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THE EFFECT OF LONG JOURNEYS TO WORK ON BLACK COMMUTERS' PUNCTUALITY, ABSENTEEISM AND TRAVEL BEHAVIOUR

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A project report submitted to the Faculty of Engineering, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Masters of Science in Engineering.

Johannesburg, 1987

DECLARATION

I declare that this project report is my own, unaided work. It is being submitted for the Degree of Masters of Science in Engineering in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

.....
(Signature of candidate)

..... day of 1987

ABSTRACT

Due to a number of reasons, black commuters in South Africa are often faced with long, timeous and complicated journeys to work.

The purpose of this research report is to determine how these long commuting distances influence the punctuality and rate of absenteeism of black employers to the work-place.

A survey was undertaken in Cape Town, Pretoria, Bloemfontein and Durban. The sample of 1238 respondents was divided into long- and short-distance commuters and the answers of these two groups were compared. Respondents were questioned about factors causing them to be late or absent from work as well as their attitudes towards punctuality. They were also questioned about their employers' attitude towards lateness.

The results showed clearly that transport related problems constituted a major part of all late arrivals at the work place. Lateness due to transport problems was mainly influenced by the distance travelled to work, the total travel time, the number of transfers, the time the commuter had to leave his home, and the time he had to start work.

Although absenteeism was also increased by the distance commuters had to travel and the difficulty of the journey, it was experienced much less than lateness.

Lateness at the work-place due to transport problems is a big problem in South Africa, which is aggravated by the long distances faced by many commuters. It is important to try to minimize the problem and thereby cut the cost of lateness to industry.

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CHAPTER 1 INTRODUCTION

In 1972, the Government of South Africa appointed the "Committee of Inquiry into Urban Facilities in the Republic" in short known as the Driessen Committee. Its task was to investigate the urban transport problems in major urban areas and to make recommendations on the manner in which expenditure on the provision of urban transport facilities should be financed.

The Driessen Report was published in 1974. One of its recommendations with respect to planning and policy formulation was the formation of an Urban Transport Planning Group at the National Institute for Transport and Road Research (NITRR) at the CSIR, to undertake research into transport issues.

It was subsequently decided by the NITRR that one area that needed urgent investigation was the problems and needs of Black commuters. A number of studies have thus been undertaken since 1977 and this project is one of the studies into Black commuting problems and needs.

A major feature of black commuting patterns in South Africa is the long distance travelled by many commuters, especially in areas such as Pretoria and Bloemfontein. These long distances are mainly due to the following factors :

* Government policies regarding the location of residential and industrial development;
* the high level of subsidy on the cost of commuting;
* the scattered settlement patterns of many distant areas, and the dispersed nature of black employment areas.

An earlier study, which investigated the effects of long distance travel on the home-life of black commuters, found that long journeys had a great impact on the commuters' daily activities (Fourie and Morris, 1985).

This study concentrates on the work-life of the commuter. It attempts to investigate how long travel times, difficult journeys and the attitudes of black commuters towards punctuality affect lateness, absenteeism and travel behaviour.

The objectives therefore are the following :

* To determine the influence of long commuting times and difficult journeys on lateness and absenteeism;
* To investigate the attitudes of commuters towards punctuality;
* To examine the influence of lateness on commuters' subsequent travel behaviour.

This research report will firstly discuss the background to the present commuting patterns of black workers in South Africa. Then an overview is given of other studies into punctuality and absenteeism.

In Chapter 4 the present commuting patterns and public transport facilities in the study areas will be described, while Chapter 5 will discuss the methodology and sample used to determine punctuality and absenteeism at the work place.

Chapters 6 to 10 will discuss the results of the survey and in Chapter 11 a conclusion and some recommendations are given.

CHAPTER 2 BACKGROUND

This chapter will discuss in greater detail the development of commuting patterns for blacks in South Africa, the present situation and how this affects the commuters' satisfaction with their journey to work. The influence of total travel times on the commuter's home-life will also be discussed.

2.1 The Spatial Development of South African Cities

Three major evolutionary phases can be identified in the development of South African cities. These developments had a great influence on the commuting patterns of blacks (Voges, 1983) :

2.1.1 The "segregated city" (1886-1950)

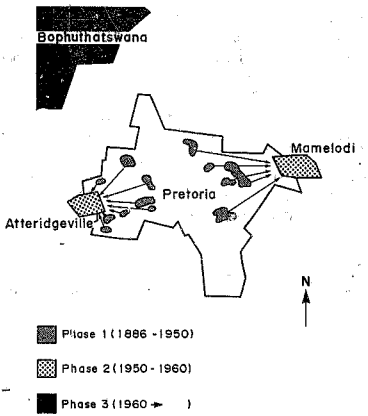
With the discovery of minerals in 1886, South [illegible]ntered a phase of rapid industrialisation which led to the migration of large numbers of blacks and whites to urban areas. For the first time, blacks and whites were engaged in the same economic system.

Although the various provinces did try to control the influx of blacks, the economic advantages of cheap labour were at this stage still valued more highly than the ideology of segregation. The result was the appearance of small black residential areas which were scattered within "white" cities. See Figure 2.1 with Pretoria as an example.

2.1.2 The "apartheid city" (1950-1960)

The second phase was from about 1950 to 1960 when the policy of apartheid was introduced and applied by the newly elected NP government. The result was that black residential areas were

Figure 2.1: The development of Black residential areas in Pretoria



Source : Voges, E M : Accessibility, transport and the spatial structure of South African cities : an historic perspective, 1983

consolidated into one or two larger areas on the periphery of "white" urban areas. In Pretoria, for example, all black areas within the city were consolidated into Atteridgeville in the west and Mamelodi in the east. See Figure 2.1.

2.1.3 Homeland consolidation and development (1960 onwards)

In the 1960s, the apartheid policy was reformulated to become "separate development". The main idea was to develop separate homelands* for the various black ethnic groups. These homelands were usually at a considerable distance from the major employment areas. Where "white" cities were closer than 50 km from any homeland further development in the black townships within the cities was frozen. Examples of these townships were Mamelodi and Atteridgeville in Pretoria. See Figure 2.1. Some of the new towns within the homelands were situated at a great distance from employment centres. The new townships for Bloemfontein, for instance, were sited 60 km away at ThabaNchu and Onverwacht (Witulksi, 1986).

These developments; and the overwhelmingly dormitory characteristics of towns in the homelands resulted in a drastic decrease in the accessibility of blacks to their places of employment (Voges, 1983). This had a great influence on the black commuting patterns.

* Please note : the homelands within South Africa are either known as Independant States or National States. Independant States have achieved full independance and include Transkei, Venda, Bophuthatswana and Ciskei. National States have not received independance yet. These include KwaZulu, Qwaqwa, Lebowa, GaZankulu, Kangwane and KwaNdebele.
To simplify matters the term "homelands" will be used throughout the text unless reference is made to only one of the two categories.

2.2 Black Commuting in South Africa

The number of commuters travelling from the homelands to employment places in South Africa is shown in Table 2.1.

Until 1982 the number of commuters had increased considerably. This was mainly due to development and natural growth in the homelands. Since 1983, however, the number of commuters has decreased. This can be mainly ascribed to the economic recession in South Africa and the resulting increase in unemployment.

Table 2.1 : Number of daily commuters from the homelands to the urban areas, 1977-1984

State	1977	1978	1979	1980	1981	1982	1984
Independent states :							
Transkei	7 100	7 600	8 900	9 000	9 100	8 000	9 200
Bophuthatswana	148 200	151 800	155 400	161 200	162 200	173 000	115 400
Venda	4 500	5 100	5 600	5 600	5 700	6 000	5 700
Ciskei	34 600	36 200	37 100	38 100	38 400	38 000	36 600
National states :							
Kwazulu	291 300	321 700	352 300	363 900	384 200	395 000	282 600
Qwaqwa	2 100	2 000	2 500	6 800	9 500	12 000	3 500
Lebowa	46 600	54 400	57 900	65 800	72 200	76 000	68 300
Gazankulu	6 300	6 700	7 800	8 800	9 700	9 000	6 500
Kangwane	25 200	28 500	33 100	35 600	40 000	44 000	47 700
KwaNdebele	1 100	1 300	3 500	5 900	8 700	12 000	22 700
Total	567 000	615 300	664 100	700 700	739 700	773 000	662 200

Source : Witulski, U. Black commuters in South Africa, 1985

In addition to the 662 000 commuters in 1984 from the homelands roughly another 1,5 million black workers in "white" areas commute daily to their place of work; mostly by public transport (Witulski, 1986).

Average travel distances for homeland commuters are generally very long, as can be seen in Table 2.2. It was estimated that in 1985, 400 000 black workers (19% of all commuters) travelled more than 30 km each way to their place of work.

Average travel times are also generally long. According to Table 2.2 even commuters travelling 15 km or less need 55 minutes to reach their destinations. Commuters living more than 30 km from their places of work travel an average of 140 minutes each way.

In contrast, Costa (1984) found that in the European Economic Community most workers (71%) lived within 10 km from work, 22 per cent travelled 10-25 km and only 7 per cent travelled for over 25 km. Costa's report also found that 75 per cent of the workers reached work within 30 minutes while 20 per cent travelled up to an hour and only 5 per cent for over an hour.

Table 2.2 : Average travelling time and distance, 1985

Distance	Average travel distance	Total journeys Number	%	Average total travel time (minutes)
Short 0-15 km	10 km	600 00	29	55
Medium 16-30 km	20 km	1 100 000	52	90
Long 30 km +	45 km	400 000	19	140

Source : Naude, A H et al. Black commuter transport in South Africa : An overview of broad trends and their cost implications, 1986.

In addition to the long journeys and long total travel times faced by commuters in South Africa, field studies undertaken by the NITRR, (Morris, 1986(a)) showed that black commuting patterns are also complex and varied. This is mainly due to the development of black residential areas in the homelands. These are usually low-density and sprawling. Many blacks also work in industrial areas which are usually dispersed within a city; unlike commercial areas that tend to be concentrated. Because it is difficult for operators to provide a frequent service

between the large number of origins and destinations, many commuters have to transfer on their journey to work. This obviously increases the total travel time of commuters and the difficulty of the journey.

2.3 Commuters' Attitudes Towards their Journey to Work

In 1980 a study was undertaken by the NITRR to determine the attitudes of the commuters towards their journey to work in the Pretoria area (this study is known as the BCP-study). Over 1000 respondents were interviewed. (Morris, 1986(a)).

The results showed clearly that the greatest cause of dissatisfaction was crowding.

This was followed by problems with punctuality, the frequency of service and unreliability of services, which led to dissatisfaction with arrival times at work. Other major grievances were total travel times, cost and crime (Morris, 1986(a)).

With respect to total travel times the majority of respondents who travelled for 75 minutes or more expressed dissatisfaction. See Figure 2.2. Furthermore commuters, faced with long journeys, were more likely to be dissatisfied with other attributes of the journey (e.g. crowding, waiting and walking times) than were commuters who had a short journey to work.

If one takes into account that in 1985, 71 per cent of black commuters in South Africa travelled for more than 90 minutes to work, it becomes clear that long travel times are a major cause of dissatisfaction among black commuters. See Table 2.2.

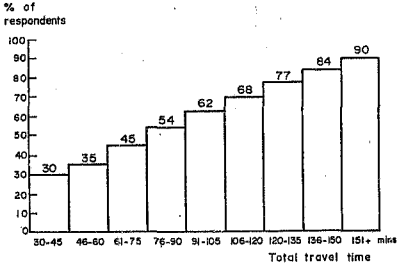
2.4 Daily Activity Patterns of Long-distance Commuters

In 1984 the NITRR decided to assess how these long travel times affected the home- and work-life of commuters. In order to determine the influence of commuting distances on the home-life and daily activities of the commuters, fifty long-distance and fifty short-distance commuters were interviewed. (Fourie and Morris, 1985). The study was conducted in the Pretoria area.

The short-distance commuters came from Mamelodi (to the east of Pretoria) and travelled 10 to 15 km to work. In contrast the long-distance commuters travelled between 60 and 130 km each way. They lived in the hinterland of Bophuthatswana (to the north-west and north-east of Pretoria) and in KwaNdebele. The long-distance group was subdivided into three areas for detailed analysis. See Figure 2.3.

Figure 2.2

Dissatisfaction with total travel time (N = 1045)

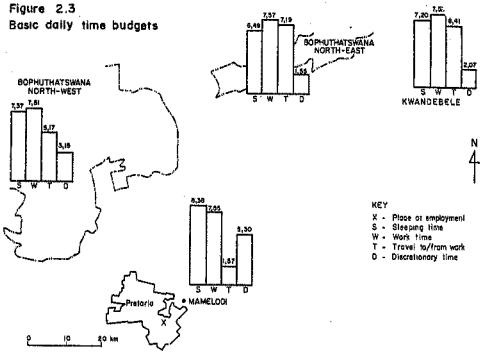


Source : Morris, N : Black commuting in Pretoria : Summary Report, 1986(a)

Figure 2.3 summarizes the respondents' daily time budgets in terms of four basic activities: sleeping, working, travelling to and from work and discretionary time. While sleeping- and working time did not dif a great deal in the four areas, the travel time varied considerably. The worst off area was Bophuthatswana North-East where commuters travelled for well over seven hours each day. In contrast commuters from Mamelodi spent less than two hours a day travelling. The time available for discretionary activities also differed greatly in the four areas. While Mamelodi respondents had five and a half hours to themselves, respondents from Bophuthatswana North-East and KwaNdebele had only about two hours free time.

Fourie and Morris (1985) concluded that *"the two contrasting groups ... show very clearly that the distance travelled to work each day had an overwhelming impact on the commuters' daily pattern of activities"* (page 14).

Figure 2.3
Basic daily time budgets



Source: Fourie, EM and Morris, N : The effects of a long journey to work on the daily activities of black commuters, 1985

2.5 Summary

From this introductory chapter on some of the main features of black commuting in South Africa the following conclusions can be drawn :

* The residential patterns of South Africa are unique. As a result of the policy of segregation, a large proportion of the low-income population (mainly blacks) live great distances away from cities and therefore from employment opportunities. They are forced to **travel long distances** to their work. This pattern differs greatly from most Western cities where the higher income groups, who can afford higher transport costs, usually live in the outlying suburbs while the low income population lives close to central city work places, (Voges, 1983).

* Because most blacks belong to the low income group in South Africa, commuters largely have to make use of public transport. Public transport operators however, find it very difficult to provide an efficient service for the large numbers of people and for their complex travel patterns. The commuters therefore often have to make one or more transfers to get to their places of employment, with the result that they face **difficult journeys and long travel times.** This causes a great deal of dissatisfaction.

* The long commuting times have a major **influence on the home-life** of black workers. The further they live from work the less they do after work.

This research project will investigate how long commuting times and difficult journeys affect the work-life of black commuters, by looking at lateness and absenteeism.

CHAPTER 3 COMMUTER TRAVEL, PUNCTUALITY AND ABSENTEEISM

In order to assess the importance of punctuality and absenteeism at the work place, a literature study was done. This chapter gives an overview of other research findings on the subjects of lateness and absenteeism, with special emphasis of the influence of travel patterns on these issues.

3.1 Punctuality of Arrival at Work

Very little has been written about the influence of commuting on lateness and how this influences the productivity of an organisation. Costa (1984), however, mentioned that in the EEC countries the main detectable effect of commuting was lateness and a higher rate of absenteeism.

In the South African context lateness seems to be a serious problem for commuters. Van der Reis (1983), referring to other studies done by the NITRR, noted that "*punctual services are appreciated and that dissatisfaction may quickly arise with services which are less than highly punctual and reliable in the mornings*" (page 19). In the BCP-study (mentioned in Chapter 2) most respondents reported that they were occasionally late. See Table 3.1.

Ehlers (1982) found that lack of punctuality posed a problem for black workers from KwaNdebele. In his study 16 per cent of the commuters maintained that one of their main problems was lateness to work due to the lack of punctuality of the buses. In the BCP-study 16 per cent of the respondents were late on the day of interview; and it is therefore not surprising that 53 per cent indicated their dissatisfaction with the punctuality at the work end.

Table 3.1 : Reported frequency of lateness at work (N=1045)

Frequency of lateness	%
Never late	25
Occasionally late	55
Quite often late	15
Nearly always late	5
TOTAL	**100**

Source : Van der Reis, A P. Black commuting in Pretoria : attitudes towards frequency, punctuality and waiting times, 1983.

Figure 3.1 shows that black commuters in Pretoria demanded a high standard of punctuality. Even among respondents who were only "occasionally late", 64 per cent were dissatisfied.

Van der Reis (1983) maintained that this was "*almost certainly a reflection of the tendency of many employers to fine or fire workers who are late for work*" (page 24).

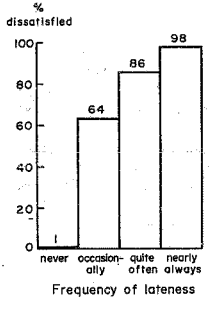
3.1.1 Reasons for lateness at work

The BCP-study found that lateness "*was more closely associated with various attributes of the transport system than with the four recorded characteristics of the individual, sex, age, educational level and income*". (Van der Reis, 1983, page 25). The transport attributes mostly associated with lateness at work were long waiting times at the start of the journey, infrequent transport, long travel times, transfers and breakdowns.

Van der Reis (1983) concluded that the journey to work clearly influenced punctuality at work. It is therefore important to look in more detail at the influence of long commuting times and other transport attributes on lateness to work.

Figure 3.1

Percentage of commuters dissatisfied with various frequencies of late arrival at work (N = 1045)



Source: van der Reis, AP: Black commuting in Pretoria: attitudes towards frequency, punctuality and waiting times, 1983

3.2 Absenteeism from Work

According to Gruneberg and Orborne (1981) the rate of absenteeism is a major factor that affects an organisation's productive capacity. Absence is a problem because it forces an organisation to employ more staff to cover for workers that are absent.

Many studies have been undertaken to determine variables that influence absence of employees (Taylor and Pocock, 1972; Steers and Rhodes, 1978; Grandjean, 1980; Gruneberg and Orborne, 1981 and 1982; White, 1983; Costa, 1984).

Steers and Rhodes (1978) noted that employee's attendance was largely a function of two variable :

* the motivation to attend
* the ability to attend

It was frequently assumed that absence was a consequence of job dissatisfaction. Gruneberg and Orborne (1982), however, concluded that the relationship between job satisfaction and absenteeism was either very low or non-existant.

Most studies concentrated solely on the worker's motivation to come to work and ignored aspects that caused workers to be late that were unavoidable. Steers and Rhodes (1978) criticized researchers for their failure to account for these aspects of absenteeism. According to them three such unavoidable limitations were the following :

* illness and accidents
* family responsibilities
* transportation problems

With respect to illness some writers, like Taylor and Pocock (1972), and Costa (1984), have shown that there was a relationship between sickness and travel times. Costa said that although commuting did not have an adverse effect on the health as such, it was "*a potentially stressful and disruptive factor for the commuter, which could lead to a higher rate of absence*".

Transport attributes that could affect the rate of absenteeism according to Taylor and Pocock (1972), Steers and Rhodes (1978) and Gruneberg and Orborne (1982) are the following :

* The **distance** travelled to work and the **time** it took the commuter to reach work due to the problems faced by commuters with the lack of efficient transport services.
* The **difficulty of the journey**, ie whether the commuter needs to transfer on the way to work. This can influence the rate of absenteeism because commuters have to overcome the inertia to travel to work on a difficult journey.

3.3 Conclusions and Hypotheses

A lot of research has been done to determine which factors cause people to be absent from their work. Very little research has, however, been undertaken to assess the importance of commuting distances and travel times on the employee's lateness to work and rate of absenteeism. The distance travelled was usually just one of several other factors investigated, and was never researched in detail. It is therefore important to look in greater depth at the journey to work and how the following will influence lateness and absenteeism :

* long distances to work
* long commuting times
* number of transfers
* the time the commuter has to leave home
* the time the commuter has to start work

In addition to determining the influence of travel on the rate of lateness and absenteeism it is also important to :

* investigate the attitudes of commuters towards punctuality; and
* examine the influence of lateness on commuters' subsequent travel behaviour.

This could indicate whether certain employer policies towards lateness and absenteeism could encourage potential latecomers to be at work on time. Furthermore one could determine whether commuters, given that they have a modal choice, would be prepared to, for example, pay more for a certain transport mode that would guarantee punctual arrival at the workplace.

CHAPTER 4 BLACK COMMUTING PATTERNS IN THE STUDY AREA

The hypotheses mentioned in Chapter 3 were tested using a survey which was conducted in four different urban areas, ie. Cape Town, Pretoria, Bloemfontein and Durban.

This chapter will give an overview of the different centres, the transport facilities available to blacks and the location of *major employment and black residential areas.*

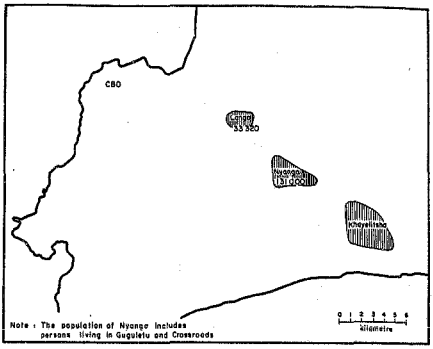
4.1 Cape Town

All blacks in Cape Town live within the Cape Town Metropolitan area (See Figure 4.1); namely in Langa, Nyanga (Guguletu and Crossroads) and Khayelitsha. Khayelitsha is a very new development which was planned to alleviate the housing shortage in the Cape Town area. According to the newsletter of City Tramways, TOLLGATE (1985), by July 1985, 8000 people had moved from the other three residential areas to Khayelitsha.

As can be seen in Figure 4.2, the major industrial areas within Metropolitan Cape Town, are dispersed rather than concentrated. There is, however, one or more industrial area in close proximity to each black residential area, and generally distances to work are reasonably short. The longest distance is from Khayelitsha to the CBD and measures 27 km.

According to the National Transport Policy Study (NTPS) (1985), socio-economic factors, such as very low car-ownership rates (14,4 cars per 1000 population for Langa and 23,3 for Nyanga), show that blacks depend heavily on public transport. The modal split in Table 4.1 also shows the relative dependance on public transport. For Langa, Nyanga and Guguletu rail and bus trips account for 59 to 91 per cent of all trips undertaken by passengers, while only 2 to 3 per cent of all passengers used a taxi. The use of private vehicles was very low for Langa (6%) but much higher for Nyanga (39%) and Guguletu (37%).

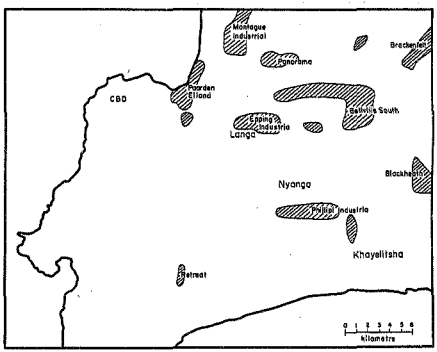
Figure 4.1 : Cape Town : main black residential areas, 1980



Note : The population of Nyanga includes persons living in Guguletu and Crossroads

Source : Cape Town Metropolitan Planning Branch : Cape Town Metropolitan Transport Area : People, employment and land in the eighties, 1983

Figure 4.2 : Cape Town : major industrial areas



Source : NTPS : A study of public passenger transport in the Cape Town area, 1985

Table 4.1 : Modal split for blacks in the Cape Town area

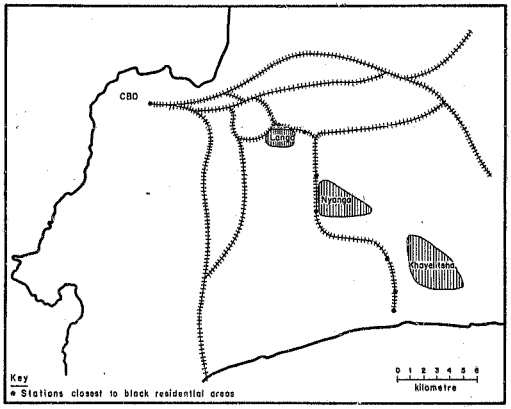
Mode	Area		
	Langa	Nyanga	Guguletu
Taxi	3	2	2
Bus	7	13	32
Train	84	46	29
All public modes	**94**	**61**	**63**
Car	3	31	29
Truck	3	8	8
All private modes	**6**	**39**	**37**
TOTAL	**100**	**100**	**100**

Source : NTPS, a study of public passenger transport in the Cape Town area, 1985.

The Cape Town Metropolitan Area has a well developed commuter rail service, especially along the Bellville-Cape Town and Simonstown-Cape Town corridors. The NTPS (1985), however, found that to the south-east of Cape Town, ie. towards the Cape Flats (Langa, Nyanga and Guguletu) and Khayelitsha, the rail mode is far less accessible. Figure 4.3 shows that no black residential area has a station within its boundaries. All stations are situated on the periphery of these areas. In the case of Khayelitsha the nearest stations are in the neighbouring residential area of Mitchell's Plain. (According to TOLLGATE (1985) railway construction to Khayelitsha began in September 1985. Partial completion is expected in December 1987, with final work being finished a year later.) The rail services are corridor specific extending radially outwards from central Cape Town. Inter corridor services are not provided except in cases where two corridors naturally overlap. The result is that persons who want to commute from one corridor to another have to transfer at least once.

Another problem identified by the NTPS (1985) was overcrowding, especially during peak periods. They attributed this mainly to the undercapacity of railway stations, especially in the southern suburbs.

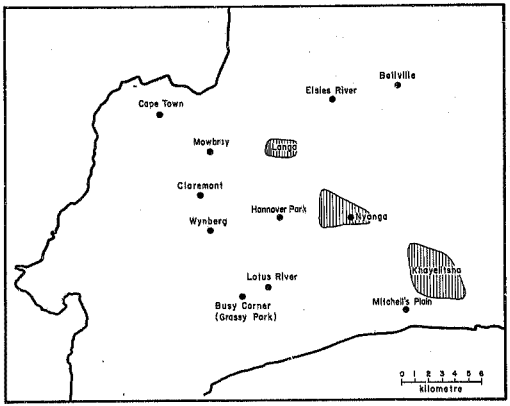
Figure 4.3.: Cape Town : commuter rail network



Source : NTPS : A study of public passenger transport in the Cape Town area, 1985

Bus services in the Cape Town Metropolitan Area are provided by one private bus operator, ie. City Tramways. The service network largely corresponds to a pattern of hub-and-spoke type operations. The hubs are the bus interchange stations (see Figure 4.4) while the spokes are the routes that radiate from the hubs. It is interesting to note that of the black areas only Nyanga has its own hub. According to the NTPS (1985) considerable coverage over the area is achieved. Since this hub-and-spoke type operation involves inconvenience to passengers who have to transfer, City Tramways tried to limit transfers to a maximum of two by considerable overlapping of each hub-and-spoke system.

Figure 4.4 : Cape Town : location of public transport hubs



Source : NTPS : A study of public passenger transport in the Cape Town area,1985

As was mentioned before, the rail services to the south-east of Cape Town are far less accessible than to other areas in the Cape Town Metropolitan Area. The bus services have been designed to provide feeder services from the less accessible areas to the railway stations. In the case of Khayelitsha, TOLLGATE (1985) reported that "*City Tramways provided a regular transport service ferrying people to work and back through the Peninsula*".

In summary :

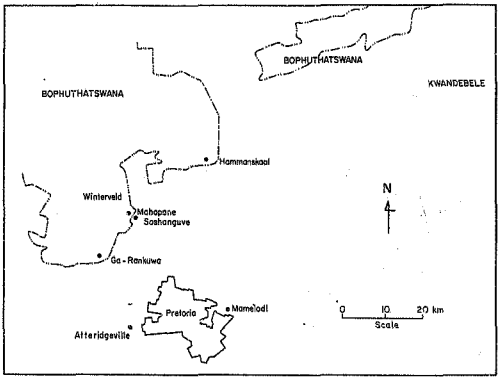
* public transport for blacks in the Cape Metropolitan Area is characterised by relatively **short distances** with the longest direct distance being from central Cape Town to Khayelitsha (namely 27 km).
* although the residential areas are concentrated, the major employment areas are dispersed and scattered. This results in a relatively **complex transport system** with many different origin-destination pairs.
* the transport operations in the Cape Town Metropolitan Area are characterised by a multimodal system requiring many commuters to **transfer** on their journey.

Therefore, although black commuters in Cape Town generally do not need to travel long distances to their work, many have to transfer on their journey, which could influence their punctuality and rate of absenteeism.

4.2 Pretoria

Blacks working in and around Pretoria mainly come from Atteridgeville and Mamelodi on the outskirts of Pretoria, from Bophuthatswana and increasingly from KwaNdebele. (See Figure 4.5).

Figure 4.5 : Pretoria : main black residential areas



Source : Morris ,N : Black commuting in Pretoria : detailed summary and conclusions regarding levels of service acceptable to commuters , 1986 (b)

Bophuthatswana has three planned residential areas, namely GaRankuwa, Mabopane and Hammanskraal (Temba). Just east of Mabopane, within the South Africa border, is the relatively new development of Soshanguve. There are also extensive squatter settlements, such as the Winterveld, north of Mabopane and a number of villages in the hinterland of Bophuthatswana (Morris, 1986(b)). Commuters to Pretoria increasingly also come from KwaNdebele (approximately 120 km away).

Morris (1986(b)) found that accurate population figures for these areas were difficult to obtain; in the PREMET Study (1979), however following population figures were given :

Mamelodi	113 000
Atteridgeville	78 000
Mabopane	111 000
GaRankuwa	83 000

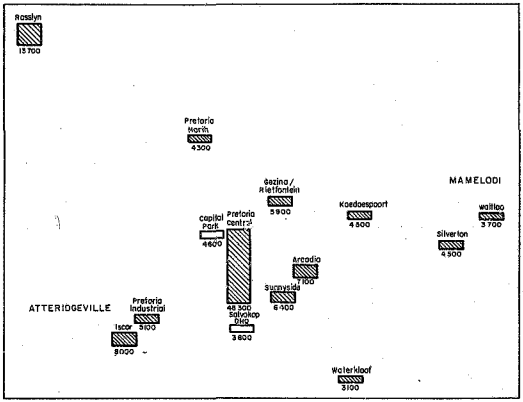
It is not clear however whether, for instance, the population figure for Mabopane includes the squatter area, Winterveld or not.

Figure 4.6 shows the main employment areas in Pretoria. It can be seen that Atteridgeville and Mamelodi are reasonably close to some industrial areas. Iscor and Pretoria Industrial in the west are very close to Atteridgeville and Waltloo, Silverton and Koedoespoort are close to Mamelodi. In order to reduce travel distances for workers from Bophuthatswana, Rosslyn was developed as a border industrial area south-east of GaRankuwa.

The major employment areas are scattered within the boundaries of Pretoria, rather than concentrated. The pattern of commuting therefore is very complex with many different journeys that are undertaken (Morris, 1986(b)).

According to Morris (1986(b)), the most satisfactory indicators of the number of black commuters were the South African Transport Services (SATS) annual census and road counts undertaken by the NITRR. These counts showed that in 1980-1981 about 155 000 black employees commuted to Pretoria each day. These counts also showed that only 40 per cent of the commuters came from the residential areas close to Pretoria (Mamelodi and Atteridgeville). Most commuters (60%) had long journeys (from Bophuthatswana and KwaNdebele).

Figure 4.6 : Pretoria : commercial and industrial areas employing more than 3000 black employees, 1979



Source : Morris, N : Black commuting in Pretoria : detailed summary report and conclusions regarding levels of service acceptable to commuters, 1986(b)

The PREMET study (1979) showed that the car-ownership rate for blacks was very low (30 cars per 1000 population). Therefore there was "*hardly any alternative other than to undertake trips by public transport*". (PREMET, 1979). Table 4.2 supports this statement showing the high percentage of public transport modes used. Bus and rail patronage together accounted for 75 to 84 per cent of all passengers. (It must be noted that since the completion of the Belle Ombre - Mabopane rail link modal splits on Mabopane passengers have been reversed. All commuters are using the rail service since the bus service was discontinued.) Taxis and private transport modes were hardly used.

Public transport services (excluding taxis) in Pretoria are provided by three operators : SATS (rail) and Bophuthatswana Transport Holdings (BTH) and PUTCO (bus).

Transfer stations where commuters have to change operator and/or mode are an important feature of the public transport services. These transfer stations are on the Bophuthatswana border, for example the Mabopane/Soshanguve station; and in central Pretoria, for example Marabastad.

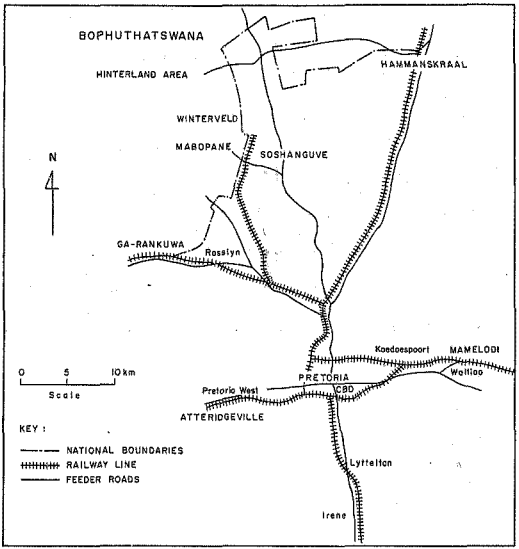
Table 4.2 : Modal split for blacks in the Pretoria area

Mode	Area			
	Mamelodi	Atteridge ville	Mabopane	GaRankuwa
Taxi	5	3	13	3
Bus	15	18	78	25
Train	60	66	6	54
All public modes	**80**	**87**	**85**	**82**
Car-driver	3	3	5	3
Car-passenger	2	3	1	1
Truck	5	-	1	1
All private modes	**10**	**6**	**7**	**5**
Other	10	7	8	13
TOTAL	**100**	**100**	**100**	**100**

Source : City Engineers' Department : PREMET Transportation plan, Core City Pretoria, 1979.

The rail network consists of two east-west lines and one north-south line. See Figure 4.7.

Figure 4.7 : Pretoria : transport infrastructure to black residential areas .



Source : Oosthuizen , E. : Black commuting in Pretoria : methodology and socio-economic details of sample , 1983

In 1980 a special link was built that runs between Mabopane and Belle Ombre, a terminus on the periphery of the Pretoria CBD.

Until the beginning of 1986, BTH operated its bus services only within Bophuthatswana. These services were essentially feeder services to bus transfer points and train stations on the border between Bophuthatswana and South Africa. But since then, BTH has taken over from PUTCO some routes that operate as far as Pretoria itself. (It remains to be seen whether BTH will coordinate its feeder services and line-haul services, taken over from PUTCO, so that commuters will no longer need to transfer at major transfer stations like Mabopane/Soshanguve anymore.)

PUTCO operates bus services within Pretoria and from Bophuthatswana and KwaNdebele. Services from the homelands are mainly line-haul to Pretoria. Atteridgeville and Mamelodi services include feeder services to rail stations and short distance services to various areas in Pretoria.

In summary, the situation in Pretoria is as follows :

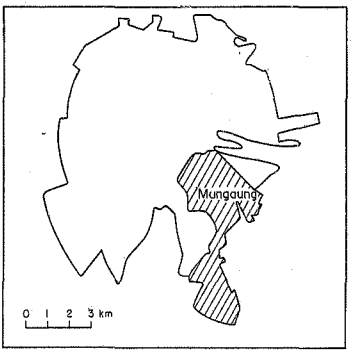
* both residential areas and main employment centres are dispersed; therefore the **public transport patterns** are **complex** and commuters often have to transfer on their way to work
* one homeland (Bophuthatswana) is within 50 km from Pretoria. Therefore further development in Atteridgeville and Mamelodi was frozen and blacks had to live within Bophuthatswana and KwaNdebele. Employment opportunities were, however, limited which led to the situation where many black employees have to travel **very long distances** each day to work.

The long and difficult journeys to work undertaken by many Pretoria commuters might have an influence on punctuality at work and the rate of absenteeism.

4.3 Bloemfontein

Bloemfontein has one major black residential area, namely Mangaung which is situated in the south-east of the city. The distance between the CBD of Bloemfontein and Mangaung is approximately five kilometers. See Figure 4.8.

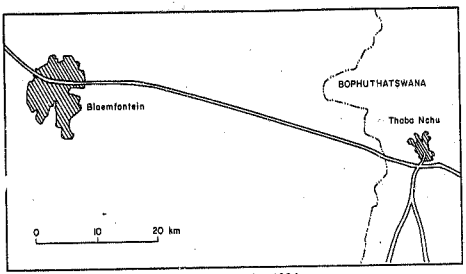
Figure 4.8 : Bloemfontein : main black residential area



Source : Reader's Digest : Atlas of Southern Africa, 1984

Roughly 60 kilometers east of Bloemfontein are ThabaNchu (on the South Africa/Bophuthatswana border) and Onverwacht. See Figure 4.9. Because Saloshegu (an industrial area in ThabaNchu) did not develop as planned, Bloemfontein has remained the main employment area for workers from these two areas (Department of Transport, 1982).

Figure 4.9 Bloemfontein and Thaba Nchu

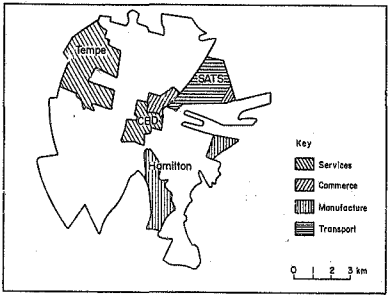


Source : Reader's Digest : Atlas of Southern Africa, 1984

In 1982 ThabaNchu Transport and SATS transported approximately 4400 passengers from ThabaNchu and 4800 from Onverwacht during the daily peak (Department of Transport, 1982).

The main employment areas can be seen on Figure 4.10. According to the Department of Transport (1982), the CBD has the biggest concentration of work opportunities for blacks. The Hamilton industrial area lies within walking distance for many people living in Mangaung.

Figure 4.10 : Bloemfontein : main employment areas



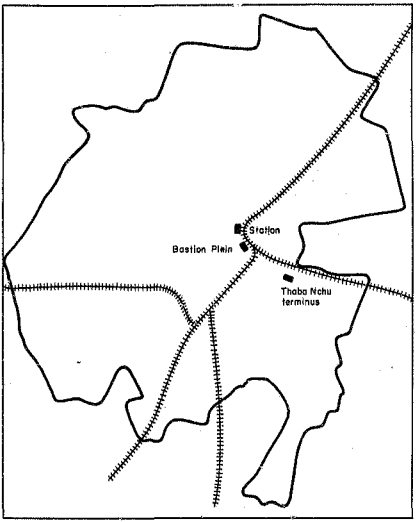
Source : Reader's Digest: Atlas of Southern Africa , 1985

Three operators provide public transport for blacks within and to Bloemfontein. They are the following :

* Bloemfontein Transport Department, providing peak and off-peak services in Bloemfontein;
* ThabaNchu Transport (Pty) Ltd, providing peak and off-peak services between ThabaNchu/Onverwacht and Bloemfontein;
* SATS, providing a peak train service between ThabaNchu and Bloemfontein and a rural bus service.

Each service has its own terminus in Bloemfontein : Bastion Plein for Bloemfontein Transport, the ThabaNchu terminus for ThabaNchu Transport, and the station for SATS. See Figure 4.11.

Figure 4.11 : Bloemfontein : public transport termini and railway infrastructure



Source : Department of Transport : Bloemfontein / Thaba Nchu / Onverwacht : openbare vervoerstudie, 1982

This complicates the commuter patterns, especially for workers from ThabaNchu/Onverwacht; because if they have to catch a feeder bus to get to work they have to walk 1,6 km from the ThabaNchu terminus to Bastion Plein. According to the Department of Transport (1982), 35 per cent of bus passengers from ThabaNchu and Onverwacht have to transfer to another bus.

Table 4.3, showing the modal split for non-white employees, indicates that most blacks make use of public transport. All commuters travelling from ThabaNchu and Onverwacht use either a bus or a train while only 28 per cent of commuters from Mangaung and Ashbury travel to work by a private mode.

Table 4.3 : Modal split for non-whites in the Bloemfontein area (1980)

Mode	Area	
	Mangaung/Ashbury	ThabaNchu/Onverwacht
Taxi	13	-
Bus	59	89
Train	-	11
All public modes	72	100
Walk and cycle	28	-
All private modes	28	-
TOTAL	100	100

Please note : Ashbury is a Coloured residential area. Therefore the coloureds are also included in this table.

Source : Department of Transport : Bloemfontein/ThabaNchu/ Onverwacht : Openbare vervoerstudie, 1982.

The commuting patterns of black workers in the Bloemfontein area can be summarized as follows :

* residential and major employment areas are concentrated rather than dispersed;

* blacks living in Mangaung have very **short commuting distances**; many workers can walk to work;
* in contrast, blacks living in ThabaNchu and Overwacht have **very long commuting distances**. Their **travel** is, however, **relatively easy** (compared to the long distance commuters in Pretoria) with the exception of the long walk to the feeder bus.

The study in Bloemfontein (in contrast to Pretoria) might indicate which of the two factors - long distances or difficult journeys to work - has a larger influence on punctuality at work and the rate of absenteeism.

4.4 Durban

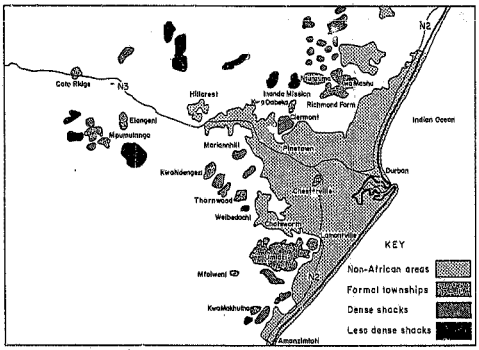
Blacks working in the Durban Metropolitan Area live mainly in three black residential areas; namely Umlazi in the south, KwaMashu in the north and Clermont in the west. The population figures in these areas are approximately 200 000, 150 000 and 70 000 respectively (Durban Metropolitan Transport Area : Interim Plan). Smaller planned settlements are scattered in places such as KwaMakhutha, Lamontville, Mpumalanga, Cato Ridge, etc. See Figure 4.12. Most residential areas are within the KwaZulu boundaries.

Figure 4.12 also shows the large numbers of informal settlements that are situated on the periphery of the Durban Metropolitan Area. Scott and de Waal (1986) estimated that in 1980 some 150 000 blacks (15% of the total black population) lived in these informal settlements. They also maintained that "*this component is likely to have increased relatively as the planned housing programme fails to keep pace with population growth*" (page 19). Because of their peripheral location these informal settlements are poorly served by transport facilities. Little infrastructure exists in terms of road and rail to serve these areas.

The main employment areas for blacks in the Durban metropolitan area are shown on Figure 4.13.

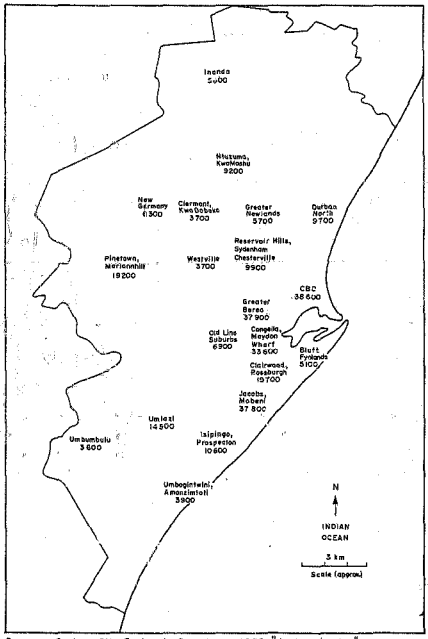
The main employment areas are the Durban CBD just north of the harbour, Congella, Clairwood, Jacobs, Isipingo etc. south of the harbour, the Pinetown area in the west and Durban North. Collecti[illegible] these areas account for approximately 70 per cent of all employment opportunities for blacks (Scott and de Waal, 1986). Generally employment areas in Durban are concentrated rather than scattered.

Figure 4.12 : Durban : formal and informal settlement patterns in the functional region



Source : Dhlomo, O.:Natal's ,ences of opportunity : influx issues beyond the fringe (in Indicator) , 1985

Figure 4.13 : Durban : commercial and industrial areas employing more than 3000 black employees, 1980



Source : Durban City Engineer's Department 1985 "best estimates". Total = 300 000 Figures exclude resident domestic servants

Public transport for blacks in the Durban Metropolitan area is provided by SATS (rail) and by two major bus operators as indicated in Table 4.4.

Table 4.4 : Bus operators, estimated fleet sizes and areas served in the Durban Metropolitan Area

Operator	Owner	Fleet size	Areas served
DTMB	Durban corporation	442	Areas within the city. Services outside the city serving black residential areas (KwaMashu, Ntuzuma, Umlazi, Clermont) and employment zones
PUTCO	Private	585	Service between black residential areas and employment zones in the metropolitan area

Source : Scott and de Waal, Commuter transport in the Durban Metropolitan Area, 1986.

In addition to the two operators mentioned in Table 4.4 a number of relatively small bus holdings, including KwaZulu Transport, operate outside the Durban Metropolitan Area, and service the outlying KwaZulu areas to the Durban and Pinatown employment areas.

Rail services generally are corridor specific extending radially outward from central Durban, with essentially no direct intercorridor services. This results in passengers having to transfer en route if they wish to commute from one corridor to another. According to Scott and de Waal (1986) within Umlazi and KwaMashu rail services are not very accessible, indicating the need for possible alternative feeder services. Furthermore,

there are no rail services to any of the informal black settlements to the south and west of Umlazi (Umbumbulu etc), or to the east and north west of KwaMashu (Inanda area).

As in most urban areas taxis play an important part in the Durban Metropolitan area. According to the South African Bus and Taxi Association (SABTA) the majority of taxis operate in the black residential areas providing local services either as a feeder to other modes or as a main mode (Scott and de Waal, 1986). Figure 4.14 indicates the major flows of taxis during a typical morning peak period.

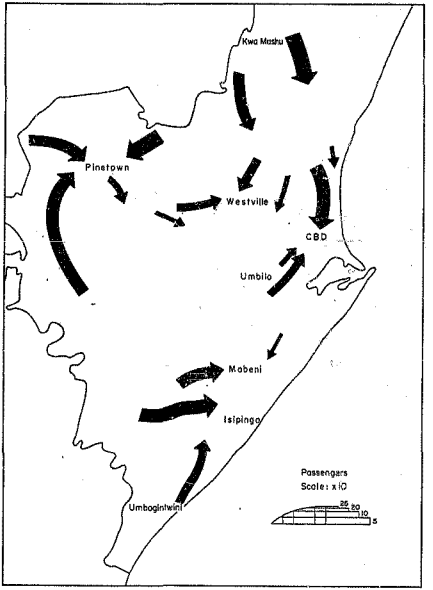
A high proportion of taxis operating to the Durban CBD come fron the north. Considerably less, however, travel from the south to the CBD. The largest volume of taxis is originating in Clermont. This is mainly due to the lack of a rail service to and from this area. Significant volumes were also observed from Umlazi and Lamontville.

With respect to modal splits, bus and rail are by far the dominant commuter modes with the exception of Clermont where taxis play an important role. Overall rail patronage is almost double the bus patronage to areas to the south (Umlazi and KwaMakhutha). In the areas to the north, however, bus patronage is much higher than that of rail. (Scott and de Waal, 1986).

In summary the situation in Durban is as follows :

* black **residential areas are scattered** within the Durban Metropolitan Area. A great number of blacks live in small informal settlements on the periphery of the Durban Area.
* Major **employment** areas are fairly **concentrated** in the CBD, south of the harbour and in Pinetown.
* Generally the transport infrastructure does cover the black residential and employment areas well, except for the informal settlements, which are not well serviced by public transport facilities.

Figure 4.14 : Durban : major weekday taxi movements in the morning peak period



Source : Scott and de Waal Inc. : Commuter transport in the Durban Metropolitan Region (Draft), 1986

Generally Pretoria and Durban are similar in that they are the only metropolitan areas where the majority of the Black population lives within, and commutes across, the borders of a homeland.

Travel distances in Durban are, however, much shorter than in Pretoria, which might have an influence on the punctuality and absenteeism rates for these commuters.

4.5 Summary

Travel patterns in the four areas differ greatly. In Pretoria commuters are usually faced with long and complicated journeys to work. Durban commuters have similar complicated trips but these tend to be much shorter. In Cape Town the commuters generally travel over relatively short distances, but they often have to face transfers en route due to the specific transport infrastructure. Commuters in Bloemfontein either travel over very short (± 5 km) or very long (± 60 km) distances. Their journeys in both cases are, however, very easy and only very few people have to transfer at all.

These different travel patterns might have an influence on the commuters' punctuality at work and rate of absenteeism.

CHAPTER 5 METHODOLOGY AND SAMPLE

This chapter briefly discusses the methodology and the sample used to test the hypotheses.

5.1 Research Design

This study into the effect of long commuting distances on punctuality and absenteeism is based on the findings obtained using a specially designed questionnaire. (See Appendix A for a copy of the questionnaire.)

The main study was undertaken during January/February 1986 in the following four areas

- Cape Town
- Pretoria
- Bloemfontein
- Durban

to allow for regional differences in commuting patterns and for a wide range of long- and short-distance commuters.

Long distances were defined as being longer than 25 km.

Individual face-to-face interviews were conducted at the place of employment. Due to the close proximity of the majority of Cape Town's Black townships, (Langa, Nyanga and Guguletu) to Cape Town, however, some interviews were conducted at the home in Khayelitsha, (a more distant township) and not at the place of employment, to obtain sufficient long-distance respondents.

In the questionnaire respondents were questioned about factors causing them to be late or absent from work as well as their attitudes towards punctuality. They were also questioned about their employers' policy towards lateness and absenteeism.

The questionnaire was carefully piloted before use. Fifty respondents were interviewed in the pilot study which took place in Pretoria during December 1985.

5.2 Sample Design

A total of 1238 respondents were interviewed; 319 interviews took place in Cape Town, 302 in Pretoria, 300 in Bloemfontein and 317 in Durban.

In order to be able to evaluate the spatial contrasts between short- and long-distance commuters, stratified sampling was used. An effort was made to interview half "long-distance" and half "short-distance" commuters in each area. However, this proved to be extremely difficult and final percentages varied in the four areas. Table 5.1 shows that in all areas, except for Pretoria, more short-distance commuters than long-distance commuters were interviewed. In Cape Town only 30 per cent of the respondents travelled for more than 25 km.

Table 5.1 : Number of short- and long-distance commuters interviewed

	Cape Town		Pretoria		Bloemfontein		Durban		Total	
	N	%	N	%	N	%	N	%	N	%
Short-distance commuters	223	70	119	39	184	61	204	64	730	59
Long-distance commuters	96	30	183	61	116	39	113	36	508	41
Total	319	100	302	100	300	100	317	100	1238	100

Overall, 59 per cent of respondents were defined as being short-distance commuters and 41 per cent were long-distance commuters.

Details of the sample are shown in Appendix B.

In all four areas more men than women were interviewed. In total 69 per cent of all respondents were male. This might be because interviews were administered at work, and usually more men than woman have an occupation. The age and level of education were generally evenly distributed and no big differences were found in the four areas. Income levels, however, showed great differences in Pretoria and Bloemfontein. While 41 per cent of the Pretoria respondents earned more than R500 per month, 50 per cent of the Bloemfontein respondents earned less than R200 per month. In the other two areas the income levels were fairly well distributed.

5.3 Data Collection

The survey was conducted by a market research firm. Data was collected by fully-trained interviewers working under the supervision of field managers.

To ensure honesty and reliability, checkbacks were conducted on at least 10 per cent of each interviewer's work and on a minimum of 20 per cent of the total sample.

The data was analysed using computerised cross-tabulation routines.

CHAPTER 6 THE TRIP TO WORK

In this chapter the actual trips of the respondents on the day of the interview will be discussed. Any differences between the travel patterns of long- and short-distance commuters that might influence the rate of lateness at work or absenteeism will be highlighted.

As was mentioned in an earlier chapter the commuters in the four areas - Cape Town, Bloemfontein, Pretoria and Durban - were divided into long- and short-distance commuters according to the distance they had to travel from their home to work. Those travelling for less than 25 km were considered to be short-distance commuters and those travelling for more than 25 km long-distance commuters.

The majority of the respondents used some form of public transport on their journey to work. Only two per cent made use of private transport, one per cent cycled and another one per cent walked to work.

The results showed that 25 per cent of the respondants left home before 05h00 and 62 per cent had left their home by 06h00. On average they arrived at their places of work by 07h00. Long-distance commuters left their homes on average at 05h20, while the short-distance commuters only left just after 06h00.

Respondants from Bloemfontein and Durban started work on average at 07h00, while respondents from Cape Town and Pretoria started work on average an hour later. This inevitably influenced the time the commuters had to leave their homes; those living in Bloemfontein and Durban generally left earlier than those living in the other two areas.

6.1 Total Travel Times

The total travel time differed considerably for the short- and long-distance commuters. The average travel time for the whole sample was 73 minutes one way. While the average for short-distance commuters was just less than an hour (54 minutes), long-distance commuters averaged over one-and-a-half hours (99 minutes).

Of the four areas, Bloemfontein and Durban averaged the lowest total travel times of just over one hour. The worst off area was Pretoria where the total travel time averaged 89 minutes. This was mainly due to a high average travel time for the long-distance commuters in this area (109 minutes). See Table 6.1 for the average trip lengths in the four areas.

Table 6.1 : Average total travel times (in minutes)

	Cape Town N=319	Pretoria N=302	Bloemfontein N=300	Durban N=317
Whole sample	70	89	68	67
Short distance	61	57	48	50
Long distance	92	109	99	97

6.2 Number of Transfers

Table 6.2 shows the number of vehicular transfers that respondents had to make in order to reach their work. It is interesting to note that a very high percentage (71%) of the commuters did not transfer en route at all. Respondents who had a longer distance to travel generally had more transfers. Thirty-five per cent of all long-distance commuters had one transfer, and 13 per cent had two or more transfers. The figures for the short-distance commuters were much more favourable. Only two per cent had to transfer more than once.

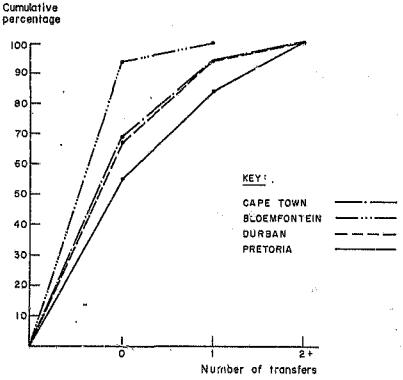
Table 6.2 : Number of vehicular transfers (percentage)

Number of transfers	Whole sample N=1238	Short distance N=730	Long distance N=508
0	71	86	50
1	22	12	35
2+	7	2	14
TOTAL	100	100	100

Please note : In all tables in this report the percentages do not necessarily add up to 100 per cent due to the rounding of figures.

With respect to the four different areas it is interesting to note that nobody from Bloemfontein had more than one transfer. A very high percentage (94%) did not transfer at all. See Figure 6.1. At the other end of the scale is Pretoria where only 55 per cent of all respondents had no transfers. Of the long-distance commuters in Pretoria 26 per cent had to transfer twice or more. Respondents from Durban and Cape Town had very similar percentages with respectively 67 per cent and 69 per cent not having to transfer. Figure 6.1 shows clearly the difference between the four areas. The steeper the cumulative graph the better off the area is.

Figure 6.1 : Cumulative percentage of commuters from Cape Town, Bloemfontein, Durban and Pretoria transferring on their journey to work



6.3 Punctuality and Slack Time

The study showed that a very high percentage (86%) of the respondents arrived at their work early, with an average slack time of 26 minutes. There was, however, no significant difference between long- and short-distance commuters. This is probably due to the fact that all commuters, whether they travel over long or short distances, fear being late and make provision for any problem that might occur en route.

On the day of the interview nine per cent of all respondents were late for work. Seven per cent of the short-distance commuters were late compared with 11 per cent of the long-distance commuters. More long-distance than short-distance commuters were late in each of the individual areas except Bloemfontein where 12 per cent of the short-distance commuters and nine per cent of the long-distance commuters were late on the day of the interview. This could be due to the fact that most long-distance commuters - coming from ThabaNchu and Overwacht - have a direct journey to work (as was discussed in Chapter 4.3) which in turn could influence the rate of lateness.

6.4 Summary

Commuters left their homes reasonably early in the morning to be at work on time. Short-distance commuters however, left their homes half an hour after the long-distance commuters.

On average, all respondents travelled well over an hour to work (73 minutes) but long-distance commuters travelled on average more than half an hour longer than the short-distance commuters. The worst-off area was Pretoria averaging the highest total travel time.

The majority of the respondents did not transfer on their journey to work (71%). Long-distance commuters generally had more transfers than commuters from closer areas. Bloemfontein was an interesting case because nobody transferred more than once; and only a very small percentage had to transfer at all (6%).

Most respondents arrived at work early and nine per cent arrived late on the day of the interview. There was no significant difference between long- and short-distance commuters but a slightly higher percentage of long-distance travellers were late on the day of interview.

CHAPTER 7 COMMUTERS' TRAVEL BEHAVIOUR

In this chapter the commuters' travel behaviour will be discussed. The modal choices of the respondents will be analysed, the reasons why they used certain modes and whether they were aware of any alternative modes to get to work.

7.1 Modal Choice

The most popular mode for all respondents was the bus. Fifty per cent of all commuters used either one or two buses on their journey to work. A further 13 per cent used the bus combined with another train or taxi. See Table 7.1.

From Table 7.1, it can be seen that trains and taxis carried almost the same percentages of passengers, namely 14 and 13 per cent respectively. Trains were far more frequently used by long-distance commuters (19%) than by short-distance commuters (8%). The situation for taxis as the main mode was reversed. Seventeen per cent of short-distance commuters travelled to work by taxi, compared with only 7 per cent of long-distance commuters.

Ten per cent of all commuters, of whom the majority were long-distance commuters (18%), used both the bus and the train on their journey to work. All other combination modes were not significantly used. Some unusual trip combinations undertaken by long distance commuters were :

bus-train-train-bus (0,1%) and
bus-train-train-train (0,1%).

Only a small percentage made use of their own private transport or walked to work.

Table 7.1 : The modal choices for all respondents on their journey to work

Mode	Whole sample N=1238 %	Short distance commuters N=730 %	Long distance commuters N=508 %
Bus	50	51	49
Train	14	8	19
Taxi	13	17	7
Bus-Train	10	5	18
Bus-Taxi	2	2	4
Train-Taxi	3	1	5
Bus-Train-Taxi	1	1	1
Private	2	2	1
Cycle	1	1	-
Walk	1	2	-
Other	3	1	6
TOTAL	**100**	**100**	**100**

Please Note : The modes "bus", "train" and "taxi" include trips undertaken where transfers within the same mode occurred, eg. "bus-bus" or "train-train".

Travel behaviour in the four areas differed greatly from the pattern in the whole sample. A high percentage of Bloemfontein and Durban commuters (78 and 70% respectively) used only the bus to get to work. In contrast to Table 7.1, nobody in Bloemfontein and only one per cent of the Durban commuters travelled by train. In Cape Town the train was the mode, most frequently used, namely by 38 per cent of all respondents, while only 22 per cent made use of the bus. In Pretoria 31 per cent of the commuters used only the bus and 21 per cent made use of a combination of the bus and the train. The taxi was used fairly consistently in the four areas, except in Cape Town where only five percent made use of this mode.

7.2. Reasons for Modal Choice

The reasons given by the respondents for using the specific route chosen varied considerably, but they fell into three main categories:

* most convenient (this included answers like: "it was the fastest mode", "stop was close to home or to the work place", "weekly or monthly coupons could be bought" etc)
* no alternative
* most economical

The results are summarised in Table 7.2.

Table 7.2 : Reasons for modal choice

Reasons	Whole sample N=1238 %	Short distance commuters N=730 %	Long distance commuters N=508 %
Convenient	40	43	35
No alternative	27	19	38
Economical	25	27	22
Other	8	11	5
TOTAL	**100**	**100**	**100**

It is interesting to note that the majority of the commuters (40%) chose their mode of travel because it was the most convenient, and only 27 per cent said they had no alternative. Most short-distance commuters (40%) chose the most convenient mode of travel, while a larger percentage of long-distance commuters (38%) had no choice. It therefore becomes clear that long-distance commuters have a more limited choice when travelling to work. This could have an influence on lateness and absenteeism because the long-distance travellers have to use

the transport that is available and are particularly vulnerable when something goes wrong, for instance a breakdown on the way to work.

There were no differences in the four areas in the reasons given for modal choice. In each area, convenience was the main issue for short-distance commuters, while long-distance commuters usually had no choice. In Bloemfontein, 50 per cent of the long-distance commuters said that they had no alternative.

7.3. Knowledge of Alternative Modes

The respondents were asked what they would do if their first mode of transport was late and if they missed the second mode of transport as a result of the first being late. The aim of these questions was to determine whether the respondents had any knowledge of alternative modes of travel. The results are shown in Table 7.3.

Approximately 50 per cent of the respondents said that they would use an alternative mode of transport or follow a longer, more complicated route. Fourty-six per cent of the respondents said that they would wait for the next mode of transport or go home, indicating that they did not know of an alternative available to them or actually did not have an alternative. It is interesting to note that a high percentage of commuters, namely 33 per cent, said that they would use a taxi as an alternative mode. This shows that although taxis were not used extensively on a normal trip to work, they were generally perceived as an alternative when problems were experienced with other modes of transport. In contrast, buses and trains were only perceived as alternatives for four per cent and one per cent of the commuters respectively.

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Table 7.3 Alternatives used to get to work when first mode of travel was missed

Reasons	Whole sample N=1238 %	Short distance commuters N=730 %	Long distance commuters N=508 %
Use alternative modes:			
Take a taxi	33	38	31
Take a bus	4	5	3
Take a train	1	1	1
Walk	5	6	4
Use a longer route	3	2	4
Get a lift	3	3	4
Hire a car	1	1	2
Total	**50**	**56**	**49**
No alternative:			
Wait for next transport	2	2	2
Wait for next bus	25	19	36
Wait for next train	8	11	4
Wait for next taxi	9	8	5
Go back home	2	1	3
Total	**46**	**41**	**50**
Other:			
Phone employer	1	1	1
Will not happen	2	2	-
Other	1	1	1
Total	**4**	**4**	**2**

A high percentage of commuters who had no alternative and who used the bus said that they would wait for the next bus to arrive (25%). This percentage was much higher for the long-distance commuters (36%) than for the short-distance commuters

(19%). This may indicate that long-distance travellers were not prepared - or could not afford - to pay the higher fares for the taxi, but rather risked being late.

Generally speaking it can be seen that the majority of short-distance commuters (56%) made use of an alternative mode of transport, while the majority of long-distance commuters waited for the next mode of transport (50%), indicating that they either did not have a choice or were not aware of any alternative modes. This could have a marked influence on the lateness and absenteeism figures for long- and short-distance travellers with the long-distance commuters being at a disadvantage and therefore being late more often.

What is also very interesting is that only two per cent of the *whole sample said that it would not happen* that their mode of transport would be late. This shows that only a very small percentage of commuters was confident about the reliability of their transport to work.

In Table 7.4. the alternative modes used are compared with the usual mode of travel for those respondents who did use an alternative and did not simply wait for the next bus, train or taxi. Here again the importance of the taxi as an alternative to the other modes can be seen. The bus and the train, in contrast played a minor role as alternative modes. Travellers using the taxi as their main mode usually used the bus as alternative.

The situation in the four areas was similar to that of the whole sample. Short-distance commuters generally had a greater choice than long-distance commuters. In all areas the taxi played an important role as an alternative if the bus or train was late. In Durban a very high percentage of both short- and long-*distance travellers said that they would use an alternative* mode of travel (66% of the short-distance commuters and 61% of the long-distance commuters). In Cape Town and Bloemfontein the

train was never used as an alternative. In Bloemfontein 74 per cent of the long-distance commuters said that they would wait for the next bus, indicating that although these commuters did not have a very difficult journey to work (see Chapter 4.3.) they were disadvantaged because they did not have any choice of travel. The Pretoria commuters, in contrast, had very complicated journeys to work but they generally had good alternative modes available.

Table 7.4 : Alternative modes used when usual modes were missed

	Usual mode		
Alternative modes	Bus N=356 %	Train N=69 %	Taxi N=31 %
Bus	-	15	84
Train	2	-	16
Taxi	98	84	-
TOTAL	100	100	100

7.4. Summary

The majority of commuters use the bus to get to work. The only exception is Cape Town were the majority use a train. This is due to the fact that Cape Town has a very extensive train service and the bus plays a complementary role only. See Chapter 4.1. Taxis are seldom used as a main mode (13%) or as feeder mode (6%). They are, however used more often by short-distance commuters than by those travelling long distances.

Commuters usually use a certain mode of transport because it is the most convenient or because they have no alternative or because it is more economical. In the study, more short-distance commuters chose their mode for convenience, while more long-distance commuters had no alternative.

The taxi, although seldom used as a main mode, is a very popular mode when the bus or the train is late or does not arrive. This means that, contrary to popular belief, the taxi only takes patronage away from the buses or the trains when these fail to be reliable. When the usual mode of transport is delayed, short-distance commuters generally make use of an alternative mode, while long-distance commuters tend to wait for a later bus or train. Only a minority of long-distance commuters perceive the taxi as an alternative mode of travel, mainly because they cannot pay the fare.

It is clear that short-distance travellers generally have more alternatives when they travel to work than do long-distance travellers. This might have an influence on lateness and absenteeism, because short-distance commuters could make alternative arrangements when their usual mode of transport is late while long-distance commuters could not.

CHAPTER 8 LATENESS AND ABSENTEEISM RECORDS

In this chapter an investigation is made into the extent of lateness and absenteeism, the reasons for being late or absent and the extent to which the transport affects these two aspects.

8.1. Extent of Lateness

Respondents were asked whether they were sometimes late, either because they slept late, because of family problems or because of transport problems. A third of the sample said that they were sometimes late because they overslept and because of family problems. In contrast, transport problems caused more than twice the number of respondents to be late for work. See Table 8.1.

Table 8.1 : The extent of lateness by the distance travelled

Reasons	Whole sample N=1238 %	Short distance commuters N=730 %	Long distance commuters N=508 %
Oversleeping	33	32	33
Family problems	33	36	30
Transport problems	74	68	83

Please note : Each one of these three reasons for being late were asked separately and therefore it was possible for a respondent to answer "yes" to all three questions. The percentages given are thus percentages for the whole sample for each reason individually.

8.1.1 Influence of travel distance and total travel times on lateness

Table 8.1. also shows that although the distance travelled did not have an influence on lateness caused by oversleeping or family problems, it definitely played a role when commuters were late because of transport problems. A much higher percentage of the long-distance commuters (83%) were late because of transport problems than short-distance commuters (68%).

Figures 8.1. and 8.2. look at the effect of total travel times on lateness. Figure 8.1. shows that lateness due to family problems was not influenced by the time a commuter travelled to work. In contrast, Figure 8.2. - showing lateness due to transport problems - follows a set pattern. The longer the commuter had to travel the greater was his chance of arriving late at work. (The only discrepancy was the group of respondents who travelled for more than 150 minutes to work; but this could be because of the small sample size in this category).

Figure 8.1 : Lateness due to family problems (N=1288)

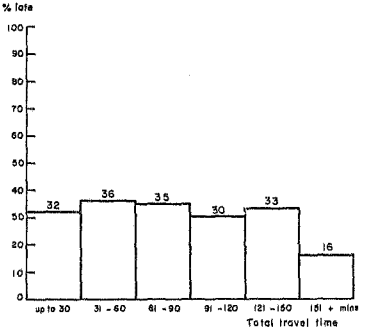
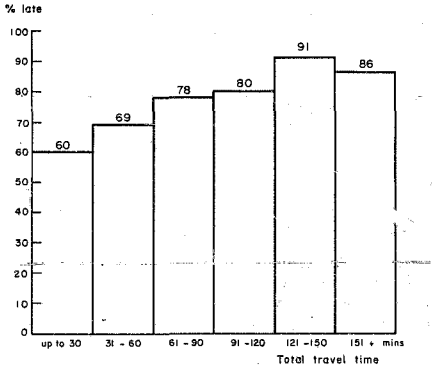


Figure 8.2 : Lateness due to transport problems (N = 1238)



One can thus conclude that the main reasons for lateness, when it occurred, were problems experienced with the transport to work, but oversleeping and family problems also played a role. Furthermore, although the distance travelled to work did not have an influence on lateness due to oversleeping or family problems, it had a marked influence on lateness caused by transport problems.

The age of the respondent significantly affected lateness due to oversleeping and family problems. The younger the commuter was the higher was the possibility that he would arrive late at work due to oversleeping and/or family problems.

The extent of lateness followed the same pattern in the four areas as for the whole sample. See Table 8.2. About a third of the respondents were sometimes late because they either overslept or had some family problems and a much higher percentage were sometimes late because of transport problems.

Table 8.2 : The extent of lateness by area

Reasons	Cape Town N=319 %	Pretoria N=302 %	Bloemfontein N=300 %	Durban N=317 %
Oversleeping	36	27	33	35
Family problems	31	29	35	39
Transport problems	64	88	71	74

Cape Town commuters seemed to experience fewer transport problems than did commuters living in Bloemfontein and Durban, while Pretoria commuters experienced the most problems. This might be due to the fact that Cape Town travellers generally did not have as long distances to travel as commuters in Pretoria, some of whom came from as far as KwaNdebele, 120 kilometres away.

8.1.2 Influence of transfers on lateness

In an earlier chapter, it was hypothesised that the number of transfers might have an influence on the punctuality of a commuter. The results of this survey confirm this hypothesis. See Table 8.3.

Although the number of transfers had no effect on lateness due to oversleeping and family problems it had a significant effect on lateness caused by transport problems. The more the commuter had to transfer the greater was the possibility that he might

arrive late at work. This can be explained by the fact that commuters might miss one or more modes of transport at the transfer station because the first mode of transport arrived late or was delayed en route.

Table 8.3 : The extent of lateness by the number of transfers

Reasons	Number of transfers		
	0 N=879 %	1 N=272 %	2+ N=87 %
Oversleeping	33	33	33
Family problems	33	36	30
Transport problems	69	84	94

8.1.3 Influence of the time commuters leave their homes on lateness.

Some researchers believe that the time a worker has to leave his home and whether he has to work shift hours or not, might influence his rate of lateness. This can be the result of personal inertia of getting up and leaving home at "unsocial hours" of the day or because of insufficient transport services. In order to test these statements an analysis was done, comparing commuters who had to leave their homes before 05h00 ("unsocial hour") with commuters who left their homes after 05h00. Furthermore, the results of commuters starting work before 13h00 were compared with commuters who started work after 13h00 (shift workers). The results can be seen in Tables 8.4. and 8.5.

Table 8.4. shows that more respondents, who had to leave their homes before 05h00, were late on the journey to work due to oversleeping and due to transport problems (41 per cent and 79 per cent respectively), than commuters who left their homes after 05h00 (30% and 72% respectively). Commuters thus find it more difficult to get up in the mornings the earlier they have to leave their their homes. In the case of South Africa, where long-distance commuting is often necessary, many workers have to leave their homes very early in the morning. This might have an influence on the extent of lateness at the work place and might cost the industry in lost time.

Table 8.4 : The extent of lateness by the time commuters left home

Reasons	Leave home before 05h00 N=299 %	Leave home after 05h00 N=933 %
Oversleeping	41	30
Family problems	33	34
Transport problems	79	72

Commuters that started work after 13h00 seemed to be much better off with respect to lateness due to transport problems, than those that had to start work before 13h00 (in this group most workers started work between 07h00 and 08h00). Only 49 per cent of the shift workers were sometimes late due to transport problems. This could indicate that transport services are more efficient in the off-peak than in the peak hours.

Table 8.5 : The extent of lateness by the time commuters started work

Reasons	Start work before 13h00 N=1187 %	Start work after 13h00 N=45 %
Oversleeping	33	31
Family problems	34	31
Transport problems	75	49

8.2 Reasons for Lateness due to Transport Problems

Respondents were asked what specifically on their journey to work caused them to be late. The answers were very varied, but 42 per cent said that the transport mode did not arrive on schedule. Another 16 per cent mentioned that their transport had a breakdown or was delayed en route, while nine per cent said that their transport was full on arrival. Four per cent mentioned the present unrest situation and 27 per cent said that they had no problems with the transport services to work. In order to compare the different modes with each other, the reasons given for arriving late were grouped together, as can be seen in Table 8.6.

Table 8.6 : Problems experienced by commuters on their journey to work

Reasons	Whole sample N=1238 %
Buses :	
Did not arrive on schedule	22
Did not turn up	7
Breakdown en route	7
Full on arrival	5
Total	41
Trains:	
Did not arrive on schedule	10
Delayed en route	7
Repairs on railway line	2
Total	19
Taxis:	
Arrived late	3
Full on arrival	4
Total	7

Please note : When analysing this table it must be remembered that over 50 per cent of all respondents used the bus to get to work. It is thus not surprising that most complaints included the bus system. This Table aims to identify the main problem of each mode individually, and should be read as such.

Table 8.6. shows that the main problem with both the buses and the trains was that these did not arrive on schedule (22% and 10% respectively). The taxi users generally complained that the taxis were full on arrival, thus forcing the commuter to wait for the next one.

The situation in the four areas was generally similar as in Table 8.2. In Cape Town, however, only five per cent of the respondents said that buses did not arrive on schedule while 21 per cent said the same about trains. Twenty-five percent of the long-distance commuters from Bloemfontein complained about breakdowns en route.

8.3. Extent of Absenteeism

Having discussed the factors causing commuters to be late for work, respondents were asked what caused them to be absent from work. Table 8.7. summarises their answers.

Table 8.7 : The extent of absenteeism by the distance travelled

Reasons	Whole sample N=1238 %	Short distance commuters N=730 %	Long distance commuters N=508 %
Oversleeping	5	6	4
Family problems	40	44	34
Transport problems	12	9	17

While transport related problems caused a significant number of respondents to be late for work, these problems seldom seemed to cause respondents to be absent from work altogether. A higher percentage of respondents claimed to have been absent from work due to personal or family problems (these will not be discussed in this report because they are not related to transport).

8.3.1 Influence of travel distance and total travel times on absenteeism

Again transport related absenteeism was influenced by the distance that the commuter had to travel to get to work. While only nine percent of the short-distance commuters said that they were sometimes absent due to transport problems, 17 per cent of the long-distance commuters gave the same reason for their absence.

Figures 8.3. and 8.4. also show that while the total travel time to work had no effect on the rate of absenteeism due to family problems, it did affect the rate of absenteeism due to transport problems. The longer the commuter had to travel the greater was the possibility that he might be absent from work.

Figure 8.3 : Absenteeism due to family problems (N = 1238)

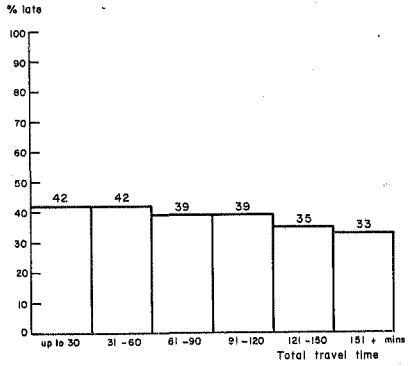
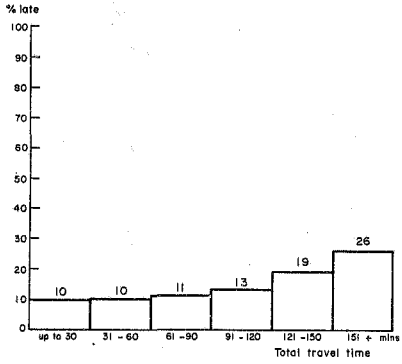


Figure 8.4 : Absenteeism due to transport problems (N = 1238)



The results in the four areas were very similar to those of the whole sample, as can be seen in Table 8.8.

Table 8.8 : The extent of absenteeism by area

Reasons	Cape Town N=319 %	Pretoria N=302 %	Bloemfontein N=300 %	Durban N=317 %
Oversleeping	6	3	6	5
Family problems	46	37	34	42
Transport problems	10	17	9	14

Bloemfontein was the best-off area with respect to absenteeism due to transport problems, while the worst-off area was Pretoria.

8.3.2 Influence of transfers on absenteeism

Table 8.9. indicates that the number of transfers did have a slight influence on absenteeism. The more the commuter had to transfer on his journey to work the greater was the possibility that he might be absent from work due to transport problems.

Table 8.9 : The extent of absenteeism by the number of transfers

Reasons	Number of transfers		
	0 N=879 %	1 N=272 %	2+ N=87 %
Oversleeping	5	7	5
Family problems	40	41	36
Transport problems	10	16	24

While only ten per cent of the commuters, that did not need to transfer were sometimes absent due to transport problems nearly a quarter of the commuters, that had to transfer twice or more were sometimes absent. The number of transfers did not have an influence on absenteeism due to oversleeping or due to family problems.

8.3.3 Influence of the time commuters leave their homes on absenteeism

The time the commuter had to leave his home in the morning and the time he started had a lesser influence on the rate of absenteeism than on the rate of lateness. See Tables 8.10. and 8.11.

Table 8.10 : The extent of absenteeism by the time commuters left home

Reasons	Leave home before 05h00 N=299 %	Leave home after 05h00 N=933 %
Oversleeping	9	4
Family problems	39	40
Transport problems	14	11

But again persons who had to leave their homes very early, before 05h00, were more often absent due to transport problems than those that left after 05h00.

Table 8.11 : The extent of absenteeism by the time commuters started work

Reasons	Start work before 13h00 N=1187 %	Start work after 13h00 N=45 %
Oversleeping	5	2
Family problems	40	27
Transport problems	12	7

In the case of shift workers a far higher percentage of respondents starting work before 13h00 were absent due to family problems (40%) than respondents that started work after 13h00 (27%). This is mainly due to the fact that many family problems, like a visit to the doctor, could be done before the commuter had to leave for work. Commuters that started work before 13h00 were also more likely absent due to transport reasons than commuters that started after 13h00.

8.4 Reasons for Absenteeism due to Transport Problems

As was mentioned before, only 12 per cent of all respondents said that they were sometimes absent due to transport problems. Of these, four per cent gave unrest related reasons for their absence. Three per cent experienced problems with the buses and one per cent with the trains. Two per cent said that their "transport did not arrive" and two percent gave other reasons.

It is interesting to note that 32 per cent of all respondents said that they were never absent due to transport problems, because they "would rather be late than absent". Other reasons for not being absent were the following:

*	take a taxi instead	13 per cent
*	take another mode	11 per cent
*	transport always available	11 per cent
*	take a bus	7 per cent
*	walk to work	3 per cent
*	take a train	1 per cent
*	never absent	10 per cent

Once again the taxi seemed to play an important role when commuters experienced problems with their transport to work. In contrast, buses and trains played a very small role as alternative modes.

8.5. Summary

From the preceding chapter, it can be concluded that transport related problems caused more than twice the number of respondents to be late for work, than did oversleeping or family problems. Seventy-five per cent of the sample said that they were sometimes late due to transport problems. The most important reason that caused the commuters to arrive late at work was that buses and trains did not arrive on schedule.

A higher percentage of commuters travelling over a long distance to work said that transport related problems caused them to sometimes arrive late at work. The following aspects also affected the rate of lateness:

* the number of transfers
* the total travel time (related to distance)
* the time the commuter had to leave his home in the morning
* the time the commuter had to start work

Transport related problems, however, seldom caused the commuters to absent from work altogether. This is mainly the case because a large percentage of the respondents said that they would rather be late than absent. Absence due to transport problems were again more often experienced by commuters who had longer travel distances, longer total travel times, more transfers, who had to leave their homes earlier in the morning and who had to start work before 13h00.

It is thus clear that the journey to work has a great influence on the punctuality of a worker and to a lesser degree on his rate of absenteeism. In South Africa, where a large number of blacks have to commute over long distances, lateness is a major issue at the work place.

CHAPTER 9 THE EMPLOYEES' PERCEPTION OF EMPLOYER RESPONSE TO LATENESS

The next two chapters look at the commuters' perception of punctuality. This Chapter concentrates on the commuters' perception of their employer's policy to lateness. Respondents were asked whether they were concerned about being late for work and what their employers would do if they arrived late at work. They were also asked how they ensured that they arrived punctually at work.

9.1 Policy of Employers towards Lateness

Two-thirds of all respondents expressed concern about arriving late at their work places. They were predominantly long-distance travellers (72%), women and respondents who belonged to the younger age groups. See Table 9.1.

It is interesting to note that although a reasonably high percentage of commuters were concerned about arriving late, this percentage was lower than the percentage of respondents who said that they were sometimes late for work due to transport problems. (Of the whole sample, 74% were sometimes late and only 67% expressed concern. See Chapter 8). This could be an indication that generally employers do not act too harshly when their employees are late for work.

Table 9.2. shows that employers were indeed not very harsh on their employees, except for 23 per cent of the respondents who were fined when their were late for work. Most commuters were given a warning (37%), while 19 per cent said that nothing would happen if they were late for work. Only one per cent said that they would be fired when late. Five per cent each said that they would be sent home or that they would be given a written warning. (The written warnings were very unpopular at one firm in Bloemfontein because the employer would fire his

workers after three written warnings. In this case respondents said that they would rather be absent from work than arrive late.)

Table 9.1 : Concern about late arrival

Distance travelled, sex and age	Percentage concerned	N
Distance travelled:		
Short distance	64	730
Long distance	72	509
Sex :		
Male	65	860
Female	72	387
Age :		
18 - 24 years	72	118
25 - 34 years	73	443
35 - 49 years	65	457
50 + years	56	220
WHOLE SAMPLE	**67**	**1238**

It is thus clear that while more than a half (56%) of all respondents were treated reasonably fairly when they arrived late at work, over a third (34%) were treated more harshly.

Table 9.2 : Employer policies to late arrivals

Action	Percentage N=1238
Given warnings	37
Fined	23
Nothing	19
Sent home	5
Report card / written warning	5
Fired	1
Don't know	2
Other	8
TOTAL	**100**

9.2 Employees' Attitudes towards Employer Policies

Of the whole sample, 46 per cent felt that they were treated unfairly when they were late for work, and 49 per cent felt that their employer acted fair. Many respondents felt that any action at all was unfair (mainly because they thought that it was not their fault when they were late, as will be discussed later). Verbal warnings were, however, perceived as the "fairest" punishment. See Table 9.3.

Table 9.3. Employees' attitudes towards employer policies

Action	Percentage of respondents who perceived action as unfair	N
Nothing	11	239
Given warnings	41	454
Fined	73	289
Report card/written warning	74	62
Fired	88	8
Sent home	91	65
Other	34	92
TOTAL		1209

The highest dissatisfaction was expressed by respondents who were sent home when they were late for work, most probably because the worker would then loose a whole day's pay although he came to work. Being fired also caused a lot of dissatisfaction. It is very strange to note that 11 per cent of respondents that were not punished at all expressed dissatisfaction, but later analysis showed that these respondents felt it was unfair because "*it encourages latecomers to be late every day*". See Table 9.4. This indicates that the employee, although very critical towards any action taken against him when he is late, generally does not tolerate lateness when the commuter is a habitual latecomer.

The commuters were asked to explain why they thought their employer's policy was either fair or unfair. Table 9.4. shows that almost half of the respondents, who said that their employer was unfair, felt that it was "*the fault of the transport and not the employee*". Twenty-one per cent of respondents, who thought that their employer was fair, said that latecomers "*must be punished so that lateness will not happen again*". Of the commuters, who thought that it was fair that

they were not punished at all, 28 per cent said that their employers "*understand the transport problem*" and 15 per cent said that "*it shows they care for us*".

Table 9.4 : Reasons for dissatisfaction or satisfaction with employer policies to late arrivals

Reasons	Fair N=599 %	Unfair N=567 %
Unfair :		
Fault of transport not employee	-	46
Not late without reason	-	33
Need all the money they work for	-	13
Encourages latecomers to be late every day	-	3
There to work / "*painful*" to be sent home	-	4
Creates a bad record and leads to dismissals	-	3
Other	-	5
Fair :		
Employer understands the transport problem	28	-
Employee must be punished/warned so that lateness will not re-occur	21	-
Employee must obey company rules	16	-
Shows they care for you	15	-
It is better to be warned that fired/fined	8	-
A delay causes problems for the company	7	-
Cannot be paid for work not done	5	-
TOTAL	**100**	**100**

Of the respondents who thought that it was fair to be reprimanded on late arrival, 28 per cent took company issues into account. Sixteen per cent said that company rules had to be obeyed, while seven per cent and five per cent respectively said that late arrivals would cause problems to the company and that one cannot be paid for work not done.

Generally it can thus be concluded that most employees were understanding towards their employer's policy with regard to lateness. Dissatisfaction, however, was generrlly expressed by employees, who felt that they were unfairly treated when it was not their fault that they arrived late at work. It is interesting to note that transport related problems were a big issue. Of the respondents, who expressed dissatisfaction with their employer's policy towards lateness, nearly a half said that they were late because their transport was not reliable.

9.3. Transport Implications

In the preceding section, it became clear that transport related lateness caused a lot of dissatisfaction. The question to be answered is, whether these commuters use special transport modes to work to make sure that they arrive at work in time, and how they generally ensure that they are at work in time.

When asked how they ensure that they arrive at work punctually, 54 per cent of all commuters said that they would wake up early. This could mean that they either woke up in time to make sure that they did not miss their first leg on the journey to work, or that they got up early to catch an earlier bus or train than necessary, as indeed 17 per cent of the sample were doing. One commuter from Guguletu (Cape Town) for instance said "*I make it a point that I take a train two hours earlier than necessary*". This enables the commuter to make up for lost time if there is a delay en route, and still be in time for work.

(The fact that commuters did leave earlier than necessary was also demonstrated in Chapter 6.3. which showed that 86% of the sample arrived on average 26 minutes earlier than the official starting time.) Another ten per cent of the respondents said that they tried to be punctual by leaving their homes early. This could indicate the uncertainty of the commuters to the actual arrival time of their bus or train. Three per cent of the sample said they could not make sure that they would arrive punctually at work. A respondents from Khayelitsha (Cape Town) said that since he *"moved to Khayelitsha I am always late"*.

Only two per cent mentioned using another mode of transport, but only when they realised that they would arrive late at work. In this case everybody said that they would use a taxi instead. This once again emphasises the importance of the taxi as an alternative mode if problems are experienced with the usual mode of transport.

Generally speaking, therefore, commuters do not use their chosen mode of transport because it ensures punctuality. Instead they will rather leave their homes earlier than necessary to make sure that they arrive in time, if they experience some problem en route.

9.4. Summary

The preceding chapter showed that, although a high percentage of commuters were concerned about arriving late at work, this percentage was lower that that of commuters that were sometimes late because of transport problems. This could indicate that there are commuters that do accept lateness without much concern.

The employers were generally not very harsh with their employees, when they arrived late for work. Only one per cent would fire their staff. The majority of the employees would get a warning when they were late.

Respondents were split evenly with respect to their dissatisfaction or satisfaction towards their employer's policy to lateness. The punishment, that caused the most dissatisfaction was, being sent home after arriving late at work. Verbal warnings were seen as the fairest form of punishment. Employees were not indiscriminantly against punishment and they were generally in favour that habitual latecomers should be punished. They were, however, very dissatisfied when they were punished after being late due to transport problems.

The respondents usually tried to be at work on time by leaving their homes early and by taking earlier vehicles than necessary, to be able to make up for lost time in the event of some problem en route. Nobody actually used a specific mode of transport because it would guarantee punctuality to the work place.

CHAPTER 10 COMMUTER ATTITUDES TOWARDS PUNCTUALITY

The commuters' attitudes to punctuality with respect to work and in other situations were also analysed to ascertain how tolerant they were to lateness.

This chapter will look at attitudes of the commuter towards punctuality at work and in other situations.

10.1. Attitudes towards Punctuality at Work

Almost all respondents (98%) agreed that it was important for a person to be on time for work. When asked why they thought it was important to be punctual the majority (44%) gave reasons that indicated their conscientiousness to their work. See Table 10.1.

Other reasons given were that the employee could personally benefit by being punctual (36%) and that it was a rule that had to be obeyed (19%).

Respondents were then asked to suggest what an employer should do if a worker arrived late more than five times in one month. The majority felt that some action had to be taken. The most popular reprimand was a verbal warning; which coincided with the most popular employer policy (Chapter 9.2). Twenty-five per cent felt that the employer had to find out what the problem was and then try to help. See Table 10.2. The respondents, however seemed to be more harsh than the employers were in reality. While, for instance only one per cent of the employers did fire their workers when they were late, 11 per cent of the respondents said that they would fire the worker, and 15 per cent they would fire him after a warning.

Table 10.1 : Reasons why an employee should arrive at work punctually

Reasons	Whole sample N=1238 %
It is a rule	19
Employee benefits :	
Gives good name with supervisor	13
Avoid being fined	18
No complaints/warnings/harsh words	5
Total	**36**
Conscientious about work :	
Delays production	16
Lateness affects others	14
If late, work is rushed	9
Need time to prepare before work starts	5
Total	**44**

Table 10.2 : Respondents' perception of what should happen to a habitual latecomer

Statements	Whole sample %
Give warnings	38
Find problem and help	25
Fire after warning	15
Fined	13
Fired	11
Report card/written report	7
Nothing	5
Sent home	2

Please note : above percentages add up to more than 100 per cent because the respondent could give more than one answer.

The most unpopular reprimand - being sent home - was also least suggested by the respondents.

10.2. Occasions when Punctuality is Regarded as Important

In order to test the tolerance of respondents they were given three different situations:

* arriving late for a meeting
* waiting for someone they had an appointment with
* waiting for a friend

In the first case they were asked whether one should apologise when arriving late for a meeting and after what time was it necessary to apologise. Almost all respondents (96%) thought it was necessary to apologise. The majority (61%) felt an apology was necessary if arriving after ten minutes of the start of the

meeting. They were thus reasonably strict with punctuality for a formal gathering like a meeting. Twenty-two per cent thought it was necessary to apologise only after 11 to 15 minutes after the meeting had commenced. The average for the whole sample was ten minutes. See Table 10.3.

In the second situation 75 percent of the sample said that they would get annoyed if someone was late for an appointment. This was less than the number of respondents that expected an apology when late for a meeting. When asked after how many minutes they would get annoyed, only 23 per cent said within the first ten minutes. Thirty-six per cent only got annoyed after 21 to 30 minutes. The average for the whole sample was 21 minutes. Respondents thus showed greater tolerance when someone was late for an appointment than for a meeting (the latter being a more formal situation). See Table 10.3.

In the case of waiting for a friend the respondents were the most tolerant. Although a higher percentage of respondents considered their friend to be late in the first ten minutes (25%) the average number of minutes for the whole sample was 30 minutes. See Table 10.3.

Table 10.3 : Perception of punctuality

Minutes	Meeting N=1195 %	Appointment N=986 %	Friend N=1238 %
0 - 10	61	23	25
11 - 15	22	17	21
16 - 20	3	6	5
21 - 30	12	36	33
31 - 40	2	1	1
41 +	-	17	16
Average number of minutes	**10**	**21**	**30**

10.3. Summary

Punctuality at the work place is considered as very important by most commuters, mainly because they were conscientious about their work. Punctuality is also considered to be important when attending a meeting.

Being punctual for appointments with a person and meeting a friend were considered less important.

It can therefore be concluded that the importance of punctuality depends heavily on the occasion, with commuters expecting punctuality more readily in formal situations than in meetings with, for instance, a friend.

CHAPTER 11 CONCLUSIONS AND RECOMMENDATIONS

In the preceding Chapters it has been shown that transport related problems seemed to constitute a major part of all **late arrivals** at the work place. In contrast, factors, such as oversleeping or family problems caused much less commuters to arrive late at work.

Transport related reasons for lateness were mainly due to the bus or train not arriving on schedule. Other reasons were vehicles that arrived full at the stop and break downs and delays en route.

Lateness due to transport problems was influenced mainly by the **distance** the commuter had to travel to get to work. The longer his journey to work the greater was the possibility that he would arrive late. Not only the distance travelled to work, played a role but also the following transport factors:

* **total travel time**, (which is closely related to travel distances);
* the number of **transfers** (or the difficulty of the journey);
* the **time** the commuter had to **leave his home** in the morning, and;
* the **time** the commuter had to **start work.**

In the study, four areas were surveyed to allow for regional differences and to assess which transport attributes have the greatest influence on lateness andf absenteeism. Generally it can be said that **Bloemfontein** commuters have **long but relatively easy journeys to work.** In contrast, commuters from **Pretoria** are faced with **very long and and complicated trips** and commuters in **Cape Town** with **short but complicated trips.**

Of these three areas, Pretoria commuters experienced the highest incidence of lateness due to transport problems. They were followed by Bloemfontein commuters, with the commuters from Cape Town having the lowest rate of lateness. It can therefore be concluded that long distances to work caused more transport related lateness than the difficulty of the journey.

Although **absenteeism** was also increased by the distance commuters had to travel and the difficulty of the journeys it was experienced much less than lateness. This was mainly due to the fact that commuters felt that they would rather be late than absent.

Commuters usually did not choose a certain mode of transport because it would guarantee a punctual arrival, but mostly because they either had no choice, because it was more economical or more convenient. They made sure that they would arrive on time at work by leaving earlier than necessary, so that they would still be on time even if something unexpected happened on their journey.

A lot of criticism has been voiced with respect to the **combi-taxi service** taking patronage away from the bus and the train. This study has shown that on average only 13 per cent of the commuters used the taxi as a main mode and six per cent as a feeder mode. The importance of the taxi was more in ensuring a **fast and efficient alternative service** to the commuter who experienced some problem on his journey to work. In this case he would use the taxi and would be able to still arrive at work punctually. This option was used less frequently by long-distance commuters, because over these distances the taxi was unaffordable. This, therefore, also increased the likelyhood of long-distance commuters to arrive late at work.

In Chapter 2 it was shown that black commuters in South Africa generally are faced with long, timeous and complex journeys to work. Black commuters, furthermore, belong to the lower income group and are therfore mostly captive to the public transport system. Because commuters have many problems with public transport, one might assume that lateness due to transport problems is often experienced in industry, therefore costing the country in lost time. This problem needs to be urgently addressed.

11.1 Recommendations

The problems of late arrivals at the work place have to be addressed by the decision makers, the operators of the public transport systems and by employers.

Decision makers should seriously consider the current and future location of residential and employment areas to minimise the travel distances of commuters. This is especially important for the lower income groups who need to make use of public transport. Secondly, multi modal choice of the public transport system could also help to alleviate the problem of lateness. It has bees shown that commuters rely heavily on taxis as an alternative mode if problems are experienced on the journey to work. In a deregulated system the commuter would be able to choose from different transport modes and could make alternative arrangements if his usual mode of transport was delayed.

Operators could help to minimise lataness by offering an efficient service, especially during the peak periods when most problems are experienced. It is essential that buses and trains adhere strictly to their schedules to enable commuters to plan their journey and to arrive at transfer stations in time to catch the connection mode. Operators could furthermore help to cut down on lateness by having substitute vehicles on stand-by to minimise the time delay when a vehicle has a breakdown.

Employees should try to distinguish clearly between habitual late comers and employees who are late due to transport reasons, before using some form of punishment. This would create a friendly climate between employer and employee. In order to reduce or minimise lateness due to transport problems, employers might consider to offer company transport for their employees.

Lateness at the work place due to transport problems is definitely a big problem in South Africa, which is aggravated by the long distances and difficult journeys faced by many commuters. It is therefore important to try to minimise the problems and thereby cut the cost of lateness to industry.

APPENDIX A

The Questionnaire

PROJECT TRANSPORT 1

RESEARCH SURVEYS
79 KLOOF STREET
GARDENS
CAPE TOWN

RESEARCH SURVEYS
RICHMOND HOUSE
RICHMOND
JOHANNESBURG

PROJECT NO : SJT285

RESPONDENT NO : 1,2-01 3,4,5,6

CHECKBACK :		DATE	INITIALS
7-1	YES		
-2	NO		

DEBRIEFED BY : ..... CODING CHECKED BY : .....

EDITED BY : ..... CONSISTENCY CHECKED BY : .....

CODED BY : ..... EDITING CHECKED BY : .....

NAME OF RESPONDENT : .....

ADDRESS (HOME) : .....

SUBURB.....(8,9)

.....

ADDRESS (WORK) : .....

SUBURB.....(10,11)

TELEPHONE NO : (HOME) ..... (WORK) .....

INTERVIEWER'S NAME : .....(13,14)

FOR OFFICE USE :

SHORT DISTANCE 12-1
LONG DISTANCE -2

SECTION A : INTRODUCTION AND SCREENING QUESTIONS •

---

1. Hello. My name is ..... I work for Research Surveys. •
We are conducting a study and I wondered if I might ask
your a few questions. It will take about ..... minutes.
Are you willing to participate?

IF NO, OR IN DOUBT, CLOSE INTERVIEW

SECTION B : TRAVEL INFORMATION

4. At what time did you leave home this morning?

15 16 17 18

5. At what time does your work start?
(official time)

19 20 21 22

6. At what time did you reach your work place today?

23 24 25 26

7. How did you travel to work this morning?
Please mention any transfer stations and include walks.

MODE OF TRANSPORT/WALK		FROM	TO
1.	27 ( )		
2.	28 ( )		
3.	29 ( )		
4.	30 ( )		
5.	31 ( )		
6.	32 ( )		
7.	33 ( )		
8.	34 ( )		

FOR OFFICE USE ONLY

Number of vehicle transfers (35)

8. Why do you travel that way?

..... (36, 37)
..... (38, 39)
..... (40, 41)

FOR YOUR USUAL WAY OF GOING TO WORK :

9. Thinking now about the way you usually go to work. What will you do if your first mode of transport is very late or does not turn up at all?

..... (42, 43)
..... (44, 45)
..... (46, 47)

10. What will you do if you miss your second mode of transport because the first is late?

..... (48, 49)
..... (50, 51)
..... (52, 53)

SECTION C : EXTENT OF LATENESS

11. Are you sometimes late for work because you wake up late?

YES 54-1 ASK Q.12
NO -2 SKIP TO Q.13

12. IF YES, ASK : When last were you late because you woke up late?

LESS THAN A WEEK AGO	55-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

13. Are you sometimes late because of family or personal problems?

YES 56-1 ASK Q.14
NO -2 SKIP TO Q.15

14. IF YES, ASK : When last were you late because of personal problems?

LESS THAN A WEEK AGO	57-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

15. Are you sometimes late because of transport problems?

YES 58-1
NO -2

16. Why do you say that?

..... (59, 60)
..... (61, 62)
..... (63, 64)

17. IF YES TO Q.15, ASK : When were you last late for work because of transport problems?

LESS THAN A WEEK AGO	65-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

SECTION D : EXTENT OF ABSENTEEISM

18. Are you sometimes absent from work because you woke up late?

YES 66-1 ASK Q.19
NO -2 SKIP TO Q.20

19. IF YES, ASK : When last were you absent from work because you woke up late?

LESS THAN A WEEK AGO	67-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

20. Are you sometimes absent from work because of personal or family problems?

YES 68-1 ASK Q.21
NO -2 SKIP TO Q.23

21. IF YES, ASK : When last were you absent because of personal or family problems?

LESS THAN A WEEK AGO	69-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

22. What problems were they?

..... (70, 71)
..... (72, 73)
..... (74, 75)

23. Are you sometimes absent from work because of transport problems?

YES 76-1
NO -2

SKIP COL 77-80
1,2 - 02
REP COL 3,4,5,6

24. Why do you say that?

..... (7, 8)
..... (9, 10)
..... (11, 12)

25. IF YES TO Q.23, ASK : When last were you absent from work because of transport problems?

LESS THAN A WEEK AGO	13-1
A WEEK TO ALMOST TWO WEEKS AGO	-2
TWO WEEKS TO ALMOST A MONTH AGO	-3
A MONTH TO ALMOST THREE MONTHS AGO	-4
THREE MONTHS TO ALMOST SIX MONTHS AGO	-5
SIX MONTHS TO A YEAR AGO	-6
MORE THAN A YEAR AGO	-7

SECTION E : EMPLOYER ATTITUDES

26. When you go to work in the mornings, are you worried that you might arrive late at work?

YES 14-1
NO -2

27. What happens if you arrive late at work?

NOTHING	15,16-1
GIVEN WARNING	-2
FINED	-3
SENT HOME	-4
FIRED	-5
OTHER (Specify)	-6
.....	-7

28. Do you think this is fair? HAND RESPONDENT CARD A

FAIR	17-1
INBETWEEN	-2
UNFAIR	-3

29. Why do you say that?

..... (18, 19)
..... (20, 21)
..... (22, 23)

30. How do you make sure that you will be on time for work?

..... (24, 25)
..... (26, 27)
..... (28, 29)

31. What will you do if you are still at home and realise that you will be late for work?

..... (30, 31)
..... (32, 33)
..... (34, 35)

SECTION F: PERCEPTION OF PUNCTUALITY

32. If a worker often arrives late for work i.e. more than 5 times in a month, what should his/her boss do?

..... (36, 37)
..... (38, 39)
..... (40, 41)

33. Suppose a friend, who said he/she would meet you, did not come right on time. How long would you wait before regarding him as late?
(INTERVIEWER : WRITE ANSWER IN MINUTES)

..... (42, 43)

34. If you have to attend a meeting, do you think it is necessary to apologise if you are late?

YES	44-1	ASK Q.35
NO	-2	SKIP TO Q.36
DON'T KNOW	-3	

35. IF YES, ASK : After what length of time would you think it necessary to apologise?
(INTERVIEWER : WRITE ANSWER IN MINUTES)
.....(45, 46)

36. Do you mind if people are late for an appointment with you?

YES	47-1	ASK Q.37
NO	-2	SKIP TO Q.38
DON'T KNOW	-3	

37. IF YES, ASK : After what length of time do you get annoyed?
(INTERVIEWER : WRITE ANSWER IN MINUTES)
.....(48, 49)

38. Do you think that it is really important for a person to be on time at work?

YES	50-1
NO	-2
SOMETIMES	-3
DON'T KNOW	-4

39. Why do you say that? PROBE FULLY
What other reasons are there?
..... (51, 52)
..... (53, 54)
..... (55, 56)
.....
.....

SECTION G : DEMOGRAPHICS

40. SEX :

MALE	57-1
FEMALE	-2

41. AGE :
Could you please tell me into which group your age falls.
HAND RESPONDENT AGE CARD. You need only tell me the letter corresponding to the group into which your age falls?

18 - 24 YEARS	58-1
25 - 34 YEARS	-2
35 - 49 YEARS	-3
50+ YEARS	-4

42. EDUCATION :

What is the highest standard you have passed?

NO SCHOOL	59,60-1
SOME PRIMARY	-2
COMPLETED PRIMARY	-3
SOME HIGH SCHOOL	-4
COMPLETED HIGH SCHOOL	-5
SOME UNIVERSITY	-6
COMPLETED UNIVERSITY	-7
HAVE OTHER POSTMATRIC	-8

43. Do you or anyone in your household own a car, combi or bakkie in good working condition?

YES 61-1
NO -2

44. Do you have a valid drivers' licence?

YES 62-1
NO -2

45. INCOME :

Are you paid per hour, per week, per fortnight or per month? How much are you paid before tax or any other deductions? FILL IN APPROPRIATE SPACE BELOW.

FOR OFFICE USE

R ..... per hour (x 187)
R ..... per week (x 4.4)
R ..... per fortnight (x 2,2)
R ..... per month ( ) 63,64,65,66

46. AREA : CAPE TOWN 67-1
BLOEMFONTEIN -2
DURBAN -3
PRETORIA -4

47. NAME OF EMPLOYER :

.....(68, 69)

48. HOME LANGUAGE : XHOSA 70-1
ZULU -2
TSWANA -3
NORTH SOTHO -4
SOUTH SOTHO -5

THANK RESPONDENT AND CLOSE INTERVIEW

I hereby certify that this interview has been conducted according to the instructions given to me by Research Surveys. I have checked it thoroughly, and it is correct.

SIGNATURE/e .....

DATE/e .....

APPENDIX B

The sample

DEMOGRAPHICS		CAPE TOWN NO.	%	PRETORIA NO.	%	BLOEMFONTEIN NO.	%	DURBAN NO.	%	TOTAL NO.	%
SEX	: Male	242	76	221	73	163	54	234	74	860	69
	Female	77	24	81	27	137	46	83	26	378	31
	Total	319	100	302	100	300	100	317	100	1238	100
AGE	: 18 - 24 years	26	8	32	11	25	8	35	11	118	10
	25 - 34 years	112	35	129	43	91	30	111	35	443	36
	35 - 49 years	101	32	117	49	122	41	117	37	457	37
	50+ years	80	25	24	8	62	21	54	17	220	18
	Total	319	100	302	100	300	100	317	100	1238	100
EDUCATION	: Up to Std 1	47	15	13	4	31	10	92	29	183	15
	Std 2 - Std 5	91	29	46	15	127	42	84	27	348	28
	Std 6 - Std 7	90	28	93	31	112	37	69	22	364	29
	Std 8 - Std 10	88	28	140	46	28	9	66	21	322	26
	University	3	1	10	3	2	1	6	2	21	2
	Total	319	100	302	100	300	100	317	100	1238	100
INCOME	: Less than R200 per month	21	7	2	1	149	50	17	5	189	15
	R200 - R299 per month	73	23	24	8	93	31	38	12	228	19
	R300 - R399 per month	74	23	92	31	33	11	96	31	295	24
	R400 - R499 per month	97	31	60	20	16	5	79	25	252	20
	More than R500 per month	53	17	124	41	8	3	85	27	270	22
	Total	319	100	302	100	300	100	317	100	1238	100
DISTANCE FROM WORK	: Short	223	70	119	39	184	61	204	64	730	59
	Long	96	30	183	61	116	39	113	36	508	41
	Total	319	100	302	100	300	100	317	100	1238	100
LANGUAGE	: Xhosa	304	96	5	2	53	18	13	4	375	30
	Zulu	-	-	35	12	2	1	296	93	33	27
	Tswana	2	1	88	29	88	29	-	-	178	14
	N. Sotho	2	1	105	35	-	-	2	1	109	9
	S. Sotho	8	3	25	8	157	52	1	-	191	15
	Ndebele	-	-	16	5	-	-	-	-	16	1
	Swazi	1	0,3	9	3	-	-	1	0,3	11	0,8
	Tsonga	2	0,6	6	2	-	-	-	-	8	0,6
	Shangaan	-	-	4	1	-	-	-	-	4	0,3
	Venda	-	-	6	2	-	-	-	-	6	0,5
	Other	-	-	3	1	-	-	4	1,3	7	0,6
	Total	319	100	302	100	300	100	317	100	1238	100

REFERENCES

Cape Metropolitan Planning Committee. (1980) **Manufacturing Employment in the Cape Metropolitan Area**, Cape Town.

Cape Metropolitan Planning Committee. (1984) **Business Activities in the Cape Matropolitan Area**, Cape Town.

Cape Town Metropolitan Planning Branch. (1983) **Cape Town Metropolitan Transport Area : People, Employment and Land in the Eighties**, City Engineer's Department, Cape Town.

City Engineer's Department. (1979) **PRMMT Transportation Plan, Core City Pretoria**, Volume 1, Pretoria.

Costa, G. (1984) **The Journey between home and work : The Effects of Commuting on Health and Safety, Consolidated Report**, Istituto di Medicina del Lavaro, Universita Degli Studi di Verona, Verona.

Department of Transport. (1982) **Bloemfontein/ThabaNchu/ Onverwacht ; Openbare Vervoerstudie**, U10/10/8/1/4, Pretoria.

Dhlomo, O. (1980) Natal's fences of opportunity : Influx issues beyond the fringe, **Indicator**, Volume 3, Number 1.

Durban City Council. (1980) **Durban Metropolitan Transport Area : Interim Plan**, 1980 - 1985, Durban.

Ehlers, J.H. (1982) **Pendelaars in KwaNdebele**, Research Report M-N-93, H.S.R.C., Pretoria.

Fourie, E.M. and Morris, N. (1985) The effects of a long journey to work on the daily activities of black commuters in Pretoria, **Proceedings of the Annual Transportation Convention**, Volume TC, Pretoria.

Grandjean, M. (1980) **Fitting the task of men : an egronomic approach**, Taylor and Francis, London.

Gruneberg, M.M. and Oborne, D.J. (1981) **Psychology and industrial productivity : a reader**, Macmillan Press, London.

Gruneberg, M.M. and Oborne, D.J. (1982) **Industrial productivity**, A Halsted Press Book, John Wiley and Sons, New York.

Kernstad Bloemfontein **Bloemet : tweede tussentydse Vervoerplan/Statistiek**, Bloemfontein.

Morris, N. (1983) **Black commuting in Pretoria : population and employment figures**, Special Report BCP 1, NITRR, CSIR, Pretoria.

Morris, N. (1986(a)) **Black commuting in Pretoria : a summary report**, Special Report BCP 15, NITRR, CSIR, Pretoria.

Morris, N. (1986(b)) **Black commuting in Pretoria : detailed summary and conclusions regarding levels of service acceptable to commuters**, Internal Technical Note TT/64, NITRR, CSIR, Pretoria.

Naudé, A.H., Clark, P.M.E. and Lipman, V.S. (1986) **Black commuter transport in South Africa : a preliminary overview of broad trends and their cost implications**, Technical Report RT/42, NITRR, CSIR, Pretoria.

National Transport Policy Study. (1985) **A study of public passenger transport in the Cape Town Area**, Unpublished Working Paper prepared for the Project 5 Advisory Committee, Pretoria.

Oosthuizen, E. (1983) **Black commuting in Pretoria : methodology and socio-economic details of the sample**, Special Report BCP 4, NITRR, CSIR, Pretoria.

Reader's Digest (1984) **Atlas of Southern Africa**, The Reader's Digest Association of South Africa, Cape Town.

Republic of South Africa. (1974) **Report of the committee of inquiry into urban transport facilities in the Republic**, RP/60/76, Pretoria.

Republic of South Africa. (1975) **White paper on the report of the committee of inquiry into urban transport facilities in the Republic**, W.P.V.-1975, Pretoria.

Scott and de Waal Inc. (1986) **Commuter transport in the Durban Metropolitan Area**, Draft, Sandton.

Steers, R.M. and Rhodes, S.R. (1978) Major influences on employee attendance : a Process Model, **Journal of Applied Psychology**, Volume 63, Number 4.

Taylor, P.J. and Pocock, S.J. (1972) Commuter travel and sickness absence of London office workers, **British Journal of Preventative and Social Medicine**, Volume 26.

Tollgate, (1985) Volume 13, Number 2, Cape Town.

Van der Reis, A.P. (1983) **Black commuting in Pretoria : attitudes towards frequency, punctuality and waiting times**, Special Report BCP 12, NITRR, CSIR, Pretoria.

Voges, E.M. (1983) **Accessibility, Transport and the spatial structure of South African cities : an historic perspective**, Technical Report RT/9/83, NITRR, CSIR, Pretoria.

Witulski, U. (1986) Black commuters in South Africa, **Africa Insight**, Volume 16, Number 1.

BIBLIOGRAPHY

Jones, R.M. (1971) **Absenteeism**, Department of Employment, Manpower Papers, No. 4. H.M.S.O. London.

Norman, L.G. (1959) The health of London's travelling public, **Royal Society's health journal**, Volume 79.

White, D.H. (1983) ***The effects of jobstress in the South African* Gold-Mining industry**, Unpublished Thesis for D. Litt. and Phil., University of South Africa, Pretoria.

REPORTS ON BLACK COMMUTING PUBLISHED BY THE NATIONAL INSTITUTE FOR TRANSPORT AND ROAD RESEARCH, CSIR

BLACK COMMUTING IN PRETORIA (BCP SERIES)

BCP 1 **Population and employment figures**
N Morris, 1983

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A J Falk, 1982

BCP 3 **Operators' problems**
R A Smith and P J Browning

BCP 4 **Methodology and socio-economic details of the sample**
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E Oosthuizen, 1983

BCP 5b **Travel patterns from Mabopane and Soshanguve**
E Oosthuizen, 1984

BCP 5c **Travel patterns from the hinterland of Bophuthatswana**
E Oosthuizen, 1984

BCP 5d **Travel patterns from Mamelodi**
E Oosthuizen, 1984

BCP 5e **Travel patterns from Atteridgeville and Saulsville**
E Oosthuizen, 1984

BCP 5f **Travel patterns from GaRankuwa**
E Oosthuizen, 1984

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N Morris and E Oosthuizen, 1986

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BCP 13 **Attitudes towards walking times**
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A P van der Reis, 1983

BCP 15 **Summary report**
N Morris, 1986

OTHER PUBLICATIONS

Technical Reports :

RT/51/79 **Can staggered hours help Black commuters?**
N Morris, 1979

RT/71/79 **An introduction to the transport problems of urban Black travellers in South Africa**
N Morris, 1979

RT/8/82 **An investigation into the levels of service required by a group of Black commuters in Mamelodi, Pretoria**
N Morris, 1982

RT/9/83 **Accessibility, transport and the spatial structure of South African cities : An historic perspective**
E M Voges, 1983

RT/12/84 **Black commuter transport in South Africa : A preliminary overview of broad trends and their cost implications** (Restricted)
A H Naudé, 1984

Technical Notes :

TT/59/84 **Evaluasie van sekere aanbevelings van die verslag oor die toekomstige rol van mikrobusse in Rustenburg**
E Oosthuizen, 1984

TT/46/85 **NITRR comments on the proposed NTPS approach to regulate and finance public transport in South Africa** (Restricted)
A H Naudé, P J Browning and R A Smith (with contributions from J W M Cameron), 1985

TT/64 **Black commuting in Pretoria : detailed summary and conclusions regarding levels of service acceptable to commuters**
N Moris, 1986

TT/65 **The effects of short- and long-distance commuting on the daily travel and activities of Black workers in the Pretoria area**
N Morris and E Fourie, 1985

TT/67 **Daily travel and activities study : introduction and pilot study**
N Morris, 1985

Working paper :

Nov 85 **An impact study of the 16-seater combi-taxi option** (National Transport Policy Study, Phase II Project 5, Public Passenger Transport) (Restricted)
Urban Transport Group (with contributions from the NTPS Study team)

Racent Conference Papers :

- o **The Black transport crisis.** Papers presented by P J Browning, N Morris and R A Smith at National African Federated Chamber of Commerce and Industry (NAFCOC), Sandton, April 1985.
- o **Commuter transport problems and their consequences for marketers.** Paper presented by N Morris at the JICSAM Convention, Sandton, July 1985.
- o **The effects of a long journey to work on the daily activities of Black commuters.** Paper presented by E Fourie and N Morris at the Annual Transportation Convention, Pretoria, July 1985.
- o **The travel time issue in Black commuter transport.** Paper presented by E Oosthuizen and A H Naudé at the Annual Transportation Convention, Pretoria, July 1985.

FORTHCOMING PUBLICATIONS (1986)

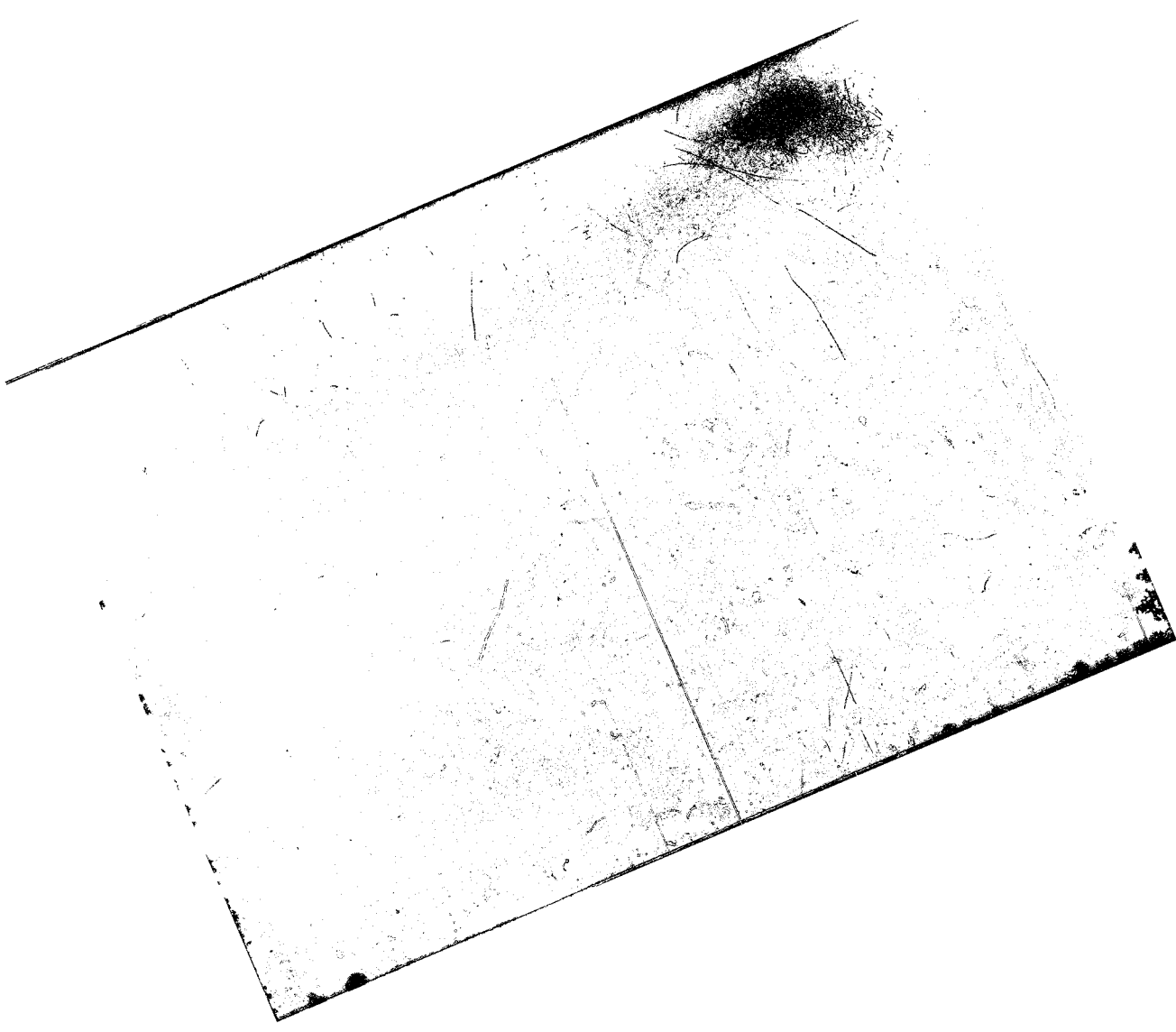
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A H Naudé, P M E Clark and V S Lipman



Author Fourie Elisabeth Maria
Name of thesis The Effect Of Long Journeys To Work On Black Commuters' Punctuality, Absenteeism And Travel Behaviour. 1987

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