

PRIVATIZATION AND DEREGULATION IN PASSENGER TRANSPORTATION: THE SOUTH AFRICAN EXPERIENCE WITH SPECIAL REFERENCE TO COMPETITIVE TENDERING

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ABSTRACT

A brief overview of the status quo of passenger transport modes used in South Africa is given, highlighting the bus sector. The evolution of political, economic and legislative activities are described resulting in the new Government policy of tendering for bus subsidies. The basis of competitive tendering for subsidies is explained, the contracts awarded are described and the operational results and experiences discussed. The expected future developments are outlined.

INTRODUCTION

The great majority of the South African work force has been and is dependent on public transport. For example, in a city like Johannesburg, 68% of home to work trips are by public transport. Until the introduction of the shared mini-bus services in recent years, passenger transportation was by bus and commuter rail. Some municipal tram or streetcar services operated up to the middle fifties.

To understand the complexities of passenger transportation in South Africa it is necessary to be aware of the political, economic and legislative evolution of the country.

POLITICAL, ECONOMIC AND LEGISLATIVE EVOLUTION

Political Evolution

The population of South Africa consists principally of people of African, European and Indian origins. Traditionally the political power has been in the hands of the Europeans or Whites who form a minority group, the Africans or Blacks forming the majority. It must be appreciated that the Black group consists of a number of different ethnicities who traditionally have maintained their own language and customs.

In 1948 the policy of separate development or "apartheid" was introduced by the White Government. This policy promoted the territorial separation of the races which over the years led to such laws as the "Group Areas Act" which relocated Blacks to exclusive residential areas far from their employment areas, "influx control" which limited the movement of people from rural to urban areas and introduced the concept of deconcentration, that is the creation of industries near areas where labor is available and the creation of independent and self-governing states which are theoretically independent of the White Government. These policies were supposed to have had a beneficial effect on passenger transportation by locating work opportunities close to traditional residential areas of population groups.

The policy of deconcentration failed to a large extent, despite substantial tax concessions and other incentives granted to industrialists. Some industrial development took place in the independent states but this was insufficient to materially affect the demand for transportation to white areas.

The political course of the country, however, started to change in the 80's with the introduction of Regional Services Councils (RSC's) which were charged with the provision of essential services such as water and sewerage on a regional basis ie. combined services for local authorities controlled by white and black communities respectively.

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South Africa's political system is now undergoing radical change. Negotiations are under way between different groups and parties which will inevitably lead to majority rule. The political change will not materially affect transportation demand for the foreseeable future. It is just not possible to relocate millions of people closer to work opportunities and it is a fact that industrialists are not prepared to locate their enterprises far from their sources of materials or from their markets.

Economic Evolution

The relocation of blacks citizens away from white areas led to demands for compensation for increased travel costs. The Government introduced legislation, The Black Transport Services Act of 1957, which provided for funds from employer levies to subsidize bus transport for Black workers. Similarly, the Colored persons and Indians Act was promulgated in 1972. The subsidization was, in fact, under the control of the Department of Transport (DOT), which received allocations from Treasury.

With the introduction of the RSC's, the Government intended that the provision of passenger transport should become the responsibility of regional Government. The RSC's were however, funded through turnover and payroll taxes on employers which were insufficient to enable them to fund public transport. Currently the DoT is administering bus subsidies which are funded by the Central Government. The intention remains that "Passenger Transport Authorities" (PTAs) which will be funded from Regional Services Councils as well as by Central Government will assume the responsibility of funding public transport.

The economic policy of the Government at present is to promote a market related economy and the provision of services based on user charging. The stated policy is to move away from regulation and subsidization. It is difficult to predict at the moment whether a future Government will adopt socialistic policies and reintroduce regulation and subsidization.

Legislative Evolution

Regulation of the conveyance of passengers for reward was introduced through the Motor Carrier Act No. 39 of 1930 in order to prevent "on the road" competition between operators. The relevant transportation authorities were prevented from granting a permit to a new operator within an area or route where an existing operator provided a satisfactory service at acceptable fares. In 1945 a Commission of Inquiry found that "public service vehicle transportation must, if it is to be satisfactory, be run under conditions of monopoly".

The Transport Co-ordination Act of 1948 established the National Transport Commission, whose function it was to regulate passenger transport, to grant operating permits and to regulate fares. Where adequate rail commuter services existed, bus services could not operate in competition with rail.

In 1969 a Commission of Inquiry recommended the granting of monopolistic or quasi-monopolistic rights in respect of public passenger transport wherever this would contribute substantially to the economies inherent in large scale enterprises, but also recommended that in such instances the principle of countervailing powers be maintained and the operators concerned, should therefore preferably be independent organizations whether profit or non-profit earning and not be local authorities.

In 1977 a Commission of Inquiry recognized that there could be a move towards freer competition in transport but stated that regulation was necessary to ensure that competition would be on an orderly basis. It also stated that with completely free competition, an oversupply situation would result on dense routes and a lack of service in outlying areas.

In 1983 the final report of a further Commission re-stated the view that a certain measure of control was essential in the interest of users and recognized that passenger transportation operated on a large scale and the high capital input made it a natural monopoly and control was needed.

In 1982 a National Transport Policy Study was initiated by the DOT to examine transport policy and recommended a new policy which would be compatible with the Government's stated national goals. In 1986 the new policy was spelled out in a White Paper on National Transport Policy which was tabled in Parliament. The White Paper dealt with freight and passenger transport and covered all modes.

Subsequent to the acceptance of the White Paper, a Passenger Transport Bill was prepared. However, to date the Bill has not been submitted to Parliament. To get country wide acceptance of this policy, has necessitated broad based consultation with provincial, regional and local Government, the business community, the users and operators. The promotion of competition has obviously been opposed by existing bus permit holders. The business community has not accepted the subsidization of transport at local level stating that the high cost of passenger transport has been caused by Government settlement policies.

The Passenger Transport Bill proposed that Passenger Transport Authorities (PTA) shall be formed who will be responsible for the preparation of a passenger transport plan which will be revised every five years. It also

establishes a regional passenger subsidization fund to be financed from local and national sources. A PTA may not conclude a contract other than by accepting a tender, under regulations made by the Minister. The Minister may grant exemption from this requirement.

THE STATUS QUO OF PUBLIC TRANSPORT

Rail Commuter Services

Until 1989 the national railway was responsible for all rail passenger services. In 1989 the Rail Commuter Corporation was formed which is responsible for all commuter services. It is independent of the national railway, Transnet, but contracts with Transnet to provide passenger services. It has been Government policy over the years to keep rail fares low and to cross-subsidize internally within the Transnet organization. Cross-subsidization is no longer possible as each operating division of Transnet must be profitable.

The Rail Commuter Corporation will have to negotiate with the Regional Services Councils as to the services it has to provide, the fares to be charged and the financial assistance required. The RSC's will have the option to negotiate alternative road services if the rail services are considered unsuitable or too expensive.

Rail services can no longer be protected against competition from bus or mini-bus services.

Long distance passenger services have remained the responsibility of the railway organization and subsidization where necessary, as in the case of the world famous "Blue Train", has to be done internally by the railway.

Mini-bus (Taxi) Services

In the early 1970's unmetered shared taxi services were licensed to operate between Black residential areas and work places. The operators of these services used large U.S. type sedan vehicles which, although licensed to carry five passengers, were usually overloaded. With the advent of the Volkswagen kombi type of vehicle, these eight seater vehicles were substituted for the sedan vehicles.

Operators realized that the larger vehicles were more cost effective and the kombi vehicles known as kombi-taxi's proliferated. Motor manufacturers, realizing the potential that taxi operators represented for vehicle sales, then produced a larger vehicle capable of carrying a total of sixteen persons.

Bus operators objected to all applications for taxi licenses as they were eroding the bus passenger market by providing a higher level of service.

The Government had already decided to give priority to the development of the small business sector and the taxi industry was becoming an important creator of employment opportunities. In addition, this industry is not subsidized but operators pay little or no tax. The argument is put forward that the fact that the informal sector cannot be taxed, can be regarded as an indirect subsidy.

The well known problems experienced elsewhere in the world with informal mini-bus services have been the order of the day in South Africa. The accident rate is very high, competition on the road and warfare between rival associations occur widely, congestion at taxi ranks, unlicensed drivers and unroadworthy vehicles pose serious problems for the authorities³¹.

As predicted by bus operators, taxi or mini-bus operators concentrate on profitable routes and leave the less profitable routes, the transport of scholars, of the infirm and of the aged, to the bus services. Bus services are still supported by passengers who consider these services as safer and more reliable than mini-buses. Where long commuting distances are involved, i.e. in excess of 20 kilometers, the mini-buses are not competitive. Table I indicates the modal split between minibus, bus and rail as well as average commuting distance and fare for each mode.

Bus Services

Over 60% of bus commuter services in South Africa are operated by private sector firms, some of which are quoted on the Stock Exchange. Sizes of bus companies vary, the largest operating a fleet of some 2 100 buses out of a total of approximately 9 500 operated by private firms.

Publicly owned bus services consist of municipal bus services and those owned and operated by the independent states. Some of these services receive state subsidies through the DOT. The privatization of these services will depend on whether the authorities which own the service elect to fund them out of their own sources or apply for subsidies from a Passenger Transport Authority. As discussed previously, a PTA may only fund services which have been subjected to competitive bidding.

The debate in South Africa has therefore not been about privatization, but rather about deregulation and subsidization. Competition is now possible between modes, although the permit system protects bus services from intra-modal competition.

Subsidization was introduced to assist the workers who cannot afford the economic cash fare on journeys to and from work. For this reason only multi-journey tickets called "clipcards" were subsidized with the understanding that only workers would use these. cash fares were supposed to be equal to the economic fare and thus not subsidized. Because the higher the economic fare the larger the subsidy, this meant that cash fares become very high, which encouraged passenger to divert to other modes, thus confounding the problem of declining passenger numbers, particularly in off-peak periods, and increasing subsidy amounts.

There are mixed perceptions amongst commuters of the advantages offered by bus travel. Generally a higher degree of safety when compared to mini-bus services is recognized. A large number of commuters, however, prefer the shorter travel time offered by mini-buses even though it is at a higher cost.

The Bus Subsidy System

Subsidies are determined by negotiation between the DOT and the operators.

The DOT must determine the fare which each class of passenger is expected to pay and which is based on the ability of a commuter to pay. The DOT must also determine the costs of each operator. These costs include distance and time related costs as well as fixed costs. From these figures the "economic fare" expressed as cents per passenger-kilometer is derived.

The subsidy amount is the difference between the nominal fare the passenger pays and the economic fare. Weekly tickets, which commuters purchase, are based on the nominal fare, the operator claiming the difference from the Department. This is based on the number of passengers conveyed and distance travelled.

It will be appreciated that the system is a cost plus system which is not conducive to promoting operator efficiency or user satisfaction. The only control which the Department can exercise is through the Bus Information System, the Subsidy Information System, and an independent audit of the companies' books.

The Bus Information System (BIS)

The Bus Information System developed by the National Institute for Transport and Road Research was introduced in 1981 after a period of testing.

Various bus operators were grouped and classified and information obtained on all aspects of the services. Formulae for the determination of the efficiency of each service were derived. The operators who were not receiving state subsidies, but who participated by providing information, received an incentive compensation in accordance with their performance as recompense for their participation and to encourage other operators to do the same.

By 1985 the DOT had identified certain shortcomings and advantages afforded by the system. The main shortcomings included insufficient data on routes, the correctness of the operational details supplied could not be verified and a number of bus services did not supply information to the system.

The benefits of the system are claimed to include the focusing on the importance of efficiency and productivity, the identification of shortcomings by management, the availability of a national costing system for the bus industry and useful statistics to monitor trends in the bus industry.

The Subsidy Information

Details of subsidy payments on a national basis are kept in the system and updated on a regular basis. The information is available per operator, per route or service and is expressed in cents per passenger kilometer. Total amounts of subsidy per operator or per service are obtainable.

EXPERIENCE WITH TENDERING FOR BUS SERVICE SUBSIDIES

The Competitive Framework

All tenders were open to the public and no restrictions were placed on tenderers. The contracts were to be for a three year period without competition from other bus services on the routes involved. Competition for passengers from other modes such as minibuses (shared taxis) and train was permitted. The basis of controlling the contract was by means of a specified route and time-table. All fares were to be collected and retained by the operator. The subsidy amount was based on the rate tendered per vehicle kilometer which represents the difference between cost (including profit) and revenue per kilometer.

Composition of Tender Packages and Routes

The first package comprised two tenders each with a single route of 37km between the residential area of Daveyton and the industrial area of Isando, situated on the outskirts of Johannesburg (see Figure 1). The first

tender required three buses and the second four buses. The strategy was to test the tender procedures, the response of operators and to obtain an indication of market prices.

The second package comprised five tenders covering a total of 22 routes between the residential area of Eldorado Park and the city center of Johannesburg and its environs. The shortest route was 19km and the longest 39km. The smallest tender required 5 buses and the largest 49 buses. A total of 380 peak period trips and 80 off-peak trips were to be operated at frequencies between 5 and 60 minutes.

The third package comprised four tenders covering 21 routes between the residential area of Atteridgeville and the city center of Pretoria and surrounding employment nodes (see Figure 1). Further details of the tenders are set out in Table 2.

Tender Documents

The tender documents consisted of two parts issued separately. The first part contained the General Conditions of Contract and Tender Rules and was used for all tenders. The second part contained the Specific Requirements for each tender.

The General Conditions included many of the legal contractual clauses deemed necessary for the establishment of a contract between two parties for the provision of passenger transport. The fares charged on existing routes were recommended as the minimum fares. Tenderers could tender on higher fares and hence a lower subsidy rate. However, this could cause a reduction in the number of passengers and affect the viability of the service. Where no comparable service existed, a recommended fare was determined based on the cost of travel by alternative modes. Clauses on the quality of service to be provided were also included. The maximum acceptable deviations from the time table for departure times from a terminal were prescribed. The operators' adherence to the time table and the number of passengers per vehicle trip, were to be monitored on behalf of the contracting authority. Small fines (US \$6) were to be applied for each trip which started too early or too late. A trip not operated within 15 minutes of the scheduled time was deemed not to have been operated, for which a fine of \$20 was imposed.

The operator was required to submit monthly statistics on the number of trips, kilometers and passengers carried with the submission of each payment claim. An indexed inflation formula was prescribed which was used for escalating the monthly payments and also for annual passenger fare increases.

In Part Two of the Tender Documents complete details of each route to be operated were given, including existing passenger patronage, fares charged and revenue statistics. The vehicles to be used on the contract were specified in general mechanical terms as well as the minimum number of seated passengers and the maximum number of standing passengers to be carried. Electronic ticket issuing and data collection units were made mandatory for each vehicle.

The Schedule of Quantities was based on the total expected kilometers to be operated for the duration of the contract by a vehicle category (see Figure 2). Due to anticipated changes in passenger demand as a result of seasonal variations or changes in the general level of economic activity, three different numerical categories of kilometers operated per month were included. This was intended to allow an operator to vary the tender rates submitted according to the proportionate contribution of fixed costs to running costs (see Figure 2).

Attendance at a service area site meeting was mandatory for all tenderers where routes and terminals could be inspected and any questions answered in public. As a great many operators had never before tendered for bus services, a basic cost and revenue estimation procedure was prepared and made available to all tenderers.

Award of Tenders

The number of tenders received for each tender advertised is set out in Table 3. Operators tendering ranged from those with 10 or less buses to those with several hundred buses. After a careful analysis of all the tenders submitted for a particular tender, a short list of tenders was established and their existing transport operations, infrastructure such as maintenance facilities and equipment were inspected. Information on the financial strength of each operator was also obtained. A recommendation was made to the DOT that the best tender (not necessarily the lowest) be accepted.

Monitoring and Service Quality

The introduction of the new services required careful liaison with the existing operator, the passenger communities and large employers. Following a carefully prepared strategy, the change-over of operations occurred without any major crises although there were several minor incidents.

When operating conditions had stabilized, monitoring activities commenced on a regular but random basis. The level of monitoring was varied between one and five per cent of trips operated per month.

The objects of monitoring were:

- (a) to measure service quality;
- (b) to ensure operational compliance with the contract;
- (c) to substantiate monthly payment certificates.

The monitoring activities are performed by a small team of inspectors whose duties included the determination of the punctuality of departures, passenger loadings, bus cleanliness (inside and out), driver-passenger relations, driving standards, adherence to route and bus stops and fare evasion. The measures of effectiveness used are averages and standard deviations of numerical data and a quality scale for non numerical items. An example of a comparison between scheduled and actual bus departure headways for a typical contract route is shown in Figure 3. The actual bus departure time difference from the scheduled time for the same morning peak is shown in Figure 4.

Vehicle Occupancy and Monthly Passenger Trends

Each month the operator submits passenger and vehicle kilometer statistics which are compared with the information obtained from monitoring. Where vehicles are forced to be regularly under- or overloaded, adjustments to the departure times or to the number of trips operated are agreed with the operator.

Figure 5 shows the number of passengers carried for 29 months on three routes for a typical contract to Johannesburg. The effect of the summer holiday period (December and January) when many factories close and Easter (April) is reflected each year. The overall trend for each route is at least 5% increase in passengers per month for the first year. The effect of a 28% fare increase in October 1989 was to reduce the rate of increase of passengers. A trend has not yet become evident after the October 1990 fares increase of 15%.

Passenger Attitudes

Figure 6 shows the results of an attitudinal survey among passengers using the previous operators' service and the new contract service one year later. The largest improvement in passenger satisfaction occurred in interior bus cleanliness (11% to 86%) and quality of seats (21% to 78%). Other improvements in passenger satisfaction were punctuality (20% to 76%) which had the effect of a large increase in satisfaction with the waiting time (28% to 71%) and crowding of buses (15% to 45%). Another improvement was driver performance (33% to 69%). Passengers were the least satisfied with the provision of bus stop shelters (28%) and the frequency of service (48%).

Operational Experience

Success areas

- (a) Eleven contracts are operational after a smooth change-over from the previous operations. Fears that chaos would result from such a change-over, were unfounded.
- (b) Passenger numbers are increasing significantly compared with the national decline in bus passenger numbers.
- (c) An improvement on the initial punctuality of the services has been achieved and thus far the levying of fines is serving as an incentive to the operator to be more punctual.
- (d) Passenger reaction has been most positive toward the improved punctuality and also to the better quality vehicles provided.
- (e) Operators have become more customer orientated, as more fare box revenue for the same distance travelled has greater profit potential. One operator has appointed a passenger relations officer.
- (f) Operators are more cost conscious as the tender system allows little scope for negotiated extra cost claims.
- (g) During the years 87-88, 88-89 and 89-90 according to the subsidy information system, the national average subsidy for passenger kilometer increased by 14%, 20% and 31% respectively. During the year 89-90 the subsidy per passenger kilometer for the contracts decreased by 4% as a result of greater bus occupancy and a tighter escalation formula.

Problem areas

- (a) The routes made available for the contracts, were previously being subsidized by the DOT as well as being cross-subsidized by the operator from other more profitable routes. The removal of these unprofitable routes from the subsidized network should result in a reduction in the subsidy rate required for the balance of the network. This will only become evident once the balance of the

network is put out to tender. Those who are opposed to the tendering process, however, point out that the subsidy on the contracted services exceeded the previously negotiated subsidy amount.

- (b) Only the kilometers operated on revenue producing trips are included for payment to the operator. On a high frequency inbound peak service, many return trips without passengers are operated which are not on the timetable. Payment for these non-revenue kilometers cannot be claimed under the contract. Not all the tenderers grasped this principle and one operator threatened legal action.
- (c) All electronic ticket machines (ETM) in use, were not registering the cancellation of multi-journey tickets and distances travelled. This is partly due to the lack of a standard specification for ETM's.
- (d) When the bus contracts were awarded, bus manufacturers also received orders for a substantial number of new buses. The four months delivery period allowed in the contract was found to be impractical. A temporary alternative has been the use of refurbished buses.
- (e) One operator gave notice that he was experiencing financial difficulties and wished to terminate the contract. Fortunately an alternative operator was found who was willing to continue the contract at the same rate of payment. The change of operator took place without any major disruptions.

EXPECTED FUTURE DEVELOPMENTS IN BUS PASSENGER TRANSPORT

Currently bus services in a rural area involving a total number of some 220 buses have been put out to tender. This is the first tender since the demonstration contracts were initiated three years ago. The concept of tendering for subsidy is gradually gaining acceptance among bus operators as well as the responsible authority.

With the establishment of Passenger Transport Authorities in the future, it is expected that this process will be applied widely throughout South Africa.

Guidelines for tendering are in the course of preparation. These will include the preparation of tender documents, monitoring and administrative procedures to be followed based on the experience already gained. The guidelines will be made available to PTAs in an effort to facilitate the process for both tendering authorities and operators.

New tenders will be issued for the services currently operated as demonstration contracts in the near future. It is expected that with the improved passenger loads, lower subsidy amounts will be required.

CONCLUSION

Over many decades passenger transportation has evolved from being deregulated to strict regulation for a considerable period and is now heading for wider privatization and less regulation. The success of the demonstration contracts has resulted in acceptance that competitive tendering for subsidized services offers advantages for both the subsidizing authority and the operator.

ACKNOWLEDGEMENT

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Table 1: Average monthly distance travelled and cost for different modes

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VEHICLE MODE	% SHARE	AVERAGE		
		MONTHLY FARE US \$	DISTANCE ONE-WAY KM	COST US CENTS PER KM
Minibus	30	21,60	17	2,5
Bus	27	18,40	26	1,4
Train	24	19,20	28	1,2

NOTES:

1. These are average yearly 1990 figures for the whole of South Africa.
2. These figures were obtained from an unpublished report to the Minister of Transport, March 1990.
3. The remainder utilize largely the private vehicle with a small percentage of walk trips.

Table 2: Comparison of annual bus passenger trips and subsidy in South Africa

ITEM	YEAR									
	80	81	82	83	84	85	86	87	88	89
Passenger trips per annum (millions)	188	292	358	291	260	189	070	917	877	816
Subsidies (US \$ millions)	100	107	122	134	129	144	165	180	188	183

SOURCE: DEPARTMENT OF TRANSPORT

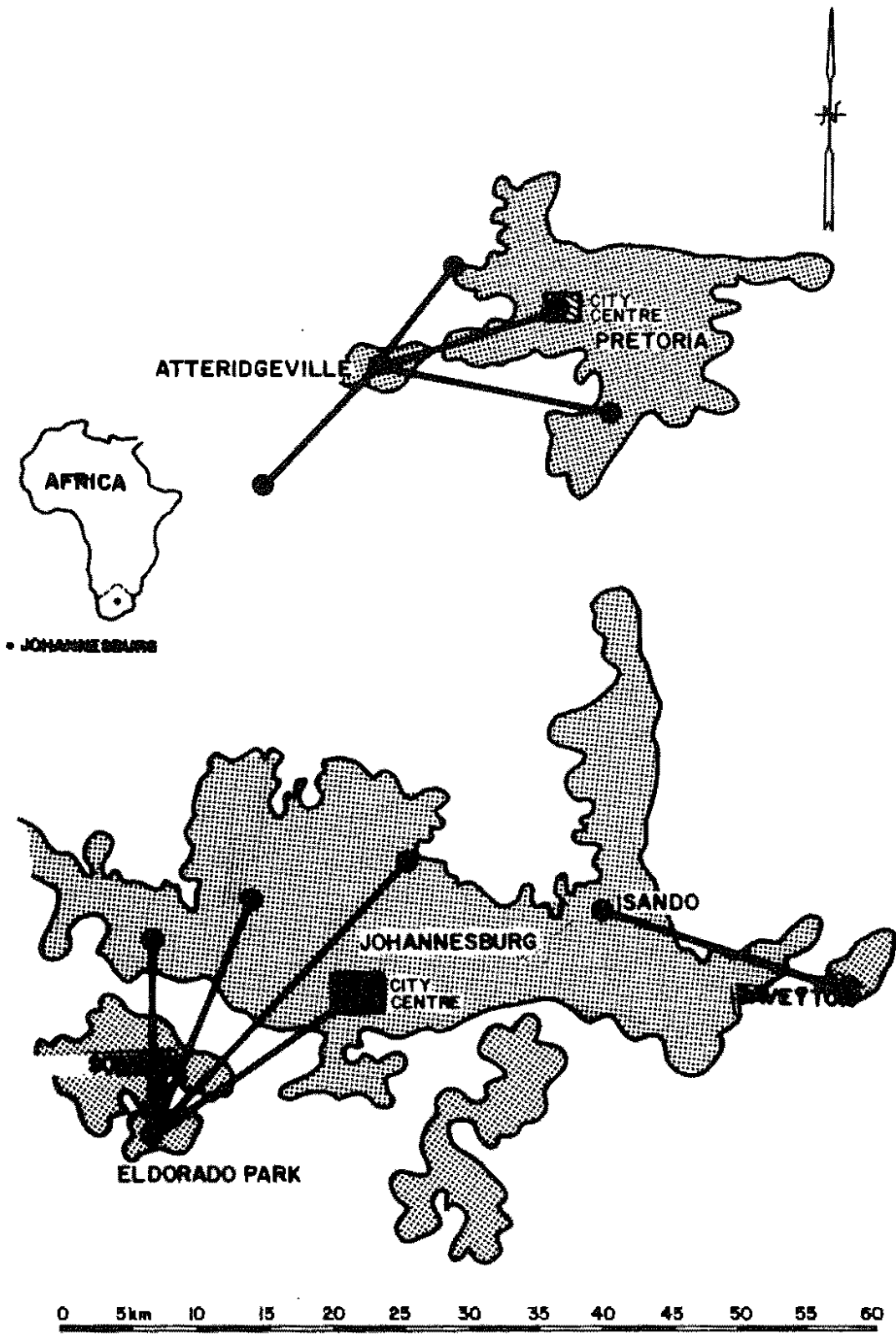


Figure 1: Location of Contracts

Table 3: Tenders Awarded

TENDER SERVICE AREA	DATE	AVERAGE ROUTE LENGTH Km	ESTIMATED NUMBER OF BUSES REQUIRED	TOTAL MONTHLY REVENUE Km	NUMBER OF TENDERS RECEIVED	TENDERED RATE PER KILOMETRE (US \$)	TENDER AMOUNT US \$
Daveyton-Isando	Dec 87	37	3	5 000	3	0,25	41 000
Daveyton-Ja Park	Dec 87	28	4	7 000	3	0,25	46 000
Eldorado Park - Johannesburg	March 88	25	49	138 000	9	1,00	5 124 000
Eldorado Park - Alrode	March 88	37	5	8 000	10	0,90	390 000
Eldorado Park - Len Glen	March 88	31	10	14 000	9	1,80	950 000
Eldorado Park - Wynberg	March 88	39	5	11 000	10	0,72	480 000
Eldorado Park - Aeraton	March 88	19	8	8 000	11	0,85	280 000
Atteridgeville - Pretoria CBD	July 88	24	15	47 000	17	0,69	1 213 000
Atteridgeville - Karen Park - Rosalyn	July 88	30	9	20 000	17	0,64	508 000
Atteridgeville - Verwoerdburg	July 88	24	7	35 000	18	0,69	558 000
Atteridgeville - Laudium - Erasmus	July 88	16	12	7 000	17	0,70	184 000

NOTE:

All figures are quoted in US \$ (1 US \$ = R2,50)

FORM K: SCHEDULE OF QUANTITIES PROVISION OF PUBLIC TRANSPORT SERVICES: ELDORADO PARK TO JOHANNESBURG TENDER NO. VS 1/88				
ITEM	DESCRIPTION	QUANTITY /3 YRS Km	RATE/Km	AMOUNT R c
<u>Category A: Using Standard Buses</u>				
Operate standard type buses on the route as specified.				
A.1	Not more than 5750km/month	51 000		
A.2	More than 5750km but less than 7000km/month	125 000		
A.3	More than 7000km/month	85 000		
A.4	Standing time rate	2 900		
TOTAL SUM FOR TENDER A				
or				
<u>Category B: Using Coaches</u>				
Operate premium/coach type buses on the route as specified.				
B.1	Not more than 5750km/month	51 000		
B.2	More than 5750km but less than 7000km/month	125 000		
B.3	More than 7000km/month	85 000		
B.4	Standing time rate	2 900		
or				
<u>Category C: Using Midi Buses</u>				
Operate midi buses on the route as specified.				
C.1	Not more than 17250km/month	153 000		
C.2	More than 17250km but less than 21000km/month	375 000		
C.3	21000km/month	205 000		
C.4	More than 21000km/month	8 700		
	Standing time rate			

Figure 2: Schedule of Quantities

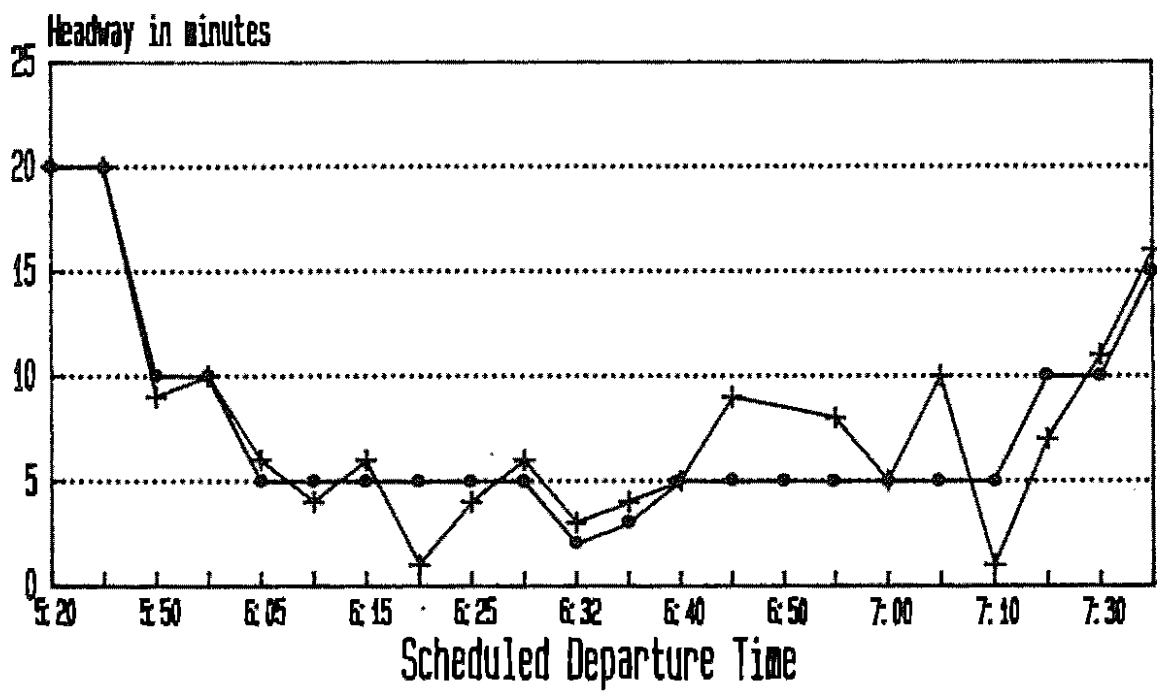


Figure 3: Headways - Scheduled and Monitored

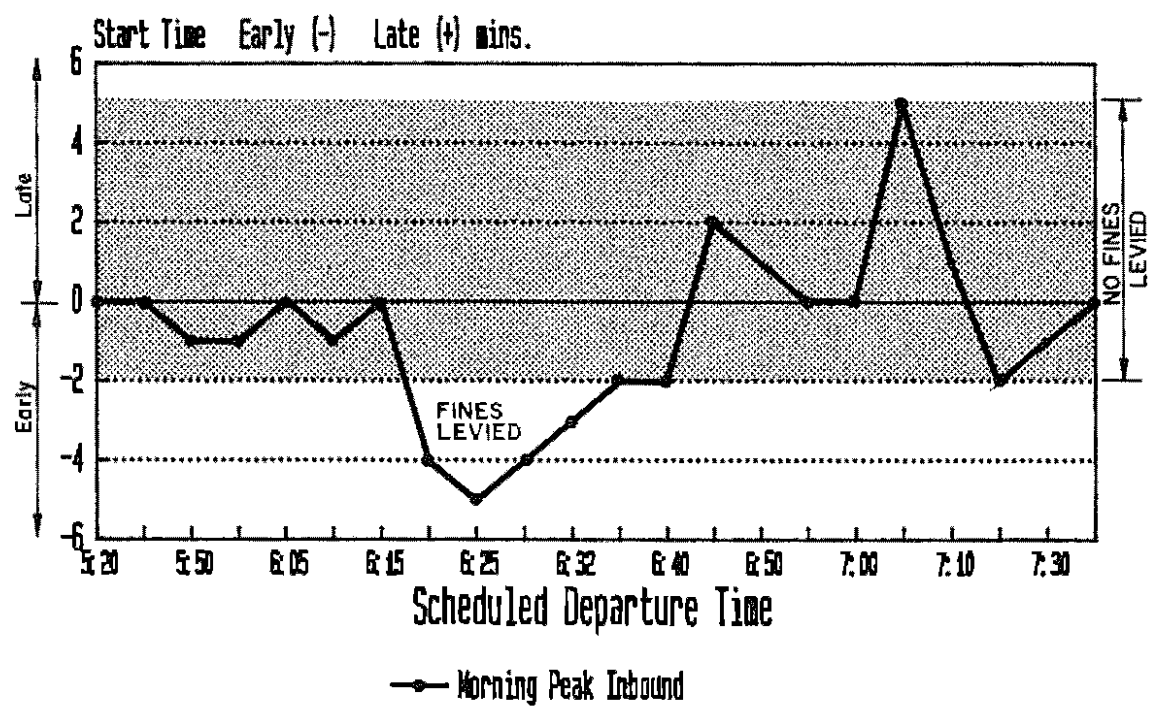


Figure 4: Departure Time Variation

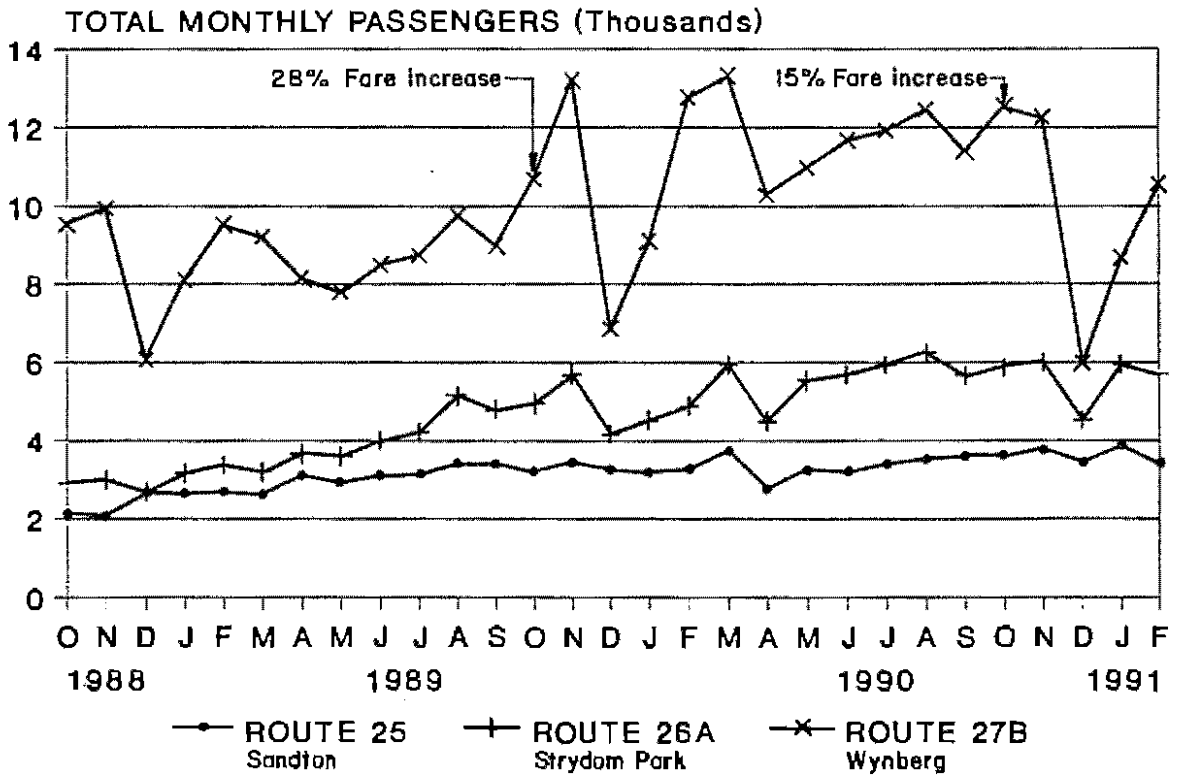


Figure 5: Route Passenger Trends

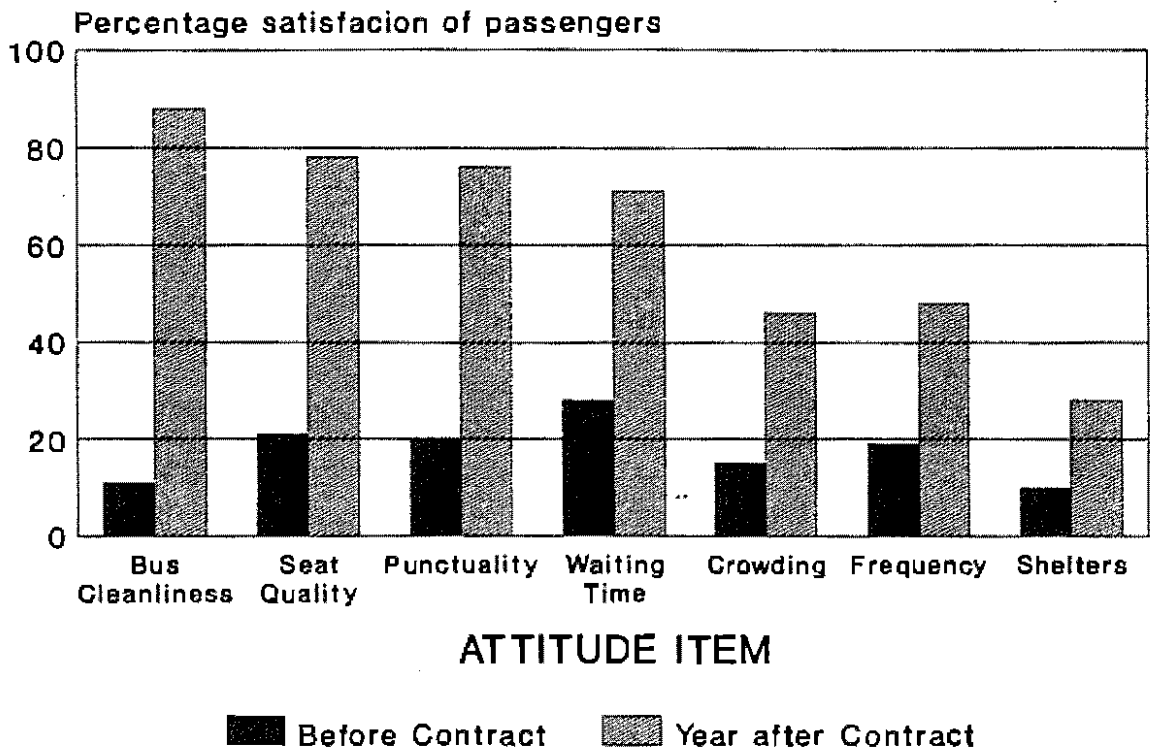


Figure 6: Changes in Passenger Attitude