two recent cinematograph films "Taps" and "Brubaker" - both were based on true incidents. In "Taps", young army cadets took possession of their camp armoury and then beleaguered their camp in an attempt to highlight a grievance and reverse a policy decision made by the army hierarchy. This seizure of power enabled them to administer their closed society as they wished, but they lacked the moral support of their macro-society - who regarded them as rebellious youths - to sustain the power struggle against the might of the army authorities: consequently, the authorities felt justified in quelling the insurrection with force.

In "Brubaker", convicts rebelled against poor prison conditions and treatment at the hands of warders, and managed by rioting and destruction to take over the prison. They had some moral justification for their insurrection but this was nullified to a great extent because of divided sympathy for their cause - the men were mostly long-term criminals serving court sentences for murder, rape and other heinous crimes against society - and as the general public was not fully aware of the conditions in the prison which gave rise to their revolt.

Neither of these groups could sustain their power tactics for long periods because the institution had the resources and support of its macro-society - moreover the moral justification - to quell the revolt and to reinstate its power. The difference between the situations in these two total institutions and the situation on a mine lay in the erosion of mine management's moral justification for treating black mineworkers as serfs, and in its own questioning of the need to maintain the mine as a closed society; in fact, mine management had begun to realise that it was in its own interests to open up the mine society for blacks. The removal of legal and social barriers would enable black workers to be trained better and allow them to enter occupations where there was a shortage of skilled manpower. This could resolve industry problems with low productivity, high working costs and the skilled manpower shortage, while at the same time convince overseas investors of the progress towards a more just society which could lead to their renewed confidence in investment developments.

It is postulated that change in the South African macro-society will take a form resembling that of the mine micro-society, where the society loses its moral justification for maintaining black people in a subservient position, where economic and social forces make it more expedient for more and more black people to be accepted in the work and social sphere, and where the power of black people to affect deleteriously the quality of the lives and the privilege of the power-holder will become more manifest through disruption and disorder. This will make the alternative, their acceptance as full citizens, a real alternative.

The prospective change entailed the dismantling of many features of the closed society and their replacement by more open systems of administration, which with their checks and balances, could obviate many of the malpractices described above and assist with the attainment of an adequate quality of life for all.

APPENDIX I

RESULTS OF STATISTICAL TESTS (1) CARRIED OUT ON VARIABLES

TITLE OF TABLE	LEVELS OF SIGNIFICANCE OBTAINED (2)			IMPLICATIONS DRAWN FROM RESULTS
	POPULAR/UNPOPULAR MINE	SUPERVISOR/ NON-SUPERVISOR	MORE EDUCATED/ LESS EDUCATED	
Who workers compared themselves with in mining	- (3)	$\chi^2 = 14,98$; df=6 (4)	-	Non-supervisors felt more deprivations than supervisors
Who workers compared themselves with outside mining	-	-	$\chi^2 = 31,289$; df=20	More workers with more education were inclined to compare themselves with workers outside of mining than were workers with low level of education
Favourable aspects of other mines. Number of times each aspect mentioned Total for both mines	-	-	$\chi^2 = 17,068$; df=9	Most workers with low levels of education held more favourable views of other mines than did workers with more education
How the popular mine compared with other mines	} Favourable aspects	$\chi^2 = 41,614$; df=2	-	More workers on the unpopular mine were inclined to view aspects on their present mine to be worse than were workers on the popular mine
How the unpopular mine compared with other mines				
Unfavourable aspects of the mines, number of times each aspect mentioned Total for both mines	-	-	-	No significant difference for all three variables
How the popular mine compared with other mines	} Unfavourable aspects	$\chi^2 = 7,347$; df=2	-	More workers on the popular mine were inclined to view aspects on their mine to be better than were workers on the unpopular mine
How the unpopular mine compared with other mines				
How conditions on the popular mine compared with eighteen months before	}	$\chi^2 = 17,365$; df=2	-	More workers on the popular mine felt that aspects had changed for the better compared with eighteen months before than workers on the unpopular mine
How conditions on the unpopular mine compared with eighteen months before				
Favourable aspects of Secondary Industry. Number of times each aspect was mentioned Total for both mines	-	-	-	No significant difference for all three variables
How the popular mine compared with secondary industry	} Favourable aspects	-	-	No significant difference for all three variables
How the unpopular mine compared with secondary industry				

APPENDIX 1 (CONTINUED)

RESULTS OF STATISTICAL TESTS (1) CARRIED OUT ON VARIABLES

TITLE OF TABLE	LEVELS OF SIGNIFICANCE OBTAINED			IMPLICATIONS DRAWN FROM RESULTS
	POPULAR/UNPOPULAR MINE	SUPERVISOR/ NON-SUPERVISOR	MORE EDUCATED/ LESS EDUCATED	
Unfavourable aspects of Secondary Industry. Number of times each aspect was mentioned. Total for both mines	-	-	-	No significant difference for all three variables
How the popular mine compared with secondary industry	-	-	-	No significant difference for all three variables
How the unpopular mine compared with secondary industry				
Workers opinions on who can bring about change on their mines	-	$\chi^2 = 6,505; df=1$	-	More supervisors were inclined to believe that outsiders from the mine can bring about change than were non-supervisors
Why the current dispensation for dealing with workers' grievances does not bring about change on the mines	-	-	-	No significant difference for all three variables

1. The chi-square test was the statistical test applied.
2. Significance was tested at the five per cent level.
3. "-" indicates that the differences between the variables were not significant.
4. Where the differences are significant the value of the chi-square statistic and the degrees of freedom are mentioned.

APPENDIX II

DEFINITIONS OF TERMS USED
IN THE CODING SHEET

REFERENCE NUMBER FOR MINE PURPOSES (COMPANY NUMBER)		Mine Overseer Work section number		Novice Returnee with Re-Eng Certificate Returnee ex mine Returnee ex other mine				Age (in years)		Years Schooling		Region of Origin		Present Job Code		Length of stay in contact (months)		Reason for disciplinary action		Nature of grievance		Separations or Exits	
				1	2	3	4																
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							
21																							
22																							
23																							
24																							
25																							
26																							
27																							
28																							
29																							
30																							

1. EXITS

Code

- 01 45+ WEEK: Any man who has worked more than 44 weeks and is granted the corresponding return certificate.
- 02 26 - 44 WEEK: Any man who has worked between 26 and 44 weeks and is granted the corresponding return certificate.
- 03 NORMAL EXIT: Any man who has completed his contract and states his intention to leave, but has not given a return certificate for any reason.
- 04 DISMISSAL: Any man who is dismissed, whether he has completed his contract or not, and does not receive a return certificate.
- 05 LEAVE GRANTED: Any man who is granted leave and written off strength.
- 06 ACCIDENT/ILLNESS: Where the accident or illness is serious enough to write the man off strength.
- 07 TRANSFER TO ANOTHER MINE: A man who is written off strength when transferred to another mine.
- 08 DESERTER/GAOLED: Any man written off strength for deserting or being gaoled. (A deserter is a man who leaves without mutual consent).
- 09 CONTRACT BREAKER: Any man who has not completed his contract and is discharged by mutual consent.

2. DISCIPLINARY ACTION

Code

- 01 POOR QUALITY OF WORK: A complaint about the standard of work done.
- 02 LOAFING AT WORK: When a man goes to the wrong working place or a complaint is lodged against him for standing around and not working at all or for not doing sufficient work.
- 03 A.W.O.P.: (Not clocking in without permission).
- 04 HOURS OF WORK: A complaint about a man who arrives late or leaves early.
- 05 FAILURE TO OBEY INSTRUCTIONS:
- 06 INSOLENCE (CHEEKY): Any complaint about a man who is insolent but does not get involved with using insulting language. Includes silent insolence.
- 07 INSULTING LANGUAGE: Swearing, etc.
- 08 ASSAULT: Any man who is disciplined for assaulting another person.
- 09 RETURNEE DESERTER: Any person who, having been written off strength as a deserter, returns and is reprimanded.
- 10 DRUGS/ALCOHOL: Any person who is reprimanded for being in possession of drugs or alcohol in the hostel or for being under the influence in the work situation, or for having caused an incident in the hostel as a result of drugs or alcohol.
- 11 THEFT:
- 12 GAMBLING: Any person reprimanded for gambling.
- 13 SODOMY:
- 14 SLEEPING ON DUTY:
- 15 ARREST OUTSIDE MINE: Where a man has been arrested and not charged and is then reprimanded by appropriate mine official.
- 16 OTHER

3. GRIEVANCES

Code

- 01 PROMOTION OPPORTUNITIES: Any person requesting a change in occupation to a higher category including persons granted promotion or who complain about lack of promotional opportunities in general.
- 02 TRANSFER REQUEST: Any person wanting a transfer to another gang or section or complaining about not being granted a transfer.
- 03 COMPLAINT RE TRANSFER: Any person complaining about a transfer after it happens.
- 04 RATE OF PAY: Any person complaining about the rate of pay currently received.
- 05 INCREMENT: Any person complaining about a pay differential for the same class work and/or service or who has not received his service increment or who has had a promotion or change of work without a change in rate of pay.
- 06 BONUS: Any complaints re production bonus payments. (Any other bonus or pay e.g. early return, first aid or sick pay to be categorised under OTHER BONUS AND PAY - Code 39).
- 07 OVERTIME: Complaints about overtime including pay or not wishing to work overtime or requests for overtime.
- 08 COMPENSATION: Any complaints regarding medical or injury compensation (work related).
- 09 DEFERRED PAY: Any complaint re the administration or amount of deferred pay.
- 10 REMITTANCES: Any complaint re remittances.
- 11 SAVINGS: Any complaints re savings.
- 12 WORK SUPERVISORS (BLACK): Any complaint re a Black supervisor. (This does not include complaints from a man who has been brought for disciplining).
- 13 WORK SUPERVISION (WHITE): Any complaint re a White supervisor or other White personnel excluding assaults.
- 14 PERSONNEL DEPARTMENT: Not applicable.
- 15 WORKMATES: Any complaint re his workmates in the work situation excluding assaults.
- 16 ENVIRONMENTAL CONDITIONS: Any complaint re the environmental conditions in the work situation.

- 17 WORK ARRANGEMENTS AND EQUIPMENT: Any complaint re work arrangements (travelling, waiting, etc.) or equipment.
- 18 LATE CAGES:
- 19 THEFT: (In the work situation.)
- 20 ASSAULT (WORK): Refers to assault underground and includes sexual assault.
- 21 WORK CHANGE REQUEST: Any person requesting another class of work (not on promotion) or complaining about request not being granted.
- 30 HOSTEL STAFF (BLACK): Any complaints re hostel staff including cooks, tribal representatives, indunas, clerks in Black Time Office, etc.
- 31 HOSTEL STAFF (WHITE): Any complaints re White hostel staff.
- 32 ACCOMMODATION: Any complaints re the living conditions in the rooms, e.g. clothing storage, bunking, physical condition of rooms, etc.
- 33 PREPARED HOSTEL FOOD: Any complaints regarding the cooking, preparation and serving of food at the hostel kitchen.
- 34 RATIONS: Any complaints re the amount, type or quality of food issued to the rooms.
- 35 ROOM-MATES: Any complaints re treatment, behaviour, etc. of persons staying in the same room.
- 36 PERSONAL: Any complaint of a personal nature which is outside the control of the mine staff other than family matters.
- 37 ROOM CLEANLINESS:
- 38 THEFT: (In the hostel situation.)
- 39 OTHER BONUS AND PAY: Any complaints re non related work bonus and/or pay e.g. early return bonus, first aid bonus, sick pay, etc.
- 40 HOSTEL RESIDENTS: Complaints re persons other than those in own room.
- 50 LEAVE: Any person who requests any type of leave and is refused.
- 60 ASSAULT (HOSTEL): Any assault which occurs in the hostel environment including sexual assault.
- 61 ASSAULTS (OFF MINE): Complaints concerning assaults which take place on the farms or outside the gates.
- 70 CONTACT WITH HOME: Complaints re lack of contact, problems with contact, family matters at home, etc.

80 OTHER: (Hostel situation)

Note 1. DISCIPLINARY CASES

If a disciplinary case is related to a hostel matter then use code 09 in the column marked "Mine Overseers Work Section".

Note 2. GRIEVANCES

(Mine Overseers/work section number to be recorded for grievances in hostel situation. This will enable management to see if men from certain work sections are complaining about hostel matters more than other sections. i.e. Is there a relationship between work section and hostel complaints?)

APPENDIX III

A DAY IN THE LIFE OF FIFTY-TWO BLACK UNDERGROUND MINeworkERS
MINE A

1. TEAM LEADER

A.1

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
21h30-21h36	Getting up and making bed	6 mins.	Wake up very early because there is no broadcast system in hostel to wake people up.
21h36-21h45	To change house and dressing ready for work.	9 mins.	
21h45-21h52	To crush on foot	7 mins.	Not happy with the computerized crush system that books workers absent even when they are at work.
21h52-00h24	Waiting in crush	2 hrs & 32 mins.	Waited at crush for a long time to hear my shift being called. This is because there is no broadcasting system to wake workers up in the hostel. Afraid that I might fall asleep again.
00h24-00h27	Crush to bank.	3 mins.	On this particular day we waited a short time for cages. Normally we wait an hour or longer.
00h27-00h40	Waiting for cage.	13 mins.	
00h40-00h43	In cage to station.	3 mins.	
00h43-00h51	To work place on foot.	8 mins.	
00h51-01h15	Prepare for work.	24 mins	Knocked off early as there was not much to be done. Tips full of ore as loco crew did not empty them. Normally we knock off at 09h30 which is a long day indeed.
	Working time.	5 hrs. & 45 mins.	
07h00	Stopped work.		
07h00-07h41	Arrive at station.	1 hr 2 mins.	Arriving in hostel after 08h00 we do not get food as the mini dining halls are closed already. It is now a week that we have not been getting food in the mornings.
07h55	Arrive on surface.		
08h02	Arrive at hostel.		
08h02-08h40	Change and prepare work clothes.	After work activities. 1 hr 58 mins.	Long hours each day do not give me time to attend to my personal matters.
10h00	To bed.		
		Sleeping time 11 hrs 30 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h36-04h41	Getting up and making bed	5 mins.	Preparing to go to work	I used to get up at 05h30, but since the computerized crushing system was introduced, I get up at 04h00 so that I am not late for crushing, or I'll be booked absent by the machine.
04h41-04h50	To change house and washing	9 mins.	0 hrs & 47 mins.	
04h50-05h12	To dining hall and breakfast	22 mins.		
05h12-05h23	Changing to underground clothes - ready to leave.	11 mins.		
05h23-05h30	To crush on foot.	7 mins.	Getting from the hostel to the working place.	This computerized crushing system is the cause why there are long queues at the crush. People waste time crushing when they should have started with their work, because they get confused by the lights and bulbs of the system.
05h30-06h28	In crush.	58 mins.		
06h28-06h39	Waiting for cage.	11 mins.	1hr & 56 mins.	
06h39-07h19	To work place. on foot.	40 mins.		
07h19-07h30	Prepare for work.	11 mins.	Working time.	It is a daily thing to wait for the cages, but I cannot say what causes the delays. This is sickening after wasting so much time in the crush.
13h45	Working time.	6 hrs & 15 mins.	6 hrs & 36 mins.	
13h45-13h55	Stopped work.			
	Assembled tools for storage.	10 mins.		
13h55-14h27	From work to waiting	32 mins.	Getting from the working place to the hostel.	On coming up, the cage collected a few (4) whites and when we tried to get in, we were pushed out and told we could not mix with whites in the cages. This is very sickening when one thinks about it. We work with them but cannot travel in the same cage with them. One thing for certain is that without us there won't be any production, but whether they are there or not, blacks will always work.
14h27-14h39	To station on foot	12 mins.		
14h39-16h17	Waiting for cage.	1 hr & 38 mins.	3 hrs. & 13 mins.	
16h20	Arrive on surface	51 mins.		
17h08	Arrive at hostel.			On arrival in the hostel, there was only porridge in the dining hall, so we were made to wait for meat from the main kitchen. This is very disturbing indeed as there are other things to attend to.
17h08-17h40	To change house and washing.	32 mins.	After work activities	
17h40-18h03	To dining hall and eating.	23 mins.	2 hrs. & 52 mins.	
	Leisure time.	1 hr. & 57 mins.		
20h00	To bed.	Sleeping time	10 hrs & 33 mins.	There is a lot of stealing at the change houses. People call the number of a locker, and the clerk there just gives them articles in there without checking who left the articles in there in the first place.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h36-04h42	Getting up and making bed.	6 mins.	Preparing to go to work 0 hrs & 21 mins.	wake up at different times daily because the man responsible for waking us up does not keep to a fixed time. I only have tea in the morning because I cannot work properly if I have porridge or bread.
04h42-04h50	To change house and dressing - ready to leave.	8 mins.		
04h50-04h57	To dining hall and breakfast - ready to leave.	7 mins.		
04h57-05h07	To crush on foot.	10 mins.	Getting from the hostel to the working place 1 hr. & 58 mins.	We wait long at the crush because everybody on day shift is woken up with all others, thus causing congestion at the crush. And when everybody is there, the cages start with certain sections first, so others have to wait.
05h07-06h28	Waiting at crush.	1 hr & 21 mins.		
06h28-06h35	From crush to bank.	7 mins.		
06h35-06h39	Waiting for cage.	4 mins.		
06h42-06h55	To work place on foot.	13 mins.		
06h55-07h15	Collect work tickets and prepare for work.	20 mins.	Working time 7 hrs. & 0 mins.	
	Working time.			
13h45	Stopped work.			
13h45-13h55	Issuing work tickets.	10 mins.		
13h55-14h05	To station on foot.	10 mins.	Getting from the working place to the hostel. 2 hrs. & 50 mins.	On coming up, I had to wait over two hours for cages. I do not know what causes the delays but I believe that this being a new mine, there are only two cages here for transporting workers and materials to surface or underground. Arriving on surface, I have to wait for some time at the crush to make sure that all my workers have crushed out.
14h05-16h20	Waiting for cage.	2 hrs. & 15 mins.		
16h23	Arrive on surface.			
16h45	Arrive at hostel.			
16h45-16h55	Changing clothes.	10 mins.	After work activities. 4 hrs & 15 mins.	Coming to the hostel, I had to wait a long time at the kitchen because it was not yet open. It only opens at 17h30 and by that time many people have already lined up in the queues waiting for the kitchen to open. This is disturbing after the long hours underground.
16h55-17h20	To dining hall and eating.	25 mins.		
	Leisure time.	3 hrs & 50 mins.		
21h00	To bed.		Sleeping time.	Before going to bed, I have whiled away time one way or another as I wait for people on night shift to leave so that I can sleep with a minimum of noise.
			7 hrs & 36 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h36-04h42	Getting up and making bed.	6 mins.	Preparing to go to work	I usually get up at this time to have enough time to wash and have breakfast.
04h42-04h50	To change house and dressing.	8 mins.	0 hrs & 21 mins.	
04h50-04h57	To dining hall and breakfast - ready to leave	7 mins.		
04h57-05h07	To crush on foot	10 mins.	Getting from the hostel to the work place.	I have to wait at the crush to see that all my men have gone down and then collect gang cards from the clocking machine. I wait for a longer time at the crush because other sections have to be taken down first and this results in us getting to work late.
05h07-06h28	In crush waiting for shift to be called.	1 hr & 21 mins.		
06h28-06h35	From crush to bank.	7 mins.	1 hr & 58 mins.	
06h35-06h39	Waiting for cage.	4 mins.		
06h39-06h42	In cage to station.	3 mins.		
06h42-06h55	To work place on foot.	13 mins.		
06h55-07h15	Prepare for work.	20 mins.	Working time	We start at the waiting place by collecting work tickets from gang members to make sure that they are all at work, since others have a tendency of turning back to the hostel after crushing. This causes further delays in starting with our work. We are understaffed and all men have to pull hard to get the job done. Actually everybody in the gang has several tasks to perform instead of one particular task.
	Working time.		7 hrs & 0 mins.	
13h45	Stopped work.			
13h45-13h55	Assembling tools for storage and issuing w work tickets.	10 mins.		
13h55-14h05	To station on foot.	10 mins.	Getting from the working place to the hostel.	We always have to wait a long time for cages because they hoist whites first, and if we blacks try to get in the same cage with whites, the whites assault us.
14h05-16h20	Waiting for cage	2 hrs & 15 mins.		
16h20-16h23	In cage to surface.	3 mins.	2 hrs & 50 mins.	
16h23-16h31	In queue for crush.	8 mins.		
16h45	Arrive at hostel			On reaching surface I first go to the masiza to confer with him about my gang complement and only reach the hostel much later - which is a waste of time. At times I reach the hostel at 16h30 and one has enough to do to change clothes and eat, and cannot go to town to do shopping.
16h55-17h15	To dining hall and eating.	20 mins.	After work activities.	At times arriving late in the hostel we find that the dining hall is closed and I have to go without food - that means going hungry until the following morning when I go for breakfast.
	Leisure time.		4 hrs & 5 mins.	
21h00	To bed.			
		Sleeping time.	7 hrs & 36 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
14h40	Getting up		Preparing to go to work	
14h40-14h47	To change house and dressing - ready to leave	7 mins.	0 hrs & 7 mins.	
14h47-14h54	To crush on foot	7 mins.	Getting from hostel to work.	On this shift we do not queue for long at the crush as there are not many of us.
14h54-15h54	Waiting for cage.	1 hr.	1 hr & 13 mins.	Daily we wait for cages for an hour or more. I do not know what causes the delays. Perhaps it is how they operate on this mine. This makes us arrive late at work.
15h54-16h00	To work place on foot.	6 mins.	Working time.	
	Working time.		7 hrs 00	At work we are harassed by the miner and the shift overseer as they want us to finish the work quickly, irrespective of whether the cages are late or not. At times they even threaten to assault us; they insult us daily.
23h00	Stopped work.			
23h00-23h02	To station on foot.	2 mins.	Getting from the working place to the hostel.	Cannot comment much about the cages as this is a daily thing. In the afternoons we even wait for more than two hours. Do not know what causes the delays. Daily we arrive very late in the hostel and cannot attend to personal matters.
23h02-24h03	Waiting for cage.	1 hr & 1 min.	1 hr & 16 mins.	
24h11	Arrive on surface.			
24h16	Arrive at hostel.			On this shift we really starve. As you can see, I did not have a meal before going down. Due to the delays in cages, we arrive in the hostel very late and by that time the kitchens are closed, shops are closed, so there is nowhere we can get food. We have to go to bed on empty stomachs.
24h16-24h31	To change house and washing.		After hours activities.	
24h33-24h55	Looking for food at dining halls.		0 hrs & 39 mins.	The ladies serving food in the mini dining halls do not treat us like human beings. "They treat us like dogs." They usually give us very little food or a bone without meat and when you beg for more they ignore you. At times we have to wait in the queue for over 45 minutes while they are chatting to each other instead of serving food. They serve when they feel like it.
	No leisure time.			The complex administrators do not take our complaints, in fact they do not care about us. If one reports a complaint to them, they keep on postponing the case until one loses patience and leaves them alone.
24h55	To bed.			Looked for food at all the dining halls but found them all closed so I had to go to bed without food for the whole day.
			Sleeping time.	
			13 hrs & 45 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h23-04h28	Getting up and making bed.	5 mins.	Preparing to go to work	Woken up daily at about 04h30 by loud-speaker with all other workers on day shift, irrespective of which section should go down first. The person responsible for waking us up has no fixed time.
04h28-04h32	Dressing - under-ground clothes	4 mins.	0 hrs 27 mins.	
04h32-04h42	To change house and washing.	10 mins.		
04h42-04h50	To dining hall and breakfast - ready to leave.	8 mins.		
04h50-05h01	To crush on foot.	11 mins.	Getting from hostel to the working place.	On this day there were no queues in the crush, so I did not have to wait long for crushing.
05h01-05h05	From crush to bank.	4 mins.		
05h05-05h15	Waiting for cage.	10 mins.	0 hrs & 46 mins.	
05h15-05h18	In cage to station.	3 mins.		
05h18-05h36	To work place on foot.	18 mins.		I am not worried about the long distance from the station to the work place. There is no transport underground to take workers to their work places.
	Working time.		Working time.	
12h38	Stopped work.		7 hrs & 02 mins.	
12h38-12h57	To station on foot.	19 mins.	Getting from the working place to the hostel.	
12h57-14h26	Waiting for cage.	1 hr & 29 mins.		We always wait a long time for cages because other sections are hoisted first. We just have to wait for our turn. This is very disturbing because at times, especially on pay days, we miss our pay and cannot attend to personal matters because we arrive late in the hostel.
14h29	Arrive on surface.		2 hrs & 10 mins.	
14h48	Arrive at hostel.			
14h48-15h09	To change house and washing.	21 mins.	After work activities.	
15h09-15h56	To kitchen and eating.	47 mins.		
15h56-16h02	Washing work clothes.	6 mins.	2 hrs & 28 mins.	
16h02-17h16	To sports ground.	1 hr. & 14 mins.		
	Leisure time.			
21h00	To bed		Sleeping time.	
			7 hrs & 23 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
04h20-04h25	Getting up and making bed.	5 mins.	Get up early so that I can go to the dining hall before the queue becomes long.
04h25-04h31	Dressing.	6 mins.	
04h31-04h35	To change house and washing.	4 mins.	
04h35-04h43	To dining hall breakfast ready to leave.	8 mins.	
04h43-04h53	To crush on foot.	10 mins.	We do not wait long at the crush. We only wait long for cages. At times we wait from 04h30 to 05h15 before we can get a cage.
04h53-04h57	From crush to bank.	4 mins.	
04h57-05h10	Waiting for cage.	13 mins.	
05h10-05h30	To work place on foot.	20 mins.	
05h30-05h52	Prepare for work and wait for team leader.	22 mins.	Before we can start working we wait for the team leader to do his checks and have to wait again for the miner before we can start work. The miner arrives at 06h00.
	Working time.		
12h36	Stopped work.		
12h36-12h54	To station on foot.	18 mins.	We wait for 1½ hours for cages before we can be hoisted. We even fall asleep waiting for cages.
12h54-14h23	Waiting for cage.	1 hr & 29 mins.	
14h26	Arrive on surface.		
14h43	Arrive at hostel		We normally arrive at the hostel at 15h30. If we arrive earlier than that we find the kitchens closed, so we have to wait until they open at 15h30.
14h43-14h53	To change house and dressing.	10 mins.	
14h53-15h17	To dining hall and eating.	24 mins.	I have sufficient time to bath, wash my clothes and even to do my shopping.
	Leisure time.		
20h30	To bed.		Sleeping time.
			7 hrs. & 50 mins.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h30-05h41	Getting up and making bed.	11 mins.	Preparing to go to work.	Always get up at this time - not woken up by anybody - to have time to prepare so that the cage should not leave me.
05h41-05h59	To change house and dressing	18 mins.	0 hrs. & 44 mins.	
05h59-06h14	To dining hall and breakfast ready to leave	15 mins.		
06h14-06h23	To crush on foot.	9 mins.	Getting from the hostel to the work place	We wait for the cage for this long and even longer as other sections are taken down first.
06h23-06h25	On queue for crush.	2 mins.		
06h25-06h59	Waiting for cage.	34 mins.	1 hr & 6 mins.	
07h05-07h20	To work place on foot.	15 mins.		Working time.
07h20-	Prepare for work	5 mins.		
	Working time.		7 hrs. & 51 mins.	
15h01	Stopped work.			
15h01-15h11	Assembled tools for storage.	10 mins.		
15h11-15h21	To station on foot.	10 mins.	Getting from the work place to the hostel	We always have to wait long for cages in the afternoons as these cages are conveying material from surface to underground. At times we arrive on surface at 19h00 having knocked off at 16h00.
15h21-17h33	Waiting for cage.	2 hrs & 12 mins.		
17h38	Arrive on surface	5 mins.	2 hrs & 30 mins.	
17h41	Arrive at hostel	3 mins.		When we arrive late in the hostel we find that there is no food and have to spend the night without food. Right now we spent four days without food because of delays in cages.
17h41-17h57	Change and wash.	16 mins.	After work activities.	
17h57-18h25	To dining hall and eating.	28 mins.		
	Leisure time.	3 hrs & 22 mins.	4 hrs & 6 mins.	Sleeping time.
21h47	To bed.			
			7 hrs & 43 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h00-05h10	Getting up and making bed.	10 mins.	Preparing to go to work 1 hr. & 12 mins.	There is no broadcasting system to wake workers up. I always wake up at 05h00 on my own. I have my breakfast standing because if I could have it sitting down I might be late for the crush. I want to crush as quickly as I can to get to my work place on time. I hate having to wait a long time at the crush before I clock in.
05h10-05h30	To change house, showering and back to room.	20 mins.		
05h30-05h51	To dining hall and breakfast	21 mins.		
05h51-06h12	To room and dressing - ready to leave.	21 mins.		
06h12-06h21	To crush on foot.	9 mins.	Getting from the hostel to the work place. 1 hr. & 02 mins.	We always have to wait for the cages for a long time as other sections are being taken down. This is disturbing when one has woken up so early only to be delayed by cages. There is nothing we can do about this as it seems to be the normal practice here.
06h21-06h24	On queue at crush.	3 mins.		
06h24-07h02	Waiting for the cage.	38 mins.		
07h10-07h14	To work place on foot.	4 mins.		
07h14-07h22	Prepare for work.	8 mins.	Working time. 7 hrs. & 53 mins.	I do not know what causes delays in hoisting workers to surface, but this is a daily thing and at times we even wait longer than this. Coming late to surface means that on pay days I cannot get to the post office on time to post money home or even attend to my personal affairs.
	Working time.			
15h00	Stopped work.			
15h00-15h07	Assembled tools for storage.	7 mins.		
15h07-15h14	To station on foot.	7 mins.	Getting from the work place to the hostel 2 hrs & 34 mins.	Waiting at the crush again is disturbing after spending so many hours underground.
15h14-17h22	Waiting for cage	2 hrs & 8 mins.		
17h27	Arrive on surface.			
17h41	Arrive at hostel.			
17h41-17h54	To change house and dressing	13 mins.	After work activities 4 hrs. & 34 mins.	Arriving late in the hostel on pay days we find the pay office already closed and as such cannot get our money until after several days. This is very disturbing as we have come here to work for money so that we can support our families.
18h01-18h16	To kitchen and eating	15 mins.		
	Leisure time.			
22h15	To bed.			
	Sleeping time.		6 hrs. & 15 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h34-04h47	Getting up and making bed.	13 mins.	Preparing to go to work.	All workers on morning shift are woken up by a policeman with a loudspeaker moving from one complex to another. On this particular day I was woken up by room mates going on an earlier shift. Actually this is not my time for waking up.
04h47-05h27	To change house and dressing.	40 mins.	1 hr. & 13 mins.	
05h27-05h47	To dining hall and breakfast - ready to leave.	20 mins.		
05h47-05h55	To crush on foot	7 mins.	Getting from the hostel to the working place.	Waiting in the queue to be served in the morning is a waste of time as we have to start crushing at 05h30.
05h55-06h57	Waiting for cage.	1 hr. & 02 mins.		We always wait for the cage for a very long time, and at times longer than an hour. I do not know what the reason is for late cages, but this is a daily occurrence. This is very annoying as we have to wake up very early only to waste time waiting for cages.
07h04-07h11	To work place on foot.	7 mins.	1 hr. & 24 mins.	
07h11-07h15	Prepare for work	4 mins.	Working time.	
	Working time.		8 hrs. & 19 mins.	
15h30	Stopped work.			
15h30-15h35	To station on foot.	5 mins.	Getting from the working place to the hostel.	After work we again have to wait for cages for a long time which is very disturbing as I cannot do my shopping in town or wash my work clothes because we arrive on surface very late.
15h36-17h42	Waiting for cage.	2 hrs. & 07 mins.		
17h52	Arrive on surface.		2 hrs. & 29 mins.	
17h59	Arrive at hostel.			Waiting in the crush is another waste of time after the long hours underground waiting for cages.
				Arriving in the hostel at 17h59 means that I cannot get time to go for training and rugby practice, or to attend to personal affairs.
18h31-18h37	Change clothes.	6 mins.	After work activities.	
18h38-18h52	To kitchen and eating	14 mins.		Getting to the bar at 19h02 does not give me enough time to drink in a relaxed manner, because at that time there is very little time left before the bar closes. This is further compounded by the fact that no free beer rations are offered on this mine.
19h02-19h30	To bar.	28 mins.	3 hrs. & 16 mins.	
	Leisure time.			
21h47	To bed.		Sleeping time.	Working night shift is even worse because when I arrive at the hostel at 09h00 I find the kitchen already closed and have to spend the day without food. This is further compounded by the fact that we cannot cook our own food in the rooms as primus stoves are not allowed in the rooms.
			6 hrs. & 47 mins.	On afternoon shift I arrive in the hostel at 24h00 and find the kitchen open. But we find there is only porridge left and as one cannot eat porridge all by itself, it means going without food for the day.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
04h33-04h37	Getting up and making bed.	4 mins.	There is no broadcasting system to wake workers up. At times we have a police-man going from complex to complex, waking us up with a loudspeaker. So everybody wakes up in the morning irrespective of which section has to go down first.
04h37-04h55	To change house and dressing.	18 mins.	
04h55-05h06	To dining hall and breakfast - ready to leave.	11 mins.	
05h06-05h15	To crush on foot.	9 mins.	We usually have to wait for cages for over an hour as we have to wait for other sections to be taken down first. This is because there is too much congestion at the crush as everybody is woken up more or less at the same time. This is very disturbing as one wakes up very early only to go down much later.
05h15-06h21	Waiting for the cage.	1 hr. & 6 mins.	
06h24-06h41	To work place on foot.	17 mins.	
06h41-06h59	Prepare for work	18 mins.	
15h01	Stopped work.		
15h01-15h18	To station on foot.	17 mins.	On coming up it is the same story of waiting for cages, as other sections are hoisted first. This is disturbing because on pay days we miss our pay and cannot post money home.
15h18-16h31	Waiting for cage	1 hr. & 13 mins.	
16h34	Arrive on surface.		
16h45	Arrive at hostel.		
16h45-17h16	To change house and washing.	31 mins.	In the evenings I keep myself busy by sewing to give those on night shift time to prepare themselves and leave, because I do not want to be disturbed in my sleep.
17h16-17h32	To dining hall and eating.	16 mins.	
17h40-19h30	Leisure time - sewing.	1 hr. & 50 mins.	
22h04	To bed.		
		Sleeping time.	
		6 hrs. & 29 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h35-04h43	Getting up, making bed and talking with room mates.	8 mins.	Preparing to go to work.	We get up at 03h00, but I dislike it as I feel it is still too early for one to get up. But there is nothing I can do as this is the policy of the mine.
04h43-04h48	Putting on under-ground clothes.	5 mins.	29 mins.	
04h48-05h04	To kitchen, back to room and eating, ready to leave.	16 mins.		
05h04-05h09	To crush on foot	5 mins.		I was served with soup that I dislike very much because it is served while still "raw" and tasteless. The porridge is okay. There is nothing wrong with it.
05h09-05h13	At the crush	4 mins.		
05h13-05h22	Waiting for cages	9 mins.	Getting from the hostel to the working place	
05h22-05h26	In the cage to station.	4 mins.		I did not wait long for the cage to take us underground. It came on time.
05h26-05h44	From station to waiting place.	18 mins.	1 hr. 08 mins.	
05h44-06h04	At the waiting place.	20 mins.		
06h04-06h12	From waiting place to working place.	8 mins.		Arriving underground, I have to walk to the working place a distance of +30 minutes walk.
06h12	Working time.	7 hrs. & 13 mins.	Working time	
13h25	Stopped work.		7 hrs. 13 mins.	
13h25-13h30	From working place to waiting place	5 mins.		There is nothing wrong with my work or my working hours.
13h30-13h41	With team leader at waiting place	11 mins.		
13h41-14h01	From waiting place to station.	20 mins.	Getting from the working place to the hostel.	
14h01-15h27	Waiting for cages	1 hr. & 26 mins.	2hrs. 13 mins.	I dislike the delay in cages when we have to come back to surface in the afternoons. In the mornings the cages are just too quick to take us underground, but in the afternoons they always delay to bring us back. We wait for almost two hours for a cage in the afternoon. I do not know what causes these delays.
15h27-15h31	In cage to surface	4 mins.		
15h31-15h35	At the crush	4 mins.		
15h35-15h38	From crush to hostel.	3 mins.		I dislike these delays because we get up at night to go to work and come back at night after work, and as such we cannot attend to personal matters like taking parcels to the post office or visiting relatives, or even giving a friend a parcel to post for my kids.
15h38-15h44	Changing under-ground clothes.	6 mins.		
15h44-16h04	To change house, washing, back to room and dressing	20 mins.		
16h04-16h35	To kitchen, back to room and eating.	31 mins.	After work activities.	Getting to the kitchen, I ate the porridge which was good but the soup was not well prepared.
16h35-17h02	Relaxing in room	27 mins.	4 hrs. 37 mins.	
17h02-19h22	To beer hall and drinking.	2 hrs. & 20 mins.		
19h22-22h07	Back to room relaxing with room mates.	45 mins.		After relaxing I went to the beer hall to have some beer which was good indeed.
20h07-20h15	Leisure time.	8 mins.		
20h15	Off to bed.	8 hrs. & 20 mins.	Sleeping time.	
			8 hrs. 20 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
02h45-02h51	Getting up and making bed	6 mins.	Preparing to go to work	I get up at this time as I am woken up by the siren. There is nothing wrong with getting up at this time.
02h51-03h01	Putting on under-ground clothes ready to leave.	10 mins.	16 mins.	I had no time to eat because we are only given 15 minutes to get up, wash, prepare our beds and get dressed for work.
03h01-03h07	To crush on foot	6 mins.		
03h07-03h09	At the crush	2 mins.		The cage came on time today so I did not wait long to get one.
03h09-03h39	Waiting for cages	30 mins.		
03h39-03h45	In cage to station	6 mins.	Getting from the hostel to the working place.	I was delayed at the station because I had to change my trousers. The work place is very far from the station so we have to walk long distances before we reach it. By the time I start working I can already feel the effects of the distance I have walked.
03h45-04h20	Delays at station	35 mins.		
04h20-05h20	From station to waiting place.	1 hr.	3 hrs.	
05h20-05h35	At the waiting place	15 mins.		
05h35-06h01	From the waiting place to the working place	26 mins.		We usually knock off at 12h30. I think the working hours are too long. Perhaps we work long hours because of the amount of work to be done.
06h01	Working time	6 hrs & 14 mins.	Working time.	About my pay I feel it is very little for the type of job I am doing.
12h15	Stopped work.		6 hrs 14 mins.	More frustrating is the Masiza who refuses to promote us, saying that we have failed the aptitude test or that we are still too young to be promoted, say, to the rank of team leader.
12h15-12h25	From working place to the waiting place	10 mins.		
12h25-12h42	At the waiting place	17 mins.	Getting from the working place to the hostel	After working hours we have to walk long distances again to the station and go and wait for cages there. Today I did not wait long as I found it already loading men to take them to surface.
12h42-13h22	From waiting place to station	40 mins.		
13h22-13h28	Waiting for cages.	6 mins.	1 hr 28 mins.	
13h28-13h33	In cage to surface	5 mins.		
13h33-13h36	At the crush	3 mins.		At times we arrive at the hostel at 15h00. I think this is because our station has many men, so the cage has to take a few and then come back to take the rest.
13h36-13h43	From crush to the hostel	7 mins.		
13h43-13h47	Take off under-ground clothes.	4 mins.		Coming to the hostel, I have enough time for a shower, a meal and even to do my washing.
13h47-14h03	To change house, and back to room	16 mins.		
14h03-14h28	To kitchen, back to room and eating	25 mins.	After work activities	I am bothered about the soup they give us. It is not good at all and I do not like it.
14h28-14h39	Conversing with friends in room	11 mins.		
14h39-15h29	Out of hostel	50 mins.	5 hrs 37 mins.	
15h29-15h31	To beer hall	2 mins.		
15h31-16h06	In beer hall drinking	35 mins.		
16h06-16h09	Back to room	3 mins.		
16h09-16h49	Conversing with friends.	40 mins.		
16h49-19h20	Leisure time	2 hrs & 31 mins.		
19h20	Went to bed.	7 hrs & 25 mins.	Sleeping time	
			7 hrs 25 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h10-03h12	Getting up and making bed, ready to leave.	2 mins.	Preparing to go to work.	There is nothing wrong with getting up at 03h00, but I dislike it because it is still too early. I would like it if we could get up at 04h00. We get up at 03h10 because we are woken up by the siren.
03h12-03h20	To crush on foot	8 mins.	2 mins.	
03h20-03h43	Waiting for cages	23 mins.		
03h43-03h46	In cage to station	3 mins.	Getting from the hostel to the working place.	After getting up I get dressed and go to the crush. I do not wash as I usually wash when I return from work. I do not even eat breakfast as it is still too early to eat at that time.
03h46-04h12	At station waiting for loco	26 mins.		
04h12-05h37	From station to waiting place.	1 hr. & 25 mins.	3 hrs 0mins.	There was no delay at the crush and the cage was on time so we were also on time at work.
05h37-06h12	From waiting place to working place	35 mins.		
06h12	Working time	5 hrs & 48 mins.	Working time.	I waited for a long time for the loco to take us to our work place. The loco usually takes quite a long time to take us to our work places.
12h00	Stopped work.		5 hrs 48 mins.	
12h00-12h10	From working place to waiting place.	10 mins.		I do not know exactly when I should start working, so as soon as I arrive at my work place I start with my job.
12h10-13h00	From waiting place to station	50 mins.		
1300-13h46	Waiting for cages	46 mins.	Getting from the working place to the hostel.	We knocked off early at work but arrived in the hostel after about 2 or 3 hours, only because the cages were late. Cages usually are late when they have to take us to surface.
13h46-13h51	In cage to surface	5 mins.		
13h51-14h00	At the crush	9 mins.	2 hrs 06 mins.	I dislike arriving late in the hostel because this "pains my heart". We arrive in the hostel too tired and hungry, and when we go to the kitchen we are given bad food. The soup is not well cooked, it is so bad that we cannot eat it.
14h00-14h06	From crush to hostel.	6 mins.		
14h06-14h11	Take off underground clothes.	5 mins.		Even when one wants to do washing one cannot do it because of the delays in cages.
14h11-14h23	To change house, washing and back to room	12 mins.	After work activities	
14h23-14h53	To kitchen, back to room and eating	30 mins.	4 hrs 27 mins.	I went to the bar to have a drink as there was nothing else I could do. Well, there is nothing wrong with liquor.
14h53-15h20	From room to gate and idling at gate	27 mins.		
15h20-16h02	From gate to shops	42 mins.		
16h02-18h00	From shops to beer hall and drinking.	1 hr & 58 mins.		
18h00-18h33	Leisure time.	33 mins.		
18h33	Went to bed.	8 hrs & 37 mins.	Sleeping time.	
			8 hrs 37 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h04-0413	Getting up and to toilet	9 mins.	Preparing to go to work	I got up early so that I could arrive early at work.
04h13-04h15	Making bed.	2 mins.	17 mins.	I had only tea for breakfast.
04h15-04h21	Putting on under-ground clothes ready to leave.	6 mins.		
04h21-04h25	To crush on foot	4 mins.		
04h25-04h28	At crush.	3 mins.	Getting from the hostel to the working place.	I had to start at the hostel office to find out if they had new men for my gang.
04h28-04h37	Waiting for cages	9 mins.		
04h37-04h42	In cage to station	5 mins.	26 mins.	
04h42-04h47	From station to work place.	5 mins.		
04h47-04h50	Prepare for work	3 mins.		I started work at 05h30 because I had to make the working place safe for my gang to work in.
04h50	Working time.	8 hrs. & 27 mins.	Working time.	
			8 hrs. 30 mins.	Working for 8 hours per day does not worry me in any way. In actual fact this is a reasonable time for one to work.
13h17	Stopped work.			
13h17-13h32	From work place to station.	15 mins.		
13h32-13h40	Waiting for cages	8 mins.	Getting from the working place to the hostel.	I dislike waiting for a cage for a full hour because we knock off early but are delayed by cages underground. At times they are delayed because some material is still being conveyed from surface to underground. Sometimes the delays are caused by the inspection of the shaft.
13h40-13h45	In cage to surface	5 mins.		
13h45-13h51	At the crush	6 mins.	54 mins.	
13h51-14h11	From crush to hostel.	20 mins.		I took long from the crush to the hostel because I was delayed on the way by some friends.
14h11-14h13	Taking off under-ground clothes.	2 mins.		
14h13-14h40	To change house, washing and back to room.	27 mins.	After work activities.	
14h40-14h59	To kitchen, back to room and eating.	19 mins.		
14h59-15h12	Conversing with room mates	13 mins.	4 hrs 44 mins.	I have enough time to rest and do my shopping in town, if there is anything I need.
15h12-17h47	To shops and back to hostel.	2 hrs & 35 mins.		
17h47-18h55	Leisure time.	1 hr & 08 mins.		
18h55	Went to bed.	9 hrs. & 09 mins.	Sleeping time.	
			9 hrs. 09 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h41	Woke up and made the bed.			Woke up early so that I should be on time for the cage.
03h41-03h58	To change house, washing and back to room	17 mins.	Preparing to go to work.	
03h58-04h05	Dressing for underground	7 mins.	36 mins.	
04h05-04h17	Sitting idle in room- ready to leave.	12 mins.		
04h17-04h22	To crush on foot.	5 mins.		I did not have to wait long for the cage as I woke up early.
04h22-04h24	In crush	2 mins.	Getting from the hostel to the working place.	
04h24-04h29	From crush to bank store.	5 mins.		
04h29-04h35	Waiting for a cage	6 mins.	47 mins.	
04h35-04h38	In cage to station	3 mins.		
04h38-04h43	From station to waiting place.	5 mins.		
04h43-05h04	From waiting place to working place	21 mins.		
05h04-13h10	Working time. Stopped work.	8 hrs. & 06 mins.	Working time. 8 hrs. 06 mins.	
13h10-13h15	Up the gully (half way into the gully).	5 mins.		I started work at 05h00 and knocked off at 13h00. There is nothing I dislike about my work or my working hours.
13h15-14h15	Sitting idle in gully.	1 hr		
14h15-14h28	From gully to station.	13 mins.	Getting from the working place to the hostel.	
14h28-14h52	Waiting for a cage	24 mins.	1 hr. 54 mins.	
14h52-14h55	In cage to surface	3 mins.		After knocking off from work we have to wait a long time for cages to take us to surface. Sometimes we wait for a cage from 13h00 to 14h45 or even up to 15h00. This is what I dislike because the delays reduce our leisure time. Sometimes I want to go to the post office and cannot go because the cages are late.
14h55-14h58	At crush.	3 mins.		
14h58-15h04	From crush to hostel.	6 mins.		
15h04-15h15	To change house and washing and back to room.	11 mins.		
15h15-15h31	To kitchen and back to room.	16 mins.	After work activities	Coming to the kitchen, I found that the food was really bad, so I went to buy myself a pint of milk. The vegetable soup was not well prepared.
15h31-15h48	In room eating, and preparing to go.	17 mins.	4 hrs. 44 mins.	
15h48-17h51	Out of hostel.	2 hrs. & 03 mins.		
17h51-17h55	Back in hostel and talking to room-mates.	4 mins.		
17h55-19h48	Leisure time.	1 hr. & 53 mins.	Sleeping time.	I had enough time to get to the post office to send my family money and visit my sister in the married quarters.
19h48	Went to bed.	7 hrs. & 53 mins.	7 hrs. 53 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER		
03h35-03h38	Getting up and making bed.	3 mins.	Preparing to go to work.	Woke up earlier than usual so that I should not miss my cage.		
03h38-03h45	Dressing	7 mins.		30 mins.	I did not find any queue at the kitchen so I was served very quickly and had my breakfast (mixed vegetables) in the kitchen.	
03h45-04h00	To kitchen, served back to room and breakfast.	15 mins.				Getting from hostel to the working place
04h00-04h05	Preparing to leave	5 mins.	1 hr. 14 mins.			
04h05-04h10	To crush on foot	5 mins.		28 mins.	Not satisfied with my pay as I feel it is not enough for the type of work I do.	
04h10-04h35	Waiting for cages.	25 mins.				Working time.
04h35-04h40	In cage to station	5 mins.	7 hrs. & 32 mins.			
04h40-04h46	From station to waiting place.	6 mins.		7 hrs. 32 mins.	Had to go to the Labour Controller's Office as I was wanted there. This is time consuming as one is wet and wants to have a change of clothing and one has still got to go and queue at the kitchen.	
04h46-05h14	At waiting place	28 mins.				Getting from the working place to the hostel.
05h14-05h19	From waiting place to working place	5 mins.	2 hrs. 37 mins.			
05h19	Working time.	7 hrs. & 32 mins.		2 hrs. 37 mins.		
12h51	Stopped work.					2 hrs. 37 mins.
12h51-13h10	From working place to station.	19 mins.	2 hrs. 37 mins.			
13h10-14h41	Waiting for cages	1 hr. & 31 mins.		2 hrs. 37 mins.		
14h41-14h44	In cage to surface	3 mins.				2 hrs. 37 mins.
14h44-14h46	In crush	2 mins.	2 hrs. 37 mins.			
14h46-15h24	To and in Labour Controller's Office.	38 mins.		2 hrs. 37 mins.		
15h24-15h28	From Labour Controller's Office to hostel.	4 mins.				2 hrs. 37 mins.
15h28-15h31	To kitchen, and being served.	3 mins.	2 hrs. 37 mins.			
15h31-15h42	Back to room and eating.	11 mins.		2 hrs. 37 mins.		
15h42-16h10	To change house and washing.	28 mins.				2 hrs. 37 mins.
16h10-16h25	Dressing, ready to leave.	15 mins.	2 hrs. 37 mins.			
16h25-19h05	Visit friends at No.4 Shaft.	2 hrs. & 40 mins.		2 hrs. 37 mins.		
19h05-19h28	Prepare work clothes for the following day.					2 hrs. 37 mins.
19h28	Went to bed.	8 hrs. & 07 mins.	2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.
			2 hrs. 37 mins.			
				2 hrs. 37 mins.		
						2 hrs. 37 mins.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
02h40-02h47	Getting up and making bed.	7 mins.	Preparing to go to work.	Woke up at 02h45 when the siren woke us up. When siren rings everybody in the hostel wakes up, irrespective of which station he goes to or which shift he works.
02h47-03h01	Putting on under-ground clothes.	14 mins.	37 mins.	
03h01-03h13	To kitchen and back, having breakfast.	12 mins.		
03h13-03h17	Preparing to go	4 mins.		
03h17-03h19	To crush on foot.	2 mins.		After I have done my bed, I take about 3 minutes to the kitchen where I find other workers already in the queue, ready to be served. Thereafter I go back to my room to have my breakfast, consisting of tea, soft porridge and a piece of bread.
03h19-03h46	Waiting for cages	27 mins.		
03h46-03h49	In cage to sub-station.	3 mins.	Getting from the hostel to the working place.	
03h49-04h41	To waiting place.	52 mins.	2 hrs. 18 mins.	
04h41-05h10	At waiting place.	29 mins.		My work place is very far from the station, so I travel by loco to and from the station.
05h10-05h35	From waiting place to working place.	25 mins.		
05h35-	Working time.	6hrs. & 52 mins.	Working time 6 hrs. 55 mins.	
12h27	Stopped work.			
12h27-12h30	Assembling tools for storage	3 mins.		We were fortunate today that we did not wait very long for cages. We usually wait a very long time for the cages and this inconveniences us very much as at times we cannot wash our work and private clothes: we cannot even get into town.
12h30-12h55	From working place to waiting place	25 mins.	Getting from working place to the hostel	
12h55-13h30	From waiting place to station	35 mins.	1 hr. 25 mins.	
13h30-13h46	Waiting for cages	16 mins.		
13h46-13h49	In cage to surface	3 mins.		
13h49-1353	In crush	4 mins.		
13h53-13h55	From crush to hostel.	2 mins.		
13h55-14h00	In room at hostel	5 mins.		
14h00-14h20	To change house, washing and back to room.	20 mins.	After work activities	I usually find the water in the change house warm enough for a shower.
14h20-14h31	Changing clothes.	11 mins.		
14h31-14h55	To kitchen, got food and back to room, eating.	24 mins.	5 hrs. 48 mins.	
14h55-16h51	Conversing with room mates	1 hr. & 56 mins.		
16h51-17h55	Left hostel.	1 hr. & 04 mins.		
17h55-19h43	Leisure time.	1 hr. & 48 mins.		
19h43	Got into bed.	6 hrs. & 57 mins.	Sleeping time. 6 hrs. 57 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
02h38-02h43	Getting up and making bed.	5 mins.	Preparing to go to work.	I woke up early because that is the time we are expected to get up on the mine.
02h43-02h57	Dressing - underground clothes.	14 mins.	32 mins.	We have to be on time to catch the cage at 04h00.
02h57-03h03	To kitchen and queueing to be served.	6 mins.		I only had soft porridge for breakfast.
03h03-03h10	Collecting safety equipment - ready to leave.	7 mins.		
03h10-03h12	To crush on foot.	2 mins.		In the mornings the cage arrives early to take us underground.
03h12-03h40	Waiting for cages	28 mins.		
03h40-03h42	In cage to sub-station.	2 mins.		
03h42-04h42	To waiting place.	1 hr.	Getting from hostel to the working place.	I take a long time to get to my working place as I start at the 18th level to get transport to take me to the 16th level. It is the same when I knock off because I have to come back the same way.
04h42-05h08	At waiting place.	26 mins.		
05h08-05h32	To working place	24 mins.	2 hrs. 22 mins.	
05h32-05h42	Collecting equipment.	10 mins.		
05h42-12h48	Working time. Stopped work.	7 hrs. & 6 mins.	Working time 7 hrs. 16 mins.	Concerning my work, I find it strange that the Masiza refuses to promote me as I have been recommended for promotion by the miner. His reasons for refusing to promote me are that I have failed the aptitude test or that I am still too young to be promoted. I am able to do the job, but the Masiza who does not work with me, feels that I cannot be promoted.
12h48-13h05	From working place to waiting place	17 mins.		At times we have to wait for a very long time; sometimes for two or three hours.
13h05-13h55	From waiting place to station	50 mins.	Getting from working place to the hostel	I dislike waiting for cages to take us to surface because we wait for a long time and do not get paid for that time.
13h55-14h00	Waiting for cages.	5 mins.	1 hr. 22 mins.	
14h00-14h03	In cage to surface	3 mins.		
14h03-14h08	In crush	5 mins.		
14h08-14h10	To hostel - Arrive at hostel.	2 mins.		In the hostel change house, the water is warm, but at the kitchen the food is bad. Porridge is well prepared but the vegetable mixture is not well cooked.
14h10-14h19	Changing from underground clothes.	9 mins.	After work activities	
14h19-14h38	To change house and washing.	19 mins.	5 hrs. 45 mins.	Sometimes I have to send parcels home but if the cages are delayed I am unable to do so.
14h38-14h56	Change of clothes	18 mins.		
14h56-15h02	To kitchen and queueing to be served.	6 mins.		
15h02-15h18	Back to room, eating, reading letters and conversing with room mates	16 mins.		
15h18-19h55	Leisure time	4 hrs. & 37 mins.		
19h55	Went to bed.	6 hrs & 43 mins.	Sleeping time. 6hrs. 43 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h02-03h05	Getting up and making bed.	3 mins.	Preparing to go to work. 57 mins.	Woke up early to have enough time to check for new recruits at the hostel office, and to make sure that my cap-lamp and safety lamp were in good working order.
03h05-03h13	From room to toilet and back.	8 mins.		
03h13-03h17	Collecting and putting on underground clothes.	4 mins.		
03h17-03h29	Relaxing in room smoking.	12 mins.		
03h29-02h59	To kitchen and breakfast, back to room - ready to leave.	30 mins.	Getting from the hostel to the working place. 1 hr. 28 mins.	On this particular day I also had to get new tools from stores. We waste some time at the crush as we have to check our gangs to see those crew members who absent themselves. Wait long for cages because they do not arrive on time. At this time of the year (June) it is very cold in the mornings to wait from half an hour to an hour. In winter the cages are delayed too long. I do not know the reasons.
03h59-4h04	To compound office to check new recruits.	5 mins.		
04h04-4h07	From compound office to crush	3 mins.		
04h07-04h30	At the crush, waiting.	23 mins.		
04h30-04h31	From crush to bank	1 min.		
04h31-04h58	Waiting for cages.	27 mins.		
04h58-05h06	In cage to station	8 mins.		
05h06-05h27	From station to waiting place.	21 mins.		
05h27-05h46	Prepare for work. Checking and lighting safety lamp, checking for methane	19 mins.		
05h46	Supervision	8 hrs. & 34 mins.		
14h20	Stopped work.		Working time. 8 hrs. 53 mins.	We work for eight hours each day, that is, from 06h00 to 14h00, which is a very long day indeed as the working place is very hot and the work itself strenuous.
14h20-14h45	From working place to station on foot	25 mins.		
14h45-15h16	Waiting for cages	31 mins.		
15h16-15h19	In cage to surface	3 mins.		
15h19-15h25	At the crush	6 mins.		
15h25-15h28	Arrive at hostel	3 mins.		
15h28-15h37	Changing underground clothes.	9 mins.		
15h37-15h49	To change house, washing and back	12 mins.		
15h49-16h20	To kitchen and eating.	31 mins.		
16h20-18h24	To beer lounge and drinking.	2 hrs. & 04 mins.		
18h24-18h27	From beer lounge to room	3 mins.	After work activities. 4 hrs. 42 mins.	The delays in cages inconvenience us very much, as we cannot do our shopping because some shops are closed in town; we also cannot post parcels because we find the post office already closed. I dislike being sent to the training centre on my return from home after only 14 or 20 days absence from work. This is a waste of time because I have the necessary certificates for my job. If one should fail the second or subsequent test after one returns from home, the mine demotes one to a low-paying job.
18h27-20h10	Leisure time.	1 hr. & 43 mins.		
20h10	Went to bed.	6 hrs. & 52 mins.		
			Sleeping time. 6 hrs. 52 mins.	About other places, for example, kitchen, change houses, etc. I have no complaints at all.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h36-03h42	Getting up and making bed.	6 mins.	Preparing to go to work.	I get up very early so that I have time to eat and also that I should not miss the cage.
03h42-03h55	Dressing.	13 mins.		
03h55-04h01	To dining hall and eating - ready to leave.	6 mins.		
04h01-04h05	To crush on foot.	4 mins.	Getting from the hostel to the working place.	In the mornings we do not wait long for cages as they are usually on time
04h05-04h09	At the crush.	4 mins.		
04h09-04h15	Waiting for cages.	6 mins.		
04h15-04h20	In cage to station	5 mins.	1 hr. 57 mins.	I am disturbed by having to wait for a loco every morning as it wastes our time. We waited a long time for the loco because the loco guard did not arrive on time.
04h20-04h24	From station to loco station.	4 mins.		
04h24-04h45	Waiting for loco.	21 mins.		
04h45-04h55	From loco station to S.V. station.	10 mins.	Due to the lateness of the loco guard we had to foot it to the waiting place.	
04h55-05h25	From S.V. station to waiting place.	30 mins.		
05h25-05h56	At waiting place.	31 mins.		
05h56-05h58	From waiting place to working place.	2 mins.	Working time	I took a long time at the waiting place as I had to check on all my gang members and give them instructions.
05h58-06h00	Preparing for work	2 mins.		
06h00-	Working time.	7 hrs.		
13h00	Stopped work.		Getting from the working place to the hostel.	I am not worried about the job and the working hours. I think it is a fair time for one to work.
13h00-13h03	From working place to waiting place.	3 mins.		
13h03-13h06	At waiting place.	3 mins.		
13h06-13h23	From waiting place to S.V. station.	17 mins.	1 hr. 14 mins.	My only problem is the time wasted travelling because we go from one level to the other and by the time we get into the hostel we are very tired and our work clothes have dried on us, which causes illness.
13h23-13h40	Waiting for loco.	17 mins.		
13h40-13h55	From S.V. station to sub-station.	15 mins.		
13h55-14h02	Waiting for cages.	7 mins.		
14h02-14h07	In cage to surface	5 mins.		
14h07-14h12	At the crush	5 mins.		
14h12-14h14	From the crush to the hostel.	2 mins.	After work activities.	I have time to attend to my personal matters and even attend church services.
14h14-14h17	Changing clothes.	3 mins.		
14h17-14h35	To change house and washing under-ground clothes.	18 mins.		
14h35-14h55	In kitchen and eating.	20 mins.	6 hrs. 16 mins.	On the days that cages operate irregularly, that is, when they are late, then I have very little time to attend church services, at times I even miss them altogether.
15h55-15h25	Resting in room.	30 mins.		
15h25-15h45	To change house and washing.	20 mins.		
15h45-16h59	Resting in room.	1 hr 14 mins.	Sleeping time	
16h59-18h00	To church service and back.	1 hr 01 mins.		
18h00-20h30	Leisure time.	2 hrs 30 mins.		
20h30	Getting to bed	7 hrs 06mins.	7 hrs. 06 mins.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
03h40-03h47	Getting up and making bed	7 mins.	I usually get up early to have enough time to prepare myself for work. I do not wait for the siren to wake us up. I am already used to waking early.
03h47-04h00	Dressing	13 mins.	
04h00-04h10	To dining hall and eating - ready to leave.	10 mins.	
04h10-04h12	To crush on foot.	2 mins.	Getting to the working place bothers me very much as I have to wait for a loco and cages underground which is quite a waste of time. When the loco is not full we have to wait for other workers. At times when it is out of order, we have to foot it to another station and this is a long distance away.
04h12-04h20	At the crush.	8 mins.	
04h20-04h26	waiting for cages.	6 mins.	
04h26-04h28	In cage to station	2 mins.	I use two cages to get to my work level and waiting for them makes me reach my work place late. This often gets me into trouble with my miner, who often shouts at me and threatens to transfer me from his gang.
04h28-04h30	From station to loco station.	2 mins.	
04h30-04h45	Waiting for loco.	15 mins.	
04h45-04h53	From loco station to S.V. Station	8 mins.	We often wait a long time at the waiting place for the team leader to collect our tickets and thereafter wait for the miner to check the working place.
04h53-05h00	From S.V. station to cages.	7 mins.	
05h00-05h20	Waiting for cages.	20 mins.	
05h20-05h23	In cage to station	3 mins.	I get to work already tired as I have travelled long distances to get to the working place. The job itself is not very strenuous but the working hours are long and the pay is very little.
05h23-05h26	From station to waiting place.	3 mins.	
05h26-05h56	At the waiting place.	30 mins.	
05h56-05h58	From waiting place to working place	2 mins.	Working time
05h58-06h00	Preparing for work	2 mins.	
06h00-	Working time.	7 hrs.	
13h00	Stopped work.	7 hrs. 02 mins.	Getting back from work is another hassle as I have to retrace the route I took in the morning, only to be delayed by the cages.
13h00-13h03	From work place to waiting place.	3 mins.	
13h03-13h06	At waiting place.	3 mins.	
13h06-13h08	From waiting place to station.	2 mins.	These delays are caused by the fact that in the afternoons we at times find that only one cage is in operation, and that whites have to be hoisted to surface first.
13h08-13h11	waiting for cages.	3 mins.	
13h11-13h13	In cage to S.V. station.	2 mins.	
13h13-13h16	Waiting for loco.	3 mins.	When cages have arrived on time I get time to attend to all my personal matters.
13h16-13h30	From S.V. station to sub-station.	14 mins.	
13h30-13h50	Waiting for cages.	20 mins.	
13h50-13h54	In cage to surface	4 mins.	
13h54-13h59	At the crush	5 mins.	
13h59-14h05	From crush to hostel.	6 mins.	
14h05-14h12	Changing clothes.	7 mins.	
14h12-14h25	Resting in room.	13 mins.	

Cont.

14h25-14h55	To change house, washing underground clothes.	30 mins.	After work activities	I did not go to the kitchen as I had already heard from others that the food was bad. I was told that the steam was off.
14h55-15h25	Resting in room	30 mins.	6 hrs. 02 mins.	
15h25-15h55	To change house and washing.	30 mins.		
15h55-17h20	Sleeping in room	1 hr. & 25 mins.		
17h20-18h45	To bar and drinking and back to room.	1 hr. & 25 mins.		
18h45-19h00	Resting in room.	15 mins.		
19h00-19h55	Visiting friend and back to room.	55 mins.		
19h55-20h07	Leisure time.	12 mins.		
20h07	Getting to bed.	7 hrs. & 33 mins.	Sleeping time. 7 hrs. 33 mins.	

(Liii)

24. LOADER DRIVER

C.3

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h35-03h37	Getting up and making bed	2 mins	Preparing to go to work	I usually do not wait for the siren but get up on my own at 03h30. Waking up at this time I have enough time to prepare myself for work.
03h37-04h00	Dressing	23 mins		
04h00-04h13	To dining hall and eating - ready to leave.	13 mins	38 mins	
04h13-04h19	To crush on foot	6 mins		We have no trouble with the cages in the morning as they are always on time to take us down.
04h19-04h24	Waiting for cages	5 mins		
04h24-04h29	In cage to station	5 mins		
04h29-04h33	From station to loco station.	4 mins	Getting from the hostel to the working place	I am only bothered by the long wait for locos underground. At times we do not even get them and then we have to walk to the sub-station.
04h33-04h48	Waiting for loco	15 mins		
04h48-04h58	From loco station to sub-station	10 mins		
04h58-05h06	From sub-station to waiting place	8 mins	1 hr 50 mins	Every day we wait a long time at the waiting place. I do not know what we are waiting for. This worries me much as we are made to wake up early only to waste time at the waiting place.
05h06-06h00	At the waiting place	54 mins		
06h00-06h03	From the waiting place to the working place	3 mins		
06h03	Working time	7 hrs 27 mins	Working time	I normally work for 8 hours a day. This does not bother me any longer as I am already used to the strenuous work.
13h30	Stopped work		7 hrs 27 mins	
13h30-13h33	From working place to waiting place	3 mins		
13h33-13h35	From waiting place to loco station	2 mins	Getting from the working place to the hostel	The cages are delayed for a long time in the afternoons. Waiting at the station makes us contract cold as we are made to wait at a place where a cold wind blows and our work clothes dry on us.
13h35-13h37	Waiting for loco	2 mins		
13h37-14h08	From loco station to sub-station	31 mins	2 hrs 1 min	
14h08-15h00	Waiting for cages	52 mins		The water at the change house is a thorn in the flesh. At times we do not get water as it does not come out of the taps, or if it comes it is cold.
15h00-15h09	In cage to surface	9 mins		
15h03-15h31	From crush to hostel	22 mins		
15h31-16h06	Changing underground clothes and washing them	35 mins		I get time to attend to my personal matters, but this is not every day. Only when cages operate well.
16h06-16h18	To change house and washing	12 mins	After work activities	
16h18-16h20	Dressing	2 mins		
16h20-16h31	To kitchen and eating	11 mins	4 hrs 29 mins	
16h31-18h25	To bar and drinking	1 hr 54 mins		
18h25-18h30	From bar to room	5 mins		
18h30-20h00	Leisure time	1 hr 30 mins		
20h00	Getting to bed	7 hrs 35 mins	Sleeping time	
			7 hrs 35 mins	

(Liv)

25. PIPES, TRACKS AND VENTILATION WORKER

C.4

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h13	Getting up and making bed	13 mins	Preparing to go to work	I always get up at 04h00 when the siren rings.
04h13-04h15	Dressing	2 mins		
04h15-04h25	To dining hall and eating - ready to leave	10 mins	25 mins	
04h25-04h29	To crush on foot	4 mins	Getting from the hostel to the working place	I usually wait a long time for the cages in the mornings. By the time I get to the bank I find people already in the queue waiting for cages
04h29-04h31	At the crush	2 mins		
04h31-04h47	Waiting for cages	16 mins		
04h47-04h56	In cage to station	9 mins	1 hr 5 mins	We usually wait a long time at the waiting place and this is frustrating as one has woken up so early only to go and sit at the waiting place doing nothing
04h56-04h59	From station to waiting place	3 mins		
04h59-05h27	At the waiting place	28 mins		
05h27-05h30	From waiting place to working place	3 mins	Working hours	I usually work from 6h00 to 13h30. The job is not strenuous and I have no complaints about my working hours
05h30-05h45	Preparing for work	15 mins		
05h45-	Working time	3 hrs 45 mins		
09h30	Stopped		4 hrs 0 mins	We wait a long time for cages in the afternoons and this is caused by a queue of picannins who are already at the station by the time we knock off. As you know, picannins knock off with the miners and shift bosses who knock off long before we do.
09h30-09h32	From working place to waiting place	2 mins	Getting from the working place to the hostel	
09h32-09h34	From waiting place to station	2 mins		
09h34-10h12	Waiting for cages	38 mins	57 mins	I get enough time to attend to my personal matters
10h12-10h14	In cage to surface	2 mins		
10h14-10h19	At the crush	5 mins		
10h19-10h27	From the crush to the hostel	8 mins	After work activities	Food is always all right. The only problem is shower water because sometimes you find that there is no water altogether at the change-houses
10h27-10h32	Changing clothes	5 mins		
10h32-10h47	To change-house and washing	15 mins		
10h47-11h02	Dressing	15 mins	Sleeping time	10hrs 33 mins
11h02-11h13	To kitchen and back	11 mins		
11h13-	Left hostel to visit brother			
16h25	Arrive back at hostel	5 hrs 12 mins	7 hrs 0 mins	7 hrs 0 mins
16h25-19h50	Relaxing in room	3 hrs 25 mins		
19h50-20h30	Gone to film show	40 mins		
20h30-21h00	Leisure time	30 mins	7 hrs 0 mins	
21h00	Getting to bed	7 hrs 0 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h00-05h06	Getting up and making bed	6 mins	Preparing to go to work	I normally get up at this time, although I start work much later. But still at this time I have enough time to do all my preparations before I go to work.
05h06-05h13	Dressing	7 mins		
05h13-05h27	To change house and washing	14 mins		
05h27-05h47	Sweeping room	20 mins		
05h47-06h01	To dining hall and eating - ready to leave	14 mins		
06h01-06h06	To crush on foot	5 mins	Getting from the hostel to the working place	I am only bothered with the long route I take to get to work. We in our section work everywhere underground where we are needed. Having to go to distant work areas with my heavy tool box is quite a strain
06h06-06h09	At the crush	3 mins		
06h09-06h25	From crush to engineering store - preparing tools for work	16 mins		
06h25-06h27	From engineering store to bank	2 mins		
06h27-06h35	Waiting for cages	8 mins		
06h35-06h43	In cage to station	8 mins		
06h43-06h48	From station to loco station	5 mins		
06h48-07h16	Waiting for loco	28 mins		
07h16-07h25	From loco station to SV station	9 mins		
07h25-07h47	From SV station to working place	22 mins		
07h47-07h55	Preparing for work	8 mins	Working time	My work is not very strenuous and the hours are not too long. The only problem is finishing the job, because if we cannot finish on time we are inconveniencing other people who have to do their work
07h55	Working time			
13h30	Stopped work	5 hrs 35 mins	5 hrs 43 mins	
13h30-13h43	From working place to SV station	13 mins	Getting from the working place to the hostel	From work I still have to follow the same long route back to the hostel, via the engineering store. I have to go to the store to put away my tools and have to make sure I do not miss one item as I will get in grouble with my boss. Daily I have to make sure that all my tools are there.
13h43-13h59	From SV station to substation	16 mins		
13h59-14h15	Waiting for cages	16 mins		
14h15-14h18	In cage to surface	3 mins		
14h18-14h20	From bank to engineering store	2 mins		
14h20-14h30	From engineering store to crush	10 mins		
14h30-14h33	From crush to hostel	3 mins		

26. ARTISAN AIDE continued

STARTING AND FINISHING TIME	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
14h33-14h37	Changing under-ground clothes	4 mins	After work activities 6 hrs 12 mins	Getting to the change house, we find that the water is cold or does not come out of the taps. At times right in the middle of a shower the water just stops. This is really giving us trouble as it occurs too frequently
14h37-14h51	To kitchen, back to room and eating	14 mins		
14h51-15h22	To change house washing underground clothes	31 mins		
15h22-15h43	To change house and washing	21 mins		
15h43-16h59	Going for dry clean	1 hr 16 mins		
16h59-17h27	In room conversing with others	28 mins		
17h27-20h05	To film show	2 hrs 38 mins		
20h05-20h45	Leisure time	40 mins	Sleeping time 8 hrs 15 mins	
20h45	Getting to bed	8 hrs 15 mins		

27. WINCH DRIVER

C.6

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h09-04h14	Getting up and making bed	5 mins 4 mins	Preparing to go to work	I usually wake up when the first siren rings. At this time I have enough time to prepare myself and even have breakfast
04h14-04h18	Dressing	4 mins	17 mins	
04h18-04h26	To dining hall and eating - ready to leave	8 mins		
04h26-04h29	To crush on foot	3 mins		Waiting for cages is a daily occurrence which does not bother us any longer
04h29-04h37	At the crush	8 mins		
04h37-04h57	Waiting for cages	20 mins		
04h57-04h59	In cage to station	2 mins	Getting from the hostel to the working place	What really bothers me is the travelling route underground from one level to another and having to wait a long time for locos. When they are out of order it means we have to foot it to another station
04h59-05h02	From station to loco station	3 mins		
05h02-05h27	Waiting for loco	25 mins	1 hr 59 mins	
05h27-05h31	From loco station to SV station	4 mins		We normally wait a long time at the waiting place for the team leader and the miner, because we are not allowed to get into the working area without them.
05h31-05h55	From SV station to waiting place	24 mins		
05h55-06h16	At the waiting place	21 mins		
06h16-06h25	From waiting place to working place	9 mins		I am satisfied with my working hours and my work. The only thing is I wish they could increase the pay
06h25-06h30	Preparing for work	5 mins		
06h30	Working time	6 hrs 30 mins	Working time 6 hrs 35 mins	
13h00	Stopped work			
13h00-13h03	From working place to waiting place	3 mins		
13h03-13h07	At the waiting place	4 mins		
13h07-13h15	From waiting place to SV station	8 mins		I usually do not experience any problems with transport from underground to surface. What causes delays in my travelling to surface is the fact that I have to get a loco to a substation and there wait again for a cage at another level before I can get to the surface
13h15-13h35	Waiting for loco	20 mins	Getting from the work place to the hostel	
13h35-13h41	From SV station sub-station	6 mins	1 hr 11 mins	
13h41-13h56	Waiting for cages	15 mins		
13h56-13h59	In cage to surface	3 mins		
13h59-14h02	At the crush	3 mins		
1402-14h11	From crush to hostel	9 mins		

27. WINCH DRIVER continued

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
14h11-14h21	To kitchen, back to room and eating	10 mins	After work 6 hrs 34 mins	I usually have enough time to attend to my personal matters. I even go for training sessions.
14h21-14h53	To change house and washing	32 mins		
14h53-14h56	Going out of hostel for shopping	3 mins		
14h56-16h30	Back from shopping	1 hr 34 mins		
16h30-17h26	Resting in room	56 mins		
17h26-17h30	Leaving room for training	4 mins		
19h59	Back from training	2 hrs 29 mins		
19h59-20h30	Resting in room conversing with room mates	31 mins	Sleeping time 7 hrs 24 mins	
20h30-20h45	Leisure time	15 mins		
20h45	Getting to bed	7 hrs 24 mins		

28. ENGINEERING LABOURER

C.7

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h01-05h06	Getting up and making bed	5 mins	Preparing to go to work 29 mins	I usually get up at this time as I normally have to wait for my boss at the engineering shop Waking at this time I have enough time to prepare myself for work
05h06-05h12	Dressing	6 mins		
05h12-05h20	To change house and washing	8 mins		
05h20-05h30	To dining hall and eating - ready to leave	10 mins		
05h30-05h35	To crush on foot	5 mins	Getting from the hostel to the working place 1 hr 28 mins	Today we did not go underground as we had done most of our underground work in the last few days I am only bothered by my bos who is almost daily not on time but when I am late, once only, I am in real trouble. He is very impatient and temperamental; one mistake and one gets a beating. I want to change from his section
05h35-05h39	At the crush	4 mins		
05h39-05h45	From crush to engineering store	6 mins		
05h45-06h58	Waiting for engineer	1 hr 13 mins		
06h58-07h00	Preparing for work	2 mins	Working time 3 hrs 32 mins	There was not much to be done for this day so I knock off very early. Usually I knock off much later. When I have gone down, I knock off much later as we have to repair all the broken machines to get them ready for the next day
07h00	Working time	3 hrs 30 mins		
10h30	Stopped work			
10h30-10h33	From working place to engineering store	3 mins	Getting from the working place to the hostel 21 mins	
10h33-10h39	From engineering store to crush	6 mins		
10h39-10h43	At the crush	4 mins		
10h43-10h51	From the crush to the hostel	8 mins		
10h51-10h57	Changing underground clothes	6 mins	After work activities 9 hrs 36 mins	
10h57-11h09	To kitchen, back to room and eating	12 mins		
11h09-11h27	To change house and washing	18 mins		
11h27-16h45	To café	5 hrs 18 mins		
16h45-18h35	To bar and drinking	1 hr 50 mins		
18h35-19h28	In room conversing with room mates	53 mins		
19h28-19h59	Going for film show	31 mins		
19h59-20h15	In room conversing	16 mins		
20h15-20h27	Leisure time	12 mins		
20h27	Getting to bed	8 hrs 34 mins	Sleeping time 8 hrs 34 mins	

(Lx)

29. STOPE EQUIPPER

C.8

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h43-03h48	Getting up and making bed	5 mins		I get up daily at about 03h30. I am already used to getting up early. This gives me enough time to prepare myself for work.
03h48-03h55	Dressing	7 mins	Preparing to go to work	
03h55-04h08	To dining hall and eating - ready to leave	13 mins	25 mins	
04h08-04h11	To crush on foot	3 mins		Daily we wait for morning cages for a long time after having been woken up early to be on time for work.
04h11-04h15	At the crush	4 mins		
04h15-04h24	Waiting for cages	9 mins		
04h24-04h27	In cage to station	3 mins	Getting from the hostel to the working place	I am already used to waiting for locos underground. When the loco is out of order we have to walk long distances to our working place.
04h27-04h30	To loco station	3 mins		
04h30-04h47	Waiting for loco	17 mins		
04h47-04h52	To SV station	5 mins	2 hrs 32 mins	I travel from one level to the other to get to my working place and by the time I get there I am already tired.
04h52-05h02	Waiting for cages	10 mins		
05h02-05h05	In cage to 20th level	3 mins		
05h05-05h18	From 20th level to 22nd level on foot	13 mins		We wait for a long time at the waiting place, first for the team leader to check our work tickets and give us instructions, and then for the miner who comes in very late. I see no reason why we cannot start with our work before he arrives, because by the time he arrives, one is no longer in the mood for work.
05h18-05h24	From station to waiting place	6 mins		
05h24-06h35	At the waiting place	1 hr 11 mins		
06h35-06h40	From waiting place to working place	5 mins		I normally work for 8 hours a day. I do not really know what my starting time is but as soon as we are at the working place I start with my job.
06h40-06h45	Preparing for work	5 mins	Working time	
06h45-	Working time	5 hrs 45 mins	5 hrs 50 mins	
12h30	Stopped work			Travelling from the working place is just the same as going to work because I travel long distances to connect my transport back to surface.
12h30-12h37	From working place to waiting place	7 mins		
12h37-12h48	From waiting place to 22nd level	11 mins		
12h48-12h54	From 22nd level to 23rd level on foot	6 mins		I always come to the hostel very tired because of the distance I travel.
12h54-13h11	Waiting for cages	17 mins	Getting from the working place to the hostel	
13h11-13h16	In cage to SV station	5 mins		
13h16-13h30	Waiting for loco	14 mins	1 hr 34 mins	
13h30-13h42	From SV station to substation	12 mins		
13h42-13h45	Waiting for cages	3 mins		
13h45-13h55	In cage to surface	10 mins		
13h55-13h57	At the crush	2 mins		
13h57-1404	From the crush to the hostel	7 mins		

30. DEVELOPMENT TEAM LEADER

C.9

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h46-03h46	Getting up and making bed	3 mins	Preparing to go to work	I usually get up at 03h30. I wake up on my own and do not wait for the siren
03h46-03h55	Dressing	9 mins	20 mins	
03h55-04h03	To kitchen and eating - ready to leave	8 mins		
04h03-04h05	To crush on foot	2 mins		In the morning the cages always arrive on time
04h05-04h08	At the crush	3 mins		
04h08-04h12	Waiting for cages	4 mins	Getting from the hostel to the working place	
04h12-04h16	In cage to station	4 mins		Getting to the working place bothers me very much as I have to go from one level to the other. My route goes along the shaft and I have to be very careful as these are old shafts. I could easily fall into the shaft
04h16-04h27	From station to waiting place	11 mins		
04h27-05h08	At waiting place	41 mins	2 hrs 12 mins	
05h08-06h15	From waiting place to working place	1 hr 7 mins		I normally work for 8 hours a day. These are long working hours indeed but there is nothing we can do about it
06h15-06h30	Preparing for work	15 mins	Working time	
06h30-13h00	Working time	6 hrs 30 mins	6 hrs 45 mins	
13h00-13h00	Stopped work			I do not have any problems with late cages in the afternoons as the whites we work with on the shaft give preference to us when workers are hoisted to the surface.
13h00-13h03	From working place to waiting place	3 mins	Getting from the working place to the hostel	
13h03-13h13	From waiting place to station	10 mins		
13h13-13h15	Waiting for cages	2 mins	0 hrs 30 mins	Getting to the change house we always have trouble with water. Besides getting cold water at times what worries me most is that whilst washing the water will just stop coming out from the shower while I have soap foam all over my head and body. I have to stand under the shower waiting for water to come out again. We contract colds from standing in the shower like this.
13h15-13h19	In cage to surface	4 mins		
13h19-13h25	At crush	6 mins		
13h25-13h30	From crush to hostel	5 mins		Food is always prepared well.
13h30-13h39	Changing clothes	9 mins		
13h39-14h06	Resting in room	27 mins		
14h06-14h27	To kitchen and eating	21 mins		
14h27-17h50	Sleeping	3 hrs 23 mins	After work activities	
17h50-17h53	Taking underground clothes for washing	3 mins	7 hrs 45 mins	
17h53-18h58	To change house and washing	1 hr 5 mins		
18h58-19h43	Taking back underground clothes	45		
19h43-21h15	Leisure time	1 hr 32 mins		
21h15	Getting to bed	6 hrs 28 mins	Sleeping time 6hrs 28 mins	

31. RECLAMATION AND SALVAGE

C.10

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h07	Getting up			I get up daily at 4h00. We are woken by the siren that rings at 03h55. I am already used to waking up at this time. This gives me enough time to prepare myself for work
04h07-04h09	Making bed and dressing	2 mins	Preparing to go to work	
04h05-04h13	To dining hall and eating	4 mins	0 hrs 6 mins	
04h13-04h18	To crush on foot	5 mins		Going for breakfast I sometimes find the food not well prepared - we are told the steam was off. I am used to having a big meal for breakfast
04h18-04h19	At crush	1 min		
04h19-04h26	Waiting for cages	7 mins		
04h26-04h33	In cage to station	7 mins		Cages give a lot of trouble in the mornings as we wait for a long time. We may wait from 04h15 to 05h00
04h33-04h37	From station to loco station	4 mins	Getting from the hostel to the working place	
04h37-04h47	Waiting for loco	10 mins		
04h47-04h53	From loco station to Louw station	6 mins	3 hrs 3 mins	I am already used to waiting for locos underground because there is congestion at the loco station and workers push each other to get into the loco first. At times we find that the loco is out of order and we then have to walk to the working place, which is quite a distance.
04h53-05h14	From Louw station to substation	21 mins		
05h14-06h28	Waiting for cage at substation	1 hr 14 mins		
06h28-06h36	In cage to station	8 mins		At the substation we wait for a long time for cages as other stations have to be lowered first. This does not bother me any more as it is a daily occurrence.
06h36-06h42	From station to waiting place	6 mins		
06h42-07h14	At waiting place	32 mins		
07h14-07h16	From waiting place to working place	2 mins		I wasted time at the waiting place repairing tracks with the team leader. This is not my job, but I had to do it as this area is worked out and there were no people working there
07h16	Working time	7 hrs 16 mins	Working time	
14h32	Stopped work		7 hrs 16 mins	
14h32-14h33	From working place to waiting place	1 min		Normally we work for 8 hours a day, according to mine policy. Nothing concerning my job or my working hours worries me
14h33-14h54	From waiting place to substation	21 mins	Getting from the working place to the hostel	
14h54-15h06	Waiting for cages at substation	12 mins	1 hr 45 mins	
15h06-15h14	In cage to loco station	8 mins		I come back from work wet and have to wait for cages at the station for a long time, while waiting whites are being hoisted first
15h14-15h55	Waiting for loco	21 mins		
15h35-15h51	From loco station to substation	16 mins		
15h51-15h53	Waiting for cages at substation	2 mins		
15h53-16h14	In cage to surface	21 mins		
16h14-16h17	To hostel on foot	3 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
16h17-16h20	Changing clothes	3 mins	After work activities 4 hrs 3 mins	Sometimes we arrive in the hostel very late and are unable to attend to our personal matters. We at times arrive at 16h30 or 17h00
16h20-16h23	Watching TV	3 mins		
16h23-16h30	To change house and washing	7 mins		When we arrive late at the hostel, we find that water in the change houses is cold, and without an alternative we have to wash with it
16h30-16h36	To room and dressing	6 mins		
16h36-16h39	Relaxing in room	3 mins		When one has grievances, the Induna and the hostel manager do not take the grievances seriously, actually they do not listen to them and one has to solve one's own problems oneself without the help of management (hostel)
16h39-16h53	To bar and drinking	14 mins		
16h53-17h50	Visiting friends	57 mins	Sleeping time 7 hrs 47 mins	When one has contravened a regulation in the hostel, one is man-handled by the hostel police who beat one as if one were a "donkey" and not a human being
17h50-20h20	Leisure time	2 hrs 30 mins		
20h20	Getting to bed	7 hrs 47 mins		We Swazis experience difficulties especially on holidays, because we are not provided with transport home whereas other ethnic groups are provided with transport. So we have to stay idle on the mine on holidays One very hurting thing is that new recruits are made to sleep outside the hostel in these cold nights. I am unable to get a job I am experienced in because I am made to do all sorts of jobs. This is what makes people say the mine is bad - there is nothing wrong with the mine, only a few individuals who frustrate workers. I am always told that there are no vacancies in the particular job I want. When I insist on being given the job, I am made to learn things like first aid, when I am through with that, I am given other excuses and I never get the job. At times when I do not feel well, and when I report this to the team leader or the miner or shift overseer, I am told to fuck off and am accused of being lazy. This is hurting as I cannot always be very healthy, there are days when one is ill and needs medical attention. The same applies to being absent for only one day, instead of being given a warning, one's pay is cut by R6, which is a lot of money. Whites assault us underground. Even when they realise that one is tired and needs a rest, they come and beat you. Our pay is not commensurate with our work.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h35-03h37	Getting up and making bed	2 mins	Preparing to go to work 38 mins	I usually get up very early to be ready when the siren rings
03h37-04h00	Dressing	23 mins		
04h00-04h13	To dining hall and eating - ready to leave	13 mins		
04h13-04h19	To crush on foot	6 mins	Getting from the hostel to the working place	We usually get cages on time in the mornings, but on other days we go down very late because of delays in cages
04h19-04h24	Waiting for cages	5 mins		
04h24-04h29	In cage to station	5 mins		
04h29-04h33	From station to loco station	4 mins	1 hr 50 mins	My route to work is a very long one because from surface to underground I have to go to the substation to get a loco and then to another substation
04h33-04h48	Waiting for loco	15 mins		
04h48-04h58	From loco station to substation	10 mins		
04h58-05h06	From substation to waiting place	8 mins	Using the loco has problems too, because when the carriages are not full, we wait a long time for other workers to fill them. Today we had to foot it to the substation because the loco guard did not turn up.	
05h06-06h00	At waiting place	54 mins		
06h00-06h03	From waiting place to working place	3 mins		
06h03	Working time	7 hrs 27 mins	Working time 7 hrs 27 mins	I normally work for 8 hours a day which is really very long considering the strenuous work we do
13h30	Stopped work			
13h30-13h33	From working place to waiting place	3 mins		
13h33-11h35	From waiting place to loco station	2 mins	Getting from the working place to the hostel	Coming back from work in the afternoons is worse because they usually have one cage in operation, which causes delays in hoisting us to the surface and we usually arrive at the hostel very late
13h35-13h37	Waiting for loco	2 mins		
13h37-14h08	From loco station to substation	31 mins		
14h08-15h00	Waiting for cages	52 mins	2 hrs 01 mins	
15h00-15h09	In cage to surface	9 mins		
15h09-15h31	Arrive at hostel	22 mins		
15h31-16h06	Changing underground clothes and washing them	35 mins	After work activities 4 4 hrs 29 mins	Water in the change houses is cold and at times does not come out of the taps
16h06-16h18	To change house and washing	12 mins		
16h18-16h20	Dressing	2 mins		
16h20-16h31	To kitchen and eating	11 mins	4 hrs 29 mins	Coming late to the hostel, we find that the food is finished, and at times to cater for late comers they pour water in the food to make it seem like more
16h31-18h25	To bar and drinking	1 hr 54 mins		
18h25-18h30	From bar to room	5 mins		
18h30-20h00	Leisure time	1 hr 30 mins	Sleeping time 7 hrs 35 mins	When both cages operate, we get time to attend to our personal matters; but when they are late, we do not get time to do anything
20h00	Getting to bed	7 hrs 35 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h10	Getting up, making bed and dressing	10 mins	Preparing to go to work	I always get up at 04h00 with all the other hostel inmates when the first bell strikes.
04h10-04h30	To kitchen and breakfast, ready to leave	20 mins	30 mins	
04h30-04h44	From hostel to crush	14 mins	Getting from the hostel to the working place	In the mornings the cages are always on time. It is only on rare occasions when we have to wait for them for a long time. That is when they are out of order
04h44-04h50	In cage to station	6 mins		
04h50-04h55	From station to working place	5 mins		We always - every day - take a long time at the waiting place, giving workers instructions and waiting to go in
04h55-06h20	At the waiting place	1 hr 25 mins	2 hrs 0 mins	
06h20-06h30	From the waiting place to working place	10 mins		
06h30	Starting work	7 hrs 30 mins	Working time	
14h00	Stopped work		7 hrs 30 mins	I am satisfied with my work and my working hours.
14h00-14h10	From the working place to the waiting place	10 mins		
14h10-14h15	From waiting place to station	5 mins	Getting from the working place to the hostel	We usually do not wait long for cages in the afternoons when we come back from work, but on this day I do not know what delayed them
14h15-14h35	Waiting for cages	20 mins		
14h35-14h43	In cage to surface	8 mins	55 mins	
14h43-14h55	From crush to hostel	12 mins		
14h55-15h15	To change house and washing	20 mins	After work activities	Water in the change house is cold, and the heaters in the room are useless. We get cold in winter.
15h15-15h40	To kitchen, back to room and eating	25 mins		
15h40-16h00	In room relaxing with room mates	20 mins	5 hrs 35 mins	The mixed vegetable soup is very bad, and the food generally is badly prepared
16h00-18h45	To bar, drinking and back to room	2 hrs 45 mins		
18h45-20h20	Leisure time	1 hr 45 mins		
20h30 -	Getting to bed	7 hrs 30 mins	Sleeping time	
			7 hrs 30 mins	

34. WINCH DRIVER

D.2

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h15-03h19	Getting up and washing	4 mins	Preparing to go to work	I always get up at 03h00 on my own. I do not rely much on the bell. It is the mine regulation that we get up at 03h00 even if we start work much later.
03h19-03h25	To kitchen and breakfast - ready to leave	6 mins	10 mins	
03h25-03h30	From hostel to crush	5 mins		
03h30-03h45	At the crush	15 mins		My route to work is a tedious one. In the mornings we go for tea at the kitchen, and should we be delayed in the queue at the kitchen it means we are already late for work. If you arrive late for work because you were delayed at the kitchen or delayed in the queue at the bank, the miner simply turns you back. If you are lucky you will get a cage with the night shift going out, if not, you will spend the whole day at the station waiting for the day shift people to knock off before you can get a cage to the surface.
03h45-03h48	Waiting for cages	3 mins		
03h48-03h50	In cage to station	2 mins		
03h50-04h00	From 42 level to 58 level on foot	10 mins		
04h00-04h08	Waiting for cages at 58 level	8 mins		
04h08-04h11	In cage to sub station	3 mins	Getting from the hostel to the working place	
04h11-04h15	From station to another sub-station	4 mins		
04h15-04h30	Waiting for cages	15 mins	2 hrs 35 mins	
04h30-05h00	In cage to 68 level	30 mins		
05h00-05h08	Waiting for cages at 68 level	8 mins		
05h08-05h11	From 68 level to 77 level	3 mins		My job is strenuous, but I like it. I work well with my supervisors.
05h11-05h45	To 76 level on foot and at waiting place	34 mins		
05h45-06h00	From waiting place to working place	15 mins		
06h00	Working time	7 hrs	Working time	
13h45	Stopped work	45 mins	7 hrs 45 mins	
13h45-13h56	From working place to 77 level on foot	11 mins		
13h56-14h00	In cage to 68 level	4 mins		Coming back from work is even worse when we get to the incline shaft we find that the carriages are not yet in operation, and when they start operating, we push and struggle to get in. The same goes for cages at the sub stations, and we arrive late at the hostel because of the long queues
14h00-14h05	Waiting for cages at	5 mins	Getting from the working place to the hostel	
1405-1409	In cage from 68 level 58 level	4 mins		
14h09-14h15	In cage from 58 level to 42 level	6 mins	1 hr 30 mins	
14h15-14h50	Waiting for cages at 42 level	35 mins		
14h50-14h55	In cage to surface	5 mins		
14h55-15h00	At the crush	5 mins		
15h00-15h15	From the crush to the hostel	15 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
15h15-15h20	Changing under-ground clothes and washing	5 mins	After work activities	Water at the change house is cold.
15h20-15h45	To kitchen, back to room and eating	25 mins	4 hrs 40 mins	At the kitchen the samp is not well cooked and gives us stomach pains. The mixed vegetable soup is just as good as drinking fatty water. It is badly cooked.
15h45-16h30	Conversing with room mates	45 mins		
16h30-16h40	To store and back	10 mins		Coming from work I have to wash my underground clothes and by the time I have finished, it is already late which does not give me time to attend to my personal matters.
16h40-19h55	Leisure time	3 hrs 15 mins		
19h55	Getting to bed	7 hrs 20 mins	Sleeping time 7 hrs 20 mins	My pay is too little because nowadays prices on items in shops have increased and our pay does not keep abreast with the increases all over. One is always short of money.

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h10	Getting up and making bed	10 mins	Preparing to go to work	I always wake up at about 04h30. I am woken up by the bell every day. Everybody is expected to wake up when the bell strikes, irrespective of which station has to go down first
04h10-04h25	Putting on under-ground clothes - ready to leave	15 mins	25 mins	
04h25-04h30	From hostel to crush on foot	5 mins		
04h30-04h40	At the crush office	10 mins	Getting from the hostel to the working place	There are days when cages are late in the mornings, but usually they are on time.
04h40-04h55	In cage to 34 station	15 mins		
04h55-05h10	From 34 station to 35 station on foot	15 mins	1 hr 55 mins	
05h10-06h20	At waiting place at 35 level	1 hr 10 mins		Always when I come back from leave I find that they have placed someone else in my job, and they always tell me that there are no vacancies for that type of job
06h20	Working time	7 hrs 12 mins	Working time	
13h32	Stopped working		7 hrs 12 mins	
13h32-13h40	From working place to 34 level	8 mins	Getting from the working place to the hostel	Coming back from work is very difficult because we are carrying jumpers which are very heavy and have to go up the steps to the next level
13h40-13h45	At 34 station	5 mins		
13h45-13h55	In cage to surface	10 mins		
13h55-14h00	From crush to hostel	5 mins	28 mins	Getting to the hostel we do not get water at the change house, or if we do get some, it drips out.
14h00-14h30	To change house, washing and back	30 mins		
14h30-15h00	To kitchen, back to room and eating	30 mins	After work activities	
15h00-1800	To First Aid lessons	3 hrs	6 hrs 0 mins	At the kitchen we are given only bones instead of meat, and when we complain we are asked "have you ever seen a cow without bones?"
18h00-20h00	Leisure time	2 hrs		
20h00	Getting to bed	8 hrs	Sleeping time 8 hrs 0 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h00-05h10	Getting up and making bed	10 mins	Preparing to go to work 1 hr 0 mins	I always get up on my own at 05h30
05h10-05h20	Dressing	10 mins		
05h20-05h30	To change house and washing face	10 mins		
05h30-06h00	To kitchen and breakfast - ready to leave	30 mins	Getting from the hostel to the working place 1 hr 26 mins	I do not take long to get to the crush as I am in a hurry to get to my working place. On most days we have to wait a long time for the cages to take us down. There are, however, days on which we find cages without having to wait for them. From the cage I go and wait for the loco to take me to the incline shaft and there wait again for the carriage to take me to my work level
06h00-06h15	From hostel to crush on foot	15 mins		
06h15-06h45	Waiting for cages	30 mins		
06h45-06h55	In cage to station	10 mins	Working time 7 hrs 34 mins	I am already used to my job, I do not feel the strain any longer. I work well with my supervisors.
06h55-07h12	From station by loco to 68 H bank	17 mins		
07h12-07h18	Waiting for cage at 68 H bank	6 mins		
07h18-07h26	From station to the waiting place	8 mins	After work activities 3 hrs 30 mins	Coming back from work is the most difficult part of the day. We all knock off at the same time and find that there is congestion at the station and as a result we have to wait long for cages, and we arrive very late at the hostel.
07h26	Working time	7 hrs		
15h00	Stopped work	34 mins		
15h00-15h05	From working place to waiting place	5 mins	Getting from the working place to the hostel 1 hr 0 mins	We normally get cold water at the change house. Only on rare occasions do we get hot water.
15h05-15h15	Waiting for cages to 68 level	10 mins		
15h15-15h20	In cage from 68 level to another sub station	5 mins		
15h20-15h30	Waiting for cage from sub station to surface	10 mins	Sleeping time 9 hrs 30 mins	On days that we are served mixed vegetable soup, we find it inedible because (1) it is not well prepared; (2) there are too many ingredients mixed together and (3) it is very watery
15h30-15h45	In cage to surface	15 mins		
15h45-1600	From crush to hostel	15 mins		
16h00-16h15	To change house and washing	15 mins	Sleeping time 9 hrs 30 mins	
16h15-17h45	To kitchen, back to room and eating and conversing with room mates	1 hr 30 mins		
17h45-19h00	To beer hall and drinking	1 hr 15 mins		
19h00-19h30	Leisure time	30 mins		
19h30-05h00	Going to bed	9 hrs 30 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h15-04h22	Getting up and making bed	7 mins	Preparing to go to work	I always get up at 04h00 on my own. The mine regulation is that we get up at 04h00 irrespective of who has to go down first.
04h22-04h28	Dressing - ready to leave	6 mins	13 mins	
04h28-04h50	From the hostel to the crush on foot	22 mins	4 hrs 32 mins	I always wait a long time at the waiting place for the miner who is usually late
04h50-04h55	At the crush	5 mins		
04h55-05h00	Waiting for cages	5 mins		
05h00-05h05	In cage from surface to 42 vertical	5 mins		
05h05-05h10	From 42 vertical to 42 sub-vertical	5 mins		
05h10-05h15	From 42 sub-vertical to 58 sub-vertical	5 mins	4 hrs 32 mins	Going to work, we have to join long queues and then go and wait again for a long time to get cages to take us down
05h15-06h00	From 58 sub-vertical "N" shaft on foot	45 mins		
06h00-09h00	Waiting for the miner at the waiting place	3 hrs	4 hrs 30 mins	I am not satisfied with the job I am doing because the job that I like and am experienced in, I cannot get as they refuse to put me in it. I am satisfied with my supervisors except the shift boss as he is a bad man. He cannot talk nicely to people and every now and again he manhandles us. Whether this is his nature I do not know, but he is really bad
09h00	Working time	4 hrs 30 mins		
13h30	Stopped work		4 hrs 30 mins	Coming back from work the queue is even worse, and I usually arrive very late at the hostel. There is nothing wrong with the cages, they operate well.
13h30-14h10	From the working place to 58 sub-vertical	40 mins		
14h10-14h15	Waiting for cages at 58 sub-vertical	5 mins	1 hr 40 mins	At the kitchen we at times find that there is no porridge altogether, especially for latecomers. To make matters worse, we are served very little food and we just have to find more food to get satisfied
14h15-14h20	In cage from 58 sub-vertical to 42 sub-vertical	5 mins		
14h20-14h30	From 42 sub-vertical on foot	10 mins	4 hrs 50 mins	Water at the change house is very cold. We rarely get hot water. I rarely get time to attend to my personal matters, because I usually arrive late at the hostel and by that time I am too tired to do anything except to go to bed.
14h30-14h40	Waiting for cages at 42 vertical	10 mins		
14h40-14h50	In cage to surface	10 mins	Sleeping time	
14h50-15h10	From the crush to the hostel	20 mins		
15h10-15h30	To change house, washing and changing underground clothes	20 mins	8 hrs 15 mins	
15h30-16h00	To kitchen, back to room, eating and washing dish	30 mins		
16h00-20h00	Leisure time	4 hrs		
20h00-04h15	Going to bed	8 hrs 15 mins		

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h30-04h35	Getting up and making bed	5 mins	Preparing to go to work	I always get up at 04h30. When I have finished sleeping I switch on my radio to find out the time for waking up
04h35-04h43	To change house and washing	8 mins	1 hr 0 mins	
04h43-05h00	Dressing	17 mins		
05h00-05h30	To kitchen and breakfast - ready to leave	30 mins		
05h30-05h40	From hostel to crush on foot	10 mins		I do not get to the kitchen in the mornings to eat because I am afraid that when that food is digested, and I get hungry I will not be able to work well as there is no eating time underground
05h40-05h45	Waiting for cages	5 mins	Getting from the hostel to the working place	
05h45-05h50	In cage to station	5 mins		
05h50-06h00	From station to working place	10 mins	1 hr 30 mins	
06h00-07h00	At the waiting place	1 hr		We usually do not wait long for the cages in the mornings, as they are always on time. My route to the working place is a very long one as I make use of two cages, a carriage at the incline shaft, then go down steps, go to a loco and travel to my working place
07h00	Working time	7 hrs	Working time 7 hrs 0 mins	
14h00-14h03	From the working place to the station	3 mins		I took a long time at the waiting place as I had to go back to 77 level to go and get an air leg for my machine as my spanner did not bring it along
14h03-15h00	Waiting for cages	57 mins	Getting from the working place to the hostel	
15h00-15h05	In cage to surface	5 mins		
15h05-15h08	At the crush	3 mins	1 hr 13 mins	
15h08-15h13	From the crush to the hostel	5 mins		Since I got injured in my back, I feel that my job is strenuous. I can no longer work as well as I used to. I work well with my colleagues and supervisors and I like my job.
15h13-15h15	Changing underground clothes	2 mins		
15h15-15h30	To kitchen, back to room and eating	15 mins	After work activities	Coming back from work is very strenuous because we have to go up the steps to another level, and coming to the station we find many people already in the queue waiting for cages. We have to join the queue and wait for a long time before we are hoisted to the surface, as a result we arrive very late at the hostel
15h30-15h35	Preparing to leave	5 mins	4 hrs 32 mins	
15h35-18h00	To town and back	2 hrs 25 mins		I always find that water at the change house is very cold. There is nothing I can do about it as I always arrive late at the hostel.
18h00-19h45	Leisure time	1 hr 45 mins		
19h45-04h30	Going to bed	8 hrs 45 mins	Sleeping time 8 hrs 45 mins	

39. UNDERGROUND STORE-DRILLS

D.7

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
02h15-02h20	Getting up, dressing making bed, washing - ready to leave	5 mins	Preparing to go to work 5 mins	I get up earlier than other workers as I have to be at the store when spanners and drillers arrive to get drills
02h20-02h29	From the hostel to the crush	9 mins		
02h29-02h33	At the crush	4 mins		
02h33-02h41	In cage to station and from 42 level to 58 level on foot	8 mins		
02h41-02h45	Waiting for cages at 58 level	4 mins		
02h45-02h48	In cage to substation	3 mins		
02h48-02h54	From the station to the working place	6 mins		
02h54	Working time	9 hrs 36 mins	Working time 9 hrs 36 mins	Machine operators and spanners always insult me at work when they come for jumpers
12h30	Stopped work			
12h30-12h40	From the working place to the station	10 mins		
12h40-12h43	In cage to 42 level	3 mins		
12h43-12h50	Waiting for cages at 42 level	7 mins	Getting from the working place to the hostel	Coming back from work, we wait a long time for cages because material and carriages are being conveyed to the surface. We at times, have to get in the cage conveying the carriages
12h50-12h55	In cage from 42 level to surface	5 mins		
12h55-13h13	At the crush	18 mins		
13h13-14h00	From the crush to the hostel	47 mins		
14h00-14h20	To kitchen, back to room and eating	20 mins	After work activities	
14h20-18h00	To first aid class and back	3 hrs 40 mins	5 hrs 25 mins	In the kitchen we are at times told that there is no meat - it is finished. That is why I always stock my own food for such occasion, which I cook for myself.
18h00-18h30	Made food for supper	30 mins		
18h30-19h25	Leisure time	55 mins		
19h25-02h15	Going to bed	6 hrs 50 mins	Sleeping time 6 hrs 50 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h15	Getting up and making bed	15 mins	Preparing to go to work	I always get up when the second bell strikes. I wake up at this time so that I can be on time to get the cage
04h15-04h25	Putting on underground clothes	10 mins	30 mins	
04h25-04h30	To kitchen and breakfast ready to leave	5 mins		
04h30-04h50	To crush on foot	20 mins		
04h50-04h57	Waiting for cages	7 mins		
04h57-05h00	In crush to 34 level	3 mins	Getting from the hostel to the working place	Going to work my route is not very strenuous. I only waste time at 49 level waiting for the carriage at the incline shaft. When it is out of order, we use the ladder to get to 56 level, which is very difficult indeed
05h00-05h05	At 34 level footing to another station	5 mins		
05h05-05h15	Waiting for cages at sub-station at 34 level	10 mins		
05h15-05h20	In cage to 49 level	5 mins	1 hr 55 mins	
05h20-05h25	Waiting for cage to another sub-station	5 mins		
05h25-06h15	In cage from 49 level to 56 level	50 mins		My job is very strenuous as I once broke my arm. When I lash my arm swells up and when I tell my team leader he refuses to change me from my job
06h15-06h25	At the waiting place	10 mins		
06h25-06h38	Preparing to work	13 mins	Working time	
06h38	Working time	6 hrs 52 mins	7 hrs 5 mins	
13h30	Stopped work			
13h30-14h30	Waiting for cages at 56 level	1 hr		Coming back from work we do not use the skip as it is exclusively for whites. We have to use the ladder which is very difficult, hence we take such a long time to come up
14h30-15h00	In cage from 56 level to 49 level	30 mins	Getting from the working place to the hostel	
15h00-15h10	In cage from 49 level to 34 level	10 mins	1 hr 49 mins	
15h10-15h13	In cage from 34 level to surface	3 mins		Arriving at 58 level the cage only takes whites and the queue gets longer by the minute as the cage takes a long time to come back. This is very hurting
15h13-15h19	From crush to hostel	6 mins		
15h19-15h25	To change house and washing	6 mins		On Mondays, Fridays and Saturdays I do not get time to attend to my personal matters. The skips only take ore out
15h25-16h05	To kitchen, back to room, eating and washing dish	40 mins		
16h05-16h55	Relaxing in room	50 mins	After work activities	At the kitchen we are served raw porridge and instead of meat we are given bones
16h55-20h00	Watching television	3 hrs 5 mins	5 hrs 41 mins	The utensils used in the kitchen in the mornings are dirty, ie dishes, mugs, etc
20h00-21h00	Leisure time	1 hr		
21h00-04h00	Going to bed	7 hrs	Sleeping time	Water at the change house gives us a lot of trouble as it comes out in drips, or if it flows well, it is cold
			7 hrs 0 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER	
05h30-05h40	Getting up and making bed	10 mins	Preparing to go to work	I usually get up at 03h00 when the first bell strikes. It is the mine regulation that we get up at 03h00. It is still too early to wake up at this time as we only go to work much later	
05h40-05h45	Dressing - ready to leave	5 mins	15 mins		
05h45-06h00	From the hostel to the crush on foot	15 mins	Getting from the hostel to the working place		
06h00-06h05	At the crush:	5 mins			
06h05-06h10	Waiting for cages	5 mins			
06h10-06h15	In cage to 42 level	5 mins			
06h15-06h25	From 42 vertical to 42 sub-vertical	10 mins	2 hrs 10 mins	My work place is very far. We wait a long time for the cages in the mornings, and the queue is very long. I use two cages, a loco and a carriage at the incline shaft to get to my work level; and from there I still have to walk a distance to get to my working place	
06h25-06h30	Waiting for cages at 42 sub-vertical	5 mins			
06h30-06h33	From 42 sub-vertical to 58 level	3 mins			
06h33-07h55	From 58 sub-vertical to the working place	1 hr 22 mins	Working time		
07h55	Working time	6 hrs 5 mins			
14h00	Stopped work		6 hrs 5 mins		I am satisfied with my job, as, if I did not have a job, I would not get money. There is one white underground mine overseer who insults us almost every day
14h00-14h20	From the working place to 58 sub-vertical	20 mins	Getting from the working place to the hostel		
14h20-14h25	From 58 sub-vertical to 42 sub-vertical	5 mins			
14h25-14h30	From 42 sub-vertical to 42 vertical on foot	5 mins			
14h30-14h45	Waiting for cages at 42 vertical	15 mins			
14h45-14h50	In cage from 42 vertical to surface	5 mins			
14h50-15h10	From the crush to the hostel	20 mins	After work activities	My route from work is the same as in the morning as I have to retrace my steps	
15h10-15h40	To the change house, washing and changing underground clothes	30 mins			
15h40-16h10	To the kitchen, back to room, eating and washing dish	30 mins			
16h10-21h00	Leisure time	4 hrs 50 mins			
21h00-05h30	Going to bed	8 hrs 30 mins	Sleeping time		The food is very bad. When the cooks realise that the soup is nearly finished, they pour in water to serve those who will still be coming. The porridge is not well cooked. Meat here is very scarce. We are given very small pieces. The cooks are selling the meat for their own profit, that is why we are given little pieces or at times no meat at all
			8 hrs 30 mins		
				Water at the change house is cold. I do not remember ever getting hot water.	
				I do not get enough time in the afternoons to attend to my personal matters.	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h02	Getting up and making bed	2 mins	Preparing to go to work	I always get up at 4h00 when the first bell strikes. Everybody is expected to get up at this time irrespective of which station goes down first
04h02-04h13	Dressing - ready to leave	11 mins	13 mins	
04h13-04h25	From the hostel to the crush	12 mins		
04h25-05h15	Waiting for cages	50 mins	Getting from the hostel to the working place	When I arrived at the crush I found that the cages were not yet in operation, hence I waited so long for cages. Normally the cages are on time in the mornings
05h15-05h20	In cage to station	5 mins		
05h20-05h30	From station to 30 level	10 mins		
05h30-06h30	At the waiting place	1 hr	2 hrs 17 mins	We always wait a long time at the waiting place. We wait for our turn to go to the working place
06h30	Working time	7 hr 30 mins	Working time	
14h00	Stopped work		7 hrs 30 mins	
14h00-14h10	From the working place to the waiting place	10 mins		Every day we wait a long time for cages in the afternoons, while material is being conveyed
14h10-14h20	From the waiting place to the station	10 mins	Getting from the working place to the hostel	
14h20-14h35	Waiting for cages	15 mins		
14h35-14h40	In cage to surface	5 mins	1 hr 0 mins	
14h40-15h00	From the crush to the hostel	20 mins		
15h00-15h20	To kitchen, back to room and eating	20 mins		Getting to the change house to find at times the water is cold
15h20-15h50	To change house and washing	30 mins	After work activities	
15h50-18h00	Going out of hostel - visiting	2 hrs 10 mins	4 hrs 50 mins	At the kitchen the queue is very long and we wait a long time before we are served. The food is not well prepared especially porridge
18h00-19h50	Leisure time	1 hr 50 mins		
19h50-04h00	Getting to bed	8 hrs 10 mins	Sleeping time	The kitchen staff are very rude and address us in foul language.
			8 hrs 10 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
05h30-05h42	Getting up and making bed	12 mins	I always get up at 05h30 when the bell strikes. When the bell strikes, everybody is expected to wake up irrespective of who has to go down first
05h42-05h53	Dressing	11 mins	
05h53-06h32	To kitchen and breakfast - ready to leave	39 mins	
06h32-07h00	From the hostel to crush on foot	28 mins	Every day I have to go and wait for my boss at the whites' change house. I usually wait a long time for him before he arrives or before he is through with changing. When I have met him I take his bag and go down. Most of the time I wait a long time for the cage as the queue is usually long
07h00-07h30	Waiting for the miner at the whites' change house	30 mins	
07h30-07h35	From whites' change house to bank and to 41 CSV	5 mins	
07h35-08h35	By loco from CSV to 68 bank	1 hr	
08h35-08h40	Preparing for work	5 mins	My route to work is a long one. I use two cages to go down, a carriage at the incline shaft and then go down steps again underground before I reach my working place. I leave my boss's bag at the box where he will get it on arrival
08h40-	Working time	6 hrs 20 mins	
15h00	Stopped work		My job is not dangerous and it is not heavy
15h00-15h30	From working place to surface	30 mins	
15h30-16h00	From the crush to the hostel	30 mins	My route back from work is very difficult because at 77 level there is a long queue for the carriage at the incline shaft. At 68 level there is another long queue for cages to 41 level and another at 41 level before I get a cage to take me to the surface. All along I am carrying my boss's bag. On arrival at the surface I still have to take the bag to the whites' change house.
16h00-16h10	Changing underground clothes	10 mins	
16h10-16h35	To change house and washing	25 mins	We usually get cold water at the change house. We wash with it as we have no alternative, but we do not wash as we normally do in hot water. We also wash our work and private clothes in cold water
16h35-17h00	To kitchen, back to room and eating	25 mins	
17h00-20h05	Leisure time	3 hrs 5 mins	Arriving late at the hostel we do not get good food. On some days we get mixed vegetable soup which is not well prepared. On days that meat is served, we are told that time for serving is up, or before they can serve us, they turn us back to go and put our work clothes on again
20h05-05h30	Going to bed	9 hrs 25 mins	
			I was chosen by my miner from those in the gang to carry his bag. Pinch bar workers are called the bosses's picannins and are made to carry their bags. I do not regard myself as a picannin - it is an insult to my manhood and belittles me.

44. TIMBER

D.12

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h15	Getting up and making bed	15 mins	Preparing to go to work	I always get up at 04h00. Everybody is expected to wake up when the bell strikes.
04h15-04h17	Washing face	2 mins	20 mins	
04h17-04h20	Having breakfast - ready to leave	3 mins		
04h20-04h25	From hostel to crush on foot	5 mins	Getting from the hostel to the working place	I always waste time at the crush - by the time I get there cages have not yet started taking workers down
04h25-04h30	At the crush	5 mins		
04h30-04h42	In cage to 34 station	12 mins		
04h42-04h49	From 34 station to another cage going to 58 level on foot	7 mins	2 hrs 5 mins	My work level is very far underground, that is why I take so long to get there
04h49-04h55	In cage from 34 level to 58 level	6 mins		
04h55-05h13	From 58 level to station for another cage	18 mins		
05h13-06h12	In cage going to 65 level	59 mins	Working time	Going to my working place takes a lot of time because I still have to go down the incline shaft, which takes a very long time indeed
06h12-06h25	At waiting place	13 mins		
06h25-06h28	Preparing for work	3 mins		
06h28	Working time	7 hrs	7 hrs 38 mins	We (black workers) are the first to be taken down but are the last to be hoisted up. This hurts me very much
14h03	Stopped work	35 mins		
14h03-14h10	From working place to 66 level	7 mins		
14h10-14h20	In cage to 58 level	10 mins	Getting from the working place to the hostel	My work is very strenuous, but I am already used to it
14h20-14h35	Waiting for cages	15 mins		
14h35-14h50	From 58 level to 34 level	15 mins		
14h50-15h00	From 34 level to surface	10 mins	1 hr 2 mins	We waste a lot of time waiting for the carriage at the incline shaft. There is a long queue at the station and therefore long waits for cages. We arrive late at the hostel
15h00-15h05	From the crush to the hostel	5 mins		
15h05-15h15	To change house, washing and back	10 mins		
15h15-15h30	To kitchen, back to room and eating	15 mins	After work activities	Coming to the kitchen we find long queues after a long, hard day underground. When served, the vegetable soup is inedible as it is very badly cooked.
15h30-18h00	To bar, drinking and back to room	2 hrs 30 mins		
18h00-21h00	Leisure time	3 hrs		
21h00-04h00	Going to bed	7 hrs	Sleeping time	Having arrived late at the hostel, there is no time to go shopping or to the post office, because the cages were late
			7 hrs 0 mins	

45. TRANSPORT

D.13

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
03h30-03h36	Getting up, dressing and making bed	6 mins	Preparing to go to work	When I was still on the morning shift I used to wake up at 03h00 on my own. At times I was woken up by my room mates. In our room we wake each other up
03h36-03h45	To kitchen and breakfast ready to leave	9 mins	15 mins	
03h45-04h00	From hostel to crush on foot	15 mins		
04h00-04h16	At the crush	16 mins		
04h16-04h20	In cage to 42 level	4 mins	Getting from the hostel to the working place	In the mornings we have trouble with the cages because of the long queue, and this makes us late for work
04h20-04h28	From 42 level to 58 sub-station on foot	8 mins		
04h28-04h35	Waiting for cages at 58 level	7 mins	1 hr 48 mins	
04h35-04h38	In cage to sub-station	3 mins		
04h38-05h33	At the waiting place	55 mins		I am already used to my job and I am satisfied with it and my hours
05h33	Working time	8 hrs 42 mins	Working time	
14h15	Stopped work		8 hrs 42 mins	
14h15-14h35	From the working place to the waiting place	20 mins		
14h35-14h40	At 42 level waiting cages	5 mins	Getting from the working place to the hostel	Coming back from work we are delayed at the stations by long queues we have to join. This makes us late at the hostel
14h40-14h45	In cage to surface	5 mins		
14h45-15h00	At the crush and to the hostel	15 mins	45 mins	
15h00-15h18	Changing underground clothes	18 mins		
15h18-15h30	To kitchen, back to room and eating	12 mins	After work activities	Arriving late at the hostel we have to beg the kitchen staff to give us food, which in any event was badly cooked
15h30-15h40	To change house and washing	10 mins	4 hrs 30 mins	
15h40-19h30	Leisure time	3 hrs 50 mins		
19h30-03h30	Going to bed	8 hrs	Sleeping time	
			8 hrs 0 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h15	Getting up and making bed	15 mins	Preparing to go to work	I get up at 04h00 when the bell strikes
04h15-04h45	To change house, washing and dressing - ready to leave	30 mins	45 mins	
04h45-05h00	To crush on foot	15 mins		
05h00-05h05	Waiting for cages	5 mins	Getting from the hostel to the working place	In the mornings the cages are always on time. We have no trouble with them
05h05-05h10	In cage to station	5 mins		We wait a long time at the waiting place waiting for the miner before we can go into the working place
05h10-05h20	From the station to the waiting place	10 mins	2 hrs 20 mins	
05h20-07h00	At the waiting place	1 hr 40 mins		
07h00-07h05	From the waiting place to the working place	5 mins		
07h05	Working time	7 hrs 37 mins	Working time	I am satisfied with my work and my working time
14h42	Stopped work		7 hrs 37 mins	
14h42-14h50	From working place to the station	8 mins		
14h50-15h00	Waiting for cages	10 mins	Getting from the working place to the hostel	I usually do not take a long time from my working place to the hostel, I get cages quickly
15h00-15h05	In cage to surface	5 mins		
15h05-15h30	From crush to hostel	25 mins	48 mins	
15h30-16h30	To kitchen, back to to room and eating	1 hr		At the change house we normally get cold water. Very rarely do we get hot water
16h30-17h30	To change house and washing	1 hr	After work activities	Sometimes the porridge is finished in the kitchen and we are told to come back at 19h00, by which time we are dying from hunger
17h30-19h00	To bar and drinking	1 hr 30 mins	4 hrs 30 mins	
19h00-20h00	Leisure time	1 hr		
				The food is generally badly prepared. Mixed vegetable soup is bad; fish is cooked in water and the bones not removed. It is easy for us to choke from fish bones
				The cooks do not treat us properly
20h00-04h00	Going to bed	8 hrs	Sleeping time 8 hrs 0 mins	

47. WINCH DRIVER

D.15

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY WORKER
05h15-05h20	Getting up, making bed and washing	5 mins	I usually get up at 04h00 when the bell strikes. When I do not hear the bell, my room mates wake me up
05h20-05h25	Dressing - ready to leave	5 mins	
05h25-05h45	From hostel to crush	20 mins	
05h45-05h55	At the crush	10 mins	I work very far away. When we get to the bank we are in long queues. Arriving late at work, we are turned back by the miners. They do not understand when we tell them we are delayed in the queues. They tell us that we like sleeping
05h55-06h00	In cage to 42 level	5 mins	
06h00-06h05	From 42 station to 42 sub-vertical	5 mins	
06h05-06h10	From 42 sub-vertical to 58 sub-vertical	5 mins	
06h10-06h55	From 58 sub-vertical to 58 "O" bank	45 mins	
06h55-07h00	At the waiting place	5 mins	My job is strenuous and we have to carry heavy equipment to the working place. I am not satisfied with my shift boss who turns us back when we are late for work.
07h00-07h05	Preparing for work	5 mins	
07h05	Working time	6 hrs 25 mins	
13h30	Stopped work		
13h30-14h15	From the working place to 58 "O" shaft	45 mins	
14h15-14h20	From 56 level to 42 level	5 mins	Coming from work, we arrive late at the hostel due to delays in cages. While we wait for the cages, the queues become longer and longer
14h20-14h30	From 42 sub-vertical to 42 vertical on foot	10 mins	
14h30-14h35	From 42 level to surface	5 mins	Arriving after 14h00 at the hostel, we get very cold water at the change house.
14h35-14h40	At the crush	5 mins	Waiting until 18h00 does not help as the water is still cold
14h40-15h00	From the crush to the hostel	20 mins	
15h00-15h05	Changing underground clothes	5 mins	At the kitchen we are treated like beggars. Arriving before 14h00 you get better food. The porridge is served raw. At times we find there is no food, we are told to come back later. When we go back later, we are given so little that we have to take several trips to the kitchen before we are satisfied.
15h05-15h40	To change house and washing	35 mins	
15h40-16h00	Relaxing in room	20 mins	
16h00-16h25	To kitchen, back to room eating and washing dish	25 mins	
16h25-19h00	Leisure time	2 hrs 35 mins	
19h00-05h15	Going to bed	10 hrs 15 mins	I have very little time to do my shopping and attend to my personal matters
		10 hrs 15 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h25	Getting up and making bed	25 mins	Preparing to go to work	We are all expected to wake up at 04h00 when the bell strikes, irrespective of when we start work
04h25-04h30	Putting on underground clothes	5 mins	43 mins	
04h30-04h43	To change house and washing face - ready to leave	13 mins		
04h43-04h55	From hostel to crush on foot	12 mins		We always waste a lot of time at the bank waiting for cages because there is congestion there as we are all woken up at the same time.
04h55-05h00	At the crush	5 mins		
05h00-05h05	In cage to 34 level	5 mins	Getting from the hostel	
05h00-05h18	Waiting for cage to 34 level	13 mins	to the working place	
05h18-05h35	In cage from 34 level to 30 level	17 mins		
05h35-05h45	At the waiting place at 29 level	10 mins	1 hr 47 mins	I waited a long time at the waiting place as we were waiting for the carriage at the incline shaft to take us to a lower level
05h45-06h30	From waiting place to working place	45 mins		
06h30	Working time	7 hrs	Working time	Our pay is not commensurate with the type of job we do
13h30	Stopped work		7 hrs 0 mins	
13h30-13h35	From 30 level to 34 station	5 mins		The route coming back from work takes a long time as we have to wait a long time for the carriage at the incline shaft and again go and wait for cages at the sub-station
13h35-13h40	Waiting for cages	5 mins	Getting from the working place to the hostel	
13h40-14h00	In cage to surface	20 mins		
14h00-14h10	From crush to hostel	10 mins	40 mins	At the change house we get cold water, and at times the water comes out in a trickle
14h10-14h35	To change house, washing and back to room	25 mins		
14h35-15h25	To kitchen, back to room and eating	50 mins	After work activities	The food in the kitchen is not well prepared, especially the mixed vegetable soup. We eat it because we are poor and very hungry when we come back from work
15h25-18h00	Watching television	2 hrs 35 mins	7 hrs 8 mins	
18h00-21h18	Leisure time	3 hrs 18 mins		
21h18-04h00	Going to bed	6 hrs 42 mins	Sleeping time	
			6 hrs 42 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
04h00-04h20	Getting up and making bed	20 mins	Preparing to go to work	I get up at 04h00 with all the other workers when the bell strikes, irrespective of which station goes down first
04h20-04h28	Relaxing in room	8mins	40 mins	
04h28-04h40	To kitchen and breakfast ready to leave	12 mins		
04h40-05h08	From the hostel to the crush	28 mins		I waited a long time for a cage because the queue was long
05h08-05h30	Waiting for cages	22 mins	Getting from the hostel to the working place	
05h30-05h35	In cage to station	5 mins		
05h35-05h45	From station to waiting place	10 mins	1 hr 50 mins	I waited a long time at the waiting place as we were still being given instructions, and waited to be told to get into the working place
05h45-06h20	At the waiting place	35 mins		
06h20-06h30	From waiting place to working place	10 mins		
06h30	Working time	7 hrs 30 mins	Working time	My work is very strenuous, and it is a long time now that I have asked for a transfer but the miner refuses to transfer me. I really do not like the job
14h00	Stopped work		7 hrs 30 mins	
14h00-14h20	From working place to waiting place	20 mins		
14h20-14h30	From waiting place to station	10 mins	Getting from the working place to the hostel	We always wait a long time for cages in the afternoons. The queue is usually very long
14h30-15h00	Waiting for cages	30 mins	1 hr 25 mins	
15h00-15h05	In cage to surface	5 mins		
15h05-15h10	At the crush	5 mins		We wash with cold water at the change house.
15h10-15h25	From the crush to hostel	15 mins		
15h25-15h45	To change house and washing	20 mins		
15h45-16h00	To kitchen, back to room and eating	15 mins	After work activities	The food at the kitchen is very bad, and at times we have no option but to go and buy food from the shops to have something to eat
16h00-19h00	Gone out visiting	3 hrs	4 hrs 55 mins	
19h00-20h20	Leisure time	1 hr 20 mins		
20h20-04h00	Going to bed	7 hrs 40 mins	Sleeping time	
			7 hrs 40 mins	

50. SHAFT TIMBER

D.18

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
06h00-06h03	Getting up and making bed	3 mins	Preparing to go to work	I usually get up at 04h00 when the first bell strikes. Everybody is expected to wake up at this time irrespective of who has to go down first
06h03-06h10	Dressing	7 mins	13 mins	
06h10-06h13	To change house and	3 mins		
06h13-06h30	From hostel to crush	17 mins		
06h30-06h35	At the crush	5 mins		
06h35-06h40	Waiting for cages	5 mins		Getting to work is a hassle because at times only one cage is operating and people push and struggle to get into the cage, resulting in injuries and at times death
06h40-06h45	In cage to 42 level	5 mins	Getting from the hostel to the working place	
06h45-06h55	From 42 station to sub-vertical on foot	10 mins		
06h55-07h00	From 42 level to 58 level	5 mins	1 hr 42 mins	
07h00-07h30	From 58 station to shaft bank	30 mins		
07h30-07h45	Waiting for cages	15 mins		
07h45-07h50	In cage from 58 level to 68 level	5 mins		
07h50-07h55	From 68 level down the ladder to 69 level on foot	5 mins		
07h55	Working time	4 hrs 35 mins	Working time	
12h30	Stopped work		4 hrs 35 mins	
12h30-12h50	From the working place to 58 sub-vertical	20 mins		My job is not strenuous and I am satisfied with it
12h50-12h55	From 58 level to 42 level	5 mins		
12h55-13h00	From 42 sub-vertical to 42 station	5 mins	Getting from the working place to the hostel	
13h00-13h10	In cage to survice	10 mins		
13h10-13h30	At the crush	20 mins	1 hr 30 mins	
13h30-14h00	From crush to hostel	30 mins		The mixed vegetable soup is not well cooked and has too many ingredients mixed in one pot
14h00-14h30	To kitchen, back to room and eating	30 mins	After work activities	
14h30-19h45	Leisure time	5 hrs 15 mins	5 hrs 45 mins	
19h45-06h00	Going to bed	10 hrs 15 mins	Sleeping time	Water at the change house is cold at times and only on rare occasions do we get hot water
			10 hrs 15 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY	COMMENTS BY THE WORKER
03h30-03h45	Getting up, making bed and dressing	15 mins	Preparing to go to work 30 mins
03h45-04h00	To kitchen and breakfast ready to leave	15 mins	
04h00-04h15	From the hostel to crush on foot	15 mins	
04h15-04h20	At the crush	5 mins	Getting from the hostel to the working place 2 hrs 12 mins
04h20-04h26	Waiting for cages	6 mins	
04h26-04h30	In cage to 58 level	4 mins	
04h30-04h35	From 58 level station to sub-station on foot	5 mins	
04h35-04h45	Waiting for cages at sub-station	10 mins	
04h45-05h05	In cage from 58 level to 68 level	20 mins	
05h05-05h08	In cage from 68 level to 77 level	3 mins	
05h08-05h16	From 77 level to 76 level on foot	8 mins	
05h16-05h45	At the waiting place	29 mins	
05h45-06h12	From the waiting place to the working place	27 mins	
06h12-06h20	Preparing for work	8 mins	Working time 8 hrs 18 mins
06h20	Working time	8 hrs	
14h30	Stopped work	10 mins	
14h30-14h40	From working place to 77 level	10 mins	Getting from the working place to the hostel 58 mins
14h40-14h44	In cage from 77 level to 68 level	4 mins	
14h44-14h50	In cage from 68 level to 58 level	6 mins	
14h50-15h00	From 58 level station to sub-station on foot	10 mins	
15h00-15h03	In cage at sub-station to 42 level	3 mins	
15h03-15h10	Waiting for cages at 42 level	7 mins	
15h10-15h15	In cage from 42 level to surface	5 mins	
15h15-15h18	At the crush	3 mins	
15h18-15h28	From crush to hostel	10 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
15h28-15h47	To change house and washing - changing underground clothes	19 mins	After work activities 4 hrs 2 mins	Now that I am on night shift I get hot water at the change house, but when I was on day shift, I used to get cold water every day Food at the kitchen is OK. The only trouble is with the cooks. They give us too little food and we have to go back for more three or four times before we are satisfied When I was on day shift, I did not get time to attend to my personal matters as I always came out too late from work
15h47-16h04	To kitchen, back to room, eating and washing dish	17 mins		
16h04-19h30	Leisure time	3 hrs 26 mins		
19h30-03h30	Going to bed	8 hrs	Sleeping time 8 hrs 0 mins	

STARTING AND FINISHING TIMES	ACTIVITIES	TIME SPENT ON EACH ACTIVITY		COMMENTS BY THE WORKER
05h30-05h40	Getting up and making bed	10 mins	Preparing to go to work 1 hr 0 mins	I always get up at 05h30 when the bell strikes. The bell strikes at intervals of 15 minutes to wake workers going to different levels. I start work at 07h00, so getting up at 05h30 is the right time, otherwise if we all woke up at the same time there would be congestion at the crush
05h40-05h55	Dressing	15 mins		
05h55-06h10	To change house and washing	15 mins		
06h10-06h30	Making and drinking coffee - ready to leave	20 mins		
06h30-07h00	From hostel to crush on foot	30 mins	Getting from the hostel to the working place 1 hr 0 mins	In the mornings I do not go to the kitchen for breakfast as it is closed, but by regulation we are supposed to get breakfast from the kitchen I take a long time to the crush because on the way we have to cross a road intersection controlled by robots. So if the robots are against us we wait a long time. The intersection is dangerous as we can easily be knocked down by cars
07h00-07h30	From surface to level 77	30 mins		
07h30	Working time	6 hrs 30 mins	Working time 6 hrs 30 mins	There are days when we get cages on time in the mornings, but usually we have to wait a long time. Underground, I wait for a loco for a long time and then wait again for a carriage at the incline shaft to take me to my work level I am already used to my job and I no longer feel the strain
14h00	Stopped work			
14h00-14h15	At the waiting place with the team leader	15 mins	Getting from the working place to the hostel 1 hr 15 mins	Getting back from work, we have to wait a long time for the cages, and by the time we reach the surface we are already tired
14h15-15h00	From 77 level to surface	45 mins		
15h00-15h15	From the crush to the hostel	15 mins	After work activities 5 hrs 14 mins	Some days we get cold water at the change house. I do not know why the water is cold
15h15-15h20	Changing underground clothes	5 mins		
15h20-15h45	To change house and washing	25 mins	5 hrs 14 mins	Food at the kitchen, especially porridge and mixed vegetable soup is not well prepared. The cooks treat us very nicely and will even invite us to go back for more if we are not satisfied
15h45-16h13	To kitchen, back to room and eating	28 mins		
16h13-20h29	Leisure time	4 hrs 16 mins	Sleeping time 9 hrs 1 mins	
20h29-05h30	Going to bed	9 hrs 1 mins		

APPENDIX IV

What the Mines are Doing for the Black Worker

It has been strangely low-key, usually conservative, often painful. Yet South Africa's mining industry has undergone the most fundamental change in its history. A labour structure that only a few years ago was an anachronism has undergone an impressive transition. Today the entire environment of the black mine worker - his wages, his training, his health and welfare - bears little resemblance to that of only five years ago.

In this special survey, Coal Gold and Base Minerals examines the vast strides made by the mining houses in improving the lot of their black employees. Constraints of space have made it impossible to detail all the achievements yet we believe this survey will clearly demonstrate to readers both within and outside the industry that mining's efforts in this vital sphere have gone far beyond simply window dressing. We further hope that this country's detractors abroad will take due cognisance of the facts contained in the survey.

Over the next pages readers will learn of Rand Mines' plans to spend R50 million on its capital expenditure programme for blacks and how and where the same group spends R40 million a year on black employee welfare. We describe the major advances made by Anglovaal, not only in providing first-class facilities, but in giving the black workers meaningful representation through Employee Representative Councils. Anglovaal's philosophy is one of "doing things with people rather than for them".

We also feature a comprehensive report on General Mining's Stilfontein property which was once the mine black workers loved to hate. Today it can accommodate no new recruits as the number of OBR's (old blacks returning) more than copes with its labour needs.

We look at catering, sports and recreation, working conditions, wages, housing and accommodation, driving schools, mine television service, all of which underline the mining industry's firm commitment to maintaining a content and stable black workforce.

The whole lifestyle of the black mine worker is changing. Innovations are being introduced rapidly to make his work more productive and his leisure more fulfilling.

APPENDIX V

ISSUES RAISED BY ISIBONDAS AT COMMITTEE MEETINGS

The following issues were raised by isibondas at thirteen meetings held during the period 25.05.1978 to 01.05.1979.

FOOD AND DINING HALL COMPLAINTS

Inadequate food quality and quantity	9
Trolleys arrive late at dining hall	1
Request for dietician to be employed so as to improve food quality	1
Feeding problems in dining hall could be resolved by housing people according to mine overseer's section	1
Dining hall dirty	1
Feeding should be dealt with by hostel management not a catering department	1
Other dining hall problems	5
Dissatisfaction with meal ticket system	1
Food is wasted	1
Food is re-cooked for next day	1
Visitors not allowed to eat with residents	1
Residents spend much money on food at the cafeteria	1
TOTAL	<u>24</u>

CHANGE HOUSES

Clothing stolen	3
Staff not trained	1
Water cold	1
TOTAL	<u>5</u>

ISIBONDAS

Payment requested	2
Uniforms requested	1
<u>Isibonda's</u> bed should be identified	1
TOTAL	<u>4</u>

ACCOMMODATION

Good housekeeping competitions requested	1
Request for washing lines	3
Problem of broken lockers	1
Locked toilets	2
Request for toilet paper	1
Hostel discipline too strict	1
Not allowed to play radios	1
Accommodation shortage because loafers and discharges stay in hostel	1
Moved from room to room too often	1
Rooms overcrowded	1
Time limit for playing of gumba-gumbas not specified.	1
Assaults by prefects and complex administrators	1
Hospitalized persons not reported to <u>isibondas</u>	1
Administrators not fulfilling the role of <u>indunas</u>	1
Other	1
TOTAL	<u>18</u>

WORK-RELATED ISSUES

Workers discharged or booked absent because cards are lost at the crush	2
Workers booked absent at crush before clock-in time	1
Work cards not always on same rack, giving rise to delays at the crush	1
Difficult to get work cards resulting in queues and delays	1
Accused of being absent when at work	2
Gang cards not up to date, resulting in workers being at wrong workplace	1
Turned back at crush because workers have to go to the stores in the morning	1
Workers not told what time the cages leave	1
Discrimination in cages	1
Late cages	2
Workers turned back because cages busy with another job	1
Dissatisfaction with bonuses	1
Assaulted by whites underground	2
Workers placed on job they are not trained for	1
Not enough warning prior to blasting	1
Team leaders should serve on safety committees	1
Work every day, no rest	1
Sunday shifts and overtime not booked	1
Surface workers refused transfers underground	1
Newcomers not handed over to team leaders, and they do not know where to work	1
P.A.s are insufficient	2
Workers discharged too easily	1
Addressed in English at training school	1
Purchase of protective clothing	1
TOTAL	29

GENERAL

Poor service at the medical station	1
Bus transport problems	3
Mail not distributed properly	1
Residents interfere with electrical fittings	1
Request for consultative committees for blacks to be established	1
Request for free beer issue	1
Team leaders asked for recognition in the hostel. Willing to assist <u>sibondas</u> and prefects but lack status in the hostel	2
Complaints about security staff	2
TOTAL	<u>12</u>

Most of the above-mentioned problems were conveyed to the personnel manager, in a memorandum dated 1st December, 1978 (see Appendix VI).

APPENDIX VI

COPY OF MEMORANDUM FROM HOSTEL MANAGER TO
PERSONNEL MANAGER, DECEMBER 1978

The following complaints and grievances were lodged by team leaders and isibondas at a meeting held in Complex 5 on Friday, 1st December, 1978.

- 1(a) Discipline in the hostel is too strict.
- (b) People are being discharged too easily.
- (c) People are moved around too often from room to room and isibondas are not consulted when beds are allocated.
- (d) Rooms are overcrowded.
- (e) People are unnecessarily assaulted by prefects and complex administrators.
- (f) Hospitalized cases are not reported to isibondas.
- (g) Residents are not allowed to play their radios.
- (h) Black employees have to walk a long way around to get to Western Deep Levels as they are not allowed to walk through the White township.
- (i) Private belongings get lost in the change houses.
- (j) Long queues are caused at change houses as staff are not trained.
- (k) Complex administrators are not fulfilling the role of indunas.
- (l) All letters are not distributed to the different rooms.
- 2(a) Feeding cards are clipped by dining hall guards, but people are not issued with meat and are told that they have had meat.
- (b) Maheu is not always available.
- (c) All types of food are rationed. We are refused food, but a lot of food is found thrown away.
- (d) Porridge and soup is not eaten by residents as it is not properly prepared.
- (e) Our visitors are not allowed to eat with us.
- (f) Food left over from the previous day is re-cooked the next day.

- (g) Tea and coffee served is not sweet and very little milk is added.
 - (h) Residents are spending a lot of money on foodstuffs at the cafeteria.
 - (i) Dining hall guards need proper training.
- 3(a) People complain that they are ill-treated by Whites underground.
- (b) Whites are walking around with sticks underground and assault people. People are talking about retaliating.
 - (c) Workers are taken underground at random and put on jobs they are not trained for and when this is pointed out to their supervisors, workers are chased away from the working place.
 - (d) Workers going for stores in the morning before the shift are turned back when they get to the cages and accused of being late. Material cars are needed.
 - (e) When the shift is hoisted a few Whites get into cages and we are told to wait as it is not our time. We are lowered first, but when it comes to hoisting the shift, Whites get preference.
 - (f) Workers are not told what time to go down.
 - (g) It is recommended that team leaders serve on safety committees.
 - (h) Workers are not given enough warning when blasting is about to take place.
 - (i) Underground workers are working every day and have no day of rest.
- 4(a) Clock cards disappear in crush and workers are shown as absentees.
- (b) P.A.s do not go into complaints and people are referred to shift overseers who in turn refer them back to the P.A.s.
 - (c) All Sunday shifts and overtime is not booked.
 - (d) Surface workers are refused transfers underground.
 - (e) Clock cards are not always in the same card rack, which results in workers having to look for their cards which creates delays.
 - (f) Difficult to get work tickets and crush personnel insist that it be stamped before allowed to proceed underground. This creates queues and delays.
 - (g) Transfers and new labour not handed over to their respective team leaders, workers are uncertain as to where they are supposed to work.

- (h) Workers are paraded when coming off shift and are then accused of being absent from work.
- (i) Gang cards not up to date. Workers coming to working place, but not on gang card found to be at wrong working place.
- (j) Addressed in English at the Training Centre and expected to reply in English when Whites are present.

APPENDIX VII

TABLES AND FIGURES FROM THE TEXT OF THE THESIS

THIS APPENDIX CONTAINS THE FOLLOWING TABLES AND FIGURES:

TABLE 27: Region of origin of black mineworkers

TABLE 28: Mother tongue of black mineworkers

TABLE 29: Black mineworkers' families: Size of the homestead

TABLE 30: Black mineworkers families: Number of wage earners

TABLE 31: Black mineworkers' families: Number of dependents

TABLE 32: Black mineworkers' non-mining experience

TABLE 33: Reasons for disciplinary action against black mineworkers

TABLE 34: Reasons for disciplinary action against black mineworkers analysed by shaft

TABLE 35: Disciplinary action against black mineworkers analysed by mine overseers' section

TABLE 36: Absences without permission by black mineworkers
a) on Section Z analysed by age

TABLE 36: Absences without permission by black mineworkers
b) on Section Z analysed by level of schooling

TABLE 36: Absences without permission analysed by
c) region of origin

TABLE 36: Absences without permission analysed by the
d) return category

TABLE 36: Absences without permission by black
e) mineworkers on Section Z analysed by job category

TABLE 37: Disciplinary action against black mineworkers analysed by job category

TABLE 38: Nature of the disciplinary action taken against team leaders

TABLE 39: Nature of the grievances and requests raised by team leaders

TABLE 40: Types of grievances and requests raised by black mineworkers

TABLE 41: Types of grievances and requests raised by black mineworkers analysed by shaft

- TABLE 42: Grievances lodged and requests made by black mineworkers analysed by mine overseers' section
- TABLE 43: Requests for transfer made by black
a) mineworkers in Section R, analysed by age
- TABLE 43: Requests for transfer made by black
b) mineworkers in Section R, analysed by level of schooling
- TABLE 43: Requests for transfer made by black mine-
c) workers in Section R, analysed by region of origin
- TABLE 43: Requests for transfer made by black mine-
d) workers in Section R, analysed by the return category
- TABLE 43: Requests for transfer made by black mine-
e) workers in Section R, analysed by job category
- TABLE 44: Reasons for black mineworkers leaving the mine
- TABLE 45: Reasons for black workers leaving the mine analysed by shaft
- TABLE 46: Normal exits of black mineworkers analysed by mine overseers' section
- TABLE 47: Abnormal exits of black mineworkers analysed by mine overseers' section
- TABLE 48: Black mineworkers' exits from two mine overseers' sections and the reduction works, analysed by the lengths of their workstays
- TABLE 49: Dismissals of black mineworkers analysed by mine overseers' sections
- TABLE 50: Some environmental factors which could have contributed to worker behaviour analysed by mine overseers' sections
- TABLE 61: Groups in mining with whom black mineworkers compared themselves
- TABLE 62: Some responses given by black mineworkers when comparing themselves with groups in mining
- TABLE 63: Groups outside of mining with whom black mineworkers compared themselves
- TABLE 64: Some responses given by black mineworkers when comparing themselves with groups outside mining
- TABLE 65: Favourable aspects of other mines mentioned
1a) Number of times each aspect was mentioned, total for both mines

- TABLE 65: Favourable aspects of other mines mentioned,
1b) how the popular mine compared with other
mines
- TABLE 65: Favourable aspects of other mines mentioned
1c) how the unpopular mine compared with other
mines
- TABLE 65: Favourable aspects of other mines mentioned,
2 some of the actual responses recorded
- TABLE 66: Unfavourable aspects of other mines mentioned,
1a) Number of times each aspect was mentioned,
total for both mines
- TABLE 66: Unfavourable aspects of other mines mentioned,
1b) How the popular mine compared with other mines.
- TABLE 66: Unfavourable aspects of other mines mentioned,
1c) How the unpopular mine compared with other
mines
- TABLE 66: Unfavourable aspects of other mines mentioned,
2 some of the actual responses recorded
- TABLE 67: Favourable and unfavourable aspects of other
mines - a comparison between the popular and
the unpopular mine
- TABLE 68: How current conditions compared with condi-
1 tions eighteen months before - the popular
mine
- TABLE 68: How current conditions compared with condi-
2 tions eighteen months before - the unpopular
mine
- TABLE 68: How current conditions compared with conditions
3a) eighteen months before - some of the actual
responses recorded - aspects considered to
have improved in the last eighteen months
- TABLE 68: Aspects considered to have worsened in the
3b) last eighteen months
- TABLE 69: Favourable aspects of secondary industry -
1a) number of times each aspect was mentioned,
total for both mines
- TABLE 69: Favourable aspects of secondary industry -
1b) how the popular mine compared with secondary
industry
- TABLE 69: Favourable aspects of secondary industry -
1c) How the unpopular mine compared with secondary
industry
- TABLE 69: Favourable aspects of secondary industry -
2 some of the actual responses recorded

- TABLE 70: Unfavourable aspects in secondary industry -
 1a) number of times each aspect was mentioned,
 total for both mines
- TABLE 70: Unfavourable aspects of secondary industry,
 1b) how the popular mine compared with secondary
 industry
- TABLE 70: How the unpopular mine compared with
 1c) secondary industry
- TABLE 70: Unfavourable aspects of secondary industry,
 2 some of the actual responses recorded
- TABLE 71: Favourable and unfavourable aspects of
 secondary industry - a comparison between the
 views of workers on the popular and the
 unpopular mine
- TABLE 72: A comparison between workers' views of other
 mines and of secondary industry
- TABLE 73: Opinions on whether there had been improvement
 or deterioration in the conditions on the
 mines
- TABLE 76: Black mineworkers ranking of factors
 a) detracting most from the quality of their
 lives on mines, analysed by level of
 schooling
- TABLE 76: Black mineworkers' ranking of factors detr
 b) detracting most from the quality of their
 lives on mines, analysed by length of mining
 experience
- TABLE 76: Black mineworkers' ranking of factors
 c) detracting most from the quality of their
 lives on mines, analysed by marital status
- TABLE 76: Black mineworkers' ranking of factors
 d) detracting most from the quality of their
 lives on mines, analysed by their job
 categories
- TABLE 76: Black mineworkers' ranking of factors
 e) detracting most from the quality of their
 lives on mines, analysed by region of origin
- TABLE 77: Black mineworkers' ranking of factors
 a) contributing to the quality of their lives
 on mines, analysed by level of schooling
- TABLE 77: Black mineworkers' ranking of factors
 b) contributing to the quality of their lives on
 mines, analysed by length of mining experience

- TABLE 77: Black mineworkers' ranking of factors co
c) contributing to the quality of their lives on
mines, analysed by marital status
- TABLE 77: Black mineworkers' ranking of factors
d) contributing to the quality of their lives on
mines, analysed by their job categories
- TABLE 77: Black mineworkers' ranking of factors
e) contributing to the quality of their lives on
mines, analysed by region of origin

TABLE 27 : Region of origin of black mineworkers

REGION	Number of men	Sub-totals	Per Cent	Per cent of sub-totals
Cape	5		1,0	4,9
Natal	8		1,6	7,8
Orange Free State	35		7,0	33,9
Transvaal	55		11,0	53,4
All South African		103	20,6	100,0
Lesotho	90		18,1	55,9
Botswana	10		2,0	6,2
Swaziland	10		2,0	6,2
Malawi	14		2,8	8,7
Zimbabwe	1		0,2	0,6
Mozambique	36		7,2	22,4
All Foreign		161	32,3	100,0
Transkei	122		24,5	52,1
Ciskei	34		6,8	14,5
Lebowa	25		5,0	10,7
Qwa Qwa	3		0,6	1,3
Swazi	4		0,8	1,7
Gazankulu	6		1,2	2,6
Bophuthatswana	27		5,4	11,5
Kwa Kwa	13		2,6	5,5
All Homelands		234	46,9	100,0
Total		498	100,0	

Missing data: 1

Summary Table

Transkei/Ciskei	156	31,3
Lesotho	90	18,1
All South African	103	20,6
Foreign (except Lesotho)	71	14,3
Homeland (except Transkei/Ciskie)	78	15,7

Source: Hall (1982)

TABLE 28 : Mother tongue of black mineworkers

Language	Number of Men	Per Cent
Xhosa	151	30,3
South Sotho	134	26,9
Shangaan	53	10,6
Tswana	45	9,0
Zulu	39	7,8
North Sotho (Pedi)	28	5,6
Swazi	20	4,0
Ndebele	10	2,0
Chicewa	12	2,4
Unknown	4	0,8
Shona	1	0,2
Ndau	1	0,2
Total	498	100,0

Missing data : 1

Source: Hall (1982)

TABLE 29 : Black mineworkers' families: Size of the homestead

Number in homestead		
0 - 4 persons	147	30
5 - 8 persons	258	52
9 - 12 persons	72	14
13 persons or more	22	4
Total	499	100

Mean : 6,3
Median : 5,9
Mode : 6
Minimum : 1
Maximum : 26
S.D. : 3,0
S.E. : 0,1
Kurtosis : 4,6
Skewness : 1,5

Source: Hall (1982)

TABLE 30 : Black mineworkers' families : Number of wage earners

Number of wage earners	N	Per cent
Zero	217	43
1 or 2	225	45
3 or 4	43	9
5 or more.	14	3
Total	449	100

Mean : 1,1
 Median : 0,7
 Mode : 0
 Minimum : 0
 Maximum : 9
 S.D. : 1,4
 S.E. : 0,1
 Kurtosis : 7,1
 Skewness : 2,2

Source : Hall (1981)

TABLE 31 : Black mineworkers' families : Number of dependents

Number of dependents	N	Per cent
0 - 4	220	44
5 - 8	224	45
9 - 12	45	9
13 or more	8	2
Total	497	100

2 missing

Mean : 5,2
 Median : 4,8
 Mode : 5
 Minimum : 0
 Maximum : 20
 S.D. : 2,8
 S.E. : 0,1
 Kurtosis : 7,6
 Skewness : 0,9

Source : Hall (1981)

TABLE 32 : Black mineworkers' non-mining experience

E X P E R I E N C E	N	Per cent
Yes	229	46
No	270	54
Total	499	100

Source : Hall (1982)

TABLE 33 : Reasons for disciplinary action against black mineworkers

N=11 064

REASONS	Number of times action was taken (a)	Percentage of disciplinary cases to mine labour strength $\frac{(a)}{N} \times \frac{100}{1}$
Absent without permission (1)	609	5,5
Failure to obey instructions	518	4,7
Poor quality of work	317	2,9
Arriving late for work	300	2,7
Asleep on duty	128	1,2
Loafing at work	105	0,9
Insolence/insults	98	0,9
Drug or alcohol use	85	0,8
Assaults	52	0,5
Other offences	198	1,8
Total number of disciplinary cases recorded	<u>2 410</u>	

Note : (1) "Absent without permission" refers here to the number of men who were disciplined for being absent more than twice without permission or for a period longer than two days.

TABLE 34 : Reasons for disciplinary action against black mineworkers analysed by shaft

N = 11064

FREQUENCY OF DISCIPLINARY ACTION										
Reasons for Disciplinary action	SHAFT 2			SHAFT 4			SURFACE WORK			Total number of cases (a)+(b)+(c)
	Number of cases (a)	Percentage of disci- plinary cases to shaft labour strength $\frac{(a)}{4441} \times \frac{100}{1} = (x)$	Shaft percentage over total of percentages $\frac{x}{x+y+z} \times \frac{100}{1}$	Number of cases (b)	Percentage of disci- plinary cases to shaft labour strength $\frac{(b)}{4300} \times \frac{100}{1} = (y)$	Shaft percentage over total of percentages $\frac{y}{x+y+z} \times \frac{100}{1}$	Number of cases (c)	Percentage of disci- plinary cases to surface labour strength $\frac{(c)}{2323} \times \frac{100}{1} = (z)$	Surface percentage over total of percentages $\frac{z}{x+y+z} \times \frac{100}{1}$	
		(1)	(2)		(1)	(2)		(1)	(2)	
Absent without permission	529	11,9	83	44	1,0	7	36	1,5	10	609
Failure to obey instructions	314	7,1	58	186	4,3	36	18	0,8	6	518
Poor quality of work	210	4,7	65	106	2,5	35	1	0,0	0	317
Arriving late for work	177	4,0	57	119	2,8	40	4	0,2	3	300
Sleep on duty	75	1,7	52	37	0,9	27	16	0,7	21	128
Drinking at work	51	1,1	41	38	0,9	33	16	0,7	26	105
Insolence/Insults	47	1,1	46	44	1,0	42	7	0,3	12	98
Drug or alcohol use	44	1,0	38	9	0,2	8	32	1,4	54	85
Assaults	21	0,5	42	31	0,7	58	0	0,0	0	52
Other Offences	126	2,9	62	66	1,5	32	6	0,3	6	198
TOTAL	1594	35,9	62	680	15,8	27	136	5,9	10	2410
Shaft, surface labour strengths (average)	4441			4300			2323			11064

NOTES : (1) This calculation is done to remove the effect of labour strength on the number of cases recorded (if there are more workers one would expect more incidents). This calculation brings the number of cases to a common denominator, in this case a percentage.

(2) This calculation is done to determine how much each shaft (or surface) contributed to the number of cases on the mine as a whole.

(cix)

TABLE 35 : Disciplinary action against black mineworkers analysed by mine overseers' section

N=8741

Mine Overseers' Section	Total Number of disciplinary cases recorded (a)	Section Strength (average) (b)	Percentages of disciplinary cases to Section Labour Strength $\frac{(a)}{(b)} \times \frac{100}{1} = x$	Section percentages over Shaft percentages $\frac{x}{y} \times \frac{100}{1}$
J	276	495	55,8	18
V	151	745	20,3	5
G	187	527	35,5	10
SHAFT 2 K	263	815	32,3	11
Z	497	666	74,6	25
R	106	441	24,0	8
P	61	114	53,5	17
Engineering Services	35 18	376 238	9,3 7,6	3 2
SHAFT TOTAL:	1 594	4 417 (1)		99
		Sum of Section percentages= y=312,9		$\frac{x}{z} \times \frac{100}{1}$
B	106	670	15,8	11
D	96	443	21,7	16
SHAFT 4 E	163	663	24,6	18
F	98	300	32,7	24
(Operations discontinued mid-year)				
L	56	608	9,2	7
M	100	693	14,4	10
H	50	367	13,6	10
Engineering Services	16 14	342 195	4,7 2,1	3 2
SHAFT TOTAL:	699 (1)	4 281 (1)		100
		Sum of Section percentages= z=138,8		

Notes : (1) The discrepancy between these totals and those in other tables arises from the averaging of monthly figures.

(cx)

TABLE 36 : Absences without permission by black mineworkers on Section Z

N=591 (1)

(a) Analysed
by Age

	AGE GROUPS (IN YEARS)							Total
	20 and less	21-24	25-29	30-39	40-49	50 and over	Missing data	
Actual number of men in each age group in Section Z who AWOPped	28,0	47,0	52,0	53,0	10,0	0,0	0,0	190
Number of men in each age group in Section Z (1)	43,0	163,0	174,0	137,0	66,0	7,0	1,0	591 (1)
Percentage of men in each age group in Section Z (2)	7,3	27,6	29,4	23,2	11,2	1,2	0,1	100
Number of men expected to have AWOPped in relative proportion to the numbers in each age group (3)	14,0	52,0	56,0	44,0	21,0	2,0	1,0	190
Level of significance between actual and expected AWOP cases (at 1 per cent level of Significance) (4)	Significantly higher than expected	Not Significant	Not Significant	Not Significant	Significantly lower than expected	Not Significant	Not Significant	

Notes : (1) As these figures were not readily available on the mine, the ages of the workers who left the mine in 1979 were used as there was over a 100 per cent turnover and these figures were considered to be fairly representative.

(2) The percentage of men in each age group was obtained as follows $\frac{43}{591} \times \frac{100}{1} = 7,3$ per cent

(3) As there were 190 AWOP's recorded for all workers in Section Z one would expect men 20 with 7,3 per cent of the labour strength to have had $7,3 \times \frac{190}{100} = 14$ AWOPs. However, they actually had 28. The question is now whether this is a real difference or whether this difference could have happened by chance.

(4) Difference between actual and expected figures were tested statistically.

TABLE 36 : Absences without permission by black mineworkers on Section Z

(b) Analysed by Level of Schooling

N=591

	LEVEL OF SCHOOLING (NUMBER OF YEARS COMPLETED AT SCHOOL)						Total
	0	1-3	4-6	7-9	10+	Missing data	
Actual number of men at each level of schooling in Section Z who AWOPped	67,0	12,0	65,0	45,0	1,0	0,0	190
Number of men at each level of schooling in Section Z	282,0	35,0	171,0	93,0	9,0	1,0	591
Proportion of men at each level of schooling in Section Z	47,7	5,9	28,9	15,7	1,5	0,2	100
Number of men expected to have AWOPped in relative proportion to the number at each level of schooling	91,0	11,0	55,0	30,0	3,0	0,0	190
Level of significance between actual and expected AWOP cases (at the 1 per cent level of significance)	Significantly lower than expected	Not Significant	Not Significant	Significantly higher than expected	Not Significant		

Note : Refer to notes in Table 36 (a)

TABLE 36 : Absences without permission

(c) Analysed by Region of Origin

N=591

	REGION OF ORIGIN						
	RSA	TRANSKEI	CISKEI	HOMELANDS	LESOTHO	OTHER FOREIGN (1)	MISSING DATA
Actual number of men from each region who AWOPped	20,0	73,0	11,0	16,0	22,0	47,0	1
Number of men from each region in Section Z	37,0	237,0	27,0	29,0	72,0	189,0	0
Proportion of men from each region in Section Z	6,3	40,1	4,6	4,9	12,2	32,0	100,0
Number of men expected to have AWOPped in relative proportion to the numbers from each region of origin	12,0	76,0	9,0	9,0	23,0	61,0	190,0
Level of significance between actual and expected AWOP cases (at 1 per cent level of significance)	Not significant	Not significant	Not significant	Not significant	Not significant	Significantly lower than expected	

- Notes : (1) Malawians, Mocambiquans and Zimbabweans
(2) Refer to notes in Table 36 (a)

TABLE 36 : Absences without permission

(d) Analysed by the Return Category

N=591

	RETURN CATEGORY (1)				
	NOVICES	VRGs	Non VRGs EX SAME MINE	Non VRGs EX OTHER MINES	MISSING DATA
Actual number of men in each category AWOPping	25,0	72,0	15,0	78,0	0
Number of men in each category in Section Z	47,0	237,0	88,0	219,0	0
Proportion of men in each category in Section Z	8,0	40,1	14,9	37,1	0
Number of men expected to have AWOPped in relative proportion to the numbers in each category	15,0	76,0	28,0	71,0	190,0
Level of significance between actual and expected AWOP cases (at 1 per cent level of significance)	Not significant	Not significant	Significantly lower than expected	Not significant	

- Notes : (1) Return category at the start of his current workstay.
(2) Refer to notes in Table 36 (a)

TABLE 36 : Absences without permission by black mineworkers on Section Z

(e) Analysed by Job Category

N=591

	J O B C A T E G O R Y							
	Team Leaders	Operators of Machinery	Stope/ Development	Labourers	Other U/G Cat.	Surface	Missing data	Total
Actual number of men in each category AWOPping	15,0	44,0	62,0	43,0	26,0	0	0,0	190
Number of men in each job level in Section Z	78,0	241,0	156,0	69,0	46,0	0	0,0	591
Proportion of men at each job level in Section Z	13,2	40,8	26,4	11,7	7,8	0	0,1	100
Number of men expected to have AWOPped in relative proportion to the numbers in each job category	25,0	78,0	50,0	22,0	15,0	0	0,0	190
Level of significance between actual and expected AWOP cases (at 1 per cent level of significance)	Not Significant	Significantly lower than expected	Not Significant	Significantly higher than expected	Significantly higher than expected			

Note : Refer to notes in Table 36 (a)

TABLE 37 : Disciplinary action against black mineworkers

Analysed by Job Category

N= 11 064

N= 11 064

	J O B C A T E G O R Y						
	Team Leaders	Operators of Machinery	Stoping/ Development	Manual Labourers	Artisan Aides other U/G Lab.	Surface	Total
Actual number of men in each job category disciplined	386,0	771,0	626,0	313,0	169,0	145,0	2 410,0
Proportion of men in each job category	9,5	26,7	29,4	12,3	6,9	15,2	100,0
Number of men expected to have been disciplined in relative proportion to the number in each job category	229,0	643,0	709,0	297,0	166,0	366,0	2 410,0
Level of significance between actual and expected disciplinary cases (at 1 per cent level)	Signifi- cantly higher than expected	Signifi- cantly higher than expected	Not Significant	Not Significant	Not Significant	Signifi- cantly lower than expected	

Note : Refer to notes in Table 36 (a)

TABLE 38 : Nature of the disciplinary action taken against team leaders

N=1118

Type of Team Leader	REASONS FOR DISCIPLINARY ACTION											Percentage of Total Team Leader Strength (1)	Expected disciplines in relative proportion to Team Leader strength (2)	Level of significance between actual and expected disciplines
	Poor quality of work	Loafing at work	Absence without permission	Hours of work	Failure to obey instructions	Insolence / insults	Assaults	Drugs/ Alcohol use	Other	Total Discipline	Strength on Mine			
Training	66	3	12	11	52	5	8	3	30	190	439	39	151	SIGNIFICANTLY HIGHER THAN EXPECTED (AT 5% LEVEL)
Development	30	0	9	4	12	2	1	2	16	76	202	18	69	NOT SIGNIFICANT
Supervision and control	14	3	11	8	18	1	1	2	13	71	179	16	62	NOT SIGNIFICANT
P.V.	2	0	0	1	4	2	0	0	2	11	53	5	19	NOT SIGNIFICANT
Instructor	3	1	0	1	2	1	0	0	1	9	40	4	16	NOT SIGNIFICANT
Leader	7	1	5	1	8	2	1	1	3	29	205	18	69	SIGNIFICANTLY LOWER THAN EXPECTED (AT 5% LEVEL)
Missing Data											12			
	122	8	37	26	96	13	11	8	65	386	1118	100	386	

(cxiv)

NOTES : (1) Refer to Note (1) Table 2.

(2) The expected total was obtained by multiplying the percentages (1) by the total team leader disciplines on the mine eg $\frac{39}{100} \times \frac{386}{1} = 150,5 = 151$.

TABLE 39 : Nature of the grievances and requests raised by team leaders

N = 1118

	TYPES OF GRIEVANCES/REQUESTS														
	Pro-motion	Trans-fer requests	Com-plaints about trans-fers	Black Super-vision	White Super-vision	Hostel	Leave	Assaults	Rate of Pay/ in-crements and other Pay problems	Other	Total Grie-vances	Stren-gth on Mine	Percentage to Total Team Leader Strength (1)	Expected grievances in relative proportion to team leaders strength (2)	Level of Significance between actual and expected Grievances
oping	67	33	3	3	6	4	12	9	85	29	251	439	39	181	SIGNIFICANTLY HIGHER THAN EXPECTED (AT 1% LEVEL)
velopment	16	8	3	2	2	0	1	3	18	3	56	202	18	83	NOT
illage and so	8	4	1	2	0	1	1	3	44	11	75	179	16	74	NOT
N.V.	3	0	0	0	0	2	1	0	8	0	14	53	5	23	NOT
structor	0	1	0	1	1	0	0	0	3	4	10	40	4	19	NOT
er	7	2	1	1	1	2	3	4	29	7	57	205	18	83	NOT
	101	48	8	9	10	9	18	19	187	54	463	1118	100	463	

NOTES : (1) Refer to Note (1) Table 2

(2) Refer to Note (2) Table 10 eg. $\frac{39}{100} \times \frac{463}{1} = 180,6 = 181$

(CXV)

TABLE 40 : Types of grievances and requests raised by black mineworkers

N= 11 064		
Types of Grievances	Number of Grievances raised (a)	Percentage of grievances to mine labour strength $\frac{(a)}{N} \times \frac{100}{1}$
Requests for transfer	1 646	14,9
Lack of opportunities for promotion	1 088	9,8
Rate of pay	916	8,3
Increment	280	2,5
Bonus	264	2,4
Theft	165	1,5
Black Supervisors	147	1,3
Being transferred	104	0,9
Working beyond normal hours	79	0,7
White Supervisors	64	0,6
Environmental conditions	40	0,4
Other grievances	129	1,2
Total number of grievances recorded	<u>4 922</u>	

TABLE 41 : Types of grievances and requests raised by black mineworkers analysed by shaft

N = 11064

Types of Grievances and Requests	FREQUENCY OF GRIEVANCES AND REQUESTS										
	SHAFT 2			SHAFT 4			SURFACES				
	Number of cases (a)	Percentage of grievance cases to shaft labour strength	Shaft percentage over total of percentages	Number of cases (b)	Percentage of grievance cases to shaft labour strength	Shaft percentage over total of percentages	Number of cases (c)	Percentage of grievance cases to surface labour strength	Surface percentage over totals of percentages	Total number of cases (a)+(b)+(c)	Total of percentage (x)+(y)+(z)
		$\frac{(a)}{4441} \times \frac{100}{1} = (x)$	$\frac{x}{x+y+z} \times \frac{100}{1}$		$\frac{(b)}{4300} \times \frac{100}{1} = (y)$	$\frac{y}{x+y+z} \times \frac{100}{1}$		$\frac{(c)}{2323} \times \frac{100}{1} = (z)$	$\frac{z}{x+y+z} \times \frac{100}{1}$		
Requests for Transfer	786	17,7	40	540	12,6	29	320	13,8	31	1646	44,1
Lack of opportunities for promotion	662	14,9	60	419	9,7	39	7	0,3	1	1088	24,9
Rate of pay	431	9,7	44	438	10,2	47	47	2,0	9	916	21,9
Increment	131	2,9	39	95	2,2	30	54	2,3	31	280	7,4
Bonus	156	3,5	58	108	2,5	42	0	0,0	0	264	6,0
Theft	74	1,7	43	85	2,0	50	6	0,3	7	165	4,0
Black Supervisors	85	1,9	56	58	1,3	38	4	0,2	6	147	3,4
Being Transferred	48	1,1	37	21	0,5	17	35	1,4	47	104	3,0
Working beyond normal hrs.	29	0,7	37	47	1,1	58	3	0,1	5	79	1,9
White Supervisors	19	0,4	21	25	0,6	32	20	0,9	47	64	1,9
Environmental conditions	28	0,6	67	11	0,3	33	1	0,0	0	40	0,9
Other Matters	98	2,2	69	31	1,0	31	0	0,0	0	129	3,2
TOTAL	2547	57,3	47	1878	44,0	36	497	21,3	17	4922	122,6
Shaft and surface labour strengths	4441			4300			2323			11064	

NOTE : Refer to notes in Table 2

TABLE 42 : Grievances lodged and requests made by black mineworkers analysed by mine overseers' section

N= 874 (1)

Mine Overseers' Section		Total number of Grievances lodged and Requests made	Section Strength (average)	Percentage of Grievances to Section labour Strength $\frac{(a)}{(b)} \times \frac{100}{1} = x$	Section Percentages over Shaft Percentages $\frac{x}{y} \times \frac{100}{1}$
		(a)	(b)		
<u>SHAFT 2</u>	J	274	495	55,4	11
	V	485	745	65,4	13
	G	396	527	75,1	15
	K	410	815	50,3	10
	Z	363	666	54,5	11
	R	467	441	107,0	22
	P	55	114	48,2	10
Engineering		55	376	15,2	3
Services		42	238	17,6	4
SHAFT TOTAL :		2 547	4 417		99
				Sum of Section Percentages = y = 488,4	
				$\frac{x}{z} \times \frac{100}{1}$	
<u>SHAFT 4</u>	B	268	670	40,0	11
	D	182	443	41,1	11
	E	295	663	44,5	12
	F (Operations discontinued mid-year)	256	300	85,3	23
	L	443	608	72,9	20
	M	269	693	38,8	10
	H	134	367	36,5	10
Engineering		23	342	6,7	2
Services		10	192	5,1	1
SHAFT TOTAL :		18 780	4 281		100
				Sum of Section Percentages = y = 370,9	

Note : See notes in Table 35

TABLE 43 : Requests for transfer made by black mineworkers in Section R

(a) Analysed by age

N=512							
	AGE GROUP (IN YEARS)						Total
	-20	21-24	25-29	30-39	40-49	50+	Missing Data
Actual number of men in each age group requesting a transfer	17,0	23,0	39,0	34,0	12,0	0,0	3,0
Number of men in each age group in Section R	41,0	131,0	140,0	136,0	53,0	11,0	0,0
Proportion of men in each age group in Section R	8,0	25,6	27,3	26,6	10,4	2,1	0
Number of men expected to have requested transfers in relative proportion to the number in each age group	10,0	33,0	35,0	34,0	13,0	3,0	0
Level of significance between actual and expected transfer requests (at 1 per cent level of significance)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	

Note : Refer to notes in Table 36 (a)

TABLE 43 : Requests for transfer made by black mineworkers in Section R

(b) Analysed by level of schooling

N=512						
	LEVEL OF SCHOOLING (NUMBER OF YEARS COMPLETED AT SCHOOL)					Total
	0	1-3	4-6	7-9	10+	Missing Data
Actual number of men in each level of schooling who requested a transfer	52,0	8,0	42,0	25,0	1,0	0
Number of men at each level of schooling in Section R	236,0	20,0	156,0	85,0	15,0	0
Proportion of men at each level of in Section R	46,1	3,9	30,5	16,6	2,9	0
Number of men expected to have requested a transfer in relative proportion to the number at each level of schooling	59,0	5,0	39,0	21,0	4,0	0
Level of significance between actual and expected transfer requests (at 1 per cent level of significance)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	

Note : Refer to notes in Table 36 (a)

TABLE 43 : Requests for transfer made by black mineworkers in Section R

(c) Analysed by Region of Origin

	REGION OF ORIGIN						N=512	
	RSA	TRANSKEI	CISKEI	HOMELANDS	LESOTHO	OTHER FOREIGN	MISSING DATA	Total
Actual number of men from each region who requested transfers	1,0	55,0	3,0	17,0	4,0	48,0	0	128
Number of men from each region in Section Z	28,0	197,0		55,0	47,0	185,0	0	512
Proportion of men from each region in Section Z	5,5	38,5		10,7	9,2	36,1	0	100
Number of men expected to have requested transfers in relative proportion to the numbers from each region of origin	7,0	49,0		14,0	12,0	46,0	0	128
Level of significance between actual and expected transfer request (at 1 per cent level of significance)	Not Significant	Not Significant		Not Significant	Not Significant	Not Significant		

Note : Refer to notes in Table 36 (a)

TABLE 43 : Requests for transfer made by black mineworkers in Section R

(d) Analysed by the Return Category

	RETURN CATEGORY					N=512	
	Novices	VRGs	Non VRGs Ex same mine	Non VRGs Ex other mines	Missing data	Total	
Actual number of men in each category requesting transfers	14,0	45,0	4,0	65,0	0	128	
Number of men in each category in Section R	48,0	162,0	25,0	277,0	0	512	
Proportion of men in each category in Section R	9,4	31,6	4,9	54,1	0	100	
Number of men expected to have requested transfers in relative proportion to the numbers in each category	12,0	40,0	6,0	69,0	1	128	
Level of significance between actual and expected requests for transfer (at 1 per cent level of significance)	Not Significant	Not Significant	Not Significant	Not Significant			

Note : Refer to notes in Table 36 (a)

(cxx)

TABLE 43 : Requests for transfer made by black mineworkers in Section R

(e) Analysed by Job Category

	J O B C A T E G O R Y							N= 512
	Team Leaders	Operators of Machinery	Stope/ Development	Labourers	Artisan Aides and other U/G cat.	Surface	Missing data	Total
Actual numbers of men in each category requesting transfers	1,0	25,0	46,0	32,0	24,0	0	0	128
Number of men in each category in Section R	51,0	181,0	155,0	68,0	57,0	0	0	512
Proportion of men in each category in Section R	10,0	35,4	30,3	13,3	11,1	0	0	100
Number of men expected to have requested transfer in relative proportion to the numbers in each category	13,0	45,0	39,0	17,0	14,0	0	0	128
Level of significance between actual and expected requests for transfer (at 1 per cent level of significance)	Signifi- cantly lower than expected	Signifi- cantly lower than expected	Not Significant	Not Significant	Not Significant			

Note : Refer to notes in Table 36 (a)

TABLE 44 : Reasons for black mineworkers leaving the mine

R E A S O N S F O R E X I T S		N U M B E R	P E R C E N T A G E		N=11 064
			O F N O R M A L E X I T S	O F T O T A L E X I T S	
<u>Normal Exits</u>					
45 + week VRGs	4 161		41	34	
26 - 44 week VRGs	3 973		39	33	
Leave	1 245		12	10	
Non-VRGs	747		7	6	
Sub-total:	10 126		99	83	
			P E R C E N T A G E		
			O F A B N O R M A L E X I T S	O F T O T A L E X I T S	
<u>Abnormal Exits</u>					
Desertion or gaol	1 275		61	10	
Contract broken	457		22	4	
Dismissals	270		13	2	
Accident or illness	88		4	1	
Transfers to other mines	5		0	0	
Sub-total	2 095		100	17	
Total	12 221			100	

TABLE 45: REASONS FOR BLACK WORKERS LEAVING THE MINE ANALYSED BY SHAFT

N=11064

FREQUENCY OF EXITS										
Reasons for Exits	SHAFT 2			SHAFT 4			SURFACE			Total Number of Cases (a)+(b)+(c)
	Number of Cases (a)	Percentage of exits to shaft labour strength	Shaft percentage over total of percentage	Number of Cases (b)	Percentage of exits to shaft labour strength	Shaft percentage over total of percentage	Number of Cases (c)	Percentage of exits to surface labour strength	Surface percentage over total of percentage	
		$\frac{(a)}{4441} \times \frac{100}{1} = x$	$\frac{x}{x+y+z} \times \frac{100}{1}$		$\frac{(b)}{4300} \times \frac{100}{1} = y$	$\frac{y}{x+y+z} \times \frac{100}{1}$		$\frac{(c)}{2323} \times \frac{100}{1} = z$	$\frac{z}{x+y+z} \times \frac{100}{1}$	
Normal Exits										
45 + Week VRGs	1512	34,0	32	2051	47,7	44	598	25,7	24	4161
25 to 44 Week VRGs	2030	45,7	46	1519	35,3	36	424	18,3	18	3973
Leave	345	7,8	56	626	14,6	24	274	11,8	19	1245
Non - VRGs	207	4,7	21	267	6,2	27	273	11,8	52	747
SUB TOTAL	4094	92,2	35	4463	103,8	39	1569	67,6	26	10126
Shaft and surface labour strengths	4441			4300			2323			11064
Abnormal Exits										
Desertion or goal	621	14,0	42	460	10,7	32	194	8,4	25	1275
Contract broken	137	3,1	29	307	7,1	66	13	0,6	12	457
Dismissals	74	1,7	26	178	4,1	62	18	0,8	12	270
Accidents or illness	65	1,5	68	14	0,3	14	9	0,4	18	88
Transfers to other mines	1	0,0	100	4	0,1	0	0	0,0	0	5
SUB TOTAL	898	20,3	38	963	22,3	42	432	10,2	20	2095
TOTAL	4992	112,4		5426	126,2		1803	77,6		1 2221
										316,4

NOTE : Refer to notes in Table 2

TABLE 46 : Normal exits of black mineworkers analysed by mine overseers' section

Mine Overseers Section	Total number of Exits recorded (a)	Section Strength (Average) (b)	Percentage of Exits to Section Labour Strength $\frac{(a)}{b} \times \frac{100}{1} = x$	Section Percentages over Shaft Percentages $\frac{x}{y} \times \frac{100}{1}$
J	444	495	89,7	11
V	725	745	97,3	12
G	518	527	98,3	12
<u>SHAFT 2</u> K	800	875	91,4	11
Z	591	666	88,7	11
R	395	441	89,6	11
P	128	114	112,3	14
Engineering	315	376	83,8	10
Services	<u>177</u>	<u>238</u>	<u>74,4</u>	<u>9</u>
SHAFT TOTAL:	4 093 (1)	4 417(1)		101
		Sum of Section Percentages = y = 825,5		$\frac{x}{z} \times \frac{100}{1}$
B	718	670	107,2	12
D	468	443	105,6	11
E	734	663	110,7	12
<u>SHAFT 4</u> F (Operations discontinued mid-year)	305	300	101,7	11
L	714	608	117,4	13
M	656	693	94,7	10
H	373	367	101,6	11
Engineering	311	342	90,9	10
Services	<u>186</u>	<u>195</u>	<u>94,4</u>	<u>10</u>
SHAFT TOTAL:	4 465 (1)	4 281(1)		100
		Sum of Section Percentages = z = 925,2		

(cxxiii)

TABLE 47 : Abnormal exits of black mineworkers analysed by mine overseers' section

Mine Overseers Section		Total number of abnormal exits recorded (a)	Section Strength (average) (b)	Percentage of abnormal exits to Section Labour Strength $\frac{(a)}{(b)} \times \frac{100}{1} = x$	Section percentage over Shaft Percentages $\frac{x}{y} \times \frac{100}{1}$
<u>SHAFT 2</u>	J	123	495	24,8	14
	V	141	745	16,2	9
	G	144	527	27,3	16
	K	147	876	17,9	10
	Z	151	666	22,7	13
	R	117	441	26,5	15
	P	15	114	13,2	8
	Engineering	28	376	7,4	4
	Services	42	238	17,6	10
	SHAFT TOTAL :	898	4 417 (1)		99
				Sum of Section Percentages = y = 173,6	
					$\frac{x}{z} \times \frac{100}{1}$
<u>SHAFT 4</u>	B	186	670	27,8	14
	D	125	443	28,2	15
	E	145	633	21,9	11
	F (Operations discontinued mid-year)	89	300	29,7	15
	L	129	608	21,2	11
	M	157	693	22,7	12
	H	72	367	19,6	10
	Engineering	34	342	9,9	5
	Services	25	195	13,3	7
	SHAFT TOTAL :	963	4 281 (1)		100
				Sum of Section Percentages = z = 194,3	

TABLE 48 : Black mineworkers' exits from two mine overseers' sections and the reduction works, analysed by the lengths of their workstays

N=8 741

	L E N G T H O F W O R K S T A Y (I N M O N T H S)				
	0-6	7-9	10-12	12+	Total
<u>SECTION Z</u>					
Actual exits	238	192	153	159	742
Expected exits based on labour strength	215	169	179	179	742
Level of significance between actual and expected exits (at the 1 per cent level)	Not Significant	Not Significant	Not Significant	Not Significant	
<u>SECTION R</u>					
Actual exits	175	130	129	78	512
Expected exits based on labour strength	149	117	123	123	512
Level of significance between actual and expected exits (at the 1 per cent level)	Not Significant	Not Significant	Not Significant	Significantly lower than expected	
<u>REDUCTION WORKS</u>					
Actual exits	284	133	103	105	625
Expected exits based on labour strength	181	142	151	151	625
Level of significance between actual and expected exits (at the 1 per cent level)	Significantly higher than expected	Not Significant	Significantly lower than expected	Significantly lower than expected	
TOTAL MINE EXITS BY LENGTH OF WORKSTAY	3 554	2 780	2 941	2 944	12 221

TABLE 49 : Dismissals of black mineworkers analysed by mine overseers' sections

Mine Overseers Section.		Total Number of Dismissals Recorded	Section Strength (Average)	Percentage of Dismissals to Section Labour Strength $\frac{(a)}{(b)} \times \frac{100}{1} = x$	Section Percentages over Shaft Percentages $\frac{x}{y} \times \frac{100}{1}$
		(a)	(b)		
SHAFT 2	J	20	495	4,0	21
	V	3	745	2,7	14
	G	13	527	2,5	13
	K	1	815	0,0	0
	Z	17	666	2,6	14
	R	11	441	2,5	13
	P	2	114	1,8	9
	Engineering	0	376	0,0	0
Services		<u>7</u>	<u>238</u>	<u>2,9</u>	<u>15</u>
SHAFT TOTAL:		74	4417	(1) Sum of Section Percentages = y = 19,0	99
					$\frac{x}{z} \times \frac{100}{1}$
SHAFT 4	B	12	670	1,8	5
	D	51	443	11,5	29
	E	15	663	2,3	6
	F (operations discontinued mid-year)	3	300	1,0	3
	L	7	608	1,2	3
	M	38	693	5,5	14
	H	30	367	8,2	21
	Engineering	16	342	4,7	12
Services		<u>6</u>	<u>195</u>	<u>3,1</u>	<u>8</u>
SHAFT TOTAL:		178	4281	(1) Sum of Section Percentages = z = 39,3	101

TABLE 50:

Some environmental factors which could have contributed to worker behaviour analysed by mine overseers' sections

ENVIRONMENTAL FACTORS					
Mine Overseers' Section	Stoping Width (cm)	Wet Bulb Temperature (°C)	Travelling Time (Mins)	Accidents from falls of ground (Number Recorded)	
SHAFT 2	J	-*	29,0	45	24
	V	115	32,0	45	53
	G	109	32,0	35	37
	K	113	29,6	55	35
	Z	119	32,6	54	54
	R	117	32,2	69	55
	P	128	29,4	60	16
SHAFT 4	B	122	30,3	31	20
	D	119	30,2	39	24
	E	111	32,0	56	38
	F	Operations Discontinued mid year	-	-	-
	L	112	30,2	70	47
	M	109	31,3	67	49
	H	-*	24,0	15	18

* Data not to hand

TABLE 61: Groups in mining with whom black mineworkers compared themselves

N=249

1-142

CATEGORIZATION OF RESPONSES	NUMBER OF WORKERS RESPONDING				TOTAL	PER- CENTAGE
	SUPERVISORS		NON-SUPERVISORS			
	NUMBER (127)	PER- CENTAGE	NUMBER (122)	PER- CENTAGE		
Men in similar jobs	55	47	37	34	92	41
Men who suffer personal deprivation	22	19	23	20	45	20
Men who earn similar wages	14	12	14	13	28	12
Men who are estranged from their families	11	9	16	15	27	12
Men working in dangerous, strenuous jobs	6	5	17	15	23	10
Men from other tribes	7	6	1	1	8	3
Men who feel good	2	2	2	2	4	2
TOTAL	117	100	110	100	227	100

NOTE : 22 men did not respond to this question

(cxxxviii)

TABLE 62 Some Responses given by Black Mineworkers when comparing themselves with groups in Mining

N=249

CATEGORIZATION OF	SOME RESPONSES TO THE QUESTION : WITH WHOM DO YOU COMPARE YOURSELF?
MEN IN SIMILAR JOBS	<u>(92 COMMENTS MADE)</u> -Mine workers are all the same because we live and work under the same conditions. -Other team leaders doing the same job.
MEN WHO SUFFER PERSONAL DEPRIVATIONS	<u>(45 COMMENTS MADE)</u> -All uneducated people who struggle to find a job -Poor people because mines are our last resort to find a job. -Poor people desperate for money who risk their lives to work underground. -Oppressed people not allowed to work where they like. -People who can't make it in life.
MEN WHO EARN SIMILAR WAGES	<u>(28 COMMENTS MADE)</u> -People who earn the same because we can afford the same things. -I think of people who are paid fairly for a job
MEN WHO ARE ESTRANGED FROM THEIR FAMILIES	<u>(27 COMMENTS MADE)</u> -People who can't get jobs in towns next to their homes. -People who leave their families and properties to work on mines. -All mineworkers far from their homes. -People who go underground whether they like it or not because they have to support their families. -People without families for many years, working in dangerous conditions. -People who miss contact with their families. -We are just heavy drinkers and after stray women. We are not like the mine villagers who lead stable lives and live with their families and attend to their needs.
MEN WORKING IN DANGEROUS/ STRENUOUS JOBS	<u>(23 COMMENTS MADE)</u> -Brave people who work underground in dangerous conditions. -Mineworkers who are doing a strenuous job. -All mineworkers who work in risky conditions.
MISCELLANEOUS OTHER	-Lesotho citizens because there are no jobs in our country. -I think of people with no problems in life.

TABLE 63 : Groups outside of mining with whom black mineworkers compared themselves

N=249

N=249

PEOPLE OUTSIDE MINING WITH WHOM COMPARED	NUMBER OF WORKERS RESPONDING				TOTAL	PER- CENTAGE
	SUPERVISORS		NON-SUPERVISORS			
	NUMBER	PER- CENTAGE	NUMBER	PER- CENTAGE		
Construction workers	30	46	29	48	59	47
Factory workers	13	20	13	22	26	21
Civil servants	10	15	8	13	18	14
operators of machinery	7	11	1	2	8	6
Other Black workers	4	6	4	7	8	6
Farm workers	1	2	4	7	5	4
Nobody	0	0	1	2	1	1
TOTAL	65	100	60	100	125	100

NOTE : 124 men did not respond as they said that their work was too dissimilar for them to draw comparisons with secondary industry.

(xxx)

TABLE 64 Some Responses given by Black Mineworkers when comparing themselves with groups outside mining

N=249

CATEGORIZATION OF REASONS	PEOPLE OUTSIDE MINING COMPARED WITH	EXAMPLES OF RESPONSES
1 WORK HARD	Workers in the sugar-cane fields Railway workers Construction workers	(27 RESPONSES GIVEN) - Work hard just like us - Work hard with their hands just like us - Do very heavy work just like us
2 BETTER OFF	Railway and construction team leaders Clerk in manufacturing	(25 RESPONSES GIVEN) - These team leaders are better paid (Raised by team leaders) - We are all in the same income bracket - They are equal to us because they are able to build houses, buy a car, educate children and support their family just like us.
3 INADEQUATE WAGES	Government workers	(20 RESPONSES GIVEN) - We are all poorly paid and have to live on that - Get low wages - We are all underpaid
4 LIVE IN HOSTELS	Migrant workers in construction and municipalities	(14 RESPONSES GIVEN) - Are all working away, far from our homes - Live in hostels just like mine workers, separated from families - Live in compounds like mine workers
5 UNEDUCATED	Drivers, delivery 'boys' General General labourers	(5 RESPONSES GIVEN) - Do not need education to be a driver - Not skilled workers just like us - All labourers not educated do not have certificates
6 MISCELLANEOUS	Farm workers Policemen in barracks Motor mechanic helpers General labourers	(34 RESPONSES GIVEN) - Receive all instructions from whites - Get fringe benefits like us - They work as spanner 'boys' or helpers for whites who are skilled artisans - Earn same wages

* NOTE : 124 workers did not compare themselves with people outside mining. They stated that mining jobs cannot be compared with outside jobs.

TABLE 65 : Favourable aspects of other mines mentioned

(1) Number of times each aspect was mentioned
(a) Total for both mines

N=249

Favourable aspects of other mines	Number of times aspects were mentioned on both mines	Percentage of total responses
Living conditions	74	23
Food	53	20
Wages	46	17
Procedures and practices	35	13
Working conditions	18	7
The job	15	6
Opportunities for advancement	13	5
Supervision	9	3
Fringe benefits	4	1
Total	267	100

TABLE 65 : Favourable Aspects of other Mines Mentioned

1(b) How the popular mine compared with other mines

N=126

Favourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the popular mine compared			
			It was worse	It was the same	It was better	No comparison made
Living Conditions	21	37	18	1	2	-
Wages	12	21	2	2	8	-
Procedures and practices	6	11	6	-	-	-
Working conditions	4	7	2	2	-	-
The job	5	9	1	1	3	-
Opportunities for advancement	4	7	3	-	1	-
Fringe benefits	3	5	1	1	1	-
Food	1	2	1	-	-	-
Supervision	1	2	-	-	1	-
Total	57	100	34(60%)	7(12%)	10(28%)	-

1(c) How the unpopular mine compared with other mines

N=122

Favourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the unpopular mine compared			
			It was worse	It was the same	It was better	No comparison made
Living conditions	15	22	12	-	-	3
Wages	17	25	8	1	8	-
Procedures and practices	13	19	13	-	-	-
Working conditions	14	20	10	1	-	3
The job	3	4	2	-	1	-
Opportunities for advancement	3	4	2	-	1	-
Fringe benefits	2	3	1	1	-	-
Food	1	1	1	-	-	-
Supervision	1	1	1	-	-	-
Total	69	100	50(72%)	3 (4%)	10(14%)	6

TABLE 65 : Favourable aspects of other mines mentioned

2 Some of the Actual Responses Recorded:

FAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISON MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times) 1 LIVING CONDITIONS (ie nature of accommodation, freedom of movement, leisure facilities and other hostel-related and social aspects)	(30 ASPECTS RAISED) - I was staying in peace with my roommates. There was always a good understanding among us. - We were able to watch TV for sport and entertainment. - We had tribal dancing and soccer for leisure time.	POPULAR MINE BETTER (mentioned 16 times) - I am staying in a clean house and I sleep comfortably. POPULAR MINE THE SAME (mentioned 9 times) POPULAR MINE WORSE (mentioned 5 times) - The centre for visiting wives is too small and women visiting their husbands are allowed seven days only.	(44 ASPECTS RAISED) - Rooms were cleaned by special people from Monday to Friday, and over week-ends cleaning was done by us (Raised 17 times) - There were free games and film shows. - On other mines people sleep on proper and comfortable beds. - On other mines there was no overcrowding in rooms.	UNPOPULAR MINE BETTER (mentioned 5 times) - There are musical bands in addition to the TV and film shows. UNPOPULAR MINE THE SAME (mentioned 3 times) UNPOPULAR MINE WORSE (mentioned 36 times) - Rooms are full of dust, dirt and ashes. - Rooms are almost stables, we are packed like horses and there is a stampede everyday. - There is no change house here. We have to carry our work clothes into the rooms, as a result, our rooms are never tidy. - Hostel rooms are dirty and infested with bed bugs.
2 PROCEDURES AND PRACTICES (ie length of work-stay, leave, travel to and from work, discharge, grievance handling)	(16 ASPECTS RAISED) - Workers were allowed to terminate their contracts rather than take paid leave. - Workers with long experience on the mine were able to be re-engaged if they overstayed at home.	POPULAR MINE BETTER (mentioned 2 times) POPULAR MINE THE SAME (mentioned 4 times) POPULAR MINE WORSE (mentioned 10 times) - Our leave has been reduced. We are unable to attend to family matters. - We stay too long here on the mine. - Workers are acclimatized every time they return from leave.	(19 ASPECTS RAISED) - Working days on the other mine were shorter. - The procedure for channelling grievances was satisfactory. - I was paid on the fourth week of every month.	UNPOPULAR MINE BETTER (mentioned 0 times) UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 18 times) - We get paid after 30 working days which is equivalent to 6 weeks. - Pay comes too late in a month after 30 days. - Workers are simply discharged without an interview to give reasons.

FAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISON MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times) 3. WAGES	(15 ASPECTS RAISED) - Pay was good on the other mine	POPULAR MINE BETTER (mentioned 6 times) POPULAR MINE THE SAME (mentioned 4 times, 2 made no comparison) POPULAR MINE WORSE (mentioned 3 times)	(31 ASPECTS RAISED) - I was satisfied with my pay - They earn more than we do	UNPOPULAR MINE BETTER (mentioned 11 times) - The job is a bit strenuous but the pay is better. - The pay is satisfying. UNPOPULAR MINE THE SAME (mentioned 3 times) UNPOPULAR MINE WORSE (mentioned 17 times) - The pay is too low, it differs according to shifts. - We are not earning enough. - The wage rate per day for winch drivers on the other mines is R8.00 and on this mine it is R5.77
4. FOOD	(11 ASPECTS RAISED) - Food was well prepared - Food was plentiful	POPULAR MINE BETTER (mentioned 1 time) POPULAR MINE SAME (mentioned 3 times) POPULAR MINE WORSE (mentioned 7 times) - We do not get fruit here	(42 ASPECTS RAISED) - Food was properly cooked. - Food was of good quality.	UNPOPULAR MINE BETTER (mentioned 3 times) - Food is good UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 38 times) - Food is very bad here. We eat only because of hunger. - Food is bad. We are fed like pigs; it makes us sick. - Food is not well prepared and workers have to buy from their own pockets.

TABLE 65.2 continued

FAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISON MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times on unpopular mine) 5. WORKING CONDITIONS	(8 ASPECTS RAISED) - Safety measures were strictly adhered to - The job was not strenuous - It was not closely supervised	POPULAR MINE BETTER (mentioned 4 times) - I think this mine is better as we have fewer accidents. - The job is too strenuous POPULAR MINE THE SAME (Mentioned 3 times) POPULAR MINE WORSE (mentioned 1 time)	(10 ASPECTS RAISED) - The hanging wall was high and safe to work under - We worked for only eight hours - The job was not strenuous - We were well treated at work by supervisors	UNPOPULAR MINE BETTER (mentioned 1 time) - I work comfortably because I am not doing a strenuous job UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 8 times) - Here the hanging wall is too low Workers find it difficult to work under it
6. MISCELLANEOUS (Aspects raised less than 10 times each)	- Promotion to a better job was on merit - There were literacy classes for workers which were conducted on the mine	POPULAR MINE BETTER - I am satisfied with my job and there is co-operation in my team POPULAR MINE WORSE - This mine takes long to promote workers even if one has the necessary experience	- The welfare was better organised - I did not wait long for promotion	UNPOPULAR MINE BETTER - There are no riots on this mine UNPOPULAR MINE WORSE - Sometimes we are woken up by hostel police in the middle of the night to search rooms for knives and dagga. - We have to pay to watch film shows - Whites treat you badly on this mine. When you have quarrelled with a white worker underground the mine authorities, like the hostel manager, discharge you irrespective of who is guilty because you do not respect the so called "baas"

TABLE 66 : Unfavourable aspects of other mines mentioned

(1) Number of Times each Aspect was Mentioned.

(a) Total for both mines.

N=249

Unfavourable aspects of other mines	Number of times aspects were mentioned on both mines	Percentage of total responses
Wages	44	25
Working conditions	34	19
Food	20	11
Living conditions	23	13
Procedures and practices	23	13
The job	18	10
Opportunities for advancement	7	4
Supervision	5	3
Fringe benefits	2	1
Total	176	100

TABLE 66 Unfavourable Aspects of other Mines Mentioned

1(b) How the popular mine compared with other mines

N=126

Unfavourable aspects of other mines	Number of times aspects were mentioned	Percentage of total responses	How the popular mine compared			
			It was worse	It was the same	It was better	No comparison made
Wages	32	29	2	3	27	-
Working conditions	17	15	1	1	15	-
Food	16	14	1	1	14	-
Living conditions	16	14	1	-	13	-
Procedures and practices	12	11	2	-	10	-
The job	11	10	-	1	10	-
Opportunities for advancement	5	4	1	-	4	-
Supervision	1	1	-	1	-	-
Fringe benefits	2	2	-	2	-	-
Total	112	100	8 (7%)	9 (8%)	95(85%)	-

1(c) How the unpopular mine compared with other mines

N=123

Unfavourable aspects of other mines	Number of times aspects were mentioned	Percentage of total responses	How the unpopular mine compared			
			It was worse	It was the same	It was better	No comparison made
Wages	12	19	-	3	9	-
Working conditions	17	27	1	1	15	-
Food	4	6	1	3	-	-
Living conditions	7	11	2	1	4	-
Procedures and practices	11	17	3	2	6	-
The job	7	11	-	1	6	-
Opportunities and advancement	2	3	1	-	1	-
Supervision	4	6	1	-	3	-
Fringe benefits	-	-	-	-	-	-
Total	64	100	9 (14%)	11 (17%)	44(69%)	-

TABLE 66 : Unfavourable Aspects of other Mines mentioned

2. Some of the Actual Responses Recorded

UNFAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISONS MADE WITH PRESENT MINE
(Aspects raised at least 10 times) 1 WAGES	(32 ASPECTS RAISED) - Pay was very poor - Workers went on strike for better pay	POPULAR MINE BETTER (mentioned 27 times) - I would not go on strike here as the pay I am getting is satisfactory - Pay has been increased these days - I am satisfied with my pay and most workers appear to be satisfied too POPULAR MINE THE SAME (mentioned 3 times) POPULAR MINE WORSE (mentioned 2 times)	(12 ASPECTS RAISED) - I was poorly paid on the other mine	UNPOPULAR MINE BETTER (mentioned 9 times) - If one is sick one's wage is not deducted - Pay is better on this mine UNPOPULAR MINE THE SAME (mentioned 3 times) UNPOPULAR MINE WORSE (mentioned 0 times)
2 WORKING CONDITIONS	(17 ASPECTS RAISED) - People were killed by a cage plunging down the shaft - The hanging wall fell, killing people - It was too hot underground	POPULAR MINE BETTER (mentioned 15 times) - Since I have been working on this mine I have never heard or seen that people have been killed - Accidents are very rare on this mine - Underground conditions are better here as there is no excessive heat POPULAR MINE THE SAME (mentioned 1 time) POPULAR MINE WORSE (mentioned 1 time)	(17 ASPECTS RAISED) - It was too hot underground - The hanging wall fell, killing miners	UNPOPULAR MINE BETTER (mentioned 15 times) - Underground conditions are cool and there is no excessive heat - There are no outbreaks of fire underground UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 1 time)

TABLE 66.2 continued

UNFAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISONS MADE WITH PRESENT MINE
3. LIVING CONDITIONS	(16 ASPECTS RAISED) - I was far from home - There were no guest houses - Rooms were overcrowded and outdated	POPULAR MINE BETTER (mentioned 15 times) - This mine is better because our wives at least have a waiting room, where we can sit and have a talk - The present mine is nearer my home. I am able to visit my family on week-ends. - There are clean heaters in our rooms on this mine and there are lockers to put our clothes in POPULAR MINE THE SAME (mentioned 0 times) POPULAR MINE WORSE (mentioned 1 time)	(17 ASPECTS RAISED) - There was insufficient hot water for washing in winter	UNPOPULAR MINE BETTER (mentioned 4 times) UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 2 times)
4. FOOD	(12 ASPECTS RAISED) - Food was not cleaned and badly cooked - Workers went on strike because food was not properly prepared	POPULAR MINE BETTER (mentioned 14 times) - We eat clean and well-prepared food here - On this mine we are given morevite when we go underground as a provision for the day POPULAR MINE THE SAME (mentioned 1 time) POPULAR MINE WORSE (mentioned 1 time) - Food is badly prepared and not enough. Sometimes workers do not get food but are given only bread and tea. Imagine workers being hungry coming from work and not given food in the kitchen especially in the afternoon	(4 ASPECTS RAISED) - The porridge and vegetables were not well cooked	UNPOPULAR MINE BETTER (mentioned 0 times) UNPOPULAR MINE THE SAME (mentioned 3 times) UNPOPULAR MINE WORSE (mentioned 1 time) - The soup is too badly cooked that it is just a mixture containing things we do not know. If one complains about this, one is then at fault. Some night shift workers who arrive late at the kitchen do not get food. We do not complain because we fear victimization.

(cxl)

UNFAVOURABLE ASPECTS OF OTHER MINES MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
5. MINE PROCEDURES AND PRACTICES	(12 ASPECTS RAISED) - Workers went on strike for better pay - I heard workers had gone on strike at another mine as they were dissatisfied with pay	POPULAR MINE BETTER (mentioned 10 times) - People are better off on this mine - We have never had strikes on this mine, we are satisfied with whatever we get from the mine pay and food POPULAR MINE THE SAME (mentioned 0 times) POPULAR MINE WORSE (mentioned 2 times) - Xhosa men drink a lot and start fighting with knives to kill each other	(11 ASPECTS RAISED) - There were strikes which led to death and unemployment - Mine authorities neglected workers' grievances and this caused strikes	UNPOPULAR MINE BETTER (mentioned 6 times) UNPOPULAR MINE THE SAME (mentioned 2 times) UNPOPULAR MINE WORSE (mentioned 3 times) - If one is absent from work one is sacked without being given a chance to explain
6. JOB ASPECTS	(11 ASPECTS RAISED) - The job was tough - I was not allocated an underground job	POPULAR MINE BETTER (mentioned 10 times) - The job is lighter because we use tools and other equipment driven by power - On this mine I have been allocated an underground job which pays better POPULAR MINE THE SAME (mentioned 1 time) POPULAR MINE WORSE (mentioned 0 times)	(7 ASPECTS RAISED) - The job was tough	UNPOPULAR MINE BETTER (mentioned 6 times) - The job is lighter because most of the jobs have been mechanized, we now use winch for haulage UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 1 time)
7. MISCELLANEOUS ASPECTS a) Fringe benefits b) Supervision c) Opportunity for advancement	(8 ASPECTS RAISED) - The mine provided few buses and there were many people - White miners assaulted workers underground - There were no promotional opportunities	POPULAR MINE BETTER (mentioned 4 times) - I have been promoted to be a team leader which I appreciate POPULAR MINE THE SAME (mentioned 3 times) POPULAR MINE WORSE (mentioned 1 time) - No promotional opportunities	(6 ASPECTS RAISED) - Shift boss treated people badly by hitting them - It was very difficult to get promotion	UNPOPULAR MINE BETTER (mentioned 4 times) - Shift bosses talk to people instead of hitting them. If a worker wants promotion he is given a chance. UNPOPULAR MINE THE SAME (mentioned 3 times) UNPOPULAR MINE WORSE (mentioned 2 times)

TABLE 67: Favourable and unfavourable aspects of other mines

A Comparison between the Popular and the Unpopular Mine

N=249

ASPECTS RAISED ABOUT OTHER MINES	RATIO OF ASPECTS RAISED			
	FAVOURABLE ASPECTS OF OTHER MINES		UNFAVOURABLE ASPECTS OF OTHER MINES	
	POPULAR MINE	UNPOPULAR MINE	POPULAR MINE	UNPOPULAR MINE
	N=126	N=123	N=126	N=123
Living conditions	29	27	14	11
Procedures and practices	16	12	10	17
Wages	14	20	28	19
Food	11	26	14	6
The job	9	4	9	11
Opportunities for advancement	9	2	4	3
Working conditions	8	6	15	27
Supervision	3	4	1	6
Fringe benefits	2	1	2	0
Total	100	100	100	100

- NOTE : (1) Individual percentages do not add up to 100 because of rounding of decimals
 (2) The ratio was calculated on the total number of times each aspect was raised

TABLE 68: How current conditions compared with conditions eighteen months before

1. The Popular Mine

N-88*

THE ASPECTS OF THE PRESENT MINE EIGHTEEN MONTHS BEFORE	HOW THESE ASPECTS COMPARED WITH THE MINE NOW			
	WORSE	SAME	BETTER	TOTAL
Procedures and practices	15	5	9	
Food	7	1	8	
Wages	5	-	17	
Living conditions	4	-	27	
The job	3	3	3	
Opportunities for advancement	1	-	5	
Working conditions	3	-	3	
Supervision	-	-	1	
Fringe benefits	-	-	1	
Total number of times aspects raised	38	9	74	121
Percentage of total number of aspects raised	32	7	61	100

TABLE 68: How current conditions compared with conditions eighteen months before

2. The Unpopular Mine

N-56*

THE ASPECTS OF THE PRESENT MINE EIGHTEEN MONTHS BEFORE	HOW THESE ASPECTS COMPARED WITH THE MINE NOW			
	WORSE	SAME	BETTER	TOTAL
Procedures and practices	7	3	6	
Food	5	10	10	
Wages	-	4	16	
Living conditions	5	9	10	
The job	1	1	1	
Opportunities for advancement	-	1	-	
Working conditions	1	1	2	
Supervision	1	-	5	
Fringe benefits	1	1	1	
Total number of times aspects raised	21	30	51	102
Percentage of total number of aspects raised	21	29	50	100

*NOTE : Fewer men answered this question as not everyone in the sample had been on the mines 18 months before.

TABLE 68.3 How current conditions compared with conditions eighteen months before

3. Some of the Actual Responses Recorded

(a) Aspects considered to have improved in the last eighteen months

ASPECTS OF THE PRESENT MINES MENTIONED BY WORKERS	RESPONSES OF WORKERS ON THE POPULAR MINE N=88	RESPONSES OF WORKERS ON THE UNPOPULAR MINE N=56
(Aspects raised at least 10 times) 1. LIVING CONDITIONS	(27 ASPECTS RAISED) - The mine is building new and modern hostels and the old ones are being renovated. - In the past we used to go to our rooms in dirty clothes, but nowadays we change and store our working clothes in the change house.	(10 ASPECTS RAISED) - We have tables and chairs in the rooms and there are washing lines for our clothes. - In the past we did not have television. Today we have television sets where we watch soccer matches of big teams and listen to news in general.
2. WAGES	(17 ASPECTS RAISED) - Pay has been increased.	(16 ASPECTS RAISED) - We are now getting wage increments annually. - The mine is paying better wages these days.
3. FOOD	(8 ASPECTS RAISED) - We get better food and the kitchen is modernized and clean.	(10 ASPECTS RAISED) - Our food has improved, the food is now clean and tasty. - Some types of food are fried to prepare them better.
4. MISCELLANEOUS ASPECTS (Raised less than 10 times)	- Men are now trained for higher jobs with more responsibility. - White miners used to swear and assault us underground, but such behaviour has been stopped.	- We never had meetings before. Now we can channel all our grievances. - In the past we were under the control of miners who used to release us late from work. This practice has now changed.

TABLE 68.3 continued

3 (b) Aspects considered to have worsened in the last eighteen months

ASPECTS OF THE PRESENT MINES MENTIONED BY WORKERS	RESPONSES OF WORKERS ON THE POPULAR MINE N=88	RESPONSES OF WORKERS ON THE UNPOPULAR MINE N=56
(Aspects raised at least 10 times) 1. MINE PROCEDURES AND PRACTICES	(15 ASPECTS RAISED) - The leave period is very short. I work strenuously underground and I deserve to be given enough time to rest and be with my family. I cannot even check my livestock. - The mine policy has changed drastically, there is no more job security. One can lose a job for a trivial mistake.	(7 ASPECTS RAISED) - Underground managers are changed time and time again and everyone comes with his own policies. So we do not know which is which. If one tries to object to some of the new rules they say that one is a kaffir and that we think that we know too much.
2. MISCELLANEOUS ASPECTS (raised less than 10 times)	- Food is not enough since it is cooked at the central kitchen. - The mine is now training workers in Afrikaans at the training centre: so we do not understand it, and we are being failed.	- Rooms are dirty all the time and there is no discipline amongst roommates. - Our complaints are no longer taken into consideration. - Since we were given an increase the mine makes us work 10 hours - no longer 8 hours.

TABLE 69 : Favourable aspects of secondary industry

1. Number of Times each Aspect was Mentioned.

a) Total for both mines

N=249

Favourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses
Living conditions	36	29
Wages	29	23
Procedures and practices	19	15
Working conditions	18	14
The job	8	6
Opportunities for advancement	7	6
Fringe benefits	5	4
Food	2	2
Supervision	2	2
Total	126	100

Table 69 : Favourable aspects of Secondary Industry

1(b) How the popular mine compared with Secondary Industry

Favourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the popular mine compared			
			It was worse	It was the same	It was better	No comparison made
Living conditions	30	29	5	9	16	-
Food	11	11	7	3	1	-
Wages	15	15	3	4	6	2
Procedures and practices	16	16	10	4	2	-
Working conditions	8	8	1	3	4	-
The job	9	9	6	2	1	-
Opportunities for advancement	9	9	6	2	1	-
Supervision	3	3	1	-	-	2
Fringe benefits	2	2	-	2	-	-
Total	103	100	39(38%)	29(28%)	31(30%)	4(4%)

1(c) How the unpopular mine compared with Secondary Industry

Favourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the unpopular mine compared			
			It was worse	It was the same	It was better	No comparison made
Living conditions	44	27	36	3	5	-
Food	42	27	38	1	3	-
Wages	31	19	17	3	11	-
Procedures and practices	19	12	18	1	-	-
Working conditions	10	6	8	1	1	-
The job	6	4	2	2	1	1
Opportunities for advancement	4	2	2	1	1	-
Supervision	6	4	5	-	1	-
Fringe benefits	2	1	2	-	-	-
Total	164	100	128(78%)	12(7%)	23(14%)	1(1%)

2 Some of the Actual Responses recorded

FAVOURABLE ASPECTS OF SECONDARY INDUSTRY MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times) 1. LIVING	(21 ASPECTS RAISED) - They are able to live with their families (raised 17 times) - They are able to use credit facilities to buy household furniture	POPULAR MINE BETTER (mentioned 2 times) - Nowadays we are also allowed to open accounts when we want to buy furniture or clothes unlike in the past POPULAR MINE THE SAME (mentioned 18 times) POPULAR MINE WORSE (mentioned 18 times) - We are worse off because the present mine allows us only two months to be with our wives - We do not see our families daily as in secondary industry jobs - We have to get up early in the morning to go to work	(15 ASPECTS RAISED) - They are able to see their families every day - Their houses in the towns are clean and tidy - They have freedom of movement	UNPOPULAR MINE BETTER (mentioned 0 times 3 made no comparisons) UNPOPULAR MINE WORSE (mentioned 12 times) - We are far from our homes and families and these are some of the things that make us sad and we are unable to meet some of our needs - Hostel rooms are not tidy and they are overcrowded - We have no freedom of movement : we are bound by the contracts and we cannot go home as we like.
2. WAGES	(12 ASPECTS RAISED) - Pay was very good - Workers are paid weekly	POPULAR MINE BETTER (mentioned 8 times) - We get our pay once a month in a lump sum which enables me to buy most of the things I need. POPULAR MINE THE SAME (mentioned 2 times) POPULAR MINE WORSE (mentioned 2 times)	(17 ASPECTS RAISED) - I was satisfied with pay - We were paid weekly	UNPOPULAR MINE BETTER (mentioned 8 times) - Mine workers do not always spend their money because the mine feeds them. - We do not have to buy food or pay rent. UNPOPULAR MINE THE SAME (mentioned 1 time) UNPOPULAR MINE WORSE (mentioned 8 times) - The mine does not pay according to the number of hours worked. - We get our mine pay too late when we have spent almost every cent we had

TABLE 69.2 continued

FAVOURABLE ASPECTS OF SECONDARY INDUSTRY MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times on unpopular mine) 3. WORKING CONDITIONS	(4 ASPECTS RAISED) - They work under safe conditions	POPULAR MINE BETTER (mentioned 0 times) POPULAR MINE THE SAME (mentioned 2 times) POPULAR MINE WORSE (mentioned 2 times)	(17 ASPECTS RAISED) - People work for five days in a week	UNPOPULAR MINE BETTER (mentioned 8 times) UNPOPULAR MINE THE SAME (mentioned 1 time, 3 made no comparison) UNPOPULAR MINE WORSE (mentioned 10 times) - Every day our lives are in danger because anything can happen underground. - Some fatal accidents do occur underground. - We have to wait too long for cages
4. PROCEDURES AND PRACTICES	(16 ASPECTS RAISED) - They are still allowed to discharge rather than take leave	POPULAR MINE BETTER (mentioned 0 times) POPULAR MINE THE SAME (mentioned 0 times) POPULAR MINE WORSE (mentioned 6 times) - Here on the mine we work even on holidays - I am not granted compassionate leave even if I state the reason - We are now expected to go on leave for a short time and not to stay at home for a long time to see our families	(13 ASPECTS RAISED) - Workers close for Christmas holidays - Regulations at work are not harsh and strict	UNPOPULAR MINE BETTER (mentioned 0 times) UNPOPULAR MINE THE SAME (mentioned 0 times) UNPOPULAR MINE WORSE (mentioned 13 times) - Mine regulations are very harsh - The managers do not understand our customs. They will refuse one compassionate leave even for serious domestic affairs - Mines do not close for holidays in December

TABLE 69.2 continued

FAVOURABLE ASPECTS OF SECONDARY INDUSTRY MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
5. MISCELLANEOUS (Raised less than 10 times each)	(14 ASPECTS RAISED) - They eat their own decent food. - They gain useful experience eg motor mechanic	POPULAR MINE (mentioned 6 times) - I spend my Sunday afternoon enjoying sport and sometimes I compete with others POPULAR MINE THE SAME (mentioned 2 times) - There are guest houses here but only clerks and team leaders are allowed to accommodate their relatives. Our relatives have no place to sleep. - The job of supervising people does not give me useful experience like bricklaying	(10 ASPECTS RAISED) - I was not doing a tough job - One gains useful experience - Food is wholesome and workers eat different meals every day	UNPOPULAR MINE BETTER (mentioned 2 times) - Minework is always available and the mine employes anybody whether educated or not. In some cases cripples are employed UNPOPULAR MINE THE SAME (mentioned 1 time) - I cannot put my mine experience to any beneficial use outside of mining - We starve because we cannot eat food that is not well cooked

TABLE 70 : Unfavourable aspects in secondary industry

(1) Number of Times each Aspect was Mentioned.

(a) Total for both mines.

N=249

Unfavourable aspects of Secondary Industry	Number of times aspects were mentioned on both mines	Percentage of total responses
Fringe benefits	74	37
Wages	61	30
Living conditions	28	14
The job	13	6
Procedures and practices	7	3
Working conditions	7	3
Food	5	2
Opportunities for advancement	3	1
Supervision	2	1
Total	200	100

(cL1)

TABLE 70 : Unfavourable Aspects of Secondary Industry

1(b) How the popular mine compared with secondary industry

N=126

Unfavourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the popular mine compared			
			It was worse	It was the same	It was better	No comparison made
Fringe benefits	44	40	-	-	41	3
Wages	34	30	-	1	32	1
Living conditions	15	14	-	-	15	-
The job	6	5	-	-	6	-
Procedures and practices	6	5	-	-	6	-
Working conditions	3	3	-	-	3	-
Food	0	0	-	-	-	-
Opportunities for advancement	1	1	-	-	1	-
Supervision	1	1	-	-	1	-
Total	110	100	-	1	105(95%)	4

1(c) How the unpopular mine compared with secondary industry

Unfavourable aspects of secondary industry	Number of times aspects were mentioned	Percentage of total responses	How the unpopular mine compared			
			It was worse	It was the same	It was better	No comparison made
Fringe benefits	30	33	-	-	29	1
Wages	27	30	2	-	25	-
Living conditions	13	14	-	-	13	-
The job	7	8	-	-	6	1
Procedures and practices	1	1	-	-	1	-
Working conditions	4	4	1	-	3	-
Food	5	6	-	-	4	-
Opportunities for advancement	2	2	-	-	2	-
Supervision	1	1	1	-	-	-
Total	90	100	4(4%)	-	83(92%)	3

2. Some of the Actual Responses Recorded

UNFAVOURABLE ASPECTS OF SECONDARY INDUSTRY MENTIONED BY WORKERS	POPULAR MINE		UNPOPULAR MINE	
	COMMENTS MADE BY WORKERS ON THE POPULAR MINE N = 126	COMPARISONS MADE WITH POPULAR MINE	COMMENTS MADE BY WORKERS ON THE UNPOPULAR MINE N = 123	COMPARISON MADE WITH PRESENT MINE
(Aspects raised at least 10 times) 1. FRINGE BENEFITS	(44 ASPECTS RAISED) - Workers in secondary industry jobs pay for accommodation, transport and food. - Workers in secondary industry get no free medical treatment.	POPULAR MINE BETTER (Mentioned 41 times) - Here fringe benefits are good. We do not buy food and do not pay for accommodation and transport. POPULAR MINE THE SAME (mentioned 0 times, 3 workers made no comparison) POPULAR MINE WORSE (mentioned 0 times)	(30 ASPECTS RAISED) - One had to buy food out of one's pocket and accommodation is not free. - One had to pay for water, transport and food.	UNPOPULAR MINE BETTER (Mentioned 29 times) - I am not paying for anything on this mine. Food, transport and accommodation is provided freely by the mine. - The fringe benefits provided by the mine enable me to save my money. UNPOPULAR MINE THE SAME (mentioned = times, 1 worker made no comparison) UNPOPULAR MINE WORSE (mentioned 0 times)
2. WAGES	(34 ASPECTS RAISED) - We are poorly paid	POPULAR MINE BETTER (Mentioned 32 times) - Construction workers at home get very little money compared with what we get on the mine. POPULAR MINE THE SAME (mentioned 1 time, 1 worker made no comparison) POPULAR MINE WORSE (mentioned 0 times)	(27 ASPECTS RAISED) - Pay was not good - Workers were paid small amounts at short intervals eg weekly. - People cannot progress because life is expensive and they cannot save. - When it rains building contractors do not pay workers for these days	UNPOPULAR MINE BETTER (mentioned 25 times) - My present mine pays better - On the mines there are no deductions like income tax from my salary. - We are paid monthly, but get much better wages than people working in secondary industries. - We are able to see progress and to meet our needs with the money we earn on the mines. UNPOPULAR MINE THE SAME (mentioned 0 times) UNPOPULAR MINE WORSE (mentioned 2 times)
3. LIVING CONDITIONS	(15 ASPECTS RAISED) - Urban hostels are not kept clean. - There is no organised leisure time for workers	POPULAR MINE BETTER (mentioned 15 times) - Our hostel rooms have been renovated and they are kept clean.	(13 ASPECTS RAISED) - Criminals break into people's rooms to rob them of their money.	UNPOPULAR MINE BETTER (mentioned 13 times) - The mine has its own security consequently there are no criminals.
4. MISCELLANEOUS ASPECTS (Economic/Legal conditions in South Africa at large)	(17 ASPECTS RAISED) - There is influx control. People have to struggle to get qualifications to work in town. - Jobs are scarce in town	POPULAR MINE BETTER (mentioned 17 times) - Jobs are always available in the mining industry.	(20 ASPECTS RAISED) - I had a better paying job in Durban but I worked for a few months only. I was then arrested because I had no permit to work in Durban. I tried to obtain a permit but I could not. - There is no job security in	UNPOPULAR MINE BETTER (mentioned 16 times) - Mining jobs are always available. - It is easier to get a job and be registered on the mines as there is no influx control. UNPOPULAR MINE THE SAME (not mentioned)

TABLE 71 : Favourable and unfavourable aspects of secondary industry

A Comparison between the Views of Workers on the Popular and the Unpopular mine

(AFTO)

ASPECTS OF SECONDARY INDUSTRY	RATIO OF ASPECTS RAISED			
	FAVOURABLE ASPECTS OF SECONDARY INDUSTRY		UNFAVOURABLE ASPECTS OF SECONDARY INDUSTRY	
	POPULAR MINE	UNPOPULAR MINE	POPULAR MINE	UNPOPULAR MINE
	N=126	N=123	N=126	N=123
Living conditions	37	22	14	14
Wages	21	25	31	30
Procedures and practices	11	19	5	1
The job	9	4	5	8
Working conditions	7	20	3	4
Opportunities for advancement	7	4	1	2
Fringe benefits	5	3	40	33
Supervision	2	1	1	1
Food	2	1	-	6
Total	100	100	100	100

- NOTE : (1) Column percentages do not add up to 100 because of rounding of decimals
 (2) The ratio was calculated on the total number of time each aspect was raised

TABLE 72 : A comparison between workers' views of other mines and of secondary industry

N = 249

ASPECTS COMPARED	NUMBER OF TIMES THE ASPECTS WERE MENTIONED							
	FAVOURABLE ASPECTS				UNFAVOURABLE ASPECTS			
	OTHER MINES		SECONDARY INDUSTRY		OTHER MINES		SECONDARY INDUSTRY	
	N	PERCENTAGE	N	PERCENTAGE	N	PERCENTAGE	N	PERCENTAGE
Living conditions	74	28	36	29	23	13	28	14
Food	53	20	2	2	20	11	5	2
Wages	46	17	29	23	44	25	61	30
Procedures and practices	35	13	19	15	23	13	7	3
Working conditions	18	7	18	14	34	19	7	3
The job	15	6	8	6	18	10	13	6
Opportunities for advancement	13	5	7	6	7	4	3	1
Supervision	9	3	2	2	5	3	2	1
Fringe benefits	4	1	5	4	2	1	74	37
Total	267	100	126	100	176	100	200	100

(civ)

TABLE 73 : Opinions on whether there had been improvement or deterioration in the conditions on the mines

N = 249

WORKERS' EVALUATION	NUMBER OF WORKERS RESPONDING					
	POPULAR MINE		UNPOPULAR MINE		TOTAL	
	NUMBER OF WORKERS	PERCENTAGE	NUMBER OF WORKERS	PERCENTAGE	NUMBER OF WORKERS	PERCENTAGE
Worse A little Worse } Much Worse }	10 } 10 } 20	16	1 } 21 } 22	18	42	17
The Same	12	10	36	30	48	20
Better A little Better } Much Better }	22 } 66 } 88	71	33 } 23 } 56	46	144	59
Don't know	4	3	8	7	12	5
Total	124	100	122	100	246	100

NOTE : 3 workers did not respond to this question.

(CLVI)

TABLE 76 : Black mineworkers ranking of factors detracting most from the quality of their lives on mines
 (a) Analysed by level of schooling

DETRACTING FACTORS	VIEWS OF MEN WITH 0-3 YEARS OF SCHOOLING N = 34				VIEWS OF MEN WITH 7-11 YEARS OF SCHOOLING N = 35			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	1	1,41	1,16	1,65	1	0,96	0,83	1,09
No chances for promotion	2	1,29	1,09	1,48	2	0,94	0,76	1,12
Insults from supervisors	3	0,88	0,62	1,14	3	0,72	0,58	0,86
Late cages	4	0,71	0,46	0,97	4	0,50	0,28	0,73
Supervisors too restrictive	6	0,34	0,18	0,50	5	0,47	0,24	0,71
Jobs too strenuous	7	0,35	0,13	0,56	6	0,41	0,28	0,54
Long hours of work	5	0,30	0,17	0,42	10	0,41	0,17	0,65
Offal badly prepared	10	0,26	0,02	0,49	9	0,37	0,23	0,50
Shower water too cold	8	0,23	0,03	0,43	8	0,29	0,13	0,46
Beds uncomfortable	9	0,21	0,0	0,41	7	0,11	0,0	0,23

NOTE: (i) Spearman's rho = 0,80

(ii) Only the views of men at opposite poles in the level of schooling were analysed

TABLE 76 : Black mineworkers' ranking of factors detracting most from the quality of their lives on mines

(b) Analysed by length of mining experience

DETRACTING FACTORS	VIEWS OF MEN WITH 0-2 YEARS MINING EXPERIENCE N = 38				VIEWS OF MEN WITH 5+ YEARS MINING EXPERIENCE N = 41			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	1	1,06	0,89	1,23	1	1,49	1,33	1,66
No chances for promotion	2	1,03	0,92	1,15	2	1,40	1,21	1,59
Insults from supervisors	3	0,77	0,60	0,94	3	0,93	0,76	1,09
Late cages	4	0,54	0,36	0,72	4	0,73	0,56	0,90
Supervisors too restrictive	6	0,36	0,29	0,43	6	0,49	0,35	0,63
Jobs too strenuous	7	0,27	0,20	0,44	5	0,47	0,35	0,59
Long hours of work	5	0,26	0,15	0,36	7	0,44	0,38	0,51
Offal badly prepared	9	0,22	0,09	0,33	9	0,31	0,10	0,52
Shower water too cold	8	0,22	0,07	0,35	8	0,27	0,14	0,40
Beds uncomfortable	10	0,18	0,0	0,35	10	0,15	0,0	0,29

NOTE: (i) Spearman's rho = 0,99

(ii) Only the views of men at opposite poles in the level of mining experience were analysed

TABLE 76 : Black mineworkers' ranking of factors detracting most from the quality of their lives on mines

(c) Analysed by marital status

DETRACTING FACTORS	VIEWS OF SINGLE MEN N = 48				VIEWS OF MARRIED MEN N = 63			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	2	0,97	0,82	1,13	1	1,45	1,32	1,58
No chances for promotion	1	0,90	0,71	1,09	2	1,13	0,98	1,27
Insults from supervisors	3	0,81	0,61	1,00	3	0,78	0,64	0,92
Late cages	4	0,40	0,19	0,61	4	0,67	0,53	0,80
Supervisors too restrictive	8	0,29	0,12	0,47	5	0,39	0,30	0,48
Jobs too strenuous	6	0,27	0,17	0,36	6	0,32	0,22	0,42
Long hours of work	5	0,26	0,12	0,41	7	0,31	0,27	0,36
Offal badly prepared	7	0,23	0,03	0,43	9	0,28	0,19	0,38
Shower water too cold	10	0,23	0,01	0,44	8	0,19	0,11	0,28
Beds uncomfortable	9	0,18	0,0	0,36	10	0,11	0,0	0,21

NOTE: Spearman's rho = 0,85

(CLIX)

TABLE 76 : Black mineworkers' ranking of factors detracting most from the quality of their lives on mines

(d) Analysed by their job categories

DETRACTING FACTORS	VIEWS OF TEAM LEADERS AND MECHANICS N = 56				VIEWS OF LABOURERS N = 56			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	1	1,15	1,01	1,28	1	1,23	1,07	1,39
No chances for promotion	2	1,07	0,90	1,24	2	1,06	0,92	1,21
Insults from supervisors	3	0,75	0,57	0,93	3	0,82	0,67	0,98
Late cages	4	0,54	0,42	0,66	4	0,57	0,37	0,77
Supervisors too restrictive	6	0,39	0,30	0,48	5	0,36	0,23	0,48
Jobs too strenuous	7	0,33	0,24	0,42	7	0,23	0,09	0,37
Long hours of work	5	0,31	0,22	0,40	8	0,22	0,09	0,35
Offal badly prepared	9	0,26	0,14	0,38	6	0,19	0,12	0,27
Shower water too cold	8	0,24	0,12	0,36	9	0,20	0,07	0,34
Beds uncomfortable	10	0,14	0,00	0,27	10	0,17	0,0	0,33

NOTE: Spearman's rho = 0,88

TABLE 76 : Black mineworkers' ranking of factors detracting most from the quality of their lives on mines

(a) Analysed by region of origin

DETRACTING FACTORS	VIEWS OF LESOTHO WORKERS N = 22				VIEWS OF TRANSKEIAN WORKERS N = 28			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	1	1,21	1,04	1,37	1	0,93	0,80	1,06
No chances for promotion	2	1,09	0,88	1,30	2	0,75	0,66	0,85
Insults from supervisors	3	0,95	0,81	1,09	3	0,64	0,46	0,82
Late cages	4	0,65	0,41	0,88	4	0,55	0,37	0,73
Supervisors too restrictive	8	0,57	0,43	0,71	10	0,54	0,42	0,66
Jobs too strenuous	5	0,55	0,42	0,68	9	0,50	0,33	0,67
Long hours of work	7	0,47	0,40	0,55	8	0,46	0,27	0,64
Offal badly prepared	9	0,38	0,28	0,48	6	0,46	0,29	0,62
Shower water too cold	6	0,25	0,10	0,40	5	0,37	0,25	0,49
Beds uncomfortable	10	0,17	0,0	0,34	7	0,11	0,0	0,23

(cont'd overleaf)

TABLE 76 : Black mineworkers' ranking of factors detracting most from the quality of their lives on mines
(e) Analysed by region of origin (Continued)

DETRACTING FACTORS	VIEWS OF SOUTH AFRICAN WORKERS N = 29				VIEWS OF FOREIGN WORKERS N = 33			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Dangerous underground conditions	1	1,76	1,16	2,37	1	1,65	1,44	1,85
No chances for promotion	2	1,46	1,09	1,82	2	1,67	1,43	1,91
Insults from supervisors	3	1,18	0,91	1,46	3	1,06	0,77	1,35
Late cages	4	0,76	0,30	1,22	4	0,91	0,76	1,07
Supervisors too restrictive	5	0,61	0,29	0,93	7	0,66	0,52	0,80
Jobs too strenuous	7	0,53	0,19	0,87	6	0,62	0,46	0,78
Long hours of work	6	0,33	- 0,21	0,86	5	0,48	0,33	0,63
Offal badly prepared	9	0,38	0,07	0,70	8	0,30	0,15	0,46
Shower water too cold	10	0,29	- 0,14	0,71	9	0,29	0,08	0,50
Beds uncomfortable	8	0,25	0,0	0,50	10	0,21	0,0	0,42

NOTE: Spearman's rho :
 Lesotho workers vs Transkeians = 0,66
 Lesotho workers vs South Africans = 0,81
 Lesotho workers vs Foreigners = 0,90
 Transkeians vs Foreigners = 0,66
 Transkeians vs South Africans = 0,58
 South Africans vs Foreigners = 0,96

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(a) Analysed by their level of schooling

CONTRIBUTING FACTORS	VIEWS OF MEN WITH 0-3 YEARS OF SCHOOLING N = 27				VIEWS OF MEN WITH 7-11 YEARS OF SCHOOLING N = 25			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	1,76	1,01	2,52	1	1,68	1,49	1,88
Work without interference	2	1,63	1,22	2,03	2	1,72	1,46	1,98
It's good to have a job	3	1,56	1,11	2,00	3	1,41	1,28	1,54
Grievances are solved	4	1,20	0,80	1,60	4	1,27	1,07	1,47
Supervisor is understanding	5	1,07	0,84	1,30	5	0,95	0,73	1,17
Good relations with roommates	6	0,87	0,04	1,78	6	0,85	0,52	1,18
Clean hostel room	7	0,84	0,25	1,43	9	0,55	0,34	0,77
Properly cooked food	8	0,63	0,26	0,98	7	0,45	0,23	0,68
Leisure time activities	9	0,47	0,15	0,79	8	0,36	0,10	0,63
Adequate food	10	0,30	0,0	0,59	10	0,26	0,0	0,52

NOTE: (i) Spearman's rho = 0,964
(ii) Only the views of men at opposite poles in the level of schooling were analysed

(clxiii)

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(b) Analysed by length of mining experience

CONTRIBUTING FACTORS	VIEWS OF WORKERS WITH 0-2 YEARS OF MINING EXPERIENCE N = 17				VIEWS OF WORKERS WITH MORE THAN 5 YEARS EXPERIENCE N = 32			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	1,47	1,37	1,58	1	1,92	1,69	2,14
Work without interference	2	1,39	1,12	1,66	2	1,88	1,61	2,15
It's good to have a job	4	1,18	1,08	1,28	3	1,50	1,26	1,74
Grievances are solved	3	1,17	0,93	1,42	4	1,42	1,20	1,63
Supervisor is understanding	5	1,10	0,97	1,23	6	1,32	1,06	1,57
Good relations with roommates	6	1,06	0,76	1,37	5	1,28	1,10	1,46
Clean hostel room	7	0,99	0,75	1,22	7	0,75	0,55	0,96
Properly cooked food	8	0,65	0,41	0,89	8	0,61	0,42	0,79
Leisure time activities	9	0,57	0,45	0,69	9	0,53	0,29	0,78
Adequate food	10	0,27	0,0	0,54	10	0,29	0,0	0,58

NOTE: (i) Spearman's rho = 0,976

(ii) Only the views of men at opposite poles in the length of mining experience were analysed

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(c) Analysed by marital status

CONTRIBUTING FACTORS	VIEWS OF SINGLE MEN N = 35				VIEWS OF MARRIED MEN N = 46			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	1,59	1,40	1,79	1	1,62	1,46	1,78
Work without interference	2	1,58	1,31	1,86	2	1,50	1,32	1,68
It's good to have a job	3	1,38	1,19	1,57	3	1,29	1,08	1,49
Grievances are solved	4	1,32	1,13	1,52	4	1,07	0,95	1,20
Supervisor is understanding	5	0,96	0,75	1,18	5	1,02	0,92	1,13
Good relations with roommates	6	0,80	0,27	1,34	6	0,96	0,74	1,18
Clean hostel room	7	0,63	0,17	1,09	7	0,57	0,41	0,73
Properly cooked food	8	0,61	0,30	0,93	9	0,41	0,30	0,52
Leisure time activities	9	0,44	0,15	0,72	8	0,35	0,18	0,52
Adequate food	10	0,32	0,0	0,65	10	0,18	0,0	0,36

NOTE: Spearman's rho = 0,998

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(d) Analysed by their job categories

CONTRIBUTING FACTORS	VIEWS OF TEAM LEADERS AND MECHANICS N = 37				VIEWS OF LABOURERS N = 45			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	1,53	1,36	1,70	1	1,67	1,50	1,83
Work without interference	2	1,42	1,18	1,67	2	1,61	1,42	1,80
It's good to have a job	3	1,19	1,02	1,35	3	1,40	1,19	1,60
Grievances are solved	5	0,99	0,85	1,14	4	1,33	1,17	1,49
Supervisor is understanding	4	0,98	0,84	1,13	5	0,97	0,84	1,11
Good relations with roommates	6	0,81	0,52	1,09	6	0,96	0,63	1,29
Clean hostel room	7	0,56	0,34	0,79	7	0,61	0,35	0,88
Properly cooked food	8	0,45	0,24	0,66	8	0,44	0,21	0,66
Leisure time activities	9	0,40	0,19	0,62	9	0,41	0,27	0,56
Adequate food	10	0,28	0,0	0,55	10	0,16	0,0	0,32

NOTE: Spearman's rho = 0,998

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(e) Analysed by region of origin

CONTRIBUTING FACTORS	VIEWS OF LESOTHO WORKERS N = 15				VIEWS OF TRANSKEIAN WORKERS N = 14			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	2,01	1,70	2,31	2	1,43	1,16	1,70
Work without interference	2	1,67	1,26	2,07	1	1,25	1,03	1,48
It's good to have a job	3	1,65	1,28	2,02	3	1,04	0,84	1,23
Grievances are solved	4	1,46	1,17	1,74	5	0,99	0,76	1,21
Supervisor is understanding	6	1,34	0,52	2,17	4	0,83	0,57	1,08
Good relations with roommates	5	1,11	0,97	1,26	7	0,74	0,35	1,13
Clean hostel room	8	0,75	0,44	1,07	6	0,72	0,29	1,15
Properly cooked food	10	0,70	0,37	1,02	8	0,41	0,10	0,71
Leisure time activities	7	0,57	-0,17	1,30	9	0,38	0,13	0,63
Adequate food	9	0,55	0,0	1,10	10	0,26	0,0	0,52

(cont'd overleaf)

TABLE 77 : Black mineworkers' ranking of factors contributing to the quality of their lives on mines

(e) Analysed by region of origin (Continued)

CONTRIBUTING FACTORS	VIEWS OF SOUTH AFRICAN WORKERS N = 18				VIEWS OF FOREIGN WORKERS N = 35			
	RANKING	MEAN	RANGE		RANKING	MEAN	RANGE	
			MIN.	MAX.			MIN.	MAX.
Enough money	1	2,85	2,31	3,39	2	1,67	1,50	1,84
Work without interference	4	2,55	2,19	2,91	1	1,67	1,42	1,93
It's good to have a job	2	2,39	1,76	3,02	3	1,49	1,32	1,65
Grievances are solved	3	2,12	1,49	2,74	5	1,19	0,98	1,39
Supervisor is understanding	6	1,74	1,26	2,23	4	1,13	0,92	1,33
Good relations with roommates	5	1,63	1,30	1,95	6	0,95	0,69	1,21
Clean hostel room	7	1,41	0,94	1,88	7	0,65	0,45	0,85
Properly cooked food	8	1,11	0,53	1,68	9	0,58	0,43	0,72
Leisure time activities	9	0,94	0,52	1,36	8	0,49	0,26	0,72
Adequate food	10	0,60	0,0	1,19	10	0,27	0,0	0,54

NOTE: Spearman's rho :
 Lesotho workers vs Transkeians = 0,87
 Lesotho workers vs South Africans = 0,90
 Lesotho workers vs Foreigners = 0,92
 Transkeians vs Foreigners = 0,98
 Transkeians vs South Africans = 0,85
 South Africans vs Foreigners = 0,87

	Number of men	Percent
Rural area/village	327	65,9
Homeland/Country town	105	21,2
White-owned Farm	35	7,0
Urban Township	29	5,8
	496	100,0

Number Missing Cases 3

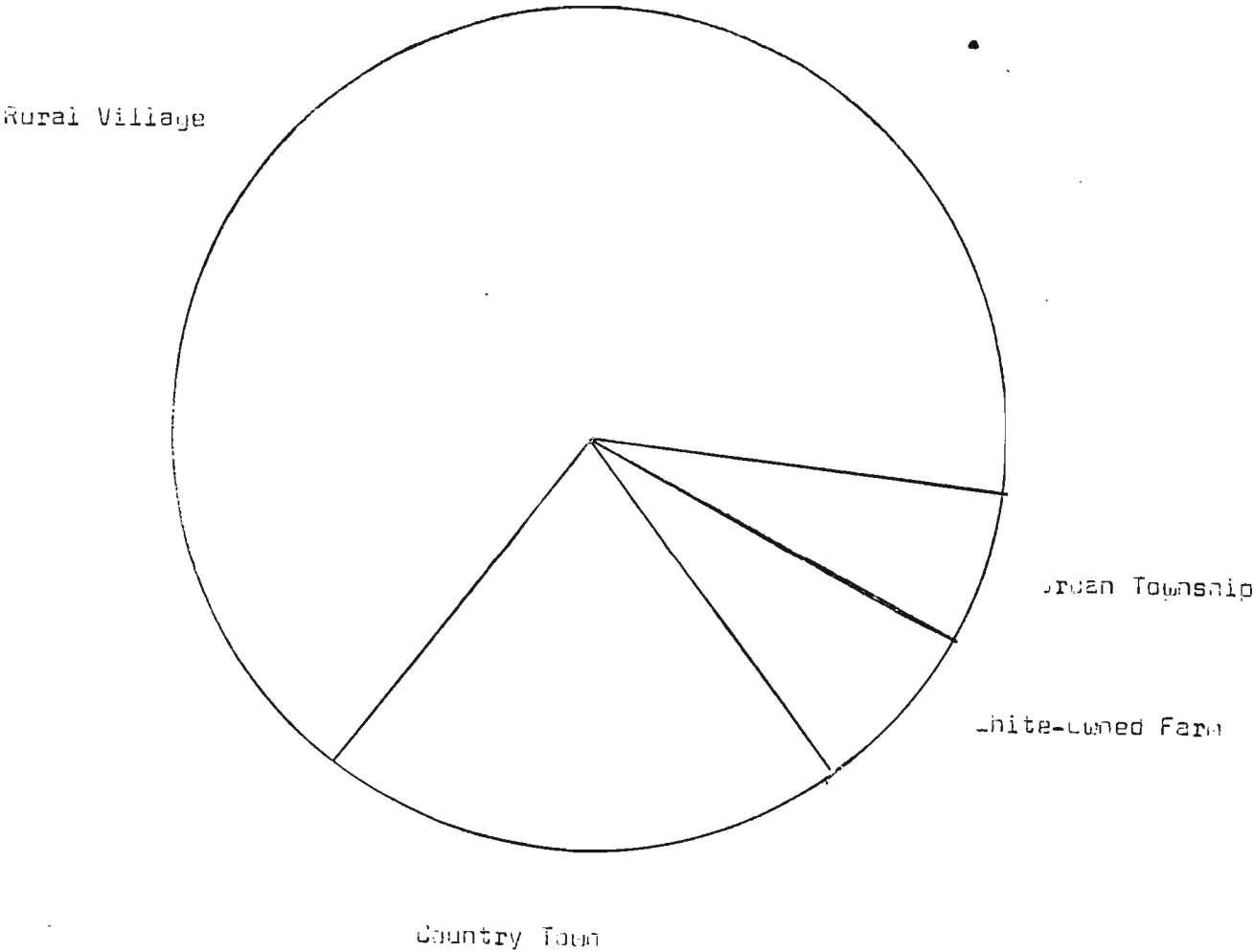


FIGURE 10 : Black mineworkers' place of origin

Source: Hall (1982)

Marital Status	Number of Men	Percent
Married men	322	65,7
Unmarried men	168	34,3
TOTAL	490	100,0

Number Missing Cases 5

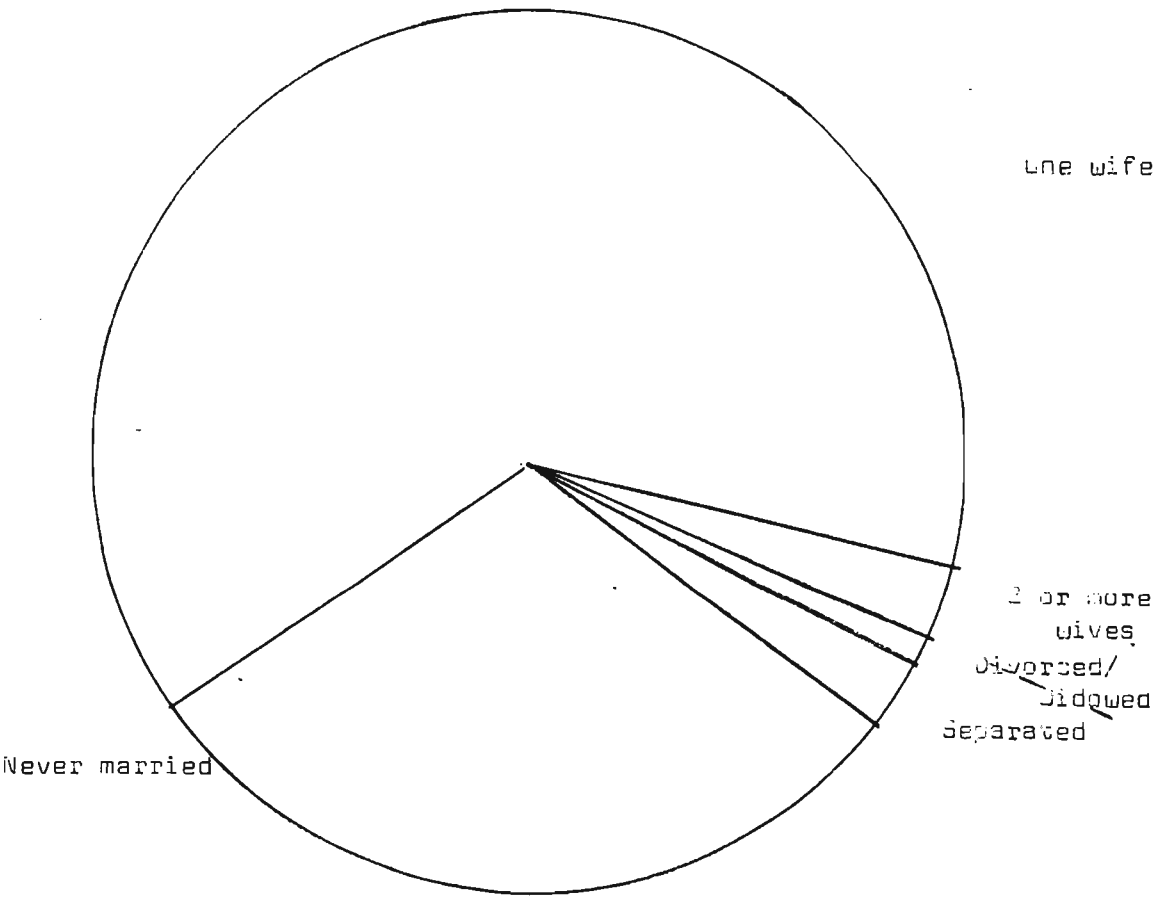


FIGURE 11: Black mineworkers' marital status

Source : Hall (1982)

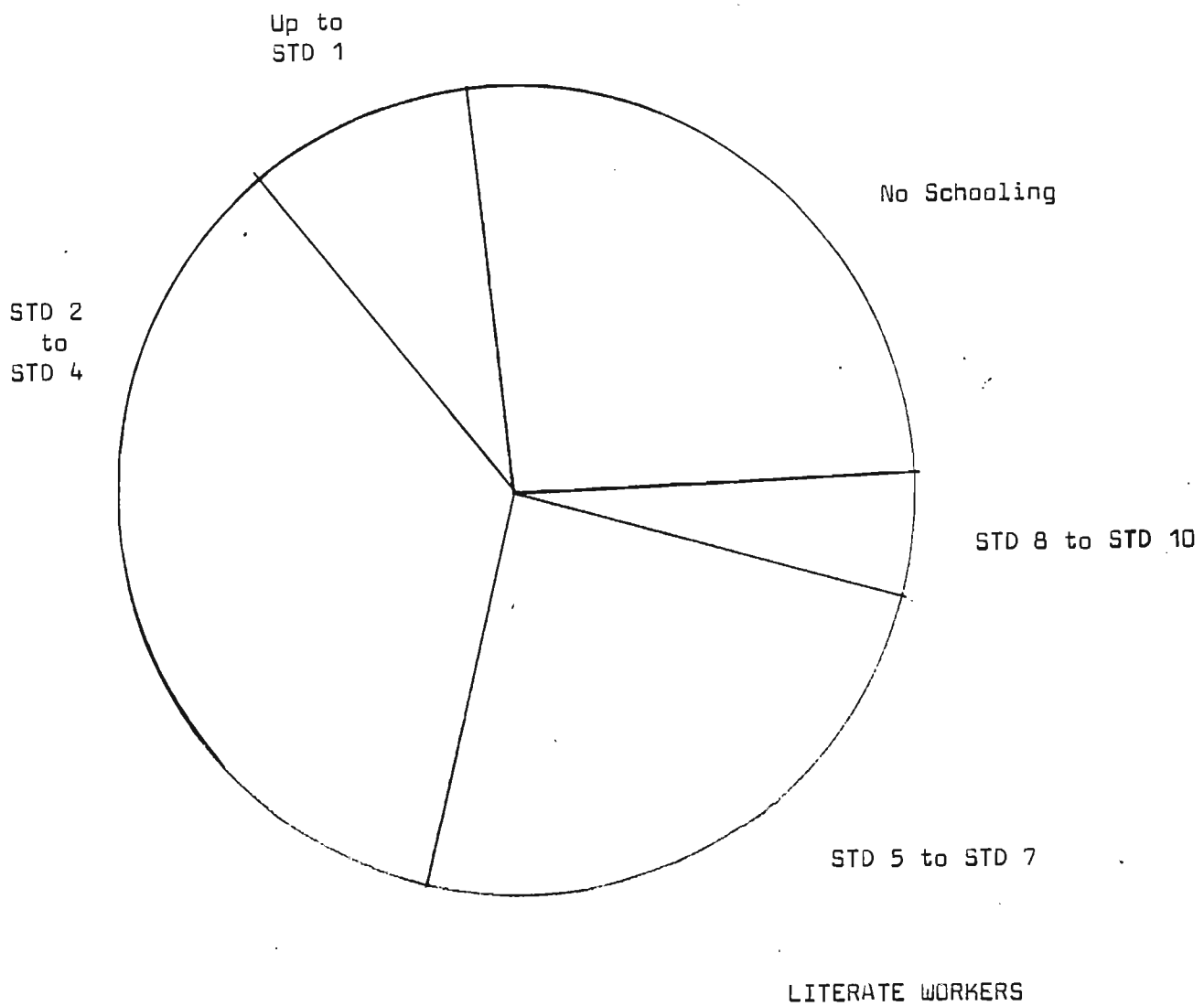
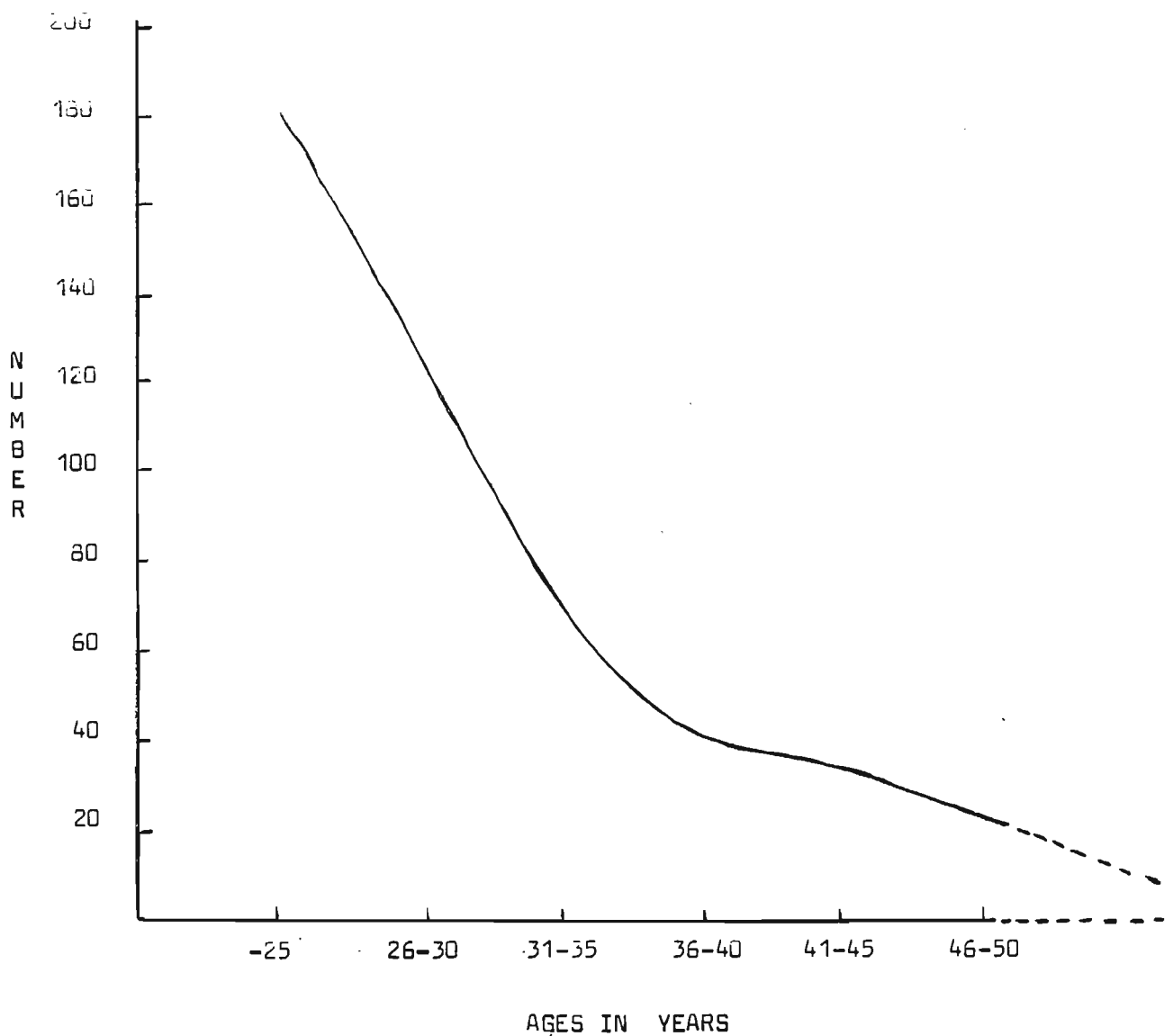


FIGURE 12 : Black mineworkers' achieved levels of education

Source : Hall (1982)



N=49

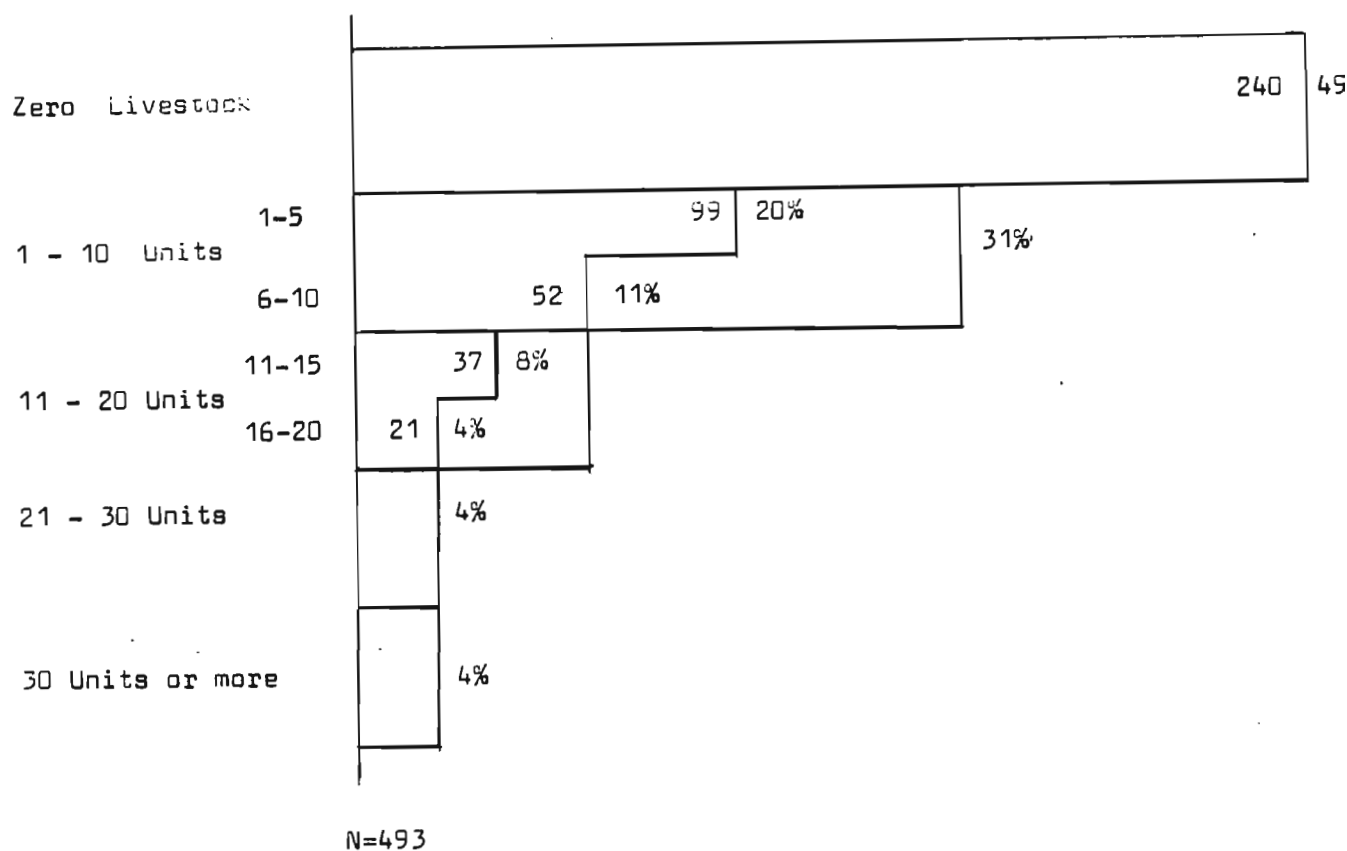
Note: Of the men under 25, only a quarter were under 20 years of age

FIGURE 13 : Age of black mineworkers

Source : Hall (1982)

AGE	number	Percent
-25	180	37
26-30	126	26
31-35	71	14
36-40	39	8
41-45	33	7
46-50	21	4
50+	21	4
TOTAL	491	100

mean : 30,3
 Median : 27,7
 mode : 24,0
 Minimum : 17,0
 Maximum : 74,0
 S.D. : 9,5
 S.E. : 0,4
 Kurtosis : 2,0
 Skewness : 1,3



Mean : 6,0
 Median : 0,9
 Mode : 0,0
 Minimum : 0,0
 Maximum : 70,0
 S.D. : 10,1
 S.E. : 0,5
 Kurtosis : 9,3
 Skewness : 2,7

FIGURE 14 : Black mineworkers' number of livestock units

Source: Hail (1982)

Note: The workers were asked how many of the following domestic animals they possessed and these were converted to livestock units by the calculations shown. Cattle ÷1 Horses ÷1 Donkeys ÷1 Mules ÷1 Sheep ÷5 Goats ÷5

Allocating Land and Crops	Number of men	Per cent	per cent with Crops
No access to land, or land owned his land - no crop/ crop unknown	267	53,6	-
- Maize and/or Sorghum	12	2,4	-
- Maize and/or other	132	26,6	60,8
- Maize, Sorghum and other	50	10,1	23,0
- Sorghum and/or other	21	4,2	9,7
- Sorghum and/or other	14	2,8	6,5
TOTAL	496	100,0	100,0

Missing Data : 3

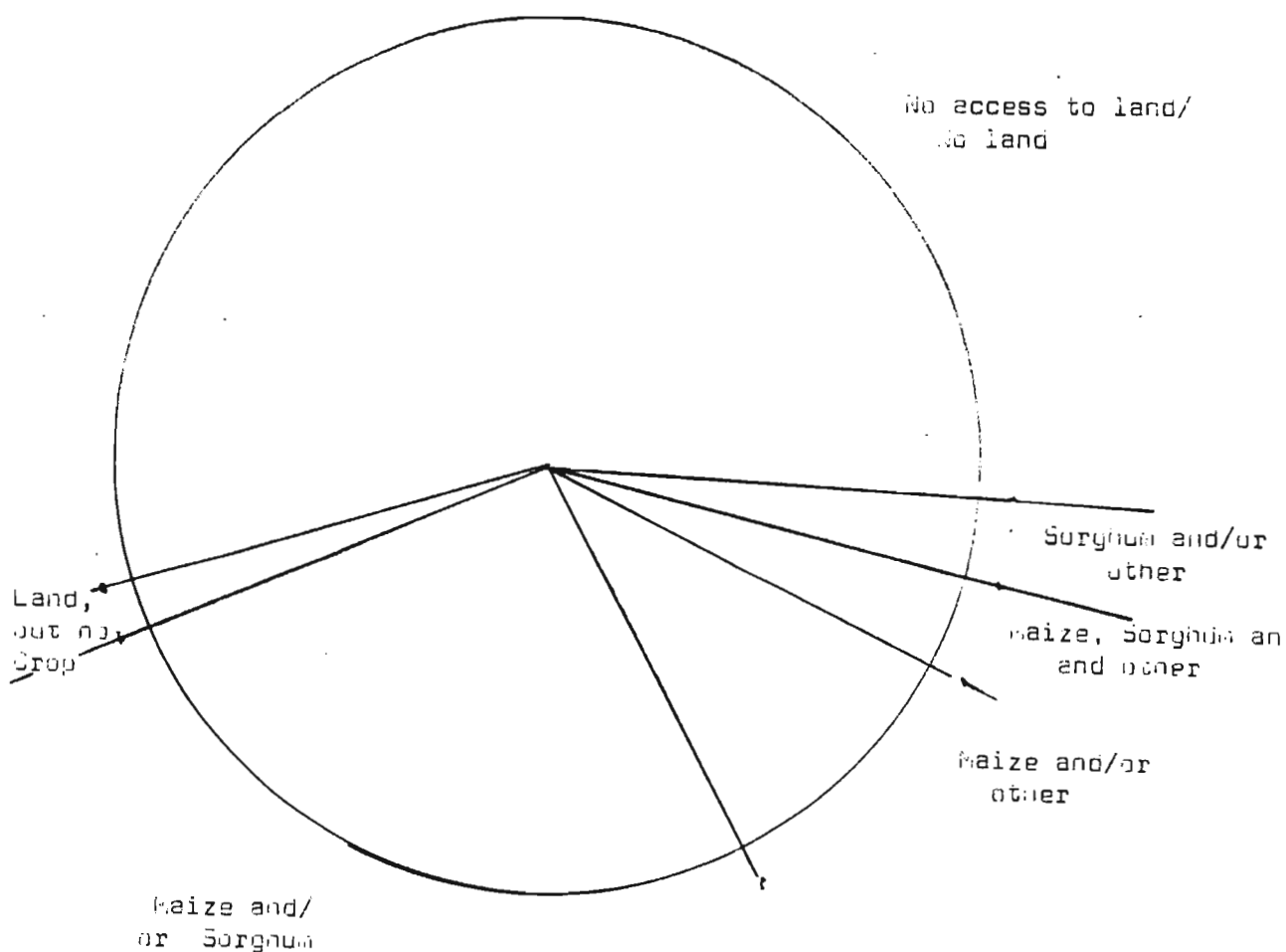


FIGURE 15 : black mineworkers' access to land and cultivation of crops
Source : Hall (1982)

Length of time Harvest would feed family	Number of Men	Per Cent	Cum Per Cent	Cum Per Cent
Less than on month	23	10,7	10,7	100,0
One month up to three months	37	17,3	28,0	89,2
Three up to six months	49	22,9	50,9	71,9
Six up to nine months	26	12,1	63,0	49,0
Nine up to 12 months	12	5,6	68,6	36,9
More than one year	67	31,3	100,0	31,3
TOTAL	214	100,0		

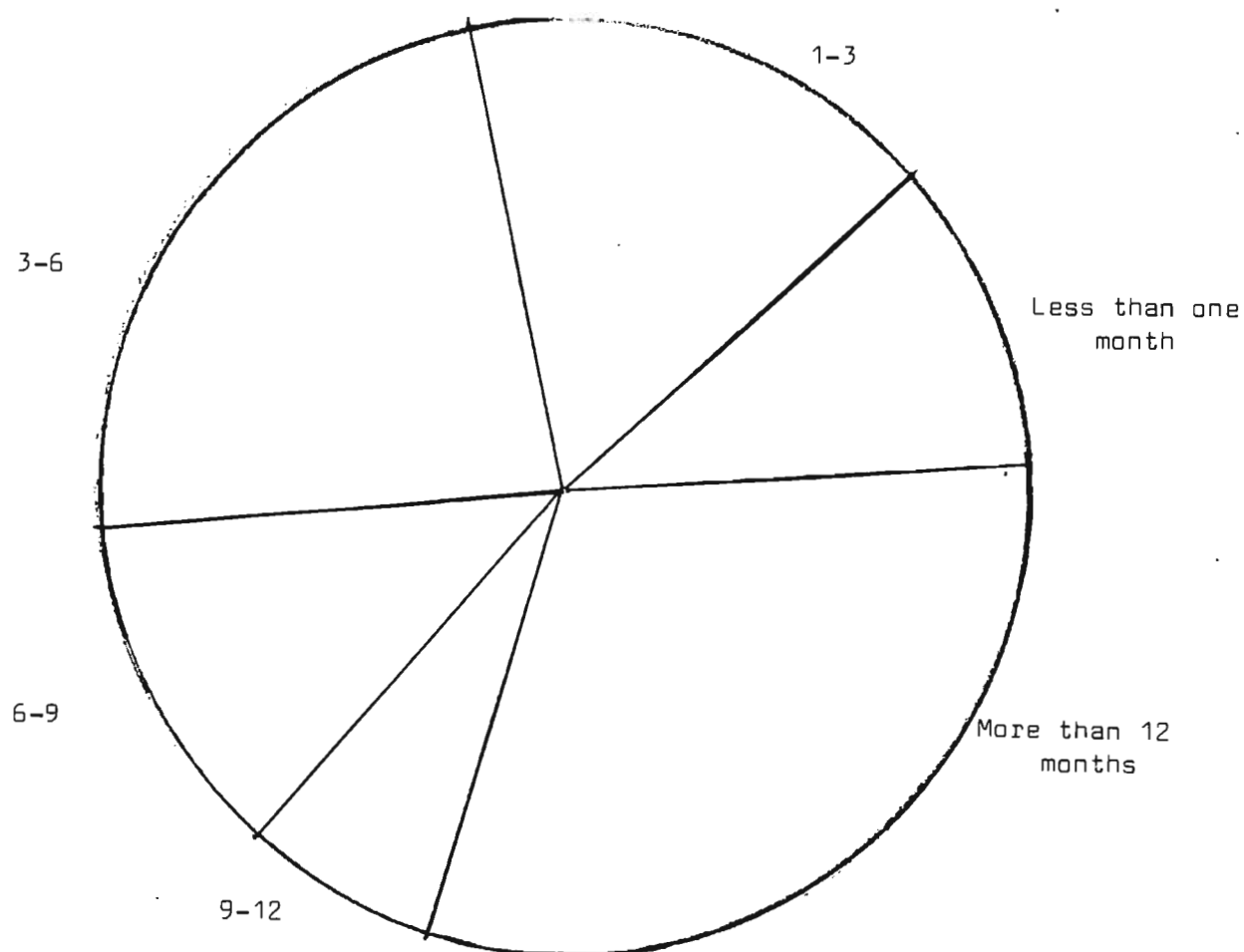
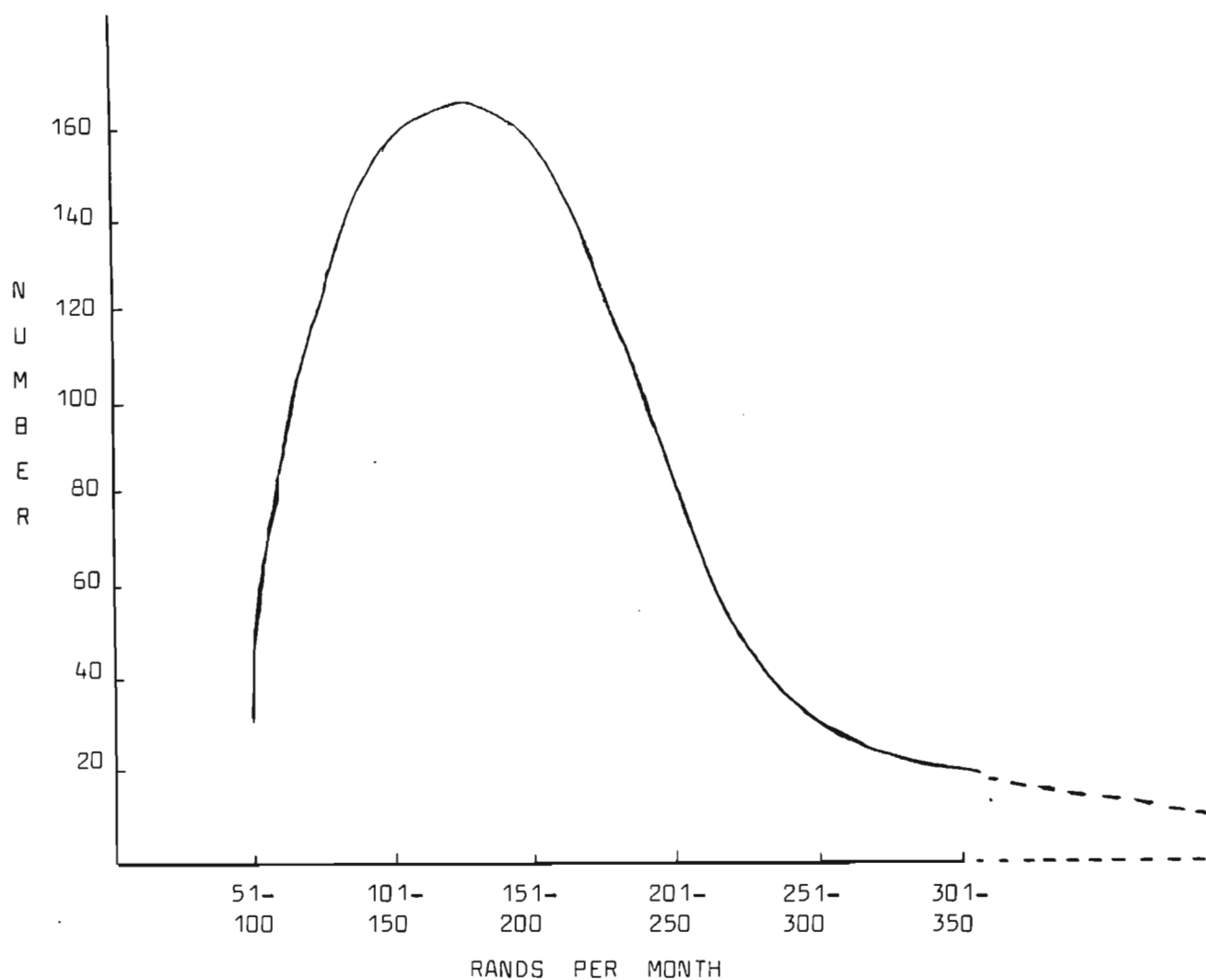


FIGURE 16 : Length of time harvest would feed black mineworkers' household

Source : Hall (1982)



N=490

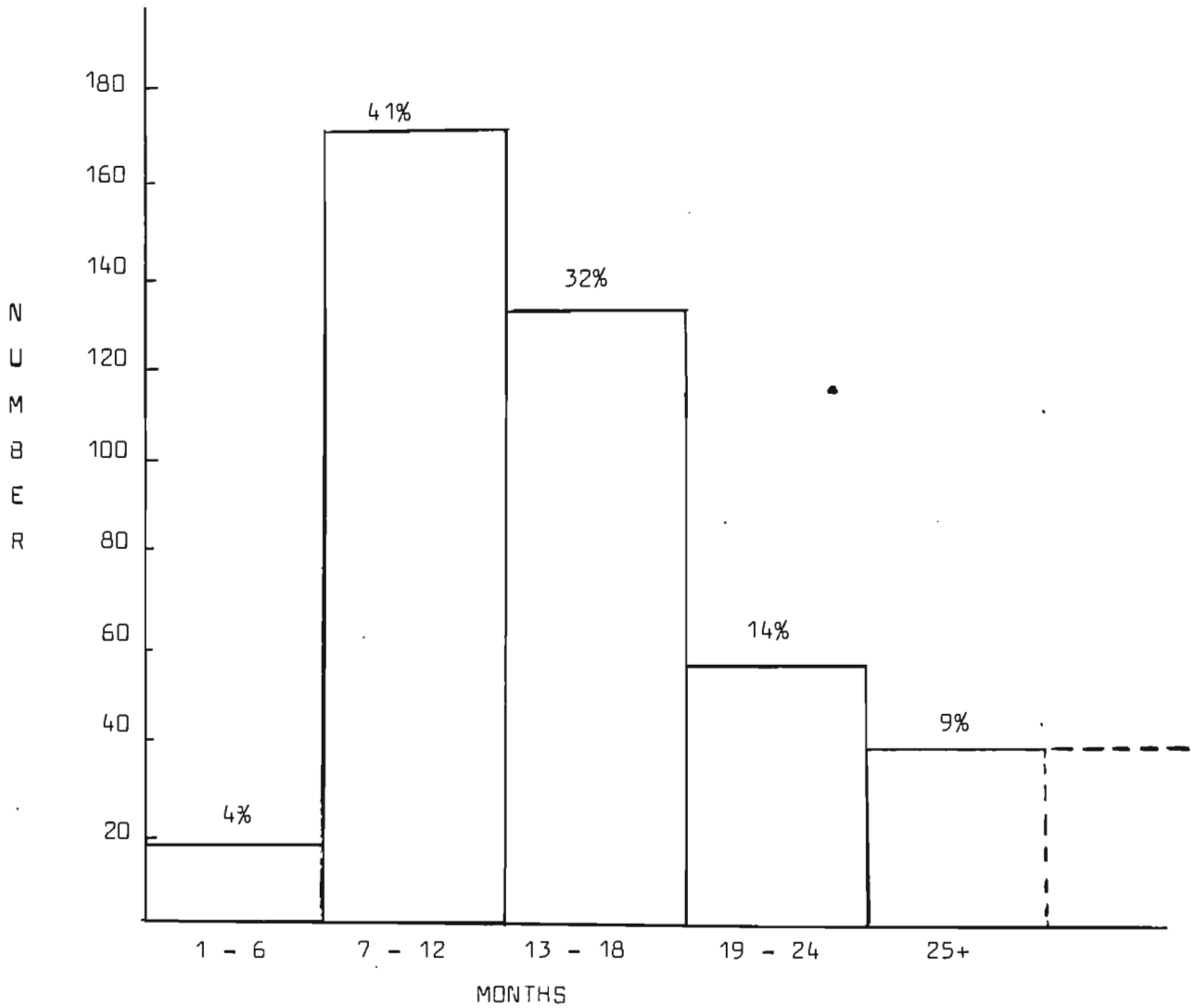
FIGURE 17: Black mineworkers' monthly earnings

Source : Hall (1982)

Earnings	Number	Per Cent
R 51 - R100	32	7
R101 - R150	158	32
R151 - R200	153	31
R201 - R250	76	16
R251 - R300	30	6
R301 - R350	20	4
R351 and over	21	4
TOTAL	490	100

Mean : 185,1
 Median : 168,5
 Mode : 120,0
 Minimum : 60,0
 Maximum : 999,0
 S.D. : 81,8
 S.E. : 3,7
 Kurtosis : 21,6
 Skewness : 3,0

(cLxxvii)

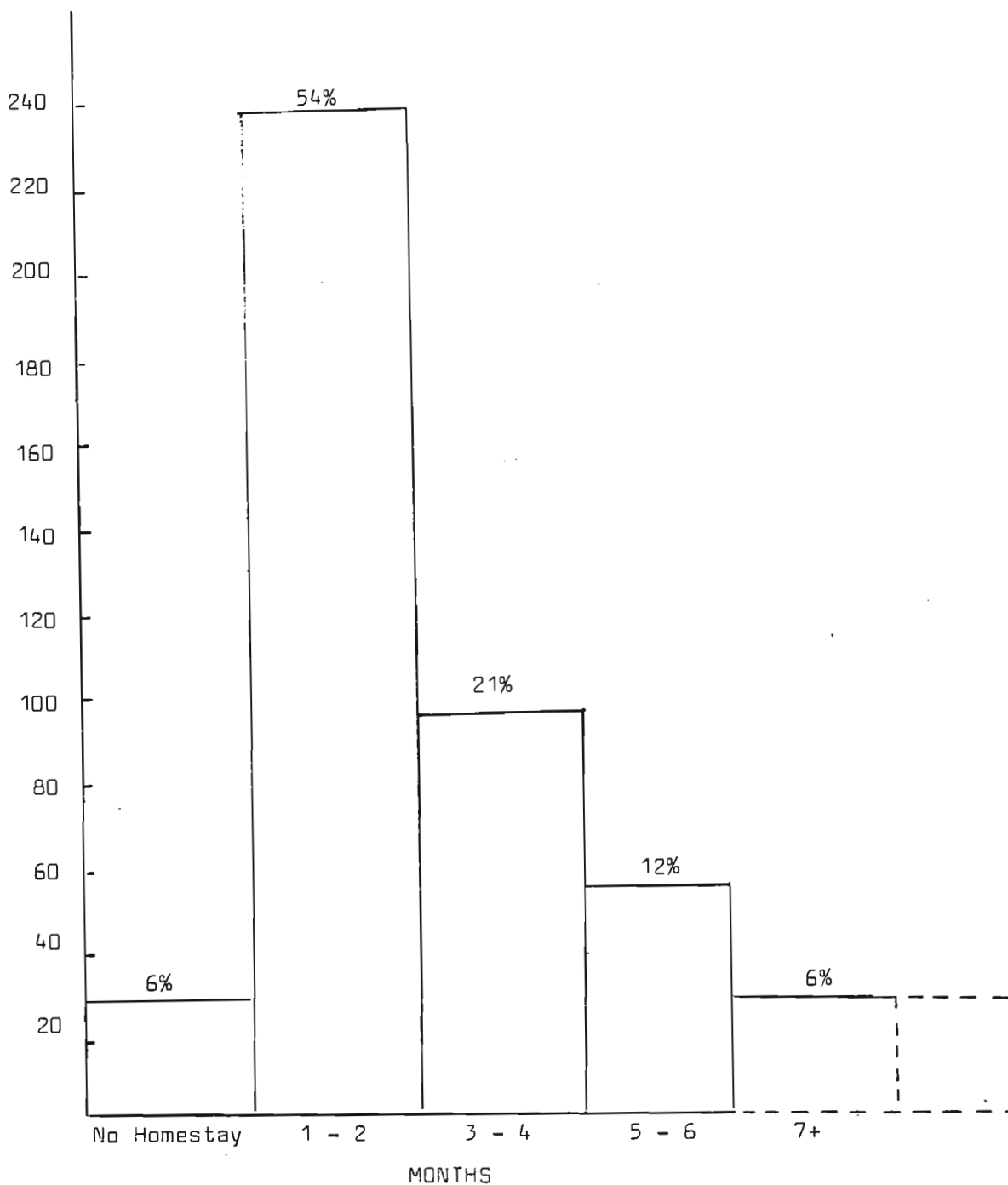


N=419

Mean	: 15,9
Median	: 13,3
Mode	: 12,0
Minimum	: 1,0
Maximum	: 60,0
S.D.	: 7,9
S.E.	: 0,4
Kurtosis	: 6,2
Skewness	: 2,0

FIGURE 18 : Black mineworkers' length of last workstay

Source: Hall (1982)



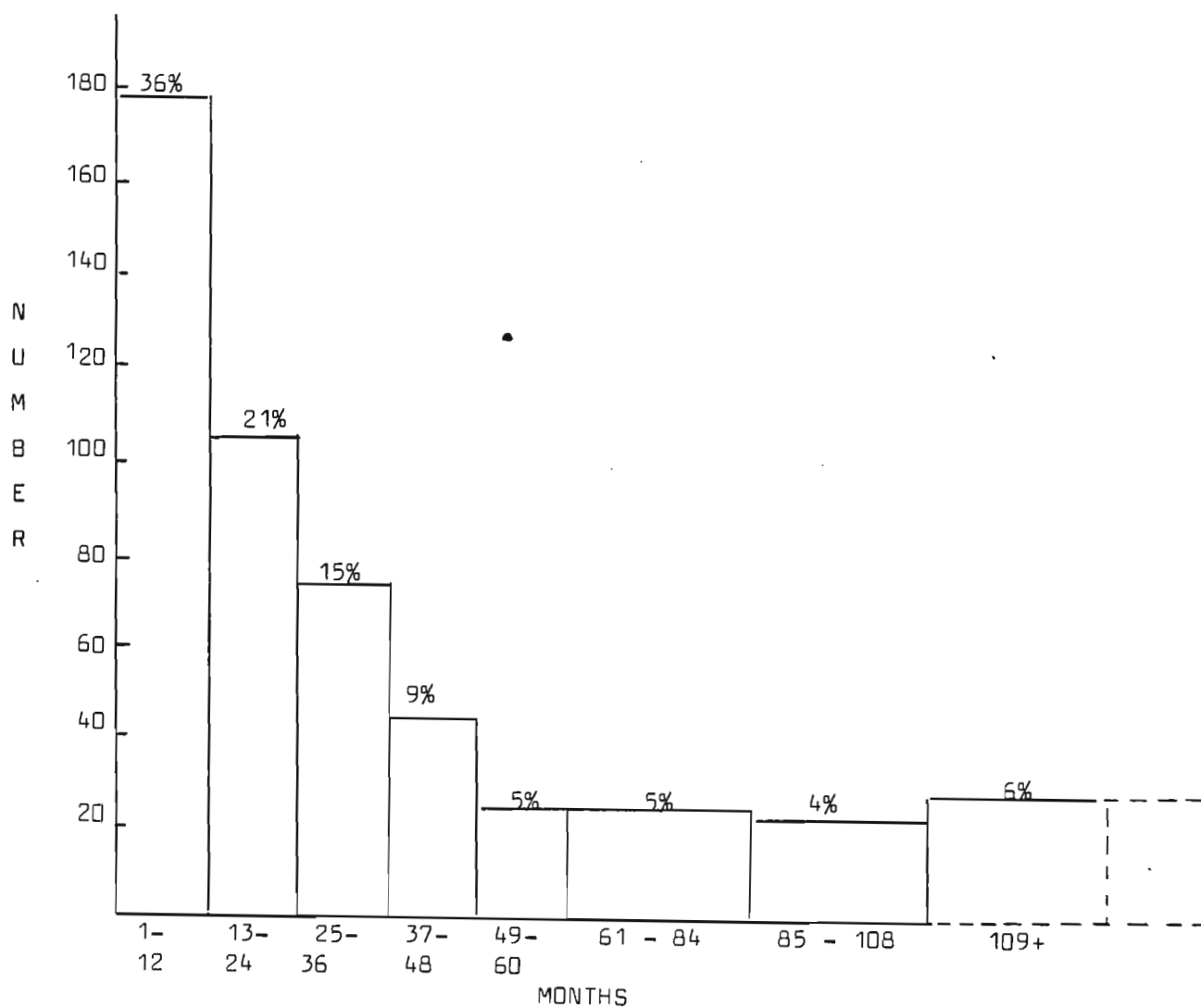
N=444

Mean	: 3,3 months
Median	: 2,1
Mode	: 1,0
Minimum	: 0,0
Maximum	: 60,0
S.D.	: 5,5
S.E.	: 0,3
Kurtosis	: 57,5
Skewness	: 6,7

NOTE: The minimum length of homestay, 0 months applied to workers who had not yet gone home between contracts: The maximum applies to workers who had not taken up a mining contract in the 60 month period.

FIGURE 19: Black mineworkers' length of last homestay

Source : Hall (1982) (cLxxviii)



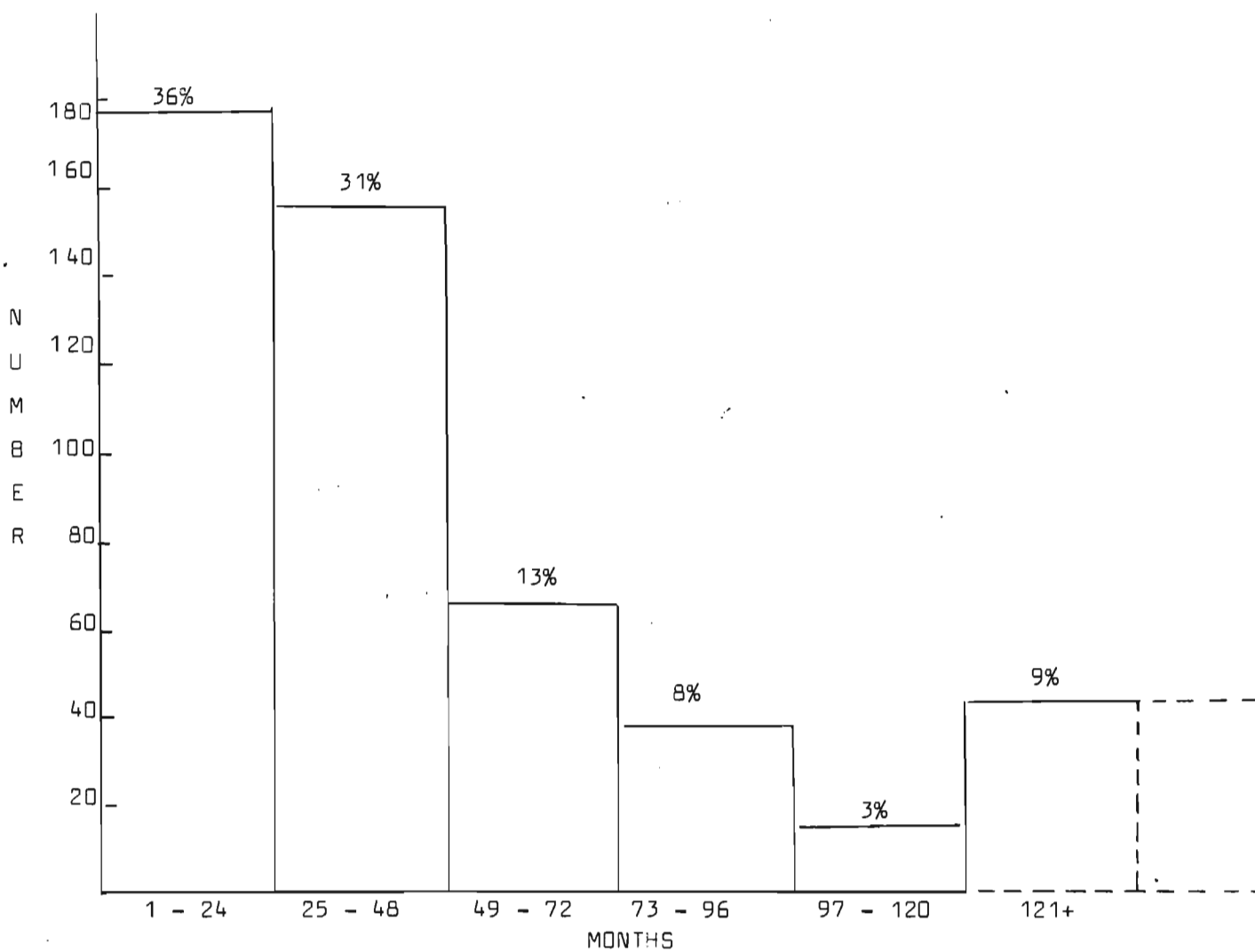
N=499

Mean	:	32,8
Mode	:	24,0
Median	:	22,2
Minimum	:	1,0
Maximum	:	280,0
S.D.	:	37,6
S.E.	:	1,7
Kurtosis	:	8,3
Skewness	:	2,5

FIGURE 20 : Black mineworkers' total length of experience in current job

Source : Hall (1982)

(cLxxix)



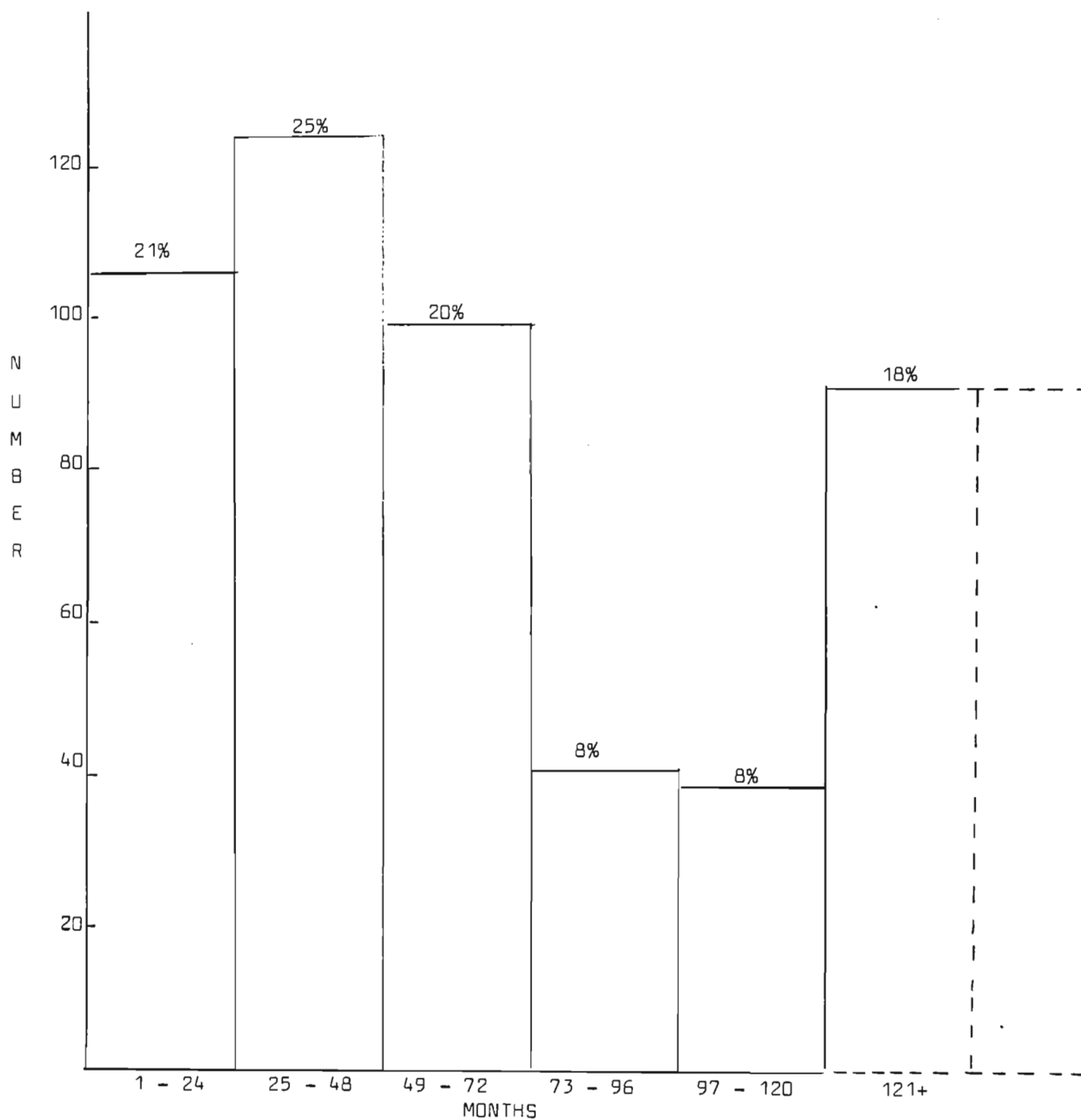
N=498

Mean	:	47,7
Median	:	35,5
Mode	:	48,0
Minimum	:	1,0
Maximum	:	310,0
S.D.	:	46,4
S.E.	:	2,1
Kurtosis	:	4,8
Skewness	:	2,0

FIGURE 21: Black mineworkers' total length of experience on their current mine

Source : Hall (1982)

(cLxxx)



N=497

Mean : 73,5
 Median : 52,5
 Mode : 48,0
 Minimum : 2,0 months
 Maximum : 396,0 months (33 years)
 S.D. : 68,97
 S.E. : 3,10
 Kurtosis : 3,67
 Skewness : 1,01

FIGURE 22: Black mineworkers' total length of mining industry experience
 Source : Hall (1982)

(cLxxxii)

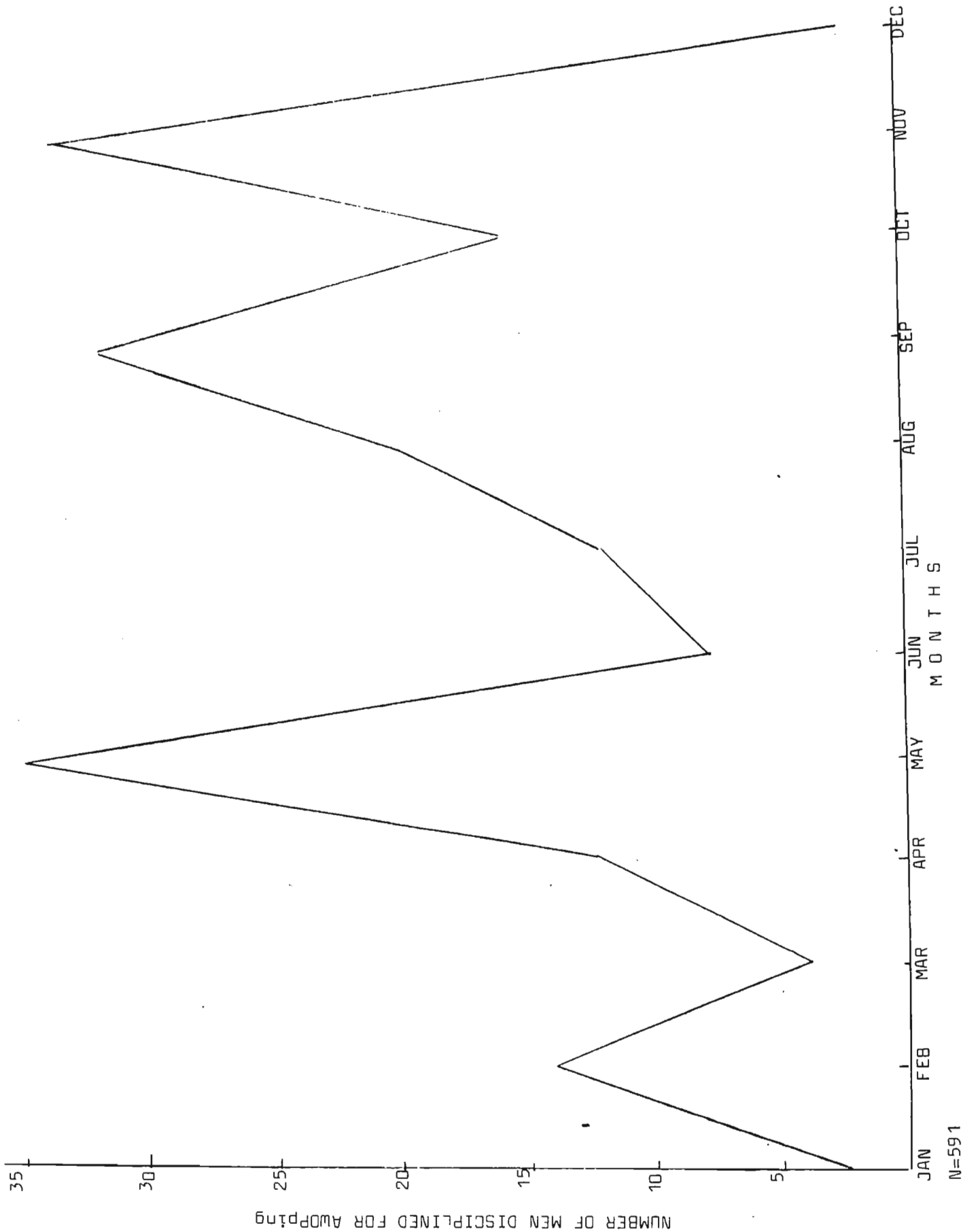
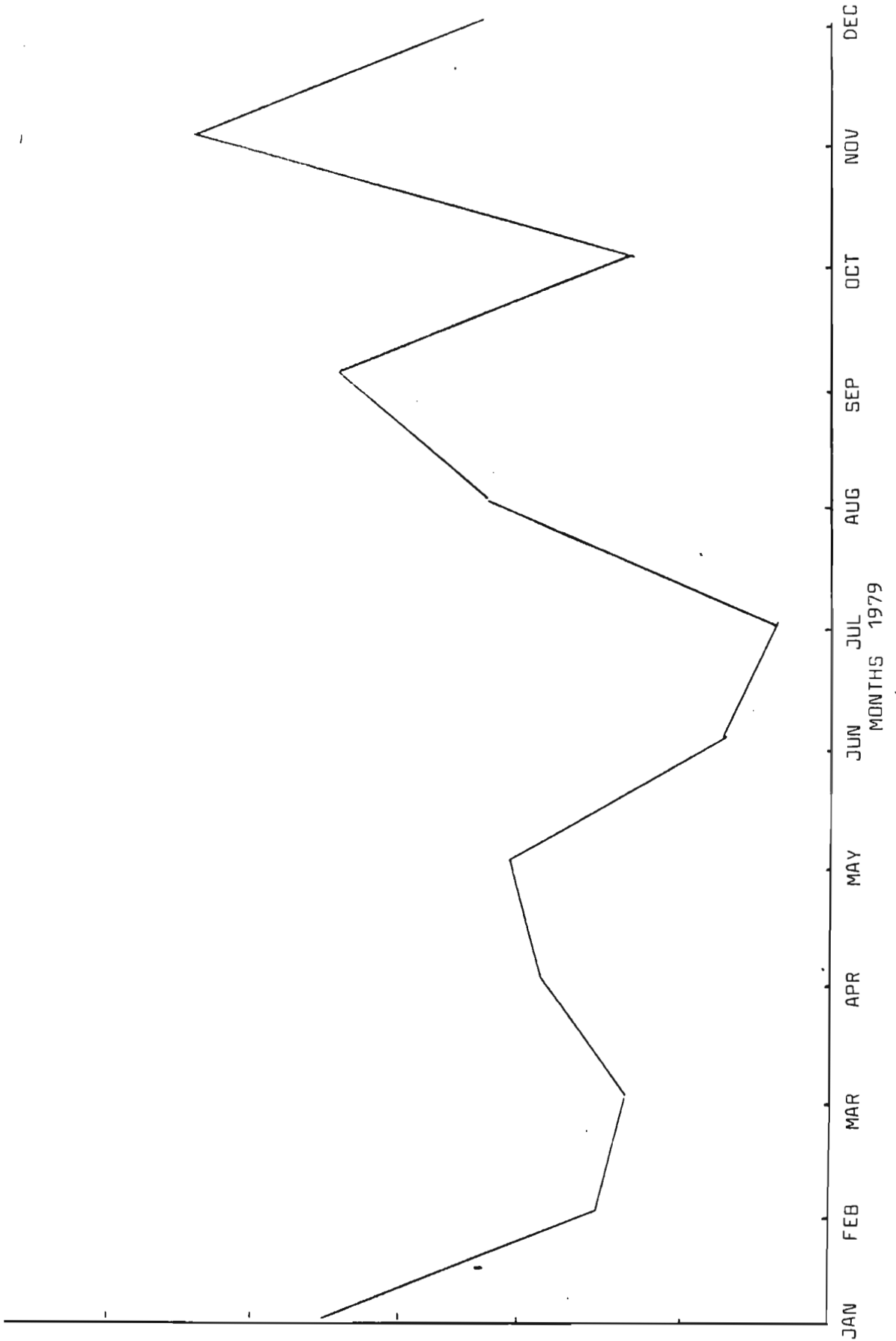


FIGURE 23 : Disciplinary cases : Absences Without Permission lodged against black mineworkers - monitored monthly for mine overseers' section Z

(cLxxxiii)



NOTE: (1) The difference between this total and Table 14 Total for Section R arises through averaging

FIGURE 24 : Transfers requested by black mineworkers - monitored monthly for mine overseers' Section R

(cLxxxiv)

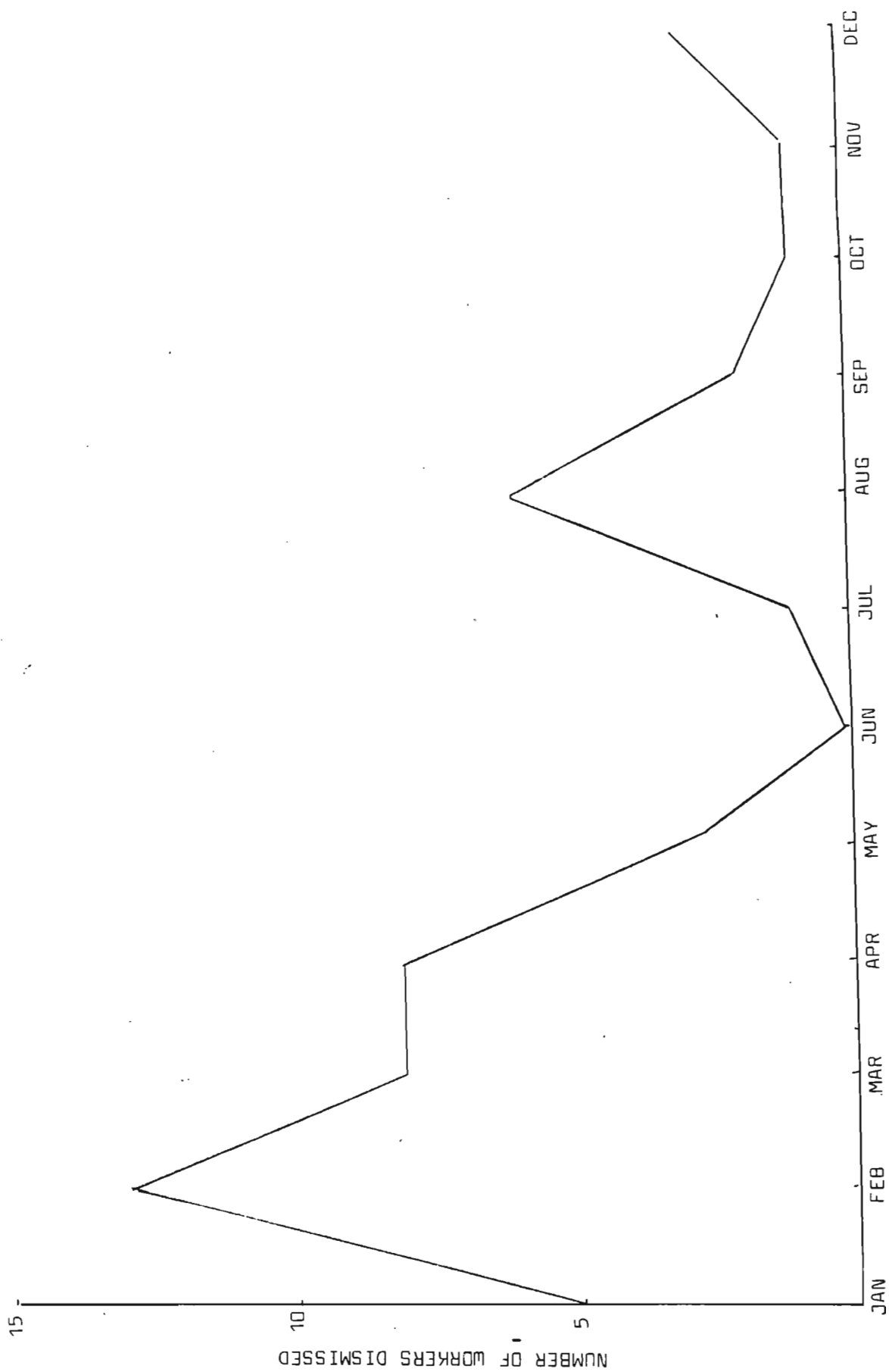


FIGURE 25 : Dismissals of black mineworkers - monitored monthly for
for mine overseers' Section D

(cLxxxv)

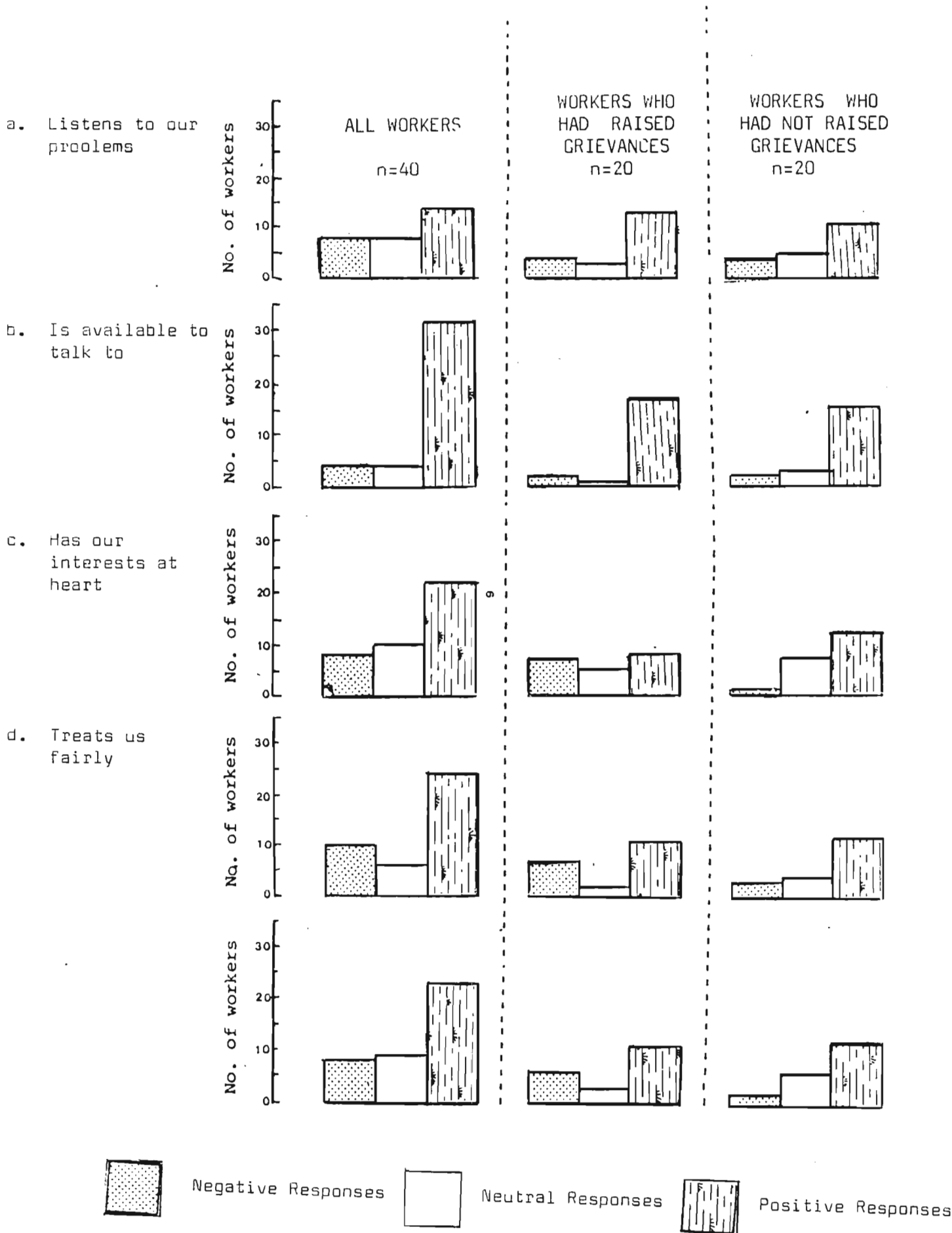


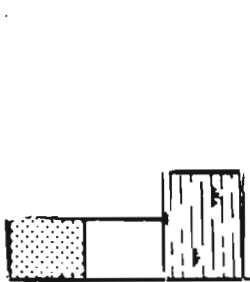
FIGURE 33: The distribution of responses given by black mineworkers to statements about the Black Personnel Assistant

(cLxxxvi)

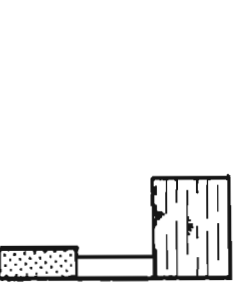
e) Is not open to bribery

ALL WORKERS
n = 40

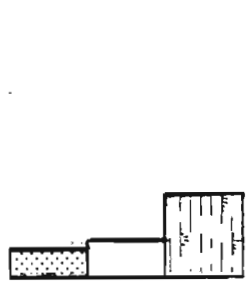
No. of workers



WORKERS WHO
HAD RAISED
GRIEVANCES
n = 20

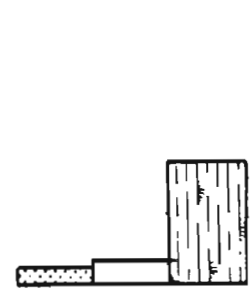
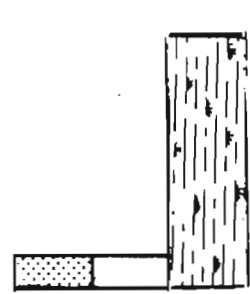


WORKERS WHO
HAD NOT
RAISED
GRIEVANCES
n = 20



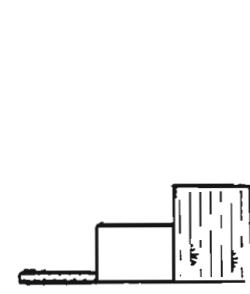
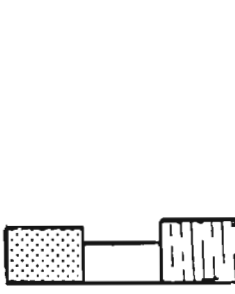
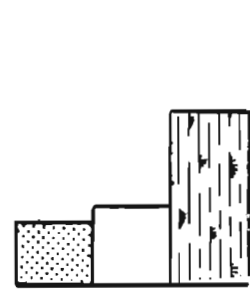
f) Is easy to talk to

No. of workers



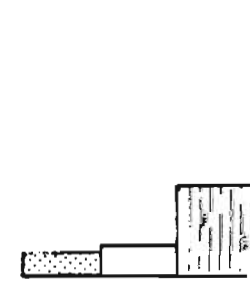
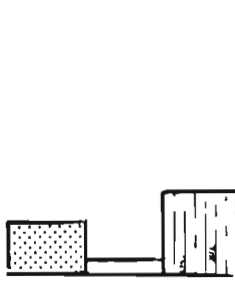
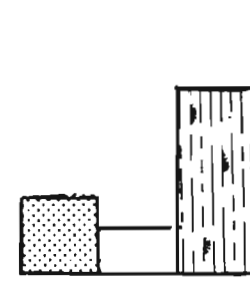
g) Is helpful

No. of workers



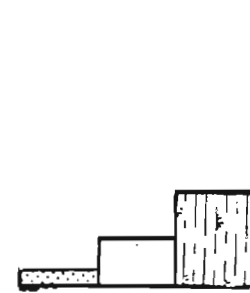
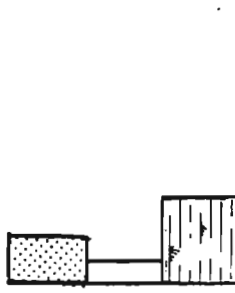
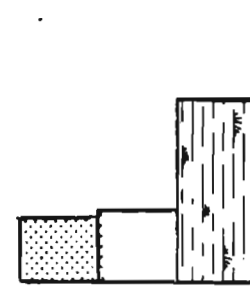
h) Can be trusted

No. of workers



i) Has power to resolve our problems

No. of workers



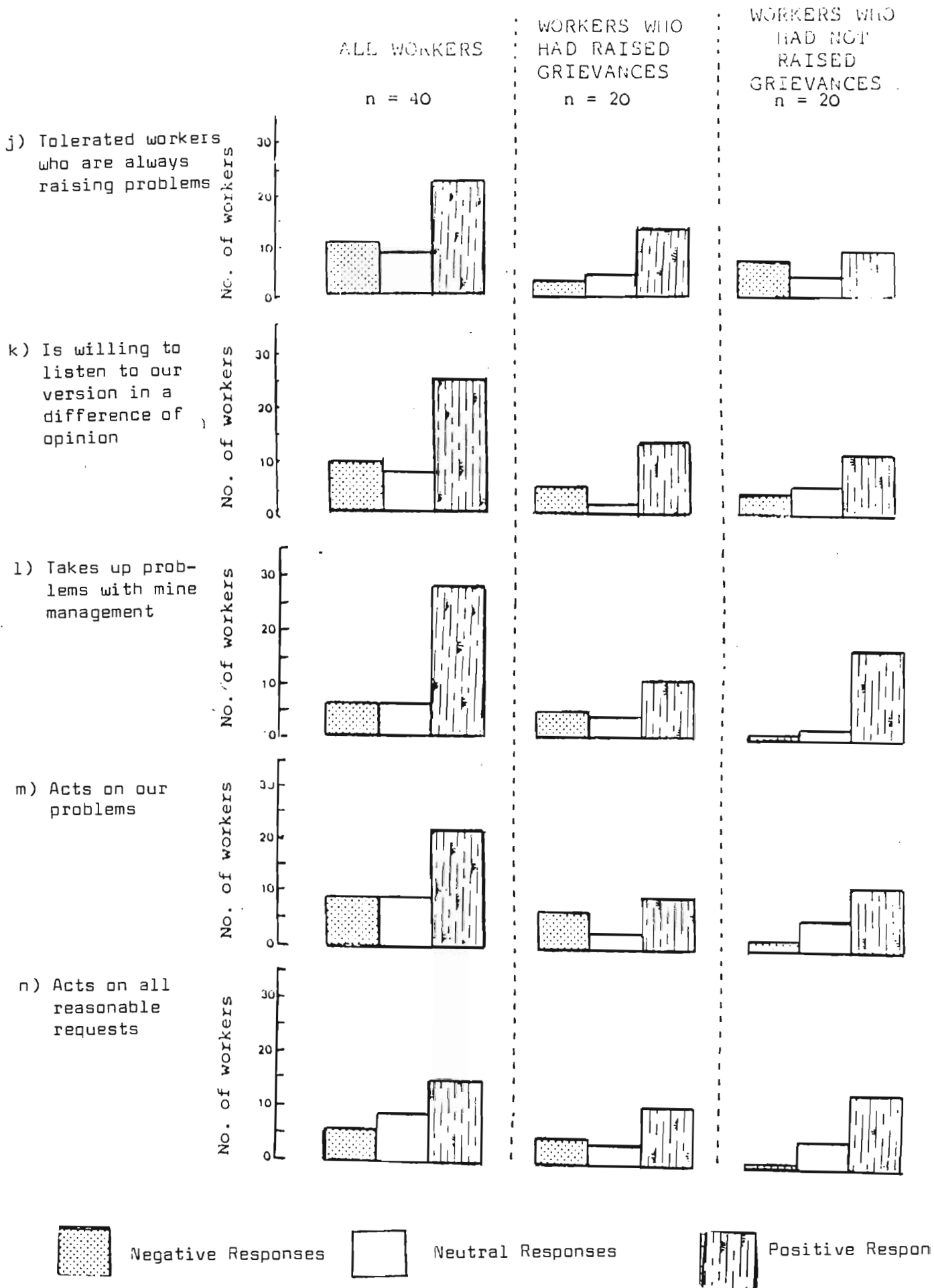
Negative Responses

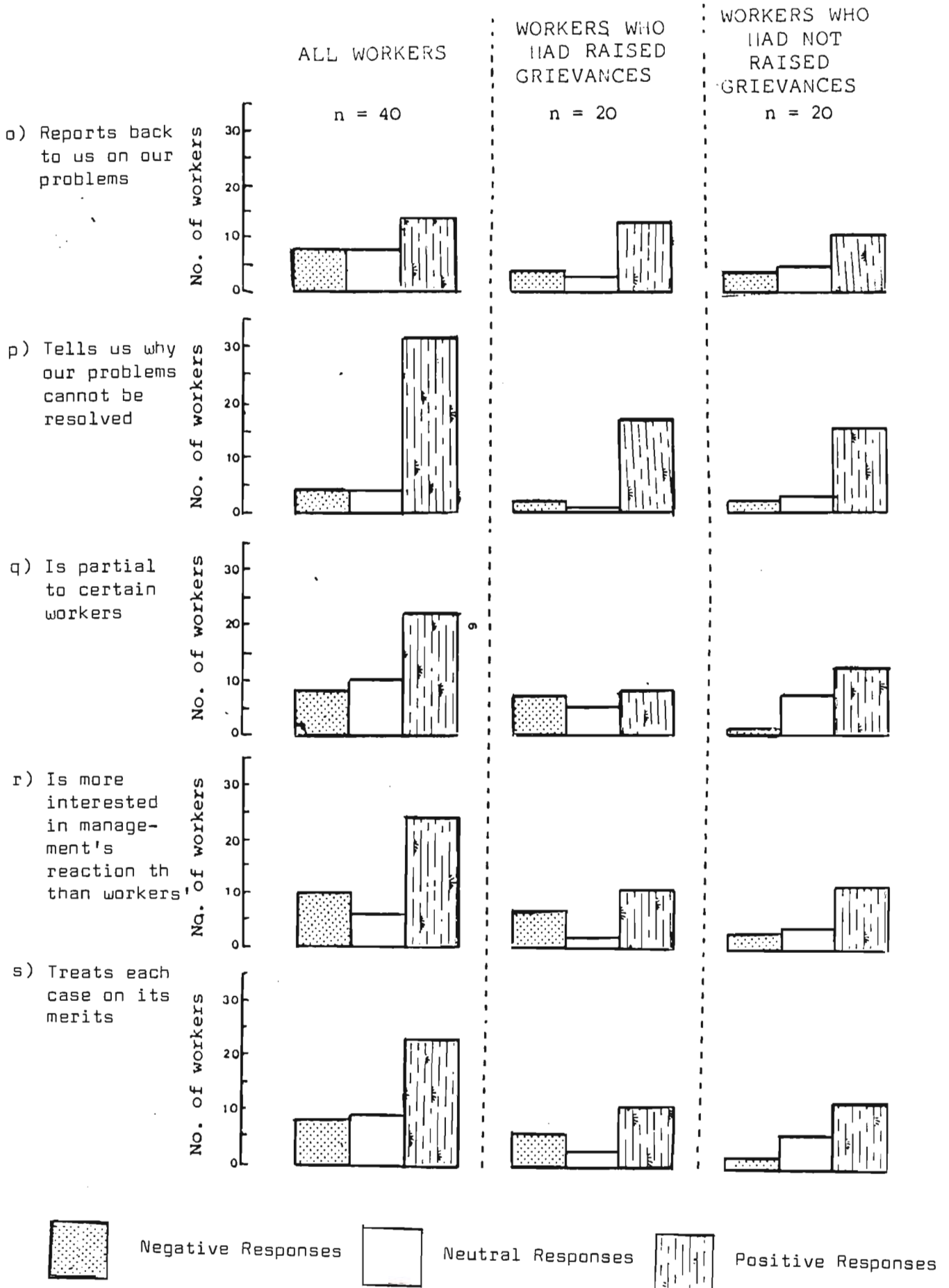


Neutral Responses



Positive Response





REFERENCES

- Andrews, F M and Withey, S E Social Indicators of Well-being. New York, 1976.
- Appelbaum, R P Theories of Social Change. Chicago. Rand McNally College Printing Company, 1970.
- Arnheim, M T W South Africa after Vorster. Cape Town. Howard Timmins, 1979.
- Badenhorst, L T Survey Report, Part I : The attitudes of Lebowans towards Employment in the South African Mining Industry. Cape Town. Market and Opinion Surveys (Pty) Ltd., 1976.
- Barker, E Social Contract, Essays by Locke, Hume and Rousseau. London. Oxford University Press, 1971.
- Barlow Rand. A special survey. Supplement to Financial Mail. 13 February, 1981.
- Bauer, R A (Ed).. Social Indicators. Massachusetts. The M I T Press, 1969.
- Bendix, D W F Future Implications of Labour Relations in the Political Context. Dostal, E (Ed), Labour Relations, Training and Productivity. (UFR Occasional Paper 80/5). Stellenbosch. Unit for Futures Research, University of Stellenbosch, 1980.
- Berkley, G E The Administrative Revolution : Notes on the Passing of Organization Man. Englewood Cliffs, New Jersey. Prentice-Hall, 1971.
- Bettencourt, J J and Jensen, A An Analysis of Underground Accidents in a Gold Mine (Research Report No 37/67). Johannesburg. Chamber of Mines of South Africa, 1967.
- Brinton, C The Anatomy of Revolution. New York. Vintage Books, 1962.
- Cohen, A K Deviance and Control. New York. Prentice-Hall, 1966.
- Coser, L A The Functions of Social Conflict. Glencoe, Illinois. The Free Press, 1956.
- Dahrendorf, R Class and Class Conflict in Industrial Society. London. Routledge and Kegan Paul, 1959.
- De Villiers, W J Review by the Executive Chairman in Annual Report. General Mining Union Corporation Limited, Johannesburg, 1981, 1978.
- De Vries, P Exit Interviews with Black Workers on one Gold Mine: July, 1979 to June 1980 (Internal Report). Johannesburg. Chamber of Mines of South Africa, 1980.

- De Vries, P Length of last contract Human Resources Bulletin
Johannesburg. Chamber of Mines of South Africa, June 1977.
- De Vries, P and Ackermann, E The views of black mineworkers on two mines on how effectively their grievances were dealt with (Mine Report). Johannesburg. Chamber of Mines of South Africa, 1980.
- De Vries, P with Recruits of Rand Mines Training Centre An Investigation into Labour Turnover and Absenteeism.
Johannesburg. Rand Mines Training Centre, 1978.
- De Tocqueville, A The Old Regime and the French Revolution.
New York. Stuart Gilbert (Translation) Doubleday, 1955.
- Druker, P F The New Society : The Anatomy of the Industrial Order. New York, 1950.
- Dubin, R Approaches to the study of Social Conflict : A Collquim Conflict Resolution, Vol I, No 2, 1957.
- Duff, T Mines - NUM Negotiations South African Labour Bulletin. Vol 8, No 7, 1983.
- Epstein, A L Politics in an Urban African Community.
Manchester. University of Manchester for Institue for African Studies, University of Zambia, 1973.
- Etzioni, A A Comparative Analysis of Complex Organizations.
Glencoe, Illinois. Free Press, 1961.
- Etzioni, A and Etzioni, E (Eds). Social Change. New York. Basic Books, 1964.
- Fanchette, S. Social Indicators : Problems of Methodology and Selection. Social Indicators: Problems of definition and of selection. UNESCO Reports and Papers in the Social Sciences No 30, Paris, 1974.
- Freedman, D S Consumption Aspiration as Economic Incentives in a Developing Country - Taiwan. Strumpel, B, Morgan, J N and Zahn, E Human Behaviour in Economic Affairs. Amsterdam. Elsevier Scientific Publishing Company, 1972.
- Friedman, S Why it's Worth Squatting. Rand Daily Mail.
Johannesburg. 21 August 1981.
- Gèrard, A S Four African Literatures. Berkely, Los Angeles. University of California Press, 1971.
- Glass, Y Mining as an occupational choice. Johannesburg. National Institute for Personnel Research, 1961.
- Goffman, E Asylums : Essays on the Social Situation of Mental Patients and other Inmates. Cordon City, Doubleday, Anchor Books, 1961.

- Gouldner, A W The Norm of Reciprocity : A Preliminary Statement.
American Sociological Review. Vol 25, No 2, 1960.
- Gold Producers Committee Circular No 63/81, Chamber of Mines
of South Africa, 1981.
- Grundy, K The Truth about Total Onslaught. The Sunday Times,
Johannesburg. 1982.
- Gunther, K The urbanization of Black mineworkers. Human
Resources Bulletin. Johannesburg, Chamber of Mines of
South Africa, October 1978.
- Gunther, K and de Vries, P Will mining be able to retain its
novices? Human Resources Monitor. Johannesburg,
Chamber of Mines of South Africa, April 1978.
- Gurr, T R Why Men Rebel. Princeton. Princeton University
Press, 1974.
- Hall, S K P Satisfactions and Dissatisfactions of Black
Workers with Mining. Johannesburg. Chamber of Mines
of South Africa, 1982.
- Hersov, B E Chairman's Review in Annual Report 1982.
Anglovaal Limited, Johannesburg, 1982, 1981, 1980.
- Hobbes, I T Leviathan (1651), (Ed). Michael Oakeshott, New
York. Collier Books, 1962.
- Huttmann, J P Economic and Social Integration and the Quality
of Life : Defining the problem and fulfilling the need.
Labour and Society. Vol 3, No 1, January 1978.
- Hyman, R Industrial Relations. A Marxist Introduction.
Plymouth, England. The Bowering Press Ltd, 1975.
- Institute for Industrial Education, The Durban Strikes 1973.
Durban, Institute for Industrial Education in Association
with Ravan Press, 1974.
- Ivanovic, B A method of establishing a list of Development
Indicators. Social Indicators : Problems of Definition
and Selection. Paris UNESCO Reports and Papers in the
Social Sciences No 30, 1974.
- Jensen, A A Review of Personnel Research in the Gold Mining
Industry 1947-1968. (Research Report No 16-70).
Johannesburg. Chamber of Mines of South Africa, Human
Resources Laboratory, 1970.
- Kachelhoff, G L Industrial Democracy : Employee participation
in the decisions of an undertaking in S M Swart (Ed).
Employee Participation: Challenge to Management Prero-
gatives. Pretoria. UNISA, 1978.

- Katona, G Behavioural and Ecological Economics. Consumer Behaviour : Theory and findings on expectations and aspirations. American Economic Review. May, 1968.
- Katona, G, Strumpel, B and Zahn, E Aspirations and Affluence, Comparative Studies in the United States and Western Europe. New York. McGraw-Hill Book Co, 1971.
- Kerr, C and Siegel, A The Inter Industry Propensity to Strike - An International Comparison. Kornhauser, A, Dubin, R and Ross, A-M (Eds). Industrial Conflict. New York. McGraw-Hill, 1954.
- Kerr, G Labor and Management in Industrial Society. Cordon City. Doubleday, 1964.
- Laburn, C M and McNamara, J K Week-end visits home by migrant workers. (Research Report No 7/81). Johannesburg. Chamber of Mines of South Africa, 1981.
- Lawrence, A C The novice migrant mineworker. Human Resources Bulletin. Johannesburg. Chamber of Mines of South Africa, March 1979.
- Lipton, M The Mining Companies and their Changing Perspectives, Optima Vol 29, No 2/3, Johannesburg. Anglo American Corporation, De Beers and Charter Associated Group of Companies, 1980.
- Louw, A Chairman's Review in Annual Report. Gold Fields of South Africa Limited, Johannesburg, 1980.
- Lupton, T On the Shop Floor. New York. Pergamon Press, 1963.
- MacArthur, D, Godfrey, J D, McNamara, J K and Thomas, O F Factors Affecting the Popularity of a Mine for Black Mineworkers. (Research Report No. 58-77). Johannesburg. Chamber of Mines of South Africa, 1978.
- Mack, R and Snyder, A Approaches to the Study of Social Conflict : A Collquim. Conflict Resolution. Vol 1, No 2, 1957.
- Mahlatji, M W How do Novices percieve Safety? Human Resources Monitor. Vol 2, No 3, October, 1977. Johannesburg. Chamber of Mines of South Africa, 1977.
- Marshall, T H General Survey of Changes in Social Stratification in the Twentieth Century. Transactions of the Third World Congress of Sociology. Vol III. London, 1956.
- Marx, K The Division of Labour in Society. New York. Free Press of Glencoe, 1947.

- Mauer, K F Urbanization, Education and Mining. Human Resources Monitor. Johannesburg, Chamber of Mines of South Africa, March 1976.
- McAllister, P A The Characteristics and Effectiveness of Liaison Committees. (Mine Report). Johannesburg. Chamber of Mines of South Africa, 1980.
- McAllister, P A Work, Homestead and the Shades : The Ritual Interpretation of Labour Migration among the Gcaleka. Mayer W P (Ed). Black Villagers in an Industrial Society. Cape Town. Oxford University Press, 1980.
- McAllister, P A Black Labour at the Corner House Laboratories (1968) (Pty) Ltd : A Socio-Economic Study (BA(Hons) dissertation). Cape Town. University of Cape Town, 9 October 1973.
- McLaren, E and McNamara, J K Major Industrial Relations Trends and Related Research Needs for the Mining Industry. Internal Report No HRL (1/82). Johannesburg. Human Resources Laboratory, Chamber of Mines of South Africa, 1982.
- McNamara, J K Some Underlying Causes of Industrial Conflict in the Mining Industry - A synthesis of four Case Studies. Human Resources Bulletin, Vol 3, No 4. Johannesburg. Chamber of Mines of South Africa, 1979.
- McNamara, J K Work and hostel-related grievances of black workers in conflict with mine management : 1970 - 1979. (Research Report, 29/81). Johannesburg. Chamber of Mines of South Africa, 1981.
- McNamara, J K The Xhosa Migrant Mineworker (Unpublished Honours Dissertation). Johannesburg. University of the Witwatersrand, 1974.
- Mizrahi, I and de Vries, P Novices expectations of Mining. Human Resources Monitor. Johannesburg, Chamber of Mines of South Africa, April 1978.
- Mizrahi, T and de Vries, P The Job of Artisan Aide. (Research Report No 52/78). Johannesburg. Chamber of Mines of South Africa, 1978.
- Møller V and Schlemmer, L Contract Workers and Job Preference among Migrants in Durban. Durban. Centre for Applied Social Sciences, University of Natal, 1981.
- Momberg, A P The Job of Stope Production Team Leader in the Gold Mining Industry. (Research Report 55/81). Johannesburg. Chamber of Mines of South Africa, 1981.

- Moodie, D T The rules are there to protect those in power only : Structures of domination on a South African gold mine. The Witwatersrand: Labour, Townships and Patterns of Protest. Johannesburg. History Workshop, University of the Witwatersrand, 3-7 February, 1978.
- Moodie, D T The Formal and Informal Social Structure of a South African Gold Mine. Human Relations. Vol 33(8), August, 1980.
- Moore, B Jnr Social Origins of Dictatorship and Democracy. New York. Penguin University Books, 1973.
- Moore, B Jnr Injustice. The Social Bases of Obedience and Revolt. London. The MacMillan Press, 1978.
- Moore, W E Industrial Relations and the Social Order. New York, 1947.
- Moroney, S The development of the Compound as a Mechanism of Worker Control 1900 - 1912. South African Labour Bulletin. Vol 4, No 3, May 1978.
- Moscovici, S Social Influence and Social Change. London. Academic Press, 1976.
- Oppenheimer, H F Chairman's Statement 1980 in Annual Report, Anglo American Corporation of South Africa Ltd. Johannesburg, 1982, 1980, 1979, 1976.
- Oppenheimer, H F Towards Equal Opportunity in South Africa. 1979 Chancellor's Lecture University of the Witwatersrand. Johannesburg, 20 March 1979.
- Oppenheimer, H F Why the world should continue to invest in South Africa. Address to the International Monetary Conference, Mexico City, 22 May 1978.
- Oxford English Dictionary The Compact Edition. London, 1979.
- Parsons, J A Wages in gold mining 1970-1978, and the implications of alternative future wage policies. (Research Report No 29/79). Johannesburg. Chamber of Mines of South Africa, 1979.
- Parsons, J A How Attractive is Gold Mining to Black Mineworkers. (Research Report No 42/77). Johannesburg. Chamber of Mines of South Africa, 1977.
- Parsons, T Social Class and Class Conflict. American Economic Review Vol XXXIX, 1949.
- Parsons, T The Structure of Social Action. Glencoe, Illinois. The Free Press, 1957.
- Pavitt, E Chairman's Review in Annual Report. General Mining Union Corporation Limited, Johannesburg, 1982.

- Rosholt, A M Address at a dinner to mark the presentation of the 1982 Rand Daily Mail Business Achievement Award to Escom. Johannesburg, 25 January, 1982.
- Rosholt, A M Address on the occasion of his installation as Chancellor of the University of the Witwatersrand. Johannesburg, 4 August, 1982.
- Rosholt, A M Chairman's Statement in Annual Financial Statements. Barlow Rand Limited. Johannesburg, 1980, 1981, 1982.
- Rosholt, A M Differing South African Conceptions of the Free Market System. Address at a luncheon of the Free Market Foundation. Cape Town, 24 June 1982.
- Rosholt, M A The Changing Business Scene of the late Seventies. An address delivered at the MBA Annual Dinner. The Graduate School of Business. University of Cape Town, August, 1977.
- Roux, R Striking for Pensions. South African Labour Bulletin Vol 6, No 8. Cape Town, 1981.
- Runciman, W G Relative Deprivation and Social Injustice. Berkley. University of California Press, 1966.
- Russell, B Power. A New Social Analysis. London. Unwin Books, 1967.
- Sadie, J L The Costs of Population Growth in South Africa. The South African Journal of Economics. Vol 40, No 2, 1972.
- Sadie, J L Manpower Development and Employment Policy for Southern Africa. Africa Institute of South Africa. The Challenge of the Eighties. Pretoria. University of South Africa, 14 August 1981.
- S A Mining and Engineering Journal. Johannesburg, April 1978.
- Schein, E H Organizational Psychology. Englewood Cliffs, New Jersey. Prentice-Hall, Inc, 1972.
- Sheer, L Conceptualizing the quality of life. Labour and Society, Vol 3, No 1, January, 1978.
- Sills, D L (Ed) International Encyclopaedia of Social Sciences. New York. Crowell, Collier and MacWilliam, Inc, 1968.
- Simmel, G The Sociology of George Simmel. K H Wolff (Ed) Glencoe, Illinois. Gree Press, 1950.
- Simmel, G (Translation) Conflict K H Wolff. Glencoe, Illinois. The Free Press, 1955.
- Skidmore, W S Theoretical Thinking in Sociology. New York. Cambridge University Press, 1975.

- Spiegel, A D Rural Differentiation and the Diffusion of Migrant Labour Remittances in Lesotho. in Mayer, W P (Ed) Black Villagers in an Industrial Society. Cape Town. Oxford University Press, 1980.
- Spiegel, A D Changing Patterns of Migrant Labour and Rural Differentiation in Lesotho. Social Dynamics. Vol 6, No 2. Cape Town, 1981.
- Strumpel, B (Ed) Economic means for Human Needs. Institute for Social Research. Michigan. The University of Michigan. Ann Arbor, 1976.
- Survey: The black mineworker in Coal, Gold and Base Minerals Vol 27, No 1. Johannesburg. The Pithead Press (Pty) Ltd, 1978.
- Thula, G Rural Poverty in Kwazulu Mirrors that in South Africa. Race Relations News. Vol 43, No 11, Johannesburg. South African Institute for Race Relations, 1981.
- The Limits and Potential of Business Lobbying on Behalf of Blacks. Intergroup. Vol 1, Cape Town. Centre for Intergroup Studies, University of Cape Town, 1979.
- The Star The end of an anachronism. Johannesburg, 15 June 1983.
- Theunissen, T and Wolfaard, J B Differences in performance on the CTB : 1972-1977. Human Resources Bulletin. Johannesburg. Chamber of Mines of South Africa, June 1978.
- Umlaw, A Feeding practices on the mines. Johannesburg. National Institute for Personnel Research, 1962.
- Union Corporation Limited Annual Report, Johannesburg, 1979.
- Waddell, G H Chairman's Review in Annual Report. Johannesburg Consolidated Investment Company Ltd. Johannesburg, 1981.
- Watkins, C K Social Control. London. Longman, 1975.
- Weber, M The Theory of Social and Economic Organization. (Translation) A M Henderson and T Parsons. New York, 1950.
- Wilson, F Labour in the South African Gold Mining Industry, 1911-1969. London. Cambridge University Press, 1972.