

# CATERING FOR THE NEEDS OF SPECIAL USER GROUPS: CHOOSING POLICIES AND COUNTING THE COSTS

Mr C M Simmer and Prof C S Roebuck\*

MAXPLAN KZN, 15 Suffolk Place, DURBAN 4001

\*School of Civil Engineering, University of Natal, DURBAN 4041

Tel (031) 260 3058 FAX (031) 260 1411, E-MAIL: [roebuck@nu.ac.za](mailto:roebuck@nu.ac.za)

The National Land Transport Transition Act, 2000 (NLTTA) has as one of its principles, that the needs of special categories of passengers – including persons with disabilities and pregnant women – must be considered in providing public transport infrastructure and services. Further, in terms of the NLTTA, Transport Authorities can be formed and assigned executive responsibility for policy formulation, planning, management and regulation of public transport in their designated areas as well as the management and disbursement of all public transport subsidies.

Whilst it is clear that in terms of the NLTTA a Transport Authority would be responsible for the provision of public transport in its area, it has been asserted that the NLTTA does not explicitly carry through the National principles as requirements to be met by the Transport Authorities. Consequently, some differences of opinion exist on the question of the extent and manner in which the needs of special categories of passengers have to be accommodated. The issue is further complicated by the Constitution – which has over-riding powers – since it explicitly prohibits discrimination against people on the grounds of disability or gender.

Depending on the final interpretation of the requirements in respect of facilitating travel for the special categories of people, the net effect on disabled people and on the amounts of subsidy needed can be expected to vary considerably. However, regardless of how the legal obligations of Transport Authorities are interpreted, recent investigations show that the subsidy requirements vary widely according to the actual policies that could be adopted in catering for these special categories.

This paper presents discussion on possible policies and also information on the sensitivity of subsidy costs for a range of possible policies in a large metropolitan area.

## **ACKNOWLEDGEMENTS & DISCLAIMER**

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## **INTRODUCTION**

### **Background**

The Department of Transport's (1996) White Paper on National Transport Policy places renewed emphasis on the provision of cost-effective public transport to meet the mobility needs of the urban and rural population. Subsequently the Department of Transport's (1998) Moving South Africa Strategy advanced this broad policy by defining a set of strategic actions to ensure that public transport can cater for the needs of passengers in a cost-effective and sustainable manner. These actions included long term land use options that supported large-scale public transport, better control and regulation of modes, and operator level improvements.

Against this background, new legislation has been drafted that places responsibility for the provision of public transport services at the Provincial government level. The Provinces can in turn, at their discretion, further devolve certain transport functions to the Metropolitan level. Within this scenario National Government will be responsible for broad policy formulation, Provinces would develop more specific policies and adopt a more regulatory stance whilst the Metropolitan authorities would undertake implementation.

The preferred institutional structure for the above arrangement is the establishment of Transport Authorities (TA), either at the Provincial or Metropolitan level, to undertake the responsibilities related to the provision of transport services as envisaged in the Republic of South Africa's (2000) National Land Transport Transition Act (NLTTA). The TA's will assume executive responsibility for delivery related policy formulation, planning, management and regulation of public transport within their designated areas of responsibility, including the management and disbursement of all public transport subsidies. In this regard, it should be noted that the NLTTA has as one of its policy principles that the needs of special categories of passengers – including persons with disabilities and pregnant women – must be considered in providing public transport infrastructure and services. Whilst it is clear that in terms of the NLTTA a Transport Authority would be responsible for the provision of public transport in its area, it has been asserted that the NLTTA does not explicitly carry through the National principles as requirements to be met by the Transport Authorities. Consequently, some differences of opinion exist on the question of the extent and manner in which the needs of special categories of passengers have to be accommodated. The issue is further complicated by the Republic of South Africa's (1996) Constitution – which has over-riding powers – since it explicitly prohibits discrimination against people on the grounds of disability or gender.

Depending on the final interpretation of the requirements in respect of facilitating travel for the special categories of people, the net effect on disabled people and on the amounts of subsidy required can be expected to vary considerably.

### **Objective**

Regardless of how the legal obligations of Transport Authorities are interpreted, recent investigations show that the subsidy requirements would vary widely according to the actual policies that could be adopted in catering for these special categories of passengers. Consequently, the objectives of this paper are two-fold.

Firstly to present a range of potential policies that could be adopted by a Transport Authority in accommodating the needs of the majority of passengers.

Secondly, to give an indication of the order of scale of subsidies that would be needed to implement these policies in a large metropolitan area.

## **Approach**

This paper is based on investigations of public transport operations within a large metropolitan area, Durban, and covers all land based public transport currently in use namely: conventional bus, commuter rail and minibus-taxis.

The investigation included reviews of the current transport policy and legislative environment, quantification of the special needs passengers and their respective travel patterns. General passenger commuting patterns and overall cost data from existing operators in the metropolitan areas were utilised whilst specific cost data for certain special user groups such as the disabled were extracted from the recent disabled transport projects in KwaZulu Natal and the Western Cape.

Based on the above investigations, broad policy options were developed for each special needs group and the cost implications were then estimated using the various cost data obtained.

The basic assumption was that the current services operated by the various modes have been taken to represent actual demand patterns while costs of operations have been extracted from existing operator records. No attempts have been made to optimise the current services, modal mix and individual operator performance.

## **SELECTION OF SPECIAL USER GROUPS**

The definition of special user groups is found to vary between the various policy and legislative documents – as outlined below.

The Department of Transport's (1996) White Paper on National Transport Policy refers to special categories of passengers in the land passenger transport module but does not specify exactly who is regarded as a special category passenger. Although the disabled are singled out as a group, the stated intention to shift public transport from a peak period commuter service to a "fully fledged public transport system" implies that all non commuters travelling outside of peak periods can be classified as a special category passenger. Also by setting targets related to affordability and travel distances/time National Policy implies that those passengers whose transport needs are not met within the targets specified should also receive special consideration when planning new or re-planning existing public transport systems.

The Department of Transport's (1998) Moving South Africa Strategy document identifies three broad categories of "Special Needs Passengers" based on: age groups, passengers with some form of impairment, and passengers who are unable to read normal public signage and notices.

By implication, the Moving South Africa definition includes all disabled passengers, scholars below the age of fourteen and the aged. However it is not clear why older scholars (fifteen to eighteen years) are excluded or what type of health conditions should be catered for.

The Cape Metropolitan Council identified four different groups of Special Needs Passengers in terms of their travel characteristics and the type of improvements required to accommodate them. These groups ranged from passengers who can use the existing public transport system to a limited extent but need additional physical improvement to infrastructure or the vehicles to use the system freely to passengers who could not travel without assistance even on fully accessible transport. This group is usually reliant on special transport services and includes disabled people with severe intellectual/mental and physical impairment.

The definitions of special users contained in clauses of the Republic of South Africa's (2000) National Land Transport Transition Act are perhaps most relevant as the NLTTA sets the legal framework for the Transport Authority. Two broad special user groups are defined as follows;

Clause 1 (1) (Liv): *"persons with disabilities- means all persons whose mobility is restricted by temporary or permanent physical or mental disability, and includes the very young, the blind or partially sighted, the deaf or hard of hearing."*

Clause 1 (1) (Lxxiii): *"special categories of passengers- means learners, persons with disabilities, tourists, transferring long-distance passengers, the aged, pregnant women and those who are limited in their movements by children with or without pushchairs or prams."*

All of the above definitions are similar in that they cover the same broad range of special category passengers. However their attempt to be all encompassing may be impractical and prove costly to implement a service that adequately caters for all of these groups. Therefore subsequent policy formulation should firstly attempt to stratify or restrict the definition of special users to identify areas of greatest need. This then simplifies the identification of specific issues and mitigating measures, estimation of demand and costs and ultimately to determine levels of affordability for the responsible authorities.

For the purposes of this investigation, the following special user groups were considered.

- Economically and socially disadvantaged groups: all economically active persons who earn below a specified monthly income (R1500)
- Aged passengers: qualifying for an old age pension in terms of current common law
- Scholars of all ages up to and including senior secondary level
- Disabled passengers particularly those with physical impairments

While these groups fall within the broad categories defined in other policy documents, the emphasis was on passengers who generally could travel unaccompanied if the transport system was made completely accessible to all users.

## **DEFINING AND CHOOSING POLICIES**

The term "policy" tends to be widely and perhaps loosely used such that its meaning becomes unclear. However, a policy in the context of this paper is in effect a set of criteria that are used to identify a target group of public transport users and also explicitly and/or implicitly stipulate the level of transport service that will be provided to each of the special user groups. It will be evident that the main purpose of implementing these policies is to ensure that the special user groups are not discriminated against in an unfair manner and also that it will be necessary for some form of subsidy to be paid in order to implement a given policy.

Subsidisation of public transport has been practised in many countries and in various ways for many years – possibly to the point where sight has been lost of the reason for applying a subsidy. It is considered useful, therefore, to briefly review the subject of public transport subsidies so as to give some perspective to subsidies in general and to provide possible direction to future policies.

## **REVIEW OF PUBLIC TRANSPORT SUBSIDIES: SOME EXAMPLES**

### **The Early Days**

A century ago, public transport was provided by private companies that not only covered their capital and operating costs but also returned a profit. In some instances, such as certain streetcar (tram) companies in the USA, the companies also contributed to the maintenance of the streets on which they operated. This situation could be viewed as a kind of "reverse subsidisation"! It is important to note that this profitable situation was not the result of charging high fares – indeed many cities in the USA prescribed the fares that could be charged by the streetcar companies (Gray

& Hoel, 1979). In practice, the streetcar companies were profitable because they operated in an “ideal” environment that provided a high intensity of demand that could be catered for at a high rate of utilisation of capital equipment and labour.

### **UK and European Practices – Mid 20<sup>th</sup> Century**

Urban public transport in Europe generally made a profit or at least covered its costs until just after the middle of the 20<sup>th</sup> century when wealth and car ownership levels began to increase substantially. Thereafter, losses started to be incurred and these were covered on municipal services from the rate revenue. Initially, there was a general resistance to paying for losses through the rate revenue and hence attempts were made to eliminate deficits by applying fare increases and service cuts. As usually tends to happen with such policies, the gap between revenue and costs never closed and a vicious circle of patronage loss and service reduction ensued. In consequence, car ownership – and also car usage - became even more attractive leading to congestion and general degeneration of city centres. It was during the 1960’s that many European municipal authorities and governments realised that the decline in public transport could not continue and that attractive services/operating systems would have to be introduced and paid for, ie. subsidised. This led to the formation of - for example – the “Public Transport Authority/ Public Transport Executive” (PTA/PTE) system in the United Kingdom. The reasoning behind the subsidies was largely to protect city centres and also to ensure a good transport service for the (then) majority of people who did not have private cars.

### **South African Practices**

In South Africa, a somewhat different situation has arisen – largely as a result of the Group Areas Act that effectively put the poorest people at the greatest distance from employment and indeed most other opportunities. Until quite recently, central government paid subsidies such that the fares payable on certain trips – usually greater than ten kilometres – was at an “affordable level”. However, the application of the system was such that it was effectively limited to people travelling to and from work. This system has now been replaced largely by the “bus contracts”.

In addition to central government subsidies, municipalities have directly and indirectly subsidised various groups of passengers and/or certain services. Virtually all municipal bus services in South Africa have operated at a loss over a number of decades and the deficits arising have been paid for from rate revenue. Consequently, there has been a general subsidisation of passengers/services.

Indirect subsidisation by municipalities usually occurs through the provision of infrastructure. Typically, road-based public transport interchanges are usually provided at a low cost to bus and minibus-taxi operators – or at least at a cost that bears no relation to the cost of providing the infrastructure. Moreover, a number of these interchanges are used for vehicle repairs, cleaning and storage in valley periods, ie in the manner of a transport depot.

### **Conclusion and comments on subsidies**

It can be seen from the above discussion that subsidisation of public transport has been taking place for over a century and hence it is hardly a new phenomenon. What has changed over this period, however, is the source and extent of the subsidy. A major difference between subsidy practices in South Africa and Europe/North America is that in South Africa, direct subsidies are aimed at commuters travelling long distances whereas elsewhere the subsidies generally apply to trips made at any time and over any distance. Another difference that has come about over the years is the cost of subsidies. For example, in the Durban Metropolitan Area road based public transport subsidies amounted to some R420 million in 1999 (Durban City Engineer’s Unit, 1999). Although this level

of subsidy is large, it is still relatively lower than that paid in the United Kingdom during the 1970's but the level of service provided is also much lower.

## **FORMULATING POLICIES**

In formulating policies for the payment of operating subsidies, it is considered necessary to first examine the reasons for subsidising public transport. These reasons, or principles for policy formulation, can be deduced in part from "historical practices" regarding transport subsidies, the NLTTA and also the constitution – in that unfair discrimination is not permitted. From these bases, two basic principles can be derived for the development of policies and hence the payment of subsidies.

Firstly, to make public transport affordable and hence make travel feasible for people who are unable to operate their own vehicle – for reasons of economy or disability.

Secondly, to offset unfair costs imposed on people who have been forced to live in inconvenient places as a result of the Group Areas Act.

These principles effectively lead to two potential criteria for the payment of subsidies in respect of the special user groups; either on the basis of a person's income and/or on the basis of the distance that a person has to travel.

Another significant principle for subsidising public transport that is known to have been practised, for example in the PTA/PTE system, is to ensure that public transport is a viable alternative to travel by private vehicle – in the users' opinion – and hence reduce the total generalised cost of travel. Although this principle has obvious merits and bears consideration in a holistic treatment of transportation service planning and provision, it does not specifically relate to the treatment of special user groups and hence is not pursued further in this paper.

## **TYPICAL SUBSIDIES IN A LARGE METROPOLITAN AREA: BACKGROUND**

For the purposes of illustration, the Durban Metropolitan Area (DMA) is used here to give an indication of the order of magnitude of the subsidies that would be needed to implement various potential policies.

Obviously the amount of money that would have to be paid in subsidies will vary not only with the policy per se but also according to the demographics and prevailing travel patterns of an urban area as well as the cost per passenger trip, the fare level applied and the level of service provided. These five factors can be expected to influence or interact with each other in a complex manner and hence a simplified approach to costing is required. The basic approach adopted here is to use a common method for each policy and hence to permit realistic comparisons of policies. Since the subsidy policies are all aimed at providing public transport to various sectors of the community – largely on the basis of travel distance and the sector's type of need – the basic unit of demand and hence subsidy is taken to be a passenger. Moreover, since the distance travelled largely affects the cost of transporting a passenger, total passenger-kilometres of travel of each special needs group is used.

Earlier research (see for example Pather 1997 and also Simmer 1998) clearly shows the differences in costs that arise between different modes and over different travel distances for a given demand pattern and service level. Costing on such a basis would be inordinately complex in that it would lead to a vast range of cost permutations and combinations. However, a common simple basis was found in taking the average cost per passenger kilometre derived from recent bus transport contract prices in KwaZulu-Natal and applying this to all subsidised trips. This basis has the advantage of

using the prevailing level of service and eliminates distortions that could arise from cost variations between rail, bus and minibus-taxi services. In practice it was found that the average contract priced cost of providing bus public transport is in the order of R12,50 per route kilometre. The average cost per passenger-kilometre is then a function of the average passenger trip length which in turn is a function of bus trip lengths and average occupancy levels. Consequently, the cost per passenger-kilometre is sensitive to the assumptions made. For the purposes of comparison, a “typical” value of R0,30 per passenger-kilometre was taken since this approximates to an average occupancy of just over 40 passengers per bus which is close to current occupancy levels in practice

Background information on population characteristics is sourced from the 1996 census and trip surveys undertaken for Durban City Engineer’s Unit (1999) Fundamental Restructuring of Public Transport programme (FRPT). The total population of the Durban Metropolitan Area in 1996 was in the order of two and a half million people. Considering the various special user groups:

- scholars are estimated to number some 700000
- “aged” people (defined as 65 years or more) amount to nearly 187000
- the economically disadvantaged (incomes less than R1500 per month) number 387000
- disabled persons requiring significant adaptation of transport services number 38000

Public transport users are estimated to number some 187100 in the morning peak hour and it is further estimated that the aged comprise about two per cent of these users whilst scholars account for some twenty percent. It is implied therefore that the balance of the public transport users are economically disadvantaged – at least in terms of the income level delineated above.

As discussed above, the cost of providing public transport is strongly influenced by the length of trips and analysis of the FRPT survey data indicates the average trip length is some 15,5 kilometres.

Using these demographic data, travel patterns and costing bases the estimates were made of the likely subsidies required to support a range of policies for the four selected special needs groups and these estimates are outlined in the following four sections.

## **POTENTIAL SUBSIDY POLICIES AND COSTS: ECONOMICALLY DISADVANTAGED**

### **Identification and quantification**

As indicated above, this special needs group is defined as those people from households where the monthly income is less than R1500 per month and it appears that all of the public transport users in the DMA are included in this category.

#### **Policy 1: Status Quo**

According to the FRPT, the total public transport subsidy for the DMA is in the order of R420 million – including subsidies for the aged and scholars totalling R11,5 million. However, subsidies are only paid on a portion of the services and if the present bus subsidy rates were extended to all services the total cost could be in the order of R1050 million/year.

#### **Policy 2: Subsidy based on distance**

The policy proposed here is that Public Transport passengers (commuters and all others) are subsidised if they have to travel further than a pre-selected distance – on the basis that many people have been forced to live in inconvenient locations as a result of former legislation. Obviously the distance selected has a significant effect on costs and hence a range of distances are considered here for the purpose of illustration. Assuming that fare recovery is at the current average of some 40

percent of costs, the variation in subsidy requirements with trip length subsidised would then be as follows:

<b>Trip length</b>	<b>Annual subsidy (R millions)</b>
All trips	460
> 5km	448
> 15km	340
> 30km	58

### **Policy 3: Subsidy given on the basis of income**

The notion here is that a flat fare is paid that equates to ten per cent of an economically disadvantaged person's income – defined here as someone earning less than R1500 per month. Information from the 1996 census shows that in the DMA, the median income for people in this category is R1000 per month and hence according to Del Mistro (1999), the social fare should be R2,25. (This fare would be adjusted up or down according to an individual's income.) Assuming R2,25 to be the average fare paid then the fare recovery would be some R363 million and hence an annual subsidy of R404 million would result.

## **POTENTIAL SUBSIDY POLICIES AND COSTS: SCHOLARS**

The questions of why, should and how to subsidise scholar travel could be usefully discussed at great length. However, two of the major issues are seen to be that, firstly, numerous scholars are travelling considerable distances even though there is a school in close proximity to their homes – a situation that appears to have escalated in recent years. Secondly, scholar travel typically adds ten per cent to morning peak hour vehicular traffic volumes and over twenty per cent to public transport volumes in the morning peak hour, ie. at a time when transport systems are usually under the greatest stress. Consequently, a fundamental issue is seen to be whether scholar subsidies should facilitate the current demand pattern regardless of how/why it has arisen or should subsidies only address real hardship and need? The following policies were generated from these two bases.

### **Policy 1: Status Quo**

According to the FRPT, the current subsidy for scholars is in the order of R4,5 million. However, subsidies are only paid on a portion of the public transport services.

### **Policy 2: Subsidise all scholars currently using Public Transport**

Using the passenger costing and trip length distribution assumptions from the policies for the economically disadvantaged and taking an estimated 95500 scholar trips per day, the total cost would be in the order of R89 million per year. The subsidy required would depend on the fare levied which is currently R2,70 per trip on Durban Transport services. This yields a net subsidy of R37 million per year.

### **Policy 3: Subsidise existing scholar trips $\geq$ 10kms currently using Public Transport**

Accepting that it may be “desirable” for scholars to travel long distances to reach the school of their choice and/or necessary because of spatial distribution, this policy would compensate long distance travellers. Ten kilometres is selected as the cut-off point since this approximates to the distance at which the current flat fare breaks even with contract price costs. The cost of providing transport this group would be in the order of R78 million per year and fare recovery at flat fare of R2,70 per trip would necessitate a subsidy of R45 million per year.



#### **Policy 4: Subsidy income based – existing scholars over all distances**

The cost of this policy would be the same as that for Policy 2 above if it is assumed that all scholars currently using Public Transport come from economically disadvantaged households. The question arising is whether these children should be charged a fare since the parents of these children are likely to be using Public Transport themselves and already spending on transport for themselves. There is thus a case for making the scholar transport free and under these circumstances a subsidy of R89 million per year would be needed.

#### **Policy 5: No subsidies**

In this case scholar subsidies would be eliminated on the basis that the present pattern of school usage, location and starting times is imposing a considerable cost on the community already and also that “bussing in” should not be encouraged. This policy has no direct financial costs but the secondary effects could be expensive as people shift to private car or para-transit use.

### **POTENTIAL SUBSIDY POLICIES AND COSTS: AGED**

Although it has been asserted that the needs of the aged are basically the same as those of the disabled, a need is seen to separate the two since the disabled require special attention in respect of vehicle accommodation etc whereas an “aged” person does not necessarily do so. Aged people can/do become infirm in which case they should be treated as per the disabled. Some aged people are still economically active in which case they can be treated as “normal” Public Transport users. Some aged people are not really fit to drive but they do so because of the need for mobility (Majozi & Marcus, 1999) and in essence this group is a “mild” form of disabled. Although the history of subsidies for the aged is not known it is very probably a concession to people on low level pensions. Consequently, it would seem appropriate to treat this group in the same way as the economically disadvantaged – assuming that they are adequately mobile. In conclusion, it appears that the needs of the aged can be accommodated by policies applied to deal with the other target groups – though financial need as opposed to distance travelled per se should be the criterion applied.

#### **Policy 1: Status Quo**

Current subsidy for aged is given as approximately R7,5 million per year – though this only covers a limited part of the service network:

#### **Policy 2: Extend current subsidy to all services**

The FRTP indicates that some 2% of peak travellers are “aged” and assuming that all other prices and distributions apply to this group the annual cost of transporting the aged could be in the order of R19 million per year. The current flat fare for the aged on Durban Transport services is R1,00 versus a social fare of R2,25 hence the subsidy could be in the range R9 to R15 million per year.

### **POTENTIAL SUBSIDY POLICIES AND COSTS: DISABLED**

Obviously there are various types of disability but at this stage three distinct groups are defined: visually impaired, physically impaired (mobility) and mentally impaired. The travel needs of these people are likely to include commuting per se plus the usual personal needs – with a possible emphasis on linking to hospitals and clinics.

It is contended that the group requiring the most attention are the severely physically impaired because they require special vehicles/modifications to existing vehicles. From discussions with disabled people and organisations within this group, there is a preference for a “barrier free” public transport system that allows the disabled to travel on any service and any part of the network. The feasibility of providing this facility to the severely disabled and also the pros and cons of alternative policy options could be discussed and analysed at considerable length and hence only the key issues

are treated in this paper. For the purpose of illustration, however, three potential options are outlined here:

**Policy 1. Adapt all vehicles and infrastructure**

The main costs here are in adapting commuter rail stations – at some two million rands per station for nearly 100 stations – and in adapting vehicles. Bus and minibus-taxi terminals are assumed to be generally satisfactory and would possibly only need the addition of kerb ramps where these do not exist already. The estimated costs are some R200 million for terminals plus vehicle modifications at R400 million. These are of course capital costs that would need repeating at the end of the relevant economic lives.

**Policy 2. Adapt a portion of the existing services**

Since the severely physically disabled require major modifications to infrastructure and vehicles, it seems prudent to select the optimum mode for adaptation. In this regard it appears that bus transport is the optimum in view of its network, ease of terminal use etc. The resulting cost then depends on the portion of the bus fleet that is modified. Assuming twenty five percent of the DMA buses are modified, one in every four trips would be accessible to the disabled for a capital cost of some R30 million. Increases in operating costs due to increased journey times, possible reduction in vehicle capacity etc would be a separate additional item.

**Policy 3. Provide a dedicated service on the existing network**

The notion behind this policy is to facilitate “independent” travel for disabled people to their workplaces and also for non-work purposes. The provision of such a service may be expected to release a number of trips that are being suppressed at present by the shortage of appropriate services. Consequently, all costing is based on the provision of additional services. Demand is taken to arise from all disabled but economically active people making two commuting trips per day and two non-work trips per week. It is also assumed that public transport modal split is 40 per cent and that the average trip length is the same as for all other public transport users. Vehicle occupancy is expected to be lower than for other users so as to accommodate wheelchairs, facilitate movement in the vehicles etc. Experience in this regard, such as the “Sukuma” dial-a-ride service indicates an average practicable loading in the region of ten people per vehicle. The cost of providing such a service is estimated at some R100 million per year. Fare recovery would depend on policy and also the economic position of the passengers but is unlikely to exceed fifteen million rands per year leaving a subsidy of R85 million or more per year.

**CONCLUSION**

**Summary of subsidy estimates**

For ease of reference and comparison, estimated costs for the various policy options and likely subsidies are listed below.

<b>Special User Group/ Policy Option</b>	<b>Annual Cost (R million)</b>	<b>Annual Subsidy (R million)</b>
<b>Economically Disadvantaged</b>		
Status quo	NA	1050
<b>Policy 2: Distance</b>		
All distances	767	460
> 5 km	746	468
>15 km	565	340
> 30 km	97	58
<b>Scholars</b>		
Policy 1: Status quo	NA	4,5
Policy 2: All current scholars	89	37
Policy 3: All trips >10 km	78	45
Policy 4: Income based	89	89
Policy 5: No subsidies	NA	0
<b>Aged</b>		
Policy 1: Status quo	NA	7,5
Policy 2: All aged/all services	19	9 – 15
<b>Disabled</b>		
Policy 1: All vehicles and infrastructure:		CAPITAL COST R600 million
Policy 2: Adapt portion of services:		CAPITAL COST R30 million
Policy 3: Dedicated service	100	> 85

## **Discussion**

It must be appreciated that the accuracy of the estimates of subsidy costs given above is dependent on the accuracy of the various assumptions and quality of data employed. It can further be expected that the normal laws of supply and demand would apply and hence as the MTA's demand for contract services increases so will the contract prices. Consequently, the estimates given should be viewed as an indication of the order of scale of subsidies that could be required and not as budgetary figures.

The estimates made indicate that the possible total annual subsidy required for all of the special needs groups could be in excess of R650 million per year. In the main, this estimate is based on providing a level of service that is essentially no better than the existing level. A notable exception is the subsidy for physically disabled passengers since this would provide a service that is NOT actually available to many people at present. Currently, the rate of direct subsidy payment (in respect of operations as opposed to infrastructure) is in the order of R420 million per year. However, this subsidy only covers rail and a portion of the bus services – approximately two thirds of passenger trips are NOT directly subsidised.

In conclusion, it is considered important to draw particular attention to three general aspects of public transport subsidy payments.

Firstly, under present circumstances globally it appears that subsidies are essential to maintain public transport services per se.

Secondly, subsidies tend to develop into bottomless pits that consume large amounts of public funds and hence effectively reduce funding levels for other public services.

Thirdly, one of the major reasons why transport subsidies (and indeed the extent of travel per se in many instances) are required is that the pattern of land-use development is to say the least sub-optimal. This pattern has arisen for various reasons and whilst some are historical, such as the Group Areas Act) others are current – such as the practice of development led land-use planning.

Consequently, it is recommended that large subsidies should only be seen as an interim measure and that attention is focussed on correcting the fundamentals.

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Mr C M Simmer and Prof C S Roebuck\*

MAXPLAN KZN, 15 Suffolk Place, DURBAN 4001

\*School of Civil Engineering, University of Natal, DURBAN 4041

Tel (031) 260 3058 FAX (031) 260 1411, E-MAIL: [roebuck@nu.ac.za](mailto:roebuck@nu.ac.za)

## **BRIEF CV**

Graduated from the University of Natal in Durban in 1986 with a BScEng (Civil). Began career with Ninham Shand in Cape Town in their highway design and traffic engineering division. Subsequently joined Keeve Steyn as an assistant resident engineer on the construction of Mooi River Toll Plaza and the National Route 3 rehabilitation in the Natal Midlands. Then joined De Leuw Cather for an extended period (5 years) working mainly on highway design, traffic and transportation projects. In the meanwhile, obtained a Post Graduate Diploma in Traffic and Transportation at University of Natal in 1993. Joined Protekon in 1994 working on rail related projects and after 2 years left to start own practice, C Simmer and Associates in 1996. Took an extended break in 1997 to complete a MScEng in Traffic and Transportation and resumed private practice thereafter.