

PUBLIC TRANSPORT : A SOCIAL SERVICE OR A LUXURY?

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ABSTRACT: In view of the current concern of Government with the magnitude and rate of growth of the costs associated with the operation of public transport services it is appropriate to examine whether public transport, per se, is achieving its objectives.

The paper examines who needs, who pays for and who benefits from such services.

The conclusions drawn should be of interest to those involved in formulating transport policies for Government.

Background Paper for
Session 12,
also background for
Session 5

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INTRODUCTION (*)

In recent years State and Federal Governments have become increasingly concerned with the magnitude and rate of growth of the costs associated with the operation of urban public transport services. Their concern is intensified by the fact that overall patronage levels have continued to fall in spite of the considerable investment in public transport infrastructure which has occurred since 1974.

As a consequence of the Government's concern, public transport operators are coming under considerable pressure to reduce their deficits by increasing fares and reducing costs by cutting back services to unprofitable areas or at times of the day or night when patronage is very low. Increasingly, the Federal Government is viewing public transport as a service which should recover all of its cost and which therefore should not be provided to outer suburban areas until such time as the population in those areas grows to a level which can economically support such services.

Before this "user pays" policy becomes too firmly entrenched it is appropriate for all involved to pause and consider whether such a policy is in the best interests of the community and whether it is consistent with the basic *raison d'être* of public transport in urban areas.

This paper briefly examines who needs, who pays for and who benefits from public transport and whether the present "user pays" policy of the Federal Government is valid. Much of the information presented has been obtained from the Metropolitan Adelaide Data Study which was undertaken by P.G. Pak-Poy and Associates for the South Australian Government.

WHO NEEDS PUBLIC TRANSPORT?

The historical growth patterns of capital cities in Australia (Oxlad and Beard (1969)) shows that growth in car ownership, which has occurred since the mid 1940's, has caused a dramatic change in the spatial structure and development of those cities.

Prior to the advent of the motor car, cities were monocentric with shopping, business, commercial and other activities concentrated at the city centre or along the public transport corridors which radiated from the centre.

* The opinions expressed in the paper are the author's alone. They are not endorsed by nor do they represent the opinions of the South Australian Government, the Minister of Transport or the Director-General of Transport.

As Lay (1978) notes, the greater mobility offered by the motor car has caused cities to become polycentric with shopping, business, commercial and other activities dispersed throughout the urban area to district and regional centres. This dispersion of activities has created a demand for more mobility and has led to an increase in trip lengths, not to mention traffic congestion and travel in general.

While car owners have benefited because they have gained greater freedom of choice and are more accessible to a wide range of urban activities, there are other groups in the community who have become relatively worse off.

In particular those who are too young or too old to drive and those who, by choice or economic circumstance, do not own or have access to a car are denied access to the same range of urban activities available to car owners. They are wholly dependent upon public transport for their mobility which, relative to the car, is uncomfortable, inconvenient, inflexible (with respect to both time and place), slow, hard to use when carrying parcels and prams, and lacks privacy.

The number of people in the community in this category is significant. For example the census of population carried out in 1976 by the Australian Bureau of Statistics found that 529,408 persons or 59 percent of the population residing in the Adelaide Statistical Division were not licensed to drive a motor car or ride a motor cycle.

The Metropolitan Adelaide Data Base Study, also carried out in 1976, found that 19 percent of households in the study area did not own a car compared with 49 percent who owned one and 32 percent who owned two or more cars. Table 1 presents the income distribution of zero, one and multi-car owning households in the study area. As expected it shows that non-car owning households are also those with the lowest income. For example 86 percent of non-car owning households have an annual income of less than \$8,000 and the corresponding figures for one and multi-car owning households are 44 and 10 percent respectively.

Table 2 presents the age distribution of the study area population aged 5 years or more. It can be seen that 18 percent of the population are too young (i.e. aged 15 years or less) and 10 percent are too old (i.e. aged 65 years or more) to drive. Thus on the basis of age alone, 28 percent of the population are either partially or wholly dependent on public transport for their mobility.

The community groups identified in the preceding paragraphs who do not have access to a car are thus "captive" to public transport; in general they have no alternative means of transport. They therefore constitute the most basic part of the public transport market and are the reason why public transport services must continue to be provided in urban areas. Ironically they are also the groups who can least afford to pay a high price for such services. In view of this it would

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TABLE 1: INCOME DISTRIBUTION OF CAR OWNING AND
NON-CAR OWNING HOUSEHOLDS IN ADELAIDE: 1976

Annual Household Income (\$ pa)	Number and Percent of Households Owning			Total Households
	0	1	2+ cars	
1 - 4,000	26,680 (58)	16,497 (14)	781 (1)	43,938 (18)
4,001 - 6,000	8,792 (19)	16,452 (14)	2,183 (3)	27,427 (11)
6,001 - 8,000	4,149 (9)	19,544 (16)	4,859 (6)	28,552 (12)
8,001 - 10,000	3,544 (8)	18,356 (15)	7,695 (10)	29,595 (12)
10,001 - 12,000	1,444 (3)	15,572 (13)	9,920 (13)	26,936 (11)
12,001 - 15,000	1,131 (3)	14,465 (12)	13,906 (18)	29,502 (12)
15,001 - 18,000	173 (-)	11,049 (9)	13,002 (17)	24,224 (10)
18,001 - 21,000	215 (-)	4,268 (4)	8,477 (11)	12,960 (5)
21,001 - 27,000	- (-)	3,742 (2)	9,278 (12)	13,020 (5)
27,001 and more	46 (-)	1,534 (1)	7,906 (9)	9,486 (4)
Total:	46,174 (100)	121,479 (100)	77,987 (100)	245,640 (100)

(a) Figures in () are percentages.

Source: Metropolitan Adelaide Data Base Study,
(Department of Transport and Highways Department of S.A. (1977)).

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TABLE 2: AGE DISTRIBUTION OF ADELAIDE POPULATION
AGED 5 YEARS OR MORE

Total households
1,938 (18)
1,427 (11)
1,552 (12)
1,595 (12)
1,936 (11)
1,502 (12)
1,224 (10)
1,960 (5)
1,020 (5)
1,486 (4)
1,640 (100)

Age Group	Males (%)	Females (%)	All Persons (%)
5 - 9	10	9	9
10 - 14	10	9	9
15 - 19	10	11	10
20 - 24	9	10	10
25 - 29	9	8	9
30 - 39	15	14	15
40 - 49	11	10	11
50 - 59	12	12	12
60 - 64	5	5	5
65 - 97	9	12	10
Total:	100	100	100

Source: Metropolitan Adelaide Data Base Study,
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obviously be cynical for one to expect them to pay the full cost of the service which they use (hence the use of concession fares for children and pensioners).

In addition to those in the community who are captive to public transport there are other, more affluent, groups who benefit from the radial nature of the public transport system and who choose to use public transport although they own a car.

As Lay (1978) states:

"The city centres have become increasingly the preserve of the office worker. Factories were incompatible with the city centre and were pushed out. New factories required large sites and were able to be located on cheap land in the outer suburbs, once it was realised that every blue collar worker could be expected (required?) to own a car and that the trucking companies could provide door-to-door goods movement. However, the radial transport routes remain in their original position, assiduously serving the office blocks, academic institutions, cultural centres and white collar workers of the city centre".

This statement is reinforced by the results of the Metropolitan Adelaide Data Base Study (Department of Transport and Highways Department S.A. (1978)) which found that although only 14.95 percent of work trips within the whole study area were undertaken by public transport, the corresponding figure for work trips to the city centre was 40.96 percent.

It is further supported by the results of a recent study of household expenditures (Morris and Wigan (1977)) which found that there was a tendency towards rising expenditure on public transport as household incomes rose. Similar evidence was obtained by Frankena (1973) in Ontario, Canada. He found that male passengers using Toronto's suburban commuter train service, GO Transit, were mainly middle to high income earners (see Table 3) who paid fares which were very high by Australian standards.

WHO PAYS FOR PUBLIC TRANSPORT?

In a similar fashion to other Government services, urban public transport services are funded by the community through a combination of taxes (both State and Federal) and fares.

In addition to the funds provided from State revenue directly, the Federal Government provides funds to the States for public transport from loan monies and specific purpose statutory grants such as the States Grants (Urban Public Transport) Act 1974, the Appropriation (Urban Public Transport) Acts 1974, 1976 and 1977 and the States Grants (Urban Public Transport) Act 1978. The amounts of money paid by the Federal Government to the States as special purpose grants for public transport are shown in Table 4 for the period 1974-75 to 1978-79.

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TABLE 3: PERCENTAGE DISTRIBUTIONS OF INCOME FOR MALE
GO TRANSIT PASSENGERS IN TORONTO, 1967.

Individual Annual Income (\$C)	Percentage Distributions of Income	
	Male GO Transit Passengers (a)	Male Individuals in Ontario
Under 3,500	5.5	26.7
3,500 - 4,999	8.3	15.1
5,000 - 5,999	5.7	14.4
6,000 - 6,999	12.0	13.7
7,000 - 7,999	12.8	9.2
8,000 and more	55.5	20.7
Median Income:	\$C 8,690	\$C 5,562

(a) Excludes 25.2 percent of male passengers who did not report their income or were not employed.

Source: Frankena (1973)

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TABLE 4: FEDERAL GRANTS TO THE STATES FOR
URBAN PUBLIC TRANSPORT, 1974-75 TO 1978-79 (a)

(\$'000)

	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total
1974-75	14,764	18,867	2,126	6,084	2,829	359	45,029
1975-76	5,694	9,332	8,985	6,757	750	2,380	33,898
1976-77	24,596	15,885	11,380	4,420	1,869	253	58,403
1977-78	20,395	9,830	15,648	3,790	605	732	51,000
1978-79 (est.) (b)	14,250	12,100	8,360	4,200	2,090	1,000	42,000

(a) Includes payments under the States Grants (Urban Public Transport) Act 1974, the Appropriation (Urban Public Transport) Acts 1974, 1976 and 1977 and the States Grants (Urban Public Transport) Act 1978; but excludes grants in 1974-75 and 1975-76 under the Public Transport (Research and Planning) Act 1974.

(b) The amounts shown are provisional only and are not necessarily the amounts which will actually be paid to the States.

Source: Commonwealth of Australia (1978)

While it would be useful to know what the incidence of taxes (i.e. taxes paid expressed as a percentage of household income) levied by State and Federal Governments to finance expenditure on public transport is, such information is not available at this time.

Two studies into the income distribution effects of road finance and expenditure which were undertaken by Bentley, Collins and Rutledge (1977) and the Commonwealth Bureau of Roads (1975) have produced such information for expenditure on roadworks and the benefits derived therefrom.

Since finance for public transport and the major portion of finance for roads comes from the same source, namely, State and Federal Government revenue, it is not unreasonable to expect that the incidence of taxes to finance expenditure on public transport will follow the same pattern as that for roads.

Accordingly Table 5 shows the incidence of taxes levied by Federal, State and Local Governments to finance road expenditure, expressed as a percentage of household income for each income class. It is clear from Table 5 that the lower income households contribute proportionally more of their incomes and middle and high income households, proportionally less. Given that a large percentage of low income households do not own or have access to a motor car, the incidence of tax is not only regressive but is also iniquitous.

WHO BENEFITS FROM PUBLIC TRANSPORT?

Referring back to Tables 1 and 2 it can be seen that the groups in the community who benefit most from public transport are those who have no alternative means of transport available to them. Without adequate public transport they have no mobility at all. Another group which benefits directly are the white collar city workers who, while having a car available, are able to use public transport for their journey to work. For example, after the new Christie Downs railway line in Adelaide was opened (in 1976), a survey of train passengers (Director-General of Transport (1976)) revealed that 54 percent of the passengers carried (i.e. 323 persons) formerly travelled to the city by car either as a car driver (43 percent) or car passenger (11 percent).

CONCLUSION

It is therefore clear from the previous paragraphs that it is not possible to simply classify public transport as a luxury or a social service.

For example Morris and Wigan (1977) show that public transport (including holiday travel) is technically a "luxury" item because it represents a larger budget share in high income households than in low income households.

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TABLE 5: TAX INCIDENCE TO FINANCE AND EXPENDITURE
PERCENT OF HOUSEHOLD INCOME, 1972/73.

Household Income (\$ pa)	Level of Government			
	Local	State	Federal	Total
less than 1,570	2.21	1.53	1.81	5.54
1,570 - 3,139	1.28	1.14	0.81	3.23
3,140 - 4,709	0.88	1.03	0.70	2.61
4,710 - 6,279	0.71	0.88	0.61	2.20
6,280 - 7,849	0.65	0.82	0.56	2.04
7,850 - 9,419	0.60	0.78	0.55	1.93
9,240 - 10,989	0.51	0.70	0.51	1.72
10,990 - 14,129	0.52	0.69	0.47	1.68
14,130 - 18,839	0.71	0.83	0.62	2.16
18,839 or more	0.65	0.74	0.55	1.94

Note: Errors in totals are due to rounding.

Source: Commonwealth Bureau of Roads (1975)

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However for those in the community who are too young or too old to drive and those who, by choice or economic circumstance, do not own or have access to a car, public transport is the only means of transport; for such people it is thus a social service.

In view of this, any policy aimed at recovering the full cost of providing public transport services will severely disadvantage those for which it is the only means of transport. It will not adversely affect the more affluent groups in the community who own a car but choose to use public transport; they after all are not wholly dependent on public transport.

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